INDUSTRIAL EMISSIONS DATA DICTIONARIES
(DRAFT)

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DRAFT DATA DESCRIPTION DOCUMENT

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1. Introduction

This document provides a description of the data sets required for calculating the selected Horizon 2020 Industrial Emission indicators (see Annex 1), thereby referred to as "Data Description Document". It will feed into the Data Dictionary of the Info-RAC system - a central service for storing technical specifications for information requested in reporting, with the purpose of supporting countries in reporting good quality data.

2. Overview of H2020 Industrial Emissions Indicators

No.	Title of indicator	Sub-indicators
IND 6.1	Release of nutrients from industrial sectors	6.1.1) Total BOD load discharged from industrial installations to the Mediterranean marine environment. 6.1.2) Total Nitrogen load discharged from industrial installations to the Mediterranean marine environment. 6.1.3) Total Phosphorus load discharged from industrial installations to the Mediterranean marine environment.
IND 6.2	Release of toxic substances from industrial sectors	6.2.1) Total heavy metals load discharged from industrial installations to the Mediterranean marine environment. 6.2.2) Furans and dioxins load discharged from industrial installations to the Mediterranean marine environment. 6.2.3) Polycyclic aromatic hydrocarbons (PAH) load discharged from industrial installations to the Mediterranean marine environment. 6.2.4) Volatile organic compounds (VOC) load discharged from industrial installations to the Mediterranean marine environment.
IND 6.3	Industrial hazardous waste disposed in environmentally sound manner	6.3.1) Total quantity of generated hazardous waste from industrial installations. 6.3.2) Quantity of industrial hazardous waste disposed in environmentally sound manner relative to total quantity of generated hazardous waste from industrial installations.

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IND 6.4	Compliance measures aiming at the reduction and/or elimination of pollutants generated by industrial sectors	6.4.1) Number of industrial installations reporting periodically loads of pollutants discharged to the marine and coastal environments relative to the total number of industrial installations.
		6.4.2) Number of environmental inspections carried out by enforcement authorities in which industrial installations were found to be in breach of laws and regulations relative to the total number of executed inspections.
		6.4.3) Number of eliminated hotspots identified in the updated NAPs relative to the 2001 and 2015 baselines

3. Description of Indicators

IND 6.1: Release of nutrients from industrial sectors

Dataset definition

Sub-indicators	6.1.1) Total BOD load discharged from industrial installations to the Mediterranean marine environment. 6.1.2) Total Nitrogen load discharged from industrial installations to the Mediterranean marine environment. 6.1.3) Total Phosphorus load discharged from industrial installations to the Mediterranean marine environment.
Key words	Nutrients, BOD, total nitrogen (TN), total phosphorus (TP)
Spatial coverage	Administrative regions of the whole Mediterranean sea watershed as defined in section 3.1 of the "Updated guidelines to assess national budget of pollutants (NBB)" [UNEP(DEPI)/MED WG. 404/4].
Dataset relevance	This indicator is referenced by a number of pollution reduction programmes and environmental initiatives including H2020 and NAPs. The indicator complements IMAP indicator 13 (eutrophication) and is in line with the requirements of the Regional plan on the reduction of BOD5 in the food sector. It also provides data and information regarding the operational target identified by the Mediterranean countries with regards to reduction of BOD discharges to the Mediterranean Sea.
Parameters	Estimated or calculated pollution loads for BOD, total nitrogen (TN), total phosphorus (TP).
Methodology for obtaining data	Delivered by country
Planned update frequency	Every 2 years

UN environment
United Nations Environment Programme
Mediterranean Action Plan Barcelona Convention
info RAC

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Overview of data tables

Data table	Name	Definition	Short description
6.1.1	**Total BOD load discharged from industrial installations to the Mediterranean marine environment**	**Biological Oxygen Demand** (**BOD)** is the amount of dissolved oxygen needed (i.e. demanded) by aerobic biological organisms to break down organic material present in a given water sample at certain temperature over a specific time period. This indicator presents information on the BOD estimate of industrial wastewater effluents discharged from food sector industries listed in Appendix I of Decision IG.20/8.2 and other industries within the hydrological basin discharging directly or indirectly into the Mediterranean Sea.	BOD load. (tonnes/year)
6.1.2	**Total Nitrogen load discharged from industrial installations to the Mediterranean marine environment**	**Total Nitrogen (TN) c**omprises the ions nitrate, nitrite and ammonium in the dissolved phase (DIN) and the organic forms of nitrogen (mostly proteins and other N-containing substances) existing in biota and other particulate materials and in dissolved organic matter.	Total nitrogen load. (tonnes/year)
6.1.3	**Total Phosphorus load discharged from industrial installations to the Mediterranean marine environment**	**Total Phosphorus (TP)** comprises the dissolved ion phosphate and the organic forms of phosphorus existing in biota and other particulate materials (POP) and in dissolved organic matter (DOP).	Total phosphorus load (tonnes/year)

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Data table 6.1.1: Total BOD load discharged from industrial installations to the Mediterranean marine environment

	Column name	Column definition	Methodology	Data specifications	Equivalent in WISE if exist
1.	Country_Code	Country codes as defined in the codelist	ISO 3166-I-alpha-3, Codes elements as defined in codelist (i)	Type of element: common Datatype: integer Size: 3	
2	Administrative_Region	Administrative regions located in drainage basins that outflow into the Mediterranean. Administrative regions as defined in the codelist	List of regions from NBB info system	Type of element: common Datatype:-integer Min. size: 3 Max. size: 4	
3	Year_H2020	Year for which data is available	Use the format YYYY	Type of element: common Datatype: date Min. size: 4 Max. size: 4 Min. value: 2003 Max. value: current year	
4.	BOD	Quantity of released Biological Oxygen Demand (tonnes/year)	Total BOD load as of the reference year (Year_H2020)	Type of element: common Datatype: decimal Decimal precision: 2 Unit: metric tonnes per year Min. size: 1 Max. size: 8 Min. value: 1 Max. value: 10,000,000	
5	ID_of_Sectors	Industrial Sector ID	Sectors according to LBS Protocol 30 categories; Code list iii		
6	ID_of_Subsector	Subsectors Sector ID	Subsectors: 97 categories Code list iv		
7	Data_Collection_Method	Method of data collection	Codes elements as defined in codelist (ii): "*Field measurement*" and "*Emission factor*"	Type of element: common Datatype: integer ~~Min. size: 4~~ Size: 3	
8	Remarks	Remarks, comments or explanatory notes (free text)		Type of element: common Datatype: string Min. size: 0	

			Max. size: 4096	

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Data table 6.1.2: Total Nitrogen load discharged from industrial installations to the Mediterranean marine environment

	Column name	Column definition	Methodology	Data specifications	Equivalent in WISE if exist
1.	Country_Code	Country codes as defined in the codelist	ISO 3166-I-alpha-3, Codes elements as defined in codelist (i)	Type of element: common Datatype: integer Size: 3	
2.	Administrative_Region	Administrative regions located in drainage basins that outflow into the Mediterranean. Administrative regions as defined in the codelist	List of regions from NBB info system	Type of element: common Datatype:-integer Min. size: 3 Max. size: 4	
3.	Year_H2020	Year for which data is available	Use the format YYYY	Type of element: common Datatype: date Min. size: 4 Max. size: 4 Min. value: 2003 Max. value: Today() function	
4.	TN	Quantity of released total nitrogen	Total nitrogen load as of the reference year (Year_H2020)	Type of element: common Datatype: decimal Decimal precision: 2 Unit: metric tonnes per year Min. size: 3 Max. size: 10 Min. value: 1 Max. value: 10,000,000	
5	ID_of_Sectors	Industrial Sector ID	Sectors according to LBS Protocol 30 categories; Code list iii	Type of element: common Datatype: integer Size: 2	
6	ID_of_Subsector	Subsectors Sector ID	Subsectors: 97 categories Code list iv	Type of element: common Datatype: integer Size: 2	
7	Data_Collection_Method	Method of data collection	Codes elements as defined in codelist (ii): "*Field measurement*" and "*Emission factor*"	Type of element: common Datatype: integer Size: 3	
8.	Remarks	Remarks, comments or explanatory		Type of element: common	

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		notes (free text)		Datatype: Blob Max. size: 4096	

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Data table 6.1.3: Total phosphorus load discharged from industrial installations to the Mediterranean marine environment

	Column name	Column definition	Methodology	Data specifications	Equivalent in WISE if exist
1.	Country_Code	Country codes as defined in the codelist	ISO 3166-I-alpha-3, Codes elements as defined in codelist (i)	Type of element: common Datatype: integer Size: 3	
2.	Administrative_Region	Administrative regions located in drainage basins that outflow into the Mediterranean. Administrative regions as defined in the codelist	List of regions from NBB info system	Type of element: common Datatype:-integer Min. size: 3 Max. size: 4	
3	Year_H2020	Year for which data is available	Use the format YYYY	Type of element: common Datatype: date Min. size: 4 Max. size: 4 Min. value: 2003 Max. value: Today() function	
4	TP	Quantity of released total phosphorus	Total phosphorus load as of the reference year (Year_H2020)	Type of element: common Datatype: decimal Decimal precision: 2 Unit: metric tonnes per year Min. size: 3 Max. size: 10 Min. value: 1 Max. value: 10,000,000	
5	ID_of_Sectors	Industrial Sector ID	Sectors according to LBS Protocol 30 categories; Code list iii	Type of element: common Datatype: integer Size: 2	
6	ID_of_Subsector	Subsectors Sector ID	Subsectors: 97 categories Code list iv	Type of element: common Datatype: integer Size: 2	
7	Data_Collection_Method	Method of data collection	Codes elements as defined in codelist (ii): *"Field measurement"* and *"Emission factor"*	Type of element: common Datatype: integer Size: 3	
8	Remarks	Remarks, comments or explanatory		Type of element: common	

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| | | notes (free text) | | Datatype: Blob
Max. size: 4096 | |

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IND 6.2: Release of toxic substances from industrial sectors

Dataset definition

Sub-indicators	6.2.1) Total heavy metals load released from industrial installations to the Mediterranean marine environment. 6.2.2) Furans and dioxins load released from industrial installations to the Mediterranean marine environment. 6.2.3) Polycyclic aromatic hydrocarbons (PAH) load released from industrial installations to the Mediterranean marine environment. 6.2.4) Volatile organic compounds (VOC) load released from industrial installations to the Mediterranean marine environment.
Key words	Heavy metals, halogenated hydrocarbons, furans, dioxins, PAH, VOC
Spatial coverage	Administrative regions of the whole Mediterranean sea watershed as defined in section 3.1 of the "Updated guidelines to assess national budget of pollutants (NBB)" [UNEP(DEPI)/MED WG. 404/4].
Dataset relevance	This indicator is referenced by a number of pollution reduction programmes and environmental initiatives including H2020 and NAPs. The indicator complements IMAP indicator 13 (eutrophication) and is in line with the requirements of the Regional plan on the reduction of BOD5 in the food sector. It also provides data and information regarding the operational target identified by the Mediterranean countries with regards to reduction of BOD discharges to the Mediterranean Sea.
Parameters	Estimated or calculated pollution loads for heavy metals, furans and dioxins, Polycyclic aromatic hydrocarbons (PAH), and Volatile organic compounds (VOC).
Methodology for obtaining data	Delivered by country
Planned update frequency	Every 2 years

Overview of data tables

Data table	Name	Definition	Short description
6.2.1	**Total heavy metals load released from industrial installations to the Mediterranean marine environment**	Six heavy metals have been identified in SAP-MED. These include: i. Mercury. The most important industrial sources of mercury are combustion of coal in power plants; chlor-alkali production; manufacture and disposal of batteries; waste incineration and roasting and smelting in non-ferrous metal smelters. ii. Cadmium. The most important industrial sources of cadmium are zinc and lead metal processing; electroplating; the production of cadmium compounds; pigment production; the manufacture and disposal of batteries; the production of stabilizers for plastics and phosphate fertilizers. iii. Lead. The most important industrial sources of lead are lead metallurgy; the manufacture and disposal of batteries; additives for petrol; enamels and ceramic glazes and glass manufacture.	Heavy metals load (kg/years)

Data table	Name	Definition	Short description
		iv. Zinc is a commonly occurring trace-metal and is essential to living organisms for enzymatic functions. High levels of zinc are found in coastal areas and biota. Dispersion and diffusion can rapidly remove zinc. v. Copper: The most important industrial sources of copper are metallurgy, covering of metallic surfaces; electric cables and pesticides. vi. Chromium: The most important industrial sources of chrome are: chrome metallurgy; covering of metals; tanneries; textile and wool dyeing; corrosion inhibitors in closed cycle cooling systems.	
6.2.2	**Furans and dioxins load released from industrial installations to the Mediterranean marine environment**	**Furans and dioxins** are halogenated hydrocarbons known chemically identified as polychlorinated dibenzo-furans (PCDF) and polychlorinated dibenzo-dioxins (PCDD). They can be found as contaminants in some products and can be produced in combustion processes	Furans and dioxins load (grams/year)
6.2.3	**Polycyclic aromatic hydrocarbons (PAH) load released from industrial installations to the Mediterranean marine environment**	**Polycyclic aromatic hydrocarbons (PAH)** contain hundreds of substances occurring naturally in oil in ppm levels. PAHs are formed from the incomplete combustion of organic matter and this process is the main source of PAHs in air	PAH load (kg/year)
6.2.4	**Volatile organic compounds (VOC) load released from industrial installations to the Mediterranean marine environment**	**Volatile Organic Compounds (VOC)** are organic compounds that easily become vapour or gas. VOCs are emitted from a variety of sources including motor vehicles, chemical manufacturing facilities, refineries, factories, etc.	VOC load (kg/year)

Data table 6.2.1: Total heavy metals load released from industrial installations to the Mediterranean marine environment

	Column name	Column definition	Methodology	Data specifications	Equivalent in WISE if exist
1.	Country_Code	Country codes as defined in the codelist	ISO 3166-I-alpha-3, Codes elements as defined in codelist (i)	Type of element: common Datatype: integer Size: 3	
2.	Administrative_Region	Administrative regions located in drainage basins that outflow into the Mediterranean. Administrative regions as defined in the codelist	List of regions from NBB info system	Type of element: common Datatype:-integer Min. size: 3 Max. size: 4	
3.	Year_H2020	Year for which data is available	Use the format YYYY	Type of element: common Datatype: date Min. size: 4 Max. size: 4 Min. value: 2003 Max. value: Today() function	
4.	Heavy metals_ID	Total quantity of released heavy metals	Total heavy metals (including mercury, cadmium, lead, zinc, copper and chromium) load as of the reference year (tonnes/year) (Year_H2020) Codelist VI	Type of element: common Datatype: decimal Decimal precision: 2 Unit: kg per year Min. size: 3 Max. size: 9 Min. value: 1 Max. value: 1,000,000	
5	ID_of_Sectors	Industrial Sector ID	Sectors according to LBS Protocol 30 categories; Code list iii	Type of element: common Datatype: integer Size: 2	
6.	ID_of_Subsector	Subsectors Sector ID	Subsectors: 97 categories Code list iv	Type of element: common Datatype: integer Size: 2	
7.	Data_Collection_Method	Method of data collection	Codes elements as defined in codelist (ii): *"Field measurement"* and *"Emission factor"*	Type of element: common Datatype: integer Size: 3	
8.	Remarks	Remarks, comments or		Type of element: common	

				Datatype: Blob Max. size: 4096	

Data table 6.2.2: Furans and dioxins load released from industrial installations to the Mediterranean marine environment

	Column name	Column definition	Methodology	Data specifications	Equivalent in WISE if exist
1.	Country_Code	Country codes as defined in the codelist	ISO 3166-I-alpha-3, Codes elements as defined in codelist (i)	Type of element: common Datatype: integer Size: 3	
2.	Administrative_Region	Administrative regions located in drainage basins that outflow into the Mediterranean. Administrative regions as defined in the codelist	List of regions from NBB info system	Type of element: common Datatype:-integer Min. size: 3 Max. size: 4	
3.	Year_H2020	Year for which data is available	Use the format YYYY	Type of element: common Datatype: date Min. size: 4 Max. size: 4 Min. value: 2003 Max. value: today() function	
4.	PCDF, PCDD	Total quantity of released furans and dioxins	Total furans and dioxins load as of the reference year (Year_H2020)	Type of element: common Datatype: decimal Decimal precision: 2 Unit: grams per year Min. size: 3 Max. size: 9 Min. value: 1 Max. value: 1,000,000	
5.	ID_of_Sectors	Industrial Sector ID	Sectors according to LBS Protocol 30 categories; Code list iii	Type of element: common Datatype: integer Size: 2	
6.	ID_of_Subsector	Subsectors Sector ID	Subsectors: 97 categories Code list iv	Type of element: common Datatype: integer Size: 2	
7.	Data_Collection_Method	Method of data collection	Codes elements as defined in	Type of element: common	

				Data specifications	
			codelist (ii): "*Field measurement*" and "*Emission factor*"	Datatype: integer Size: 3	
8.	Remarks	Remarks, comments or explanatory notes (free text)		Type of element: common Datatype: Blob Max. size: 4096	

Data table 6.2.3: Polycyclic aromatic hydrocarbons (PAH) load released from industrial installations to the Mediterranean marine environment

	Column name	Column definition	Methodology	Data specifications	Equivalent in WISE if exist
1.	Country_Code	Country codes as defined in the codelist	ISO 3166-I-alpha-3, Codes elements as defined in codelist (i)	Type of element: common Datatype: integer Size: 3	
2.	Administrative_Region	Administrative regions located in drainage basins that outflow into the Mediterranean. Administrative regions as defined in the codelist	List of regions from NBB info system	Type of element: common Datatype:-integer Min. size: 3 Max. size: 4	
3.	Year_H2020	Year for which data is available	Use the format YYYY	Type of element: common Datatype: date Min. size: 4 Max. size: 4 Min. value: 2003 Max. value: Today() function	
4.	PAH	Total quantity of released polycyclic aromatic hydrocarbons	Total PAH load as of the reference year (Year_H2020)	Type of element: common Datatype: decimal Decimal precision: 2 Unit: kg per year Min. size: 3 Max. size: 9 Min. value: 1 Max. value: 1,000,000	
5.	ID_of_Sectors	Industrial Sector ID	Sectors according to LBS Protocol 30 categories; Code list iii	Type of element: common Datatype: integer Size: 2	
6.	ID_of_Subsector	Subsectors Sector ID	Subsectors: 97 categories Code list iv	Type of element: common	

				Datatype: integer Size: 2	
7.	Data_Collection_Method	Method of data collection	Codes elements as defined in codelist (ii): *"Field measurement"* and *"Emission factor"*	Type of element: common Datatype: integer Size: 3	
8.	Remarks	Remarks, comments or explanatory notes (free text)		Type of element: common Datatype: Blob Max. size: 4096	

Data table 6.2.4: Volatile organic compounds (VOC) load released from industrial installations to the Mediterranean marine environment

	Column name	Column definition	Methodology	Data specifications	Equivalent in WISE if exist
1.	Country_Code	Country codes as defined in the codelist	ISO 3166-I-alpha-3, Codes elements as defined in codelist (i)	Type of element: common Datatype: integer Size: 3	
2.	Administrative_Region	Administrative regions located in drainage basins that outflow into the Mediterranean. Administrative regions as defined in the codelist	List of regions from NBB info system	Type of element: common Datatype:-integer Min. size: 3 Max. size: 4	
3.	Year_H2020	Year for which data is available	Use the format YYYY	Type of element: common Datatype: date Min. size: 4 Max. size: 4 Min. value: 2003 Max. value: Today() function	
4.	VOC	Total quantity of released Volatile Organic Compounds	Total VOC load as of the reference year (Year_H2020)	Type of element: common Datatype: decimal Decimal precision: 2 Unit: kg per year Min. size: 3 Max. size: 9 Min. value: 1 Max. value: 1,000,000	
5.	ID_of_Sectors	Industrial Sector ID	Sectors according to LBS Protocol 30	Type of element: common	

			categories; Code list iii	Datatype: integer Size: 2	
6.	ID_of_Subsector	Subsectors Sector ID	Subsectors: 97 categories Code list iv	Type of element: common Datatype: integer Size: 2	
7.	Data_Collection_Method	Method of data collection	Codes elements as defined in codelist (ii): "*Field measurement*" and "*Emission factor*"	Type of element: common Datatype: integer Size: 3	
8.	Remarks	Remarks, comments or explanatory notes (free text)		Type of element: common Datatype: Blob Max. size: 4096	

IND 6.3: Industrial hazardous waste disposed in environmentally sound manner

Dataset definition

Sub-indicators	6.3.1) Total quantity of generated hazardous waste from industrial installations. 6.3.2) Quantity of industrial hazardous waste disposed in environmentally sound manner relative to total quantity of generated hazardous waste from industrial installations.
Key words	Hazardous waste, industrial installations, environmentally sound manner
Spatial coverage	Administrative regions of the whole Mediterranean sea watershed as defined in section 3.1 of the "Updated guidelines to assess national budget of pollutants (NBB)" [UNEP(DEPI)/MED WG. 404/4].
Dataset relevance	This indicator reflects the provisions of the Strategic Action Programme (SAP-MED) and the legally binding requirements in relevant regional plans which call for proper handling, storage and sound disposal of hazardous industrial waste. It also addresses the legal obligations of the Basel and Stockholm Conventions with regards to reduction of transboundary movement of hazardous waste and chemicals; the minimization and prevention of hazardous waste generation; and the availability of disposal facilities for the environmentally sound management of stock piles of chemicals and hazardous waste. This indicator is referenced by the IMAP, NAPs, MSSD and SDG.
Parameters	Total quantity of generated industrial hazardous waste, quantity of industrial hazardous waste disposed in environmentally sound manner, imported hazardous waste, exported hazardous waste, stockpiled hazardous waste.
Methodology for obtaining data	Delivered by country
Planned update frequency	Every 2 years

Overview of data tables

Data table	Name	Definition	Short description
6.3.1	**Total quantity of generated hazardous waste from industrial installations**	**Hazardous waste** consists of the categories featuring on the list included in Decisions IG. 19/8 and IG. 20/8.3, Annex I of the Hazardous Waste Protocol, and in Annex I of the Basel Convention which are generated from industrial installations or facilities **Industrial installations** are facilities intended for use in the manufacture or processing of products involving systematic labor or habitual employment. It consists of a fixed or semi-fixed location of a complete system or a self-contained unit, with its accompanying assemblies, accessories and parts.	Quantity of generated hazardous waste (tonnes/year)

Data table	Name	Definition	Short description
6.3.2	**Quantity of industrial hazardous waste disposed in environmentally sound manner relative to total quantity of generated hazardous waste from industrial installations**	**Disposal of waste** means operations which do not lead to the possibility of resource recovery, recycling, reclamation, direct re-use or alternative uses of hazardous waste as defined in Annex IV(A) of the Basel Convention. **Environmentally sound manner** means taking all practical steps to ensure that wastes are collected, transported, and disposed of (including after-care of disposal sites) in a manner which will protect human health and the environment against the adverse effects which may result from such wastes [UNEP(DEPI)/MED IG. 20/8 and Basel Convention (Article 2:8)]. For POPs, this means disposed of in such a way that the persistent organic pollutant content is destroyed or irreversibly transformed so that they do not exhibit the characteristics of persistent organic pollutants, or otherwise disposed of in an environmentally sound manner when destruction or irreversible transformation does not represent the environmentally preferable option, or the persistent organic pollutant content is low, taking into account international rules, standards, and guidelines and relevant global and regional regimes governing the management of hazardous waste and the Basel Convention. **Industrial hazardous waste disposed in environmentally sound manner** is computed based on the following equation: $$D = Q + I - E - S$$ where: D = disposed quantity of industrial hazardous waste in environmentally sound manner. Q = total generated quantity of industrial hazardous waste. I = imported quantity of hazardous waste for environmentally sound disposal. E = exported quantity of hazardous waste for environmentally sound disposal. S = stockpiled quantity of hazardous stored on site under controlled or uncontrolled conditions.	Quantity of industrial hazardous waste disposed in environmentally sound manner (tonnes/year)

Data table 6.3.1: **Total quantity of generated hazardous waste from industrial installations**

	Column name	Column definition	Methodology	Data specifications	Equivalent in WISE if exist
1.	Country_Code	Country codes as defined in the codelist	ISO 3166-I-alpha-3,Codes elements as defined in codelist (i)	Type of element: common Datatype: integer Size: 3	
2.	Administrative_Region	Administrative regions located in drainage basins that outflow into the Mediterranean. Administrative regions as defined in the codelist	List of admin regions from NBB info system	Type of element: common Datatype:-integer Min. size: 3 Max. size: 4	
3.	Year_H2020	Year for which data is available	Use the format YYYY	Type of element: common Datatype: date Min. size: 4 Max. size: 4 Min. value: 2003 Max. value: Today() function	
4.	Generated hazardous waste	Generated industrial hazardous waste	Total quantity of generated hazardous waste from individual industrial installations as of the reference year (Year_H2020)	Type of element: common Datatype: decimal Decimal precision: 2 Unit: metric tonnes per year Min. size: 3 Max. size: 10 Min. value: 1 Max. value: 10,000,000	
5.	ID_of_Sectors	Industrial Sector ID	Sectors according to LBS Protocol 30 categories; Code list iii	Type of element: common Datatype: integer Size: 2	
6.	ID_of_Subsector	Subsectors Sector ID	Subsectors: 97 categories Code list iv	Type of element: common Datatype: integer Size: 2	
7.	Data_Collection_Method	Method of data collection	Codes elements as defined in codelist (ii): *"National inventories"* and *"Compiled official reports"*	Type of element: common Datatype: Integer Size: 3	
8.	Remarks	Remarks, comments or		Type of element: common	

	Column name	Column definition	Methodology	Data specifications	Equivalent in WISE if exist
		explanatory notes (free text)		Datatype: Blob Max. size: 4096	

Data table 6.3.2: Quantity of industrial hazardous waste disposed in environmentally sound manner relative to total quantity of generated hazardous waste from industrial installations

	Column name	Column definition	Methodology	Data specifications	Equivalent in WISE if exist
1.	Country_Code	Country codes as defined in the codelist	ISO 3166-I-alpha-3, Codes elements as defined in codelist (i)	Type of element: common Datatype: integer Size: 3	
2.	Year_H2020	Year for which data is available	Use the format YYYY	Type of element: common Datatype: date Min. size: 4 Max. size: 4 Min. value: 2003 Max. value: Today() function	
3.	Generated hazardous waste	Total quantity of generated industrial hazardous waste	Total reported quantity of generated hazardous waste from individual industrial installations as of the reference year (Year_H2020)	Type of element: common Datatype: decimal Decimal precision: 2 Unit: metric tonnes per year Min. size: 3 Max. size: 10 Min. value: 1 Max. value: 10,000,000	
4.	Imported hazardous waste (Importned_HW)	Total imported quantity of hazardous waste for environmentally sound disposal	Total reported quantity of imported industrial hazardous waste into the country as of the reference year (Year_H2020)	Type of element: common Datatype: decimal Decimal precision: 2 Unit: metric tonnes per year Min. size: 3 Max. size: 10 Min. value: 1 Max. value: 10,000,000	
5.	Exported hazardous waste	Total exported quantity of	Total reported quantity of exported	Type of element: common	

	(Exported_HW)	hazardous waste for environmentally sound disposal	industrial hazardous waste out of the country as of the reference year (Year_H2020)	Datatype: decimal Decimal precision: 2 Unit: metric tonnes per year Min. size: 3 Max. size: 10 Min. value: 1 Max. value: 10,000,000	
6.	Stockpiled hazardous waste (Stokpiled_HW)	Total stockpiled quantity of hazardous stored on site under controlled or uncontrolled conditions	Total reported quantity of stockpiled industrial hazardous waste from individual industrial installations as of the reference year (Year_H2020)	Type of element: common Datatype: decimal Decimal precision: 2 Unit: metric tonnes per year Min. size: 3 Max. size: 10 Min. value: 1 Max. value: 10,000,000	
7.	Disposed hazardous waste (Deposited_HW)	Total disposed quantity of industrial hazardous waste in environmentally sound manner	The disposed quantity of hazardous industrial waste in environmentally sound manner as of the reference year (Year_H2020) is computed based on the following equation: $D = Q + I - E - S$ where: D = disposed quantity of industrial hazardous waste in environmentally sound manner. Q = total generated quantity of industrial hazardous waste. I = imported quantity of hazardous waste for environmentally sound disposal. E = exported quantity of hazardous waste for environmentally sound disposal. S = stockpiled quantity of hazardous stored on site under controlled or uncontrolled conditions.	Type of element: common Datatype: decimal Decimal precision: 2 Unit: metric tonnes per year Min. size: 3 Max. size: 10 Min. value: 1 Max. value: 10,000,000	
8.	Data_Collection_Method	Method of data collection	Codes elements as defined in codelist (ii	Type of element: common Datatype: integer	

			i): *"National inventories"* and *"Compiled official reports"*	Size: 3	
9.	Remarks	Remarks, comments or explanatory notes (free text)		Type of element: common Datatype: Blob Max. size: 4096	

IND 6.4: Compliance measures aiming at the reduction and/or elimination of pollutants generated by industrial sectors

Dataset definition

Sub-indicators	6.4.1) Number of industrial installations reporting periodically loads of pollutants discharged to the marine and coastal environments relative to the total number of industrial installations. 6.4.2) Number of environmental inspections carried out by enforcement authorities in which industrial installations were found to be in breach of laws and regulations relative to the total number of executed inspections. 6.4.3) Number of eliminated hotspots identified in the updated NAPs relative to the 2001 and 2015 baselines.
Key words	Reporting loads of pollutants, environmental inspections, hotspots
Spatial coverage	Administrative regions of the whole Mediterranean sea watershed as defined in section 3.1 of the "Updated guidelines to assess national budget of pollutants (NBB)" [UNEP(DEPI)/MED WG. 404/4].
Dataset relevance	This indicator is referenced in the Countries' updated NAPs. It is in line with the compliance requirements of the Regional plans on the reduction of BOD, elimination and phasing out of POPs and mercury. This indicator also suggests whether the Country in question possesses the institutional structures necessary to enforce its adopted legal requirements. It reflects presence of trained and competent personnel in its institutions to carry out inspections; apply sanctions and enforce decisions.
Parameters	Number of industrial installations reporting periodically loads of pollutants, Number of environmental inspections carried out by enforcement authorities, and Number of eliminated hotspots.
Methodology for obtaining data	Delivered by country
Planned update frequency	Every 2 years

Overview of data tables

Data table	Name	Definition	Short description
6.4.1	**Number of industrial installations reporting periodically loads of pollutants discharged to the marine and coastal environments relative to the total number of industrial installations**	**Industrial installations** are facilities intended for use in the manufacture or processing of products involving systematic labor or habitual employment. It consists of a fixed or semi-fixed location of a complete system or a self-contained unit, with its accompanying assemblies, accessories and parts	Number of reporting industrial installations
6.4.2	**Number of environmental inspections carried out by enforcement authorities in which industrial installations were found to be in breach of laws and regulations relative to the total number of**	**Environmental inspection** refers to a proactive (planned and routine) process that involves collecting information to make an assessment of a duty holder's current level of compliance, by comparing their activities to the legal requirements and benchmark standards relevant to the activities in question.	Number of environmental inspections

Data table	Name	Definition	Short description
	executed inspections		
6.4.3	**Number of eliminated hotspots identified in the updated NAPs relative to the 2001 and 2015 baselines**	**Hotspots** are defined as: a) Point sources on the coast of the Mediterranean Sea which potentially affect human health, ecosystems, biodiversity, sustainability or economy in a significant manner. They are the main points where high levels of pollution loads originating from domestic or industrial sources are being discharged; b) Coastal areas where the coastal marine environment is subject to pollution from one or more point or diffused sources on the coast of the Mediterranean which potentially affect human health in a significant manner, ecosystems, biodiversity, sustainability or economy.	Number of eliminated hotspots

Data table 6.4.1: **Number of industrial installations reporting periodically loads of pollutants discharged to the marine and coastal environments relative to the total number of industrial installations**

	Column name	Column definition	Methodology	Data specifications	Equivalent in WISE if exist
1.	Country_Code	Country codes as defined in the codelist	ISO 3166-I-alpha-3, Codes elements as defined in codelist (i)	Type of element: common Datatype: integer Size: 3	
2.	Administrative_Region	Administrative regions located in drainage basins that outflow into the Mediterranean. Administrative regions as defined in the codelist	List of admin regions from NBB info system	Type of element: common Datatype:-integer Min. size: 3 Max. size: 4	
3.	Year_H2020	Year for which data is available	Use the format YYYY	Type of element: common Datatype: date Min. size: 4 Max. size: 4 Min. value: 2003 Max. value: Today() function	
4.	Number of reporting industrial installations	Number of records of industries providing data on discharges and emissions released by their industrial processes	Total number of industrial installations which reported pollution loads as of the reference year (Year_H2020)	Type of element: common Datatype: integer Unit: number of units Min. size: 1 Max. size: 7 Min. value: 1 Max. value: 1,000,000	
5.	Total number of industrial installations required to report	Total number of industrial installations required to provide data on discharges and emissions released by their industrial processes	Total number of industrial installations required to report pollution loads as of the reference year (Year_H2020)	Type of element: common Datatype: integer Unit: number of units Min. size: 1 Max. size: 7 Min. value: 1 Max. value: 1,000,000	
6.	ID_of_Sectors	Industrial Sector ID	Sectors according to LBS Protocol 30 categories; Code list iii	Type of element: common Datatype: integer	

				Size: 2	
7.	ID_of_Subsector	Subsectors Sector ID	Subsectors: 97 categories Code list iv	Type of element: common Datatype: integer Size: 2	
8.	Data_Collection_Method	Method of data collection	Codes elements as defined in codelist (ii): "*Compiled official records*"	Type of element: common Datatype: integer Size: 3	
9.	Remarks	Remarks, comments or explanatory notes (free text)		Type of element: common Datatype: Blob Max. size: 4096	

Data table 6.4.2: **Number of environmental inspections carried out by enforcement authorities in which industrial installations were found to be in breach of laws and regulations relative to the total number of executed inspections**

	Column name	Column definition	Methodology	Data specifications	Equivalent in WISE if exist
1.	Country_Code	Country codes as defined in the codelist	ISO 3166-I-alpha-3, Codes elements as defined in codelist (i)	Type of element: common Datatype: integer Size: 3	
2.	Administrative_Region	Administrative regions located in drainage basins that outflow into the Mediterranean. Administrative regions as defined in the codelist	List of admin regions from NBB info system	Type of element: common Datatype:-integer Min. size: 3 Max. size: 4	
3.	Year_H2020	Year for which data is available	Use the format YYYY	Type of element: common Datatype: date Min. size: 4 Max. size: 4 Min. value: 2003 Max. value: Today() function	
4.	Number of environmental inspections in breach of laws and regulations	Number of records of environmental inspections carried out by enforcement authorities in which industrial installations were found to be in breach of laws and regulations in a single year	Total number of environmental inspections in breach of laws and regulations as of the reference year (Year_H2020)	Type of element: common Datatype: integer Unit: number of units Min. size: 1 Max. size: 7 Min. value: 1 Max. value: 1,000,000	
5.	Total number of environmental inspections	Total number of executed inspections carried out by enforcement authorities in a single year	Total number of carried out environmental inspections as of the reference year (Year_H2020)	Type of element: common Datatype: integer Unit: number of units Min. size: 1 Max. size: 7 Min. value: 1 Max. value: 1,000,000	
6.	ID_of_Sectors	Industrial Sector ID	Sectors according to LBS Protocol 30 categories; Code list iv	Type of element: common Datatype: integer	

				Size: 2	
7.	ID_of_Subsector	Subsectors Sector ID	Subsectors: 97 categories Code list v	Type of element: common Datatype: integer Size: 2	
8.	Data_Collection_Method	Method of data collection	Codes elements as defined in codelist (iii): "*Compiled official records*"	Type of element: common Datatype: integer Size: 3	
9.	Remarks	Remarks, comments or explanatory notes (free text)		Type of element: common Datatype: Blob Max. size: 4096	

Data table 6.4.3: Number of eliminated hotspots identified in the updated NAPs relative to the 2001 and 2015 baselines

	Column name	Column definition	Methodology	Data specifications	Equivalent in WISE if exist
1.	Country_Code	Country codes as defined in the codelist	ISO 3166-I-alpha-3, Codes elements as defined in codelist (i)	Type of element: common Datatype: integer Size: 3	
2.	Year_H2020	Year for which data is available	Use the format YYYY	Type of element: common Datatype: date Min. size: 4 Max. size: 4 Min. value: 2003 Max. value: Today() function	
3.	Number of eliminated hotspots	Number of eliminated hotspots from the list identified in the updated NAP of 2015	Number of eliminated hotspots to date as of the reference year (Year_H2020)	Type of element: common Datatype: integer Unit: number of hotspots Min. size: 1 Max. size: 3 Min. value: 0 Max. value: 1,000	
4.	Total number of identified hotspots in 2001	Total number of hotspots identified in 2001	Total number of hotspots as reported in 2001	Type of element: common Datatype: integer Unit: number of hotspots Min. size: 1 Max. size: 3 Min. value: 0 Max. value: 1,000	
5.	Total number of identified hotspots in 2015	Total number of hotspots identified in the 2015	Number of hotspots as reported in the updated NAPs of 2015	Type of element: common Datatype: integer Unit: number of hotspots Min. size: 1 Max. size: 3 Min. value: 0 Max. value: 1,000	
6.	Data_Collection_Method	Method of data collection	Codes elements as defined in codelist (iii): "*Compiled official records*"	Type of element: common Datatype: integer	

				Size: 3	
7.	Remarks	Remarks, comments or explanatory notes (free text)		Type of element: common Datatype: Blob Max. size: 4096	

Annex 1: Code lists

i. List of country codes

ISO 3166-1-alpha-2 code
http://www.iso.org/iso/home/standards/country_codes/country_names_and_code_elements.htm

Value	name	Short name
8	Albania	ALB
12	Algeria	DZA
70	Bosnia and Herzegovina	BIH
818	Egypt	EGY
376	Israel	ISR
400	Jordan	JOR
422	Lebanon	LBN
434	Libya	LBY
499	Montenegro	MNE
504	Morocco	MAR
275	Palestine, State of	PSE
788	Tunisia	TUN
792	Turkey	TUR

ii. *Method of data collection code list*

Value	Definition	Short description
100	Field measurement method	Field measurement
200	Emission factor methods	Emission factor
300	National inventories for management of hazardous waste compiled by official public agencies	National inventories
400	Official reports compiled by environmental authorities in compliance with the obligations of the Basel and Stockholm conventions	Compiled official reports
500	Records compiled by environmental agencies	Compiled official records

iii. *Code List of Sector*

sector_id	sector_name
1	Manufacture of cement
2	Treatment of urban wastewater
3	Transport
4	Farming of animals

5	Food packing
6	Port services
7	Manufacture of other organic chemicals
8	Agriculture
9	Manufacture of metals
10	Manufacture of refined petroleum products
11	Production of energy
12	Tanning and dressing of leather
13	Aquaculture
14	Management of urban solid waste
15	Manufacture of pharmaceuticals
16	Manufacture of paper
17	Manufacture of fertilizers
18	Manufacture of other inorganic chemicals
19	Manufacture of textiles
20	Tourism
21	Building and repairing of ships and boats
23	Other
24	Treatment and storage of hazardous wastes
25	Waste incineration and management of its residues
26	Waste management activities
27	Manufacture and formulation of biocides
28	Mining and quarrying
29	Recycling activities
30	Manufacture of electronics products
31	Treatment of sewage sludge
32	Factories that cause physical changes to the environment

iv. *Code List of Subsectors*

subsector_id	subsector_name	sector_sector_id
1	Growing of cereals (wheat, rice, maize, soyabeans, other)	8
2	Growing of fruit and vegetables	8
3	Horticultural specialities, nurseries	8
4	Industrial crops (cotton, tobacco, sugar cane, sugar beet, potatoes, other)	8
5	Manufacture of wines	8
6	Fish breeding	13
7	Fish processing	13
8	Drydocks	21

9	Shipyards	21
10	Seawater desalination plants	32
11	Farming of animals (cattle, sheep, swine, poultry) and slaughterhouses	4
12	Farming of special animals (rabbits, goats, horses, asses, mules and hinnies, other)	4
13	Animal feeds	5
14	Animal raw materials,Vegetable raw materials	5
15	Dairy industry	5
16	Manufacture of beer	5
17	Manufacture of non-alcoholic beverages	5
18	Manufacture of olive oil	5
19	Manufacture of other vegetable oils (other than olive oil)	5
20	Manufacture of sugar beet	5
21	Manufacture of wines and spirits	5
22	Other prepared foods	5
23	Preserving fruit and vegetables	5
24	Waste dumps	14
25	Formulation of pesticides	27
26	Synthesis of phytosanitary products	27
27	Manufacture of cement	1
28	Manufacture of lime and plaster	1
29	Manufacture of electric machines and appliances (condensers, transformers)	30
30	Manufacture of integrated circuits	30
31	Manufacture of radio, television and communications equipment	30
32	Nitrogenous fertilizers	17
33	Phosphate fertilizers and phosphoric acid	17
34	Casting of grey iron	9
35	Casting of other non-ferrous metals	9
36	Casting of steel	9
37	Electroplating	9
38	First-stage aluminium smelting	9
39	First-stage copper smelting	9
40	Manufacture of accumulators	9
41	Manufacture of basic iron and steel	9
42	Manufacture of lead oxides and lead-based colouring matter	9
43	Manufacture of other non-ferrous metals	9
44	Manufacture of zinc or tin	9
45	Second-stage aluminium smelting	9
46	Second-stage copper smelting	9
47	Second-stage lead smelting	9

48	Industrial gases	18
49	Manufacture of ceramic products	18
50	Manufacture of glass and glass products	18
51	Other (activated carbon, composed of Al, Ba, Ca, Ni, â€¦)	18
52	Synthesis of pigments	18
53	Manufacture of explosives, glues, gelatine, essential oils	7
54	Other chemicals	7
55	Paints and varnishes	7
56	Plastics, rubber, synthetic resins	7
57	Polyethylene tetraphtalate	7
58	Polyvinyl chloride	7
59	Synthesis of pigments	7
60	Manufacture of articles of paper or paperboard	16
61	Manufacture of paper and pulp	16
62	Printing activities	16
63	Cosmetics and perfumes	15
64	Pharmaceuticals	15
65	Soaps, detergents and sanitary preparations	15
66	Manufacture of petrochemicals	10
67	Manufacture of refined petroleum products	10
68	Transport and marketing of petroleum products	10
69	Manufacture and dyeing of textiles	19
70	Manufacture of clothing and other finished products made of fabric	19
71	Extraction of petroleum and gas	28
72	Metal mining	28
73	Installations for melting mineral substances	23
74	Manufacture of Wood	23
75	Other	23
76	Gasoline Loading	6
77	Port handling (cargo)	6
78	Combustion of heating oil	11
79	Combustion of lignite	11
80	Gaz production	11
81	Recycling of lubrifying oils	29
82	Recycling of metal waste and scrap	29
83	Recycling of non-metal waste and scrap (paper, glass)	29
84	Tanning and dressing of leather	12
85	Hotel, food and beverage services	20
86	Recreational activities	20

87	Manufacture of aircraft and spacecraft	3
88	Manufacture of motor vehicles	3
89	Manufacture of other transport equipment	3
90	Rail transport	3
91	Urban road transport (automobiles and buses)	3
92	Water transport (freight, passengers)	3
93	Technical centres for landfill and storage	24
94	Compost production	31
95	Industrial wastewater treatment plant	2
96	Treatment plants	2
97	Urban waste incineration plants	25
98	Refuse collection, depollution and similar activities	26
99	Lead Alkyl	7

v. *Heavy Metal Code list*

ID	Name of the heavy metal
Hg	Mercury
Cd	Cadmium
Pb	Lead
Zn	Zinc
Cu	Copper
Cr	Chromium

ANNEX 2: MEDITERRANEAN REGIONS

Country	Region
Albania	Peqini
Albania	Vlora
Albania	Saranda
Albania	Delvina
Albania	Kavaja
Albania	Fieri
Albania	Kruja
Albania	Durres
Albania	Kurbini
Albania	Lushnja
Albania	Mallakastra
Albania	Elbasan
Albania	Shkodra
Albania	Lezha
Albania	Tirana
Algeria	El Tarf
Algeria	Tlemcen
Algeria	Ain Temouchent
Algeria	Oran
Algeria	Mostaganem
Algeria	Chlef
Algeria	Tipaza
Algeria	Alger
Algeria	Boumerdes
Algeria	Tizi Ouzou
Algeria	Bejaia
Algeria	Jijel
Algeria	Skikda
Algeria	Annaba
Bosnia Herzegovina	Costal Area - Neum
Bosnia Herzegovina	Trebisnjica
Bosnia Herzegovina	Cetina
Bosnia Herzegovina	Neretva
Croatia	Primorsko-Goranska

Country	Region
Croatia	Zadarska
Croatia	Licko-Senjska
Croatia	Sibensko-Kninska
Croatia	Istarska
Croatia	Dubrovacko-Neretvanska
Croatia	Splitsko-Dalmatinska
Cyprus	Cyprus
Egypt	Alexandria
France	Champagne-Ardenne
France	Franche-Comte
France	Herault
France	Alpes maritimes
France	Pyrenees orientales
France	Aude
France	Bourgogne
France	Provence-Alpes-Cote d'Azur
France	Gard
France	Corse
France	Bouches du Rhone
France	Rhone-Alpes
Greece	Aegean Islands
Greece	West Macedonia
Greece	West Continental Greece
Greece	West Peloponnes
Greece	North Peloponnes
Greece	Attica
Greece	East Peloponnes
Greece	Epirus
Greece	Thrace
Greece	East Macedonia
Greece	East Continental Greece
Greece	Crete
Greece	Central Macedonia
Greece	Thessalia

Israel	Israel		Montenegro	Tivat
Italy	Puglia		Montenegro	Kotor
Italy	Umbria		Montenegro	Herceg Novi
Italy	Veneto		Montenegro	Bar
Italy	Toscana		Morocco	Nador
Italy	Lombardia		Morocco	Tanger
Italy	Valle d Aosta		Morocco	Tetouan
Italy	Liguria		Palestine	Wadi Gaza
Italy	Friuli		Slovenia	Slovenia
Italy	Molise		Spain	Barcelona
Italy	Marche		Spain	Alava
Italy	Sardegna		Spain	Cuenca
Italy	Trentino		Spain	Huesca
Italy	Emilia Romagna		Spain	Alicante
Italy	Abruzzo		Spain	Albacete
Italy	Calabria		Spain	Burgos
Italy	Piemonte		Spain	Granada
Italy	Basilicata		Spain	Valencia
Italy	Lazio		Spain	Lleida
Italy	Sicilia		Spain	Girona
Italy	Campania		Spain	Malaga
Lebanon	Lebanon		Spain	Tarragona
Libya	Alnigat Alkhams		Spain	Baleares
Libya	Sirt		Spain	Navarra
Libya	Ajdabiya		Spain	Murcia
Libya	Tripoli		Spain	Zaragoza
Libya	Dernah		Spain	Melilla
Libya	Azzawiya		Spain	Rioja
Libya	Al jifarah		Spain	Teruel
Libya	Al batnan		Spain	Soria
Libya	Misratah		Spain	Cantabria
Libya	Al Khums		Spain	Cadiz
Libya	Benghazi		Spain	Almeria
Libya	Alnigat ilkamse		Spain	Castellon
Malta	Malta		Syria	Tartous
Montenegro	Budva		Syria	Lattakia
Montenegro	Ulcinj		Tunisia	Gabes

Tunisia	Sfax		Turkey	Isparta
Tunisia	Bizerte		Turkey	Manisa
Tunisia	Mahdia		Turkey	Mugla
Tunisia	Sousse		Turkey	Usak
Tunisia	Ariana-M		Turkey	Icel
Tunisia	Nabeul		Turkey	Kutahya
Tunisia	Ben Arous		Turkey	Osmaniye
Tunisia	Monastir		Turkey	Afyon
Tunisia	Medenine		Turkey	Izmir
Tunisia	Tunis		Turkey	Balikesir
Turkey	Denizli		Turkey	Canakkale
Turkey	Hatay		Turkey	Aydin
Turkey	Antalya		Turkey	Adana
Turkey	Kahramanma			