

Data and knowledge management for Europe's State of the Environment



Galina Georgieva

Open data regional workshop, 5 March 2019, Kyiv



The European Environment Agency (EEA)

Coordinate the

European environment information and observation network (Eionet)

INSTITUTIONAL COOPERATION

(approx. 350 national bodies)

COMMON KNOWLEDGE

(approx. 1500 experts)

SHARED INFRASTRUCTURE

(Reportnet, reporting obligations, tools)



33 Member countries (EU28+5) +
6 Cooperating countries (West Balkan)

6 Eastern Partnership countries

9 Southern Mediterranean countries



Knowledge management at the EEA

In-situ monitoring, surveys, satellite observations

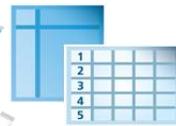
(M)
Monitoring



Structure

Local, National, European, Global, statistics

(D)
Data

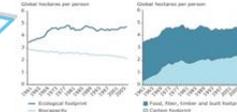


Interpret

Indicators, environmental accounting

(I)
Indicators

in-situ



Integrate

Integrated assessments across scales

(A)
Assessments



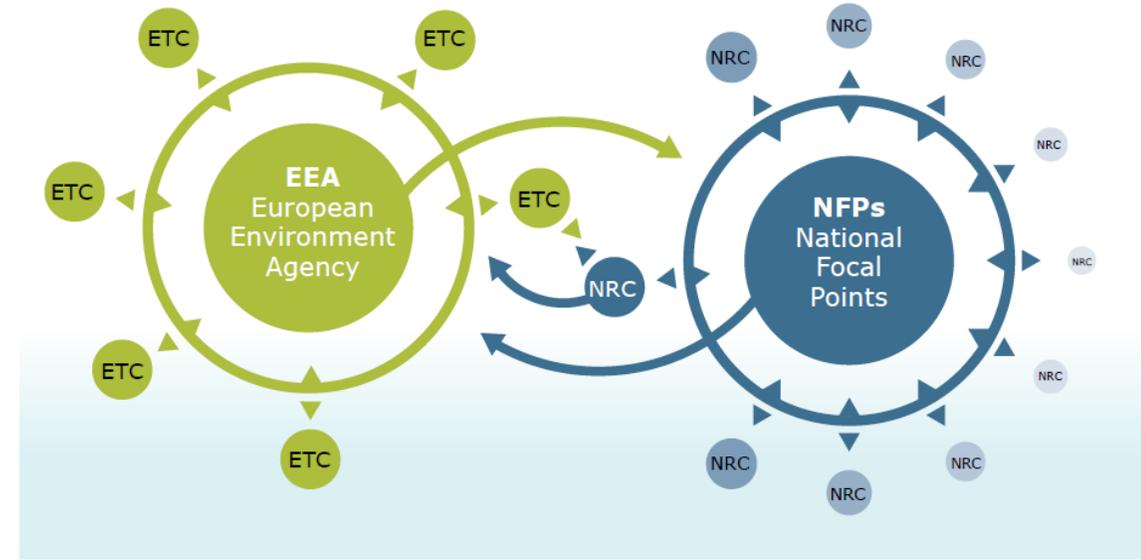
Communities and academies

(K)
Knowledge, understanding, action

Reflect & act



COMMUNICATE



The developing policy framework



2020 Existing overarching EU policy frameworks, comprehensive policies, specific targets

2030 Emerging EU policy frameworks

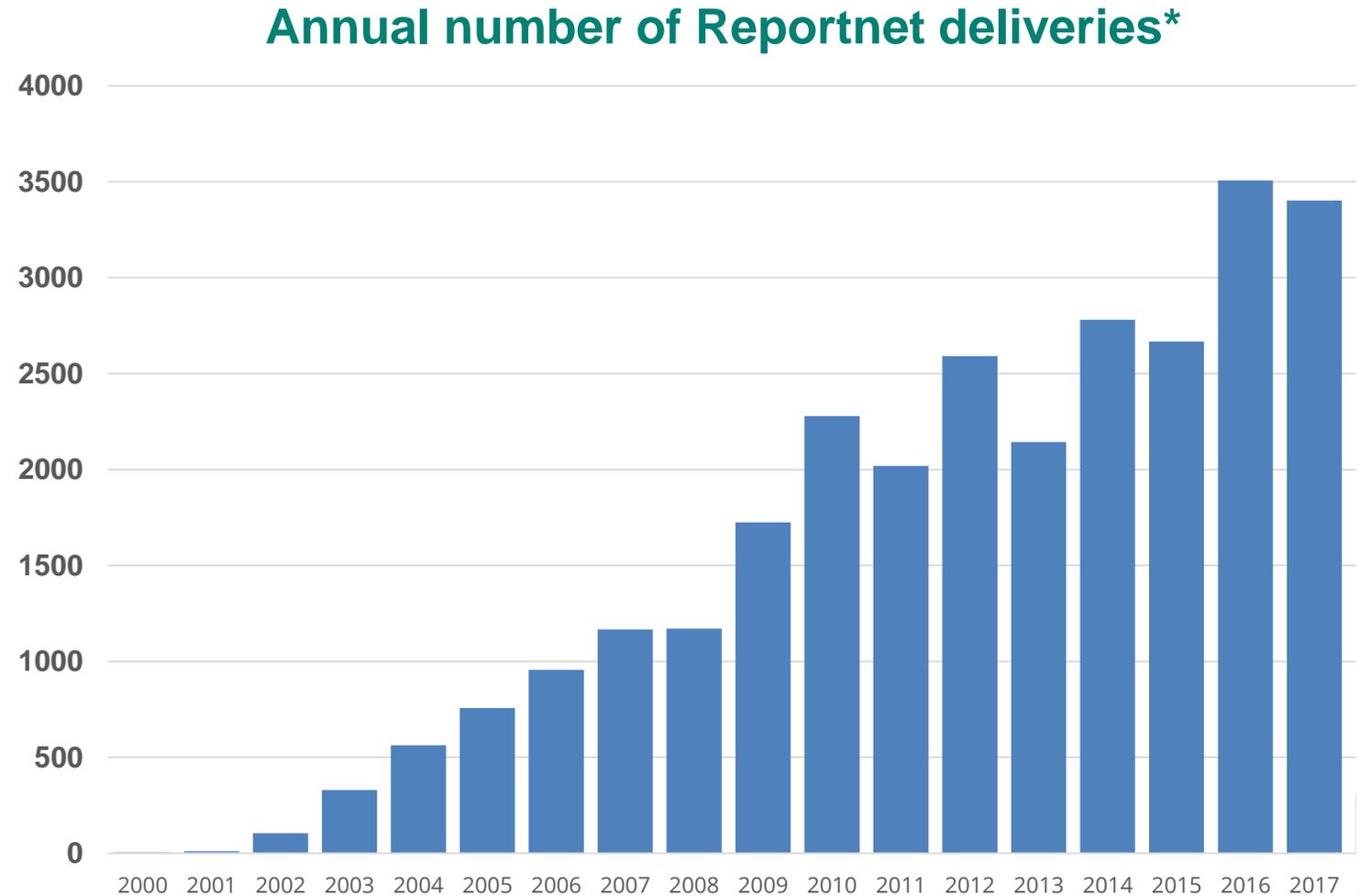
2050 Long-term visions and targets with a societal transition perspective.



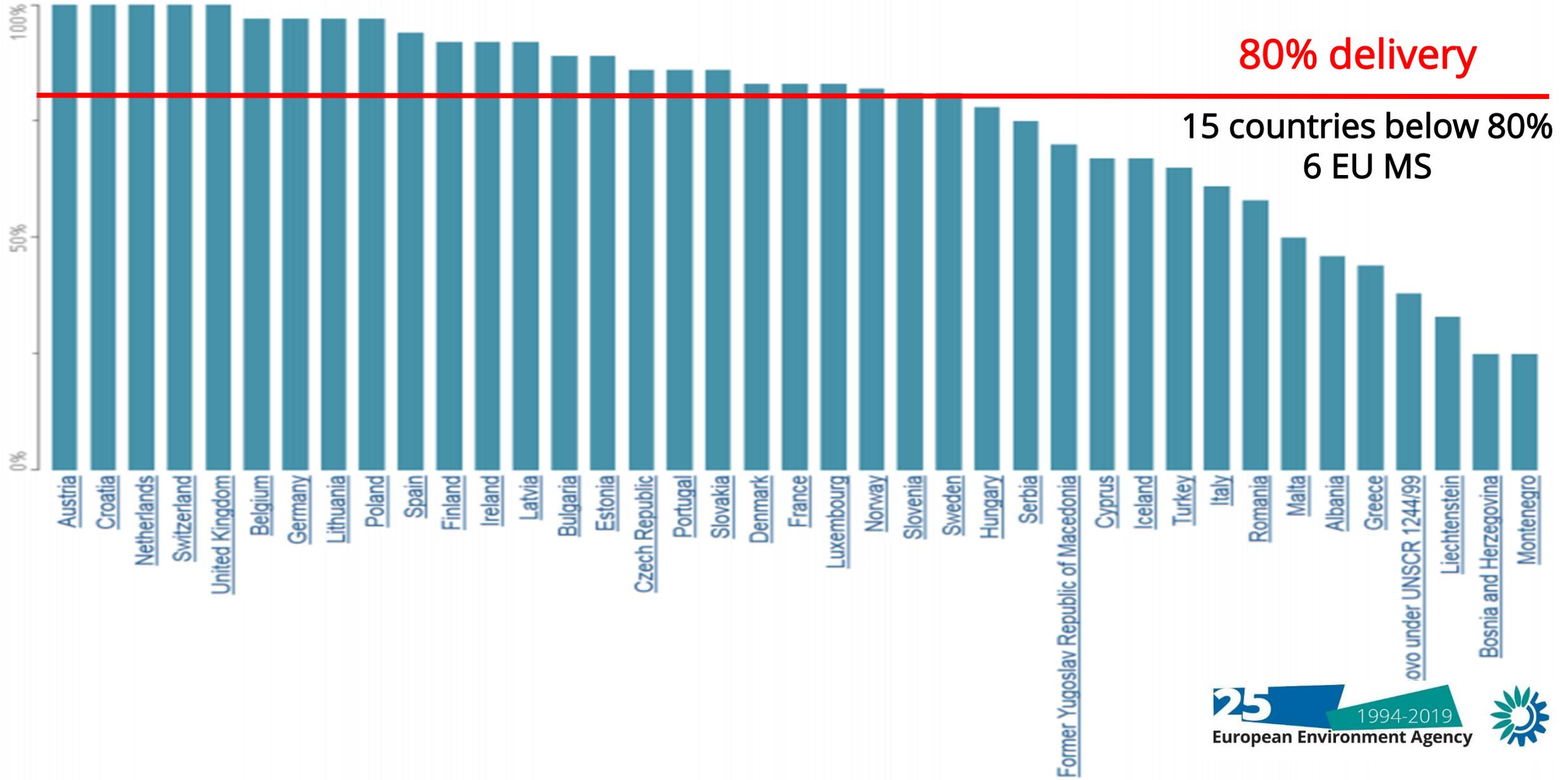
EEA as recipient of European data flows for 39(+) countries

- 100+ regular data flows handled via EEA
- 18 Eionet core data flows
- 80+ non-core data flows
- 50-60 data flows per year (due to different reporting cycles)
- >100 GB/year

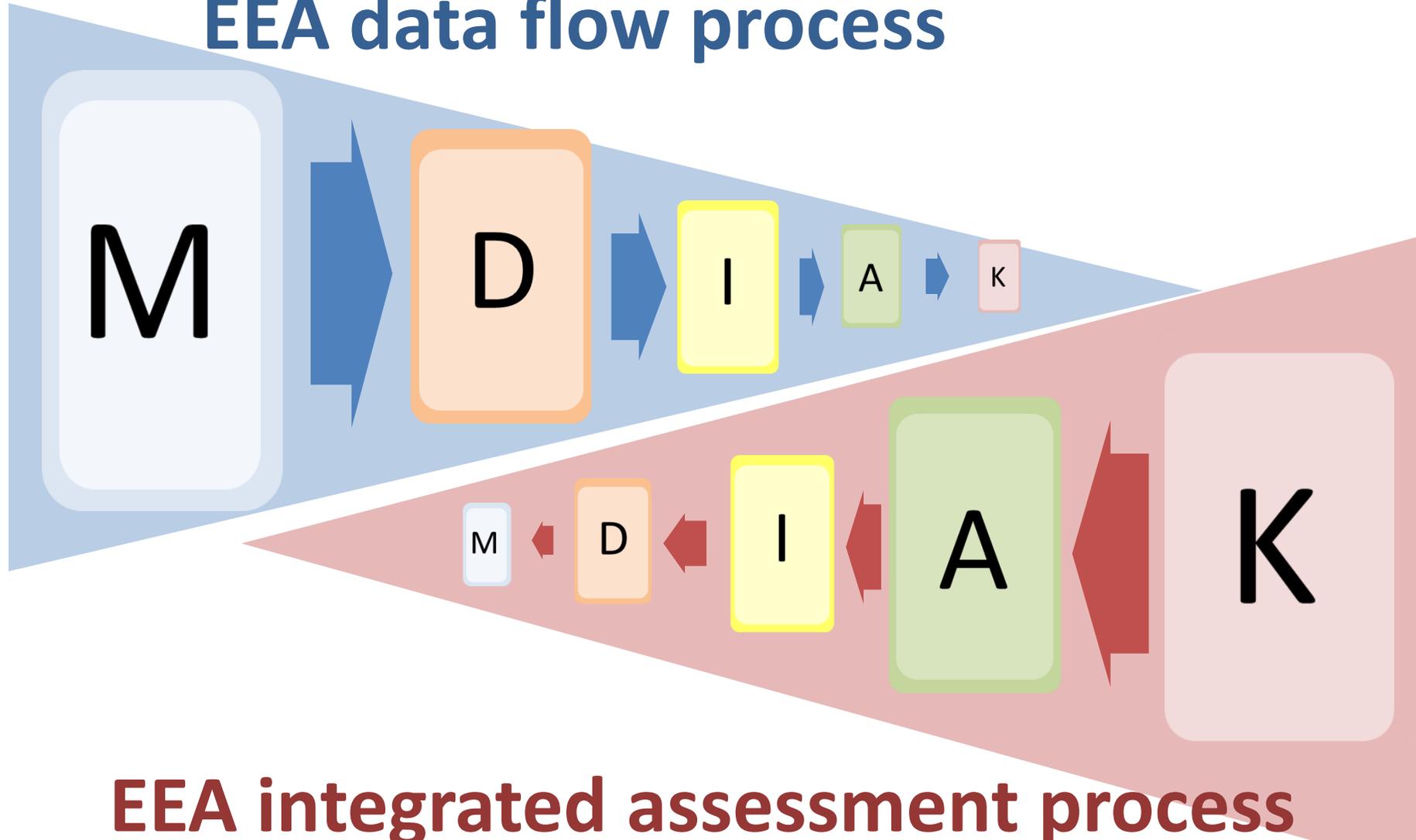
Source: <http://cdr.eionet.europa.eu/>



Eionet Performance Priority Data Flows reporting 2017-2018

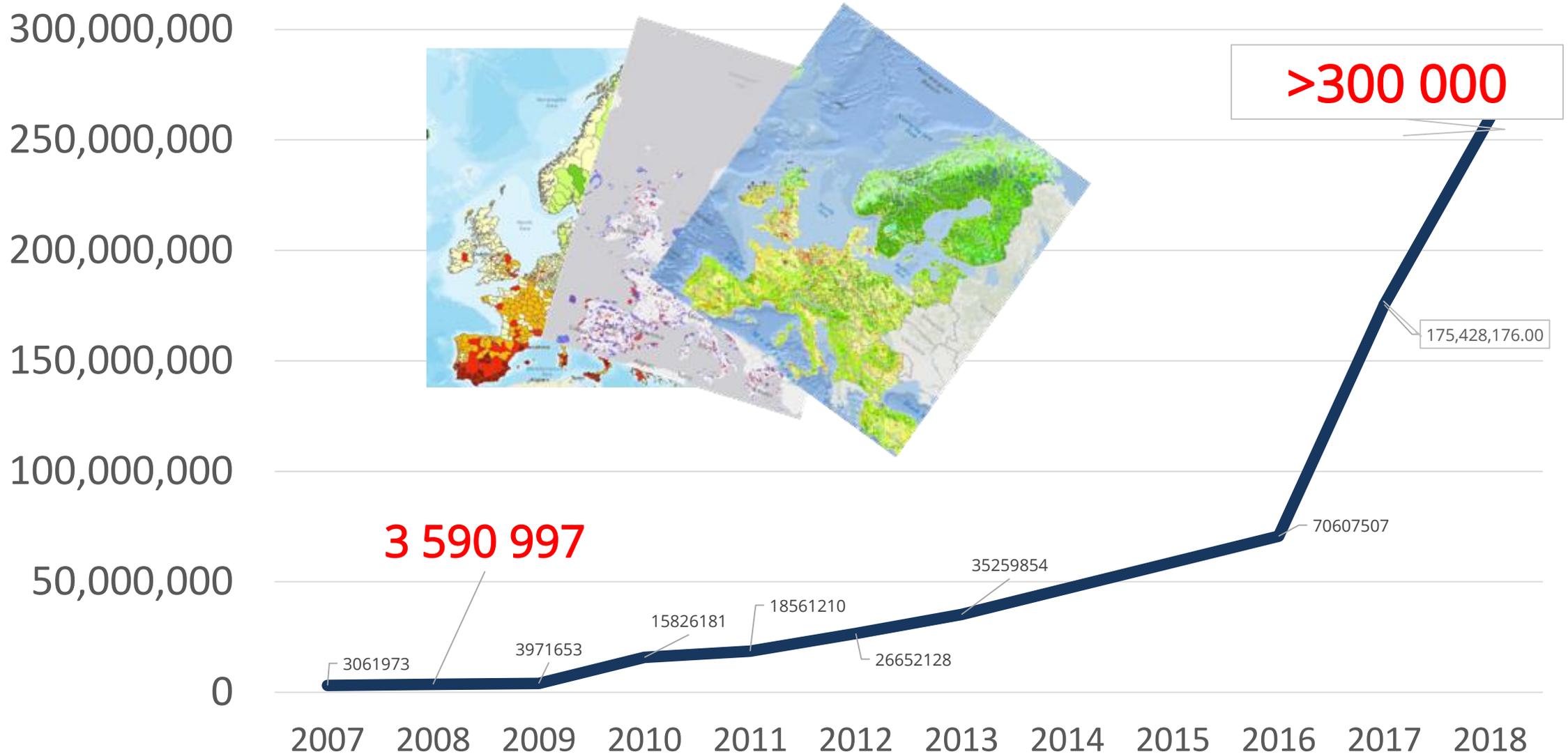


EEA data flow process



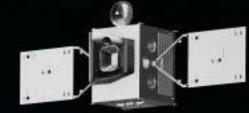
EEA integrated assessment process

Increasing number of map requests: reaching the European citizen



Increasing use of Copernicus services

FULL, FREE AND OPEN
ACCESS TO DATA



-  ATMOSPHERE MONITORING
-  MARINE ENVIRONMENT MONITORING
-  LAND MONITORING
-  CLIMATE CHANGE
-  EMERGENCY MANAGEMENT
-  SECURITY


Europe's eyes on Earth

Examples of European knowledge platforms

WISE
The Water Information System for Europe
— or more commonly known as WISE — is your gateway to information on European water issues. It comprises a wide range of data and information collected by EU institutions to serve several stakeholders.

Policy | Data and topics | Modelling | Projects and research

WATER

WISE is a partnership between the European Commission (DG Environment, Joint Research Centre and Eurostat) and the EEA. The EEA's role and responsibilities are to provide the EEA with the data and information needed to support the Commission's policy and to provide the EEA with the data and information needed to support the Commission's policy.

- DG Environment, especially on official reports
- The European Environment Agency hosts the Water Data Centre and the thematic WISE webpages.
- The Joint Research Centre conducts environmental monitoring and water resources modelling including nowcasting and forecasting services.

Climate-ADAPT - Sharing adaptation information across Europe
European Climate Adaptation Platform

About | Database | EU policy | Countries, regions, cities | Knowledge | Network | Help

CLIMATE CHANGE

About Climate Change Adaptation in Europe
The European Climate Adaptation Platform (Climate-ADAPT) aims to support Europe in adapting to climate change. It is an initiative of the European Commission and helps users to access and share information on:

- Expected climate change in Europe
- Current and future vulnerability of regions and sectors
- National and transnational adaptation strategies
- Adaptation case studies and potential adaptation options
- Tools that support adaptation planning

News | Events | Newsletter | Latest updates

EIONET
The Air Quality Portal

Home | Reporting requirements | Toolbox | Products | Meetings | Links

Welcome to the Air Quality Portal
This portal contains details relevant for the reporting of air quality information from EU Member States and other EEA member and co-operating countries. This information is submitted according to Directives 2004/107/EC and 2008/50/EC of the European Parliament and of the Council. The rules for this exchange are set out in the Commission implementing decision 2011/850/EU.

AIR QUALITY

What's new
• working documents
• new viewer, feedback on submission - 23/11/2016

Important notifications
• Deployment of new set of QA checks
• What to do in case of change of local IDs for sampling point, process and/or feature of interest
• What to do when wrong pollutant codes were used for BAP and Heavy Metals

Copernicus Land Monitoring Service

Global | Pan-European | Local | Reference data

LAND

Copernicus is an European system for monitoring the Earth. Data is collected by different sources, including Earth observation satellites and in-situ sensors. The data is processed and provides reliable and up-to-date information about six thematic areas: land, marine, atmosphere, climate change, energy management and security. The land theme is divided into four main components:

- Global reference data
- Pan-European reference data

Provides a series of biophysical products on the status and evolution of the land surface at global scale at mid and low spatial resolution.

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BISE

Home | About BISE | Contact Us | Sitemap

BIODIVERSITY

EU Biodiversity Strategy to 2020
Our life insurance, our natural capital
The protection, conservation and enhancement of the Union's natural capital is one of the 9 priority objectives of the 7th General Union Environment Action Programme to 2020. Living well, within the limits of our planet.

BISE Highlights

- Towards the 2020 biodiversity targets
- Mapping and Assessment of Ecosystems and their Services (MAES)
- BISE - CHMs network of Europe

Mid-term review of the EU biodiversity strategy to 2020:
• Leaflet and interactive presentation

Progress against targets

News - Europe

- LIFE, 18 Nov 2016: LIFE News N°9 2016
- EC, 17 Nov 2016: Urban neighbourhood resilient flood new assessment tool hamburg
- EC, 17 Nov 2016: How to increase uptake environmentally friendly fertilisers germany
- EC, 17 Nov 2016: Notification inhibitors climate change mitigation ipcc less effective than thought
- EC, 17 Nov 2016: Household sources biocidal active substances assessed

News - World

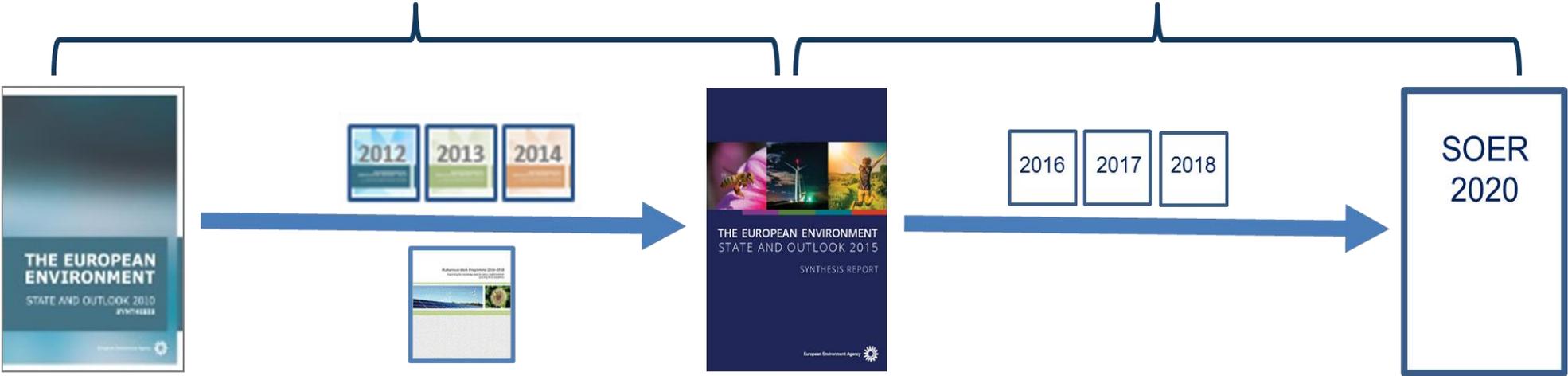
- CBD, 22 Nov 2016: What will 1.5°C of global warming actually look like?
- CBD, 22 Nov 2016: Climate Change is Hindering The Cooling Properties Of Earth
- CBD, 22 Nov 2016: Volcanoes
- CBD, 22 Nov 2016: Marrakech: Where Extraordinary Momentum Is Shown on Climate Change
- CBD, 22 Nov 2016: Coal Mine Threatens Ecological Paradise in Chile's Patagonia Region
- CBD, 22 Nov 2016: Glow-in-the-dark geckos' help in



State and Outlook of the Environment (SOER)

Understanding systemic challenges and the need for transitions

Identifying knowledge, skills and governance approaches for transitions



PROBLEM-FOCUSED

SOLUTION-ORIENTED

SOER 2020 overall structure and process

SOER 2020

Integrated Assessment (2019)

- State of Europe's environment (context: drivers and policy responses)
- Sustainability prospects (systems perspective, transitions to long-term policy goals)
- 300 pages (incl. summaries), English

Stakeholder interaction process (2019-2020)

Synthesis (2020)

- Key findings of the Integrated Assessment
- Outcomes of the stakeholder interactions
- 50 pages, English

Stakeholder contributions, consultations

Stakeholder consultations



Looking into the pan-European setting

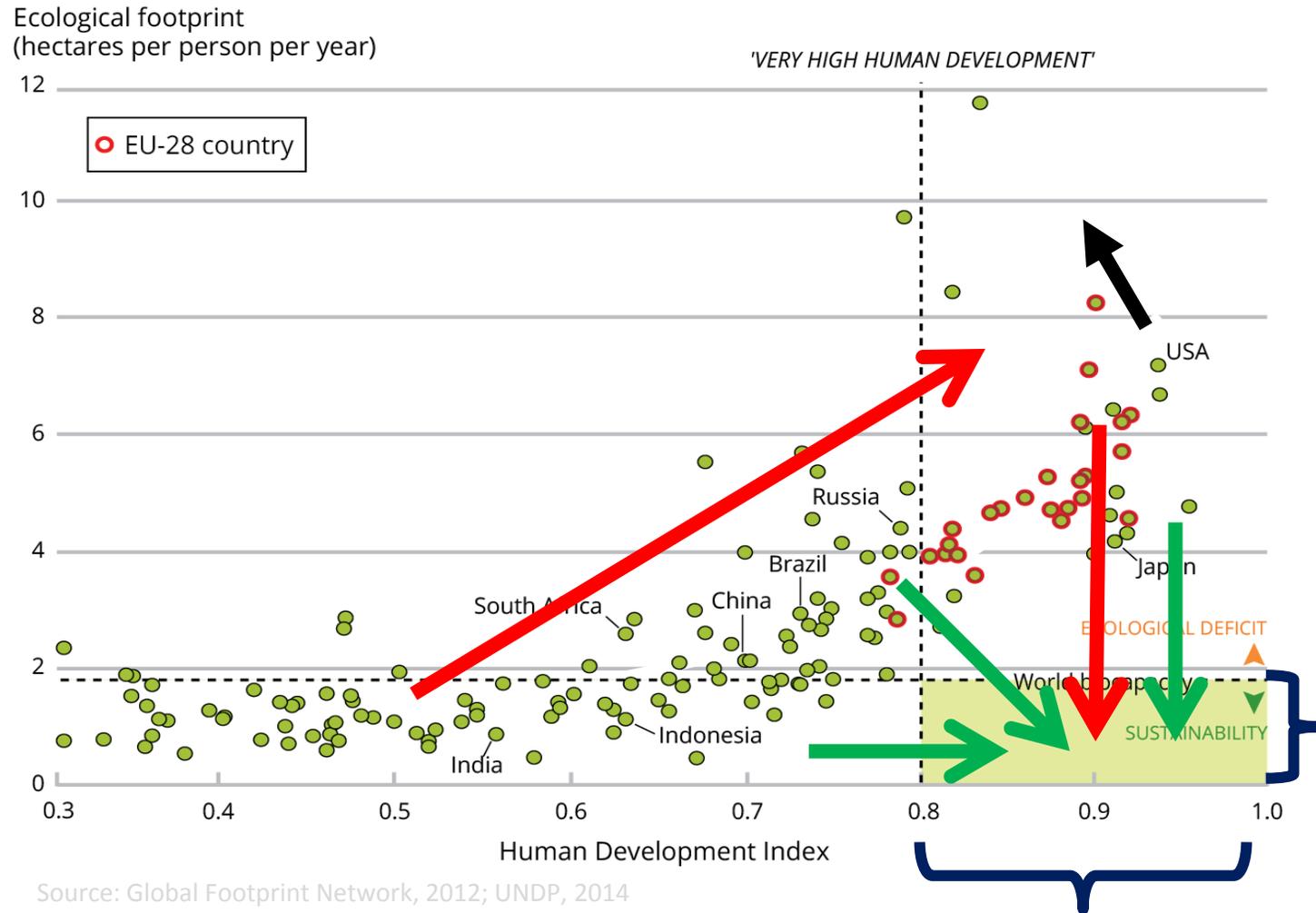
SEIS mid-term review 2018 following Batumi

- Improve **clarity**: improve meta-data, data quality reports
- Improve **accessibility** to environment data/information: from collecting to harvesting, publishing
- **Reduce the timelines**: from 'less than 1 year' to about 3 months
- Improve **relevance**: serving multiple users

- All in place for the next pan-European Ministerial in 2021?



The challenge of the 21st century – Towards sustainability



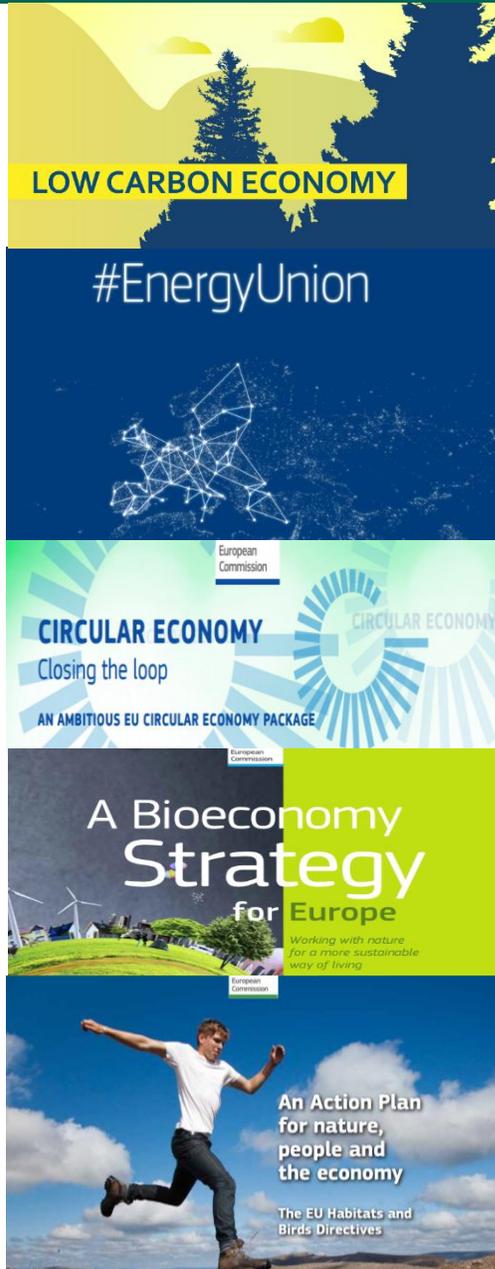
Within environmental limits

'good life'

10 billion people, 1 planet: from **data**, to **knowledge**, to **action**



Evolving policy responses: macro-integrated approach



- **Long-term:** 2030-2050-2100
- **Integrated:** e.g. Common Agricultural Policy
- **Systemic:** e.g. Decarbonisation of transport
- **Developing/iterative:** e.g. Circular Economy; Climate and Energy
- Require a **different governance** approach
- Thus, complex, uncertain, **lacking knowledge** (of a certain type)

Thank you for your attention!

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