

Workshop on Environment Statistics and Information for Sustainable Development in the Arab Region |  
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# Shared Environmental Information System (SEIS): waste statistics for Horizon 2020 indicators

*Cecile Roddier-Quefelec,  
Project coordinator ENI SEIS II South  
European neighbourhood policy activities – Mediterranean Area cooperation*



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European Environment Agency



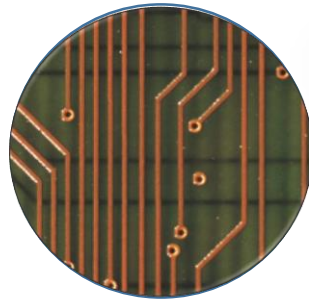
# Overview

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- Building knowledge base – SEIS and MDIAK chain
- Review of H2020 waste and industrial emissions Indicators,
- Methodology, specifications sheets,

# Shared Environmental Information System – SEIS

EIS  
InfoMAP, Reportnet



Infrastructure



Content

SDGs  
SoER  
NAP/H2020 indicators  
H2020 assessment



Cooperation

NFPs  
National team/National  
committee

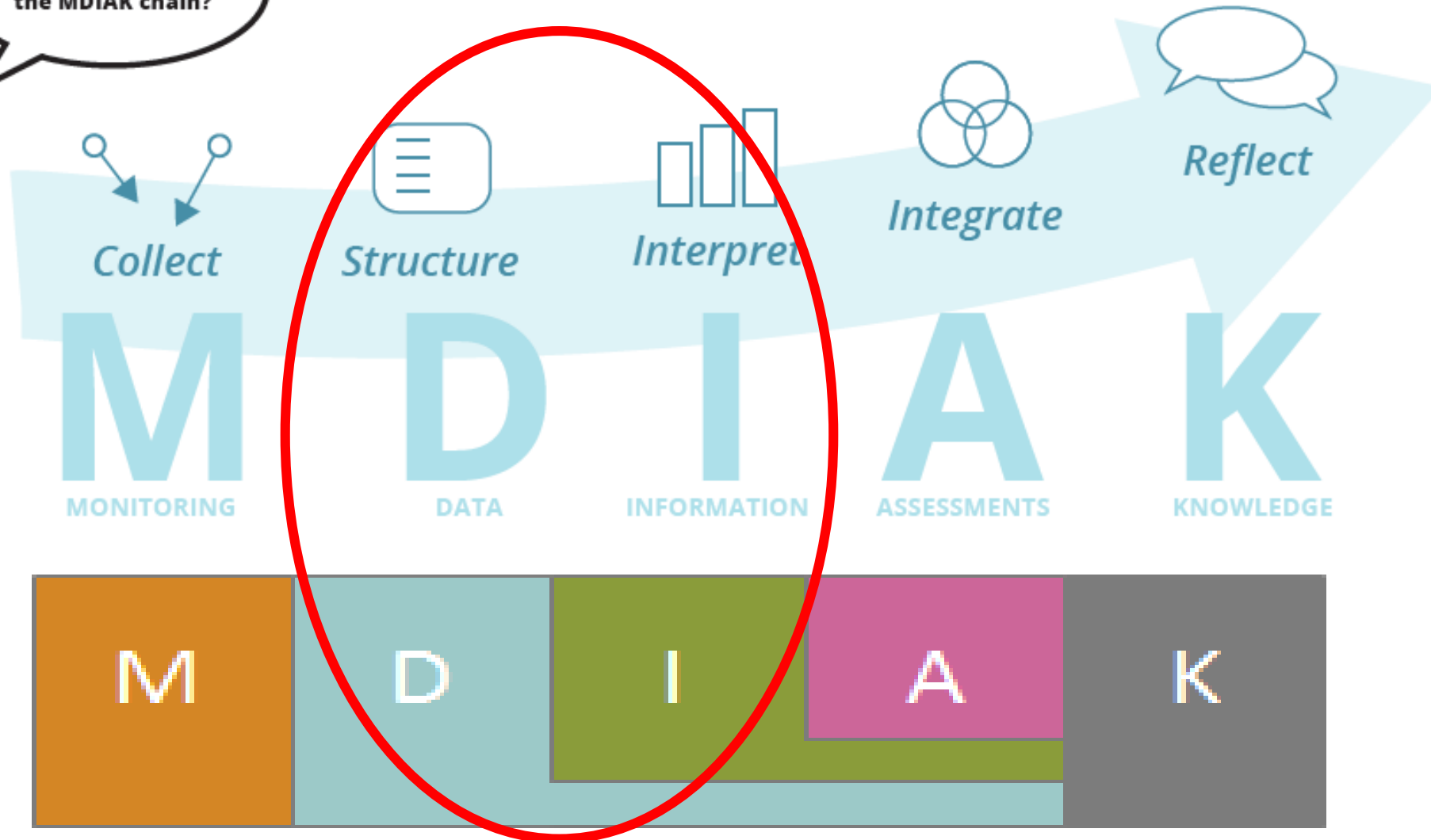
Principles:  
Information

1. Managed as **close as possible** to its source.
2. **Collected once** and shared with others for many purposes.
3. **Readily available** to easily fulfil reporting obligations.
4. Easily **accessible** to all users.
5. **Accessible** to enable comparisons at the appropriate geographical scale and the participation of citizens.
6. **Fully available to the general public** and at national level in the relevant national language(s).
7. Supported **through common, free, open software standards**.



# Building knowledge – operative model

How do we work across the MDIAK chain?



# Indicators in use

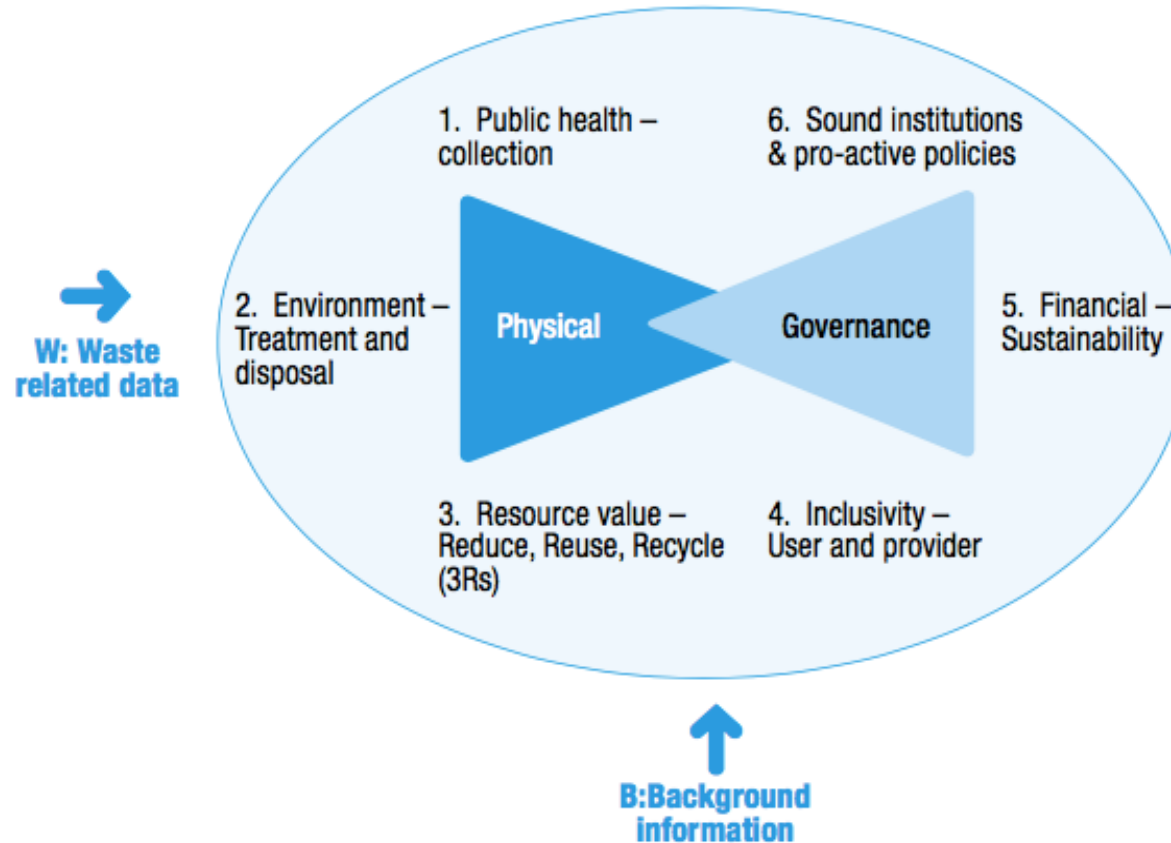
INDICATORS	Drivers	Pressures	State	Impacts	Responses
IND 1 - Municipal waste generation IND 1.A Municipal waste composition		X			
IND 2 - Collected and treated municipal waste IND 2.A Number, type and location of landfills		X	X		
NAP 11: Proportion of urban SW regularly collected and with appropriate final discharge out of total urban waste generated by cities		X	X		
NAP 12: Share of recycled, landfilled or incinerated municipal waste with respect to collected amount			X		
NAP 13: Amounts /trends of marine litter washed ashore and or deposited in coastlines, including analysis of composition, spatial distribution and where possible, source			X	X	
NAP 14: Index of coastal eutrophication and floating plastic debris density			X	X	
NAP 15: Share of existing illegal solid waste dumpsites on land that have been closed (in past 10 years) with respect to the total number			X		

Based on available statistics  
Barcelona Convention  
Country National  
Action Plan (NAP  
update 2015)

Limited data  
availability

Lack prevention  
dimension, Marine  
litter

# Wasteaware Indicators



Source: UNEP – ISWA, Global Waste Management Outlook, 2015, ISBN: 978-92-807-3479-9

Source: 'Wasteaware' benchmark indicators for integrated sustainable waste management in cities, Waste Management, [Volume 35](#), January 2015, Pages 329-342

# Tourism as a driver

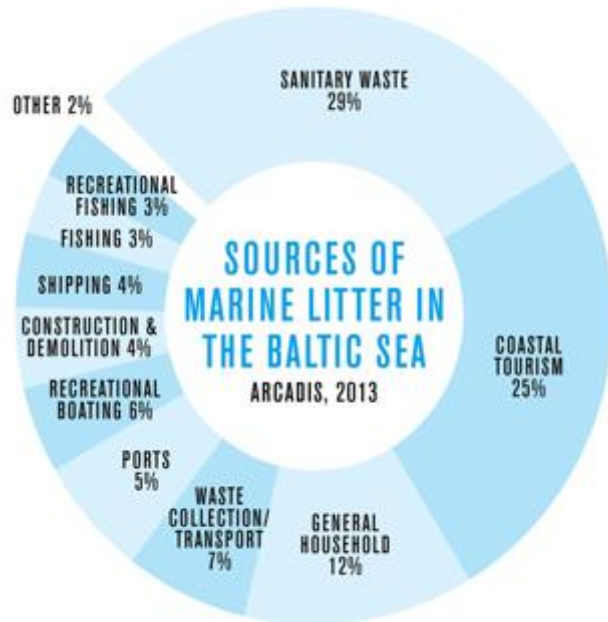
## Mediterranean Sea

The largest global tourism destination

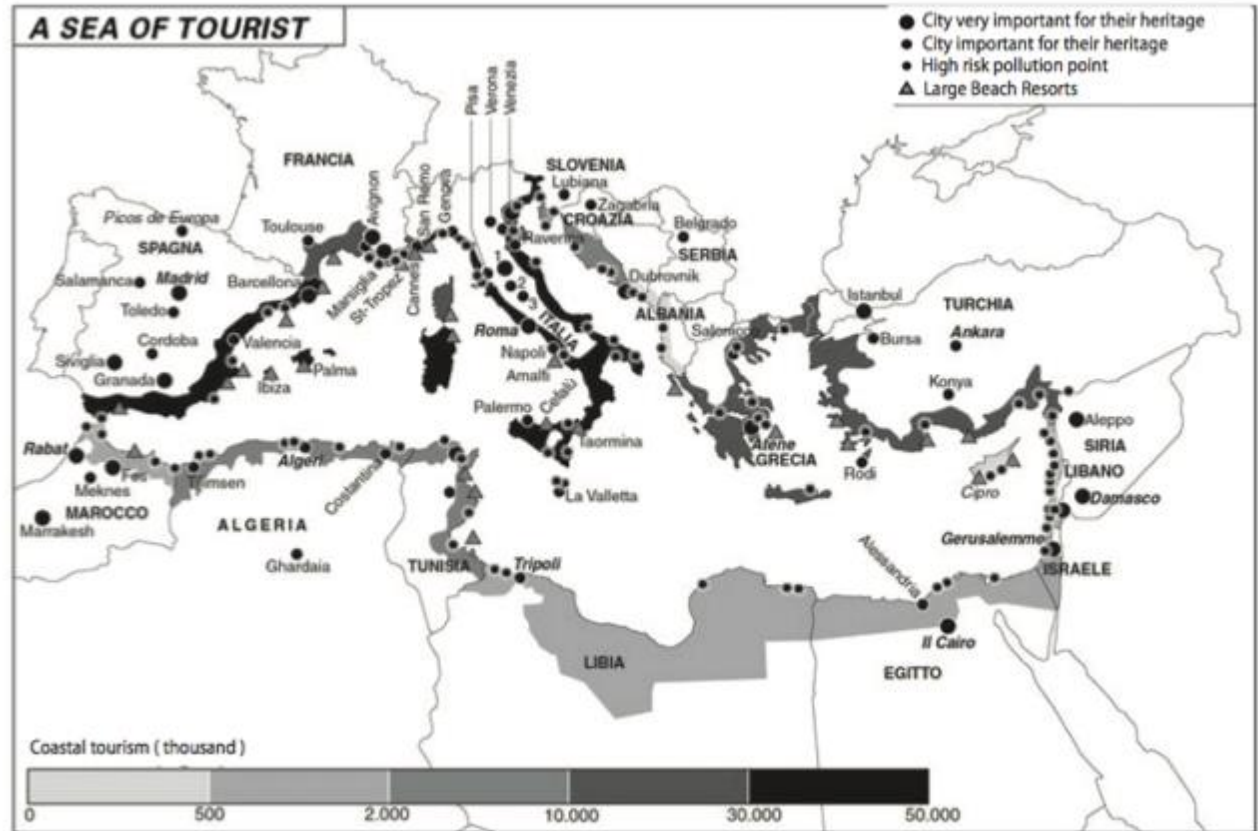
Receives 306 million out of 980 million tourists worldwide

Generates 190 out of 738 billion Euro worldwide

At least 1/3 of the ML comes from touristic activities



Source: MARLIN 2013



Source: MED-Zero Plastic action plan- Targeting the ML of the tourism industry in the Mediterranean Sea, January 2016

# Waste management and marine litter indicators

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- Refine indicator set in line with extension of H2020 (prevention dimension, marine litter)
- Allow for in-depth analysis in relation to previous assessments

IND 1. Municipal waste generation (Municipal waste composition)

IND 2. Collected and treated municipal waste (Number, type and location of landfills)

SEIS South Phase I

H2020  
Mediterranean  
Report (2014)

IND 1. Municipal waste generation

IND 2. “Hardware” of waste management

IND Q. “Software” of waste management

SEIS South Phase II



# Renewed set of indicators

IND 1.	Municipal Waste Generation	IND 1 Quantity of solid Municipal Waste generated IND 1.A Municipal solid waste composition; IND 1.B Plastic waste generation per capita; IND 1.C % of population living in Coastal Areas; IND 1.D % of Tourists in Coastal Areas
IND 2	"Hardware" of waste management	IND 2.A Waste Collection IND 2.A.1 Waste Collection Coverage IND 2.A.2 Waste Captured by the formal waste sector IND 2.B Environmental Control IND 2.B.1 % of waste to uncontrolled dumpsites IND 2.B.2 Uncontrolled dumpsites in Coastal Areas IND 2.B.3 Waste going to dumpsites in Coastal Areas IND 2.C Resource Recovery IND 2.C.1 % of plastic waste generated that is recycled
IND Q	"Software" of waste management	Q.A MARINE LITTER & WASTE MANAGEMENT FRAMEWORK Q.B RESOURCE RECOVERY Q.C SUSTAINABLE CONSUMPTION AND PRODUCTION

➤ **Methodological guidance**

➤ **Technical assistance to ENI SEIS II South countries**

# Definition and calculation methodology for the updated set of H2020 industrial emissions indicators

# Set of updated H2020 industrial emissions indicators

1. Release of nutrients from industrial sectors
2. Release of toxic substances from industrial sectors
3. Management of hazardous wastes from industrial sectors
4. Measures or initiatives taken for the reduction and/or elimination of the amount of hazardous wastes generated by industrial sectors

# Industrial emissions indicators

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- **UN environment Mediterranean Action Plan, Land Based Sources Protocol / MEDPOL program**
- **MEDPOL Monitoring program**
- **National Base Line Budget**
- **PRTR**
- **MEDPOL Infosystem**

# IND 6.1: Release of nutrients from industrial sectors

Three (3) 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.

# IND 6.2: Release of toxic substances from industrial sectors

Four (4) sub-indicators:

- 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.

# Description of calculation method and required data for indicators IND 6.1 & 6.2

Calculation of pollution load maybe by:

- 1) Emissions factors (EF) technique.
- 2) Field measurements.

Required data:

- 1) Relevant industrial sectors per administrative region.
- 2) Relevant industrial processes generating pollutant/ contaminant.
- 3) Unit production quantity.
- 4) Emission factors for relevant pollutant for each industrial process.

# IND 6.3: Management of hazardous wastes from industrial sectors

Two (2) sub-indicators:

- 6.3.1) Total amount of hazardous industrial waste that is disposed in environmentally sound manner.
- 6.3.2) Total amount of hazardous industrial waste that is stockpiled in designated areas.



# Calculation methodology and required data for indicator IND 6.3

Calculation of pollution load is based on:

- estimates of quantities of hazardous wastes disposed or stockpiled

Required data:

- 1) Amount of hazardous waste that has been disposed in sound environmental manner.
- 2) Amount of stockpiled hazardous waste.

## **IND 6.4: Measures or initiatives taken for the reduction and/or elimination of the amount of hazardous wastes generated by industrial sectors**

Five (5) sub-indicators:

- 6.4.1) Number of issued permits setting requirements for BAT and BEP applications.
- 6.4.2) Number of industries reporting periodically loads of pollutants discharging directly and indirectly to marine and coastal environments.

## **IND 6.4: Measures or initiatives taken for the reduction and/or elimination of the amount of hazardous wastes generated by industrial sectors**

- 6.4.3) Number of implemented economic instruments/initiatives or legal/administrative measures aiming at reducing/preventing toxic releases.
- 6.4.4) Number of controls and inspections carried out by environmental authorities of industries generating hazardous wastes or discharging toxic chemicals.
- 6.4.5) Number of eliminated hotspots in the updated NAP (2015).

# Calculation methodology for indicator IND 6.4

Calculation methodology is based on determining the number of implemented measures or initiatives or instruments aiming at:

- reducing toxic releases and use of dangerous chemicals or
- encouraging the use of cleaner technology/best available technology.

# Required data for calculation of indicator IND 6.4

- No. of permits issued for implementation of state of the art industrial processes or improved operation methods (BAT).
- No. of permits issued for application of the most appropriate combination of environmental control measures and strategies for remediating contaminated sites (BEP).
- No. of emission limit values.

# Required data for calculation of indicator IND 6.4

- No. of regulations.
- No. of environmental taxes.
- No. of financial aid programmes.
- No. of subsidies; tax rebates; tax exemptions.
- No. of environmental awards.
- No. of inspections carried out by environmental agencies.
- No. of eliminated hotspots identified in the updated NAPs (2015).

# Thank you for your attention!

**United Nations Environment Programme  
Coordinating Unit for the Mediterranean  
Action Plan**

Vassileos Konstantinou 48  
Athens 11635, Greece

[www.unepmap.org](http://www.unepmap.org)

[tatjana.hema@unepmap.gr](mailto:tatjana.hema@unepmap.gr)

**European Environment Agency (EEA)  
European Neighbourhood Policy  
activities**

Kongens Nytorv 6  
1050 Copenhagen K, Denmark

<http://www.eea.europa.eu/>

[Ronan.uhel@eea.europa.eu](mailto:Ronan.uhel@eea.europa.eu)

[Michael.assouline@eea.europa.eu](mailto:Michael.assouline@eea.europa.eu)

[Cecile.rodier-quefelec@eea.europa.eu](mailto:Cecile.rodier-quefelec@eea.europa.eu)



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