



## Annex 1

### Proposal for the structure of the classification of environmental functions (CEF) - Correspondence with current version of CEPA CReMA classifications

LEVEL I - DIVISION	LEVEL II - GROUP	LEVEL III - CLASS	Correspondence with current version of CEPA CReMA classifications	
1	<b>Air, climate and energy</b>		CEPA1, CReMA13A, CReMA13B	
	1.1	<b>Reduction and control of air emissions (excluding energy related measures)</b>		CEPA 1
		1.1.1	<i>Prevention of pollution</i>	
		1.1.2	<i>Treatment</i>	
		1.1.3	<i>Monitoring, measurement and similar</i>	
		1.1.4	<i>Other activities</i>	
	1.2	<b>Energy from renewable sources</b>		CReMA13A
		1.2.1	<i>Production of energy from renewable sources</i>	
		1.2.2	<i>Equipment and technologies for renewable energy</i>	
		1.2.3	<i>Supporting services for renewable energy</i>	
		1.2.4	<i>Monitoring, measurement and similar</i>	
		1.2.5	<i>Other activities</i>	
	1.3	<b>Energy savings and management</b>		CReMA13B
		1.3.1	<i>Energy savings through in-process modifications</i>	
		1.3.2	<i>Energy efficient buildings; other efficient energy-demand technologies</i>	
		1.3.3	<i>Monitoring, measurement and similar</i>	
		1.3.4	<i>Other activities</i>	
2	<b>Wastewater and water resources</b>		[Σ – sum of below]	
	2.1	<b>Wastewater management</b>		CEPA2
		2.1.1	<i>Prevention of pollution</i>	
		2.1.2	<i>Sewerage networks</i>	
		2.1.3	<i>Wastewater treatment</i>	
		2.1.4	<i>Treatment of cooling water</i>	
		2.1.5	<i>Monitoring, measurement and similar</i>	
		2.1.6	<i>Other activities</i>	

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	<b>2.2</b>	<b>Water savings and management of natural water resources</b>		CReMA10
		2.2.1	<i>Reduction of the intake</i>	
		2.2.2	<i>Water reuse and savings, reduction of water losses and leaks</i>	
		2.2.3	<i>Replenishment of water resources</i>	
		2.2.4	<i>Monitoring, measurement and similar</i>	
		2.2.5	<i>Other activities</i>	
<b>3</b>	<b>Waste, materials recovery and savings</b>			[Σ – sum of below]
	<b>3.1</b>	<b>Waste management</b>		CEPA3
		3.1.1	<i>Prevention of pollution</i>	
		3.1.2	<i>Collection and transport</i>	
		3.1.3	<i>Treatment and disposal of hazardous waste</i>	
		3.1.4	<i>Treatment and disposal of non-hazardous waste</i>	
		3.1.5	<i>Monitoring, measurement and similar</i>	
		3.1.6	<i>Other activities</i>	
	<b>3.2</b>	<b>Materials recovery and savings</b>		[Σ – sum of below]
		3.2.1	<i>Wood and paper</i>	CReMA11B
		3.2.2	<i>Mineral (metal, stone, glass, ceramics, other)</i>	CReMA14
		3.2.3	<i>Plastic</i>	CReMA13C
		3.2.4	<i>Textiles</i>	No direct correspondent
		3.2.5	<i>Other materials</i>	No direct correspondent
		3.2.6	<i>Monitoring, measurement and similar</i>	CReMA11B, 13C, 14
		3.2.7	<i>Other activities (related to the recovery of materials)</i>	CReMA11B, 13C, 14
<b>4</b>	<b>Soil, surface and groundwater, biodiversity and forest</b>			CEPA6+CReMA12, CReMA 11A
	<b>4.1</b>	<b>Protection of soil, surface and groundwater</b>		CEPA4
		4.1.1	<i>Prevention of pollutant infiltration</i>	
		4.1.2	<i>Cleaning up of soil and water bodies</i>	
		4.1.3	<i>Protection from erosion and other physical degradation of soil and water</i>	
		4.1.4	<i>Prevention and remediation of soil and groundwater salinity</i>	
		4.1.5	<i>Monitoring, measurement and similar</i>	
		4.1.6	<i>Other activities</i>	

<b>LEVEL I - DIVISION</b>	<b>LEVEL II - GROUP</b>	<b>LEVEL III - CLASS</b>		<b>Correspondence with current version of CEPA CReMA classifications</b>
	<b>4.2</b>	<b>Protection of biodiversity and landscape</b>		CEPA6 + CReMA12 (consolidated in the current version of CEPA & CReMA)
		4.2.1	<i>Protection and rehabilitation of species and habitats</i>	
		4.2.2	<i>Protection of natural and semi-natural landscapes</i>	
		4.2.3	<i>Monitoring, measurement and similar</i>	
		4.2.4	<i>Other activities</i>	
	<b>4.3</b>	<b>Management of forest resources</b>		CReMA 11A
		4.3.1	<i>Reforestation, afforestation and forest-related land management</i>	
		4.3.2	<i>Protection against forest fires</i>	
		4.3.3	<i>Monitoring, measurement and similar</i>	
		4.3.4	<i>Others activities</i>	
<b>5</b>	<b>Noise and radiation</b>			CEPA5, CEPA7
	<b>5.1</b>	<b>Protection against noise and vibration</b>		CEPA5
		5.1.1	<i>Prevention and reduction of noise and vibration</i>	
		5.1.2	<i>Monitoring, measurement and similar</i>	
		5.1.3	<i>Other activities</i>	
	<b>5.2</b>	<b>Protection against radiation</b>		CEPA 7
		5.2.1	<i>Protection of ambient media</i>	
		5.2.2	<i>Transport and treatment of high level radioactive waste</i>	
		5.2.3	<i>Monitoring, measurement and similar</i>	
		5.2.4	<i>Other activities</i>	
<b>6</b>	<b>Research and development</b>			[Σ – sum of below]
	<b>6.1</b>	<b>R&amp;D for air, climate and energy</b>		CEPA8.1, CReMA15
	<b>6.2</b>	<b>R&amp;D for wastewater and water resources</b>		CEPA8.3, CReMA15
	<b>6.3</b>	<b>R&amp;D for waste, materials recovery and savings</b>		CEPA8.2, CReMA15
	<b>6.4</b>	<b>R&amp;D for soil, surface and groundwater, biodiversity and forest</b>		CEPA8.4, 8.6, CReMA15
	<b>6.5</b>	<b>R&amp;D for noise and radiation</b>		CEPA8.5, 8.7, CReMA15
<b>7</b>	<b>Cross-cutting and other activities</b>			[Σ – sum of below]
	<b>7.1</b>	<b>Environmental education and training</b>		CEPA9.1, CReMA16
	<b>7.2</b>	<b>General environmental administration, management, regulation, dissemination and consultancy</b>		CEPA9.2, CReMA16
	<b>7.3</b>	<b>Environmental activities not elsewhere classified</b>		CEPA9.4, CReMA16



## Annex 2

### Classification requirements

The classification of environmental functions (CEF) has been developed by Eurostat, which is the identified custodian for it. It is proposed as an international reference classification.

CEF is a generic, multi-purpose, functional classification used for classifying activities, products, expenditure and other transactions related to environmental protection and management of natural resource.

The primary use is for the collection, reporting and organization of data on environmental activities and transactions within monetary environmental accounts, both mandatory and not mandatory. Indeed CEF is used to classify activities, products, expenditure and other transactions related both to **environmental protection** (prevention and reduction of pollution or any other degradation of the environment as well as restoration of the environment after it has been degraded) and **management of natural resource** (preservation, maintenance and enhancement of the stock of natural resources and therefore the safeguarding of those resources against depletion).

The classification unit is often determined by the units of the primary data sources that are being classified and by the presentation formats used for results. For example, the analysis of government budgets and accounts requires the coding of items of government environmental expenditure into CEF. Some of these expenditure items will be transfers such as subsidies or investment grants whereas others will be inputs into an environmental protection activity (e.g., wages and salaries).

The CEF is based on the pre-existing functional classifications used for monetary environmental accounting:

- classification of environmental protection activities and expenditure (CEPA 2000)<sup>1</sup>;
- classification of resource management activities and expenditure (CReMA 2008)<sup>2</sup>.

CEF has been built up to fulfil time series reconciliation with existing environmental classifications (CEPA and CReMA as separate classification) as used to classify environmental activities, products, expenditure and other transactions. This is particularly important in Europe to preserve data time series built over the last decade, in particular about

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<sup>1</sup> The International Family of Classifications primarily contains those classifications that have been reviewed and approved as guidelines by the United Nations Statistical Commission or other competent intergovernmental bodies, covering broad statistical areas such as economics, demographics, labour, health, education, social welfare, geography, environment, and tourism, among others.

<sup>2</sup> CReMA 2008 (or CReMA for short) has been developed consistently with the structure and classification principles of the CEPA by Eurostat and used in Europe for data collection and analysis of statistics on the Environmental Goods and Services Sector (EGSS)

products and activities of the environmental sector (EGSS account), environmental expenditure (EPEA account) and environmental subsidies (ESST account). A Table of correspondence between CEF and existing functional classifications used for monetary environmental accounting (CEPA and CReMA classification) has been drafted and included in an Annex to the CEF (Annex1); the correspondence has been also tested in the context of a dedicated task force of European countries established by Eurostat to assist in the review of the classification of environmental functions (CEF).

CEF has hierarchic structure; it is structured into 3 levels. The level 1 structure of CEF (the 1-digits) are the CEF divisions; the level 2 structure of CEF (the 2-digits) are the CEF groups and the level 3 (the 3-digits) are the classes.

CEF divisions group together “homogeneous” environmental protection and/or resource management categories, i.e. categories that are linked together and represent borderline cases, such as for example in the case of activities related to biodiversity and forest, or air and energy. At the second level split (group), the environmental protection or resource management categories are singled out, also to ensure a bridge with existing functional classifications used for monetary environmental accounting (CEPA and CReMA).

At the third level split (class), in almost all cases, an extra level of granularity is offered with regard to the activities, actions, expenditures that are object of the classification.

At each level, categories are mutually exclusive and they have been labelled to be informative and clear for the users about the specific environmental activities, products and expenditures included.

CEF divisions have been designed to ensure statistical balance safeguarding, at the same time, symmetry, coherence and homogeneity in the structure of classification and kind of activities, products and transaction included in each level. E.g. noise and radiation are environmental domain that have been kept together at the first level split of CEF based also on the consideration of ensuring statistical balance compared to the other 1-digit CEF division.

Several consultation on CEF have been done in the context of a dedicated Eurostat task force on the classification of environmental activities, Eurostat Working Group on Monetary Environmental Statistics and Accounts and London Group of experts on environmental accounts.

The envisaged plan is to seek for international level approval in 2023.