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Revision of the EEA- Eionet indicators and other related activities of the European Environment Agency

Summary

- I. **EEA indicators: context and overview**
- II. **Recent developments relevant to policy making**

But first of all...

We appreciate the indicator revision that UNECE is carrying out, as well as the Revised Guidelines for the Application of Environmental Indicators

We share the UNECE conceptual approach that clearly distinguishes indicators from underlying data and statistics (following the definitions provided by the UNSD FDES)

Although it seems a matter of course, the use of official definitions is unfortunately not very common...

... where on the other hand it has considerable positive implications for the implementation of work at regional and national level, and fosters inter-institutional cooperation

The common conceptual base of UNECE and EEA work on environmental indicators can facilitate further synergies in our respective fields of action and improve our support to countries

I. EEA indicators: context and overview

II. Recent developments relevant to policy making

EEA and Eionet

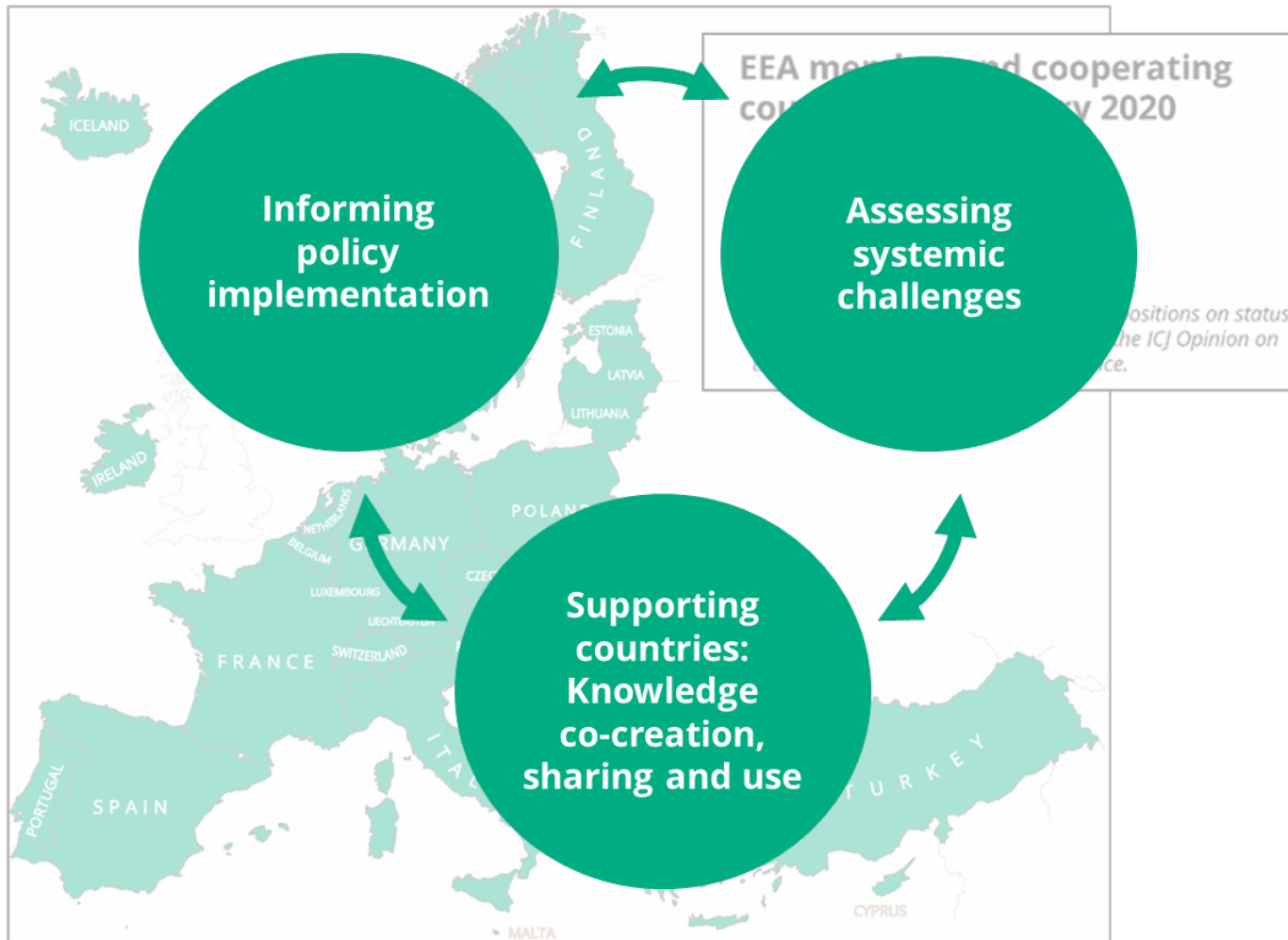
- The European environment information and observation network (Eionet) is a partnership network of the EEA and its member and cooperating countries
- EEA and Eionet provide reliable and independent information on Europe's environment and climate to European citizens and policy-makers



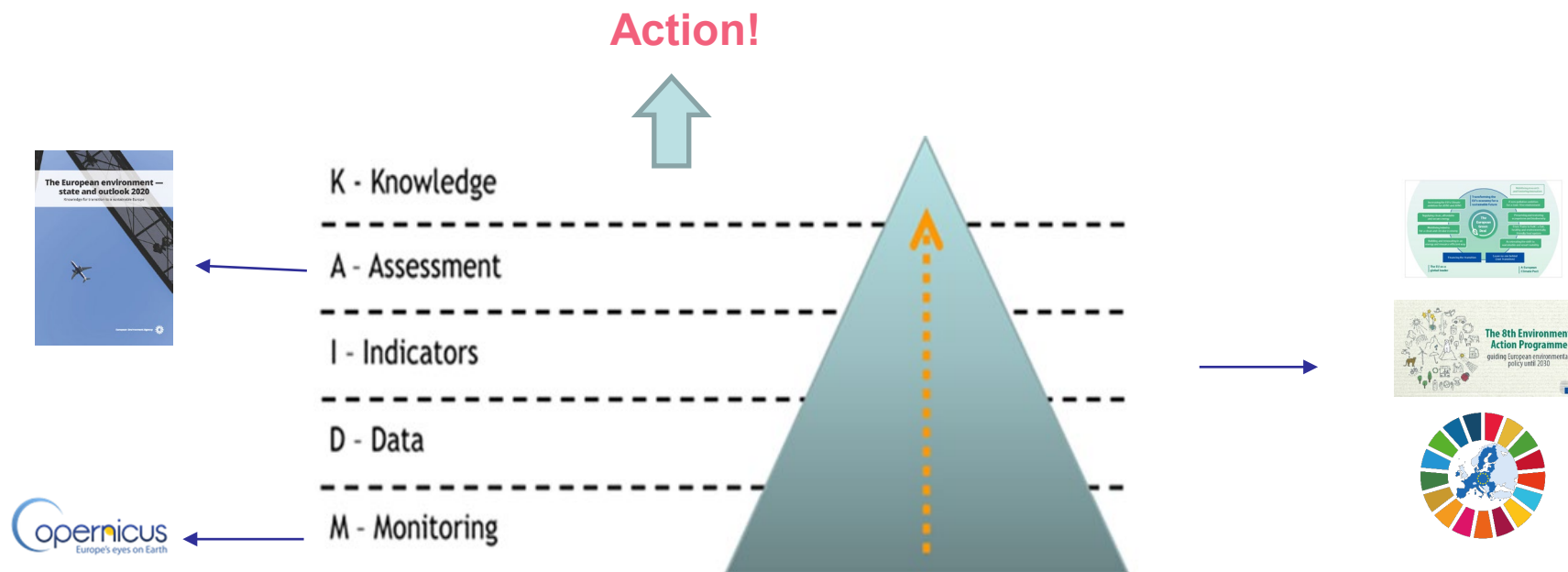
Broad knowledge base

- 2000 experts
- 400 national institutions
- 38 countries
- 13 Eionet groups
- 7 European Topic Centres
- Innovative e-reporting infrastructure for data flows (Reportnet 3)
- Capacity to assess progress, prospects, drivers of change, potential policy responses

What we do



The M-D-I-A-K framework: central role for indicators



- Significant part of EEA-Eionet activities concerns production/use/dissemination of **environmental indicators**, supporting all phases of policy making (designing policy frameworks, setting targets, policy monitoring, policy evaluation, communicating)

67 indicators – 12 environmental topics – 10 sets

Indicators (EEA)

Environmental Indicator Catalogue (Eurostat)

EEA indicators: some features

EEA indicators cover all environmental topics, with a focus on Water and marine environment (22%) and Climate change mitigation (16%)

Topic	Indicators
Water and marine environment	15
Climate change mitigation	11
Biodiversity – Ecosystems	9
Climate change adaptation	6
Air pollution	6
Resource efficiency and waste	6
Transport	4
Energy	3
Environment and health	3
Land use	4
Agriculture	1
Soil	1
Total	69

Geographical coverage

EU-27: 82%

EEA-32: 25%



Update frequency

Yearly: 71%

Others: 2-6 years

Timeliness

< t-2 years: 61%

Others: (t-2) – (t-6)



Classification of EEA indicators

- **Typology** (policy-making phase they support): A) Descriptive indicators; B) Performance indicators; C) Efficiency indicators; D) Policy effectiveness indicators; E) Total welfare indicators
- **DPSIR** (Driving forces–Pressure–State–Impact–Response) framework
 - Interaction between environment and socio-economic activities
 - Consistent with OECD approach and [UNSD FDES](#) definitions

	Driving force	Pressure	State	Impact	Response	Total
A - Descriptive	2	16	16	8	2	44
B – Performance	2	3	3	1	1	10
C – Efficiency	1	1	2	1	2	7
D – Effectiveness	1	1	2	0	4	8
E – Welfare	0	0	0	0	0	0
Total	6	21	23	10	9	69

- Unbalanced distribution by type (64% Descriptive, no Welfare)
- Better distribution by DPSIR (33% State, 32% Pressure, 36% others)

List of EEA indicators

AGRICULTURE: Drought impact on ecosystems in Europe --- **AIR POLLUTION:** Emissions of the main air pollutants in Europe; Exceedance of air quality standards in Europe; Exposure of Europe's ecosystems to ozone; Heavy metal emissions in Europe; Industrial pollutant releases to air in Europe; Persistent organic pollutant emissions in Europe --- **BIODIVERSITY-ECOSYSTEM:** Abundance and distribution of selected species in Europe; Conservation status of habitats under the EU Habitats Directive; Conservation status of species under the EU Habitats Directive; Ecological footprint of European countries; Ecosystem coverage in Europe; Impact of land use on vegetation productivity in Europe; Nationally designated terrestrial protected areas in Europe; Natura 2000 sites designated under the EU Habitats and Birds Directives; Public awareness of biodiversity in Europe --- **CLIMATE CHANGE ADAPTATION:** Arctic and Baltic Sea ice; Economic losses from climate-related extremes in Europe; European sea surface temperature; Extreme sea levels and coastal flooding; Forest fires in Europe; Global and European temperatures --- **CLIMATE CHANGE MITIGATION:** Atmospheric greenhouse gas concentrations; CO₂ performance of new passenger cars in Europe; Consumption of ozone-depleting substances; GHG emission intensity of electricity generation in Europe; GHG emissions from agriculture in Europe; GHG emissions from energy use in buildings in Europe; GHG emissions from land use, land-use change and forestry in Europe; Hydrofluorocarbon phase-down in Europe; New registrations of electric vehicles in Europe; Progress towards national greenhouse gas emission targets in Europe; Total greenhouse gas emission trends and projections in Europe --- **ENERGY:** Emissions and energy use in large combustion plants in Europe; Primary and final energy consumption in Europe; Share of energy consumption from renewable sources in Europe --- **ENVIRONMENT AND HEALTH:** Exposure of Europe's population to environmental noise; Health impacts of exposure to fine particulate matter in Europe; Health impacts of exposure to noise from transport --- **LAND USE:** Imperviousness and imperviousness change in Europe; Landscape fragmentation pressure in Europe; Land recycling and densification; Land take in Europe --- **RESOURCE EFFICIENCY AND WASTE:** Circular material use rate in Europe; Diversion of waste from landfill in Europe; Europe's consumption footprint; Europe's material footprint; Waste generation and decoupling in Europe; Waste recycling in Europe --- **SOIL:** Soil moisture deficit --- **TRANSPORT:** CO₂ performance emissions of new vans in Europe; Greenhouse gas emission intensity of fuels and biofuels for road transport in Europe; Greenhouse gas emissions from transport in Europe; Use of renewable energy for transport in Europe --- **WATER AND MARINE ENVIRONMENT:** Changes in fish distribution in European seas; Chlorophyll in transitional, coastal and marine waters in Europe; Ecological status of surface waters in Europe; Global and European sea-level rise; Hazardous substances in marine organisms in European seas; Industrial pollutant releases to water in Europe; Nutrients in freshwater in Europe; Nutrients in transitional, coastal and marine waters; Ocean acidification; Oxygen concentrations in coastal and marine waters surrounding Europe; Oxygen consuming substances in European rivers; Pesticides in rivers, lakes and groundwater in Europe; Status of marine fish and shellfish stocks in European seas; Use of freshwater resources in Europe; Water abstraction by source and economic sector in Europe

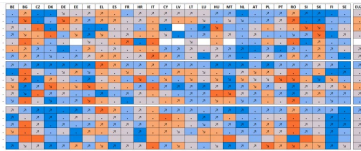
Increasing support to policy monitoring frameworks



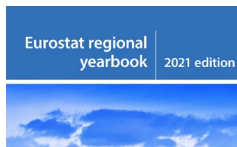
- [8th Environment Action Programme](#)
-> 28 indicators (incl. new indicators)



- [Statistics for the European Green Deal \(Eurostat\)](#)
-> 6 indicators



- [Resilience dashboards for the social and economic, green, digital and geopolitical dimensions \(JRC\)](#)
-> 3 indicators



- [Regional Yearbook 2021 \(Eurostat\)](#)
-> 7 indicators



- [EU Sustainable Development Goals](#)
-> 14 indicators (additional indicators under discussion)



EU Sustainable Development Goals



- 2016 Communication *Next steps for a sustainable European future* -> **Reference indicator framework -> EU SDG monitoring reports**
- 2022 Report aligned with Spring package of the European Semester
- Aligned with the [UN list of global indicators](#) (231 unique indicators)
- Principles: 17 SDGs - max. 6 indicators/goal - ca. 100 different indicators - MPIS
- Sources: ESS & others (EEA main contributor!)
- Selection criteria:
 - Policy relevance (already used to monitor key policies (e.g. 8EAP, EGD))
 - Admission requirements (in line with [European Statistics Code of Practice](#))
 - Statistical quality (frequency, timeliness, reference area, comparability-geographical, time coverage, comparability-over time)
- Annual reviews to take into account new EU policy priorities & incorporate indicators with improved statistical quality

14 EEA indicators (8 Goals)

2023 review currently ongoing – Next report in May 2023



I. EEA indicators: context and overview

II. Recent developments relevant to policy making

II - Recent developments relevant to policy-making

In 2019 we anticipated the change of direction in European policy and launched an indicator revamp exercise

The revised indicators are short information packages that combine a European picture with national level data and key strategic messages

EEA indicators have a **newly consolidated structure**

- Less quantity, better quality
- Focus on communication aspects
- Simplification of production workflow
- New Indicator Management System (IMS v4)
- Showing both the European and the country perspective

EEA-Eionet Strategy 2021-2030

The new indicators' structure reflects the focus of the new EEA-Eionet Strategy – Towards a more integrated knowledge base in support of EU policies

EEA and Eionet will enable a sustainable Europe through **trusted and actionable knowledge** for informed decision-making on environment and climate priorities and solutions, in line with Europe's policy ambitions



Strategic Objectives:

- *Supporting policy implementation and sustainability transitions*
- *Providing timely input to solutions for sustainability challenges*
- *Building stronger networks and partnerships*
- *Making full use of the potential of data, technology & digitalisation*
- *Resourcing our shared ambitions*

New areas of work

EEA and Eionet will play a key role in supporting environment and climate actions under European policies (EGD, 8EAP, EU SDGs, etc.)

Areas of work:

- Biodiversity and ecosystems
- Climate change mitigation and adaptation
- Human health and the environment
- Circular economy and resource use
- Sustainability trends, prospects and responses

We will prioritise understanding of interlinkages within and between these work areas



Role for EEA indicators

EEA indicators continue to constitute the building blocks of environmental knowledge by

- maintaining the mechanisms in place that lead from data to policy monitoring
- allowing the development of new methodologies (composite indices, dashboards, etc.) for monitoring current and future policies and strategies

Further developments in terms of accuracy and timeliness will derive by the increasing use of Copernicus-based data

Goal: measure and assess progress towards sustainability

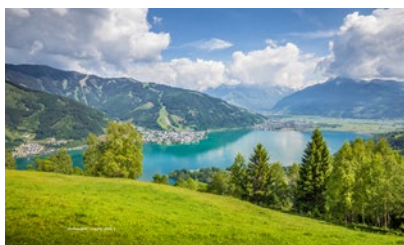
EEA indicators: evolution and adaptation

The EGD reflects the need for systemic change and puts sustainability at the heart of EU policy-making, but we are still in the process of turning such ambitions into policies and actions



- EEA report [Knowledge for Action](#) (Oct. 2021) provides reflections on how to strengthen knowledge development, uptake and use
- Boundary organisations like EEA have an important role to play bridging the gap between science-policy-society and shaping a future knowledge system
- Gaps remain in data and indicators to better support policy implementation

10-year perspective: indicators are here to stay



8th Environment Action Programme



Countries' perspective is fundamental

10-year perspective: new potential and challenges

- Increased use of **Copernicus**-based data in EEA indicators
- Increased use of **Citizen Science** as data source – examples:
 - [Forest Information System for Europe](#)
 - [Marine Litter Watch data viewer](#)

Increased cooperation is needed between all actors involved

- Statisticians
- Scientists
- Policy-makers
- Civil society

... at both regional and national level



Thanks for your attention!

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