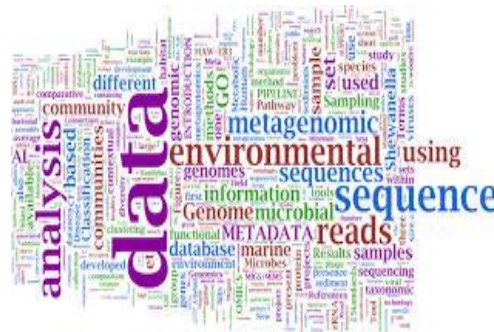


# Data requirements in dynamic times



# General drivers for data requirements – recent and current – political and technical

## Shared Environmental Information System (SEIS)

***Open Data***

Active dissemination

FP5,6,7

Horizon 2020

Sustainable Development Goals

***Copernicus***

Fitness for purpose  
eReporting

**INSPIRE**

**Big Data**

UN-GGIM

Aarhus convention

**Evolution of monitoring and reporting**

**Growth in amount of environmental data**

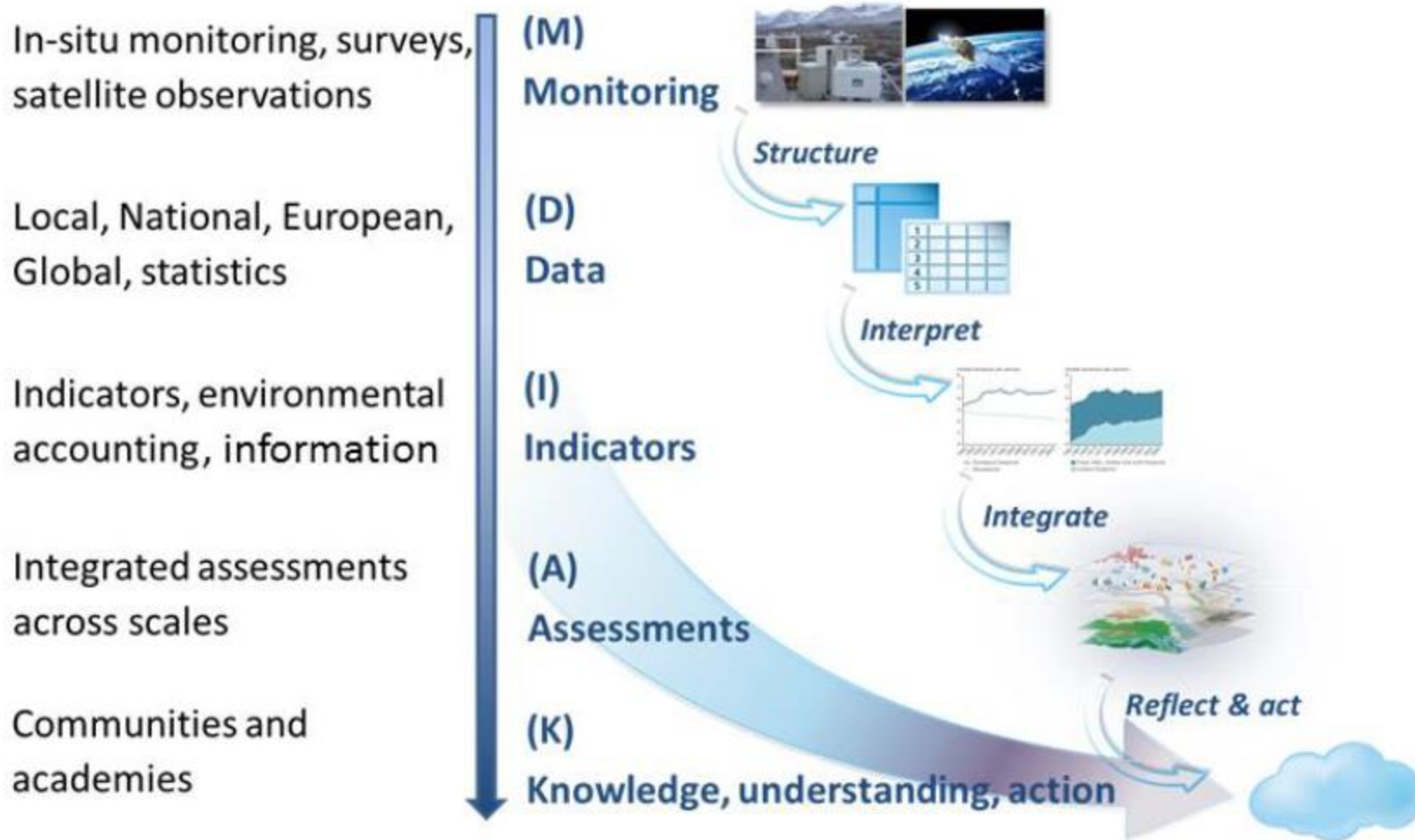
**More cross-sector, integrated and systemic assessments**

**Extended institutional knowledge approach**

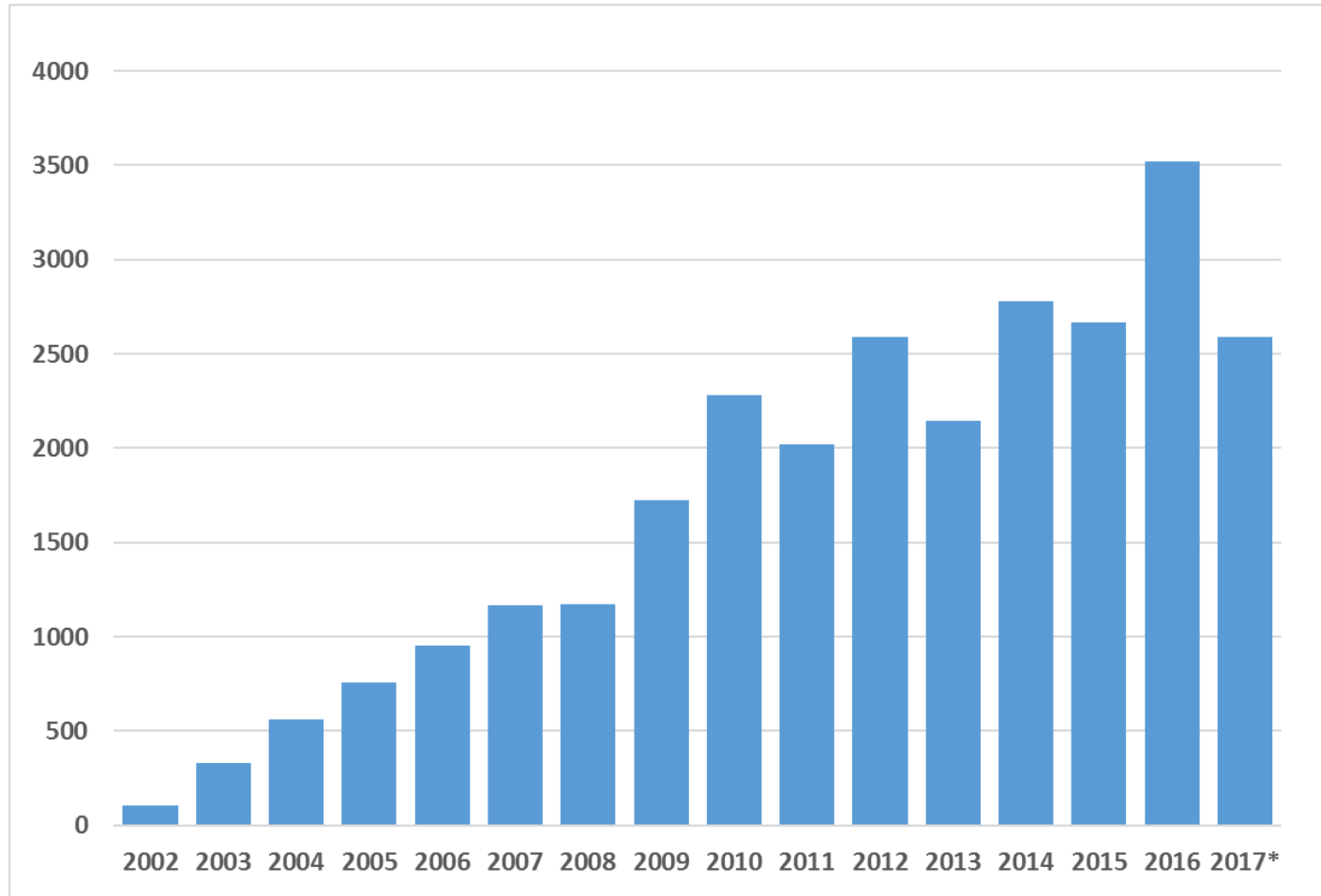
**Big data and big data analytics**

**Dynamic data and information technology infrastructures**

# Usage of data - EEA's knowledge management based on the MDIAK model

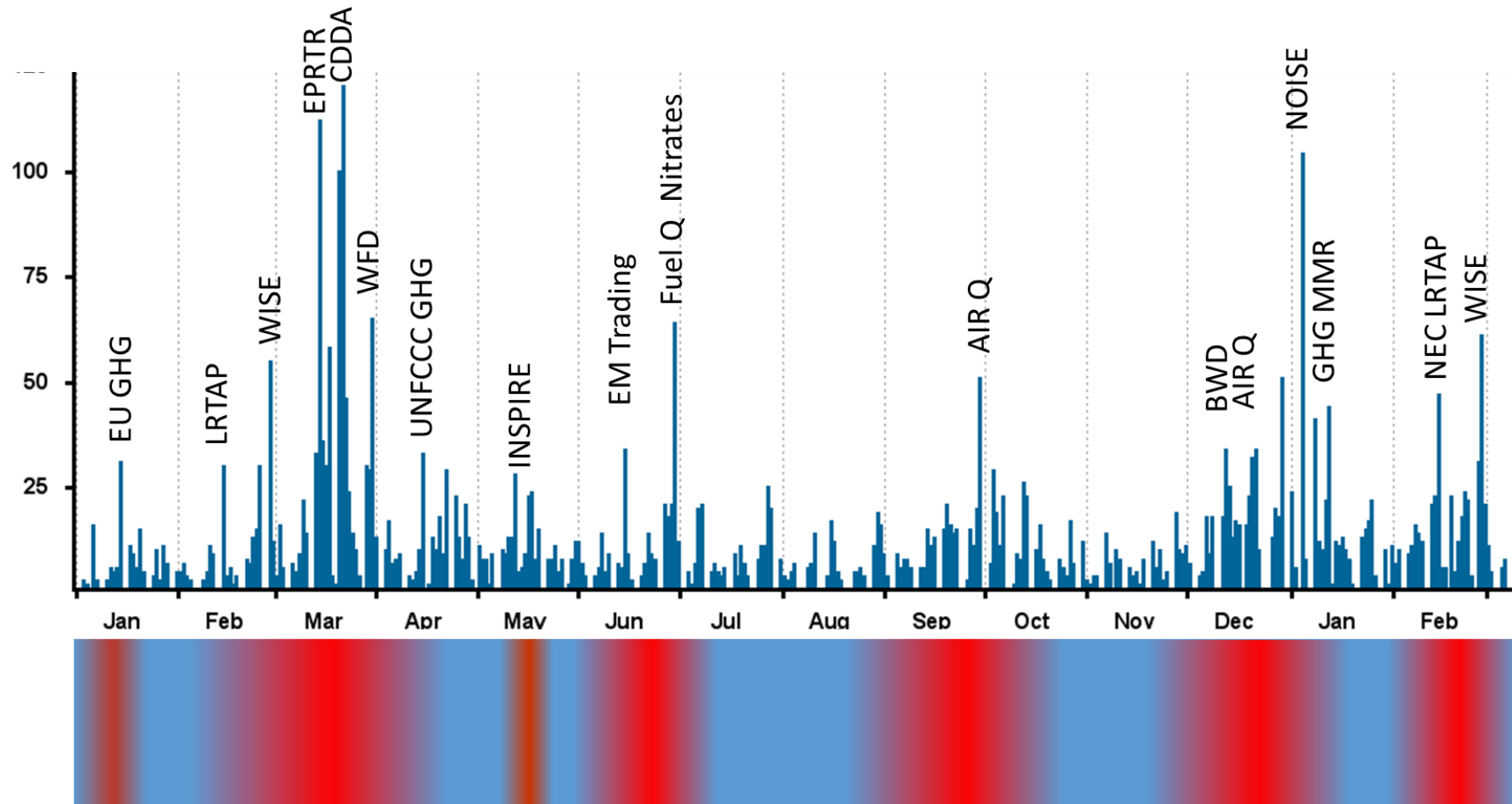


## Example Reportnet Growth in national environmental data reporting



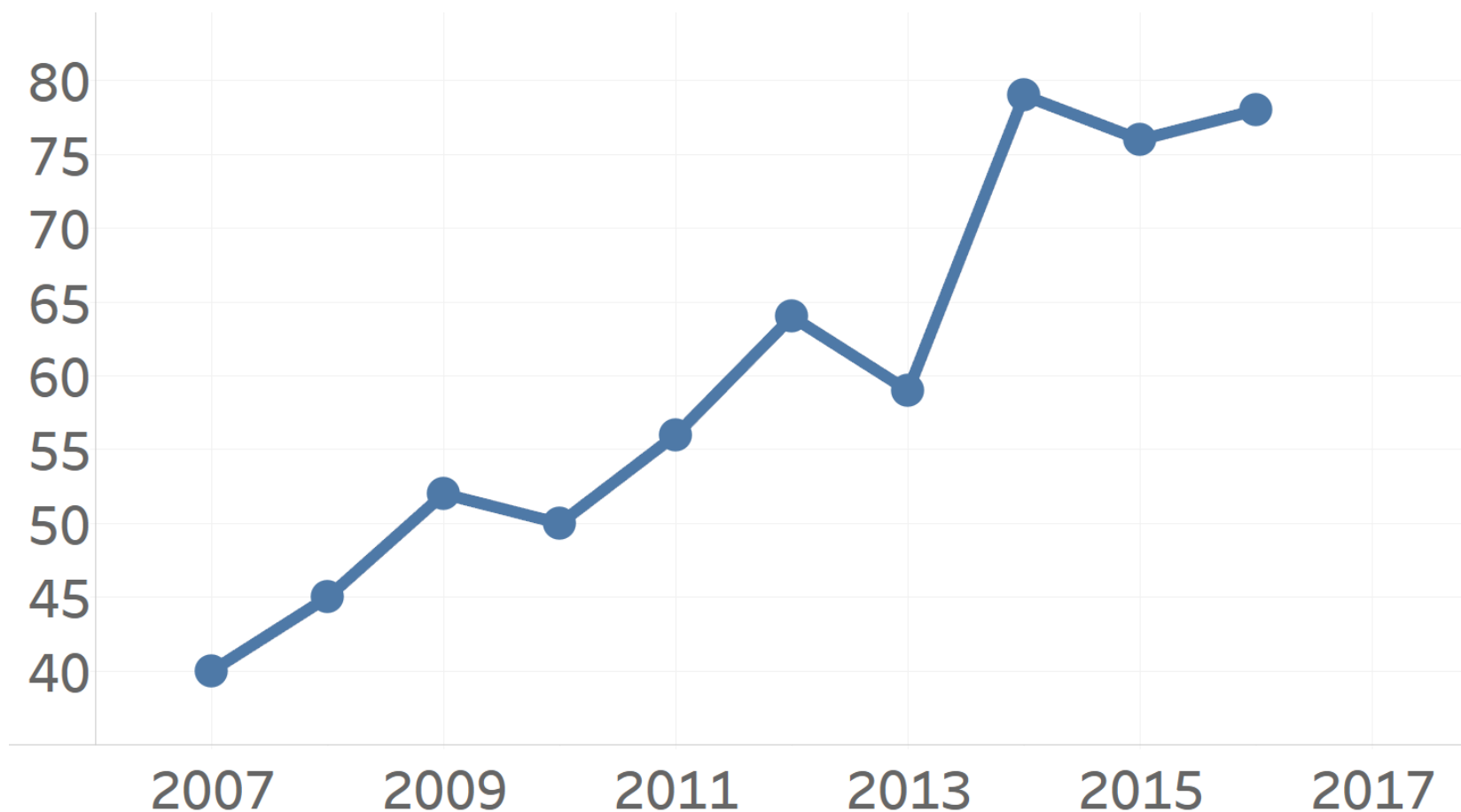
\*until 21.9.2017

## Example Reportnet Dynamics in national data deliveries



Source: Reportnet, 2016

## Example Reportnet Growth in number of dataflows



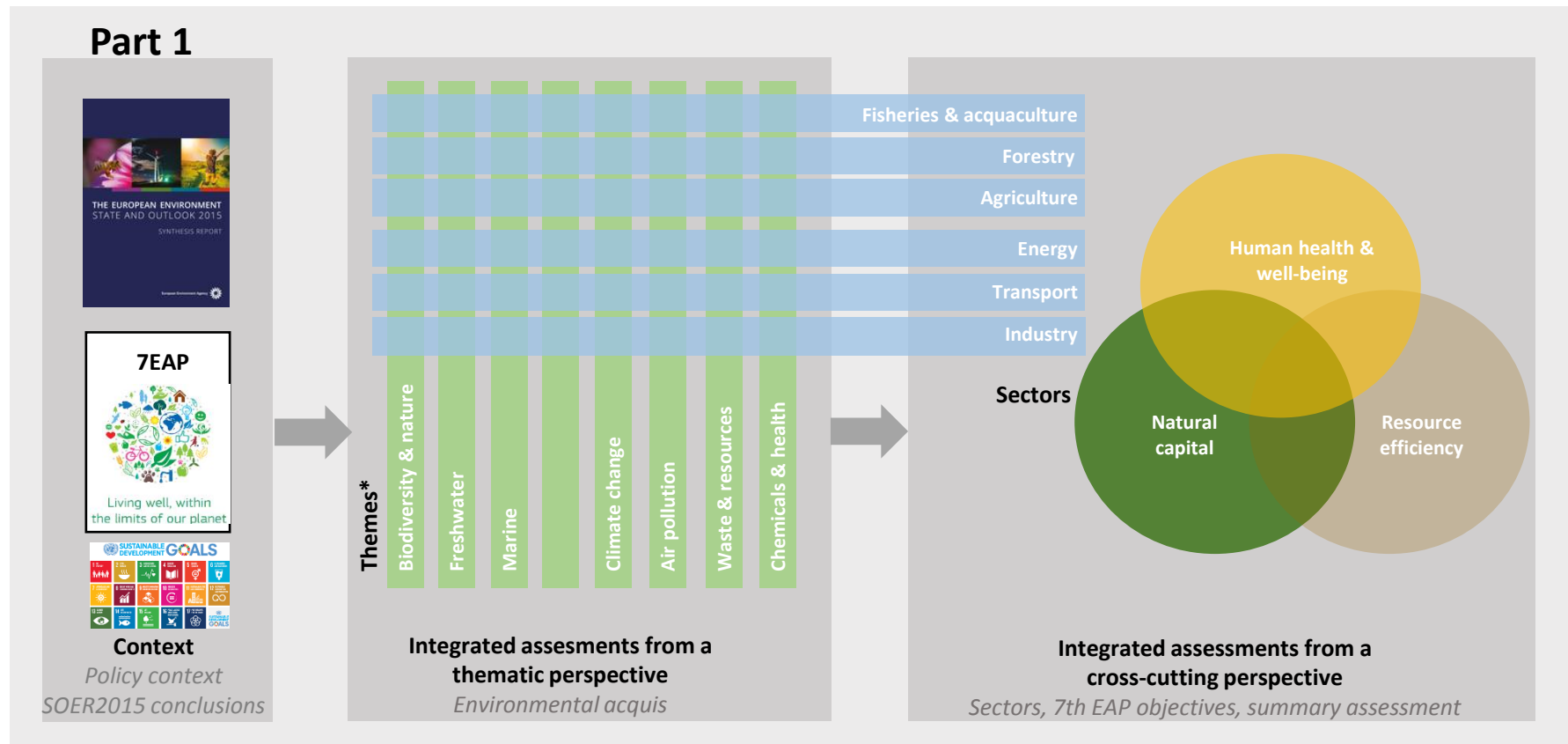
## Example European datasets Top 10 datasets

| Page Title |                                                                                                   |
|------------|---------------------------------------------------------------------------------------------------|
| 1.         | Digital Elevation Model over Europe (EU-DEM) – European Environment Agency                        |
| 2.         | AirBase - The European air quality database – European Environment Agency                         |
| 3.         | Urban Atlas – European Environment Agency                                                         |
| 4.         | Natura 2000 data - the European network of protected sites – European Environment Agency          |
| 5.         | Corine Land Cover 2006 raster data – European Environment Agency                                  |
| 6.         | Elevation map of Europe – European Environment Agency                                             |
| 7.         | Monitoring of CO2 emissions from passenger cars – Regulation 443/2009 – European Environment A... |
| 8.         | Europe coastline shapefile – European Environment Agency                                          |
| 9.         | Biogeographical regions – European Environment Agency                                             |
| 10.        | Air Quality e-Reporting (AQ e-Reporting) – European Environment Agency                            |

Total ~ 5 mio sessions (visits) from 1<sup>st</sup> of Jan 2017 to 15<sup>th</sup> September 2017



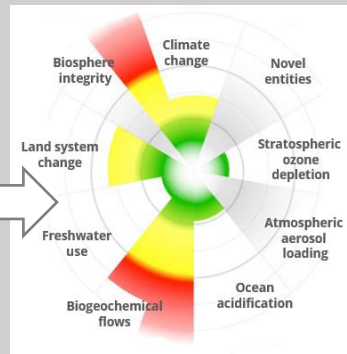
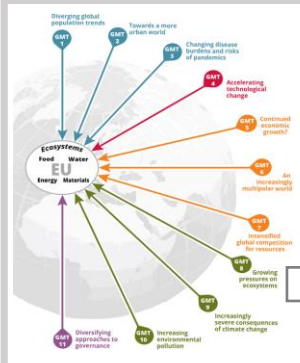
# State of the Environment 2020 Assessment logic across Part 1 and Part 2



\* Alternative option: replace Land & soil with two themes: agri-ecosystems, and forest-ecosystems

# State of the Environment 2020 Assessment logic across Part 1 and Part 2

## Part 2



**Context: Europe's sustainability goals and long-term challenges e.g.**

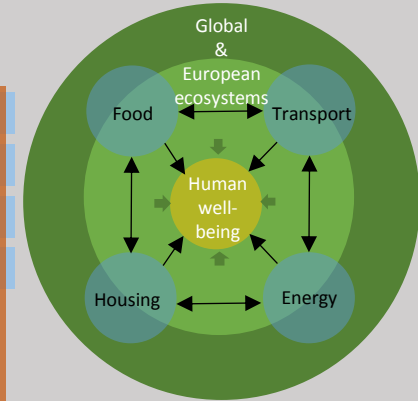
7EAP, SDGs  
Global megatrends  
Planetary boundaries

Food system  
Energy system  
Mobility system  
Housing system

**Integrated assessment of priority production-consumption systems**

Resource flows and impacts  
Actors and economic dimensions

Fiscal  
Finance

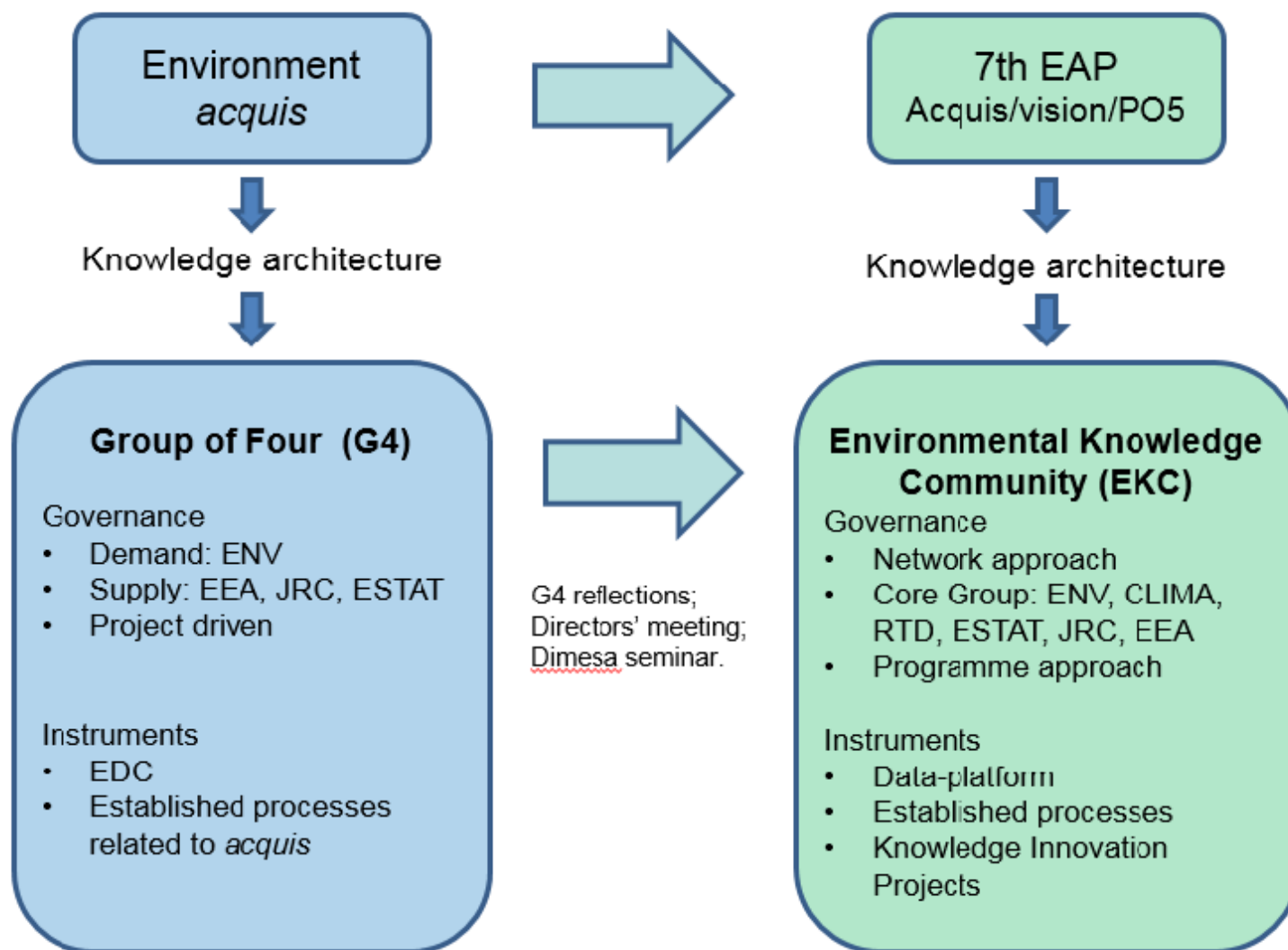


**Integrated assessment from a cross-cutting systems perspective**

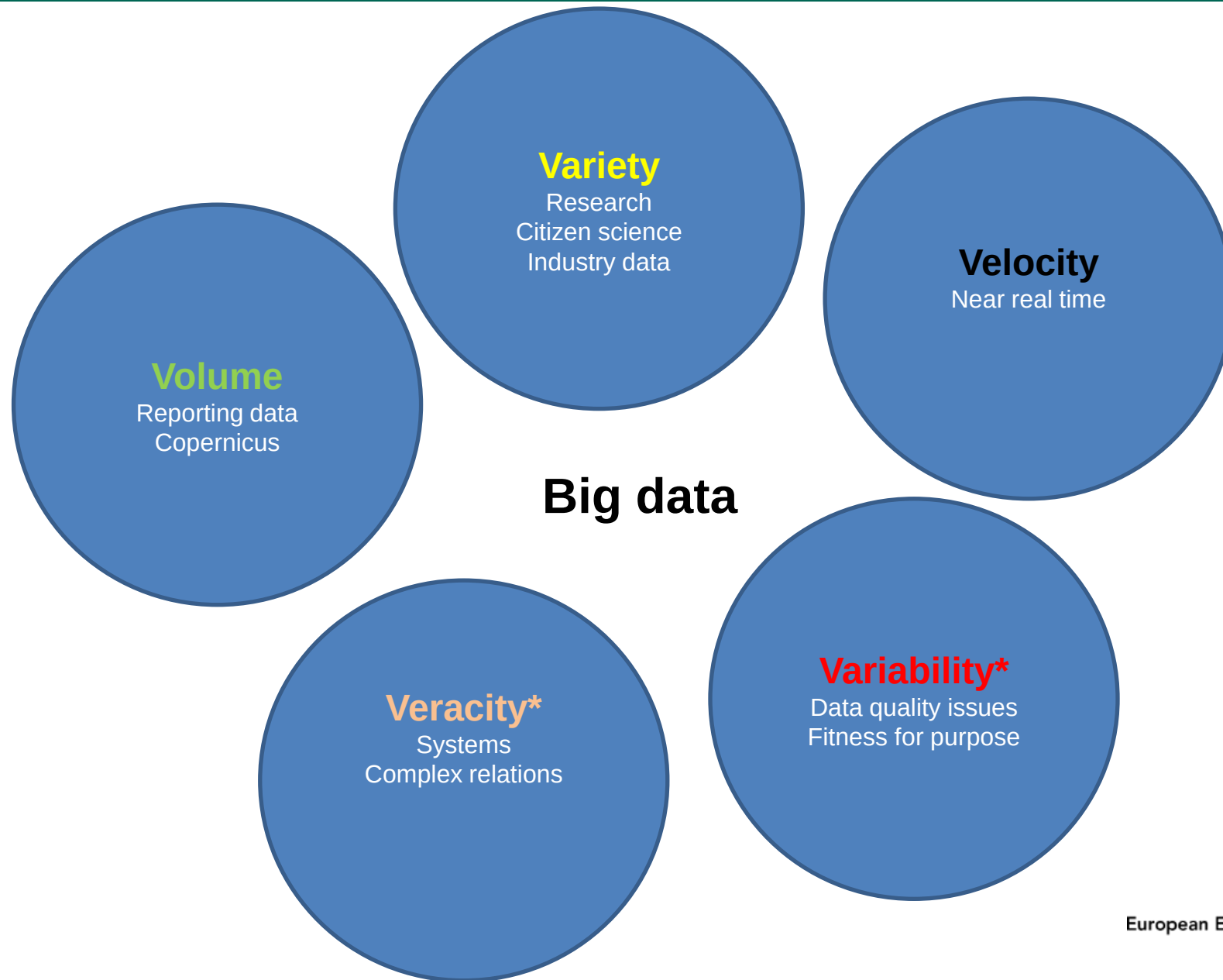
Interactions of systems and GMTs  
Resource nexus  
Governance/knowledge for transitions



# Evolution in EU inter-institutional cooperation towards a knowledge approach



# The role of „Big Data“ for EEA and Eionet



## Information technology

Flexible yet integrated systems of software components

Software as a service

Cloud storage and processing

accompanied by an ICT security challenge

## Data

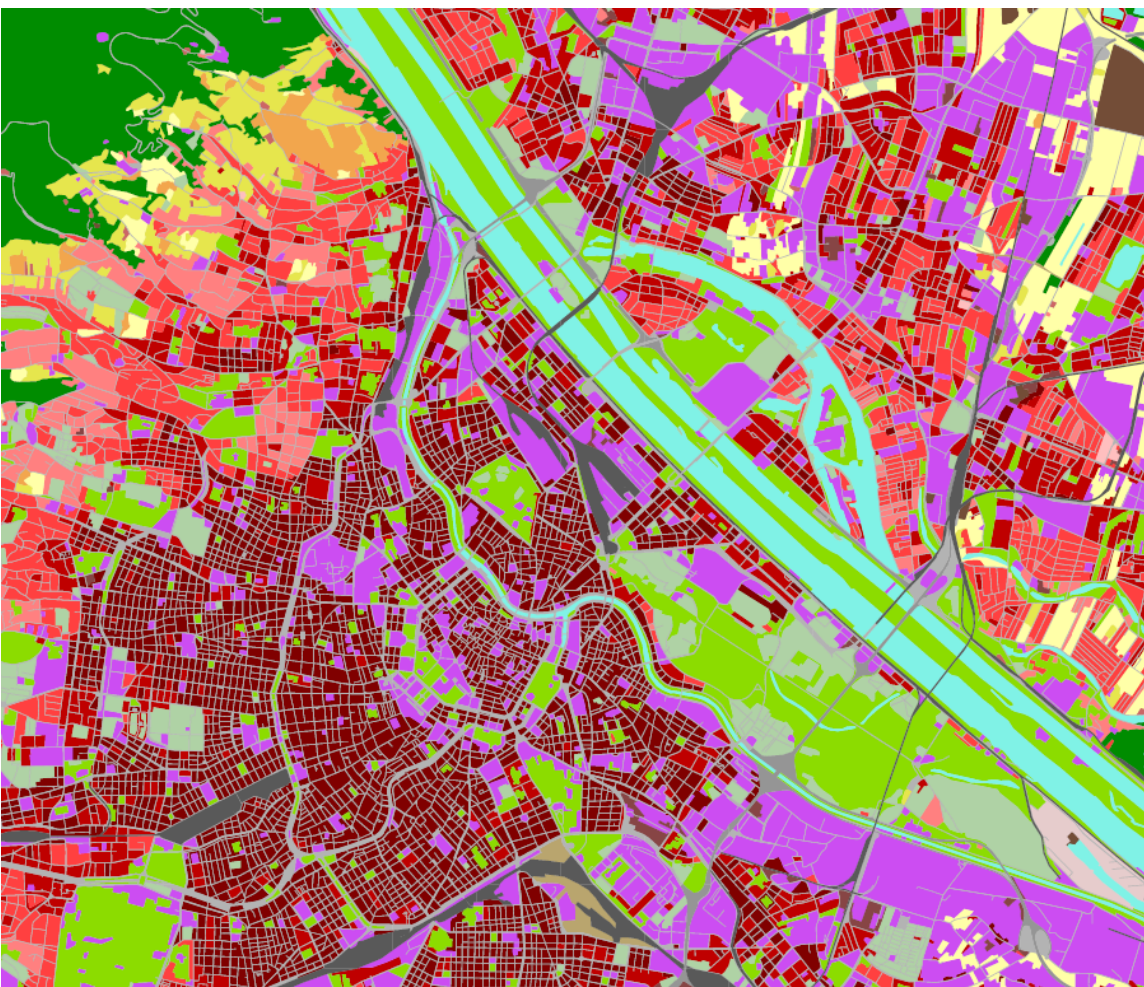
User vs. producer focus (Examples from Copernicus, INSPIRE)

Dynamic and increasingly open



Picture taken at: Voisthaler Hütte, Austria (1654m) 24.9.2017





**Copernicus Land  
Urban Atlas 2012**

**Thank You and Enjoy Vienna!**

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