

Country level assessment approach Industrial Emissions

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1.0	17/10/2019	Menouer BOUGHEDAOUJ	First Draft for EEA	

About this document

This document compiles the templates and guidance for countries on how to develop assessments for the industrial emission thematic areas and its cluster of indicators (IND 6.1, IND 6.2 and IND 6.3). It was based on the EEA's assessment factsheets.

Text in *blue* provides guidance on how to fill in the different sections; text in *green* provides example text.

Thematic Assessment

Industrial emissions

Supported by the H2020 / NAPs 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.

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

Period: year - year

Version: x.0

Date: xx.xx.xx

Guidance Template for Thematic Assessment

H2020 / NAPs Indicators	
Thematic area Industrial emissions	Date Author(s):
<p>Based on the following Indicators:</p> <p>IND 6.1 Release of nutrients from industrial sectors</p> <p>6.1.1) Total BOD load discharged from industrial installations to the Mediterranean marine environment.</p> <p>6.1.2) Total Nitrogen load discharged from industrial installations to the Mediterranean marine environment.</p> <p>6.1.3) Total Phosphorus load discharged from industrial installations to the Mediterranean marine environment.</p> <p>IND 6.2 Release of toxic substances from industrial sectors</p> <p>6.2.1) Total heavy metals load discharged from industrial installations to the Mediterranean marine environment.</p> <p>6.2.2) Furans and dioxins load discharged from industrial installations to the Mediterranean marine environment.</p> <p>6.2.3) Polycyclic aromatic hydrocarbons (PAH) load discharged from industrial installations to the Mediterranean marine environment.</p> <p>6.2.4) Volatile organic compounds (VOC) load discharged from industrial installations to the Mediterranean marine environment.</p> <p>IND 6.3 Industrial hazardous waste disposed in environmentally sound manner</p> <p>6.3.1) Total quantity of generated hazardous waste from industrial installations.</p> <p>6.3.2) Quantity of industrial hazardous waste disposed in environmentally sound manner relative to total quantity of generated hazardous waste from industrial installations.</p> <p>IND 6.4 Compliance measures aiming at the reduction and/or elimination of pollutants generated by industrial sectors</p> <p>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.</p> <p>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.</p> <p>6.4.3) Number of eliminated hotspots identified in the updated NAPs relative to the 2001 and 2015 baselines</p> <p>•</p>	

General note: The thematic assessment template builds on the separate indicator assessments for “6.1. Release of nutrients from industrial sectors”; “6.2. Release of toxic substances from industrial sectors”; “6.3. Industrial hazardous waste disposed in environmentally sound manner”; “6.4. Compliance measures aiming at the reduction and/or elimination of pollutants generated by industrial sectors”. It aims to provide a more holistic and integrated assessment of the Industrial emissions thematic, structured along the DPSIR analytical framework. In general, release of nutrients, toxic substances and total quantity of generated hazardous from industrial sectors are considered as “pressure” indicators and can be affected by industrial processes efficiencies, type of abatement technologies installed, feeding materials composition and fuel types used. In order to have a more holistic assessment and in view of informing policy, trends in the air or water or soil quality can be interpreted in light of the trends in other «pressure» and «response» indicators, to reflect potential

effectiveness of improvements of the depollution systems, toxics management and treatment systems installed . Therefore, this thematic assessment should extend beyond the H2020 indicators and include other initiatives related to industrial emissions such as SDGs, national policies and programmes, in the context of national characteristics. Where relevant, case studies should be used to illustrate progress and challenges related to the thematic INDUSTRIAL EMISSIONS.

Note that in the following guidance, the order of the DPSIR has been modified (Drivers, **Responses**, Pressures, State and Impacts) in order to put more emphasis on the effectiveness of RESPONSES put in place and how these contributed towards reducing PRESSURES, improving STATE and mitigating IMPACTS. This modified « DRPSI » is also in line with the regional H2020 assessment framework on depolluting the Mediterranean. Moreover, the discussion on Pressures-Status-Impacts has been merged in order to avoid a fragmented assessment of the 3 components which are intrinsically linked.

A number of **keywords** are also included in each section to help in the elaboration of a more holistic assessment.

Text in blue provides guidance on how to fill in the different sections.

Key policy question:

Why is industrial emissions a priority pollution issue in my country? and/or What is the progress in reducing pollutant releases and toxics generation, in improving their management and disposal ? and/or How effective were project investments in alleviating industrial emissions challenges in your country? and/or How has H2020 initiative and UfM/Barcelona Convention overall policy process improved the level of engagement of national stakeholders in your country with respect to industrial emissions ?

The Key Policy Question may be reformulated to fit the national context (within the regional frame), as required.

Key messages

Based on all your analyses and assessments, the key messages on the thematic industrial emissions should be developed. This is the most important section of the indicator assessment. The key messages should be short (usually 2-3 bullet points (or short paragraphs), simple, easily understandable but strong and explicit.

Keywords: Improving, progress, deteriorating, challenges, success story, sustainable, national capacities, new legislation, environment/ sustainability awareness, expected future developments, core issues at stake from the national perspective, core issues related to coastal areas.

Key DRIVERS

Here you can address the drivers that affect or lead to the need of improving industrial emissions reduction. These can be best illustrated using facts & figures, and indicator data on e.g. population growth, rapid development, economic growth, increase in industrial activities, market changes, change of industrial processes, abatement technologies, etc. Other drivers such as socio-political situation, legislation and financial mechanisms, (lack of) governance, human resources, technical capacities and infrastructure can be also discussed.

Keywords: Population growth, economic growth, development, local market, financial mechanism, industrial process, abatement technologies, legislation, (lack of) governance, human resources, technical

capacities, economic growth, (lack of) infrastructure, socio-economic drivers, regional policy, regional cooperation/integration.

Key RESPONSES

You can refer in this section to key policies, projects, investments, incentives and initiatives that have been implemented to improve industrial emissions reduction and toxics releases and their disposal.

Examples:

- Investment projects on improving industrial processes efficiencies, installing or improving abatement technologies, toxics management systems and treatment plants, toxics recycling plants.
- Implementing capacity building programs to increase efficiency of industrial processes and/or installing abatement technologies, toxics management and treatment facilities, or upgrading industrial processes, etc.
- Actions towards incitative financial mechanisms and legislative and regulatory framework in favor of industrial emissions reduction and environmental protection such as emissions standards and control, pollutant reporting systems, pollution taxes, etc.

Keywords: Policy measures, regulations, national strategies, investments, access to finance, abatement technology, economic incentives, public awareness, SDGs, available infrastructure, toxics management and treatment, pollutant emissions monitoring, circular/green economy, post-2020 priorities.

Key PRESSURES – STATES – IMPACTS

In this section, the most important pollution pressures (stresses that human activities place on the environment, more specifically on inland, freshwater, coastal and marine waters), the resulting environmental status and their impacts (on the natural environment, human health and socio-economics) should be discussed.

In this section the following could be discussed:

- The most important industrial emissions pressures (such as stresses that human activities place on the environment in air, inland and coastal areas)
- The resulting environmental states and their impacts (on the natural environment and the atmosphere, human health and wellbeing, food security chain, socio-economics and development)

Facts and figures showing the trends in terms of PRESSURE sources (number and distribution over the selected territory, pollutant emission and toxics intensity), and load quantities (mass or/and volume, concentrations) could be presented.

This section can also build on the key assessment messages and figures for e.g.:

IND 6.1 Release of nutrients from industrial sectors

IND 6.2 Release of toxic substances from industrial sectors

IND 6.3.1. Total quantity of generated hazardous waste from industrial installations.

The analysis of pressures can be linked to the evaluation of the environmental STATE, building on the contaminant concentration levels in air, water and soil.

When it comes to IMPACTS, one could distinguish between direct and indirect impacts on the environment, human health and socio-economics and impacts on biodiversity and agriculture, forestry, marine and fresh waters, marine and land species, etc.

This analysis can be complemented by studies or case studies related to the impact of industrial emissions.

Keywords: industrial emissions, toxics generation, contaminants, emerging pressures, monitoring, good environmental status, deteriorating status, ecosystems, human health, economic development, spatial distribution of industrial units, constraints, trend.

References in key assessment text

If you refer to information, assessments etc. from other publications and reports, the respective references should be listed here.

Guidance for Indicator Assessment

6.1 Release of nutrients from industrial sectors

H2020 / NAPs Indicators

- 6.1.1) Total BOD load discharged
- 6.1.2) Total Nitrogen load discharged
- 6.1.3) Total Phosphorus load discharged

Period: **year - year**

Version: **x.0**

Date: **xx.xx.xx**

Guidance Template for Indicator Assessment

H2020 / NAPs Indicators	
Thematic area Industrial emissions	Date Author(s):
Policy theme 6.1 Release of nutrients from industrial sectors	
Indicators: 6.1.1) Total BOD load discharged. 6.1.2) Total Nitrogen load discharged. 6.1.3) Total Phosphorus load discharged.	

General note:

This template for the indicator assessment sheet provides guidance, assistance and directions towards the elaboration of the H2020 indicator assessment at the national level. It follows the structure of the assessment templates used for the development of the Mediterranean Quality Status Report 2017 and the EEA Indicator Assessment sheets. It complements the corresponding Indicator Specification sheet, in which the « Rationale », « Indicator Definition », « Policy Context and Targets », « Methodology », « Uncertainties » are specified. Together, the Indicator Specification sheet and the Indicator Assessment sheet make up the Indicator Factsheet. This template should be filled in taking into account the policy scope of the Horizon 2020 Initiative and the progress in national implementation thereof.

The generic indicator assessment template has been modified to accommodate the three indicators (6.1.1., 6.1.2. and 6.1.3.) under the Policy Theme « 6.1. Release of nutrients from industrial sectors». The following sections can be identified:

1. Key policy question
2. Specific policy question/specific figures/specific assessment text/references: one for each of the indicator 6.1.1., 6.1.2. and 6.1.3.

Key assessment text/references and key messages: based on the specific sections and pertaining to the overall policy theme « 6.1. Release of nutrients from industrial sectors».

Key policy question: *Are the releases of nutrients from industrial sectors monitored and regulated in your country?*

The Key Policy Question may be reformulated to fit the national context (within the regional frame), as required.

Specific policy questions:

What is the progress in the control of the total BOD load discharge to the Mediterranean sea?

Specific figure(s)

A copy of the figures (graphs or maps) should be inserted here, together with the link to the respective data package files containing the drill-down data, underpinning data and metadata. In case of maps, the metadata should be in a separate file.

Note that if no data at the requested scale is available, case studies can also be included.

Specific assessment text
In this section, the specific assessment text for IND 6.1.1 “Total BOD load discharged” should be presented, based on the specific figures and addressing the specific policy question « <i>What is the progress in the control of the total BOD load discharge to the Mediterranean sea?</i> » above.
References in specific assessment text
If you refer to information, assessments etc. from other publications and reports, the respective references should be listed here.

Specific policy questions: <i>What is the progress in the control of the total Nitrogen load discharge to the Mediterranean sea?</i>
Specific figure(s)
A copy of the figures (graphs or maps) should be inserted here, together with the link to the respective data package files containing the drill-down data, underpinning data and metadata. In case of maps, the metadata should be in a separate file. Note that if no data at the requested scale is available, case studies can also be included.
Specific assessment text
In this section, the specific assessment text for IND 6.1.2. “Total Nitrogen load discharged” should be presented, based on the specific figures and addressing the specific policy question « <i>What is the progress in the control of the total Nitrogen load discharge to the Mediterranean sea?</i> » above.
References in specific assessment text
If you refer to information, assessments etc. from other publications and reports, the respective references should be listed here.

Specific policy questions: <i>What is the progress in the control of the total Phosphorus load discharge to the Mediterranean sea?</i>
Specific figure(s)
A copy of the figures (graphs or maps) should be inserted here, together with the link to the respective data package files containing the drill-down data, underpinning data and metadata. In case of maps, the metadata should be in a separate file. Note that if no data at the requested scale is available, case studies can also be included.
Specific assessment text

In this section, the specific assessment text for IND 6.1.3 “Total Phosphorus load discharged” should be presented, based on the specific figures and addressing the specific policy question « *What is the progress in the control of the total Phosphorus load discharge to the Mediterranean sea?*» above.

References in specific assessment text

If you refer to information, assessments etc. from other publications and reports, the respective references should be listed here.

Key assessment text

In this section, the outcomes of the specific assessment text below should be integrated to answer the overall key policy question « *Are the releases of nutrients from industrial sectors monitored and regulated in your country?*».

EAA uses the DPSIR framework (Driving force/ Pressure/ State/ Impact and Response) to characterise the typology of the different environmental indicators. In general, releases of nutrients from industrial sectors can be considered as “pressures” indicators and it can be affected by “drivers” such number of industrial sites or areas, level of production per type of industry, etc. In this sense, «integration» can be done using the DPSIR framework, or any adjustment of it that helps linking analytical elements together. Note that such linkages can be specific to a particular country situation. Also, it is important to refer to the Indicator Specification sheet and more specifically to the Rationale for each indicator to help identify the elements to integration, e.g. ecological/GES/policy/governance, relevant at the national level. Any linkages in the sub-indicators (e.g. similar trends, hotspot locations, etc) should be analyzed in order to derive the overall key messages.

An overview of the key assessment points and the link between the different DPSIR indicators can be provided in the overall « Industrial emissions Thematic Assessment ».

References in key assessment text

If you refer to information, assessments etc. from other publications and reports, the respective references should be listed here.

Key messages *(in +/- 3 bullet points, based on key assessment text)*

Based on all your analyses and assessment, the key messages should be developed. This is the most important section of the indicator assessment and in many cases is the final section to be written. The key messages should be simple, easily understandable, but strong and explicit. They should only contain the final judgement of your assessment as response to the key policy questions and specific policy questions.

Key messages should contain factual statements and are usually 2-3 bullet points (or short paragraphs). Each point should be 1-2 sentences and not a long text, nor a plain copy of the assessment text.

When writing Key Messages, it is important to reflect on the following:

- covering both national and coastal levels,
- time frame of the current assessment (baseline/reference year, or time periods considered in the assessment)
- uncertainties/knowledge gaps
- national characteristics within a regional context

Guidance for Indicator Assessment

IND 6.2 Release of toxic substances from industrial sectors

H2020 / NAPs Indicators

- 6.2.1) Total heavy metals load discharged
- 6.2.2) Furans and dioxins load discharged
- 6.2.3) Polycyclic aromatic hydrocarbons (PAH) load discharged
- 6.2.4) Volatile organic compounds (VOC) load discharged

Period: **year - year**

Version: **x.0**
Date: **xx.xx.xx**

Guidance Template for Indicator Assessment

H2020 / NAPs Indicators	
Thematic area Industrial emissions	Date Author(s):
Policy theme 6.2. Release of toxic substances from industrial sectors	
Indicators: 6.2.1) Total heavy metals load discharged 6.2.2) Furans and dioxins load discharged 6.2.3) Polycyclic aromatic hydrocarbons (PAH) load discharged 6.2.4) Volatile organic compounds (VOC) load discharged	

General note:

This template for the indicator assessment sheet provides guidance, assistance and directions towards the elaboration of the H2020 indicator assessment at the national level. It follows the structure of the assessment templates used for the development of the Mediterranean Quality Status Report 2017 and the EEA Indicator Assessment sheets. It complements the corresponding Indicator Specification sheet, in which the « Rationale », « Indicator Definition », « Policy Context and Targets », « Methodology », « Uncertainties » are specified. Together, the Indicator Specification sheet and the Indicator Assessment sheet make up the Indicator Factsheet. This template should be filled in taking into account the policy scope of the Horizon 2020 Initiative and the progress in national implementation thereof.

The generic indicator assessment template has been modified to accommodate the four indicators (6.2.1, 6.2.2., 6.2.3. and 6.2.4.) under the Policy Theme « 6.2. Release of toxic substances from industrial sectors». The following sections can be identified:

1. Key policy question
2. Specific policy question/specific figures/specific assessment text/references: one for each indicator 6.2.1, 6.2.2., 6.2.3. and 6.2.4.

Key assessment text /references and key messages: based on the specific sections and pertaining to the overall policy theme « 6.2. Release of toxic substances from industrial sectors».

Key policy question: *Are releases of toxic substances from industrial sectors monitored and controlled in your country?*

The Key Policy Question should be reformulated to fit the national context (within the regional frame), as required.

Specific policy questions: *What is the progress made to control the total heavy metals load discharged to the Mediterranean sea?*

Specific figure(s)

A copy of the figures (graphs or maps) should be inserted here, together with the link to the respective data package files containing the drill-down data, underpinning data and metadata. In case of maps, the metadata should be in a separate file.

Note that if no data at the requested scale is available, case studies can also be included.

Specific assessment text

In this section, the specific assessment text for IND 6.2.1 “Total heavy metals load discharged” should be presented, based on the specific figures and addressing the specific policy question « *What is the progress made to control the total heavy metals load discharged to the Mediterranean sea?* » above.

References in specific assessment text

If you refer to information, assessments etc. from other publications and reports, the respective references should be listed here.

Specific policy questions: *What is the progress made to control the furans and dioxins load discharged to the Mediterranean sea?*

Specific figure(s)

A copy of the figures (graphs or maps) should be inserted here, together with the link to the respective data package files containing the drill-down data, underpinning data and metadata. In case of maps, the metadata should be in a separate file.

Note that if no data at the requested scale is available, case studies can also be included.

Specific assessment text

In this section, the specific assessment text for IND 6.2.2. “Furans and dioxins load discharged” should be presented, based on the specific figures and addressing the specific policy question « *What is the progress made to control the furans and dioxins load discharged to the Mediterranean sea?*» above.

References in specific assessment text

If you refer to information, assessments etc. from other publications and reports, the respective references should be listed here.

Specific policy questions: *What is the progress made to control the polycyclic aromatic hydrocarbons (PAH) load discharged to the Mediterranean sea?*

Specific figure(s)

A copy of the figures (graphs or maps) should be inserted here, together with the link to the respective data package files containing the drill-down data, underpinning data and metadata. In case of maps, the metadata should be in a separate file.

Note that if no data at the requested scale is available, case studies can also be included.

Specific assessment text

In this section, the specific assessment text for IND 6.2.3. “Polycyclic aromatic hydrocarbons (PAH) load discharged” should be presented, based on the specific figures and addressing the specific policy question « *What is the progress made to control the polycyclic aromatic hydrocarbons (PAH) load discharged to the Mediterranean sea?* » above.

References in specific assessment text

If you refer to information, assessments etc. from other publications and reports, the respective references should be listed here.

Specific policy questions: *What is the progress made to control the volatile organic compounds (VOC) load discharged to the Mediterranean sea?*

Specific figure(s)

A copy of the figures (graphs or maps) should be inserted here, together with the link to the respective data package files containing the drill-down data, underpinning data and metadata. In case of maps, the metadata should be in a separate file.

Note that if no data at the requested scale is available, case studies can also be included.

Specific assessment text

In this section, the specific assessment text for IND 6.2.4 “Volatile organic compounds (VOC) load discharged should be presented, based on the specific figures and addressing the specific policy question « *What is the progress made to control the volatile organic compounds (VOC) load discharged to the Mediterranean sea?* » above.

References in specific assessment text

If you refer to information, assessments etc. from other publications and reports, the respective references should be listed here.

Key assessment text

In this section, the outcomes of the specific assessment text below should be integrated to answer the overall key policy question « *Are releases of toxic substances from industrial sectors monitored and controlled in your country?* ».

EEA uses the DPSIR framework (Driving force/ Pressure/ State/ Impact and Response) to characterise the typology of the different environmental indicators. In general, “Hardware” of waste management can be considered as both a “pressure” and “state” indicator. In this sense, «integration» can be done using the DPSIR framework, or any adjustment of it that helps linking analytical elements together. Note that such linkages can be specific to a particular country situation. Also, it is important to refer to the Indicator Specification sheet and more specifically to the Rationale for each indicator to help identify the elements to integration, e.g. ecological/GES/policy/governance, relevant at the national level. Any linkages in the sub-indicators (e.g. similar trends, hotspot locations etc) should be analyzed in order to derive the overall key messages.

An overview of the key assessment points and the link between the different DPSIR indicators can be provided in the overall « Industrial Emissions Thematic Assessment ».

References in key assessment text

If you refer to information, assessments etc. from other publications and reports, the respective references should be listed here.

Key messages

Based on all your analyses and assessment, the key messages should be developed. This is the most important section of the indicator assessment and in many cases is the final section to be written. The key messages should be simple, easily understandable, but strong and explicit. They should only contain the final judgement of your assessment as response to the key policy questions and specific policy questions.

Key messages should contain factual statements and are usually 2-3 bullet points (or short paragraphs). Each point should be 1-2 sentences and not a long text, nor a plain copy of the assessment text.

When writing Key Messages, it is important to reflect on the following:

- covering both national and coastal levels,
- time frame of the current assessment (baseline/reference year, or time periods the assessment is looking at)
- uncertainties/knowledge gaps
- national characteristics within a regional context

Guidance for Indicator Assessment

IND 6.3 Industrial hazardous waste disposed in environmentally sound manner

H2020 / NAPs Indicators

6.3.1) Total quantity of generated hazardous waste
6.3.2) Quantity of industrial hazardous waste disposed in environmentally sound manner relative to total quantity of generated hazardous waste from industrial installations.

Period: **year - year**

Version: **x.0**

Date: **xx.xx.xx**

Guidance Template for Indicator Assessment

H2020 / NAPs Indicators	
Thematic area Industrial emissions	Date Author(s):
Policy theme IND 6.3. Industrial hazardous waste disposed in environmentally sound manner	
Indicators: 6.3.1) Total quantity of generated hazardous waste 6.3.2) Quantity of industrial hazardous waste disposed	

General note:

This template for the indicator assessment sheet provides guidance, assistance and directions towards the elaboration of the H2020 indicator assessment at the national level. It follows the structure of the assessment templates used for the development of the Mediterranean Quality Status Report 2017 and the EEA Indicator Assessment sheets. It complements the corresponding Indicator Specification sheet, in which the « Rationale, « Indicator Definition », « Policy Context and Targets », « Methodology », « Uncertainties » are specified. Together, the Indicator Specification sheet and the Indicator Assessment sheet make up the Indicator Factsheet. This template should be filled in taking into account the policy scope of the Horizon 2020 Initiative and the progress in national implementation thereof.

The generic indicator assessment template has been modified to accommodate the two indicators (6.3.1 and 6.3.2.) under the Policy Theme « 6.3. Industrial hazardous waste disposed in environmentally sound manner ». The following sections can be identified:

3. Key policy question
4. Specific policy question/specific figures/specific assessment text/references: one for each indicator 6.3.1. and 6.3.2.
5. Key assessment text /references and key messages: based on the specific sections and pertaining to the overall policy theme « 6.3. Industrial hazardous waste disposed in environmentally sound manner »

Text in **blue** provides guidance on how to fill in the different sections; text in **green** provides example text.

Key policy question: *What is the trend of the hazardous waste generation from industrial sectors and how is their management and disposal in environmentally sound manner improving?*

The Key Policy Question may be reformulated to fit the national context (within the regional frame), as required.

Specific policy questions:

6.3.1. What is the trend of the total quantity of generated hazardous waste by industrial sectors ?

Specific figure(s)

A copy of the figures (graphs or maps) should be inserted here, together with the link to the respective data package files containing the drill-down data, underpinning data and metadata. In case of maps, the metadata should be in a separate file.

Note that if no data at the requested scale is available, case studies can also be included.

Specific assessment text

In this section, the specific assessment text for Ind 6.3.1 should be presented, based on the specific figures and addressing the specific policy question « *What is the trend of the total quantity of generated hazardous waste by industrial sectors ?* » above.

References in specific assessment text

If you refer to information, assessments etc. from other publications and reports, the respective references should be listed here.

Specific policy questions:

6.3.2. What is the trend of the quantity of industrial hazardous waste disposed in environmentally sound manner relative to total quantity of generated hazardous waste from industrial installations?

Specific figure(s)

A copy of the figures (graphs or maps) should be inserted here, together with the link to the respective data package files containing the drill-down data, underpinning data and metadata. In case of maps, the metadata should be in a separate file.

Note that if no data at the requested scale is available, case studies can also be included.

Specific assessment text

In this section, the specific assessment text for Ind 6.3.2 should be presented, based on the specific figures and addressing the specific policy question « *What is the trend of the quantity of industrial hazardous waste disposed in environmentally sound manner relative to total quantity of generated hazardous waste from industrial installations?* » above.

References in specific assessment text

If you refer to information, assessments etc. from other publications and reports, the respective references should be listed here.

Key assessment text

In this section, the outcomes of the specific assessment text below should be integrated to answer the overall key policy question « *What is the trend of the hazardous waste generation from industrial sectors and how is their management and disposal in an environmentally sound manner improving ?* ».

EEA uses the DPSIR framework (Driving force/ Pressure/ State/ Impact and Response) to characterise the typology of the different environmental indicators. In general, coastal and marine water quality can be considered as “state” indicators and it can be affected by “pressures” such as the discharge of insufficiently treated wastewater and agricultural runoff. In this sense, «integration » can be done using the DPSIR framework, or any adjustment of it that helps linking analytical elements together. Note that such linkages can be specific to a particular country situation. Also, it is important to refer to the Indicator Specification sheet and more specifically to the Rationale for each indicator to help identify the elements to integration, e.g. natural/ecological/GES/policy/governance, relevant at the national level. Any linkages in the sub-indicators (e.g. similar trends, hotspot locations etc) should be analyzed in order to derive the overall key messages.

An overview of the key assessment points and the link between the different DPSIR indicators can be provided in the overall « Industrial Emissions Thematic Assessment ».

References in key assessment text

If you refer to information, assessments etc. from other publications and reports, the respective references should be listed here.

Key messages *(in +/- 3 bullet points, based on key assessment text)*

Based on all your analyses and assessment, the key messages should be developed. This is the most important section of the indicator assessment and in many cases is the final section to be written. The key messages should be simple, easily understandable, but strong and explicit. They should only contain the final judgement of your assessment as response to the key policy questions and specific policy questions.

Key messages should contain factual statements and are usually 2-3 bullet points (or short paragraphs). Each point should be 1-2 sentences and not a long text, nor a plain copy of the assessment text.

When writing Key Messages, it is important to reflect on the following:

- distribution coastal versus marine,
- time frame of the current assessment (baseline/reference year, or time periods the assessment is looking at)
- uncertainties/knowledge gaps
- national characteristics within a regional context

Example

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Guidance for Indicator Assessment

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

H2020 / NAPs 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

Period: **year - year**

Version: **x.0**

Date: **xx.xx.xx**

Guidance Template for Indicator Assessment

H2020 / NAPs Indicators	
Thematic area Industrial Emissions	Date DD.MM.YYYY Author(s): Text If you are filling up this template, affiliate your name as author. There may be more than one name as co-author (s)
Policy theme 6.4 Compliance measures aiming at the reduction and/or elimination of pollutants generated by industrial sectors	
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	

General note:

This template for the indicator assessment sheet provides guidance, assistance and directions towards the elaboration of the H2020 indicator assessment at the national level. It follows the structure of the assessment templates used for the development of the Mediterranean Quality Status Report 2017 and the EEA Indicator Assessment sheets. It complements the corresponding Indicator Specification sheet, in which the « Rationale, « Indicator Definition », « Policy Context and Targets », « Methodology », « Uncertainties » are specified. Together, the Indicator Specification sheet and the Indicator Assessment sheet make up the Indicator Factsheet. This template should be filled in taking into account the policy scope of the Horizon 2020 Initiative and the progress in national implementation thereof.

The generic indicator assessment template has been modified to accommodate the two indicators (6.4.1, 6.4.2, 6.4.3) under the Policy Theme « 5. Coastal and Marine Water Quality ». The following sections can be identified:

6. Key policy question
7. Specific policy question/specific figures/specific assessment text/references: one for each indicator 5.1 & 5.2
8. Key assessment text /references and key messages: based on the specific sections and pertaining to the overall policy theme « 6.4 Compliance measures aiming at the reduction and/or elimination of pollutants generated by industrial sectors»

Text in **blue** provides guidance on how to fill in the different sections; text in **green** provides example text.

Key policy question: *How is enforcement of current regulations and standards ensured for industrial sectors in your country? Is there any plan to update or improve them ?*

The Key Policy Question may be reformulated to fit the national context (within the regional frame), as required.

Specific policy questions:

6.4.1)

How is the total number of industrial installations evolving in your country? Is it increasing or decreasing or stable?

Is reporting of emissions from industrial sectors regulated (mandatory or voluntary) in your country?

Are industries reporting periodically (on a continuous and regular manner) to an institutional body on their loads of pollutants discharged to the marine and coastal environments?

What is the trend of the total number of reports received annually relative to the total number of industrial installations in your country during the last few years?

Specific figure(s)

A copy of the figures (graphs or maps) should be inserted here, together with the link to the respective data package files containing the drill-down data, underpinning data and metadata. In case of maps, the metadata should be in a separate file.

Note that if no data at the requested scale is available, case studies can also be included.

Below a number of example illustrations are provided.

Specific assessment text

In this section, the specific assessment text for Ind 5.1 should be presented, based on the specific figures and addressing the specific policy question « Are industries reporting periodically (on a continuous and regular manner) to an institutional body on their loads of pollutants discharged? What is the trend of the total number of reports received annually relative to the total number of industrial installations in your country during the last few years?» above.

Example,

References in specific assessment text

If you refer to information, assessments etc. from other publications and reports, the respective references should be listed here.

Specific policy questions:

6.4.2)

What is the trend of the total number of environmental inspections carried out by enforcement authorities annually in the industrial installations?

What is the trend of the total number of breach of laws and regulations recorded annually in the industrial sectors in your country? What is it in percentage relative to the total number of executed environmental inspections?

Specific figure(s)

A copy of the figures (graphs or maps) should be inserted here, together with the link to the respective data package files containing the drill-down data, underpinning data and metadata. In case of maps, the metadata should be in a separate file.

Note that if no data at the requested scale is available, case studies can also be included.

Below a number of example illustrations are provided.

Specific assessment text

In this section, the specific assessment text for Ind 5.2 should be presented, based on the specific figures and addressing the specific policy question « *What is the trend of the total number of breach of laws and regulations recorded annually in the industrial sectors in your country? What is it in percentage relative to the total number of executed environmental inspections?* » above.

Example

References in specific assessment text

If you refer to information, assessments etc. from other publications and reports, the respective references should be listed here.

Specific policy questions:

6.4.3) *What is the total number of eliminated hotspots (industrial polluting sites or installations) identified in the updated NAPs relative to the 2001 and 2015 baselines?*

Specific figure(s)

A copy of the figures (graphs or maps) should be inserted here, together with the link to the respective data package files containing the drill-down data, underpinning data and metadata. In case of maps, the metadata should be in a separate file.

Note that if no data at the requested scale is available, case studies can also be included.

Below a number of example illustrations are provided.

Specific assessment text

In this section, the specific assessment text for Ind 5.2 should be presented, based on the specific figures and addressing the specific policy question « *What is the total number of eliminated hotspots (industrial polluting sites or installations) identified in the updated NAPs relative to the 2001 and 2015 baselines?* » above.

Example**References in specific assessment text**

If you refer to information, assessments etc. from other publications and reports, the respective references should be listed here.

Key assessment text

In this section, the outcomes of the specific assessment text below should be integrated to answer the overall key policy question «How is enforcement of current regulations and standards ensured for industrial sectors in your country? Is there any plan to update or improve them? ».

EEA uses the DPSIR framework (Driving force/ Pressure/ State/ Impact and Response) to characterise the typology of the different environmental indicators. In general, coastal and marine water quality can be considered as “state” indicators and it can be affected by “pressures” such as the discharge of insufficiently treated wastewater and agricultural runoff. In this sense, «integration » can be done using the DPSIR framework, or any adjustment of it that helps linking analytical elements together. Note that such linkages can be specific to a particular country situation. Also, it is important to refer to the Indicator Specification sheet and more specifically to the Rationale for each indicator to help identify the elements to integration, e.g. natural/ecological/GES/policy/governance, relevant at the national level. Any linkages in the sub-indicators (e.g. similar trends, hotspot locations etc) should be analyzed in order to derive the overall key messages.

An overview of the key assessment points and the link between the different DPSIR indicators can be provided in the overall « Industrial Emissions Thematic Assessment ».

References in key assessment text

If you refer to information, assessments etc. from other publications and reports, the respective references should be listed here.

Key messages *(in +/- 3 bullet points, based on key assessment text)*

Based on all your analyses and assessment, the key messages should be developed. This is the most important section of the indicator assessment and in many cases is the final section to be written. The key messages should be simple, easily understandable, but strong and explicit. They should only contain the final judgement of your assessment as response to the key policy questions and specific policy questions.

Key messages should contain factual statements and are usually 2-3 bullet points (or short paragraphs). Each point should be 1-2 sentences and not a long text, nor a plain copy of the assessment text.

When writing Key Messages, it is important to reflect on the following:

- distribution coastal versus marine,
- time frame of the current assessment (baseline/reference year, or time periods the assessment is looking at)
- uncertainties/knowledge gaps
- national characteristics within a regional context

Annex 1. Highlights of national assessment.

1. Municipal waste and marine litter	
Key Questions	Annotations
1.1. What are the trends in municipal solid waste generation?	<ul style="list-style-type: none"> • Overview of the waste indicator trends.
1.2. Is appropriate disposal and treatment improving?	<ul style="list-style-type: none"> • Case studies to highlight best practices.
1.3. What is the extension of the issue of marine litter in your country?	<ul style="list-style-type: none"> • Links to marine Litter activities in the Mediterranean (e.g. ML regional plan, SCP framework, IMAP ML indicators, regional assessments and studies) to inform on impacts of marine litter (quantities e.g. beach litter, socio-economic and environmental impacts of ML). • Include case-studies/highlights from your country.
2. Waste and Marine litter data and information process	
2.1. How is the monitoring and reporting on waste progressing in your country?	<ul style="list-style-type: none"> • Description of the progress of data, infrastructure and cooperation in related to waste. • Note regarding the quality of data.
3. Waste and Marine litter assessment	
3.1. Why is municipal solid waste a priority issue in your country?	<ul style="list-style-type: none"> • Findings in light of the national drivers and responses. • Description of uncertainties and how you are addressing these.
3.2. What are the main factors impacting waste management in your country?	<ul style="list-style-type: none"> • Do the indicators sufficiently assess the problem?
3.3. Are the challenges related to municipal waste and marine litter properly addressed?	<ul style="list-style-type: none"> • Informal waste management, overall management & recycling linking to circular economy. • Pressures growing faster than actions. • Link to post H2020 agenda – circular economy element is key.

3.4.	•
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1. Release of nutrients from industrial sectors	
Key questions	Annotations
1.1. Are the releases of nutrients from industrial sectors monitored and regulated in your country?	<ul style="list-style-type: none"> Describe how measurements and chemical analysis are conducted in the country on a regular basis to monitor pollutant emissions from industrial sectors
1.2. What is the progress in the control of the total BOD load discharge to the Mediterranean sea and in coastal areas?	<ul style="list-style-type: none"> Describe the BOD load discharge trend
1.3. What is the progress in the control of the total Nitrogen load discharge to the Mediterranean sea?	<ul style="list-style-type: none"> Describe the total nitrogen load discharge trend
1.4. What is the progress in the control of the total Phosphorus load discharge to the Mediterranean sea?	<ul style="list-style-type: none"> Describe the total phosphorus load discharge trend
2. Release of toxic substances from industrial sectors	
2.1. Are releases of toxic substances from industrial sectors monitored and controlled in your country?	<ul style="list-style-type: none"> Describe how toxic substances releases are monitored and managed in the in the country on a regular basis Describe how data are produced and collected from industrial sectors
2.2. What is the progress made to control the total heavy metals load discharged to the Mediterranean sea?	<p>Describe on any measures (standards, regulations) taken in favor of the decrease of heavy metals release and/or control.</p> <p>Figure out the trend of heavy metals emissions from industrial sectors in the country</p>

2.3. What is the progress made to control the furans and dioxins load discharged to the Mediterranean sea?	Describe on any measures (standards, regulations) taken in favor of the decrease of furans and dioxins release and/or control. Figure out the trend of furans and dioxins emissions from industrial sectors in the country
2.4. What is the progress made to control the polycyclic aromatic hydrocarbons (PAH) load discharged to the Mediterranean sea?	Describe on any measures (standards, regulations) taken in favor of the decrease of polycyclic aromatic hydrocarbons release and/or control. Figure out the trend of polycyclic aromatic hydrocarbons emissions from industrial sectors in the country
2.5. What is the progress made to control the volatile organic compounds (VOC) load discharged to the Mediterranean sea?	Describe on any measures (standards, regulations) taken in favor of the decrease of volatile organic compounds release and/or control. Highlight the trend of volatile organic compounds emissions from industrial sectors in the country
3. Industrial hazardous waste disposed in environmentally sound manner	
3.1. What is the trend of the hazardous waste generation from industrial sectors and how is their management and disposal in environmentally sound manner improving?	<ul style="list-style-type: none"> • Overview of the hazardous waste indicator trends. • Case studies to highlight best practices.
3.2. What is the trend of the total quantity of generated hazardous waste by industrial sectors ?	Overview of the hazardous waste indicator trends.
3.3. What is the trend of the quantity of industrial hazardous waste disposed in environmentally sound manner relative to total quantity of generated hazardous waste from industrial installations?	Overview of the hazardous waste indicator trends.
4. Compliance measures aiming at the reduction and/or elimination of pollutants generated by industrial sectors	
4.1. How is enforcement of current regulations and standards ensured for industrial sectors in your country? Is there any plan to update or improve them ?	

4.2. How is the total number of industrial installations evolving in your country? Is it increasing or decreasing or stable?	
4.3. Is reporting of emissions from industrial sectors regulated (mandatory or voluntary) in your country?	
4.4. Are industries reporting periodically (on a continuous and regular manner) to an institutional body on their loads of pollutants discharged to the marine and coastal environments?	
4.5. What is the trend of the total number of reports received annually relative to the total number of industrial installations in your country during the last few years?	
4.6. What is the trend of the total number of environmental inspections carried out by enforcement authorities annually in the industrial installations?	
4.7. What is the trend of the total number of breach of laws and regulations recorded annually in the industrial sectors in your country?	
4.8. What is it in percentage relative to the total number of executed environmental inspections?	
4.9. What is the total number of eliminated hotspots (industrial polluting site or installation) identified in the updated NAPs relative to the 2001 and 2015 baselines?	