

# eEnvironment and the Single Information Space in Europe for the Environment

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# Frameworks of eEnvironment

Principle 40 of eDemocracy for eEnvironment:

- **eEnvironment** is the use and promotion of ICT for the purposes of environmental assessment and protection, spatial planning, and the sustainable use of natural resources, and includes public participation. Using ICT to introduce or enhance public participation can improve democratic governance in respect of environmental issues.
  
- eEnvironment is integrated into **eParticipation** and **eGovernment** initiative of EU and it is going to be one of the **fundamentals of eDemocracy**, see „Explanatory memorandum to Recommendation CM/Rec(2009)1 of the Committee of Ministers to member states on eDemocracy”, from 18. Februar 2009:

# Frameworks of eEnvironment

Principle 87 of eDemocracy for eEnvironment:

- **eEnvironment includes the use of ICT- based systems for access to and the dissemination of environmental data and information as well as the establishment of ICT- supported monitoring systems and repositories for environmental knowledge.**
- eEnvironment thus makes it possible to forecast and monitor the impact of natural and manmade factors and other pressures on the environment, and to determine the current state of the environment, which in turn makes it easier to formulate potential responses because it is possible to call on a broader, more widely disseminated knowledge base.

# Frameworks of eEnvironment

Principle 88 of eDemocracy for eEnvironment:

- **Spatial planning and spatial cohesion** are both **basic components of the eEnvironment field**, and ones that constitute major challenges for nation states and regional and local authorities.
- **INSPIRE** implementation is one of the **pillar of eEnvironment**
- In May 2008, the Congress of Local and Regional Authorities of the Council of Europe adopted a report and recommendation on “**Electronic democracy and deliberative consultation on urban projects**”.

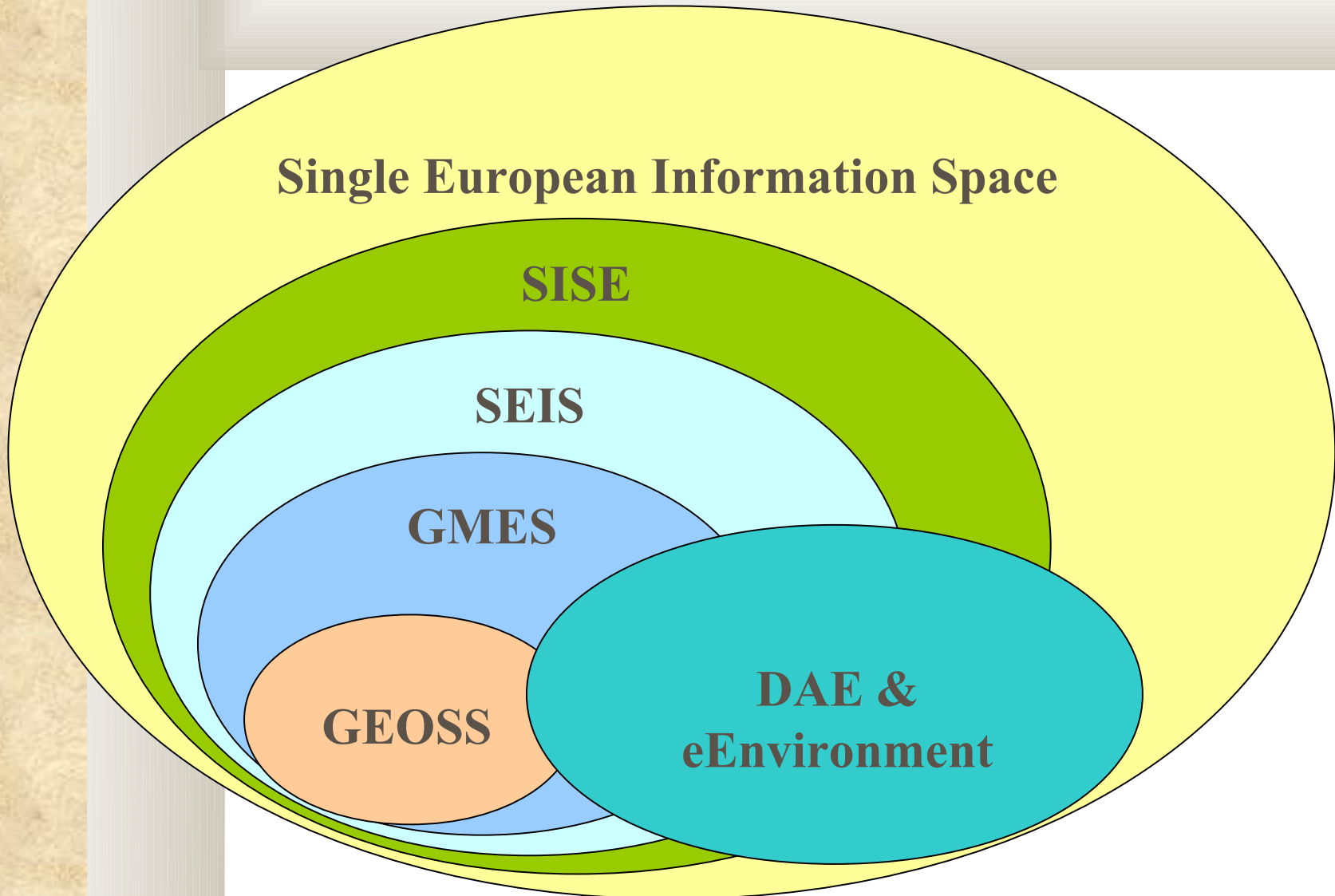


## Frameworks of eEnvironment

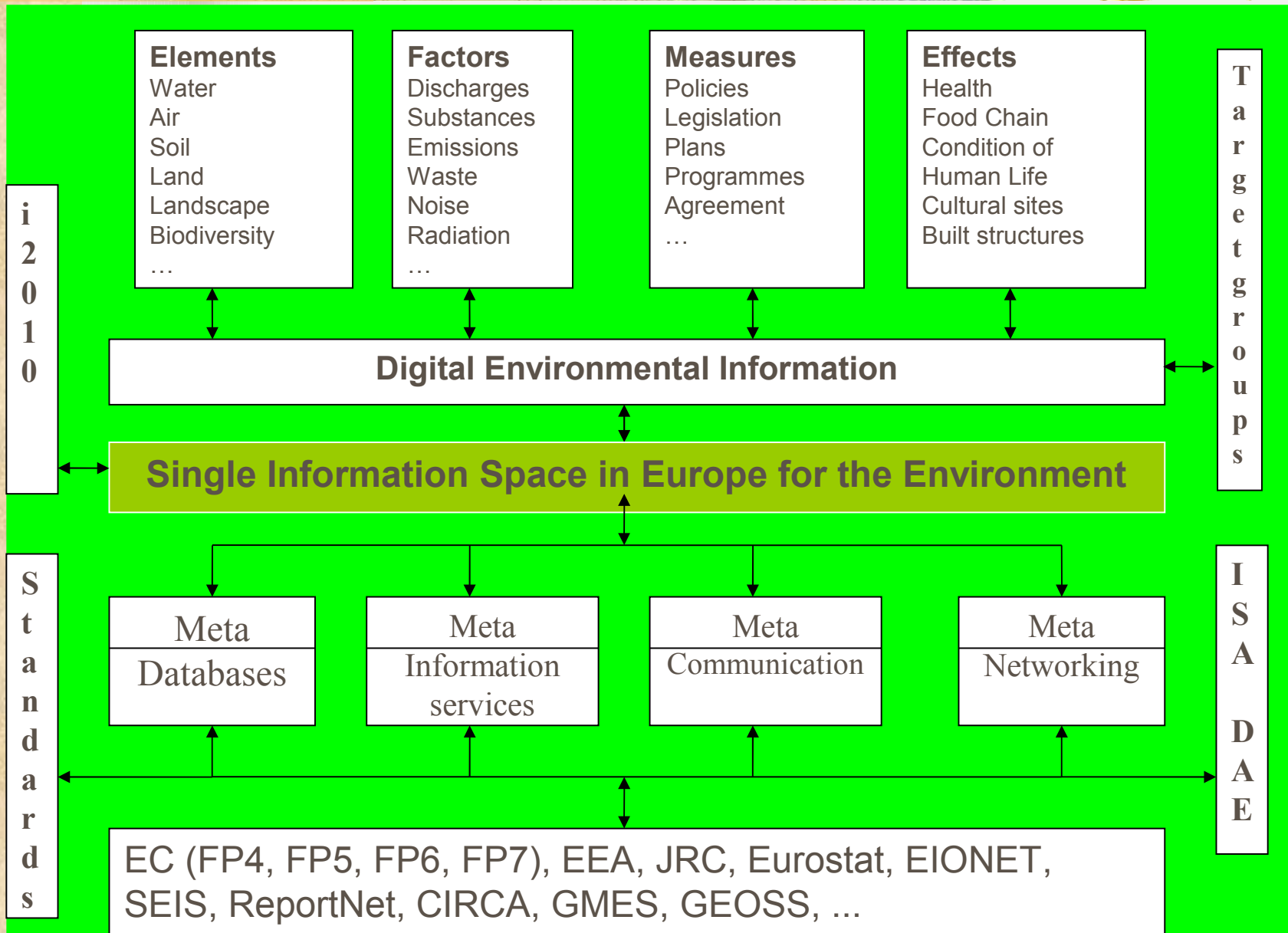
### Principle 89 of eDemocracy for eEnvironment:

- The UNECE Aarhus Convention on **Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters** includes provisions calling on contracting parties to **use electronic information tools to provide public access to environmental information.**
- To this end, the Parties to the Aarhus Convention set up a task force to facilitate implementation of the Aarhus Convention through the effective use of electronic information tools designed to provide public access to environmental information.

# eEnvironment and DAE with SISE, SEIS, GMES, GEOSS



# Conceptual model of SISE



# Future Structure of SISE



Five subspaces of SISE were identified in FP7 project ICT-ENSURE, relevant for enabling electronic (digital) environmental information sharing:

- ❑ **Content (Semantic) Space**
- ❑ **Legislation Space**
- ❑ **Policy Space**
- ❑ **Organisation Space**
- ❑ **Technical Space incl. tools.**



## eEnvironment and the SISE

- The objective of the implementation of SISE is only conceivable in the medium term for selected areas of environmental relevance.
- Requirements and demands for such areas can be found in multiple sources, e.g. in the **EU's 6th Environmental Action Plan**, the **Environmental Policy Reviews** and in the **Digital Agenda for Europe**.
- Currently the idea of SISE is promoted by European FP7 projects as **ICT-ENSURE**, **EnviroGrid BlackSee**, **GENESIS**, **NaturNet plus**, **TaToo** and **ENVIROFI Future Internet**.

# eEnvironment and Open Government Data Initiative



- The Conference **Sharing Environmental Information** (Brussels 29.11. 2010 –1.12.2010) brought in its Conclusion a new initiative connected to **Open Government data**: “8. *Initiatives towards enhancing the availability of data and information produced or commissioned by government or government controlled entities such as the Open Government data initiative is welcomed.*”
- The European eGovernment Action Plan 2011 - 2015 has given the central role of national governments in the implementation of this action plan the EC’s main responsibility is to improve the conditions for **development of cross-border eGovernment services provided to citizens and businesses regardless of their country of origin.**

# A Digital Agenda for Europe



- ❑ **eEnvironment services, as a category of eGovernment services, are either still underdeveloped, or fragmented along national borders.**
- ❑ **EU law in this area should be reviewed and modernised.**
- ❑ **Secondly, innovative solutions such as advanced sensor networks, can help fill gaps in the required data.**

# A Digital Agenda for Europe



## Action 16:

- ❑ Review by 2011 the Directive 2003/4/EC on public access to environmental information;
- ❑ Support seamless **cross-border eGovernment services** in the single market through the Competitiveness and Innovation Programme (CIP) and Interoperability Solutions for European Public Administrations (ISA) Programme;
- ❑ **Work with Member States and stakeholders to implement cross-border eEnvironment services, notably advanced sensor networks;**



# Development infrastructure for eEnvironment and DAE (I)



- ❑ **Establish national/regional environmental information web centres for eEnvironment** or equivalent sources of information as the part of SEIS that will stimulate and promote public access to information and public participation in environmental decision-making;
- ❑ **Establish European Data Centres:** enabling citizens to access authoritative, quality assured information about their environment and ultimately globally to extend transparency into how environment policies are being implemented;

# Development infrastructure for eEnvironment and DAE (II)



- ❑ **Promote access to electronically stored environmental information** by establishing and maintaining community web access points;
- ❑ **AirWatch and WaterWatch:** cloud computing applications extending the role of civil society in monitoring and observing changes in the environment through crowd sourcing and direct reporting;
- ❑ **Establish one-stop access point(s) for citizen-oriented environmental and related eGovernment services**, with coordinated input from the relevant public authorities and/or linkages to other similar sites;

# Development infrastructure for eEnvironment and DAE (III)



- ❑ Educate skill human capacity for the use of ICT tools of **SISE, SEIS, GMES and GEOSS** to promote the implementation of eEnvironment through comprehensive and forward-looking training and education strategies for public officials;
- ❑ Promote the Commission's efforts to develop the **institutional capacities of public authorities** (e.g. CEE POPs Centre) to monitor, collect, organize, store and disseminate environment-related data, information and knowledge in an easily accessible and user-friendly manner;

# Development infrastructure for eEnvironment and DAE (IV)



- ❑ **Ensure the interoperability (EU ISA)** of commonly readable, user-friendly and easily transferable formats of SEIS, GMES and GEOSS for environment-related data, information and knowledge;
- ❑ **Develop and apply comprehensive environment-related ICT tools (GIS)**, including specific training programmes linking the use of ICT tools to the promotion of good environmental governance;



# Development infrastructure for eEnvironment and DAE (I)(V)



- ❑ **Develop spatial data infrastructure for mobile work force:** the integration of advanced modelling, space-based observations and local geographical information on hand-held devices to allow workers in the field have access to their own specific GIS "mash-up" e.g. for civil protection, wildlife management etc.
- ❑ **Promote the involvement of different stakeholders representing both SEIS providers and its users,** including civil society and private sector institutions, in the development and use of ICT tools with a view to improving the accessibility, as well as the availability, of environmental information and knowledge to the public;

# Development infrastructure for eEnvironment and DAE (VI)



- ❑ **Maintain a national SEIS web site with data and information related to the nationwide implementation of eEnvironment, which will serve also as the national node of cross-border eEnvironment services;**
- ❑ **Designate contact points responsible for collecting, managing and updating the data and information contained in the national node and keeping interoperability (Solutions for European Public Administrations (ISA) Programme);**

# Development infrastructure for eEnvironment and DAE (VII)



- ❑ **Develop capacity for public officials managing and updating information for the national node, and for providing the necessary information for the SEIS mechanism (reporting).**
- ❑ **Develop methods and protocols for service chaining and for the management of the effects of uncertainty propagation through service chaining, which will be included into the SISE infrastructure for eEnvironment.**



**Thank you for your attention**

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