

One Infrastructure: Many Applications



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www.jrc.ec.europa.eu

*Serving society
Stimulating innovation
Supporting legislation*

Status (2015)

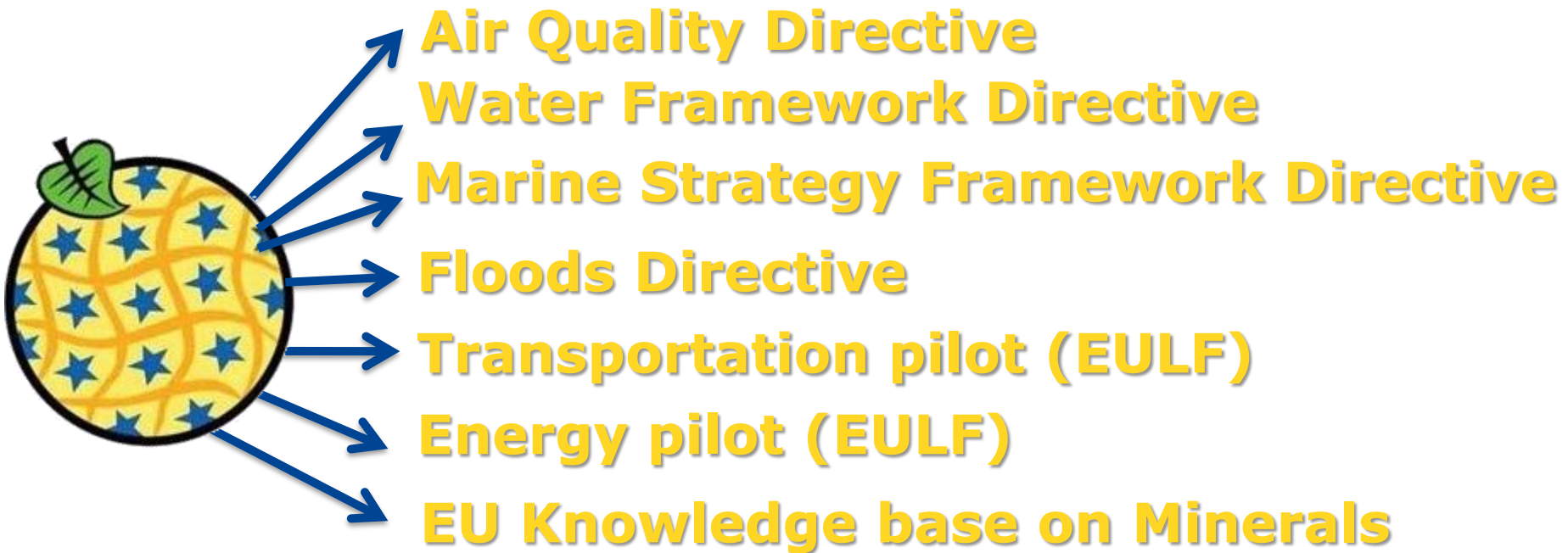
- Ready for **mass implementations**
- INSPIRE has entered in **implementation stage**
- Infrastructure components can be used as '**building blocks**'
- **More implementations = easier to handle**
 - Lessons learned are reflected
 - Availability of technology increasing
 - Growing community
- **INSPIRE pilots**
 - *Operational vs Exploratory*



Inclusive infrastructure

- Accommodates **different needs**
- Can be **fine-tuned** to particular needs/domains

Domain specific pilot activities (JRC)



Several examples of INSPIRE pilots

- Air quality e-reporting
- Interoperable sensor nodes
- Synchronized data management
- Support to macro-regional strategies
- Beyond EU28

An e-reporting example (before 2014)

Excel based template

+

Centralized approach

+

1 000 reporters

+

24 official languages

+

3 alphabets

+

Diverse institutions

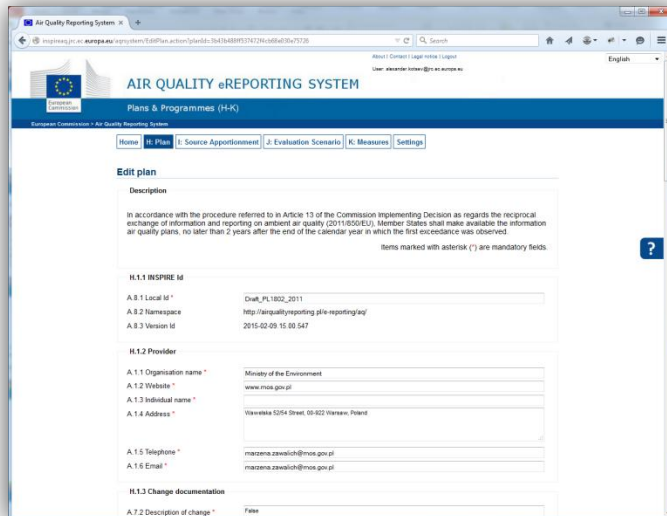
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Heterogeneous practices



Air quality e-reporting

- Easy to Use **Web Interfaces**
- **Streamlined** e-reporting
- Learning experience
- **Comparable** pan-European data



AIR QUALITY eREPORTING SYSTEM
Plans & Programmes (H+K)

Home | **H: Plan** | I: Source Apportionment | J: Evaluation Scenario | K: Measures | Settings

Edit plan

Description

In accordance with the procedure referred to in Article 13 of the Commission Implementing Decision as regards the reciprocal exchange of information and reporting on ambient air quality (2011/850/EU), Member States shall make available the information on air quality plans, no later than 2 years after the end of the calendar year in which the first exceedance was observed.

Items marked with asterisk (*) are mandatory fields.

H.1.1 INSPIRE Id

A.8.1 Local Id *

A.8.2 Namespace

A.8.3 Version Id

H.1.2 Provider

A.1.1 Organisation name *

A.1.2 Website *

A.1.3 Individual name *

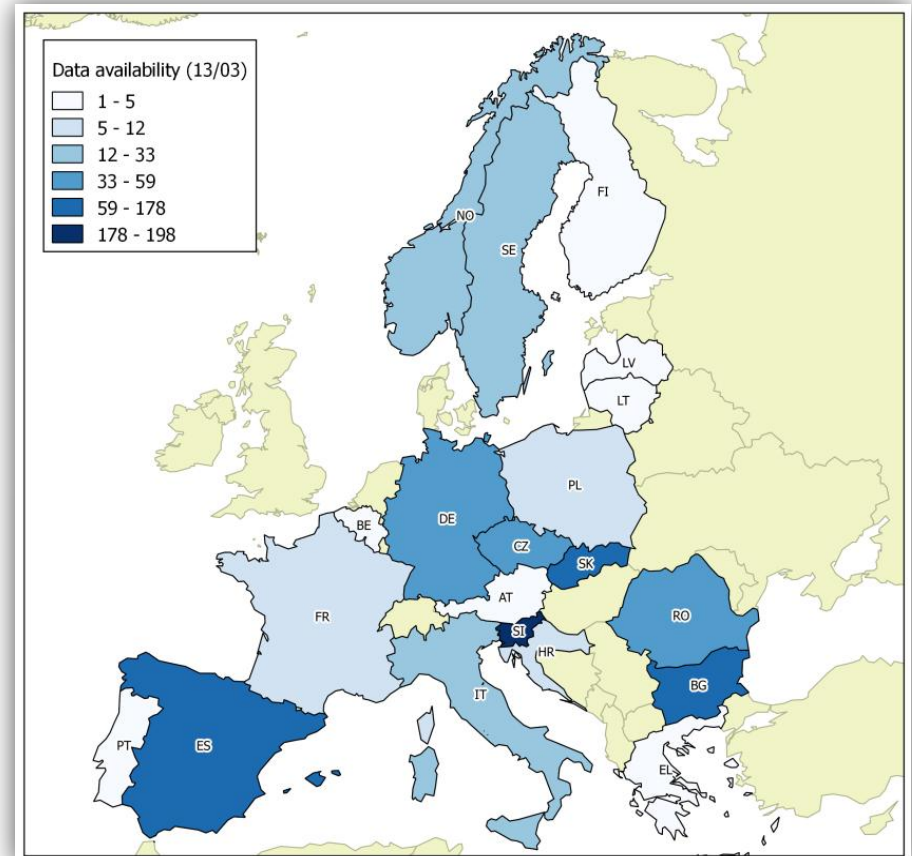
A.1.4 Address *

A.1.5 Telephone *

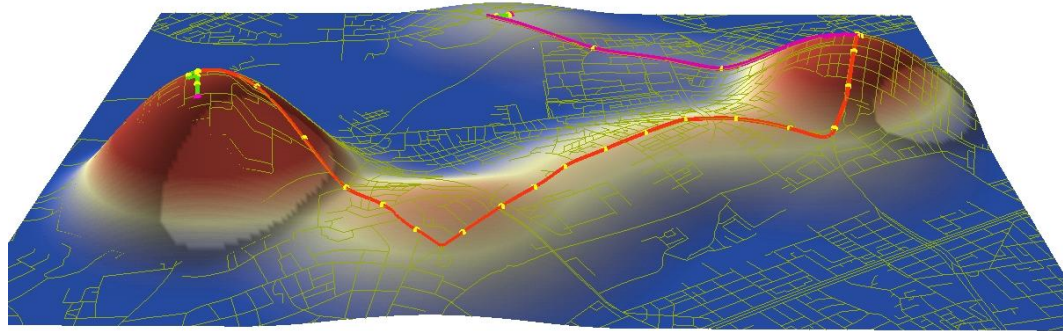
A.1.6 Email *

H.1.3 Change documentation

A.7.2 Description of change *



Extensions to the 'temporal' domain



Context

"A geometric increase of the number of sensors connected to the Internet is expected", Michael Howell (25.05.2015)



Michael Howell

Deputy Program Manager
Information Sharing Environment
United States

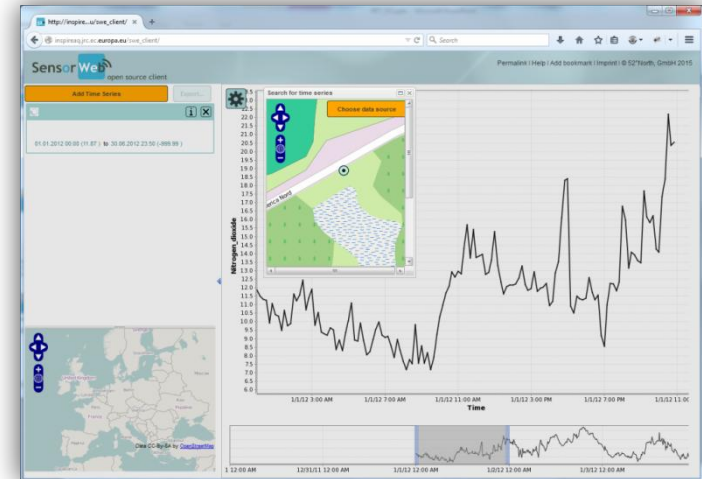
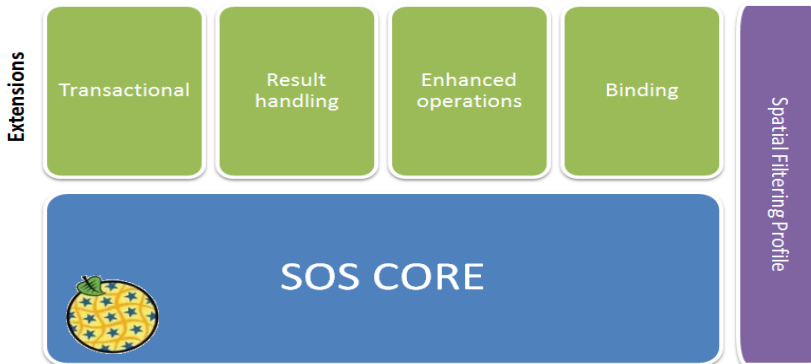
Bio



Extensions to the 'temporal' domain

❑ Sensor Observation Service (INSPIRE/SOS)

- Data transmission use case
- Suited for near-real time
- Reusable & interoperable services
- Domain independent
- Data managed close to the source
- Easy to Use Web Clients

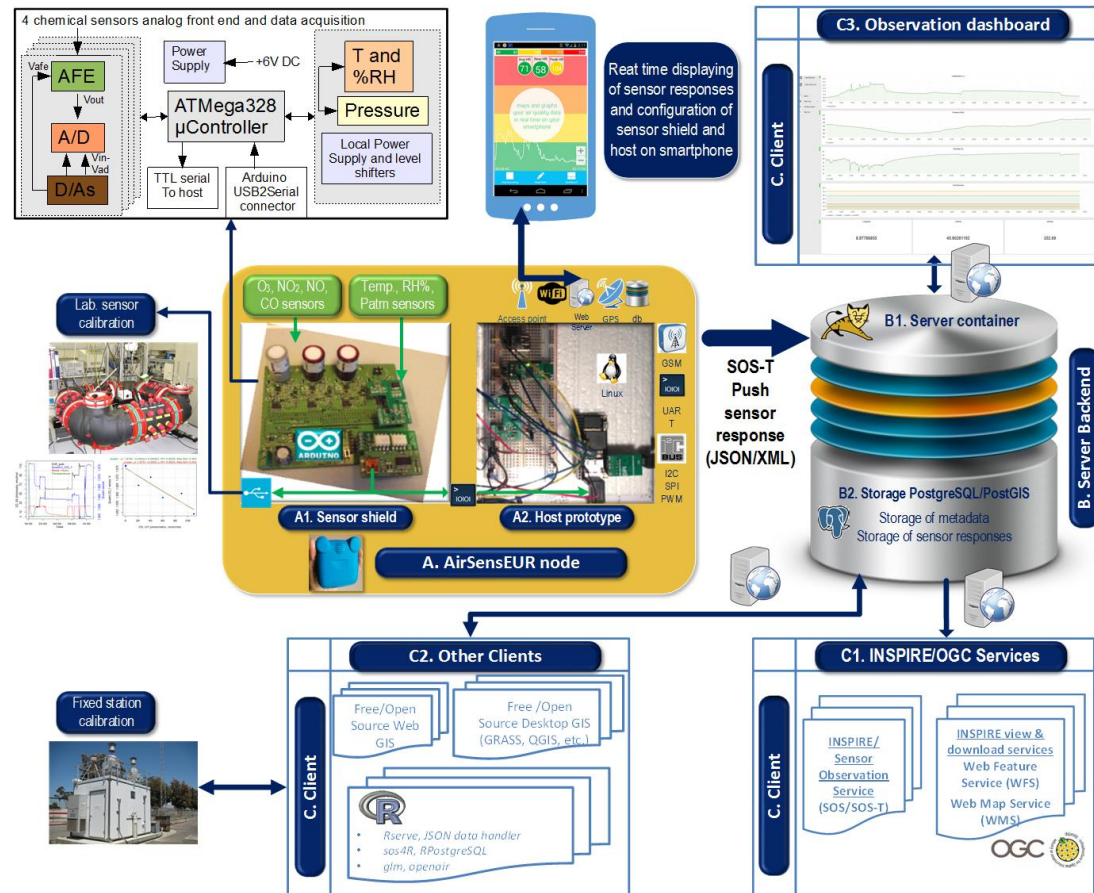


Extensions to the 'temporal' domain

An INSPIRed sensor node (I-NODE)

"Sustainable Urban Living" JRC project (SUL)

- Open source software
- Open hardware
- Out-of-the-box
- DIY community



Emerging opportunities

- **'Proper'** data management matters
- **Occasion for doing things "the right way"**
 - 1) SEVESO – *Establishment*
 - 2) Industrial Emissions Directive - *Installations*
 - 3) E-PRTR – *Industrial Facilities*
 - 4) Large Combustion Plants

Work ongoing

- INSPIRE - common denominator
- Common identifiers (INSPIREid)
- Subdivision of roles



Beyond EU28

INSPIRE and the global agenda

International Standardization Bodies (OGC, ISO, etc.)

UNGGIM-Europe

- Uptake of principles, reflection of lessons learned

Partnership with **WB/FAO/UNECE**

- **Awareness raising** events
- **Transfer of know-how** to non-EU countries
- Joint yearly **action plan**

Support to macro-regional development

EUSDR

Danube Reference Data and Services Infrastructure (DRDSI)

Based on **MS investment in INSPIRE**
Open data **platform (CKAN)**

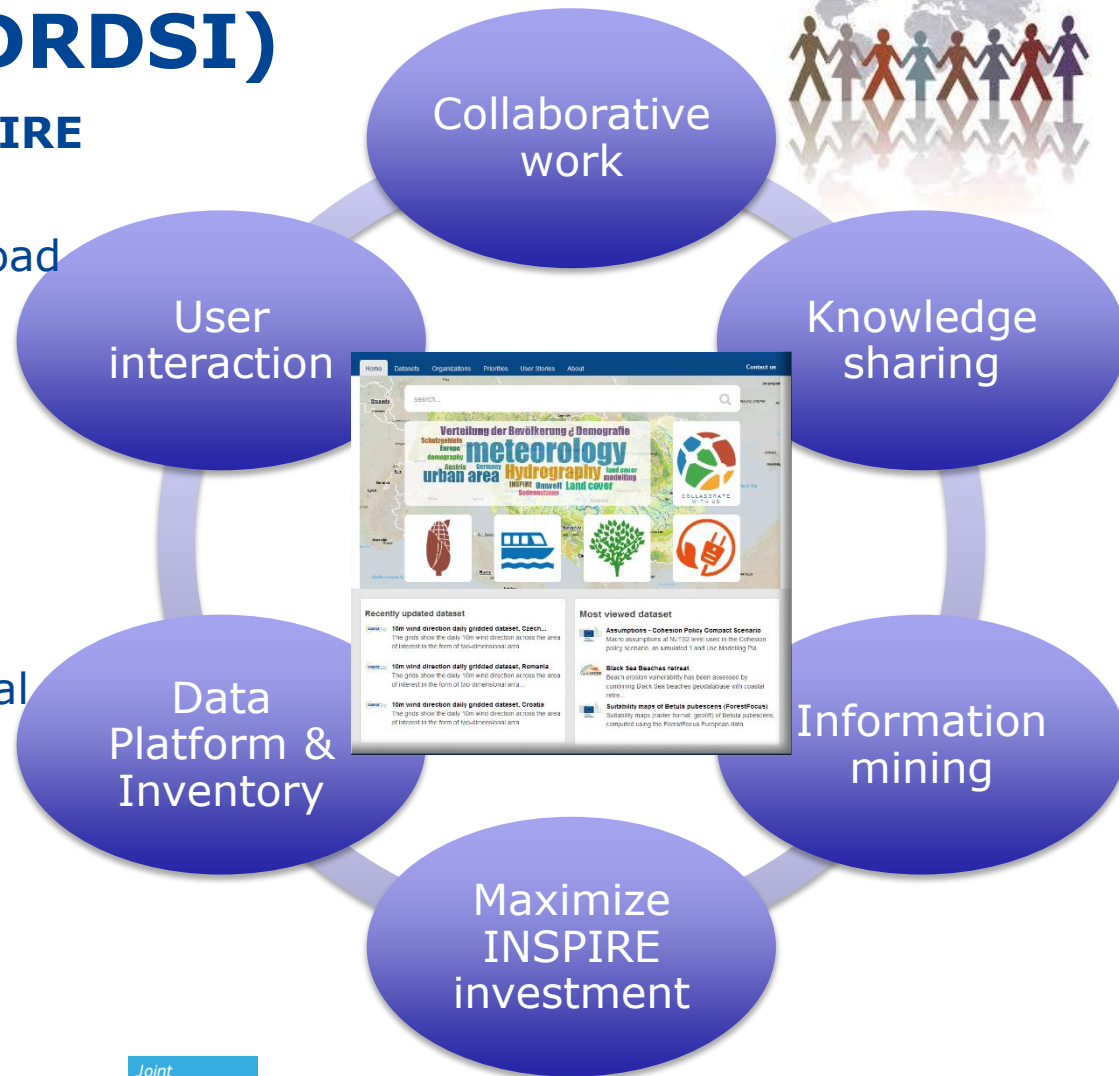
- Publish, search, view and download data

Data (4500 +) coming from

- European Commission
- National and International Stakeholders
- European, Regional and National Projects

Coordination and Collaboration

- Including a Permanent Network (DANUBE_NET) composed by a representative of each Danube country










New opportunities

“Data Infrastructures for Sustainable Growth” workshop (28.05, 09:00 h)

- Business side of things
- Value added products
- Different perspectives
- ‘Recipes for success’



 <p>Klaus Deininger Lead Economist Development Research Group World Bank Bio Abstract</p>	 <p>Karl Donert Consultant, President EUROGEO United Kingdom Bio Abstract</p>
 <p>Jelena Matic-Varenica Head of Department Republic Geodetic Authority Serbia Bio Abstract</p>	 <p>Karel Charvat Project Manager Help Service Remote Sensing Czech Republic Bio Abstract</p>
 <p>Zoltan Horvath Professor European Institute of Innovation & Technology Netherlands Bio Abstract</p>	 <p>Nikos Zaharis Director South East European Research Center (SEERC) Greece Bio Abstract</p>
 <p>Giacomo Martirano Engineer Epsilon Italia Italy Bio Abstract</p>	

Conclusions

- The infrastructure is **mature** and ready to:
 - Support **mass-implementations**
 - **Be extended** and fit for purpose
- INSPIRE can also be **successfully used**:
 - **Beyond the geospatial** domain (e.g. open data, space-time, Internet of Things, etc.)
 - To address cross-cutting issues **outside the environment** (smart cities, Digital Single Market, etc.)
 - **Outside EU28**
- Many emerging **opportunity for businesses**
- INSPIRE as a driver for **innovation**

Thank you for the attention 😊

