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ANNEX 2

ANNEX

to the

Commission Delegated Regulation (EU) .../...

supplementing Regulation (EU) 2020/852 of the European Parliament and of the Council by establishing the technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to climate change mitigation or climate change adaptation and for determining whether that economic activity causes no significant harm to any of the other environmental objectives

ANNEX II

Technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to climate change adaptation and for determining whether that economic activity causes no significant harm to any of the other environmental objectives

1. AGRICULTURE AND FORESTRY

1.1. Growing of non-perennial crops

Description of the activity

Growing of plants that do not last for more than two growing seasons, including for the purpose of seed production.

The activity is classified under NACE code A1.1 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation
The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity. The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that: (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections; (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments. The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[1], the best available science for

[1] Such as Copernicus services managed by the European Commission.

vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports[2] and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[3] or rely on blue or green infrastructure[4] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	The activity complies with the following criteria: (a) permanent grassland is maintained[5]; (b) wetland and peatland are appropriately protected[6]; (c) arable stubble is not burnt, except where an exemption has been granted for plant health reasons[7]; (d) minimum land management under tillage, including on slopes[8]. Continuously forested areas, namely land spanning more than one hectare with trees higher than five meter and a canopy cover of between 10 and 30% or able to reach those thresholds in situ[9], are not converted.

2 Assessments Reports on Climate Change: Impacts, Adaptation and Vulnerability published periodically by the Intergovernmental Panel on Climate Change (IPCC), the United Nations body for assessing the science related to climate change produces, https://www.ipcc.ch/reports/.

3 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

4 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

5 In accordance with GAEC 1 of Annex II to Regulation (EU) No 1306/2013

6 In accordance with GAEC 2 of Annex II to Regulation (EU) No 1306/2013.

7 In accordance with GAEC 3 of Annex II to Regulation (EU) No 1306/2013

8 In accordance with GAEC 6 of Annex II to Regulation (EU) No 1306/2013

(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[10]. Where the activity involves water abstraction, a permit for water abstraction has been granted by the relevant authority for the activity, specifying conditions to avoid significant impact on water bodies.
(4) Transition to a circular economy	Non-natural waste materials generated in the course of growing of non-perennial crops, including used protected cultivation films, unused agrochemicals or fertilisers, packaging or net wraps are collected by certified waste management operator and recycled or disposed, if hazardous or otherwise not recyclable. Natural (organic) materials and other suitable wastes (which may include pesticide washings) are used for agricultural benefit.
(5) Pollution prevention and control	The application of nutrients (fertilisers) and plant protection products, including pesticides and herbicides, is targeted regarding time and area treated, is delivered at appropriate levels and with appropriate equipment and techniques to reduce risk and impacts of pesticide use on human health and the environment and of the loss of excess nutrients[11]. Particularly in zones affected by nitrogen pollution and waters which could be affected by pollution, nitrogen applications are consistent with good agricultural practice and take into account the characteristics of the vulnerable zone concerned, in particular: (a) soil conditions, soil type and slope; (b) climatic conditions, rainfall and irrigation; (c) land use and agricultural practices, including crop rotation systems. Nitrogen applications are to be based on a balance between:

9 In accordance with Article 29, paragraphs 4 and 5 of Directive (EU) 2018/2001. This requirement applies to all perennial crop production, whether for biofuels, bioliquids or biomass, or for food or feed uses.

10 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

11 See Directives 2009/128/EC and 91/676/EEC and Statutory Management Requirement 10 of Regulation (EU) No 1306/2013.

	(a) the expected nitrogen requirements of the crops; (b) the nitrogen supply to the crops from the soil and from fertilisation corresponding to: (i) the amount of nitrogen present in the soil at the moment the crop starts to use it to a significant degree (outstanding amounts at the end of winter); (ii) the supply of nitrogen through the net mineralisation of the reserves of organic nitrogen in the soil; (iii) additions of nitrogen compounds from livestock manure; (iv) additions of nitrogen compounds from chemical and other fertilisers. Measures are taken to ensure that, for each agricultural holding, the amount of livestock manure applied to the land each year, including by the animals themselves, does not exceed 170 kg N ha-1 per hectare or different amounts in accordance with the conditions set out in Annex II to Directive 91/676/EEC. Only plant protection products with active substances that ensure high protection of human and animal health and the environment are used[12].
(6) Protection and restoration of biodiversity and ecosystems	Activities ensure the protection of soil, particularly over winter, to prevent erosion and run-off into water courses/bodies and to maintain soil organic matter[13]. Activities do not lead to the disturbance, capture or killing of legally protected species or the deterioration of legally protected habitats. Activities do not lead to the conversion, fragmentation or unsustainable intensification of high-nature-value land, wetlands, forests, or other lands of high-biodiversity value[14], including highly biodiverse grassland spanning more than one hectare that is one of the following: (a) natural, namely grassland that would remain grassland in the absence of human intervention and that maintains the natural species composition and ecological characteristics and processes of that grassland; (b) non-natural, namely grassland that would cease to be grassland in the absence of human intervention and that is

[12] In the Union, this means the use of plant protection products that are authorised under Article 24 of Regulation (EU) 2018/848 except those plant protection products that are earmarked for substitution.

[13] Consistent with GAECs 4, 5 and 6 of Annex II to Regulation (EU) No 1306/2013.

[14] Lands of high-biodiversity-value are specified in Article 29(3) of Directive (EU) 2018/2001.

	species-rich and not degraded and has been identified as being highly biodiverse by the relevant competent authority. For sites/operations located in or near to biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas ('KBAs'), as well as other protected areas): (a) activities do not lead to the deterioration of natural habitats and the habitats of species and to disturbance of the species for which the protected area have been designated. (b) activities are carried out in accordance with the conclusions of an appropriate assessment[15], where applicable, and necessary mitigation measures[16] have been implemented accordingly[17]. The cultivation of alien species complies with the applicable rules regarding the risk, monitoring and safeguards in accordance with Regulation (EU) No 1143/2014[18]. Species on the list of invasive alien species of Union concern and alien species on Member States national lists of species that are considered invasive or high risk are not cultivated. Alien species not included in the above-mentioned lists are cultivated only where there is negligible risk of invasion, following the relevant assessment process.

1.2. Growing of perennial crops

Description of the activity

Growing of plants that lasts for more than two growing seasons, either dying back after each season or growing continuously, including for the purpose of seed production.

The activity is classified under NACE code A1.2 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

[15] In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example International Finance Corporation (IFC) Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

[16] Those measures have been identified to ensure that the project/plan/activity will not have any significant effects on the conservation objectives of the protected area.

[17] Consistent with Statutory Management Requirements 2 and 3 of Regulation (EU) No 1306/2013 and in particular Article 6, paragraphs 1 and 2, of Directive 92/43/EEC and Article 3(1), Article 3(2), point (b), and Article 4, paragraphs 1, 2 and 4 of Directive 2009/147/EC.

[18] Concerning risks assessments see, for instance, Article 5 of Regulation (EU) No 1143/2014.

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[19], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[20] or rely on blue or green infrastructure[21] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

19 Such as Copernicus services managed by the European Commission.

20 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

21 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

(1) Climate change mitigation	The activity complies with the following criteria: (a) permanent grassland is maintained[22]; (b) wetland and peatland are appropriately protected[23]; (c) arable stubble is not burnt, except where an exemption has been granted for plant health reasons[24]; (d) minimum land management under tillage, including on slopes[25]; (e) no bare soil in most sensitive period[26]. Continuously forested areas, namely land spanning more than one hectare with trees higher than five meter and a canopy cover of between 10 and 30% or able to reach those thresholds in situ[27], are not converted.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[28]. Where the activity involves water abstraction, a permit for water abstraction has been granted by the relevant authority for the activity, specifying conditions to avoid significant impact on water bodies.
(4) Transition to a circular economy	Non-natural waste materials generated in the course of growing of non-perennial crops, including used protected cultivation films, unused agrochemicals or fertilisers, packaging, net wraps, are collected by certified waste management operator and recycled or disposed, if hazardous or otherwise not recyclable. Natural (organic) materials and other suitable wastes, including pesticide washings are used for

22 In accordance with GAEC 1 of Annex II to Regulation (EU) No 1306/2013.

23 In accordance with GAEC 2 of Annex II to Regulation (EU) No 1306/2013.

24 In accordance with GAEC 3 of Annex II to Regulation (EU) No 1306/2013.

25 In accordance with GAEC 6 of Annex II to Regulation (EU) No 1306/2013.

26 In accordance with GAEC 7 of Annex II to Regulation (EU) No 1306/2013

27 In accordance with Article 29, paragraphs 4 and 5, of Directive (EU) 2018/2001. This requirement applies to all perennial crop production, whether for biofuels, bioliquids or biomass, or for food or feed uses.

28 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

	agricultural benefit.
(5) Pollution prevention and control	The application of nutrients (fertilisers) and plant protection products, including pesticides and herbicides, is targeted regarding time and area treated, is delivered at appropriate levels and with appropriate equipment and techniques to reduce risk and impacts of pesticide use on human health and the environment and of the loss of excess nutrients[29]. Particularly in zones affected by nitrogen pollution and waters which could be affected by pollution, nitrogen applications are consistent with good agricultural practice and take into account the characteristics of the vulnerable zone concerned, in particular: (a) soil conditions, soil type and slope; (b) climatic conditions, rainfall and irrigation; (c) land use and agricultural practices, including crop rotation systems. Nitrogen applications are to be based on a balance between: (a) the expected nitrogen requirements of the crops; (b) the nitrogen supply to the crops from the soil and from fertilisation corresponding to: (i) the amount of nitrogen present in the soil at the moment the crop starts to use it to a significant degree (outstanding amounts at the end of winter); (ii) the supply of nitrogen through the net mineralisation of the reserves of organic nitrogen in the soil; (iii) additions of nitrogen compounds from livestock manure; (iv) additions of nitrogen compounds from chemical and other fertilisers. Measures are taken to ensure that, for each agricultural holding, the amount of livestock manure applied to the land each year, including by the animals themselves, does not exceed 170 kg N ha-1 per hectare or different amounts in accordance with the conditions set out in Annex II to Directive 91/676/EEC. Only plant protection products with active substances that ensure high protection of human and animal health and the environment are used[30].

[29] See Directives 2009/128/EC and 91/676/EEC and Statutory Management Requirement 10 of Regulation (EU) No 1306/2013.

[30] In the Union, this means the use of plant protection products that are authorised under Article 24 of Regulation (EU) 2018/848 except those plant protection products that are earmarked for substitution.

(6) Protection and restoration of biodiversity and ecosystems	Activities ensure the protection of soil, particularly over winter, to prevent erosion and run-off into water courses/bodies and to maintain soil organic matter[31]. Activities do not lead to the disturbance, capture or killing of legally protected species or the deterioration of legally protected habitats. Activities do not lead to the conversion, fragmentation or unsustainable intensification of high-nature-value land, wetlands, forests, or other lands of high-biodiversity value[32], including highly biodiverse grassland spanning more than one hectare that is one of the following: (a) natural, namely grassland that would remain grassland in the absence of human intervention and that maintains the natural species composition and ecological characteristics and processes of that grassland; (b) non-natural, namely grassland that would cease to be grassland in the absence of human intervention and that is species-rich and not degraded and has been identified as being highly biodiverse by the relevant competent authority. For sites/operations located in or near to biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas ('KBAs'), as well as other protected areas): (a) activities do not lead to the deterioration of natural habitats and the habitats of species and to disturbance of the species for which the protected area have been designated; (b) activities are carried out in accordance with the conclusions of an appropriate assessment[33], where applicable, and necessary mitigation measures[34] have been implemented accordingly[35]. The cultivation of alien species complies with the applicable rules regarding the risk, monitoring and safeguards in accordance with Regulation (EU) No 1143/2014[36]. Species on the list of invasive alien species of Union concern and alien species on Member States national

31 Consistent with GAECs 4, 5 and 6 of Annex II to Regulation (EU) No 1306/2013.

32 Lands of high-biodiversity-value are specified in Article 29(3) of Directive (EU) 2018/2001.

33 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example International Finance Corporation (IFC) Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

34 Those measures have been identified to ensure that the project/plan/activity will not have any significant effects on the conservation objectives of the protected area.

35 Consistent with Statutory Management Requirements 2 and 3 of Regulation (EU) No 1306/2013 and in particular Article 6, paragraphs 1 and 2, of Directive 92/43/EEC and Article 3(1), Article 3(2), point (b), and Article 4, paragraphs 1, 2 and 4 of Directive 2009/147/EC.

36 Concerning risks assessments see, for instance, Article 5 of Regulation (EU) No 1143/2014.

	lists of species that are considered invasive or high risk are not cultivated. Alien species not included in the above-mentioned lists are cultivated only where there is negligible risk of invasion, following the relevant assessment process.

1.3. Livestock production

Description of the activity

Raising (farming) and breeding of all animals, except aquatic animals. Livestock production excludes farm animal boarding and care and production of hides and skins from slaughterhouses.

The activity is classified under NACE code A1.4 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[37], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

[37] Such as Copernicus services managed by the European Commission.

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities; (b) favour nature-based solutions[38] or rely on blue or green infrastructure[39] to the extent possible; (c) are consistent with local, sectoral, regional or national adaptation efforts; (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met; (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')	
(1) Climate change mitigation	The activity complies with the following criteria: (a) permanent grassland is maintained[40]; (b) wetland and peatland are appropriately protected[41]; (c) arable stubble is not burnt, except where an exemption has been granted for plant health reasons[42]; (d) minimum land management under tillage, including on slopes[43]. Continuously forested areas, namely land spanning more than one hectare with trees higher than five meter and a canopy cover of between 10 and 30% or able to reach those thresholds in situ[44], are not converted.
(3) Sustainable use and protection of	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a

38 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

39 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

40 In accordance with GAEC 1 of Annex II to Regulation (EU) No 1306/2013.

41 In accordance with GAEC 2 of Annex II to Regulation (EU) No 1306/2013.

42 In accordance with GAEC 3 of Annex II to Regulation (EU) No 1306/2013.

43 In accordance with GAEC 6 of Annex II to Regulation (EU) No 1306/2013.

44 In accordance with Article 29, paragraphs 4 and 5, of Directive (EU) 2018/2001. This requirement applies to all perennial crop production, whether for biofuels, bioliquids or biomass, or for food or feed uses.

water and marine resources	water use and protection management plan, developed in consultation with relevant stakeholders[45]. Where the activity involves water abstraction, a permit for water abstraction has been granted by the relevant competent for the activity, specifying conditions to avoid significant impact on water bodies.
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	The application of nutrients (fertilisers) and plant protection products, including pesticides and herbicides, is targeted regarding time and area treated, is delivered at appropriate levels and with appropriate equipment and techniques to reduce risk and impacts of pesticide use on human health and the environment and of the loss of excess nutrients[46]. Particularly in zones affected by nitrogen pollution and waters which could be affected by pollution, nitrogen applications are consistent with good agricultural practice and take into account the characteristics of the vulnerable zone concerned, in particular: (a) soil conditions, soil type and slope; (b) climatic conditions, rainfall and irrigation; (c) land use and agricultural practices, including crop rotation systems. Nitrogen applications are to be based on a balance between: (a) the expected nitrogen requirements of the crops; (b) the nitrogen supply to the crops from the soil and from fertilisation corresponding to: (i) the amount of nitrogen present in the soil at the moment the crop starts to use it to a significant degree (outstanding amounts at the end of winter); (ii) the supply of nitrogen through the net mineralisation of the reserves of organic nitrogen in the soil; (iii) additions of nitrogen compounds from livestock manure;

[45] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

[46] See Directive 2009/128/EC and Directive 91/676/EEC and Statutory Management. Requirement 10 of Regulation (EU) No 1306/2013.

	(iv) additions of nitrogen compounds from chemical and other fertilisers. Measures are taken to ensure that, for each agricultural holding, the amount of livestock manure applied to the land each year, including by the animals themselves, does not exceed 170 kg N ha-1 per hectare or different amounts in accordance with the conditions set out in Annex II to Directive 91/676/EEC. Only plant protection products with active substances that ensure high protection of human and animal health and the environment are used[47].
(6) Protection and restoration of biodiversity and ecosystems	Activities ensure the protection of soil, particularly over winter, to prevent erosion and run-off into water courses/bodies and to maintain soil organic matter[48]. Activities do not lead to the disturbance, capture or killing of legally protected species or the deterioration of legally protected habitats. Activities do not lead to the conversion, fragmentation or unsustainable intensification of high-nature-value land, wetlands, forests, or other lands of high-biodiversity value[49], including highly biodiverse grassland spanning more than one hectare that is one of the following: (a) natural, namely grassland that would remain grassland in the absence of human intervention and that maintains the natural species composition and ecological characteristics and processes of that grassland; (b) non-natural, namely grassland that would cease to be grassland in the absence of human intervention and that is species-rich and not degraded and has been identified as being highly biodiverse by the relevant competent authority. For sites/operations located in or near to biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas (‘KBAs’), as well as other protected areas): (a) activities do not lead to the deterioration of natural habitats and the habitats of species and to disturbance of the species for

[47] In the Union, this means the use of plant protection products that are authorised under Article 24 of Regulation (EU) 2018/848 except those plant protection products that are earmarked for substitution.

[48] In accordance with GAECs 4, 5 and 6 of Annex II to Regulation (EU) No 1306/2013.

[49] Lands of high-biodiversity-value are specified in Article 29(3) of Directive (EU) 2018/2001.

	which the protected area have been designated. (b) activities are carried out in accordance with the conclusions of an appropriate assessment[50], where applicable, and necessary mitigation measures[51] have been implemented accordingly[52]. The cultivation of alien species complies with the applicable rules regarding the risk, monitoring and safeguards in accordance with Regulation (EU) No 1143/2014[53]. Species on the list of invasive alien species of Union concern and alien species on Member States national lists of species that are considered invasive or high risk are not cultivated. Alien species not included in the above-mentioned lists are cultivated only where there is negligible risk of invasion, following the relevant assessment process.

1.4. Afforestation

Description of the activity

Establishment of forest through planting or deliberate seeding on land that, until then, was under a different land use or not used. Afforestation implies a transformation of land use from non-forest to forest, in accordance with the Food and Agriculture Organisation of the United Nations ('FAO') definition of afforestation[54], where forest means a land matching the forest definition used in the national greenhouse gas inventory, or where not available, is in accordance with the FAO definition of forest[55].

The activity is classified under NACE code A2 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006. Activities are limited to NACE II 02.10, i.e. silviculture and other forestry activities, and 02.30, i.e. gathering of wild growing non-wood products.

50 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example International Finance Corporation (IFC) Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

51 Those measures have been identified to ensure that the project/plan/activity will not have any significant effects on the conservation objectives of the protected area.

52 In accordance with Statutory Management Requirements 2 and 3 of Regulation (EU) No 1306/2013 and in particular Article 6, paragraphs 1 and 2, of Directive 92/43/EEC and Article 3(1), Article 3(2), point (b), and Article 4, paragraphs 1, 2 and 4 of Directive 2009/147/EC.

53 Concerning risks assessments see, for instance, Article 5 of Regulation (EU) No 1143/2014.

54 Establishment of forest through planting or deliberate seeding on land that, until then, was under a different land use, implies a transformation of land use form non-forest to forest *(FAO Global Resources Assessment 2020. Terms and definitions*. http://www.fao.org/3/I8661EN/i8661en.pdf).

55 Land spanning more than 0.5 hectares with trees higher than 5 meters and a canopy cover of more than 10%, or trees able to reach these thresholds *in situ*. It does not include land that is predominantly under agricultural or urban land use, *FAO Global Resources Assessment 2020. Terms and definitions*. http://www.fao.org/3/I8661EN/i8661en.pdf

Technical screening criteria
Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[56], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;

(b) favour nature-based solutions[57] or rely on blue or green infrastructure[58] to the extent possible;

(c) are consistent with local, sectoral, regional or national adaptation efforts;

(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;

(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

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56 Such as Copernicus services managed by the European Commission.

57 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

58 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

Do no significant harm	
(1) Climate change mitigation	*Afforestation plan* 1.1. The area on which the activity takes place is covered by a long-term (10 years or more) afforestation plan developed prior to the start of the activity, until this area matches the definition of forest used in the national greenhouse gas inventory or where not available, is in line with the FAO definition of forest. The afforestation plan contains all elements required by the national law relating to environmental impact assessment of afforestation or, where such a national law does not exists, the plan includes detailed information on the following: (a) description of the area according to its gazetting in the land registry; (b) site preparation and its impacts on pre-existing carbon stocks, including soils and above-ground biomass, in order to protect land with high carbon stock; (c) management goals, including major constraints; (d) general strategies and activities planned to reach the management goals, including expected operations over the whole forest cycle; (e) definition of the forest habitat context, including main existing and intended forest tree species, and their extent and distribution; (f) compartments, roads, rights of way and other public access, physical features including waterways, areas under legal and other restrictions; (g) measures deployed to maintain the good condition of forest ecosystems; (h) consideration of social issues (preservation of landscape, consultation of concerned stakeholders) (i) assessment of forest related risks, including forest fires, and pests and diseases outbreaks, with the aim of preventing, reducing and controlling the risks and measures deployed to

	ensure protection against residual risks. 1.2. The activity follows the best afforestation practices laid down in national law, or, where no such best afforestation practices have been laid down in national law, the activity complies with one of the following criteria: (a) the activity complies with Delegated Regulation (EU) No 807/2014; (b) the activity follows the "Pan-European Guidelines for Afforestation and Reforestation with a special focus on the provisions of the UNFCCC"[59]; (c) the management systems associated with the activity in place complies with the forest sustainability criteria laid down in Article 29(6) of Directive (EU) 2018/2001, and as of the date of its application with the implementing act on operational guidance for energy from forest biomass adopted under Article 29(8) of that Directive. 1.3. The management systems associated with the activity in place complies with the due diligence obligation and legality requirements laid down in Regulation (EU) No 995/2010. 1.4. All DNSH criteria relevant to afforestation are addressed in the afforestation plan. 1.5. The afforestation plan provides for monitoring that ensures the correctness of the information contained in the plan, in particular as regards the data relating to the involved area. 1.6. At the beginning of the activity and every five years thereafter, the compliance of the activity with the afforestation plan is verified by the relevant national competent authorities, or by an independent third-party certifier, such as forest certification scheme, at the request of national authorities or of the operator of the activity. The independent third-party certifier is not directly linked to the owner or the funder, and not involved in the development or operation of the activity.

[59] Forest Europe Pan-European Guidelines for Afforestation and Reforestation with a special focus on the provisions of the UNFCCC adopted by the MCPFE Expert Level Meeting on 12-13 November, 2008 and by the PEBLDS Bureau on behalf of the PEBLDS Council on 4 November, 2008, https://www.foresteurope.org/docs/other_meetings/2008/Geneva/Guidelines_Aff_Ref_ADOPTED.pdf.

(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed in the plan referred to point 1 of this Section and controlled by the relevant certifier, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[60].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	The use of pesticides is reduced and alternative approaches or techniques, which may include non-chemical alternatives to pesticides, are favoured, in accordance with Directive 2009/128/EC, with exception of occasions where the use of pesticides is needed to control outbreaks of pests and of diseases. The activity does not use fertilisers. Well documented and verifiable measures are taken to avoid the use of active ingredients that are listed in the Stockholm Convention on Persistent Organic Pollutants, the Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade, the Minamata Convention on Mercury, the Montreal Protocol on Substances that Deplete the Ozone Layer, and of active ingredients that are listed as classification Ia ('extremely hazardous') or Ib ('highly hazardous') in the WHO Recommended Classification of Pesticides by Hazard[61]. The activity complies with the relevant national implementing law on active ingredients. Pollution of water and soil is prevented and cleaning up measures are undertaken when pollution occurs.
(6) Protection and restoration of biodiversity and ecosystems	In areas designated by the national competent authority for conservation or in habitats that are protected, the activity is in accordance with the conservation objectives for those areas. There is no conversion of habitats specifically sensitive to biodiversity loss or with high conservation value, or of areas set aside for the restoration of such habitats in accordance with national law.

[60] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

[61] The WHO Recommended Classification of Pesticides by Hazard (version 2019), https://apps.who.int/iris/bitstream/handle/10665/332193/9789240005662-eng.pdf?ua=1.

	The plan referred to in point 1 of this Section includes provisions for maintaining and possibly enhancing biodiversity in accordance with national and local provisions, including the following: (a) ensuring the good conservation status of habitat and species, maintenance of typical habitat species; (b) excluding the use or release of invasive species; (c) excluding the use of non-native species unless it can be demonstrated that: (i) the use of the forest reproductive material leads to favourable and appropriate ecosystem conditions (such as climate, soil criteria, and vegetation zone, forest fire resilience); (ii) the native species currently present on the site are not anymore adapted to projected climatic and pedo-hydrological conditions; (d) ensuring the maintenance of soil structure and fertility and soil biodiversity; (e) promoting close-to-nature forestry or similar concepts adapted to the local conditions; (f) excluding the conversion of high-biodiverse ecosystems into less biodiverse ones; (g) ensuring the diversity of associated habitats and species linked to the forest; (h) ensuring the diversity of stand structures and maintenance or enhancing of mature stage stands and dead wood. The use of whole tree stems for bio-energy is avoided, especially where viable, unsubsidised markets exist for their use in carbon-retaining materials or products, except where it has been authorised at the national or regional levels in exceptional circumstances, including for phytosanitary reasons or to reduce fire risks, in accordance with applicable law.

1.5. Rehabilitation and restoration of forests

Description of the activity

The activity meets the definitions of rehabilitation and restoration of forests established by national law. Where national law do not contain such a definition, the activity meets a definition with broad agreement in the peer-reviewed scientific literature for specific countries.

The activity implies no change of land use and occurs on degraded land matching the forest definition used in the national greenhouse gas inventory, or where not available, is in accordance with the FAO definition of forest[62].

The activity is classified under NACE code A2 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006. Activities are limited to NACE II 02.10, i.e. silviculture and other forestry activities, and 02.30, i.e. gathering of wild growing non-wood products.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[63], the best available science for

[62] Land spanning more than 0.5 hectares with trees higher than 5 meters and a canopy cover of more than 10%, or trees able to reach these thresholds in situ. It does not include land that is predominantly under agricultural or urban land use, FAO Global Resources Assessment 2020. Terms and definitions. http://www.fao.org/3/I8661EN/i8661en.pdf.

[63] Such as Copernicus services managed by the European Commission.

vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[64] or rely on blue or green infrastructure[65] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm

(1) Climate change mitigation	*Forest management plan or equivalent instrument* 1.1. The activity takes place on area that is subject to a forest management plan or an equivalent instrument, as set out in national law or, where national law does not define a forest management plan or equivalent instrument, as referred to in the FAO definition of 'forest area with long-term forest management plan'[66]. The forest management plan or the equivalent instrument covers a period of 10 years or more, is continuously updated and describes a forest management system by providing detailed information on the

64 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

65 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

66 Forest area that has a long-term (ten years or more) documented management plan, aiming at defined management goals, and which is periodically revised.
FAO Global Resources Assessment 2020. Terms and definitions. http://www.fao.org/3/I8661EN/i8661en.pdf.

following:

(a) management goals, including major constraints[67];

(b) general strategies and activities planned to reach the management goals, including expected operations over the whole forest cycle;

(c) definition of the forest habitat context, including main existing and intended forest tree species, and their extent and distribution;

(d) definition of the area according to its gazetting in the land registry;

(e) compartments, roads, rights of way and other public access, physical features including waterways, areas under legal and other restrictions;

(f) measures deployed to maintain the good condition of forest ecosystems;

(g) consideration of social issues (preservation of landscape, consultation of stakeholders)

(h) assessment of forest related risks, including forest fires, and pests and diseases outbreaks, with the aim of preventing, reducing and controlling the risks and measures deployed to ensure protection against residual risks.

1.2 The sustainability of the forest management systems, as documented in the plan referred to in point 1.1, is ensured through one of the following approaches:

(a) the forest management matches the applicable national definition of sustainable forest management,

(b) the management systems in place complies with the forest sustainability criteria laid down in Article 29(6) of Directive (EU) 2018/2001, and as of the date of its application with the implementing act on operational guidance for energy from forest biomass adopted under Article 29(8) of that Directive,

1.3. The management systems associated with the activity in place

[67] Including an analysis of (i) long term sustainability of the wood resource (ii) impacts/pressures on habitat conservation, diversity of associated habitats and condition of harvesting minimizing soil impacts.

	complies with the due diligence obligation and legality requirements laid down in Regulation (EU) No 995/2010. 1.4. All DNSH criteria relevant to forest management are addressed in the forest management plan or equivalent instrument. 1.5. The forest management plan or equivalent instrument provides for monitoring which ensures the correctness of the information contained in the plan, in particular as regards the data relating to the involved area. 1.6. At the beginning of the period and every five years thereafter, the compliance of forest management with the forest management plan or equivalent instrument, is controlled by the relevant national competent authorities or by an independent third-party certifier such as a forest certification scheme, at the request of national authorities or the operator of the activity. The independent third-party certifier is not directly linked to the owner or the funder, and not involved in the development or operation of the activity.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed in the plan referred to point 1 of this Section and controlled by the relevant certifier, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[68].
(4) Transition to a circular economy	The silvicultural change induced by the activity is not likely to result in a significant reduction in the long-term circularity of wood products from the forest.
(5) Pollution prevention and control	The use of pesticides is reduced and alternative approaches or techniques, which may include non-chemical alternatives to pesticides, are favoured, in accordance with Directive 2009/128/EC, with exception of occasions where the use of pesticides is needed to control outbreaks of pests and of diseases. The activity does not use fertilisers.

[68] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

	Well documented and verifiable measures are taken to avoid the use of active ingredients that are listed in the Stockholm Convention on Persistent Organic Pollutants , the Rotterdam Convention on the Prior prior informed consent procedure for certain hazardous chemicals and pesticides in international trade, the Minamata Convention on Mercury, the Montreal Protocol on Substances that Deplete the Ozone Layer, and of active ingredients that are listed as classification Ia ('extremely hazardous') or Ib ('highly hazardous') in the WHO Recommended Classification of Pesticides by Hazard. The activity complies with the relevant national implementing law on active ingredients. Pollution of water and soil is prevented and cleaning up measures are undertaken when pollution occurs.
(6) Protection and restoration of biodiversity and ecosystems	In areas designated by the national competent authority for conservation or in habitats that are protected, the activity is in accordance with the conservation objectives for those areas. There is no conversion of habitats specifically sensitive to biodiversity loss or with high conservation value, or of areas set aside for the restoration of such habitats in accordance with national law. The plan referred to in point 1 of this Section includes provisions for maintaining and possibly enhancing biodiversity in accordance with national and local provisions, including the following: (a) ensuring the good conservation status of habitat and species, maintenance of typical habitat species; (b) excluding the use or release of invasive alien species; (c) excluding the use of non-native species unless it can be demonstrated that: (i) the use of the forest reproductive material leads to favourable and appropriate ecosystem conditions (such as climate, soil criteria, and vegetation zone, forest fire resilience); (ii) the native species currently present on the site are not anymore adapted to projected climatic and pedo-hydrological conditions; (d) ensuring the maintenance of soil structure and fertility and soil biodiversity; (e) promoting close-to-nature forestry or similar concepts adapted

	to the local conditions (f) excluding the conversion of high-biodiverse ecosystems into less biodiverse ones; (g) ensuring the diversity of associated habitats and species linked to the forest; (h) ensuring the diversity of stand structures and maintenance or enhancing of mature stage stands and dead wood.

1.6. Reforestation

Description of the activity

The activity meets the definition of reforestation established by national law. Where national law does not contain such a definition, the activity meets the FAO definition of reforestation[69] or the FAO definition of naturally regenerating forest[70]. The activity implies no change of land use and occurs on degraded land matching the definition of forest used in the national greenhouse gas inventory, or where not available, is in accordance with the FAO definition of forest[71]. For the purpose of Regulation 2020/853, the category 'reforestation' applies in cases following extreme events (such as wind throws, fires), and not as part of normal, legally binding obligation to reforest after harvesting.

The activity is classified under NACE code A2 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006. Activities are limited to NACE II 02.10, i.e. silviculture and other forestry activities, and 02.30, i.e. gathering of wild growing non-wood products.

Technical screening criteria

Substantial contribution to climate change adaptation

[69] Re-establishment of forest through planting and/or deliberate seeding on land classified as forest. FAO Global Resources Assessment 2020. Terms and definitions. http://www.fao.org/3/I8661EN/i8661en.pdf

[70] FAO definition of "naturally regenerating forests". Forest predominantly composed of trees established through natural regeneration.

[71] Land spanning more than 0,5 hectares with trees higher than five meters and a canopy cover of more than 10%, or trees able to reach these thresholds in situ. It does not include land that is predominantly under agricultural or urban land use. FAO Global Resources Assessment 2020. Terms and definitions. http://www.fao.org/3/I8661EN/i8661en.pdf

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[72], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[73] or rely on blue or green infrastructure[74] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm

[72] Such as Copernicus services managed by the European Commission.

[73] In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

[74] See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

(1) Climate change mitigation	*Forest management plan or equivalent instrument* 1.1. The activity takes place on area that is subject to a forest management plan or an equivalent instrument, as set out in national law or, where national law does not define a forest management plan or equivalent plan, as referred to in the FAO definition of forest area with long-term forest management plan'[75]. The forest management plan or the equivalent instrument covers a period of ten years or more, is continuously updated and describes a forest management system by providing the following detailed information: (a) management goals, including major constraints[76]; (b) general strategies and activities planned to reach the management goals, including expected operations over the whole forest cycle; (c) definition of the forest habitat context, including main existing and intended forest tree species, and their extent and distribution; (d) definition of the area according to its gazetting in the land registry; (e) compartments, roads, rights of way and other public access, physical features including waterways, areas under legal and other restrictions; (f) measures deployed to maintain the good condition of forest ecosystems; (g) consideration of social issues (preservation of landscape, consultation of stakeholders) (h) assessment of forest related risks, including forest fires, and pests and diseases outbreaks, with the aim of preventing,

[75] Forest area that has a long-term (ten years or more) documented management plan, aiming at defined management goals, and which is periodically revised.
FAO Global Resources Assessment 2020. Terms and definitions. http://www.fao.org/3/I8661EN/i8661en.pdf.

[76] Including an analysis of (i) long term sustainability of the wood resource (ii) impacts/pressures on habitat conservation, diversity of associated habitats and condition of harvesting minimizing soil impacts.

	reducing and controlling the risks and measures deployed to ensure protection against residual risks. 1.2 The sustainability of the forest management systems, as documented in the plan referred to in point 1.1, is ensured through one of the following approaches: (a) the forest management matches the applicable national definition of sustainable forest management, (b) the management systems in place show compliance with the forest sustainability criteria set out in Article 29(6) of Directive (EU) 2018/2001, and as of the date of its application with the implementing act on operational guidance for energy from forest biomass adopted under Article 29(8) of that Directive 1.3. The management systems associated with the activity in place complies with the due diligence obligation and legality requirements laid down in Regulation (EU) No 995/2010. 1.4. All DNSH criteria relevant to forest management are addressed in the forest management plan. 1.5. The forest management plan or equivalent instrument provides for monitoring that ensures the correctness of the information contained in the plan, in particular as regards the data relating to the involved area. 1.6. At the beginning of the period and every five years thereafter, the compliance of forest management with the forest management plan, is controlled by the relevant national competent authorities or by an independent third-party certifier such as a forest certification scheme, at the request of national authorities or the operator of the activity. The independent third-party certifier is not directly linked to the owner or the funder, and not involved in the development or operation of the activity.
(3) Sustainable use and protection of water and marine	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed in the plan referred to point 1 of this Section and controlled by the relevant certifier, in

resources	accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[77].
(4) Transition to a circular economy	The silvicultural change induced by the activity is not likely to result in a significant reduction in the long-term circularity of wood products from the forest.
(5) Pollution prevention and control	The use of pesticides is reduced and alternative approaches or techniques, which may include non-chemical alternatives to pesticides, are favoured, in accordance with Directive 2009/128/EC, with exception of occasions where the use of pesticides is needed to control outbreaks of pests and of diseases. The activity does not use fertilisers. Well documented and verifiable measures are taken to avoid the use of active ingredients that are listed in the Stockholm Convention on Persistent Organic Pollutants, the Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade, the Minamata Convention on Mercury, the Montreal Protocol on Substances that Deplete the Ozone Layer, and of active ingredients that are listed as classification Ia ('extremely hazardous') or Ib ('highly hazardous') in the WHO Recommended Classification of Pesticides by Hazard[78]. The activity complies with the relevant national implementing law on active ingredients. Pollution of water and soil is prevented and cleaning up measures are undertaken when pollution occurs.
(6) Protection and restoration of biodiversity and ecosystems	In areas designated by the national competent authority for conservation or in habitats that are protected, the activity is in accordance with the conservation objectives for those areas. There is no conversion of habitats specifically sensitive to biodiversity loss or with high conservation value, or of areas set aside for the restoration of such habitats in accordance with national law. The plan referred to in point 1 of this Section includes provisions for maintaining and possibly enhancing biodiversity in accordance with

[77] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

[78] The WHO Recommended Classification of Pesticides by Hazard (version 2019), https://apps.who.int/iris/bitstream/handle/10665/332193/9789240005662-eng.pdf?ua=1.

	national and local provisions, including the following: (a) ensuring the good conservation status of habitat and species, maintenance of typical habitat species; (b) excluding the use or release of invasive alien species; (c) excluding the use of non-native species unless it can be demonstrated that: (i) the use of the forest reproductive material leads to favourable and appropriate ecosystem condition (such as climate, soil criteria, and vegetation zone, forest fire resilience); (ii) the native species currently present on the site are not anymore adapted to projected climatic and pedo-hydrological conditions; (d) ensuring the maintenance of soil structure and fertility and soil biodiversity; (e) promoting close-to-nature forestry or similar concepts adapted to the local conditions; (f) excluding the conversion of high-biodiverse ecosystems into less biodiverse ones; (g) ensuring the diversity of associated habitats and species linked to the forest; (h) ensuring the diversity of stand structures and maintenance or enhancing of mature stage stands and dead wood.

1.7. Improved forest management

Description of the activity

The activity meets the definition of improved forest management set out in national law. Where national law does not contain such a definition, the activity refers to management interventions in forests done for the purpose of climate change mitigation, demonstrated through a climate benefit analysis. The activity assumes no change in land use and occurs on land matching the definition of forest used in the national greenhouse gas inventory, or where not available, is in accordance with the FAO definition of forest[79].

The activity is classified under NACE code A2 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006. Activities are limited to NACE II 02.10, i.e. silviculture and other forestry activities, and 02.30, i.e. gathering of wild growing non-wood products.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[80], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed

[79] Land spanning more than 0,5 hectares with trees higher than five meters and a canopy cover of more than 10%, or trees able to reach these thresholds in situ. It does not include land that is predominantly under agricultural or urban land use, FAO Global Resources Assessment 2020. Terms and definitions. http://www.fao.org/3/I8661EN/i8661en.pdf.

[80] Such as Copernicus services managed by the European Commission.

publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[81] or rely on blue or green infrastructure[82] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm	
(1) Climate change mitigation	*Forest management plan or equivalent instrument* 1.1. The activity takes place on area that is subject to a forest management plan or an equivalent instrument, as set out in national law or, where national law does not define a forest management plan, as referred to in the FAO definition of 'forest area with long-term forest management plan'[83]. The forest management plan or equivalent instrument covers a period of ten years or more, is continuously updated and describes a forest management system by providing the following detailed information: (a) management goals, including major constraints[84]; (b) general strategies and activities planned to reach the

[81] In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

[82] See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

[83] Forest area that has a long-term (ten years or more) documented management plan, aiming at defined management goals, and which is periodically revised.
FAO Global Resources Assessment 2020. Terms and definitions. http://www.fao.org/3/I8661EN/i8661en.pdf.

[84] Including an analysis of (i) long term sustainability of the wood resource (ii) impacts/pressures on habitat conservation, diversity of associated habitats and condition of harvesting minimizing soil impacts.

	management goals, including expected operations over the whole forest cycle; (c) definition of the forest habitat context, including main existing and intended forest tree species, and their extent and distribution; (d) definition of the area according to its gazetting in the land registry; (e) compartments, roads, rights of way and other public access, physical features including waterways, areas under legal and other restrictions; (f) measures deployed to maintain the good condition of forest ecosystems; (g) consideration of social issues (preservation of landscape, consultation of stakeholders) (h) assessment of forest related risks, including forest fires, and pests and diseases outbreaks, with the aim of preventing, reducing and controlling the risks and measures deployed to ensure protection against residual risks. 1.2 The sustainability of the forest management systems, as documented in the plan referred to in point 1.1, is ensured through one of the following approaches: (a) the forest management matches the applicable national definition of sustainable forest management, (b) the management systems in place show compliance with the forest sustainability criteria set out in Article 29(6) of Directive (EU) 2018/2001, and as of the date of its application with the implementing act on operational guidance for energy from forest biomass adopted under Article 29(8) of that Directive. 1.3. The management systems associated with the activity in place complies with the due diligence obligation and legality requirements laid down in Regulation (EU) No 995/2010. 1.4. All DNSH criteria relevant to forest management are addressed in the forest management plan. 1.5. The forest management plan or equivalent document provides for monitoring which ensures the correctness of the information contained in the plan, in particular as regards the data relating to the involved

	area. 1.5. At the beginning of the period and every 5 years thereafter, the compliance of forest management with the forest management plan or equivalent document, is controlled by the relevant national competent authorities or by an independent third-party certifier such as a forest certification scheme, at the request of national authorities or the operator of the activity. The independent third-party certifier is not directly linked to the owner or the funder, and not involved in the development or operation of the activity.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed in the plan referred to point 1 of this Section and controlled by the relevant certifier, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[85].
(4) Transition to a circular economy	The silvicultural change induced by the activity is not likely to result in a significant reduction in the long-term circularity of wood products from the forest.
(5) Pollution prevention and control	The use of pesticides is reduced and alternative approaches or techniques, which may include non-chemical alternatives to pesticides, are favoured, in accordance with Directive 2009/128/EC, with exception of occasions where the use of pesticides is needed to control outbreaks of pests and of diseases. The activity does not use fertilisers. Well documented and verifiable measures are taken to avoid the use of active ingredients that are listed in the Stockholm Convention on Persistent Organic Pollutants, the Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade, the Minamata Convention on Mercury, the Montreal Protocol on Substances that Deplete the Ozone Layer, and of active ingredients that are listed as classification Ia (‘extremely

[85] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards for activities addressing environmental degradation risks related to preserving water quality and avoiding water stress in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

	hazardous') or Ib ('highly hazardous') in the WHO Recommended Classification of Pesticides by Hazard[86]. The activity complies with the relevant national implementing law on active ingredients. Pollution of water and soil is prevented and cleaning up measures are undertaken when pollution occurs.
(6) Protection and restoration of biodiversity and ecosystems	In areas designated by the national competent authority for conservation or in habitats that are protected, the activity is in accordance with the conservation objectives for those areas. There is no conversion of habitats specifically sensitive to biodiversity loss or with high conservation value, or of areas set aside for the restoration of such habitats in accordance with national law. The plan referred to in point 1 of this Section includes provisions for maintaining and possibly enhancing biodiversity in accordance with national and local provisions, including the following: (a) ensuring the good conservation status of habitat and species, maintenance of typical habitat species; (b) excluding the use or release of invasive alien species; (c) excluding the use of non-native species unless it can be demonstrated that: (i) the use of the forest reproductive material leads to favourable and appropriate ecosystem condition (such as climate, soil criteria, and vegetation zone, forest fire resilience); (ii) the native species currently present on the site are not anymore adapted to projected climatic and pedo-hydrological conditions; (d) ensuring the maintenance of soil structure and fertility and soil biodiversity; (e) promoting close-to-nature forestry or similar concepts adapted to the local conditions; (f) excluding the conversion of high-biodiverse ecosystems into less biodiverse ones;

[86] The WHO Recommended Classification of Pesticides by Hazard (version 2019), https://apps.who.int/iris/bitstream/handle/10665/332193/9789240005662-eng.pdf?ua=1.

	(g) ensuring the diversity of associated habitats and species linked to the forest; (h) ensuring the diversity of stand structures and maintenance or enhancing of mature stage stands and dead wood.

1.8. Conservation forestry

Description of the activity

The activity covers forest management activities with the objective of preserving one or more habitats or species. The activity assumes no change in land category and occurs on land matching the forest definition used in the national greenhouse gas inventory, or where not available, is in accordance with the FAO definition of forest[87].

The activity is classified under NACE code A2 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006. Activities are limited to NACE II 02.10, i.e. silviculture and other forestry activities, and 02.30, i.e. gathering of wild growing non-wood products.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate

[87] Land spanning more than 0,5 hectares with trees higher than five meters and a canopy cover of more than 10%, or trees able to reach these thresholds in situ. It does not include land that is predominantly under agricultural or urban land use, FAO Global Resources Assessment 2020. Terms and definitions. http://www.fao.org/3/I8661EN/i8661en.pdf

projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[88], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[89] or rely on blue or green infrastructure[90] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm

(1) Climate change mitigation	*Forest management plan or equivalent instrument* 1.1. The activity takes place on area that is subject to a forest management plan or an equivalent instrument, as set out in national law or, where national regulation dos not define a forest management plan, as referred to in the FAO definition of 'forest area with long-term forest management plan'[91]. In particular, the forest management plan or the equivalent instrument covers a period of ten years or more, is continuously updated and describes a forest management system by providing the following

88 Such as Copernicus services managed by the European Commission.

89 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

90 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

91 Forest area that has a long-term (ten years or more) documented management plan, aiming at defined management goals, and which is periodically revised, FAO Global Resources Assessment 2020. Terms and definitions. http://www.fao.org/3/I8661EN/i8661en.pdf

	detailed information: (a) management goals, including major constraints; (b) general strategies and activities planned to reach the management goals, including expected operations over the whole forest cycle; (c) definition of the forest habitat context, main forest tree species and those intended and their extent and distribution; in accordance to the local forest ecosystem context; (d) definition of the area according to its gazetting in the land registry; (e) compartments, roads, rights of way and other public access, physical features including waterways, areas under legal and other restrictions; (f) measures deployed to maintain the good condition of forest ecosystems; (g) consideration of social issues (preservation of landscape, consultation of stakeholders); (h) assessment of forest related risks, including forest fires, and pests and diseases outbreaks, with the aim of preventing, reducing and controlling the risks and measures deployed to ensure protection against residual risks. 1.2. The forest management plan or the equivalent instrument: (a) shows a primary designated management objective[92] that consists in protection of soil and water[93], conservation of biodiversity[94] or social services[95] based on the FAO definitions; (b) follows biodiversity-friendly practices such as closer-to-nature-forestry;

[92] The primary designated management objective assigned to a management unit (FAO Global Resources Assessment 2020. Terms and definitions. http://www.fao.org/3/I8661EN/i8661en.pdf).

[93] Forest where the management objective is protection of soil and water. (FAO Global Resources Assessment 2020. Terms and definitions. http://www.fao.org/3/I8661EN/i8661en.pdf).

[94] Forest where the management objective is conservation of biological diversity. Includes but is not limited to areas designated for biodiversity conservation within the protected areas. (FAO Global Resources Assessment 2020. Terms and definitions. http://www.fao.org/3/I8661EN/i8661en.pdf).

[95] Forest where the management objective is social services. (FAO Global Resources Assessment 2020. Terms and definitions. http://www.fao.org/3/I8661EN/i8661en.pdf)

	(c) includes an analysis of: (i) impacts andpressures on habitat conservation and diversity of associated habitats; (ii) condition of harvesting minimizing soil impacts; (iii)other activities that have an impact on conservation objectives, such as hunting and fishing, agricultural, pastoral and forestry activities, industrial, mining, and commercial activities. 1.3. The sustainability of the forest management systems as documented in the plan referred to in point 1.1 is ensured through one of the following approaches: (a) the forest management matches the national definition of sustainable forest management, if any; (b) the management systems in place show compliance with the forest sustainability criteria as defined in Article 29(6) of Directive (EU) 2018/2001, and as of the date of its application with the implementing act on operational guidance for energy from forest biomass adopted under Article 29(8) of that Directive. 1.4. The management systems associated with the activity in place complies with the due diligence obligation and legality requirements laid down in Regulation (EU) No 995/2010. 1.5. All DNSH relevant to conservation forestry criteria are addressed in the forest management plan or equivalent instrument. 1.6. The forest management plan or equivalent instrument provides for monitoring which ensures the correctness of the information contained in the plan, in particular as regards the data relating to the involved area. 1.7. At the beginning of the period and every five years thereafter, the compliance of forest management with the forest management plan or equivalent instrument, is controlled by either the relevant national competent authorities or by an independent third-party certifier such as a forest certification scheme, at the request of national authorities or the operator of the activity. The independent third-party certifier is not directly linked to the owner or the funder, and not involved in the development or operation of the activity.

(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed in the plan referred to point 1 of this Section and controlled by the relevant certifier, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[96].
(4) Transition to a circular economy	The silvicultural change induced by the activity is not likely to result in a significant reduction in the long-term circularity of wood products from the forest.
(5) Pollution prevention and control	The activity does not use pesticides or fertilisers. Well documented and verifiable measures are taken to avoid the use of active ingredients that are listed in the Stockholm Convention on Persistent Organic Pollutants, the Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade , the Minamata Convention on Mercury, the Montreal Protocol on Substances that Deplete the Ozone Layer, and of active ingredients that are listed as classification Ia ('extremely hazardous') or Ib ('highly hazardous') in the WHO Recommended Classification of Pesticides by Hazard[97]. The activity complies with the relevant national implementing law on active ingredients. Pollution of water and soil is prevented and cleaning up measures are undertaken when pollution occurs.
(6) Protection and restoration of biodiversity and ecosystems	In areas designated by the national competent authority for conservation or in habitats that are protected, the activity is in accordance with the conservation objectives for those areas. There is no conversion of habitats specifically sensitive to biodiversity loss or with high conservation value, or of areas set aside for the restoration of such habitats in accordance with national law. The plan referred to in point 1 of this Section includes provisions for maintaining and possibly enhancing biodiversity in accordance with

[96] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

[97] The WHO Recommended Classification of Pesticides by Hazard (version 2019), https://apps.who.int/iris/bitstream/handle/10665/332193/9789240005662-eng.pdf?ua=1.

	national and local provisions, including the following: (a) ensuring the good conservation status of habitat and species, maintenance of typical habitat species; (b) excluding the use or release of invasive alien species; (c) excluding the use of non-native species unless it can be demonstrated that: (i) the use of the forest reproductive material leads to favourable and appropriate ecosystem conditions (such as climate, soil criteria, and vegetation zone, forest fire resilience); (ii) the native species currently present on the site are not anymore adapted to projected climatic and pedo-hydrological conditions; (d) ensuring the maintenance of soil structure and fertility and soil biodiversity; (e) promoting close-to-nature forestry or similar concepts adapted to the local conditions; (f) excluding the conversion of high-biodiverse ecosystems into less biodiverse ones; (g) ensuring the diversity of associated habitats and species linked to the forest; (h) ensuring the diversity of stand structures and maintenance or enhancing of mature stage stands and dead wood.

2. ENVIRONMENTAL PROTECTION AND RESTORATION ACTIVITIES

2.1. Restoration of wetlands

Description of the activity

Restoration of wetlands, with wetlands meaning land matching the Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention)[98] international definition of wetland[99]. The concerned area matches the Union definition of

[98] The Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat, https://www.ramsar.org/sites/default/files/documents/library/current_convention_text_e.pdf.

[99] *Wetlands include a wide variety of inland habitats such as marshes, wet grasslands and peatlands, floodplains, rivers and lakes, and coastal areas such as saltmarshes, mangroves, intertidal mudflats*

wetlands, as provided in the Commission Communication on the wise use and conservation of wetlands[100].

The activity has no dedicated NACE code as referred to in the statistical classification of economic activities established by Regulation (EC) No 1893/2006, but relates to class 6 of the statistical classification of environmental protection activities (CEPA) established by Regulation (EU) No 691/2011.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[101], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical

and seagrass beds, and coral reefs and other marine areas no deeper than six meters at low tide, as well as human-made wetlands such as dams, reservoirs, rice paddies and wastewater treatment ponds and lagoons. An Introduction to the Ramsar Convention on Wetlands, 7th ed. (previously The Ramsar Convention Manual). Ramsar Convention Secretariat, Gland, Switzerland.

100 Communication from the Commission to the Council and the European Parliament of 29 May 1995 on wise use and conservation of wetlands, COM(95) 189 final.

101 Such as Copernicus services managed by the European Commission.

climate risks of other people, of nature, of assets and of other economic activities;

(b) favour nature-based solutions[102] or rely on blue or green infrastructure[103] to the extent possible;

(c) are consistent with local, sectoral, regional or national adaptation efforts;

(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;

(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[104].
(4) Transition to a circular economy	Peat extraction is minimised.
(5) Pollution prevention and control	The use of pesticides is minimised and alternative approaches or techniques, which may include non-chemical alternatives to pesticides are favoured, in accordance with Directive 2009/128/EC, with exception of occasions where the use of pesticides is needed to control outbreaks of pest and diseases. of the activity does not use fertilisers. Well documented and verifiable measures are taken to avoid the use of active ingredients that are listed in the Stockholm Convention on Persistent Organic Pollutants, the Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and

[102] In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

[103] See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

[104] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

	pesticides in international trande, the Minamata Convention on Mercury, the Montreal Protocol on Substances that Deplete the Ozone Layer, and of active ingredients that are listed as classification Ia ('extremely hazardous') or Ib ('highly hazardous') in the WHO recommended Classification of Pesticides by Hazard[105]. The activity complies with relevant national implementing law on active ingredients. Pollution of water and soil is prevented and cleaning up measures are undertaken when pollution occurs.
(6) Protection and restoration of biodiversity and ecosystems	In areas designated by the national competent authority for conservation or in habitats that are protected, the activity is in accordance with the conservation objectives for those areas. There is no conversion of habitats specifically sensitive to biodiversity loss or with high conservation value, or of areas set aside for the restoration of such habitats in accordance with national law. The plan referred to in point 1 (Restoration Plan) of this Section includes provisions for maintaining and possibly enhancing biodiversity in accordance with national and local provisions, including the following: (a) ensuring the good conservation status of habitat and species, maintenance of typical habitat species, (b) exclude the use or release of invasive species.

3. MANUFACTURING

3.1. Manufacture of renewable energy technologies

Description of the activity

Manufacture of renewable energy technologies.

The activity is classified under NACE codes C.25, C.27, C.28 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

[105] The WHO Recommended Classification of Pesticides by Hazard (version 2019), https://apps.who.int/iris/bitstream/handle/10665/332193/9789240005662-eng.pdf?ua=1

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[106], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;

(b) favour nature-based solutions[107] or rely on blue or green infrastructure[108] to the extent possible;

(c) are consistent with local, sectoral, regional or national adaptation efforts;

(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;

(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

106 Such as Copernicus services managed by the European Commission.

107 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

108 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[109].
(4) Transition to a circular economy	The activity assesses availability of and, where feasible, adopts techniques that support: (a) reuse and use of secondary raw materials and re-used components in products manufactured; (b) design for high durability, recyclability, easy disassembly and adaptability of products manufactured; (c) waste management that prioritises recycling over disposal, in the manufacturing process.
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[110] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[111]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in- or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO

[109] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

[110] The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article4(2) of that Directive).

[111] For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

	World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[112], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[113] are implemented.

3.2. Manufacture of equipment for the production of hydrogen

Description of the activity

Manufacture of equipment for the production of hydrogen electrolysis technologies.

The activity is classified under NACE codes C.25, C.27, C.28, in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[114], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed

[112] In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

[113] Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

[114] Such as Copernicus services managed by the European Commission.

publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[115] or rely on blue or green infrastructure[116] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[117].
(4) Transition to a circular economy	The activity assesses availability of and, where feasible, adopts techniques that support: (a) reuse and use of secondary raw materials and re-used components in products manufactured; (b) design for high durability, recyclability, easy disassembly and adaptability of products manufactured; (c) waste management that prioritises recycling over disposal, in

115 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

116 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

117 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

	the manufacturing process.
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[118] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[119]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[120], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[121] are implemented.

3.3. Manufacture of low carbon technologies for transport

Description of the activity

Manufacture of the following low carbon transport technologies:

(a) trains, passenger coaches and wagons that have zero direct (tailpipe) CO_2 emissions;

(b) trains, passenger coaches and wagons that have zero direct tailpipe CO_2 emission when operated on a track with necessary infrastructure, and use a conventional engine where such infrastructure is not available (bimode);

(c) urban, suburban and road passenger transport devices, where the direct (tailpipe) CO_2 emissions of the vehicles are zero;

[118] The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article4(2) of that Directive).

[119] For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

[120] In accordance with Directives 2009/147/EC 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

[121] Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

(d) personal mobility devices with a propulsion that comes from the physical activity of the user, from a zero-emissions motor, or a mix of zero-emissions motor and physical activity;

(e) vehicles of category M_1 and N_1[122] with:

(i) (i) until 31 December 2025: specific emissions of CO_2, as defined in Article 3(1), point (h), of Regulation (EU) 2019/631, lower than 50gCO_2/km (low- and zero-emission light-duty vehicles);

(ii) (ii) from 1 January 2026: specific emissions of CO_2, as defined in Article 3(1), point (h), of Regulation (EU) 2019/631, are zero;

(f) vehicles of category L[123] with tailpipe CO_2 emissions equal to 0g CO_{2e}/km calculated in accordance with the emission test laid down in Regulation (EU) 168/2013;

(g) vehicles not dedicated to transporting fossil fuels with a technically permissible maximum laden mass not exceeding 7,5 tonnes that are 'zero-emission heavy-duty vehicles' as defined in Regulation (EU) 2019/1242;

(h) vehicles not dedicated to transporting fossil fuels with a technically permissible maximum laden mass exceeding 7,5 tonnes that are zero-emission heavy-duty vehicles', as defined in Article 3, point (11), of Regulation (EU) 2019/1242 or 'low-emission heavy-duty vehicles' as defined in Article 3, point (12) of that Regulation;

(i) inland passenger water transport vessels that:

(i) have zero direct (tailpipe) CO_2 emissions;

(ii) until 31 December 2025, are hybrid vessels using at least 50% of zero direct (tailpipe) CO_2 emission fuel mass or plug-in power for their normal operation;

(j) inland freight water transport vessels, not dedicated to transporting fossil fuels, that:

(i) have zero direct (tailpipe) CO_2 emission;

(ii) until 31 December 2025, have direct (tailpipe) emissions of CO_2 per tonne kilometre (gCO_2/tkm), calculated (or estimated in case of new vessels) using the Energy Efficiency Operational Indicator[124], 50 % lower than the average reference value for emissions of CO_2 defined for heavy duty vehicles (vehicle subgroup 5- LH) in accordance with Article 11 of Regulation (EU) 2019/1242;

(k) sea and coastal freight water transport vessels not dedicated to transporting fossil fuels, that:

(i) have zero direct (tailpipe) CO_2 emissions;

(ii) until 31 December 2025, are hybrid vessels that use at least 50% of zero direct (tailpipe) CO_2 emission fuel mass or plug-in power for their normal operation;

(iii) until 31 December 2025, and only where it can be proven that the vessels are used exclusively for provision of coastal services designed to enable modal shift of freight currently transported by land to sea, the vessels that have direct

122 As defined in Article 4(1), points (a) and (b) of Regulation (EU)2018/858.

123 As defined in Article 4 of Regulation (EU) No 168/2013.

124 The Energy Efficiency Operational Indicator is defined as the ratio of mas of CO_2 emitted per unit of transport work. It should be a representative value of the energy efficiency of the ship operation over a consistent period which represents the overall trading pattern of the vessel. Guidance on how to calculate this indicator is provided in the document MEPC.1/Circ. 684 from IMO.

(tailpipe) CO_2 emissions, calculated using the International Maritime Organization (IMO) Energy Efficiency Design Index (EEDI)[125], 50 % lower than the average reference CO_2 emissions value defined for heavy duty vehicles (vehicle subgroup 5-LH) in accordance with Artcile 11 of Regulation (EU) 2019/1242;

(iv) until 31 December 2025, the vessels have an attained Energy Efficiency Design Index (EEDI) value 10% below the EEDI requirements applicable on 1 January 2022[126];

(l) sea and coastal passenger water transport vessels, not dedicated to transporting fossil fuels, that:

(i) have zero direct (tailpipe) CO_2 emissions;

(ii) until 31 December 2025, hybrid vessels use at least 50% of zero direct (tailpipe) CO_2 emission fuel mass or plug-in power for their normal operation;

(iii) until 31 December 2025, the vessels have an attained Energy Efficiency Design Index (EEDI) value 10% below the EEDI requirements applicable on 1 January 2022.

The activity is classified under NACE codes C.27.1.1, C.27.9.0, C.29.1.0, C.29.2.0, C.30.1.1, C.30.1.2 C.30.2.0, C.30.9.1, C.30.9.2, C.30.9.9 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate

[125] Energy Efficiency Design Index, http://www.imo.org/fr/MediaCentre/HotTopics/GHG/Pages/EEDI.aspx.

[126] As agreed by the Marine Environment Protection Committee of the International Maritime Organization on its seventy-fourth session.

projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[127], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[128] or rely on blue or green infrastructure[129] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[130].
(4) Transition to a circular economy	The activity assesses availability of and, where feasible, adopts techniques that support:

127 Such as Copernicus services managed by the European Commission.

128 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

129 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

130 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

	(a) reuse and use of secondary raw materials and re-used components in products manufactured; (b) design for high durability, recyclability, easy disassembly and adaptability of products manufactured; (c) waste management that prioritises recycling over disposal, in the manufacturing process.
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[131] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[132]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[133], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[134] are implemented.

3.4. Manufacture of energy efficiency equipment for buildings

Description of the activity

Manufacture of one or more of the following energy efficiency equipment (products and their components) for buildings:

(a) windows with U-value lower or equal to 0,7 W/m2K;

131 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

132 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

133 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

134 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

(b) doors with U-value lower or equal to 1,2 W/m2K;

(c) external cladding with U-value lower or equal to 0,5 W/m2K;

(d) roofing systems with U-value lower or equal to 0,3 W/m2K;

(e) household appliances falling into the top two energy efficiency classes in accordance with Regulation (EU) 2017/1369 of the European Parliament and of the Council ;

(f) lighting appliances rated in the top two energy labelling class in accordance with Regulation (EU) 2017/1369;

(g) space heating and domestic hot water systems rated in the top energy labelling class in accordance with Regulation (EU) 2017/1369;

(h) cooling and ventilation systems rated in the top two energy labelling class in accordance with Regulation (EU) 2017/1369;

(i) presence and daylight controls for lighting systems;

(j) heat pumps compliant with the technical screening criteria set out in Section 4.16 of this Annex;

(k) façade and roofing elements with a solar shading or solar control function, including those that support the growing of vegetation;

(l) energy-efficient building automation and control systems for commercial buildings;

(m) zoned thermostats and devices for the smart monitoring of the main electricity loads for residential buildings, and sensoring equipment;

(n) products for heat metering and thermostatic controls for individual homes connected to district heating systems and individual flats connected to central heating systems serving a whole building.

The activity is classified under NACE codes C16.23, C17.11, C22.23, C23.11, C23.20, C23.31, C23.32, C23.43, C25.11, C25.12, C25.21, C25.29, C25.93, C27.31, C27.32, C27.33, C27.40, C27.51, C28.11, C28.12, C28.13, C28.14, in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation
The economic activity has implemented physical and non-physical solutions (‘adaptation solutions’) that reduce the most important physical climate risks that are material to that activity. The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected

lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[135], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[136] or rely on blue or green infrastructure[137] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a

135 Such as Copernicus services managed by the European Commission.

136 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

137 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

water and marine resources	water use and protection management plan, developed in consultation with relevant stakeholders[138].
(4) Transition to a circular economy	The activity assesses availability of and, where feasible, adopts techniques that support: (a) reuse and use of secondary raw materials and re-used components in products manufactured; (b) design for high durability, recyclability, easy disassembly and adaptability of products manufactured; (c) waste management that prioritises recycling over disposal, in the manufacturing process.
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[139] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[140]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[141], where applicable, has

138 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

139 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

140 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

141 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

	been conducted and based on its conclusions the necessary mitigation measures[142] are implemented.

3.5. Manufacture of other low carbon technologies

Description of the activity

Manufacture of low carbon technologies (and their key components) that demonstrate substantial life-cycle GHG emission savings compared to the best performing alternative technology/product/solution available on the market, where the life-cycle GHG emission savings are calculated using Commission Recommendation 2013/179/EU or ISO 14067:2018 or ISO 14064-1:2018 and where the quantified life-cycle GHG emission savings are verified by an independent third party.

The activity is classified under NACE codes from C10 to C33, in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[143], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed

[142] Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

[143] Such as Copernicus services managed by the European Commission.

publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[144] or rely on blue or green infrastructure[145] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[146].
(4) Transition to a circular economy	The activity assesses availability of and, where feasible, adopts techniques that support: (a) reuse and use of secondary raw materials and re-used components in products manufactured; (b) design for high durability, recyclability, easy disassembly and adaptability of products manufactured; (c) waste management that prioritises recycling over disposal, in

144 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

145 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

146 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

	the manufacturing process.
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[147] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[148]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[149], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[150] are implemented.

3.6. Manufacture of cement

Description of the activity

Manufacture of cement clinker, cement or alternative blinder.

The activity is classified under NACE code C23.51 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

147 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred in Article 4(2) of that Directive).

148 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

149 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

150 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[151], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[152] or rely on blue or green infrastructure[153] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

151 Such as Copernicus services managed by the European Commission.

152 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

153 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

(1) Climate change mitigation	Greenhouse gas emissions[154] from the cement production processes are: (a) for grey cement clinker, lower than [xxx[155]] tCO2e per tonne of grey cement clinker; (b) for cement or alternative hydraulic binder, from grey clinker, lower than [xxx[156]] tCO2e per tonne of cement or alternative binder manufactured.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[157].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in the best available techniques (BAT) conclusions for the production of cement, lime and magnesium oxide[158]. No significant cross-media effects occur[159]. For manufacture of cement employing hazardous wastes as alternative fuels, measures are in place to ensure the safe handling of waste.

154 Calculated in accordance with Regulation (EU) 2019/331.

155 [The median value of the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026.]

156 [the median value of the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026 multiplied by the clinker to cement ratio (0.65).]

157 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

158 Commission Implementing Decision 2013/163/EU of 26 March 2013 establishing the best available techniques (BAT) conclusions under Directive 2010/75/EU of the European Parliament and of the Council on industrial emissions for the production of cement, lime and magnesium oxide (OJ L 100, 9.4.2013, p. 1).

159 See Best Available Techniques Reference Document (BREF) on Economics and Cross-Media Effects, https://eippcb.jrc.ec.europa.eu/sites/default/files/2019-11/ecm_bref_0706.pdf.

(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[160] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[161]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[162], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[163] are implemented.

3.7. Manufacture of aluminium

Description of the activity

Manufacture of aluminium through primary alumina (bauxite) process or secondary aluminium recycling.

The activity is classified under NACE code C24.42 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability

160 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

161 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

162 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

163 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[164], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[165] or rely on blue or green infrastructure[166] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	The activity manufactures one of the following: (a) primary aluminium where the sum of direct greenhouse gas emissions and indirect greenhouse gas emissions[167] is lower than [xxx[168]] per tonne of aluminium manufactured.

164 Such as Copernicus services managed by the European Commission.

165 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

166 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

	(b) secondary aluminium.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[169].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in the best available techniques (BAT) conclusions for the non-ferrous metals industries[170]. No significant cross-media effects occur.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[171] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[172]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO

[167] Indirect greenhouse gas emissions are the life-cycle greenhouse gas emissions produced from the generation of the electricity used for the manufacturing of primary aluminium

[168] [The median value of the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026 plus the DNSH to climate change mitigation criterion for electricity generation (270gCO2/kWh) multiplied by the average energy efficiency of aluminium manufacturing (15.5 MWh/t Al)].

[169] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

[170] Commission Implementing Decision (EU) 2016/1032 of 13 June 2016 establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for the non-ferrous metals industries (OJ L 174, 30.6.2016, p. 32).

[171] The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

[172] For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

	World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[173], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[174] are implemented.

3.8. Manufacture of iron and steel

Description of the activity

Manufacture of iron and steel.

The activity is classified under NACE codes C24.10, C24.20, C24.31, C24.32, C24.33, C24.34, C24.51 and C24.52 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[175], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent

[173] In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

[174] Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

[175] Such as Copernicus services managed by the European Commission.

Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based[176] or rely on blue or green infrastructure[177] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	The activity manufactures one of the following: (a) iron and steel with greenhouse gas emissions[178] lower than the following values applied to the different manufacturing process steps: (i) hot metal = [xxx[179]] tCO_2e/t product; (ii) sintered ore = [xxx[180]] tCO_2e/t product; (iii)coke (excluding lignite coke) = [xxx[181]] tCO_2e/t product; (iv)iron casting = [xxx[182]] tCO_2e/t product; (v) electric arc furnace (EAF) high alloy steel = [xxx[183]] tCO_2e/t product;

176 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.
177 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).
178 Calculated in accordance with Regulation (EU) 2019/331.
179 [The median value of the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026.]
180 [The median value of the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026.]
181 [The median value of the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026.]
182 [The median value of the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026.]
183 [The median value of the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026.]

	(vi) electric arc furnace (EAF) carbon steel = [xxx[184]] tCO_2e/t product. (b) steel in electric arc furnaces (EAFs) and at least 90 % of the iron content in the final products is sourced from scrap steel.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[185].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in the best available techniques (BAT) conclusions for iron and steel production[186]. No significant cross-media effects occur.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[187] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[188]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO

184 [The median value of the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026.]

185 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

186 Commission Implementing Decision 2012/135/EU of 28 February 2012 establishing the best available techniques (BAT) conclusions under Directive 2010/75/EU of the European Parliament and of the Council on industrial emissions for iron and steel production (OJ L 70, 8.3.2012, p. 63).

187 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

188 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks

	World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[189], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[190] are implemented.

3.9. Manufacture of hydrogen

Description of the activity

Manufacture of hydrogen.

The activity is classified under NACE code C.20.11 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[191], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed

[189] In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

[190] Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

[191] Such as Copernicus services managed by the European Commission.

publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[192] or rely on blue or green infrastructure[193] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	The activity complies with the life cycle GHG emissions savings requirement of 70 % relative to a fossil fuel comparator of 94g CO_2e/MJ as set out in Article 25(2) of Directive (EU) 2018/2001 of the European Parliament and of the Council[194] and Annex V to that Directive. Life cycle GHG emissions savings are calculated using the methodology referred to in Article 28(5) of Directive (EU) 2018/2001 or, alternatively, using ISO 14067:2018 or ISO 14064-1:2018. Quantified life-cycle GHG emission savings are verified in line with Article 30 of Directive (EU) 2018/2001 where applicable, or by an independent third party.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[195].

[192] In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

[193] See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

[194] Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (OJ L 328, 21.12.2018, p. 82).

[195] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in [the best available techniques (BAT) conclusions for common waste gas management and treatment systems in the chemical sector.]No significant cross-media effects occur.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[196] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[197]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[198], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[199] are implemented.

3.10. Manufacture of carbon black

Description of the activity

Manufacture of carbon black.

The activity is classified under NACE code C.20.13 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

196 Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

197 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

198 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

199 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[200], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[201] or rely on blue or green infrastructure[202] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts,
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

200 Such as Copernicus services managed by the European Commission.

201 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

202 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

Do no significant harm (‘DHSH’)	
(1) Climate change mitigation	Greenhouse gas emissions[203] from the carbon black production processes are lower than [xxx[204]] tCO2e per tonne of product.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[205].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in the: (a) the Best Available Techniques Reference Document (BREF) for the Large Volume Inorganic Chemicals- Solids and Others industry[206]; (b) the best available techniques (BAT) conclusions for common waste water and waste gas treatment/management systems in the chemical sector[207];

203 Calculated in accordance with Regulation (EU) 2019/331.

204 [The median value of the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026.]

205 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

206 Best Available Techniques (BAT) Reference Document for the Large Volumes Inorganic Chemicals-Solids and Others industry, https://eippcb.jrc.ec.europa.eu/sites/default/files/2019-11/lvic-s_bref_0907.pdf

207 Commission Implementing Decision (EU) 2016/902 of 30 May 2016 establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for common waste water and waste gas treatment/management systems in the chemical sector (OJ L 152, 9.6.2016, p. 23).

	(c) [the best available techniques (BAT) conclusions for common waste gas management and treatment systems in the chemical sector.] No significant cross-media effects occur.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[208] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[209]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[210], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[211] are implemented.

3.11. Manufacture of disodium carbonate

Description of the activity

Manufacture of disodium carbonate (soda ash).

The activity is classified under NACE code C.20.13 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

208 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

209 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

210 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

211 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[212], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[213] or rely on blue or green infrastructure[214] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

212 Such as Copernicus services managed by the European Commission.

213 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

214 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

(1) Climate change mitigation	Greenhouse gas emissions[215] from the disodium carbonate (soda ash) production processes are lower than [xxx[216]] tCO2e per tonne of product.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[217].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in: (a) the Best Available Techniques Reference Document (BREF) for the Large Volume Inorganic Chemicals- Solids and Others industry; (b) the best available techniques (BAT) conclusions for common waste water and waste gas treatment/management systems in the chemical sector; (c) [the best available techniques (BAT) conclusions for common waste gas management and treatment systems in the chemical sector.] No significant cross-media effects occur.
(6) Protection and restoration of biodiversity and	An Environmental Impact Assessment (EIA) or screening[218] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been

215 Calculated in accordance with Regulation (EU) 2019/331.

216 [The median value of the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026.]

217 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

218 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

ecosystems	completed in accordance with equivalent national provisions or international standards[219]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[220], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[221] are implemented.

3.12. Manufacture of chlorine

Description of the activity

Manufacture of chlorine.

The activity is classified under NACE code C.20.13 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

[219] For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

[220] In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

[221] Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[222], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[223] or rely on blue or green infrastructure[224] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	Electricity consumption for electrolysis and chlorine treatment is equal or lower than 2,45 MWh per tonne of chlorine. Average direct greenhouse gas emissions of the electricity used for chlorine production is at or lower than 270 g CO2e/kWh.
(3) Sustainable use and protection of	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a

222 Such as Copernicus services managed by the European Commission.

223 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

224 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

water and marine resources	water use and protection management plan, developed in consultation with relevant stakeholders[225].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in: (a) the best available techniques (BAT) conclusions for the production of chlor-alkali[226]; (b) the best available techniques (BAT) conclusions for common waste water and waste gas treatment/management systems in the chemical sector; (c) [the best available techniques (BAT) conclusions for common waste gas management and treatment systems in the chemical sector.] No significant cross-media effects occur.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[227] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[228]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO

[225] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

[226] Commission Implementing Decision 2013/732/EU of 9 December 2013 establishing the best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council on industrial emissions, for the production of chlor-alkali (OJ L 332, 11.12.2013, p. 34).

[227] The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

[228] For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

	World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[229], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[230] are implemented.

3.13. Manufacture of organic basic chemicals

Description of the activity

Manufacture of:

(a) high volume chemicals (HVC):

- (i) acetylene;
- (ii) ethylene;
- (iii) propylene;
- (iv) butadiene.

(b) Aromatics:

- (i) mixed alkylbenzenes, mixed alkylnaphthalenes other than HS 2707 or 2902;
- (ii) cyclohexane;
- (iii) benzene;
- (iv) toluene;
- (v) o-Xylene;
- (vi) p-Xylene;
- (vii) m-Xylene and mixed xylene isomers;
- (viii) ethylbenzene;
- (ix) cumene;
- (x) biphenyl, terphenyls, vinyltoluenes, other cyclic hydrocarbons excluding cyclanes, cyclenes, cycloterpenes, benzene, toluene, xylenes, styrene, ethylbenzene, cumene,naphthalene, anthracene;
- (xi) benzol (benzene), toluol (toluene) and xylol (xylenes)
- (xii) naphthalene and other aromatic hydrocarbon mixtures (excluding benzole, toluole, xylole).

(c) vinyl chloride;

(d) styrene;

[229] In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

[230] Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

(e) ethylene oxide;

(f) monoethylene glycol;

(g) adipic acid.

The activity is classified under NACE code C20.14 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[231], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;

(b) favour nature-based solutions[232] or rely on blue or green infrastructure[233] to the extent possible;

231 Such as Copernicus services managed by the European Commission.

232 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	GHG emissions[234] from the organic chemicals production processes are lower than : (a) for HVC: [xxx[235]] tCO_2e/t of HVC; (b) for aromatics: [xxx[236]] tCO_2e/t of aromatic; (c) for vinyl chloride: [xxx[237]] tCO_2e/t of vinyl chloride; (d) for styrene: [xxx[238]] tCO_2e/t of styrene; (e) for ethylene oxide/ethylene glycols: [xxx[239]] tCO_2e/t of ethylene oxide/glycol; (f) for adipic acid: [xxx[240]] tCO_2e/t of adipic acid.
(3) Sustainable use and protection of	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a

233 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).
234 Calculated in accordance with Regulation (EU) 2019/331.
235 [The median value of the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026.]
236 [The median value of the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026.]
237 [The median value of the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026.]
238 [The median value of the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026.]
239 [The median value of the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026.]
240 [The median value of the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026.]

water and marine resources	water use and protection management plan, developed in consultation with relevant stakeholders[241].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in: (a) the best available techniques (BAT) conclusions for the production of large volumes organic chemicals[242]; (b) the best available techniques (BAT) conclusions for common waste water and waste gas treatment/management systems in the chemical sector; (c) the [best available techniques (BAT) conclusions for common waste gas management and treatment systems in the chemical sector.] No significant cross-media effects occur.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[243] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[244]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO

241 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

242 Commission Implementing Decision (EU) 2017/2117 of 21 November 2017 establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for the production of large volume organic chemicals (OJ L 323, 7.12.2017, p. 1).

243 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

244 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

	World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[245], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[246] are implemented.

3.14. Manufacture of anhydrous ammonia

Description of the activity

Manufacture of anhydrous ammonia.

The activity is classified under NACE code C.20.15 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[247], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed

[245] In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

[246] Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

[247] Such as Copernicus services managed by the European Commission.

publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[248] or rely on blue or green infrastructure[249] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	The manufacturing of anhydrous ammonia has greenhouse gas emissions[250] lower than [xxx[251]] tCO2e per tonne of anhydrous ammonia.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[252].
(4) Transition to a circular economy	N/A

248 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

249 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

250 Calculated in accordance with Regulation (EU) 2019/331.

251 [The median value of the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026.]

252 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

(5) Pollution prevention and control	Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in: (a) the Best Available Techniques Reference Document (BREF) for the manufacture of Large Volume Inorganic Chemicals - Ammonia, Acids and Fertilisers[253]; (b) the best available techniques (BAT) conclusions for common waste water and waste gas treatment/management systems in the chemical sector; (c) [the best available techniques (BAT) conclusions for common waste gas management and treatment systems in the chemical sector.] No significant cross-media effects occur.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[254] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[255]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[256], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[257] are implemented.

253 Best Available Techniques (BAT) Reference Document for the manufacture of Large Volume Inorganic Chemicals - Ammonia, Acids and Fertilisers https://eippcb.jrc.ec.europa.eu/sites/default/files/2019-11/lvic_aaf.pdf

254 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

255 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

256 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

257 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

3.15. Manufacture of nitric acid

Description of the activity

Manufacture of nitric acid.

The activity is classified under NACE code C.20.15 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[258], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical

[258] Such as Copernicus services managed by the European Commission.

climate risks of other people, of nature, of assets and of other economic activities;

(b) favour nature-based solutions[259] or rely on blue or green infrastructure[260] to the extent possible;

(c) are consistent with local, sectoral, regional or national adaptation efforts;

(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;

(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	GHG emissions[261] from the manufacture of nitric acid are lower than [xxx[262]] tCO2e per tonne of nitric acid.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[263].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in: (a) the Best Available Techniques Reference Document (BREF) for the manufacture of Large Volume Inorganic Chemicals - Ammonia, Acids and Fertilisers;

259 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

260 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

261 Calculated in accordance with Regulation (EU) 2019/331.

262 [The median value of the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026.]

263 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

	(b) the best available techniques (BAT) conclusions for common waste water and waste gas treatment/management systems in the chemical sector; (c) [the best available techniques (BAT) conclusions for common waste gas management and treatment systems in the chemical sector.] No significant cross-media effects occur.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[264] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[265]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[266], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[267] are implemented.

3.16. Manufacture of plastics in primary form

Description of the activity

Manufacture resins, plastics materials and non-vulcanisable thermoplastic elastomers, the mixing and blending of resins on a custom basis, as well as the manufacture of non-customised synthetic resins.

The activity is classified under NACE code C20.16 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

264 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of Directive).

265 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

266 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

267 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[268], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[269] or rely on blue or green infrastructure[270] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

268 Such as Copernicus services managed by the European Commission.

269 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

270 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

Do no significant harm ('DNSH')	
(1) Climate change mitigation	The plastic in primary form is one of the following: (a) fully manufactured by mechanical recycling of plastic waste; (b) fully manufactured by chemical recycling of plastic waste where the life-cycle greenhouse gas emissions of the manufactured plastic, excluding any calculated benefit from the production of fuels, are lower than the life-cycle greenhouse gas emissions of the equivalent primary plastic manufactured from fossil fuel feedstock. Life-cycle greenhouse gas emissions are calculated using Commission Recommendation 2013/179/EU or, alternatively, using ISO 14067:2018 or ISO 14064-1:2018. Quantified life-cycle GHG emissions are verified by an independent third party. (c) derived wholly or partially from renewable feedstock[271] where the life-cycle greenhouse gas emissions of the manufactured plastic in primary form, manufactured wholly or partially from renewable feedstock, is lower than the life-cycle greenhouse gas emissions of the equivalent plastics in primary form manufactured from fossil fuel feedstock. Life-cycle greenhouse gas emissions are calculated using Commission Recommendation 2013/179/EU or, alternatively, using ISO 14067:2018 or ISO 14064-1:2018. Quantified life-cycle GHG emissions are verified by an independent third party.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[272].

[271] Renewable feedstock refers to biomass, industrial bio-waste or municipal bio-waste.

[272] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in the Best Available Techniques Reference Document (BREF) for the Production of Polymers[273]. No significant cross-media effects occur.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[274] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[275]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[276], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[277] are implemented.

4. ENERGY

4.1. Electricity generation using solar photovoltaic technology

Description of the activity

Construction or operation of electricity generation facilities that produce electricity using solar photovoltaic (PV) technology.

273 Best Available Techniques (BAT) Reference Document for the Production of Polymers https://eippcb.jrc.ec.europa.eu/sites/default/files/2019-11/pol_bref_0807.pdf.

274 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

275 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

276 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

277 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

Where the activity is an integral element of the activity ‘Installation, maintenance and repair of renewable energy technologies’ as referred to in Section 7.6 of this Annex,, the technical screening criteria specified in Section 7.6 apply.

The activity is classified under NACE code D35.11 and F.42.22 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions (‘adaptation solutions’) that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[278], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[279] or rely on blue or green infrastructure[280] to the extent possible;

[278] Such as Copernicus services managed by the European Commission.

[279] In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	The activity assesses availability of and, where feasible, uses equipment and components of high durability and recyclability and that are easy to dismantle and refurbish.
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[281] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[282]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas

280 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

281 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

282 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

	(including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[283], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[284] are implemented.

4.2. Electricity generation using concentrated solar power (CSP) technology

Description of the activity

Construction or operation of electricity generation facilities that produce electricity using concentrated solar power (CSP) technology.

The activity is classified under NACE codes D35.11 and F42.22 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[285], the best available science for

283 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

284 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

285 Such as Copernicus services managed by the European Commission.

vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[286] or rely on blue or green infrastructure[287] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[288].
(4) Transition to a circular economy	The activity assesses availability of and, where feasible, uses equipment and components of high durability and recyclability and that are easy to dismantle and refurbish.
(5) Pollution prevention and	N/A

[286] In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

[287] See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

[288] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

control	
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[289] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[290]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[291], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[292] are implemented.

4.3. Electricity generation from wind power

Description of the activity

Construction or operation of electricity generation facilities that produce electricity from wind power. Where the activity is an integral element of the activity 'Installation, maintenance and repair of renewable energy technologies' as referred to in Section 7.6 of this Annex, the technical screening criteria specified in Section 7.6 apply..

The activity is classified under NACE code D35.1.1 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

289 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

290 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

291 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

292 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[293], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[294] or rely on blue or green infrastructure[295] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

293 Such as Copernicus services managed by the European Commission.

294 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

295 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	In case of construction of offshore wind, the activity complies with the requirements of Directive 2008/56/EC in relation to its Descriptor 11 (Noise/Energy), laid down in Annex I to that Directive and Commission Decision (EU)2017/848 in relation to the relevant criteria and methodological standards for that descriptor.
(4) Transition to a circular economy	The activity assesses availability of and, where feasible, uses equipment and components of high durability and recyclability and that are easy to dismantle and refurbish.
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[296] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[297]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[298], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[299] are implemented.[300]

296 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that 2011/92/EU).

297 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

298 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

299 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

300 Practical guidance for the implementation of this criterion is contained in the European Commission document: "Wind energy developments and Natura 2000",

	In case of offshore wind, the activity complies with the requirements of Directive 2008/56/EC in relation to its Descriptors 1 (biodiversity) and 6 (seabed integrity), laid down in Annex I to that Directive, and Commission Decision (EU)2017/848 in relation to the relevant criteria and methodological standards for those descriptors.

4.4. Electricity generation from ocean energy technologies

Description of the activity

Construction or operation of electricity generation facilities that produce electricity from ocean energy.

The activity is classified under NACE code D35.11 and F42.22 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[301], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed

https://ec.europa.eu/environment/nature/natura2000/management/docs/Wind_farms.pdf [being updated – add new reference if available on time for DA adoption].

[301] Such as Copernicus services managed by the European Commission.

publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[302] or rely on blue or green infrastructure[303] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	The activity complies with the requirements of Directive 2008/56/EC in relation to its Descriptor 11 (Noise/Energy), laid down in Annex I to that Directive and Commission Decision (EU) 2017/848 in relation to the relevant criteria and methodological standards for that descriptor.
(4) Transition to a circular economy	The activity assesses availability of and, where feasible, uses equipment and components of high durability and recyclability and that are easy to dismantle and refurbish.
(5) Pollution prevention and control	Measures are in place to minimise toxicity of anti-fouling paint and biocides as laid down in Regulation (EU) No 528/2012, which implements in Union law the International Convention on the Control of Harmful Anti-fouling Systems on Ships adopted on 5 October 2001.
(6) Protection and restoration of	An Environmental Impact Assessment (EIA) or screening[304] has been completed, for activities within the Union, in accordance with Directive

302 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

303 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

biodiversity and ecosystems	2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[305]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[306], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[307] are implemented. The activity complies with the requirements of Directive 2008/56/EC in relation to its Descriptors 1 (biodiversity), laid down in Annex I to that Directive and Commission Decision (EU) 2017/848 in relation to the relevant criteria and methodological standards for those descriptors.

4.5. Electricity generation from hydropower

Description of the activity

Construction or operation of electricity generation facilities that produce electricity from hydropower, including mixed pumped hydropower storage.

The activity is classified under NACE code D35.11 and F42.22 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

304 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of Directive 2011/92/EU).

305 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

306 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

307 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[308], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[309] or rely on blue or green infrastructure[310] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

308 Such as Copernicus services managed by the European Commission.

309 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

310 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

(1) Climate change mitigation	The direct GHG emissions of the activity are lower than 270gCO2e/kWh.
(3) Sustainable use and protection of water and marine resources	1. Operation of existing hydropower plants, including refurbishment activities to enhance renewable energy or energy storage potential. All technically feasible and ecologically relevant mitigation measures have been implemented to reduce adverse impacts on water as well as on protected habitats and species directly dependent on water. The effectiveness of those measures is monitored in the context of the authorisation or permit setting out the conditions aimed at achieving good status or potential of the affected water body. The operation of the hydropower plant fully complies with that authorisation or permit issued by the competent authority, and sets out all relevant mitigation measures necessary to: (a) ensure conditions as close as possible to undisturbed continuity in the specific water body the plant relates to, including state-of-the-art and fully functional fish passes and turbines preventing fish kill, measures to ensure minimum ecological flow and sediment flow, adaptation of the operation of the plant; (b) reduce the impact of hydropeaking; (c) protect or enhance habitats for aquatic species; (d) reduce adverse impacts of eutrophication. 2. Construction of new hydropower plants The plants are conceived, by design and location and by mitigation measures, so that they comply with one of the following: (a) the plants do not entail any deterioration nor compromise the achievement of good status or potential of the specific water body they relate to, as demonstrated by a cumulative impact assessment referred to in this Section; (b) the plants do neither significantly deteriorate nor compromise the achievement of good status/potential of the specific water body they relate to and are justified by

	overriding reasons in the public interest. The plants are conceived, by design and location and by mitigation measures, so that they do not permanently compromise the achievement of good status/potential in any of the water bodies in the same river basin district. A cumulative impact assessment has been performed that identifies and addresses any significant regional or basin-level environmental impacts. The assessment: (a) addresses all potential impacts on water bodies, as well as on protected habitats and species directly dependent on water, considering in particular: (i) migration corridors, free-flowing rivers or ecosystems close to undisturbed conditions; (ii) all impacts of existing and of already authorised and planned infrastructure developments in the basin, for example as part of a hydropower cascade or of other activities (for example agriculture, transport etc.); (b) is based on recent, comprehensive and accurate data, including monitoring data on biological quality elements that are specifically sensitive to hydrological alterations, and on the expected status of the water body as a result of the new activities, as compared to its current one. The cumulative impact assessment demonstrates that the project does not permanently exclude the achievement of the objectives of good status/potential in other water bodies or connected ecosystems within the same river basin district. Where the cumulative impact assessment demonstrates that the envisaged project neither deteriorates nor compromises the achievement of good status/potential of the specific water body, as a result of site-specific conditions or the use of state-of-the-art technology, the operation of the new hydropower plant fully complies with its authorisation or permit setting out the conditions aimed at achieving good status or potential of the affected water body. The plant respects appropriate environmental standards in terms of flow management and flood regime (magnitude, frequency, duration, timing and rate of change) and of mitigation measures, including controlled releases, state-of-the-art and fully functional fish passages, state-of-the-art turbines preventing fish kill, controlled temperature, appropriate ecological flow, sediment flow, timing of operation of turbines. Where the cumulative impact assessment demonstrates that the

envisaged project could deteriorate or compromise the achievement of good status/potential of the specific water body it relates to, a further in-depth cost-benefit assessment is performed. That in-depth cost-benefit assessment demonstrates that such deterioration will not be significant and will comply with all of the following criteria:

(a) the beneficial objectives served by the planned hydropower plant in terms of renewable energy generation and energy storage cannot, for reasons of technical feasibility or disproportionate cost, be achieved by alternative means that would lead to a better environmental outcome (alternative location, rehabilitation/refurbishment of existing hydro-power plants or infrastructures, use of technologies not disrupting river continuity, where relevant, consideration of other potential sources of electricity, which may offer in the particular case a better environmental alternative; the beneficial objectives served by the planned hydropower plant are justified by overriding reasons in the public interest;

(b) the benefits expected from the planned hydropower plant outweigh the costs from deteriorating the status of water that are accruing to the environment and to society. The in-depth cost-benefits analysis considers the following aspects:

(i) the marginal quantity of energy generated and its contribution to increasing the share of renewable energy in the energy mix, in accordance with the national renewable energy strategy when relevant;

(ii) impacts on water status or potential upstream and downstream;

(iii) impacts on biodiversity, in particular on Protected Areas (such as Natura 2000 sites in the Union, areas relied upon for drinking water, areas with bathing water);

(iv) the benefits of ecosystem services (quantitatively where possible);

(c) all technically feasible and ecologically relevant mitigation measures are included in the permit or authorisation and are implemented to reduce the adverse impacts on the status of the water body the planned hydropower plant relates to. Those measures:

(i) ensure conditions as close as possible to undisturbed

	continuity (including state-of-the-art and fully functional fish passes and turbines preventing fish kill, measures to ensure minimum ecological flow and sediment flow, adaptation of the operation of the plant); (ii) reduce the impact of hydropeaking; (iii)protect or enhance habitats for aquatic species; (iv)reduce adverse impacts of eutrophication; (d) in addition to the mitigation measures referred to in point (d) and where relevant, compensatory measures are implemented to ensure that the project does not increase the fragmentation of water bodies in the same river basin district. This is achieved by restoring continuity within the same river basin district to an extent that compensates the disruption of continuity, which the planned hydropower plant may cause. Compensation starts prior to the execution of the project.
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[311] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[312]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO

311 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

312 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks

	World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[313], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[314] are implemented.[315]

4.6. Electricity generation from geothermal energy

Description of the activity

Construction or operation of electricity generation facilities that produce electricity from geothermal energy.

The activity is classified under NACE code D35.11 and F42.22 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[316], the best available science for

313 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

314 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

315 Practical guidance is contained in Commission notice C/2018/2619 'Guidance document on the requirements for hydropower in relation to EU nature legislation' (OJ C 213, 18.6.2018, p. 1).

316 Such as Copernicus services managed by the European Commission.

vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[317] or rely on blue or green infrastructure[318] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	The direct GHG emissions of the activity are lower than 270gCO2e/kWh.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[319].
(4) Transition to a circular economy	N/A

317 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

318 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

319 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

(5) Pollution prevention and control	For the operation of high-enthalpy geothermal energy systems, adequate abatement systems are in place to comply with the air emission requirements set out in Directive 2004/107/EC and Directive 2008/50/EC.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[320] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[321]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[322], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[323] are implemented.

4.7. Electricity generation from gaseous and liquid fuels

Description of the activity

Construction or operation of electricity generation facilities that produce electricity using gaseous and liquid fuels (not exclusive to natural gas, oil or other refined products).

The activity is classified under NACE code D35.11 and F42.22 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

320 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

321 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

322 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

323 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[324], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[325] or rely on blue or green infrastructure[326] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

[324] Such as Copernicus services managed by the European Commission.

[325] In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

[326] See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

(1) Climate change mitigation	The direct GHG emissions of the activity are lower than 270gCO2e/kWh.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[327].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Emissions are within or lower than the emissions levels associated with the best available techniques (BAT-AEL) ranges set out in the best available techniques (BAT) conclusions for large combustion plants[328]. No significant cross-media effects occur. For combustion plants greater than 1 MW thermal input but below the thresholds for the BAT conclusions for large combustion plants to apply, emissions are below the emission limit values set out in Annex II, part 2, to Directive (EU) 2015/2193[329].
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[330] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[331]. Where an EIA has been carried out, the required mitigation and

327 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

328 Commission Implementing Decision (EU) 2017/1442 of 31 July 2017 establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for large combustion plants (OJ L 212, 17.8.2017, p.1).

329 Directive (EU) 2015/2193 of the European Parliament and of the Council of 25 November 2015 on the limitation of emissions of certain pollutants into the air from medium combustion plants (OJ L 313, 28.11.2015, p. 1).

330 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

331 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

	compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[332], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[333] are implemented.

4.8. Electricity generation from bioenergy

Description of the activity

Construction and operation of electricity generation installations that produce electricity from biomass, biogas and biofuels.

The activity is classified under NACE code D35.11 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate

[332] In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

[333] Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[334], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[335] or rely on blue or green infrastructure[336] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(2) Climate change mitigation	The activity meets the requirements relating to sustainability, greenhouse gas emission savings and efficiency laid down in Article 29 of Directive 2018/2001.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[337].

334 Such as Copernicus services managed by the European Commission.

335 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

336 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

337 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	For installations falling within the scope of Directive 2010/75/EU of the European Parliament and of the Council[338], emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in the best available techniques (BAT) conclusions for large combustion plants[339]. No significant cross-media effects occur. For combustion plants greater than 1 MW thermal input but below the thresholds for the BAT conclusions for large combustion plants to apply, emissions are below the emission limit values set out in Annex II, part 2, to Directive (EU) 2015/2193 of the European Parliament and of the Council[340]. For plants in zones or parts of zones not complying with the air quality limit values laid down in Directive 2008/50/EC of the European Parliament and of the Council[341], results of the information exchange[342] which are published by the Commission in accordance with Article 6, paragraphs 9 and 10, of Directive (EU) 2015/2193 are taken into account. For anaerobic digestion of organic material, the produced digestate is used as fertiliser or soil improver, either directly or after composting or any other treatment, and meets the requirements for fertilising materials set out in Component Material Categories (CMC) 4 and 5 in Annex II to Regulation (EU) 2019/1009 and relevant national law on fertilising products. For anaerobic digestion plants treating over 100 tonnes per day, emissions to air and water are within or lower than the emission levels

338 Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) (OJ L 334, 17.12.2010, p. 17).

339 Commission Implementing Decision (EU) 2017/1442 of 31 July 2017 establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for large combustion plants (OJ L 212, 17.8.2017, p. 1).

340 Directive (EU) 2015/2193 of the European Parliament and of the Council of 25 November 2015 on the limitation of emissions of certain pollutants into the air from medium combustion plants (OJ L 313, 28.11.2015, p. 1).

341 Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe (OJ L 152, 11.6.2008, p. 1).

342 The final technology report resulting from the exchange of information with Member States, the industries concerned and non-governmental organisations contains technical information on best available technologies used in medium combustion plants to reduce their environmental impacts, and on the emission levels achievable with best available and emerging technologies and the related costs: https://circabc.europa.eu/ui/group/06f33a94-9829-4eee-b187-21bb783a0fbf/library/9a99a632-9ba8-4cc0-9679-08d929afda59/details.

	associated with the best available techniques (BAT-AEL) ranges set for anaerobic treatment of waste in the best available techniques (BAT) conclusions for waste treatment[343]. No significant cross-media effects occur.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[344] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[345]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment , where applicable, has been conducted and based on its conclusions the necessary mitigation measures are implemented.

4.9. Transmission and distribution of electricity

Description of the activity

Construction and operation of transmission systems that transport electricity on the extra high-voltage and high-voltage interconnected system and construction and operation of distribution systems that transport electricity on high-voltage, medium-voltage and low-voltage distribution systems where:

1. The transmission and distribution infrastructure or equipment in the system is the interconnected European system, i.e. the interconnected electricity system covering the interconnected control areas of Member States, Norway, Switzerland and the United Kingdom, and its subordinated systems;

2. The transmission and distribution infrastructure or equipment is in a system which complies with one or both of the following criteria:

[343] Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council (OJ L 208, 17.8.2018, p. 38).

[344] The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred in Article 4(2) of that Directive).

[345] For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

(a) more than 67 % of newly connected generation capacity in the system where the infrastructure or equipment is to be installed is below the generation threshold value of 100 gCO2e/kWh measured on a life cycle basis in accordance with electricity generation criteria, over a rolling five-year period;

(b) an average system grid emissions factor, that is calculated as the total annual emissions from power generation, divided by the total annual net electricity production in that system, is below the threshold value of 100 gCO2e/kWh measured on a life cycle basis in accordance with electricity generation criteria, over a rolling five-year average period;

3. The transmission and distribution infrastructure or equipment is not dedicated to creating a direct connection, or expanding an existing direct connection to a power production plant that is more CO2 intensive than 100 gCO2e/kWh, measured on a life cycle basis.

4. The activity is one of the following:

(a) construction and operation of direct connection, or expansion of existing direct connection, of low carbon electricity generation below the threshold of 100 gCO2e/kWh measured on a life cycle basis to a substation or network;

(b) construction and operation of electronic vehicle (EV) charging stations and supporting electric infrastructure for the electrification of transport, subject to eligibility under the transport Section of Annex I;

(c) installation of transmission and distribution transformers that comply with the Tier 2 (1 July 2021) requirements set out in Annex I to Regulation (EU) No 548/2014 and, for medium power transformers with highest voltage for equipment not exceeding 36 kV, with AAA0 level requirements on no-load losses set out in standard EN 50588-1.

(d) construction/installation and operation of equipment and infrastructure where the main objective is an increase of the generation or use of renewable electricity generation;

(e) installation of equipment to increase the controllability and observability of the electricity system and to enable the development and integration of renewable energy sources, including:

  (i) sensors and measurement tools (including meteorological sensors for forecasting renewable production);

  (ii) communication and control (including advanced software and control rooms, automation of substations or feeders, and voltage control capabilities to adapt to more decentralised renewable infeed).

(f) installation of equipment to carry information to users for remotely acting on consumption, including customer data hubs;

(g) construction/installation of equipment to allow for exchange of specifically renewable electricity between users;

(h) interconnectors between transmission systems are eligible, provided that one of the systems is eligible.

5. For the purposes of this Section, a ‘system’ means the transmission or distribution network control area of the network or system operator(s) where the activity takes place.

6. For the purposes of this Section the following specifications apply:

(a) the rolling five-year (average) period used in determining compliance with the thresholds is based on historic data, and includes the year for which the most recent data are available;

(b) transmission systems may include generation capacity connected to subordinated distribution systems;

(c) distribution systems subordinated to a transmission system that is deemed to be on a trajectory to full decarbonisation may also be deemed to be on a trajectory to full decarbonisation;

(d) to determine eligibility, it is possible to consider a system covering multiple control areas which are interconnected and with significant energy exchanges between them, in which case the weighted average emissions factor across all included control areas is used to determine eligibility, and individual subordinated transmission or distribution systems within that system is not required to demonstrate compliance separately;

(e) it is possible for a system to become ineligible after having previously been eligible. In systems that become ineligible, no new transmission and distribution activities are eligible from that moment onward, until the system complies again with the threshold (except for those activities which are always eligible, see above). Activities in subordinated systems may still be eligible, where those subordinated systems meet the criteria of this Section.

(f) a direct connection or expansion of an existing direct connection to production plants includes infrastructure that is indispensable to carry the associated electricity from the power generating facility to a substation or network.

The activity is classified under NACE codes D35.12 and D35.13 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions (‘adaptation solutions’) that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-

the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[346], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[347] or rely on blue or green infrastructure[348] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	The transmission and distribution infrastructure or equipment is not dedicated to creating a direct connection, or expanding an existing direct connection to a power production plant where the direct greenhouse gas emissions exceed 270 gCO2e/kWh.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a	A waste management plan is in place and ensures maximal reuse or

346 Such as Copernicus services managed by the European Commission.

347 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

348 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

circular economy	recycling at end of life in accordance with the waste hierarchy, including through contractual agreements with waste management partners, reflection in financial projections or official project documentation.
(5) Pollution prevention and control	Overground high voltage lines: (a) for construction site activities, activities follow the principles of the International Finance Corporation (IFC) General Environmental, Health, and Safety Guidelines[349]. (b) activities respect applicable norms and regulations to limit impact of electromagnetic radiation on human health, including for activities carried out in the Union, the Council recommendation on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz)[350] and for activities carried out in third countries the 1998 Guidelines of International Commission on Non-Ionizing Radiation Protection (ICNIRP)[351]. Activities do not use PCBs polyclorinated biphenyls.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[352] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[353]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO

349 Environmental, Health, and Safety (EHS) Guidelines of 30 April 2007, https://www.ifc.org/wps/wcm/connect/29f5137d-6e17-4660-b1f9-02bf561935e5/Final%2B-%2BGeneral%2BEHS%2BGuidelines.pdf?MOD=AJPERES&CVID=jOWim3p

350 Council Recommendation of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz) (1999/519/EC) (OJ L 199, 30.7.1999, p.59).

351 ICNIRP 1998 Guidelines for limiting exposure to time-varying electric, magnetic and electromagnetic fields (up to 300 ghz), https://www.icnirp.org/cms/upload/publications/ICNIRPemfgdl.pdf.

352 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

353 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

	World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[354], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[355] are implemented[356].

4.10. Storage of electricity

Description of the activity

Construction and operation of facilities that store electricity and return it at a later time in the form of electricity. The activity includes pure closed-loop pumped hydropower storage.

Where the activity is an integral element of the activity 'Installation, maintenance and repair of renewable energy technologies' as referred to in Section 7.6 of this Annex, the technical screening criteria specified in Section 7.6 apply.

The activity has no dedicated NACE code as referred to in the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the

354 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

355 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

356 Practical guidance for the implementation of this criterion is contained in the European Commission notice 2018/C 213/02 "Energy transmission infrastructure and EU nature legislation" (OJ C 213, 18.6.2018, p.1).

expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[357], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[358] or rely on blue or green infrastructure[359] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	For closed-loop pumped hydropower storage, environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[360].

357 Such as Copernicus services managed by the European Commission.

358 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

359 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

360 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

(4) Transition to a circular economy	A waste management plan is in place and ensures maximal reuse or recycling at end of life in accordance with the waste hierarchy, including through contractual agreements with waste management partners, reflection in financial projections or official project documentation.
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[361] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[362]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[363], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[364] are implemented.

4.11. Storage of thermal energy

Description of the activity

Construction and operation of facilities that store thermal energy and return it at a later time, in the form of thermal energy or other energy vectors. The activity includes Thermal Energy Storage (UTES) or Aquifer Thermal Energy Storage (ATES).

361 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referring to in Article 4(2) of that Directive).

362 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

363 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

364 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

Where the activity is an integral element of the activity 'Installation, maintenance and repair of renewable energy technologies' as referred to in Section 7.6 of this Annex, the technical screening criteria specified in Section 7.6 apply.

The activity has no dedicated NACE code as referred to in the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[365], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;

(b) favour nature-based solutions[366] or rely on blue or green infrastructure[367] to the extent possible;

365 Such as Copernicus services managed by the European Commission.

366 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	For Aquifer Thermal Energy Storage, environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[368].
(4) Transition to a circular economy	A waste management plan is in place and ensures maximal reuse, remanufacturing or recycling at end of life, including through contractual agreements with waste management partners, reflection in financial projections or official project documentation.
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and	An Environmental Impact Assessment (EIA) or screening[369] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been

367 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

368 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

369 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

ecosystems	completed in accordance with equivalent national provisions or international standards[370]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[371], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[372] are implemented.

4.12. Storage of hydrogen

Description of the activity

Construction and operation of facilities that store hydrogen and return it at a later time where the hydrogen stored in the facility meets the criteria for manufacture of hydrogen specified in section 3.9. of Annex I to this Regulation.

The activity has no dedicated NACE code in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less

[370] For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

[371] In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

[372] Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[373], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[374] or rely on blue or green infrastructure[375] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a	A waste management plan is in place and ensures maximal reuse,

373 Such as Copernicus services managed by the European Commission.

374 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

375 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

circular economy	remanufacturing or recycling at end of life, including through contractual agreements with waste management partners, reflection in financial projections or official project documentation.
(5) Pollution prevention and control	In the case of storage above five tonnes, the activity complies with Directive 2012/18/EU.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[376] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[377]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[378], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[379] are implemented.

4.13. Manufacture of biogas and biofuels for use in transport

Description of the activity

Manufacture of biogas or biofuels for use in transport.

The activity is classified under NACE code D35.21 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

376 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

377 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

378 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

379 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[380], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[381] or rely on blue or green infrastructure[382] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

380 Such as Copernicus services managed by the European Commission.

381 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

382 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

Do no significant harm (‘DNSH’)	
(1) Climate change mitigation	The activity meets the requirements relating to sustainability, greenhouse gas emission savings and efficiency laid down in Article 29 of Directive 2018/2001.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[383].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	For biogas production, a gas-tight cover on the digestate storage is applied. For anaerobic digestion plants treating over 100 tonnes per day, emissions to air and water are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set for anaerobic treatment of waste in the best available techniques (BAT) conclusions for waste treatment[384]. No significant cross-media effects occur. In case of anaerobic digestion of organic material, the produced digestate is used as fertiliser or soil improver, either directly or after composting or any other treatment, and meets the requirements for fertilising materials set out in Component Material Categories (CMC) 4 and 5 in Annex II to Regulation EU 2019/1009 and respective national rules on fertilising products.

383 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

384 Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council (OJ L 208, 17.8.2018, p. 38).

(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[385] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[386]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[387], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[388] are implemented.

4.14. Transmission and distribution networks for renewable and low-carbon gases

Description of the activity

Repurposing of gas networks for the distribution of gaseous fuels through a system of mains.

Repurposing of gas networks for long-distance transport of renewable and low-carbon gases by pipelines.

Construction or operation of transmission and distribution pipelines dedicated to the transport of hydrogen and other low-carbon gases.

The activity is classified under NACE codes D35.21, F42.21 and H49.50 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

385 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

386 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

387 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

388 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[389], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[390] or rely on blue or green infrastructure[391] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

389 Such as Copernicus services managed by the European Commission.

390 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

391 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

(1) Climate change mitigation	The repurposing does not increase gas transmission and distribution capacity. The repurposing does not extend the lifespan of the networks beyond their pre-retrofit projected lifespan, unless the network is dedicated to hydrogen or other low-carbon gases.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[392].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Fans, compressors, pumps and other equipment used which is covered by Directive 2009/125/EC comply, where relevant, with the top class requirements of the energy label, and with implementing regulations under that Directive and represent the best available technology.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[393] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[394]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO

[392] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

[393] The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to Article 4(2) of that Directive).

[394] For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

	World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[395], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[396] are implemented.

4.15. District heating/cooling distribution

Description of the activity

Construction, refurbishment and operation of pipelines and associated infrastructure for distribution of heating and cooling, ending at the sub-station or heat exchanger.

The activity is classified under NACE code D35.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[397], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent

395 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

396 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

397 Such as Copernicus services managed by the European Commission.

Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[398] or rely on blue or green infrastructure[399] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[400].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and	Fans, compressors, pumps and other equipment used which is covered by Directive 2009/125/EC comply, where relevant, with the top class requirements of the energy label, and otherwise comply with

398 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

399 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

400 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

control	implementing regulations under that Directive and represent the best available technology.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[401] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[402]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[403], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[404] are implemented.

4.16. Installation of electric heat pumps

Description of the activity

Installation and operation of electric heat pumps.

Where the activity is an integral element of the activity 'Installation, maintenance and repair of renewable energy technologies' as referred to in Section 7.6 of this Annex, the technical screening criteria specified in Section 7.6 apply.

The activity is classified under NACE code D35.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

401 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

402 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

403 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

404 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[405], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[406] or rely on blue or green infrastructure[407] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

405 Such as Copernicus services managed by the European Commission.

406 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

407 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[408].
(4) Transition to a circular economy	The activity assesses availability of and, where feasible, uses equipment and components of high durability and recyclability and that are easy to dismantle and refurbish. A waste management plan is in place and ensures maximal reuse, remanufacturing or recycling at end of life, including through contractual agreements with waste management partners, reflection in financial projections or official project documentation.
(5) Pollution prevention and control	For air to air heat pumps with rated capacity of 12kW or below, indoor and outdoor sound power levels are below the threshold set out in Regulation (EU) No 206/2012.
(6) Protection and restoration of biodiversity and ecosystems	N/A

4.17. Cogeneration of heat/cool and power from solar energy

Description of the activity

Construction and operation of a facility co-generating electricity and heat/cool from solar energy.

The activity is classified under NACE codes D35.11 and D35.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

[408] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[409], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[410] or rely on blue or green infrastructure[411] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

409 Such as Copernicus services managed by the European Commission.

410 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

411 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

Do no significant harm (‘DNSH’)	
(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	The activity assesses availability of and, where feasible, uses equipment and components of high durability and recyclability and that are easy to dismantle and refurbish.
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[412] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[413]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[414], where applicable, has

412 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

413 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

414 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

	been conducted and based on its conclusions the necessary mitigation measures[415] are implemented.

4.18. Cogeneration of heat/cool and power from geothermal energy

Description of the activity

Construction and operation of facilities co-generating heat/cool and power from geothermal energy.

The activity is classified under NACE codes D35.11 and D35.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[416], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical

[415] Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

[416] Such as Copernicus services managed by the European Commission.

climate risks of other people, of nature, of assets and of other economic activities;

(b) favour nature-based solutions[417] or rely on blue or green infrastructure[418] to the extent possible;

(c) are consistent with local, sectoral, regional or national adaptation efforts;

(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;

(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	The direct GHG emissions of the activity are lower than 270gCO2e/kWh.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[419].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	For the operation of high-enthalpy geothermal energy systems, adequate abatement systems are in place to comply with air emission requirements laid down in Directives 2004/107/EC and 2008/50/EC.

417 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

418 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

419 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[420] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[421]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[422], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[423] are implemented.

4.19. Cogeneration of heat/cool and power from gaseous and liquid fuels

Description of the activity

Construction and operation of combined heat/cool and power generation facilities using gaseous and liquid fuels (not exclusive to natural gas, oil and other refined products).

The activity is classified under NACE codes D35.11 and D35.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those

[420] The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

[421] For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

[422] In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

[423] Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[424], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[425] or rely on blue or green infrastructure[426] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	The direct GHG emissions of the activity are lower than 270gCO2e/kWh.

424 Such as Copernicus services managed by the European Commission.

425 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

426 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[427].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in the best available techniques (BAT) conclusions for large combustion plants. No significant cross-media effects occur. For combustion plants greater than 1 MW thermal input but below the thresholds for the BAT conclusions for large combustion plants to apply, emissions are below the emission limit values set out in Annex II, part 2, to Directive (EU) 2015/2193.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[428] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[429]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO

[427] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

[428] The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

[429] For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

	World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[430], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[431] are implemented.

4.20. Cogeneration of heat/cool and power from bioenergy

Description of the activity

Construction and operation of installations used for cogeneration of heat/cool and power from biomass.

The activity is classified under NACE codes D35.11 and D35.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[432], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

[430] In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

[431] Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

[432] Such as Copernicus services managed by the European Commission.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[433] or rely on blue or green infrastructure[434] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	The activity meets the requirements relating to sustainability, greenhouse gas emission savings and efficiency laid down in Article 29 of Directive 2018/2001.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[435].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and	For installations falling within the scope of Directive 2010/75/EU, emissions are within or lower than the emission levels associated with

433 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

434 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

435 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

control	the best available techniques (BAT-AEL) ranges set out in the best available techniques (BAT) conclusions for large combustion plants[436], ensuring at the same time that no significant cross-media effects occur. For combustion plants greater than 1 MW thermal input but below the thresholds for the BAT conclusions for large combustion plants to apply, emissions are below the emission limit values set out in Annex II, part 2, to Directive (EU) 2015/2193. For plants in zones or parts of zones not complying with the air quality limit values laid down in Directive 2008/50/EC, results of the information exchange[437], which are published by the Commission in accordance with Article 6, paragraphs 9 and 10, of Directive (EU) 2015/2193 are taken into account. In case of anaerobic digestion of organic material, the produced digestate is used as fertiliser or soil improver, either directly or after composting or any other treatment, and meets the requirements for fertilising materials set out in Component Material Categories (CMC) 4 and 5 in Annex II to Regulation (EU) 2019/1009 and relevant national lax on fertilising products. For anaerobic digestion plants treating over 100 tonnes per day, emissions to air and water are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set for anaerobic treatment of waste in the best available techniques (BAT) conclusions for waste treatment[438]. No significant cross-media effects occur.
(6) Protection and restoration of biodiversity and	An Environmental Impact Assessment (EIA) or screening[439] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been

436 Commission Implementing Decision (EU) 2017/1442 of 31 July 2017 establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for large combustion plants (OJ L 212, 17.8.2017, p. 1).

437 The final technology report resulting from the exchange of information with Member States, the industries concerned and non-governmental organisations contains technical information on best available technologies used in medium combustion plants to reduce their environmental impacts, and on the emission levels achievable with best available and emerging technologies and the related costs: https://circabc.europa.eu/ui/group/06f33a94-9829-4eee-b187-21bb783a0fbf/library/9a99a632-9ba8-4cc0-9679-08d929afda59/details.

438 Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council (OJ L 208, 17.8.2018, p. 38).

439 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

ecosystems	completed in accordance with equivalent national provisions or international standards[440]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[441], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[442] are implemented.

4.21. Production of heat/cool from solar thermal heating

Description of the activity

Construction and operation of facilities producing heat/cool from solar thermal heating technology.

Where the activity is an integral element of the activity 'Installation, maintenance and repair of renewable energy technologies' as referred to in Section 7.6 of this Annex, the technical screening criteria specified in Section 7.6 apply.

The activity is classified under NACE code D35.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected

[440] For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

[441] In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

[442] Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[443], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[444] or rely on blue or green infrastructure[445] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	N/A

443 Such as Copernicus services managed by the European Commission.

444 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

445 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

(4) Transition to a circular economy	The activity assesses availability of and, where feasible, uses equipment and components of high durability and recyclability and that are easy to dismantle and refurbish.
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[446] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[447]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[448], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[449] are implemented.

4.22. Production of heat/cool from geothermal energy

Description of the activity

Construction and operation of facilities that produce heat/cool from geothermal energy.

The activity is classified under NACE code D35.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

446 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

447 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

448 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

449 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[450], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;

(b) favour nature-based solutions[451] or rely on blue or green infrastructure[452] to the extent possible;

(c) are consistent with local, sectoral, regional or national adaptation efforts;

(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;

(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

450 Such as Copernicus services managed by the European Commission.

451 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

452 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

Do no significant harm (‘DNSH’)	
(1) Climate change mitigation	The direct GHG emissions of the activity are lower than 270gCO2e/kWh.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[453].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	For the operation of high-enthalpy geothermal energy systems, adequate abatement systems are in place to comply with air emission requirements set out in Directives 2004/107/EC and 2008/50/EC.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[454] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[455]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO

453 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

454 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

455 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

	World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[456], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[457] are implemented.

4.23. Production of heat/cool from gaseous and liquid fuels

Description of the activity

Construction and operation of heat generation facilities that produce heating/cool using gaseous and liquid fuels (not exclusive to natural gas, oil or other refined products).

The activity is classified under NACE code D35.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[458], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent

[456] In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

[457] Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

[458] Such as Copernicus services managed by the European Commission.

Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[459] or rely on blue or green infrastructure[460] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	The direct GHG emissions of the activity are lower than 270gCO2e/kWh.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[461].
(4) Transition to a circular economy	N/A
(5) Pollution	Emissions are within or lower than the emission levels associated with

459 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

460 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

461 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

prevention and control	the best available techniques (BAT-AEL) ranges set out in the best available techniques (BAT) conclusions for large combustion plants. No significant cross-media effects occur. For combustion plants greater than 1 MW thermal input but below the thresholds for the BAT conclusions for large combustion plants to apply, emissions are below the Emission Limit Values set out in Annex II, part 2, to Directive (EU) 2015/2193.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[462] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[463]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[464], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[465] are implemented.

4.24. Production of heat/cool from bioenergy

Description of the activity

Construction and operation of facilities that produce heat/cool from biomass.

The activity is classified under NACE code D35.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

462 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

463 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

464 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

465 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[466], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[467] or rely on blue or green infrastructure[468] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

466 Such as Copernicus services managed by the European Commission.

467 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

468 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

Do no significant harm ('DNSH')	
(1) Climate change mitigation	The activity meets the requirements relating to sustainability, greenhouse gas emission savings and efficiency laid down in Article 29 of Directive 2018/2001.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[469].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	For installations falling within the scope of Directive 2010/75/EU, emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in the best available techniques (BAT) conclusions for large combustion plants[470], ensuring at the same time that no significant cross-media effects occur. For combustion plants greater than 1 MW thermal input but below the thresholds for the BAT conclusions for large combustion plants to apply, emissions are below the emission limit values set out in Annex 2, part 2, to Directive (EU) 2015/2193. For plants in zones or parts of zones not complying with the air quality limit values laid down in Directive 2008/50/EC[471], results of the information exchange[472], which are e published by the Commission in

469 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

470 Commission Implementing Decision (EU) 2017/1442 of 31 July 2017 establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for large combustion plants (OJ L 212, 17.8.2017, p. 1).

471 Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe

472 The final technology report resulting from the exchange of information with Member States, the industries concerned and non-governmental organisations contains technical information on best available technologies used in medium combustion plants to reduce their environmental impacts, and on the emission levels achievable with best available and emerging technologies and the related costs: https://circabc.europa.eu/ui/group/06f33a94-9829-4eee-b187-21bb783a0fbf/library/9a99a632-9ba8-4cc0-9679-08d929afda59/details.

	accordance with Article 6, paragraphs 9 and 10 of Directive (EU) 2015/2193 are taken into account. For anaerobic digestion of organic material, the produced digestate is used as fertiliser or soil improver, either directly or after composting or any other treatment, and meets the requirements for fertilising materials set out in Component Material Categories (CMC) 4 and 5 in Annex II to Regulation (EU) 2019/1009 and relevant national law on fertilising products. For anaerobic digestion plants treating over 100 tonnes per day, emissions to air and water are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set for anaerobic treatment of waste in the best available techniques (BAT) conclusions for waste treatment[473]. No significant cross-media effects occur.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[474] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[475]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[476], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[477] are implemented.

473 Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council (OJ L 208, 17.8.2018, p. 38).

474 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

475 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

476 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

477 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

4.25. Production of heat/cool using waste heat

Description of the activity

Construction and operation of facilities that produce heat/cool using waste heat.

The activity is classified under NACE code D35.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[478], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;

(b) favour nature-based solutions[479] or rely on blue or green infrastructure[480] to the extent possible;

[478] Such as Copernicus services managed by the European Commission.

[479] In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	The activity assesses availability of and, where feasible, uses equipment and components of high durability and recyclability and that are easy to dismantle and refurbish.
(5) Pollution prevention and control	Pumps and the kind of equipment used, which is covered by Ecodesign and Energy labelling comply, where relevant, with the top class requirements of the energy label laid down in Regulation (EU) 2017/1369, and with implementing regulations under Directive 2009/125/EC and represent the best available technology.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[481] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[482]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are

480 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

481 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

482 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

	implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[483], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[484] are implemented.

5. WATER SUPPLY, SEWERAGE, WASTE MANAGEMENT AND REMEDIATION ACTIVITIES

5.1. Construction, extension and operation of water collection, treatment and supply systems

Description of the activity

Construction, extension and operation of water collection, treatment and supply systems.

The activity is classified under NACE codes E36.00 and F42.99 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate

[483] In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

[484] Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[485], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[486] or rely on blue or green infrastructure[487] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[488].
(4) Transition to a circular economy	N/A

485 Such as Copernicus services managed by the European Commission.

486 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

487 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

488 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[489] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[490]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[491], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[492] are implemented.

5.2. Renewal of water collection, treatment and supply systems

Description of the activity

Renewal of water collection, treatment and supply systems including renewals to water collection, treatment and distribution infrastructures for domestic and industrial needs.

The activity is classified under NACE codes E36.00 and F42.99 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

489 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

490 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

491 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

492 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[493], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[494] or rely on blue or green infrastructure[495] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

493 Such as Copernicus services managed by the European Commission.

494 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

495 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[496].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[497] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[498]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[499], where applicable, has

[496] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

[497] The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

[498] For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks

[499] In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

	been conducted and based on its conclusions the necessary mitigation measures[500] are implemented.

5.3. Construction, extension and operation of waste water collection and treatment

Description of the activity

Construction, extension and operation of centralised waste water systems including collection (sewer network) and treatment.

The activity is classified under NACE codes E37.00 and F42.99 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[501], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical

[500] Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

[501] Such as Copernicus services managed by the European Commission.

climate risks of other people, of nature, of assets and of other economic activities;

(b) favour nature-based solutions[502] or rely on blue or green infrastructure[503] to the extent possible;

(c) are consistent with local, sectoral, regional or national adaptation efforts;

(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;

(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	An assessment of the direct GHG emissions from the centralised waste water system, including collection (sewer network) and treatment, has been performed[504]. The results are disclosed to investors and clients on demand.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[505]. Where the waste water is treated to a level suitable for reuse in agricultural irrigation, the required risk management actions to avoid adverse environmental impacts have been defined and implemented[506].
(4) Transition to a circular economy	N/A

[502] In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

[503] See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

[504] For example, following IPCC guidelines for national GHG inventories for waste water treatment: https://www.ipcc-nggip.iges.or.jp/public/2019rf/pdf/5_Volume5/19R_V5_6_Ch06_Wastewater.pdf.

[505] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

[506] As specified in Annex II of Regulation (EU) 2020/741 of the European Parliament and of the Council of 25May 2020 on minimum requirements for water reuse (OJ L 177, 5.6.2020, p. 32).

(5) Pollution prevention and control	Discharges to receiving waters meet the requirements laid down in Directive 91/271/EEC. Appropriate measures have been implemented to avoid and mitigate excessive storm water overflows from the waste water collection system, which may include nature-based solutions, separate storm water collection systems, retention tanks and treatment of the first flush. Sewage sludge is managed or used, including anaerobic digestion and land application, in accordance with Council Directive 86/278/EEC and national law.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[507] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[508]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[509], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[510] are implemented.

5.4. Renewal of waste water collection and treatment

Description of the activity

Renewal of centralised waste water systems including collection (sewer network) and treatment.

[507] The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

[508] For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

[509] In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

[510] Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

The activity is classified under NACE codes E37.00 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[511], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[512] or rely on blue or green infrastructure[513] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;

511 Such as Copernicus services managed by the European Commission.

512 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

513 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')	
(1) Climate change mitigation	An assessment of the direct GHG emissions from the centralised waste water system, including collection (sewer network) and treatment, has been performed[514]. The results are disclosed to investors and clients on demand.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[515]. Where the waste water is treated to a level suitable for reuse in agricultural irrigation, the required risk management actions to avoid adverse environmental impacts have been defined and implemented[516].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Discharges to receiving waters meet the requirements laid down in Directive 91/271/EEC. Appropriate measures have been implemented to avoid and mitigate excessive storm water overflows from the waste water collection system, which may include nature-based solutions, separate storm water collection systems, retention tanks and treatment of the first flush. Sewage sludge is managed or used, including anaerobic digestion and

514 For example, following IPCC guidelines for national GHG inventories for waste water treatment: https://www.ipcc-nggip.iges.or.jp/public/2019rf/pdf/5_Volume5/19R_V5_6_Ch06_Wastewater.pdf.

515 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

516 As specified in Annex II to Regulation (EU) 2020/741 of the European Parliament and of the Council of 25May 2020 on minimum requirements for water reuse (OJ L 177, 5.6.2020, p. 32).

	land application, in accordance with Council Directive 86/278/EEC and national law.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[517] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[518]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[519], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[520] are implemented.

5.5. Collection and transport of non-hazardous waste in source segregated fractions

Description of the activity

Separate collection and transport of non-hazardous waste in single or comingled fractions aimed at preparing for reuse or recycling.

The activity is classified under NACE code E38.11 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

[517] The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

[518] For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

[519] In accordance with Directives 2009/147/EC and 92/43/EEC; or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

[520] Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[521], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[522] or rely on blue or green infrastructure[523] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

521 Such as Copernicus services managed by the European Commission.

522 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

523 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	Separately collected waste fractions are not mixed in waste storage and transfer facilities.
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	N/A

5.6. Anaerobic digestion of sewage sludge

Description of the activity

Construction and operation of facilities for the treatment of sewage sludge by anaerobic digestion with the resulting production and utilisation of biogas or chemicals.

The activity is classified under NACE codes E37.00 and F42.00 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less

than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[524], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[525] or rely on blue or green infrastructure[526] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	A monitoring plan is in place for methane leakage at the facility.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[527].

524 Such as Copernicus services managed by the European Commission.

525 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

526 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

527 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Emissions are within or lower than the emission levels associated with the best available technique (BAT-AEL) ranges set for anaerobic treatment of waste in the best available techniques (BAT) conclusions for waste treatment[528]. No significant cross-media effects occur. Where the resulting digestate is intended for use as soil improver it complies with the following criteria: (a) it meets the requirements for fertilising materials set out in Annex II to Regulation 2019/1009[529] or national rules on fertilisers/soil improvers for agricultural use; (b) its nitrogen content (with tolerance level ±25 %) is communicated to the buyer or the entity in charge of taking off the digestate.
(6) Protection and restoration of biodiversity and ecosystems	N/A

5.7. Anaerobic digestion of bio-waste

Description of the activity

Construction or operation of dedicated facilities for the treatment of separately collected bio-waste through anaerobic digestion with the resulting production and utilisation of biogas and digestate or chemicals.

The activity is classified under NACE codes E38.21 and F42.99 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

528 Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council

529 For the requirements on digestate, see Component Material Categories (CMCs) 4 and 5 specified in annex II of Regulation 2019/1009.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[530], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[531] or rely on blue or green infrastructure[532] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

530 Such as Copernicus services managed by the European Commission.

531 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

532 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

Do no significant harm (‘DNSH’)

(1) Climate change mitigation	A monitoring plan is in place for methane leakage at the facility.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[533].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	For anaerobic digestion plants treating over 100 tonnes per day, emissions to air and water are within or lower than the emission levels associated with the best available technique (BAT-AEL) ranges set for anaerobic treatment of waste in the best available techniques (BAT) conclusions for waste treatment[534]. No significant cross-media effects occur. The Nitrogen content (with tolerance level ±25 %) of the digestate used as fertiliser or soil improver is communicated to the buyer or the entity in charge of taking off the digestate.
(6) Protection and restoration of biodiversity and ecosystems	N/A

533 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

534 Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council (OJ L 208, 17.8.2018, p.38).

5.8. Composting of bio-waste

Description of the activity

Construction or operation of dedicated facilities for the treatment of separately collected bio-waste through composting (aerobic digestion) with the resulting production and utilisation of compost.[535]

The activity is classified under NACE codes E38.21 and F42.99 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[536], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical

[535] Bio-waste is defined in Article 3, point 4, of Directive 2008/98/EC.

[536] Such as Copernicus services managed by the European Commission.

climate risks of other people, of nature, of assets and of other economic activities;

(b) favour nature-based solutions[537] or rely on blue or green infrastructure[538] to the extent possible;

(c) are consistent with local, sectoral, regional or national adaptation efforts;

(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;

(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	For composting plants treating over 75 tonnes per day, emissions to air and water are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out for aerobic treatment of waste in the best available techniques (BAT) conclusions for waste treatment[539]. No significant cross-media effects occur. The site has a system in place that prevents leachate reaching groundwater.
(6) Protection and restoration of biodiversity and	N/A

[537] In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

[538] See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

[539] Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council (OJ L 208, 17.8.2018, p.38).

ecosystems	

5.9. Material recovery from non-hazardous waste

Description of the activity

Construction and operation of facilities for the sorting and processing of separately collected non-hazardous waste streams into secondary raw materials involving a mechanical transformation process.

The activity is classified under NACE codes E38.32 and F42.99 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[540], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical

[540] Such as Copernicus services managed by the European Commission.

climate risks of other people, of nature, of assets and of other economic activities;

(b) favour nature-based solutions[541] or rely on blue or green infrastructure[542] to the extent possible;

(c) are consistent with local, sectoral, regional or national adaptation efforts;

(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;

(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	N/A

[541] In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

[542] See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

5.10. Landfill gas capture and utilisation

Description of the activity

Installation and operation of infrastructure for landfill[543] gas capture and utilisation in permanently closed landfills using new or supplementary dedicated technical facilities and equipment installed during or post landfill closure.

The activity is classified under NACE code E38.21 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[544], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical

[543] 'Landfill' is defined in Article 2, point g, of Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste (OJ L 182, 16.7.1999, p. 1).

[544] Such as Copernicus services managed by the European Commission.

climate risks of other people, of nature, of assets and of other economic activities;

(b) favour nature-based solutions[545] or rely on blue or green infrastructure[546] to the extent possible;

(c) are consistent with local, sectoral, regional or national adaptation efforts;

(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;

(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	A monitoring plan is in place for methane leakage at the facility.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	The permanent closure and remediation as well as the after-care of old landfills, where the landfill gas capture system is installed, are carried out in accordance with the following rules: (a) general requirements set out in Annex I to Directive 99/31/EC; (b) control and monitoring procedures set out in Annex III to that Directive.
(6) Protection and restoration of biodiversity and ecosystems	N/A

[545] In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

[546] See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

5.11. Transport of CO_2

Description of the activity

Transport of captured CO_2, construction and operation of CO_2 pipelines and retrofit of gas networks where the main purpose is the integration of captured CO_2 and where:

1. the CO_2 transported from the installation where it is captured to the injection point does not lead to CO_2 leakages above 0.5 % of the mass of CO_2 transported;

2. the CO2 is delivered to a permanent CO2 storage site that meets the criteria for underground geological storage of CO2 set out in section 5.11 of this Annex; or to other transport modalities, which lead directly to permanent CO2 storage site that meet those criteria;

3. appropriate leak detection systems are applied and a monitoring plan is in place, with the report verified by an independent third party;

4. where assets are installed that increase the flexibility and improve the management of an existing network, the installation is eligible.

The activity is classified under NACE codes F42.21 and H49.50 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate

projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[547], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[548] or rely on blue or green infrastructure[549] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	A monitoring plan is in place for CO_2 leakages.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[550].
(4) Transition to a	N/A

547 Such as Copernicus services managed by the European Commission.

548 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

549 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

550 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

circular economy	
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[551] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[552]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[553], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[554] are implemented.

5.12. Underground permanent geological storage of CO_2

Description of the activity

Permanent storage of captured CO_2 in appropriate underground geological formations.

The activity is classified under NACE code E39.00 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

551 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

552 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks

553 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

554 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[555], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[556] or rely on blue or green infrastructure[557] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

555 Such as Copernicus services managed by the European Commission.

556 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

557 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

(1) Climate change mitigation	A monitoring plan is in place for CO_2 leakages.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[558].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	The activity complies with Directive 2009/31/EC.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[559] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[560]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[561], where applicable, has

558 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

559 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

560 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

561 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

	been conducted and based on its conclusions the necessary mitigation measures[562] are implemented.

6. TRANSPORT

6.1. Passenger interurban rail transport

Description of the activity

Retrofit, upgrade or operation of transport of passengers using railroad rolling stock on mainline networks, spread over an extensive geographic area, passenger transport by interurban railways and operation of sleeping cars or dining cars as an integrated operation of railway companies. The activity excludes passenger transport by urban and suburban transit systems, passenger terminal activities, operation of railroad infrastructure; related activities such as switching and shunting and operation of sleeping cars or dining cars when operated by separate units.

The activity is classified under NACE code H49.10 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[563], the best available science for

[562] Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[564] or rely on blue or green infrastructure[565] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	Measures are in place to manage waste, in accordance with the waste hierarchy, in particular during maintenance.
(5) Pollution prevention and control	Engines for the propulsion of railway locomotives (RLL) and engines for the propulsion of railcars (RLR) comply with emission limits set out in Annex II to Regulation (EU) 2016/1628.
(6) Protection and restoration of	N/A

563 Such as Copernicus services managed by the European Commission.

564 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

565 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

biodiversity and ecosystems	

6.2. Freight rail transport

Description of the activity

Retrofit, upgrade or operation of freight transport on mainline rail networks as well as short line freight railroads. This activity excludes warehousing and storage, freight terminal activities, operation of railroad infrastructure as well as related activities such as switching and shunting and cargo handling.

The activity is classified under NACE code H49.20 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[566], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

[566] Such as Copernicus services managed by the European Commission.

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[567] or rely on blue or green infrastructure[568] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	The trains and wagons are not dedicated to the transport of fossil fuels.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	Measures are in place to manage waste in accordance with the waste hierarchy, in particular during maintenance.
(5) Pollution prevention and control	Engines for the propulsion of railway locomotives (RLL) and engines for the propulsion of railcars (RLR) comply with emission limits set out in Annex II to Regulation (EU) 2016/1628.
(6) Protection and restoration of biodiversity and ecosystems	N/A

[567] In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

[568] See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

6.3. Urban, suburban and road passenger transport

Description of the activity

Operation of urban and suburban transport systems for and road passenger transport. This may include different modes of land transport, such as by motor bus, tramway, streetcar, trolley bus, underground and elevated railways. The transport is carried out on scheduled routes normally following a fixed time schedule, entailing the picking up and setting down of passengers at fixed stops. The activity also includes town-to-airport or town-to-station lines and operation of funicular railways and aerial cableways where part of urban or suburban transit systems. The activity also includes scheduled long-distance bus services, charters, excursions and other occasional coach services, airport shuttles, operation of school buses and buses for the transport of employees and other passenger transport by man- or animal-drawn vehicles. This activity excludes ambulance transport. It includes operation of vehicles designated as category M2 and M3, in accordance with Article 4(1) of Regulation (EU) 2018/8582, for the provision of passenger transport.

The activity is classified under NACE codes H49.31, H49.39 and N77.11 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation
The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity. The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that: (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections; (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments. The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[569], the best available science for

[569] Such as Copernicus services managed by the European Commission.

vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[570] or rely on blue or green infrastructure[571] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	The activity does not include purchasing vehicles with CO_2 emissions higher than average for the category.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	Measures are in place to manage waste, in accordance with the waste hierarchy, both in the use phase (maintenance) and the end-of-life of the fleet. For battery-operated fleet, those measures include reuse and recycling of batteries and electronics, including critical raw materials therein. Vehicles of all types purchased or operated do not contain lead, mercury, hexavalent chromium and cadmium, except for the

[570] In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

[571] See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

	exemptions listed in Annex II to Directive 2000/53/EC[572].
(5) Pollution prevention and control	For road vehicles of categories M and N, tyres comply with external rolling noise Class A and with energy performance class A or B set out in Regulation (EU) 2020/740. Where applicable, tyres comply with the noise requirements laid down in Regulation (EC) No 661/2009.
(6) Protection and restoration of biodiversity and ecosystems	N/A

6.4. Operation of personal mobility devices

Description of the activity

Operation of personal mobility devices where the propulsion comes from the physical activity of the user, from a zero-emissions motor, or a mix of zero-emissions motor and physical activity and where the personal mobility devices are allowed to be operated on the same public infrastructure as bikes or pedestrians.

The activity is classified under NACE codes N77.11 and N77.21 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate

[572] Though Directive 2000/53/EC currently only applies to vehicles designated as category M1 and or N1 vehicles, for the purposes of this criterion, the restrictions on content of lead, mercury, hexavalent chromium and cadmium (and the associated exemptions, where relevant) apply to all types of vehicles purchased or operated within the activity

projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[573], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[574] or rely on blue or green infrastructure[575] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	Measures are in place to manage waste, in accordance with the waste

573 Such as Copernicus services managed by the European Commission.

574 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

575 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

	hierarchy, both in the use phase (maintenance) and the end-of-life. For battery-operated personal mobility devices, those measures include reuse and recycling of batteries and electronics, including critical raw materials therein. Mobility devices of all types purchased or operated do not contain lead, mercury, hexavalent chromium and cadmium, except for the exemptions listed in Annex II to Directive 2000/53/EC[576].
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	N/A

6.5. Transport by motorbikes, passenger cars and commercial vehicles

Description of the activity

Operation of vehicles designated as category M1[577], N1[578] or L (2- and 3-wheel vehicles and quadricycles)[579].

The activity is classified under NACE codes H49.32, H49.39 and N77.11 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those

576 Though Directive 2000/53/EC currently only applies to vehicles designated as category M1 and or N1 vehicles, for the purposes of this criterion, the restrictions on content of lead, mercury, hexavalent chromium and cadmium (and the associated exemptions, where relevant) apply to all types of vehicles purchased or operated within the activity.

577 As referred to in Article 4(1), point (a)(i), of Regulation (EU) 2018/858.

578 As referred to in Article 4(1), point (b)(i), of Regulation (EU) 2018/858.

579 As referred to in Article 4(1) of Regulation (EU) 2018/858.

listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[580], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[581] or rely on blue or green infrastructure[582] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	The activity complies with one of the following: (a) the passenger cars and light commercial vehicles have CO_2 emissions, measured in accordance with the worldwide harmonised light vehicles test procedure ('WLTP') set out in Regulation (EU) 2017/1151, which are:

580 Such as Copernicus services managed by the European Commission.

581 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

582 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

	(i) lower than 50gCO2/km until 31 December 2025; (ii) zero From 1 January 2026. (a) the tailpipe CO_2 emissions of L category vehicles are zero.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	Vehicles of categories M1 and N1 are: (a) reusable or recyclable to a minimum of 85 % by weight; (b) reusable or recoverable to a minimum of 95 % by weight[583]. Measures are in place to manage waste both in the use phase (maintenance) and the end-of-life of the fleet, including through reuse and recycling of batteries and electronics (in particular critical raw materials therein), in accordance with the waste hierarchy. Vehicles of all types purchased or operated do not contain lead, mercury, hexavalent chromium and cadmium, except for the exemptions listed in Annex II to Directive 2000/53/EC[584].
(5) Pollution prevention and control	Vehicles comply with requirements of the most recent applicable stage of the Euro 6 light-duty emission type-approval[585] set out in in accordance with Regulation (EC) No. 715/2007. Vehicles comply with the emission thresholds for clean light-duty vehicles set out in Table 2 of the Annex to Directive 2009/33/EC. For vehicles of categories M1 and N1, tyres comply with rolling noise Class A and with energy performance class A or B set out in Regulation (EU) 2020/740.

583 As set out in Annex I of Directive 2005/64/EC.

584 Though Directive 2000/53/EC currently only applies to vehicles designated as M1 and N1 vehicles, for the purposes of this criterion, the restrictions on content of lead, mercury, hexavalent chromium and cadmium (and the associated exemptions, where relevant) apply to all types of vehicles purchased or operated within the activity.

585 Commission Regulation (EU) 2018/1832 of 5 November 2018 amending Directive 2007/46/EC of the European Parliament and of the Council, Commission Regulation (EC) No 692/2008 and Commission Regulation (EU) 2017/1151 for the purpose of improving the emission type approval tests and procedures for light passenger and commercial vehicles, including those for in-service conformity and real-driving emissions and introducing devices for monitoring the consumption of fuel and electric energy (OJ L 301, 27.11.2018, p. 1).

	Tyres comply with the noise requirements laid down in Regulation (EC) No 661/2009. Vehicles comply with Regulation (EU) No 540/2014.
(6) Protection and restoration of biodiversity and ecosystems	N/A

6.6. Freight transport services by road

Description of the activity

Operation of vehicles designated as category N2[586], N3[587] for freight transport services by road.

The activity is classified under NACE codes H49.4.1, H53.10, H53.20 and N77.12 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available

[586] As referred to in Article 4(1), point (b)(ii), of Regulation (EU) 2018/858.

[587] As referred to in Article 4(1), point (b)(iii), ofRegulation (EU) 2018/858.

guidance and take into account the open source models[588], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[589] or rely on blue or green infrastructure[590] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	The vehicles are not dedicated to the transport of fossil fuels. The vehicles are with specific direct CO_2 emissions equal to or lower than the reference CO_2 emissions of all vehicles in the same sub-group.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	Vehicles of category N1 are: (a) reusable or recyclable to a minimum of 85 % by weight, (b) reusable or recoverable to a minimum of 95 % by

588 Such as Copernicus services managed by the European Commission.

589 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

590 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

	weight[591]. Measures are in place to manage waste both in the use phase (maintenance) and the end-of-life of the fleet, including through reuse and recycling of batteries and electronics (in particular critical raw materials therein), in accordance with the waste hierarchy. Vehicles of all types purchased or operated do not contain lead, mercury, hexavalent chromium and cadmium, except for the exemptions listed in Annex II to Directive 2000/53/EC[592].
(5) Pollution prevention and control	Vehicles comply with the requirements of the most recent applicable stage of the Euro heavy duty emission type-approval[593] set out in accordance with Regulation (EC) No 595/2009. Tyres comply with rolling noise Class A and with energy performance class A or B asset out in Regulation (EU) 2020/740. Tyres comply with the noise requirements laid down in Regulation (EC) No 661/2009. Vehicles comply with Regulation (EU) No 540/2014.
(6) Protection and restoration of biodiversity and ecosystems	N/A

6.7. Inland passenger water transport

Description of the activity

Transport of passengers on inland waters, involving vessels that are not suitable for sea transport.

The activity is classified under NACE code H50.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

591 As specified in Annex I to Directive 2005/64/EC.

592 Though Directive 2000/53/EC currently only applies to vehicles designated as M1 and N1 vehicles, for the purposes of this criterion, the restrictions on content of lead, mercury, hexavalent chromium and cadmium (and the associated exemptions, where relevant) apply to all types of vehicles purchased or operated within the activity.

593 Commission Regulation (EU) No 582/2011 of 25 May 2011 implementing and amending Regulation (EC) No 595/2009 of the European Parliament and of the Council with respect to emissions from heavy duty vehicles (Euro VI) and amending Annexes I and III to Directive 2007/46/EC of the European Parliament and of the Council (OJ L 167, 25.6.2011, p. 1).

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[594], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[595] or rely on blue or green infrastructure[596] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

594 Such as Copernicus services managed by the European Commission.

595 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

596 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

Do no significant harm (‘DNSH’)	
(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[597].
(4) Transition to a circular economy	Measures are in place to manage waste, both in the use phase and the end-of-life of the vessel, in accordance with the waste hierarchy, including the control and management of hazardous materials on board of shops and ensuring their safe recycling.
(5) Pollution prevention and control	Engines in vessels comply with the emission limits set out in Annex II to Regulation (EU) 2016/1628 (including vessels meeting those limits without type-approved solutions such as through after-treatment).
(6) Protection and restoration of biodiversity and ecosystems	N/A

6.8. Inland freight water transport

Description of the activity

Transport of freight on inland waters, involving vessels that are not suitable for sea transport.

The activity is classified under NACE code H50.4.0 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

[597] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[598], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[599] or rely on blue or green infrastructure[600] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

598 Such as Copernicus services managed by the European Commission.

599 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

600 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

(1) Climate change mitigation	The vessels are not dedicated to the transport of fossil fuels.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[601].
(4) Transition to a circular economy	Measures are in place to manage waste, both in the use phase and the end-of-life of the vessel, in accordance with the waste hierarchy, including the control and management of hazardous materials on board of ships and ensuring their sage recycling.
(5) Pollution prevention and control	Vessels comply with the emission limits of Annex II to Regulation (EU) 2016/1628 (including vessels meeting those limits without type-approved solutions such as through after-treatment).
(6) Protection and restoration of biodiversity and ecosystems	N/A

6.9. Retrofitting of inland water passenger and freight transport

Description of the activity

Retrofit and upgrade of vessels for transport of freight or passengers on inland waters, involving vessels that are not suitable for sea transport.

The activity is classified under NACE code H50.4, H50.30 and C33.15 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

[601] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[602], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[603] or rely on blue or green infrastructure[604] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

602 Such as Copernicus services managed by the European Commission.

603 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

604 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

(1) Climate change mitigation	The vessels are not dedicated to the transport of fossil fuels.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[605].
(4) Transition to a circular economy	Measures are in place to manage waste, both in the use phase and the end-of-life of the vessel, in accordance with the waste hierarchy, including the control and management of hazardous materials on board of ships and ensuring their safe recycling.
(5) Pollution prevention and control	Vessels comply with the emission limits of Annex II to Regulation (EU) 2016/1628 (including vessels meeting those limits without type-approved solutions such as through after-treatment).
(6) Protection and restoration of biodiversity and ecosystems	N/A

6.10. Sea and coastal freight water transport

Description of the activity

Transport of freight on vessels designed for operating on sea or coastal waters, and of vessels required for port operations, such as tugboats, mooring vessels, pilot vessels.

The activity is classified under NACE codes H50.2 and H52.22 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

[605] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[606], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[607] or rely on blue or green infrastructure[608] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

606 Such as Copernicus services managed by the European Commission.

607 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

608 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

(1) Climate change mitigation	The vessels are not dedicated to the transport of fossil fuels.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[609].
(4) Transition to a circular economy	Measures are in place to manage waste, both in the use phase and in the end-of-life of the vessel, in accordance with the waste hierarchy. For activities with ships above 500 gross tonnage, the activity complies with the requirements of Regulation (EU) No 1257/2013 relating to the control and management of hazardous materials on board of ships and the requirements applicable for their recycling. In particular, measures are in place to ensure ships are recycled in facilities included on the European List of ship recycling facilities as laid down in Commission Implementing Decision 2016/2323. The activity complies with Directive (EU) 2019/883 as regards the protection of the marine environment against the negative effects from discharges of waste from ships. The ship is operated in accordance with Annex V to the IMO MARPOL Convention.
(5) Pollution prevention and control	As regards the reduction of sulphur oxides emissions and particulate matters, vessels comply with Directive (EU) 2016/802 and with Regulation 14[610] of Annex VI to the IMO MARPOL Convention. Sulphur in fuel content does not exceed 0,5 % in mass (the global sulphur limit) and 0,1 % in mass in emission control area (ECA) designated in the North and Baltic Seas by the IMO[611].

609 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

610 http://www.imo.org/en/OurWork/Environment/PollutionPrevention/AirPollution/Pages/Sulphur-oxides-(SOx)-%E2%80%93-Regulation-14.aspx.

611 As regards the extension of the requirements applying in Emission Control Area to other EU seas, countries bordering the Mediterranean Sea are discussing the creation of relevant ECA under the legal framework of the Barcelona Convention.

	As regards nitrogen oxides (NOx) emisssions, vessels comply with Regulation 13[612] of Annex VI to the IMO MARPOL Convention. Tier II NOx requirement applies to ships constructed after 2011. Only while operating in NOx emission control areas established under IMO rules, ships constructed after 1 January 2016 comply with stricter engine requirements (Tier III) reducing NOx emissions[613]. Discharges of black and grey water comply with Annex IV to the IMO MARPOL Convention. Measures are in place to minimise toxicity of anti-fouling paint and biocides as laid down in Regulation (EU) No 528/2012, which implements in Union law the International Convention on the Control of Harmful Anti-fouling Systems on Ships adopted on 5 October 2001. Where exhaust gas cleaning systems (EGCS) are used, they are closed-loop systems.
(6) Protection and restoration of biodiversity and ecosystems	The activity does not lead to releases of ballast water containing aquatic organisms as referred to in the International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM). Noise and vibrations comply with the IMO Guidelines for the Reduction of Underwater Noise and with the provisions set out under Directive 2008/56/EC in relation to its Descriptors 1 (biodiversity), 2 (non-indigenous species), 6 (seabed integrity), 8 (contaminants), 10 (marine litter), 11 (Noise/Energy) and Commission Decision (EU) 2017/848 in relation to the relevant criteria and methodological standards for those descriptors, as applicable.

6.11. Sea and coastal passenger water transport

Description of the activity

Transport of passengers over seas and coastal waters, whether scheduled or not as well as renting of pleasure boats with crew for sea and coastal water transport. This activity excludes restaurant and bar activities on board ships, when provided by separate units, renting of pleasure boats and yachts without crew, renting of commercial ships or boats without crew and operation of “floating casinos”.

612 http://www.imo.org/en/OurWork/Environment/PollutionPrevention/AirPollution/Pages/Nitrogen-oxides-(NOx)-–-Regulation-13.aspx.

613 In Union seas, the requirement is applicable as of 2021 in the Baltic and North Seas.

The activity is classified under NACE code H50.10 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[614], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[615] or rely on blue or green infrastructure[616] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;

614 Such as Copernicus services managed by the European Commission.

615 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

616 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')	
(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[617].
(4) Transition to a circular economy	Measures are in place to manage waste, both in the use phase and in the end-of-life of the vessel, in accordance with the waste hierarchy. For ships above 500 gross tonnage, the activity complies with the requirement of Regulation (EU) No 1257/2013 relating to the control and management of hazardous materials on board of ships and the requirements applicable for their recycling. In particular, measures are in place to ensure ships are recycled in facilities included on the European List of ship recycling facilities as laid down in Commission Implementing Decision 2016/2323. The activity complies with Directive (EU) 2019/883 as regards the protection of the marine environment against the negative effects from discharges of waste from ships The ship is operated in accordance with Annex V to the IMO MARPOL Convention.
(5) Pollution prevention and	As regards the reduction of sulphur oxides emissions and particulate matters, vessels comply with Directive (EU) 2016/802 and with

[617] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

control	Regulation 14 of Annex VI to the IMO MARPOL Convention. Sulphur in fuel content does not exceed 0,5 % in mass (the global sulphur limit) and 0,1 % in mass in emission control area (ECA) designated in the North and Baltic Seas by the IMO[618]. As regards nitrogen oxides (NOx) emissions, vessels comply with Regulation 13 of Annex VI to the IMO MARPOL Convention. Tier II NOx requirement applies to ships constructed after 2011. Only while operating in NOx emission control areas established under IMO rules, ships constructed after 1 January 2016 comply with stricter engine requirements (Tier III) reducing NOx emissions[619]. Discharges of black and grey water comply with Annex IV to the IMO MARPOL Convention. Measures are in place to minimise toxicity of anti-fouling paint and biocides as laid down in Regulation (EU) No 528/2012, which implements in Union law the International Convention on the Control of Harmful Anti-fouling Systems on Ships adopted on 5 October 2001. Where exhaust gas cleaning systems (EGCS) are used, they are closed-loop systems.
(6) Protection and restoration of biodiversity and ecosystems	The activity does not lead to releases of ballast water containing aquatic organisms as referred to in the International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM). Noise and vibrations comply with the IMO Guidelines for the Reduction of Underwater Noise and with the provisions specified under Directive 2008/56/EC in relation to its Descriptors 1 (biodiversity), 2 (non-indigenous species), 6 (seabed integrity), 8 (contaminants), 10 (marine litter), 11 (Noise/Energy) and Commission Decision (EU)2017/848 in relation to the relevant criteria and methodological standards for those descriptors, as applicable.

6.12. Retrofitting of sea and coastal freight and passenger water transport

Description of the activity

Retrofit and upgrade of vessels for the transport of freight or passengers on vessels designed for operating on sea or coastal waters, and of vessels required for port operations, such as tugboats, mooring vessels, pilot vessels.

618 As regards the extension of the requirements applying in Emission Control Area to other EU seas, countries bordering the Mediterranean Sea are discussing the creation of relevant ECA under the legal framework of the Barcelona Convention.

619 In Union seas, the requirement is applicable as of 2021 in the Baltic and North Seas.

The activity is classified under NACE codes H50.10, H50.2, H52.22, and C33.15 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change mitigation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[620], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;

(b) favour nature-based solutions[621] or rely on blue or green infrastructure[622] to the extent possible;

(c) are consistent with local, sectoral, regional or national adaptation efforts;

620 Such as Copernicus services managed by the European Commission..

621 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

622 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;

(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(2) Climate change adaptation	The vessels are not dedicated to the transport of fossil fuels.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[623].
(4) Transition to a circular economy	Measures are in place to manage waste, both in the use phase and in the end-of-life of the vessel, in accordance with the waste hierarchy. For ships above 500 gross tonnage, the activity complies with the requirements of Regulation (EU) No 1257/2013 relating to the control and management of hazardous materials on board of ships and the requirements applicable for their recycling. In particular, measures are in place to ensure ships are recycled in facilities included on the European List of ship recycling facilities as laid down in Commission Implementing Decision 2016/2323. The activity complies with Directive (EU) 2019/883 as regards the protection of the marine environment against the negative effects from discharges of waste from ships. The ship is operated in accordance with Annex V to the IMO MARPOL Convention.
(5) Pollution	As regards the reduction of sulphur oxides emissions and particulate

[623] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

prevention and control	matters, vessels comply with Directive (EU) 2016/802 and with Regulation 14 of Annex VI to the IMO MARPOL Convention. Sulphur in fuel content does not exceed 0,5 % in mass (the global sulphur limit) and 0,1 % in mass in emission control area (ECA) designated in the North and Baltic Seas by the IMO[624]. As regards nitrogen oxides (NOx) emissions, vessels comply with Regulation 13 of Annex VI to the IMO MARPOL Convention. Tier II NOx requirement applies to ships constructed after 2011. Only while operating in NOx emission control areas established under IMO rules, ships constructed after 1 January 2016 comply with stricter engine requirements (Tier III) reducing NOx emissions[625]. Discharges of black and grey water comply with Annex IV to the IMO MARPOL Convention. Measures are in place to minimise toxicity of anti-fouling paint and biocides as laid down in Regulation (EU) No 528/2012, which implements in Union law the International Convention on the Control of Harmful Anti-fouling Systems on Ships adopted on 5 October 2001.. Where exhaust gas cleaning systems (EGCS) are used, they are closed-loop systems.
(6) Protection and restoration of biodiversity and ecosystems	The activity does not lead to releases of ballast water containing aquatic organisms as referred to in the International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM). Noise and vibrations comply with the IMO Guidelines for the Reduction of Underwater Noise[626] and with the provisions set out under Directive 2008/56/EC in relation to its Descriptors 1 (biodiversity), 2 (non-indigenous species), 6 (seabed integrity), 8 (contaminants), 10 (marine litter), 11 (Noise/Energy) and Commission Decision (EU) 2017/848 in relation to the relevant criteria and methodological standards for those descriptors, as applicable.

624 As regards the extension of the requirements applying in Emission Control Area to other EU seas, countries bordering the Mediterranean Sea are discussing the creation of relevant ECA under the legal framework of the Barcelona Convention.

625 In Union seas, the requirement is applicable as of 2021 in the Baltic and North Seas.

626 IMO Guidelines for the Reduction of Underwater Noise from Commercial Shipping to Address Adverse Impacts on Marine Life, (MEPC.1/Circ.833).

6.13. Infrastructure for personal mobility

Description of the activity

Construction and operation of infrastructure for personal mobility, including the construction of roads, motorways bridges and tunnels and other infrastructure that are dedicated to pedestrians and bicycles, with or without electric assist.

The infrastructure that is constructed and operated is dedicated to personal mobility: pavements, bike lanes and pedestrian zones, electrical charging and hydrogen refuelling installations for personal mobility devices.

The activity is classified under NACE codes F42.1.1; F42.1.2; F42.1.3; F43.2.1; F71.1 and F71.20 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[627], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

[627] Such as Copernicus services managed by the European Commission.

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[628] or rely on blue or green infrastructure[629] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[630].
(4) Transition to a circular economy	At least 70 % (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Commission Decision 2000/532/EC) generated on the construction site is prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol[631]. Operators limit waste generation in processes related construction and demolition, in

628 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

629 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

630 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

631 EU Construction and Demolition Waste Protocol. Available at https://ec.europa.eu/growth/content/eu-construction-and-demolition-waste-protocol-0_en.

	accordance with the EU Construction and Demolition Waste Management Protocol and taking into account best available techniques and using selective demolition to enable removal and safe handling of hazardous substances and facilitate re-use and high-quality recycling by selective removal of materials, using available sorting systems for construction and demolition waste.
(5) Pollution prevention and control	Measures are taken to reduce noise, dust and pollutant emissions during construction or maintenance works.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[632] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[633]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[634], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[635] are implemented.

6.14. Infrastructure for rail transport

Description of the activity

Construction, operation and maintenance of railways and subways as well as bridges and tunnels, and traffic management systems, including the provision of architectural services, engineering services, drafting services, building inspection services and surveying and mapping services and the like as well as the performance of physical, chemical and other

632 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

633 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

634 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

635 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

analytical testing of all types of materials and products, where the infrastructure is not dedicated to the transport of fossil fuels and the activity complies with one of the following criteria:

(a) the infrastructure (as defined in Annex II.2 to Directive (EU) 2016/797) is either :

(i) electrified trackside infrastructure and associated subsystems: infrastructure, energy, on-board control-command and signalling, and trackside control-command and signalling subsystems as defined in Annex II.2 to Directive (EU)2016/797;

(ii) trackside infrastructure and associated subsystems where there is a plan for electrification or the infrastructure will be fit for use by zero tailpipe CO_2 emission trains within 10 years from the beginning of the activity: infrastructure, energy, on-board control-command and signalling, and trackside control-command and signalling subsystems as defined in Annex II.2 to Directive (EU)2016/797;

(b) the infrastructure and installations are dedicated to transhipping freight between the modes: terminal infrastructure and superstructures for loading, unloading and transhipment of goods;

(c) infrastructure and installations are dedicated to the transfer of passengers from other modes to rail.

The activity is classified under NACE codes F42.1.1; F42.1.2; F42.1.3; F43.2.1; F71.1, F71.20, and F43.21 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions (‘adaptation solutions’) that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[636], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[637] or rely on blue or green infrastructure[638] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[639].
(4) Transition to a circular economy	At least 70 % (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in in category 17 05 04 in the European List of Waste established by

636 Such as Copernicus services managed by the European Commission.

637 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

638 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

639 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

	Commission Decision 2000/532/EC) generated on the construction site is prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol[640]. Operators limit waste generation in processes related construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol and taking into account best available techniques and using selective demolition to enable removal and safe handling of hazardous substances and facilitate re-use and high-quality recycling by selective removal of materials, using available sorting systems for construction and demolition waste.
(5) Pollution prevention and control	Where appropriate, given the sensitivity of the area affected, in particular in terms of the size of population affected, noise and vibrations from use of infrastructure are mitigated by introducing open trenches, wall barriers or other measures and comply with Directive 2002/49/EC. Measures are taken to reduce noise, dust and pollutant emissions during construction or maintenance works.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[641] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[642]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[643], where applicable, has

640 EU Construction and Demolition Waste Protocol. Available at https://ec.europa.eu/growth/content/eu-construction-and-demolition-waste-protocol-0_en.

641 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

642 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

643 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC

	been conducted and based on its conclusions the necessary mitigation measures[644] are implemented.

6.15. Infrastructure enabling low-carbon road transport

Description of the activity

Construction and operation of motorways, streets, roads, other vehicular and pedestrian ways, surface work on streets, roads, highways, bridges or tunnels and construction of airfield runways, including the provision of architectural services, engineering services, drafting services, building inspection services and surveying and mapping services and the like as well as the performance of physical, chemical and other analytical testing of all types of materials and products, and excludes the installation of street lighting and electrical signals, where the infrastructure is not dedicated to the transport of fossil fuels and where it is one of the following:

(a) the infrastructure is dedicated to the operation of vehicles with zero tailpipe CO2 emissions: electric charging points, electricity grid connection upgrades, hydrogen fuelling stations or electric road systems (ERS);

(b) the infrastructure and installations are dedicated to transhipping freight between the modes: terminal infrastructure and superstructures for loading, unloading and transhipment of goods;

(c) the infrastructure and installations are dedicated to public passenger transport.

The activity is classified under NACE codes F43.2.1; F71.1 and F71.20 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions (‘adaptation solutions’) that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

644 Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.
Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[645], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[646] or rely on blue or green infrastructure[647] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a

645 Such as Copernicus services managed by the European Commission..
646 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.
647 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

water and marine resources	water use and protection management plan, developed in consultation with relevant stakeholders[648].
(4) Transition to a circular economy	At least 70 % (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material defined in category 17 05 04 in the European List of Waste established by Commission Decision 2000/532/EC) generated on the construction site is prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol[649]. Operators limit waste generation in processes related construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol and taking into account best available techniques and using selective demolition to enable removal and safe handling of hazardous substances and facilitate re-use and high-quality recycling by selective removal of materials, using available sorting systems for construction and demolition waste.
(5) Pollution prevention and control	Where relevant, noise and vibrations from use of infrastructure are mitigated by introducing open trenches, wall barriers or other measures and comply with the Directive 2002/49/EC. Measures are taken to reduce noise, dust and pollutant emissions during construction or maintenance works.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[650] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[651].

[648] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

[649] EU Construction and Demolition Waste Protocol. Available at https://ec.europa.eu/growth/content/eu-construction-and-demolition-waste-protocol-0_en.

[650] The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

[651] For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

	Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[652], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[653] are implemented. Where relevant, maintenance of vegetation along road transport infrastructure ensures invasive species do not spread. Mitigation measures have been implemented to avoid wildlife collisions.

6.16. Infrastructure for water transport

Description of the activity

Construction and operation of waterways, harbour and rivers works, pleasure ports, locks, dams and dykes and other as well as the dredging of waterways, including the provision of architectural services, engineering services, drafting services, building inspection services and surveying and mapping services and the like as well as the performance of physical, chemical and other analytical testing of all types of materials and products and excludes project management activities related to civil engineering works, where the infrastructure is not dedicated to the transport of fossil fuels and where it is one of the following:

(a) the infrastructure is dedicated to the operation of vessels with zero direct tailpipe CO_2 emissions: electricity charging, hydrogen-based refuelling;

(b) the infrastructure is dedicated to the provision of shore-side electrical power to vessels at berth;

(c) the infrastructure is dedicated to the performance of the port's own operations with zero direct (tailpipe) CO_2 emissions;

(d) the infrastructure and installations are dedicated to transhipping freight between the modes: terminal infrastructure and superstructures for loading, unloading and transhipment of goods.

The activity is classified under NACE code F42.9.1; F71.1 or F71.20 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

652 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

653 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[654], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[655] or rely on blue or green infrastructure[656] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

654 Such as Copernicus services managed by the European Commission.

655 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

656 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

Do no significant harm (‘DNSH’)	
(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[657].
(4) Transition to a circular economy	At least 70 % (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material defined in category 17 05 04 in the European List of Waste established by Commission Decision 2000/532/EC) generated on the construction site is prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol[658]. Operators limit waste generation in processes related construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol and taking into account best available techniques and using selective demolition to enable removal and safe handling of hazardous substances and facilitate re-use and high-quality recycling by selective removal of materials, using available sorting systems for construction and demolition waste.
(5) Pollution prevention and control	Measures are taken to reduce noise, vibration, dust and pollutant emissions during construction maintenance works.
(6) Protection and restoration of	An Environmental Impact Assessment (EIA) or screening[659] has been completed, for activities within the Union, in accordance with Directive

657 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

658 EU Construction and Demolition Waste Protocol. Available at https://ec.europa.eu/growth/content/eu-construction-and-demolition-waste-protocol-0_

659 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

biodiversity and ecosystems	2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[660]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[661], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[662] are implemented.

6.17. Low-carbon airport infrastructure

Description of the activity

Construction and operation of infrastructure that is required for zero tailpipe CO_2 operation of aircraft or the airport's own operations, as well as for provision of electrical power and preconditioned air to stationary aircraft, where the infrastructure is not dedicated to the transport of fossil fuels and where it is one of the following:

(a) the infrastructure is dedicated to the operation of aircraft with zero tailpipe CO_2 emissions: electricity charging and hydrogen refuelling;

(b) the infrastructure is dedicated to the provision of fixed electrical ground power and preconditioned air to stationary aircrafts;

(c) the infrastructure is dedicated to the zero direct emissions performance of the airport's own operations: electric charging points, electricity grid connection upgrades, hydrogen refuelling stations.

The activity is classified under NACE code F41.20 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

660 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

661 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

662 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[663], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[664] or rely on blue or green infrastructure[665] to the extent possible,
(c) are consistent with local, sectoral, regional or national adaptation efforts,
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

663 Such as Copernicus services managed by the European Commission.

664 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

665 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[666].
(4) Transition to a circular economy	At least 70 % (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material defined in category 17 05 04 in the European List of Waste established by Commission Decision 2000/532/EC) generated on the construction site is prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol[667]. Operators limit waste generation in processes related construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol and taking into account best available techniques and using selective demolition to enable removal and safe handling of hazardous substances and facilitate re-use and high-quality recycling by selective removal of materials, using available sorting systems for construction and demolition waste.
(5) Pollution prevention and control	Measures are taken to reduce noise, vibration, dust and pollutant emissions during construction maintenance works.
(6) Protection and restoration of biodiversity and	An Environmental Impact Assessment (EIA) or screening[668] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been

666 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

667 EU Construction and Demolition Waste Protocol. Available at https://ec.europa.eu/growth/content/eu-construction-and-demolition-waste-protocol-0_en.

668 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

ecosystems	completed in accordance with equivalent national provisions or international standards[669]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[670], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[671] are implemented.

669 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks

670 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

671 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

7. CONSTRUCTION AND REAL ESTATE

7.1. Construction of new buildings

Description of the activity

Development of building projects for residential and non-residential buildings by bringing together financial, technical and physical means to realise the building projects for later sale as well as the construction of complete residential or non-residential buildings, on own account for sale or on a fee or contract basis.

The activity is classified under NACE codes F41.1 and F41.2, including also activities under F43, in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[672], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical

[672] Such as Copernicus services managed by the European Commission.

climate risks of other people, of nature, of assets and of other economic activities; (b) favour nature-based solutions[673] or rely on blue or green infrastructure[674] to the extent possible; (c) are consistent with local, sectoral, regional or national adaptation efforts, (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met; (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm (‘DNSH’)	
(1) Climate change mitigation	The building is not dedicated to extraction, storage, transport or manufacture of fossil fuels. The Primary Energy Demand (PED)[675] setting out the energy performance of the building resulting from the construction does not exceed the threshold set for the nearly zero-energy building (NZEB) requirements in national regulation implementing Directive 2010/31/EU. The energy performance is certified using an as built Energy Performance Certificate (EPC).
(3) Sustainable use and protection of water and marine resources	Where installed, the specified water use for the following water appliances are attested by product datasheets, a building certification or an existing product label in the Union, in accordance with the technical specifications laid down in Appendix D to Annex I to this Regulation: (a) wash hand basin taps, kitchen taps and showers have a maximum water flow of 6 litres/min; (b) WCs, including suites, bowls and flushing cisterns, have a full flush volume of a maximum of 6 litres and a maximum average flush volume of 3,5 litres; (c) urinals use a maximum of 2 litres/bowl/hour. Flushing urinals have a maximum full flush volume of 1 litre.

673 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

674 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe’s Natural Capital (COM/2013/0249 final).

675 The calculated amount of energy needed to meet the energy demand associated with the typical uses of a building expressed by a numeric indicator of total primary energy use in kWh/m2 per year and based on the relevant national calculation methodology and as displayed on the Energy Performance Certificate (EPC).

	To avoid impact from the construction site, environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[676].
(4) Transition to a circular economy	At least 70 % (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site is prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol[677]. Operators limit waste generation in processes related to construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol and taking into account best available techniques and using selective demolition to enable removal and safe handling of hazardous substances and facilitate re-use and high-quality recycling by selective removal of materials, using available sorting systems for construction and demolition waste. Building designs and construction techniques support circularity and in particular demonstrate, with reference to ISO 20887[678] or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantleable to enable reuse and recycling.
(5) Pollution prevention and control	Building components and materials used in the construction do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. Building components and materials used in the construction that may come into contact with occupiers[679] emit less than 0,06 mg of

676 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

677 EU Construction and Demolition Waste Protocol. Available at https://ec.europa.eu/growth/content/eu-construction-and-demolition-waste-protocol-0_en.

678 ISO 20887:2020, Sustainability in buildings and civil engineering works - Design for disassembly and adaptability - Principles, requirements and guidance.

679 Applying to paints and varnishes, ceiling tiles, floor coverings, including associated adhesives and sealants, internal insulation and interior surface treatments, such as those to treat damp and mold.

	formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516[680] and ISO 16000-3[681] or other comparable standardised test conditions and determination methods[682].. Where the new construction is located on a potentially contaminated site (brownfield site), the site has been subject to an investigation for potential contaminants, for example using standard ISO 18400[683]. Measures are taken to reduce noise, dust and pollutant emissions during construction or maintenance works.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[684] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[685]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[686], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[687] are implemented.

680 CEN/TS 16516: 2013, Construction products - Assessment of release of dangerous substances - Determination of emissions into indoor air.

681 ISO 16000-3:2011, Indoor air — Part 3: Determination of formaldehyde and other carbonyl compounds in indoor air and test chamber air — Active sampling method.

682 The emissions thresholds for carcinogenic volatile organic compounds relate to a 28-day test period.

683 ISO 18400 series on Soil quality — Sampling

684 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

685 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks

686 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

687 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

	The new construction is not built on one of the following: (a) arable land and crop land with a moderate to high level of soil fertility and below ground biodiversity as referred to in the EU LUCAS survey[688]; (b) greenfield land of recognised high biodiversity value and land that serves as habitat of endangered species (flora and fauna) listed on the European Red List[689] or the IUCN Red List[690]; (c) forest land (whether or not covered by trees), other wooded land or land that is partially or wholly covered or intended to be covered by trees, even where those trees have not yet reached the size and cover to be classified as forest or other wooded land, as defined in accordance with the [FAO definition of forest[691]].

7.2. Renovation of existing buildings

Description of the activity

Construction and civil engineering works or preparation thereof.

The activity is classified under NACE codes F41 and F43 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less

688 JRC ESDCA, LUCAS: Land Use and Coverage Area frame Survey, https://esdac.jrc.ec.europa.eu/projects/lucas

689 IUCN, *The IUCN European Red List of Threatened Species.* https://www.iucn.org/regions/europe/our-work/biodiversity-conservation/european-red-list-threatened-species

690 IUCN, *The IUCN Red List of Threatened Species.* https://www.iucnredlist.org

691 Land spanning more than 0,5 hectares with trees higher than five meters and a canopy cover of more than 10%, or trees able to reach these thresholds *in situ*. It does not include land that is predominantly under agricultural or urban land use.

than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[692], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[693] or rely on blue or green infrastructure[694] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	The building is not dedicated to extraction, storage, transport or manufacture of fossil fuels.
(3) Sustainable use and protection of water and marine resources	Where installed as part of the renovation works, the specified water use for the following water appliances is attested by product datasheets, a building certification or an existing product label in the Union, in accordance with the technical specifications laid down in Appendix D to Annex I to this Regulation:

692 Such as Copernicus services managed by the European Commission.

693 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

694 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

	(a) wash hand basin taps, kitchen taps and showers have a maximum water flow of 6 litres/min; (b) WCs, including suites, bowls and flushing cisterns, have a full flush volume of a maximum of 6 litres and a maximum average flush volume of 3,5 litres; (c) urinals use a maximum of 2 litres/bowl/hour. Flushing urinals have a maximum full flush volume of 1 litre.
(4) Transition to a circular economy	At least 70 % (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site is prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol[695]. Operators limit waste generation in processes related construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol and taking into account best available techniques and using selective demolition to enable removal and safe handling of hazardous substances and facilitate re-use and high-quality recycling by selective removal of materials, using available sorting systems for construction and demolition waste. Building designs and construction techniques support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantleable to enable reuse and recycling.
(5) Pollution prevention and control	Building components and materials used in the building renovation do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. Building components and materials used in the building renovation that may come into contact with occupiers[696] emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS

695 EU Construction and Demolition Waste Protocol. Available at https://ec.europa.eu/growth/content/eu-construction-and-demolition-waste-protocol-0_en.

696 Applying to paints and varnishes, ceiling tiles, floor coverings (including associated adhesives and sealants), internal insulation and interior surface treatments (such as to treat damp and mold).

	16516 and ISO 16000-3 or other comparable standardised test conditions and determination methods . Measures are taken to reduce noise, dust and pollutant emissions during construction or maintenance works.
(6) Protection and restoration of biodiversity and ecosystems	N/A.

7.3. Installation, maintenance and repair of energy efficiency equipment

Description of the activity

Individual renovation measures consisting in installation, maintenance or repair of energy efficiency equipment. The activity consists in one of the following individual measures, provided that they comply with minimum requirements set for individual components and systems in the applicable national measures implementing Directive 2010/31/EU and, where applicable, achieve energy ratings of at least class A in accordance with Regulation (EU) 2017/1369:

(a) addition of insulation to existing envelope components, such as external walls (including green walls), roofs (including green roofs), lofts, basements and ground floors (including measures to ensure air-tightness, measures to reduce the effects of thermal bridges and scaffolding) and products for the application of the insulation to the building envelope (including mechanical fixings and adhesive);

(b) replacement of existing windows with new energy efficient windows;

(c) replacement of existing external doors with new energy efficient doors;

(d) installation and replacement of heating, ventilation and air-conditioning (HVAC) and water heating systems, including equipment related to district heating services, with highly efficient technologies;

(e) installation of low water and energy using kitchen and sanitary water fittings which comply with technical specifications set out in Appendix D to Annex I to this Regulation and in case of shower solutions, mixer showers, shower outlets and taps have a max water flow of 6 L/min or less attested by an existing label in the Union market.

The activity is classified under NACE code F42, F43, M71, C16, C17, C22, C23, C25, C27 or C28, in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[697], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[698] or rely on blue or green infrastructure[699] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

697 Such as Copernicus services managed by the European Commission.

698 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

699 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

Do no significant harm (‘DNSH’)	
(2) Climate change mitigation	The building is not dedicated to extraction, storage, transport or manufacture of fossil fuels.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Building components and materials used in carrying out the activity do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to (EC) No 1907/2006 In case of addition of thermal insulation to an existing building envelope, a building survey is carried out in accordance with national law by a competent specialist with training in asbestos surveying. Any stripping of lagging that contains or is likely to contain asbestos, breaking or mechanical drilling or screwing or removal of insulation board, tiles and other asbestos containing materials is carried out by appropriately trained personnel, with health monitoring before, during and after the works, in accordance with national law.
(6) Protection and restoration of biodiversity and ecosystems	N/A

7.4. Installation, maintenance and repair of charging stations for electric vehicles in buildings (and parking spaces attached to buildings)

Description of the activity

Installation, maintenance and repair of charging stations for electric vehicles in buildings (and parking spaces attached to buildings.

The activity is classified under NACE code F42, F43, M71, C16, C17, C22, C23, C25, C27 or C28, in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria
Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[700], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;

(b) favour nature-based solutions[701] or rely on blue or green infrastructure[702] to the extent possible;

(c) are consistent with local, sectoral, regional or national adaptation efforts;

(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;

(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

700 Such as Copernicus services managed by the European Commission.

701 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

702 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

Do no significant harm (‘DNSH’)	
(2) Climate change mitigation	The building is not dedicated to extraction, storage, transport or manufacture of fossil fuels.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	N/A

7.5. Installation, maintenance and repair of instruments and devices for measuring, regulation and controlling energy performance of buildings

Description of the activity

Installation, maintenance and repair of instruments and devices for measuring, regulation and controlling energy performance of buildings, consisting in one of the following measures:

(a) installation of zoned thermostats, smart thermostat systems and sensing equipment, including motion and day light control;

(b) installation of building automation and control systems, building energy management systems (BMS), lighting control systems and energy management systems (EMS);

(c) installation of smart meters for gas, heat, cool and electricity;

(d) installation of façade and roofing elements with a solar shading or solar control function, including those that support the growing of vegetation.

The activity is classified under NACE code F42, F43, M71, and C16, C17, C22, C23, C25, C27, C28, in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[703], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[704] or rely on blue or green infrastructure[705] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

703 Such as Copernicus services managed by the European Commission.

704 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

705 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

Do no significant harm (‘DNSH’)	
(2) Climate change mitigation	The building is not dedicated to extraction, storage, transport or manufacture of fossil fuels.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Building components and materials used in the activity do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006.
(6) Protection and restoration of biodiversity and ecosystems	N/A

7.6. Installation, maintenance and repair of renewable energy technologies

Description of the activity

Installation, maintenance and repair of renewable energy technologies, on-site, consisting in one of the following individual measures, if installed on-site as technical building systems:

(a) installation, maintenance and repair of solar photovoltaic systems and the ancillary technical equipment;

(b) installation, maintenance and repair of solar hot water panels and the ancillary technical equipment;

(c) installation, maintenance, repair and upgrade of heat pumps contributing to the targets for renewable energy in heat and cool in accordance with Directive (EU) 2018/2001 and the ancillary technical equipment;

(d) installation, maintenance and repair of wind turbines and the ancillary technical equipment;

(e) installation, maintenance and repair of solar transpired collectors and the ancillary technical equipment;

(f) installation, maintenance and repair of thermal or electric energy storage units and the ancillary technical equipment;

(g) installation, maintenance and repair of high efficiency micro CHP (combined heat and power) plant; installation, maintenance and repair of heat exchanger/recovery systems.

The activity is classified under NACE code F42, F43, M71, and C16, C17, C22, C23, C25, C27, C28, in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[706], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical

[706] Such as Copernicus services managed by the European Commission.

climate risks of other people, of nature, of assets and of other economic activities;

(b) favour nature-based solutions[707] or rely on blue or green infrastructure[708] to the extent possible;

(c) are consistent with local, sectoral, regional or national adaptation efforts;

(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;

(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(2) Climate change mitigation	The building is not dedicated to extraction, storage, transport or manufacture of fossil fuels.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	N/A

[707] In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

[708] See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

7.7. Acquisition and ownership of buildings

Description of the activity

Buying real estate and exercising ownership of that real estate.

The activity is classified under NACE code L68 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[709], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;

(b) favour nature-based solutions[710] or rely on blue or green infrastructure[711] to the extent possible;

[709] Such as Copernicus services managed by the European Commission.

[710] In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	The building is not dedicated to extraction, storage, transport or manufacture of fossil fuels. For buildings built before 31 December 2020, the building has at least Energy Performance Certificate (EPC) class B. For buildings built after 31 December 2020, the Primary Energy Demand (PED)[712] defining the energy performance of the building resulting from the construction does not exceed the threshold set for the nearly zero-energy building (NZEB) requirements in national regulation implementing Directive 2010/31/EU. The energy performance is certified using an as built Energy Performance Certificate (EPC).
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A

711 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

712 The calculated amount of energy needed to meet the energy demand associated with the typical uses of a building expressed by a numeric indicator of total primary energy use in kWh/m2 per year and based on the relevant national calculation methodology and as displayed on the Energy Performance Certificate (EPC).

(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[713] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[714]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[715], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[716] are implemented. The building was not built on one of the following: (a) arable land and crop land with a moderate to high level of soil fertility and below ground biodiversity as referred to in the EU LUCAS survey[717]; (b) greenfield land of recognised high biodiversity value and land that serves as habitat of endangered species (flora and fauna) listed on the European Red List[718] or the IUCN Red List[719]; (c) forest land (whether or not covered by trees), other wooded land or land that is partially or wholly covered or intended to be covered by trees, even where those trees have not yet reached the size and cover to be classified as forest or other wooded land, as defined in accordance with the [FAO definition of forest].

713 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

714 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

715 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

716 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

717 JRC ESDCA, LUCAS: Land Use and Coverage Area frame Survey, https://esdac.jrc.ec.europa.eu/projects/lucas.

718 IUCN, *The IUCN European Red List of Threatened Species.* https://www.iucn.org/regions/europe/our-work/biodiversity-conservation/european-red-list-threatened-species

719 IUCN, *The IUCN Red List of Threatened Species.* https://www.iucnredlist.org.

8. INFORMATION AND COMMUNICATION

8.1. Data processing, hosting and related activities

Description of the activity

Storage, manipulation, management, movement, control, display, switching, interchange, transmission or reception of diversity of data through data centres[720], including edge computing.

The activity is classified under NACE code J63.1.1 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[721], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical

[720] Data centres include the following equipment: ICT equipment and services; cooling; data centre power equipment; data centre power distribution equipment; data centre building; monitoring systems.

[721] Such as Copernicus services managed by the European Commission.

climate risks of other people, of nature, of assets and of other economic activities;

(b) favour nature-based solutions[722] or rely on blue or green infrastructure[723] to the extent possible;

(c) are consistent with local, sectoral, regional or national adaptation efforts;

(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;

(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	The activity has demonstrated best efforts to implement the relevant practices listed as "expected practices" in the most recent version of the European Code of Conduct on Data Centre Energy Efficiency[724], or in CEN-CENELEC document CLC TR50600-99-1 "Data centre facilities and infrastructures - Part 99-1: Recommended practices for energy management"[725] and has implemented all expected practices that have been assigned the maximum value of 5 according to the most recent version of the European Code of Conduct on Data Centre Energy Efficiency.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[726].

722 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

723 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

724 https://e3p.jrc.ec.europa.eu/publications/2020-best-practice-guidelines-eu-code-conduct-data-centre-energy-efficiency

725 Issued on 1 July 2019 by the European Committee for Standardization (CEN) and the European Committee for Electrotechnical Standardization (CENELEC),https://www.cenelec.eu/dyn/www/f?p=104:110:508227404055501::::FSP_ORG_ID,FSP_PROJECT,FSP_LANG_ID:1258297,65095,25.

726 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

(4) Transition to a circular economy	The equipment used meets the requirements laid down in Directive 2009/125/EC for servers and data storage products. The equipment used does not contain the restricted substances listed in Annex II to Directive 2011/65/EU, except where the concentration values by weight in homogeneous materials do not exceed the maximum values listed in that Annex. A waste management plan is in place and ensures maximal recycling at end of life of electrical and electronic equipment, including through contractual agreements with recycling partners, reflection in financial projections or official project documentation. At its end of life, the equipment undergoes preparation for re-use, recovery or recycling operations, or proper treatment, including the removal of all fluids and a selective treatment in accordance with Annex VII to Directive 2012/19/EU.
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	N/A

8.2. Computer programming, consultancy and related activities

Description of the activity

Providing expertise in the field of information technologies: writing, modifying, testing and supporting software; planning and designing computer systems that integrate computer hardware, software and communication technologies; on-site management and operation of clients' computer systems or data processing facilities; and other professional and technical computer-related activities.

The activity is classified under NACE code J62 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[727], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[728] or rely on blue or green infrastructure[729] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

727 Such as Copernicus services managed by the European Commission.

728 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

729 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	N/A

8.3. Programming and broadcasting activities

Description of the activity

Programming and broadcasting activities include creating content or acquiring the right to distribute content and subsequently broadcasting that content, such as radio, television and data programs of entertainment, news, talk, and the like, including data broadcasting, typically integrated with radio or TV broadcasting. The broadcasting can be performed using different technologies, over-the-air, via satellite, via a cable network or via Internet. This also includes the production of programs that are typically narrowcast in nature (limited format, such as news, sports, education, and youth-oriented programming) on a subscription or fee basis, to a third party, for subsequent broadcasting to the public.

The activity is classified under NACE code J60 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[730], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[731] or rely on blue or green infrastructure[732] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

730 Such as Copernicus services managed by the European Commission.

731 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

732 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

Do no significant harm (‘DNSH’)	
(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	N/A

9. PROFESSIONAL, SCIENTIFIC AND TECHNICAL ACTIVITIES

9.1. Engineering activities and related technical consultancy dedicated to adaptation to climate change

Description of the activity

Engineering activities and related technical consultancy dedicated to adaptation to climate change. The activity is classified under the following NACE codes 71.12 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/20061.

The activity is an enabling activity as referred to in Article 11(1), point (b), of Regulation (EU) 2020/852 where it meets the technical screening criteria specified this section

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity is predominantly aimed at the provision of consultancy that helps one or more economic activities for which the technical screening criteria have been set out in this Annex to meet those respective criteria for substantial contribution to climate change adaptation, while respecting the relevant criteria for doing no significant harm to other environmental objectives.

The economic activity complies with one the following criteria:

(a) it uses state-of-the-art modelling techniques that:

(i) properly reflect climate change risks;

(ii) do not rely only on historical trends;

(iii) integrate forward-looking scenarios;

(b) it develops climate models and projections, services and assessment of impacts, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The economic activity removes information, financial, technological and capacity barriers to adaptation.

The potential to reduce material impacts due to climate risks is mapped through a robust climate risk assessment in the target economic activity.

Activities in architectural design take into account climate proofing guidelines, climate-related hazards modelling and enable the adaptation of construction and infrastructure, including building codes and integrated management systems.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;

(b) favour nature-based solutions[733] or rely on blue or green infrastructure[734] to the extent possible;

(c) are consistent with local, sectoral, regional or national adaptation efforts;

(d) are monitored and measured against pre-defined indicators and remedial action is

[733] In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

[734] See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

considered where those indicators are not met;

(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	The activity is not undertaken for the purposes of fossil fuel extraction or fossil fuel transport.
(3) Sustainable use and protection of water and marine resources	An assessment of the water footprint of the activity has been performed and environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[735].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	N/A

[735] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

9.2. Research, development and innovation related to nature based solutions for adaptation

Description of the activity

Research, applied research, experimental development in natural sciences and engineering of solutions, processes, technologies and other products dedicated to the nature based solutions for adaptation.

This activity is classified under NACE code M72.1 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is an enabling activity as referred to in Article 11(1), point (b), of Regulation (EU) 2020/852 where it meets the technical screening criteria set out in this section.

Technical screening criteria

Substantial contribution to climate change adaptation
The economic activity researches, innovates or develops nature-based solutions[736] and nature inspired technologies, products or process solutions dedicated to enable one or more activities for which the technical screening criteria have been specified in this Annex to meet the respective substantial contribution. The economic activity removes information, financial, technological and capacity barriers to adaptation through nature based solution. The economic activity has the potential to reduce material impacts due to climate risks identified through a robust climate risk assessment in another economic activity through the development, research or innovation of nature-based solutions and the nature-inspired technologies, products or process solutions, the risk reduction potential of which can be demonstrated in a relevant environment. The economic activity uses climate projections and assessment of impacts, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications. Activities in architectural design take into account climate proofing guidelines, climate-related hazards and enable the construction and adaptation of infrastructure, including building code and integrated management systems, through nature based solutions and nature-inspired technologies and innovation.

[736] In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

Do no significant harm (‘DNSH’)	
(1) Climate change mitigation	The activity is not undertaken for the purposes of fossil fuel extraction or fossil fuel transport.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[737].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	N/A

10. FINANCIAL AND INSURANCE ACTIVITIES

10.1. Non-life insurance: underwriting of climate-related perils

Description of the activity

Provision of the following insurance services (other than life insurance) related to the underwriting of climate related perils set out in Appendix A to this Annex :

(a) accident and fire insurance;

(b) health insurance;

(c) travel insurance;

(d) property insurance;

(e) motor, marine, aviation and transport insurance.

[737] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

The activity is classified under NACE code K65.12 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is an enabling activity as referred to in Article 11(1), point (b), of Regulation (EU) 2020/852 where it meets the technical screening criteria set out in this section.

Technical screening criteria

Substantial contribution to climate change adaptation

The activity complies with all of the following criteria:

1. Leadership in modelling and pricing of climate risks:

(a) the insurance activity uses state-of-the-art modelling techniques that:

(i) properly reflect climate change risks;

(ii) do not only rely on historical trend;

(iii)integrate forward-looking scenarios.

(b) the insurer publicly discloses how the climate change risks are considered in the insurance activity;

(c) the insurance activity provides incentives for risk reduction by acting as a price signal of risk, including reduced premiums or deductibles, possibly based on supportive information on existing/possible actions, to policyholders who protect an asset or activity against natural catastrophes damages. After a climate risk event, the insurer provides information on the conditions under which coverage under the insurance activity could be renewed or maintained and in particular the benefits of building better in that context.

2. Product design:

(a) insurance products sold under the insurance activity offer risk-based rewards for preventive actions taken by policyholders, including lower premiums where a policyholder has invested in adaptation measures;

(b) the distribution strategy for such products covers measures to ensure that policyholders are informed on the relevance of preventive measures that they could take, for the terms and conditions of the insurance coverage, including any impact of such measures on the insurance coverage or the premium level.

3. Innovative insurance coverage solutions:

(a) insurance products sold under the insurance activity offer coverage for the climate-related perils[738] where the demands and needs of policyholders require so;

(b) depending on the demands and needs of individual customers, products may include specific risk transfer solutions such as protection against business interruption, contingent business interruption, other non-physical damage-related loss factors, cascading effects and interdependencies of hazards (secondary perils), cascading impacts of interacting natural and technological hazards, critical infrastructure failures.

4. Data sharing:

(a) with due regard to Regulation (EU) 2016/679 of the European Parliament and of the Council[739], a significant share of loss data related to insurer's activity is made available, free of charge, to external parties, including public authorities or scientists. Those external parties declare to use the data for purposes of enhancing adaptation to climate change by the society in a region, country or internationally and the reinsurer provides the data at a level of granularity sufficient for the use declared by the respective external parties.

(b) where the insurer is not yet sharing such data with an external party for the aforementioned purpose, it has declared the intention to make its data available, free of charge, to interested third parties and has indicated under which conditions such data can be shared.

(c) that declaration of intention to share available data is easily accessible, including on the insurer's website, for relevant external parties.

5. High level of service in post-disaster situation:

Claims under insurance activity, both ongoing and those from large-scale loss events resulting from climate risks, are processed in accordance with high handling standards for claims and in timely fashion in line with applicable law and there has been no failure to do so in the context of recent large-scale loss events. Information as regards procedures on additional measures in case of large-scale loss events is publicly available.

Do no significant harm ('DNSH')

738 See Appendix A.

739 Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation), OJ L 119, 4.5.2016, p. 1.

(1) Climate change mitigation	The activity does not include insurance of the extraction, storage, transport or manufacture of fossil fuels or insurance of the use of vehicles, property or other assets for such purposes.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	N/A

10.2. Reinsurance

Description of the activity

Coverage of risks stemming from climate-related perils set out in Appendix A to this Annex ceded by the insurer to the reinsurer. The coverage is set out in an agreement between insurer and reinsurer specifying the insurers' products ("underlying product") from which the ceded risks originate. A reinsurance intermediary[740] may be involved in the preparation or conclusion of the contractual agreement between the insurer and the reinsurer.

The activity is classified under NACE code K65.20 in accordance with to the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is an enabling activity as referred to in Article 11(1) point (b) of Regulation (EU) 2020/852 where it meets the technical screening criteria set out this section

Technical screening criteria

Substantial contribution to climate change adaptation

740 As defined in point (5) of Art. 2 of Directive (EU) 2016/97 of the European Parliament and of the Council of 20 January 2016 on insurance distribution, OJ L 26, 2.2.2016, p. 19.

The activity complies with all of the following criteria:

1. Leadership in modelling and pricing of climate risks:

(a) the reinsurance activity uses state-of-the-art modelling techniques that:

(i) are used to properly reflect in the premium level the exposure, hazard and vulnerability to climate change risks as well as actions taken by the policyholder of the insurer to protect the insured asset or activity against those risks, where such information is provided by the insurer to the reinsurer;

(ii) do not only rely on historical trends;

(iii) integrate forward-looking scenarios;

(b) the reinsurer discloses publicly how the risks stemming from climate-related perils are considered in the reinsurance activity.

2. Supporting development and supply of enabling non-life reinsurance products:

(a) the reinsurance activity's underlying products cover risks stemming from climate-related perils and reward, in a risk-based manner, preventive actions taken by the insurer's policyholders, including lower premiums where a policyholder has invested in adaptation measures;

(b) the reinsurance activity complies with one or more of the following criteria:

(i) where desired by the insurer, the reinsurer engages with the insurer, either directly or via a reinsurance intermediary, during the development of the underlying product by:

- discussing possible reinsurance solutions that the reinsurer is willing to offer in relation to that product. The final product is brought to market using one of the reinsurance solutions that were discussed with the reinsurer during the product development phase;

- providing data or other technical advice enabling the insurer to price the coverage for risks stemming from climate-related perils as well as risk-based rewards for preventive actions taken by the insurer's policyholders;

(ii) the insurer would likely reduce or discontinue its coverage under the underlying product without the reinsurance agreement or a comparable reinsurance agreement in place;

(iii) the reinsurer provides, as part of the business relationship with the insurer or the reinsurance intermediary, data or other technical advice or both enabling the insurer to offer coverage of risks stemming from climate-related perils and the coverage allows for risk-based rewards for preventive

actions taken by the insurer's policyholders.

3. Innovative reinsurance coverage solutions:

(a) reinsurance products sold under the reinsurance activity offer coverage for risks stemming from climate-related perils where the demands and needs of the insurer's clients, based on the underlying products, require so. Such insurance products appropriately reflect risk-based rewards for preventive actions taken by the insurer's policyholders;

(b) depending on the demands and needs of the individual customers of the insurer, reinsurance products may include specific risk transfer solutions which may include protection against business interruption, contingent business interruption, other non-physical damage-related loss factors, cascading effects and interdependencies of hazards (secondary perils), cascading impacts of interacting natural and technological hazards or critical infrastructure failures.

4. Data sharing:

(a) with due regard to Regulation (EU) 2016/679, a significant share of loss data related to the reinsurer's activity is made available, free of charge, to external parties, including public authorities or scientists. The parties declare to use the data for purposes of enhancing adaptation to climate change by the society in a region, country or internationally and the reinsurer provides the data at a level of granularity sufficient for the use declared by the respective external parties;

(b) where the reinsurer is not yet sharing such data with an external party for the aforementioned purpose, it has declared the intention to make its data available, free of charge, to interested third parties and has indicated under which conditions such data can be shared;

(c) that declaration of intention to share available data is easily accessible, including on the reinsurer's website, for relevant external parties.

5. High level of service in post-disaster situation:

Claims under the reinsurance activity, both ongoing and those from large-scale loss events resulting from risks stemming from climate-related perils, are processed in accordance with high handling standards for claims and in timely fashion in line with applicable law and there has been no failure to do so in the context of recent large-scale loss events. Where appropriate, the reinsurer supports the insurer or the reinsurance intermediary in assessing the claims from the underlying product. Information as regards procedures on additional measures by the reinsurer in case of large-scale loss events is publicly available.

Do no significant harm (‘DNSH’)	
(1) Climate change mitigation	The reinsurance activity does not cover cession of insurance of the extraction, storage, transport or manufacture of fossil fuels or the cession of insurance of the use of vehicles, property or other assets for such purposes.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A

11. EDUCATION

Description of the activity

Public or private education at any level or for any profession. The instructions may be oral or written and may be provided by radio, television, internet or via correspondence. It includes education by the different institutions in the regular school system at its different levels as well as adult education and literacy programmes, including military schools, academies and prison schools at their respective levels.

The activity is classified under NACE code P85 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions (‘adaptation solutions’) that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less

than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[741], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[742] or rely on blue or green infrastructure[743] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a	N/A

741 Such as Copernicus services managed by the European Commission.

742 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

743 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

circular economy	
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	N/A

12. HUMAN HEALTH AND SOCIAL WORK ACTIVITIES

12.1. Residential care activities

Description of the activity

Provision of residential care combined with either nursing, supervisory or other types of care as required by the residents. Facilities are a significant part of the production process and the care provided is a mix of health and social services with the health services being largely some level of nursing services.

The activity is classified under NACE code Q87 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[744], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[745] or rely on blue or green infrastructure[746] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A

744 Such as Copernicus services managed by the European Commission.

745 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

746 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

(6) Protection and restoration of biodiversity and ecosystems	N/A

13. ARTS, ENTERTAINMENT AND RECREATION

13.1. Creative, arts and entertainment activities

Description of the activity

Creating, arts and entertainment activities include the provision of services to meet the cultural and entertainment interests of their customers. This includes the production and promotion of, and participation in, live performances, events or exhibits intended for public viewing and the provision of artistic, creative or technical skills for the production of artistic products and live performances. These activities exclude the operation of museums of all kinds, botanical and zoological gardens, the preservation of historical sites and nature reserves activities, gambling and betting activities as well as sports and amusement and recreation activities.

The activity is classified under NACE code R90 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions (‘adaptation solutions’) that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate

projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[747], the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[748] or rely on blue or green infrastructure[749] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A

747 Such as Copernicus services managed by the European Commission.

748 In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

749 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

(6) Protection and restoration of biodiversity and ecosystems	N/A

13.2. Libraries, archives, museums and cultural activities

Description of the activity

Libraries, archives, museums and cultural activities includes the activities of libraries and archives, the operation of museums of all kinds, botanical and zoological gardens, the operation of historical sites and nature reserves activities. These activities also include the preservation and exhibition of objects, sites and natural wonders of historical, cultural or educational interest, including world heritage sites. These activities exclude sports and amusement and recreation activities such as the operation of bathing beaches and recreation parks.

The activity is classified under NACE code R91 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[750], the best available science for

[750] Such as Copernicus services managed by the European Commission.

vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[751] or rely on blue or green infrastructure[752] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and	N/A

[751] In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

[752] See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

ecosystems	

13.3. Motion picture, video and television programme production, sound recording and music publishing activities

Description of the activity

Motion picture, video and television programme production, sound recording and music publishing activities include the production of theatrical and non-theatrical motion pictures whether on film, video tape or disc for direct projection in theatres or for broadcasting on television, supporting activities such as film editing, cutting or dubbing, distribution of motion pictures and other film productions to other industries as well as motion picture or other film productions projection. Buying and selling of motion picture or other film productions distribution rights is also included. These activities also include the sound recording activities, including the production of original sound master recordings, releasing, promoting and distributing them, publishing of music as well as sound recording service activities in a studio or elsewhere.

The activity is classified under NACE code J59 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models[753], the best available science for

[753] Such as Copernicus services managed by the European Commission.

vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
(b) favour nature-based solutions[754] or rely on blue or green infrastructure[755] to the extent possible;
(c) are consistent with local, sectoral, regional or national adaptation efforts;
(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and	N/A

[754] In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions.

[755] See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

ecosystems	

APPENDIX A: CLASSIFICATION OF CLIMATE-RELATED HAZARDS

	Temperature-related	**Wind-related**	**Water-related**	**Solid mass-related**
Chronic	Changing temperature (air, freshwater, marine water)	Changing wind patterns	Changing precipitation patterns and types (rain, hail, snow/ice)	Coastal erosion
	Heat stress		Precipitation or hydrological variability	Soil degradation
	Temperature variability		Ocean acidification	Soil erosion
	Permafrost thawing		Saline intrusion	Solifluction
			Sea level rise	
			Water stress	
Acute	Heat wave	Cyclone, hurricane, typhoon	Drought	Avalanche
	Cold wave/frost	Storm (including blizzards, dust and sandstorms)	Heavy precipitation (rain, hail, snow/ice)	Landslide
	Wildfire	Tornado	Flood (coastal, fluvial, pluvial, ground water)	Subsidence
			Glacial lake outburst	