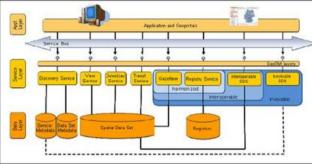
#### Od Habitatsu ku SmartOpenData

#### Karel Charvat, Martin Tuchyňa

Inspirujme se..., November 28th 2013, Bratislava



#### Habitats Changing Architecture

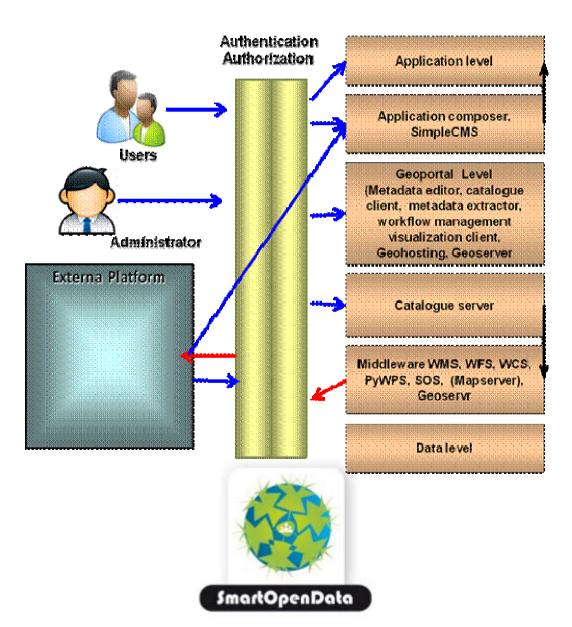




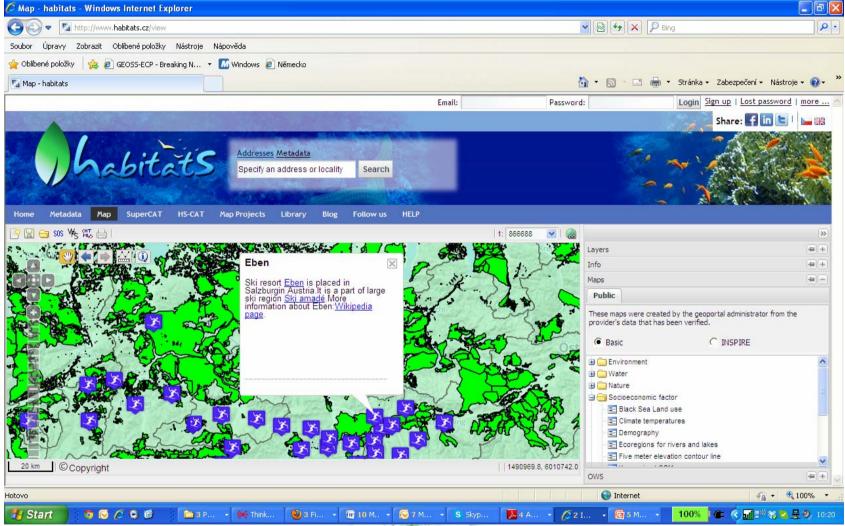
Present layer	CMS	Social networks and media		Workflow management		Auth/author	Users, Experts Administrators
Application layer	Auth/author	Portlets	WMC	KML	DIV	Virtual modeling	Users, Experts Administrators
	Application	Serviets	R55/GeoR55	iframe	Geoportal bus	Augment reality	
Client services layer	Auth/author	View		Transfo	rmation	Monitoring	Experts, Administrators
	Discovery	Data services Analysis					External serv
Server layer/ engine	User management	Metadata engine		SOS/SAS/SES		Geographic extension for RDBSM	
	Web Map Server	WPS		Registery management		Web GIS analytics tools	
Data layer	File system		RDE	ISM	Sensor co	nnectivity	



#### Habitats Reference Laboratory

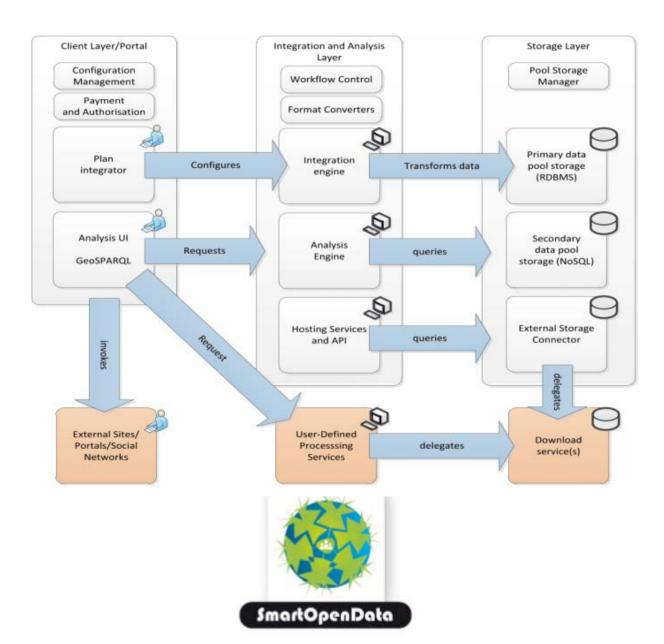


#### Habitats Linked Open Data

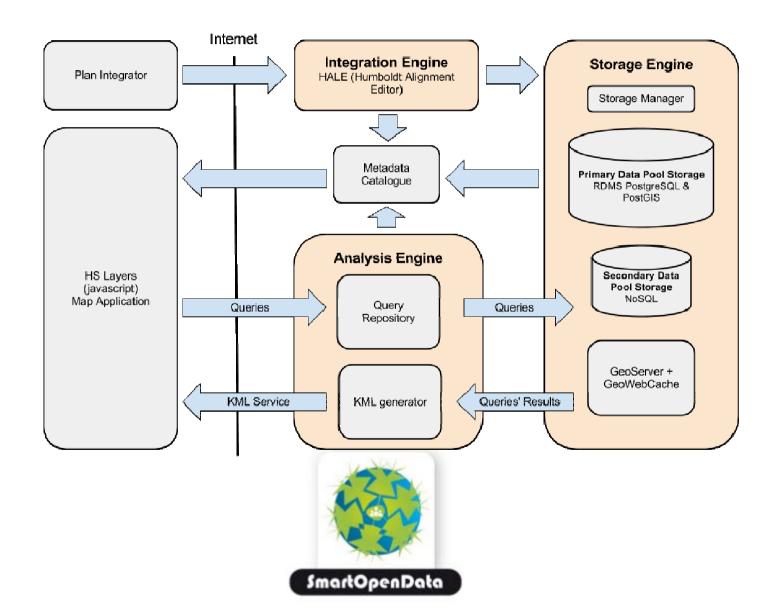




#### Plan4business approach



#### Plan4business approach

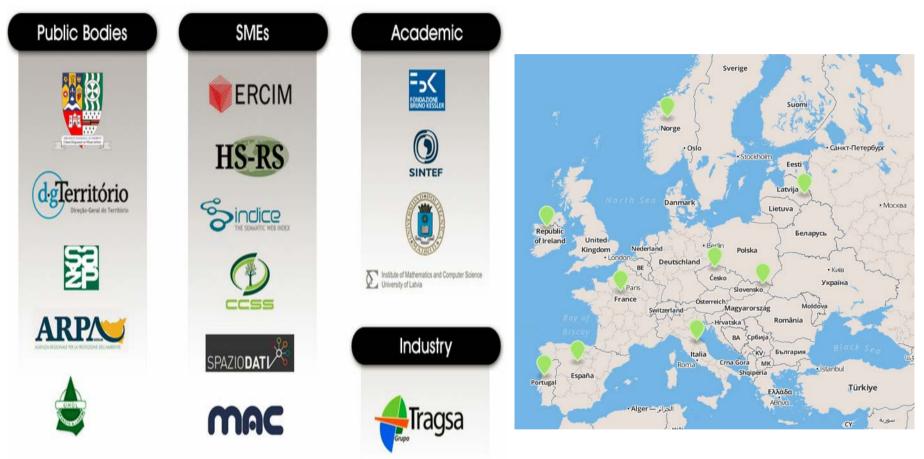


### **SmartOpenData**

- SmartOpenData = Open Linked Data for environment protection in Smart Regions
- Project founded by European Commission
  (7FP, ENV.2013.6.5-3)
- Kick-off meeting: December 2013 in Madrid, Spain
- Duration: 24 months
- 16 European organizations (Spain, Ireland, Italy, Czech Republic, Slovakia, Norway, Latvia, Portugal, France)



#### The Consortium

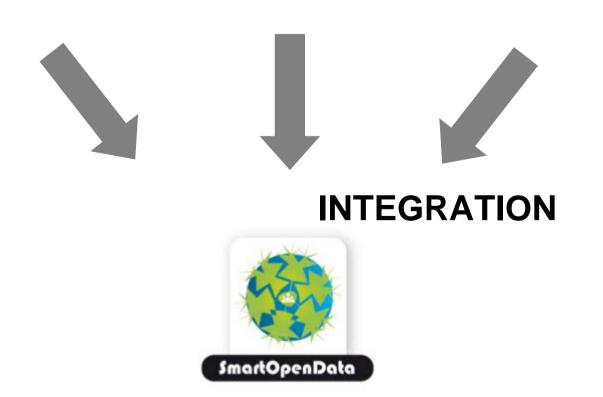




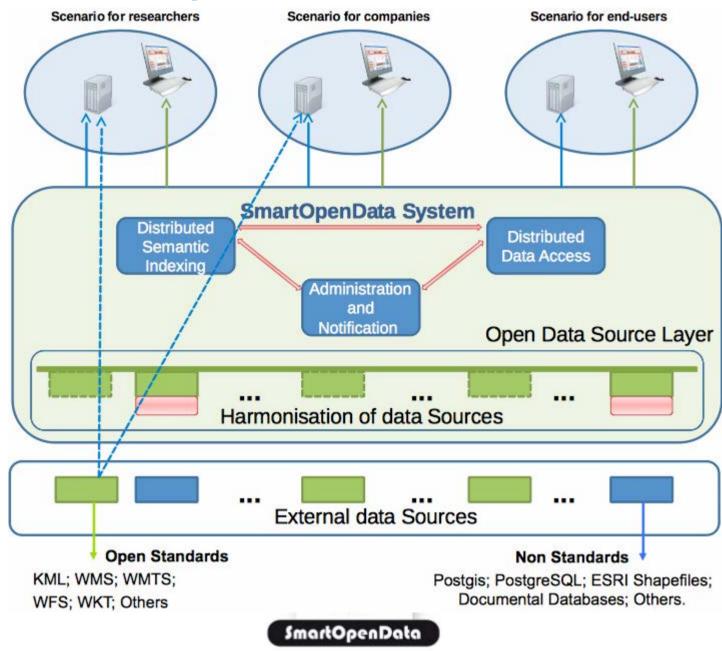
#### Aim

Heterogeneous environmental data, including research data or VGI

Environmental data initiatives & projects (INSPIRE, GEOSS, GMES, Habitats...) OPEN LINKED DATA



#### SmartOpenData Architecture



## Integration

- Environmental data and metadata fusion (exploitation, harmonization & integration)
- Application of Open Linked Data principles (data models and structures, shared vocabularies /NeoGeo, GEMET.../, unique links, RDF structures, SPARQL queries...)
- Visualization and publication methods of environmental data based on Open Linked Data



### **Key Innovations**

- Distributed semantic indexing providing a service for searching and locating data based on semantic information
- . Distributed data access
- Administration and notification, which provides administration facilities for managing users, workflows and data to data providers

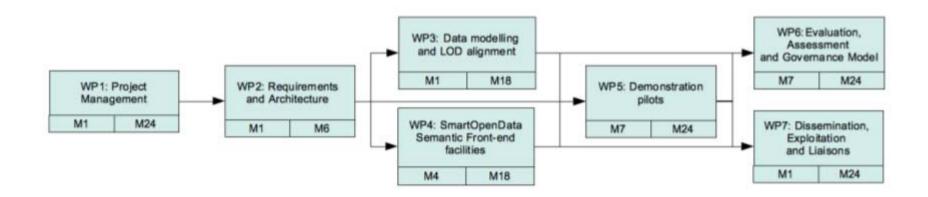


#### Pilots

- Agroforestry management pilot (Tragsa, Spain)
- Environmental research, Biodiversity pilot (MAC, Ireland)
- Water monitoring pilot (ARPA, Italy)
- Forest sustainability pilot (FMI, Czech Republic)
- Environmental data reuse pilot (SAZP, Slovakia)



#### Work Plan



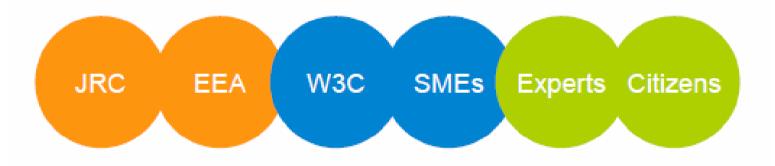


#### Results

- Sustainable Linked Open Data infrastructure to promote environmental protection data sharing among public bodies in the European Union
- Integration of semantic technologies and approaches
- Definition of business models focused on SMEs and based on innovative services
- Demonstration of the impact of the sharing and exploiting data and information from many varied resources – pilot applications



#### SmartOpenData = combination of



#### View on environmental data



# Thank you for your attention

