

ENI SEIS II – regional meeting –  
Open data and eGovernment for the Environment  
Kyiv 6. March 2019

Stefan Jensen

# EU policy developments around streamlining reporting and SEIS

# Market trends in data and information growth

Humans

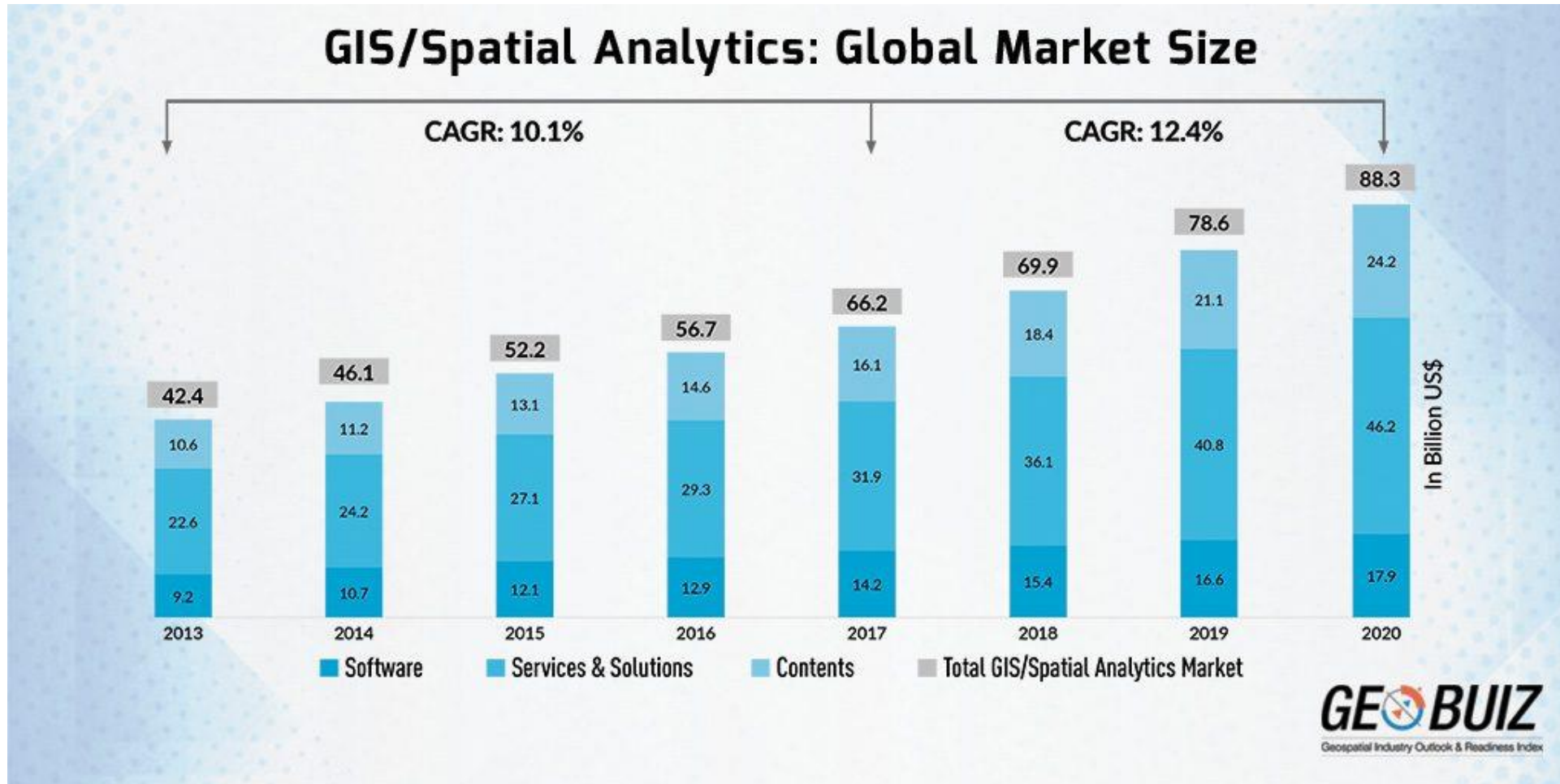
Sensors

Business



Source: [www.insidebigdata.com](http://www.insidebigdata.com)  
11/2018

# Market trends in GIS growth

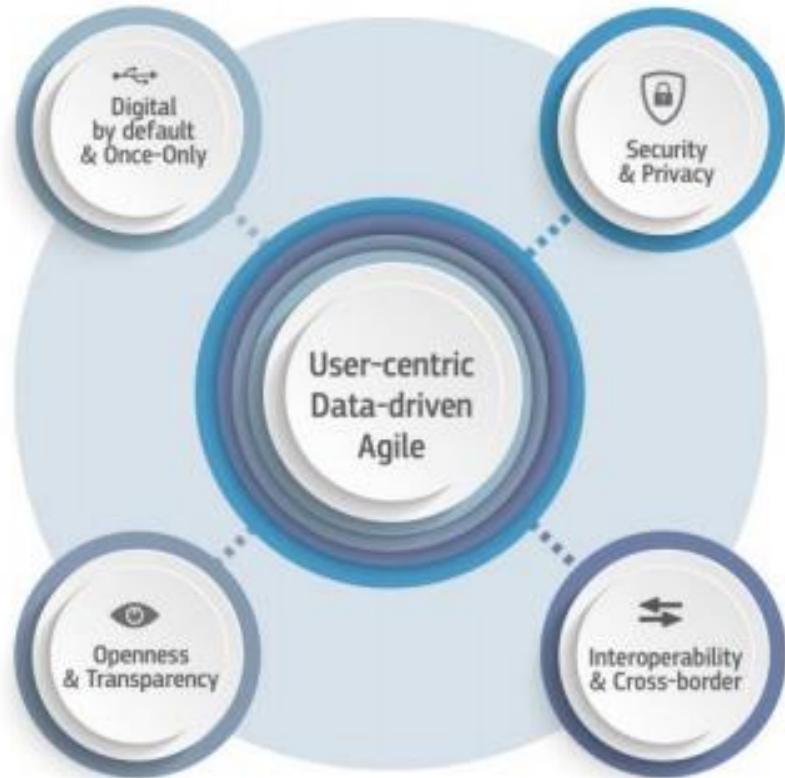


Content

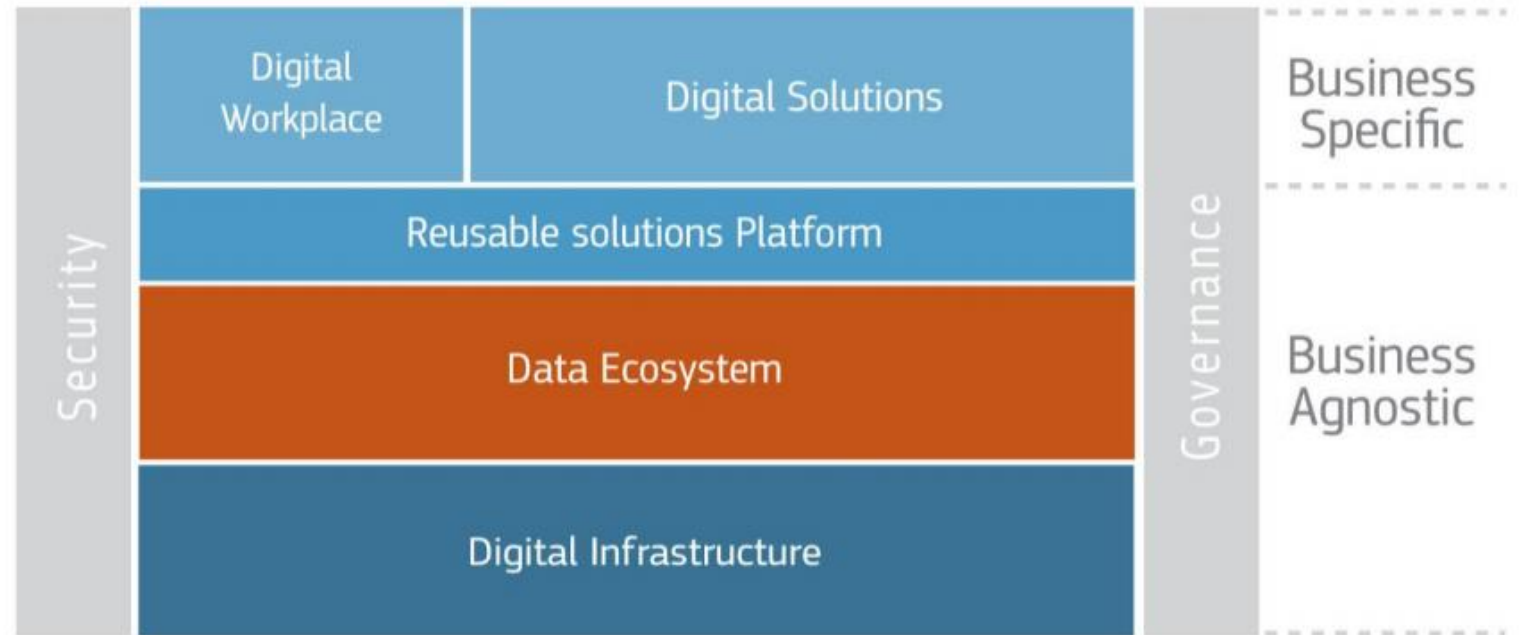
Analytics

Infrastructure

# European Commission Digital (Data) Strategy



**Figure 2: Principles**



**Figure 3: Digital Commission — Conceptual model**

Communication C(2018)7118



# Digital Agenda for Europe - Strategy

## Elements and Programms

- Digital Single Market
- Interoperability and Standard
- Trust and Security
- Very fast Internet
- Research and Innovation
- Enhanced e-Skills
- ICT for Societal Challenges



# „Our“ foundation – SEIS elements

*Policies*

**Governance** and networks

(Spatial) Data **Infrastructures**

*Standards*

**Content**





# European policies related to data

Public access to Environmental Information *DIR 2003/4/EC*  
*and*  
Aarhus Convention (*international*)

Infrastructure for Spatial Information in the European Community (INSPIRE)  
*DIR 2007/2/EC*

Re-use of public sector information (PSI)  
*DIR 2003/98/EC*

Alike:

G8 Open Data Charter (*2013*) US Geospatial data act (*2018*)





# The European SDI - INSPIRE ...

Long preparation phase

EU legislation transposed into  
28 national acts

Very broad and ambitious  
thematic scope

Long implementation time -  
step by step 12/2010 – 10/2020


Provide metadata, view and  
download services


Latest focus on priority setting (priority data sets) and technical simplification





# ... based on National SDIs and EU initiatives


spatial data 


Show results with:  
 all of these words |  any of these words |  the exact phrase 

**Suggest a dataset**  
Is there data you would like to find on the portal?



[Make a suggestion](#)

Sort by:  

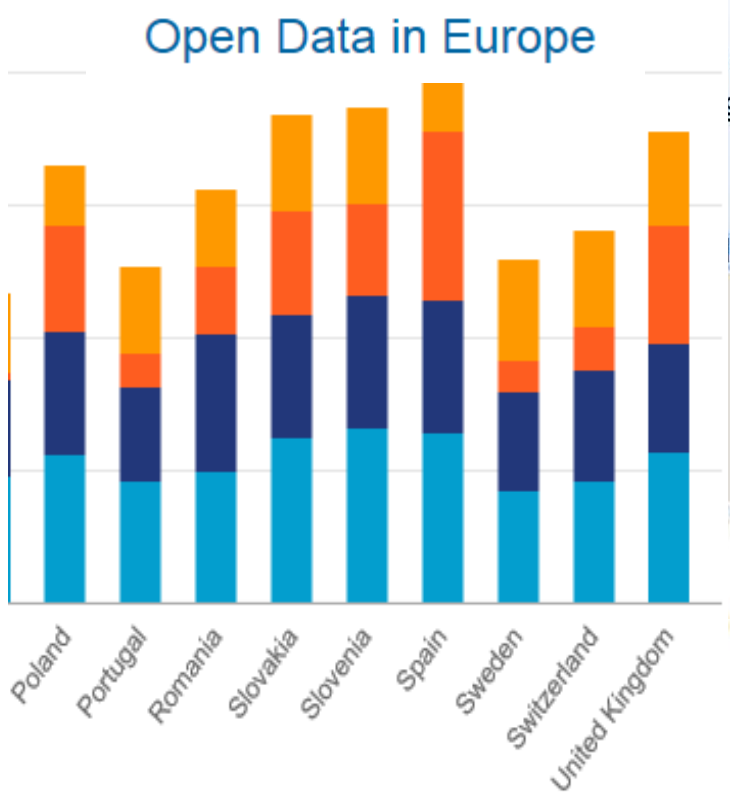
228 datasets found 

- [LATEST VERSION] WISE WFD reference spatial data sets**  
LATEST VERSION. The Water Framework Directive (WFD) reference spatial data sets include information about European river basin districts, river basin district sub-units, surface water...  
[TXT](#) [HTML](#) [PDF](#) [OCTET STREAM](#) (149 views)
- EMIS – Mediterranean Sea 50 years mean spatial eutrophication map, as captured by the TRIX indicator**  
Mediterranean Sea 50 years mean spatial eutrophication map, as captured by the TRIX indicator.

**EuroVoc domains**

- Environment (167)
- Production, technology and research (120)
- Agriculture, forestry and fisheries (113)
- Science (35)
- Geography (18)
- Energy (5)
- Transport (2)
- Social questions (2)

**Publishers**



# Open Data as drivers – the PSI Directive



Public sector and publicly funded data



Private sector data



Research data

Identifying

High Value Datasets

Proposal for a revision of the Directive on the re-use of public sector information

Guidance on sharing private sector data in the European data economy

Updated Recommendation on access to and preservation of scientific information

## 2018 DATA PACKAGE

*Different policy instruments for different types of data*

#dataeconomy #opendata

Image courtesy of DG Connect

European Environment Agency





# Content: DG ENV Fitness Check - 2016 - 2017

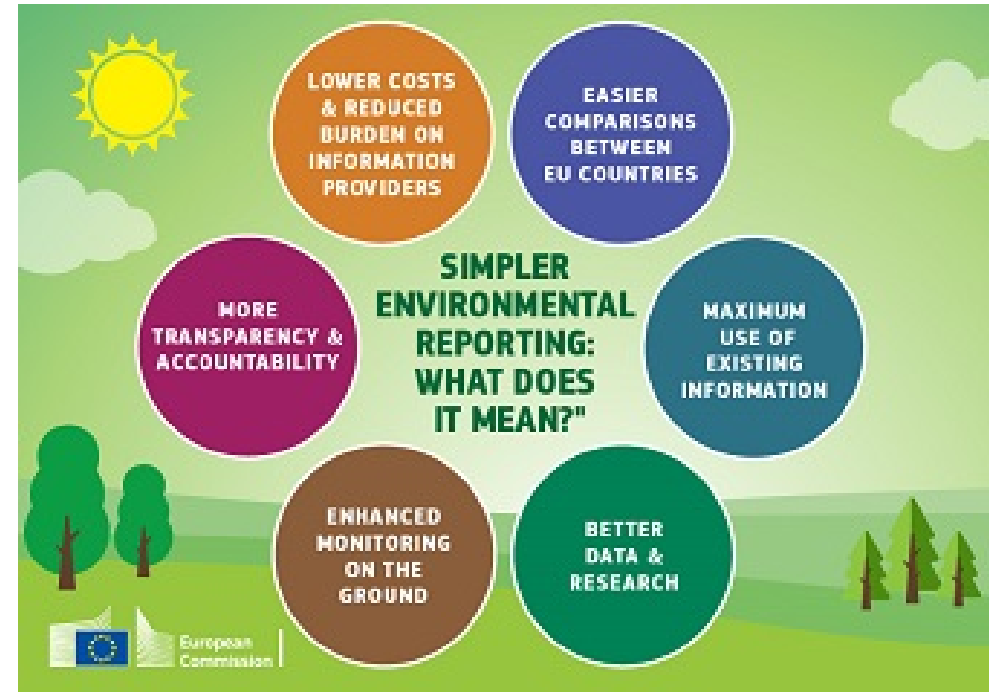
## The Fitness Check on Reporting and Monitoring : Overview

Reporting is a transfer of information and data from one entity to another which may include a wide range of cases. In the context of this initiative, it is a requirement for an European Member State to transmit information to the European Commission as a mean to demonstrate successful implementation. The information is the result of monitoring this implementation, and it is the monitoring that provides the evidence base for implementation and policy making. Hence, the Fitness Check will cover both reporting and monitoring as a way to better support implementation.

### What are the results of the Fitness Check?

The Commission finalized its Fitness Check evaluation in June 2017 publishing the following documents:

- [Commission Report COM\(2017\) 312](#) .The Report also contains a summary of the Fitness Check evaluation. All languages of the Report are available on [EUR-LEX](#).
- [Commission Staff Working Document SWD\(2017\) 230](#)
- [Opinion of the Regulatory Scrutiny Board SEC\(2017\) 284](#)
- [Press Release](#)



# Action plan streamline environmental reporting

Action	EEA involvement
1 Amend legislation	-
2 Change reporting obligations	Support through rolling work programme
3 Modernise e-Reporting	Core of Reportnet 3.0 project
4 Develop test tools for harvesting	Share of experiences
5 Guidance for national IS	Steering Committee DG ENV project
6 Promote INSPIRE	Through INSPIRE MIG and Reportnet 3.0
7 Better use of Copernicus data	Share of experiences
8 Promote citizen science data	Support on guidelines
9 Cooperate with other thematic areas	Linked to Reportnet 3.0 project
10 Wider international streamlining	Trilateral UNECE, UNEP, EEA

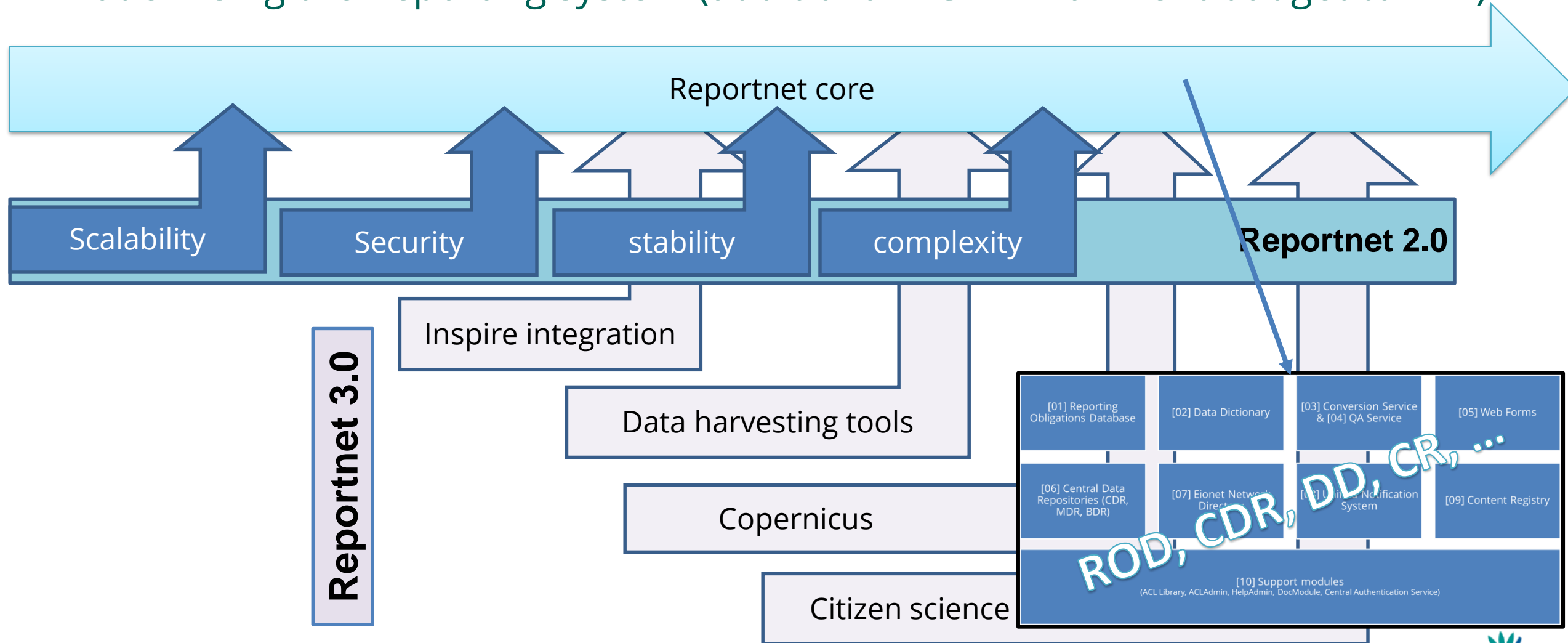
Source: SWD (2017)230 [http://ec.europa.eu/environment/legal/reporting/pdf/action\\_plan\\_env\\_issues.pdf](http://ec.europa.eu/environment/legal/reporting/pdf/action_plan_env_issues.pdf)

Fitness check: [http://ec.europa.eu/environment/legal/reporting/fc\\_overview\\_en.htm](http://ec.europa.eu/environment/legal/reporting/fc_overview_en.htm)



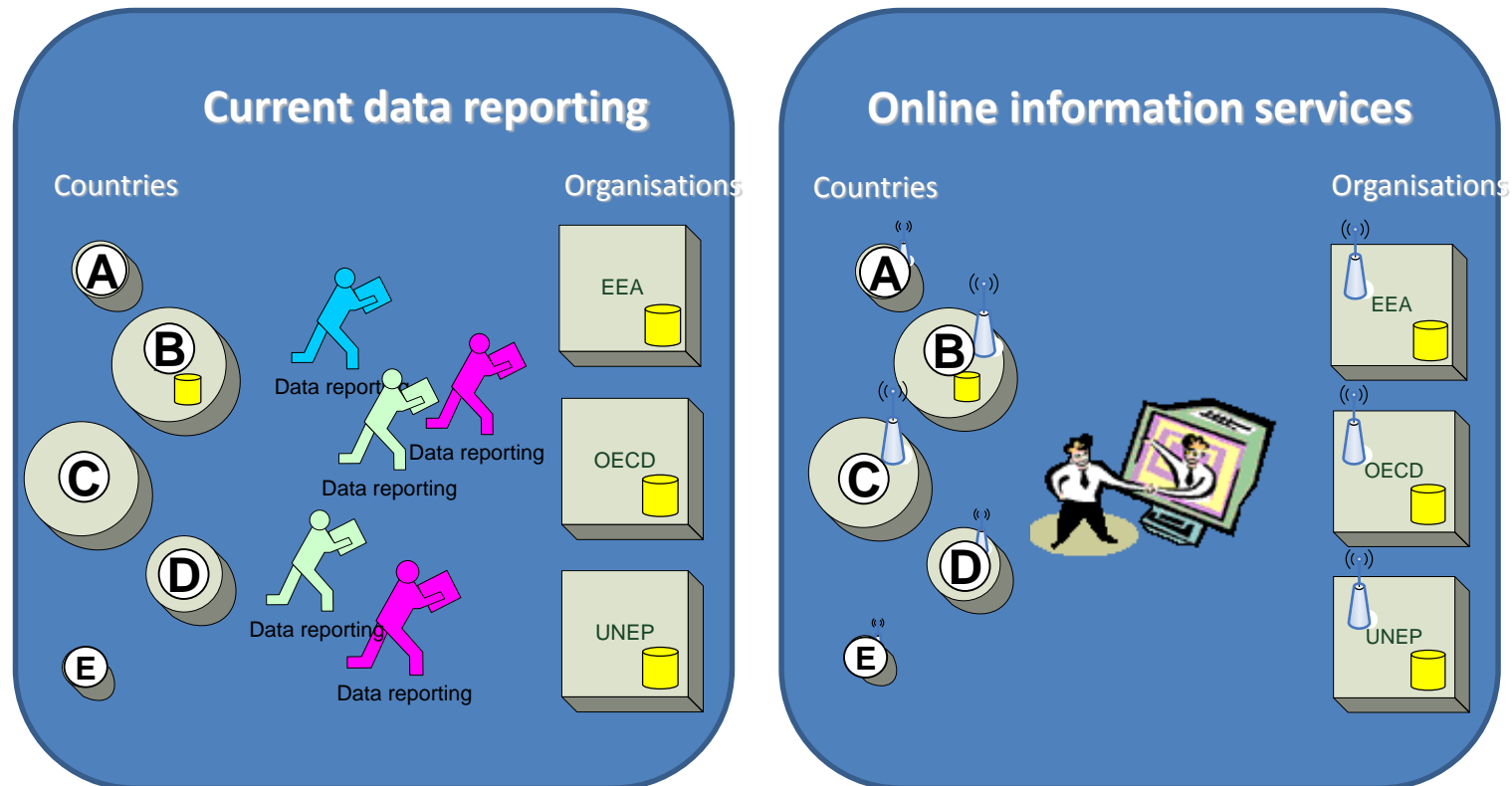
# Action 3 - Reportnet 2.0/3.0 (2017-2020)

Modernising the Reporting system (additional DG Environment budget to EEA)



# Action 4+5 - Improving information systems

- EC study: Promotion of best practices for national environmental information systems and tools for data harvesting





# DG Environment project on Environment Information Systems

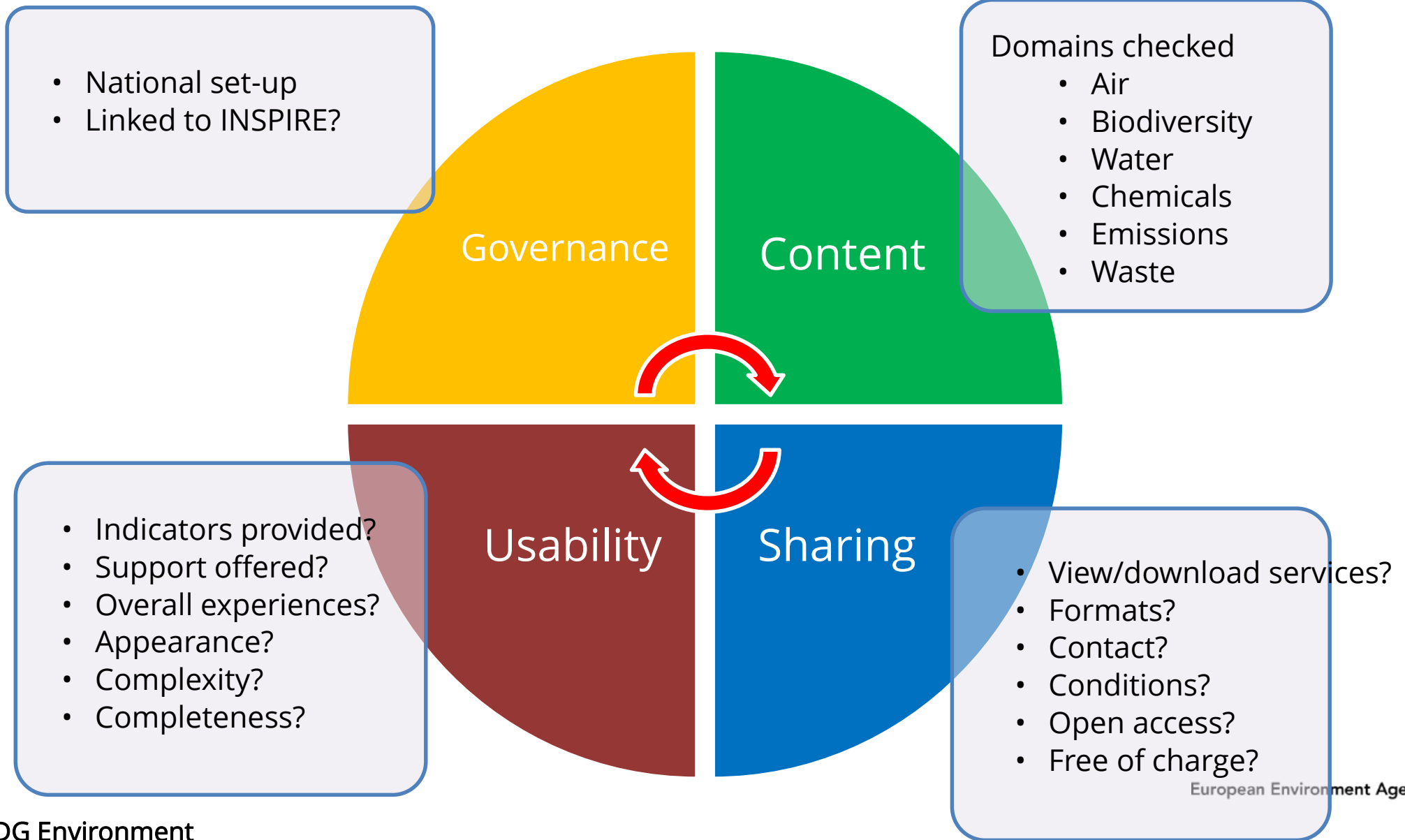
Based on the findings of the Fitness Check, the rationale for improving national environment information systems is:

- To improve **transparency** for citizens and **accountability** of administrations.
- To allow **finding relevant, authoritative information** (e.g. textual or contextual) easily rather than asking for it through reporting.
- To allow for **sharing, harvesting and re-using data** and information.
- New technologies can be applied, such as **data mining**.

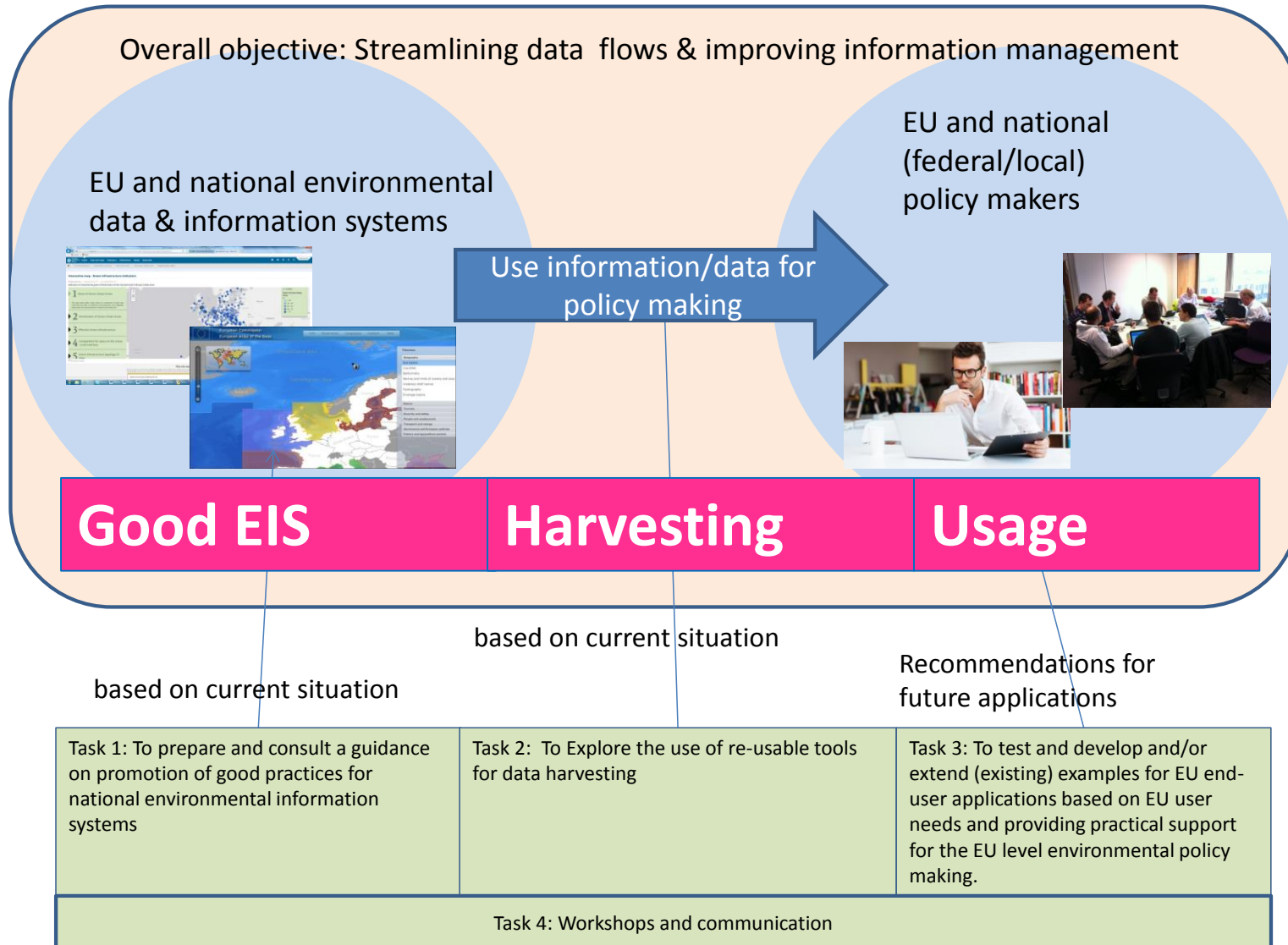
In addition, it will also help better implement the requirements related to **access to environmental information** and the **INSPIRE Directive**.

<http://www.eis-data.eu/>

# Evaluation criteria



# Findings on workflows





# Findings on data harvesting

## Roadmap and Recommendations

	Short term	Medium term	Long term	
Connect data and text by proper links				
Promote the use of micro formats (tagging) in EISs				
Accelerate the use of standards in reporting				
Connect INSPIRE to directives technical and if feasible legal				
Explore the re-use of available software like Automated Content Analysis (ACA)				
use semantic relationships (RDF/ontologies) as linked data in the reporting process				
explore current platforms to come to a more multipurpose platform with dedicated support for specific data and information				

MY LOCAL ENVIRONMENT

ENTER YOUR ADD... ▾

GET INFORMED

GET INVOLVED



UPDATES

- ▶ [The 2018 Story of Your Stuff](#) secondary school competition is now open. We look forward to seeing all the fabulous entries!
- ▶ Check out the new, interactive version of EPA Maps



TWITTER Follow

Tweets by @EPAIreland

epa EPA Irel... @EPAIrel... Become a Citizen Scientist! [roaringwaterjournal](#)



EPA MAPS



ENVIRONMENTAL INDICATORS



STATE OF ENVIRONMENT REPORT



EUROPE'S ENVIRONMENT

# Best practise

## Ireland's Environment

- Award winning environmental information portal
- **Good practice:** integrated, easy to use and comprehensive
- Significant efficiency gains, e.g. the time needed for reporting under the Industrial Emission Directive was reduced from **6 months** (in 2010) to **half a day** (in 2012).



# Action 6: Pan European spatial data

Global (SDG linkage):  
(United Nations Global Geographic  
Information Management) UN-GGIM:  
*Fundamental data*

Europe:  
UNGGIM Europe: *core data*

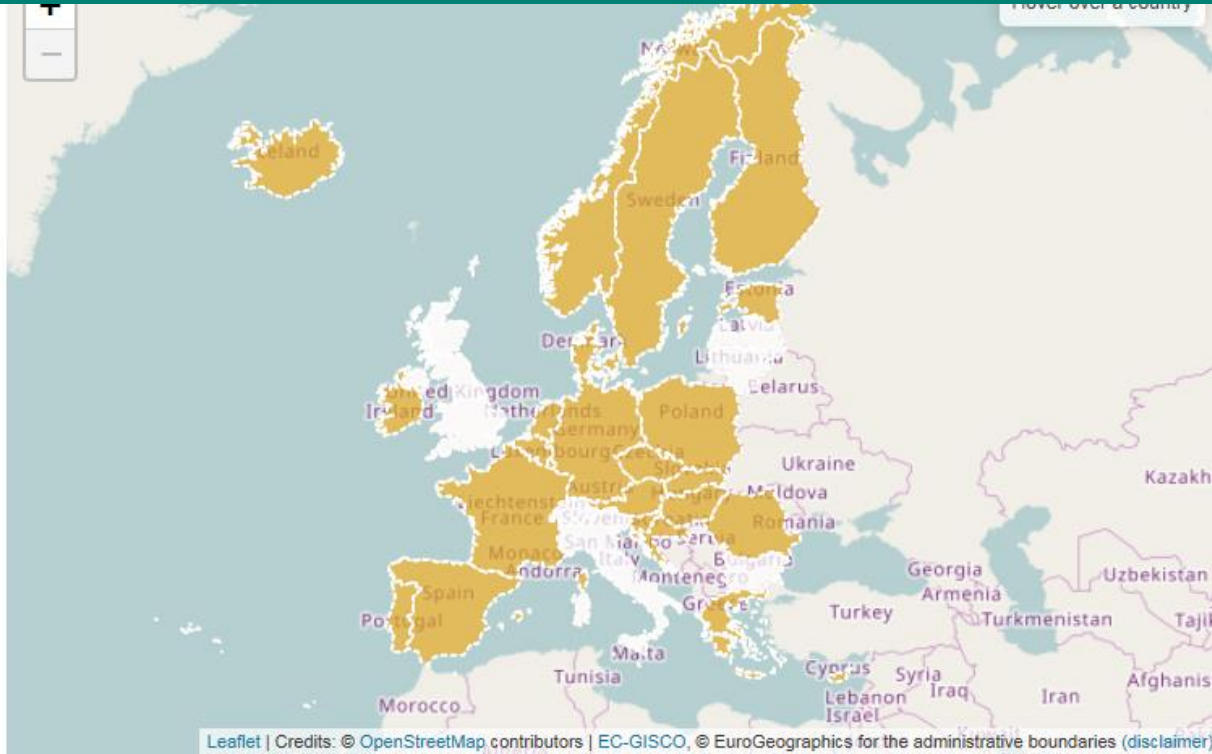
INSPIRE:  
*Priority Datasets for eReporting*

Public Sector Information (PSI)  
Directive recast: *High Value datasets*





# Action 6: Spatial data access



## INSPIRE Geoportal Data Set Statistics

1055

Metadata records

434

Downloadable Data Sets

<http://inspire-geoportal.ec.europa.eu/>

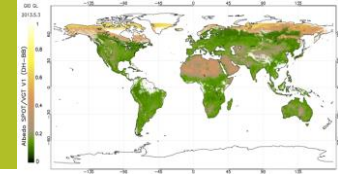
## Select a COUNTRY

Austria	74   56   67	Finland	20   14   13	Latvia	0   0   0	Portugal	134   27   79
Belgium	102   33   61	France	127   0   0	Liechtenstein	0   0   0	Romania	21   10   1
Bulgaria	0   0   0	Germany	74   30   17	Lithuania	0   0   0	Slovakia	12   2   5
Croatia	14   1   3	Greece	38   31   31	Luxembourg	62   62   56	Slovenia	4   1   0
Cyprus	5   0   5	Hungary	13   0   0	Malta	54   48   54	Spain	80   80   79
Czech Republic	38   6   33	Iceland	2   2   0	Netherlands	48   15   24	Sweden	28   7   14
Denmark	41   6   6	Ireland	9   0   0	Norway	12   1   1	Switzerland	0   0   0
Estonia	42   2   2	Italy	0   0   0	Poland	1   0   0	United Kingdom	0   0   0

# Action 7: Sensor data sources – Copernicus



Systematic biophysical monitoring



Land cover & land use mapping



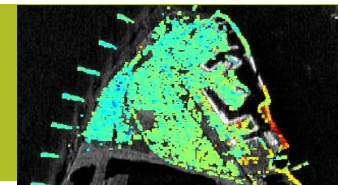
Thematic hotspot monitoring



Reference data mapping



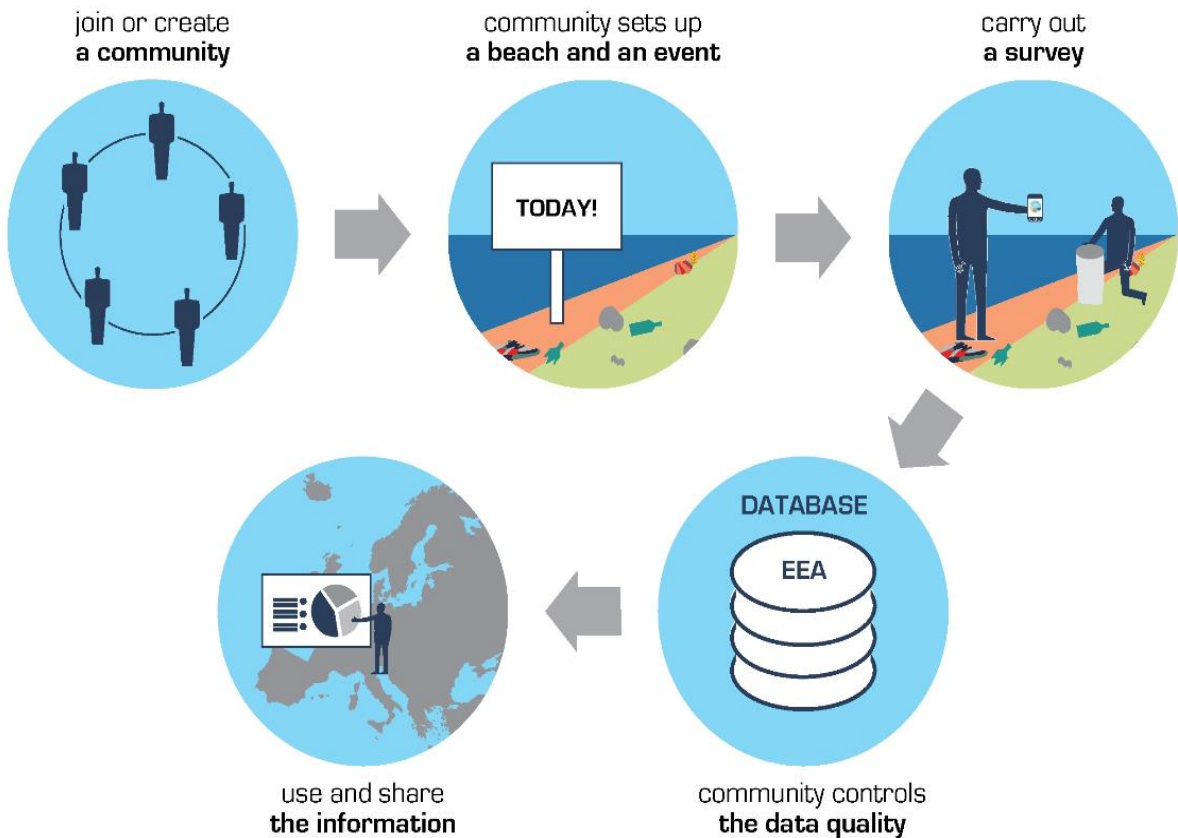
Ground Motion monitoring



Example: CLMS Land Monitoring Service



# Action 8: Human data sourcing – citizen



e.g. The European Airquality index



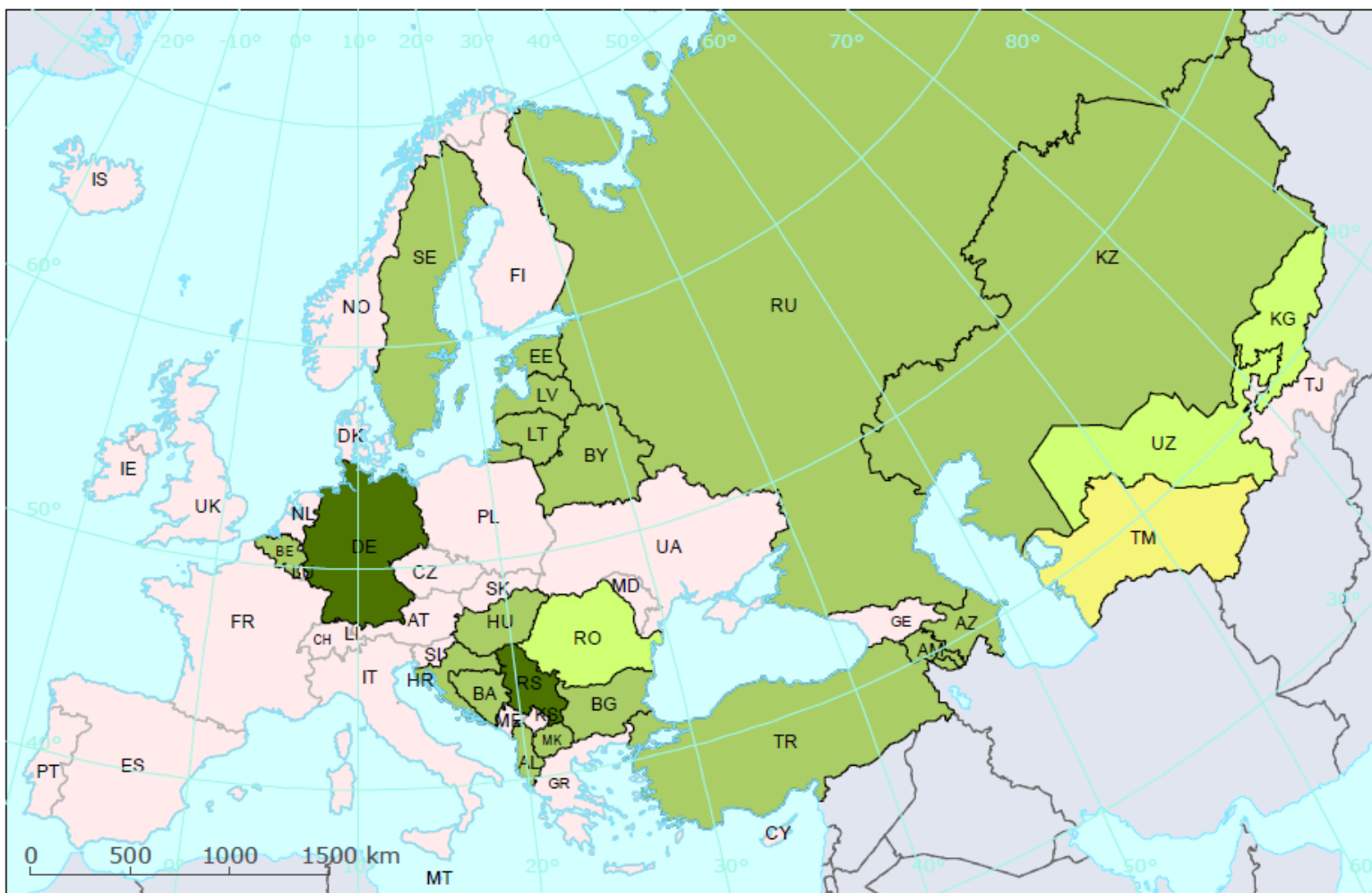
# Action 9/10: Cooperate with other domains



Sustainable development - spatial data - environment

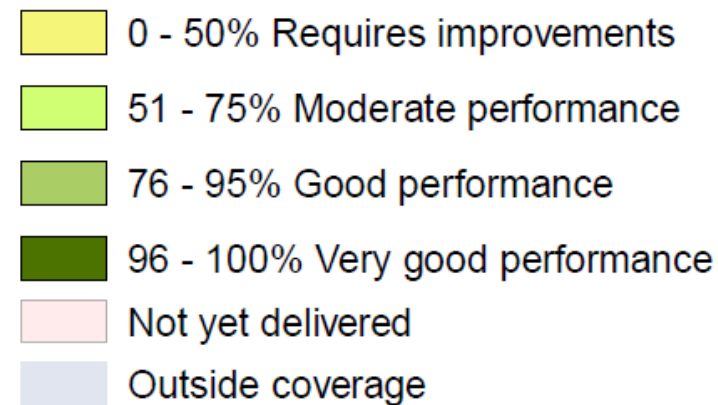
# Action 10 - International streamlining

Preliminary results SEIS self-assessment at pan-European level (22 May 2018)



Indicator: A2. Ambient air quality in urban areas

Data flows: Annual average concentration  
PM10, SO2, NO2, and O3



**\*European score (EEA39): 93%**

# Future development needs and policy setting

## *EU policy instruments:*

- data strategy
- digital single market
- digital agenda

## *Further develop:*

- Open access to (national) data
- Integration of different types of environmental data (monitoring - sensor - human data )
- Information system functionality and design





# Thank you for your attention!

More information at

[www.eea.europa.eu](http://www.eea.europa.eu)

Photos provided by EEA

