

Round table: Recommendations for territorial integration



Spatial data and territorial analysis along a collaborative work: lessons learned from the FP7 project PEGASO, ETC/SIA and ESPON Data Base projects

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Further steps for territorial analysis in the wider region: Europe and its Neighbourhood- ITAN event.

University of Barcelona, 27th November 2014



Local data towards territorial integration

Territorial integration is NOT an abstract issue.

It needs to be based on facts and on information.

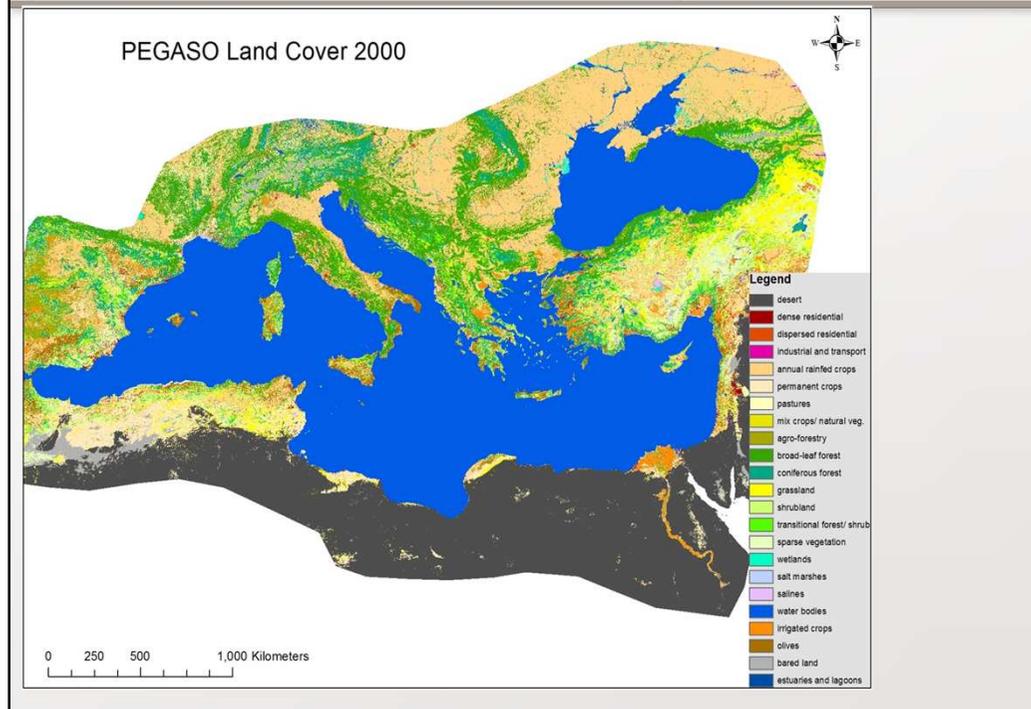
Therefore territorial integration needs **DATA** and **TOOLS**...

...to make **PEOPLE** working together constructing territorial integration



Proximity matters and territorial approach is a way to make functional integration easiest between neighbours, across land and sea boundaries

First land cover maps for the two basins (Mediterranean and Black Sea) at 2 dates

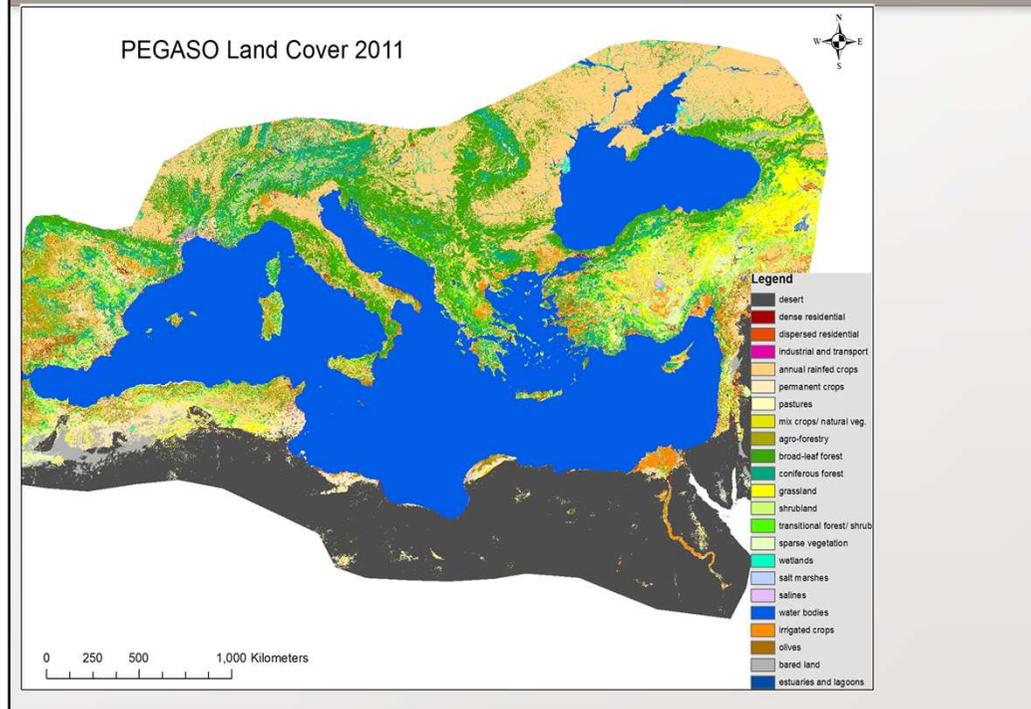


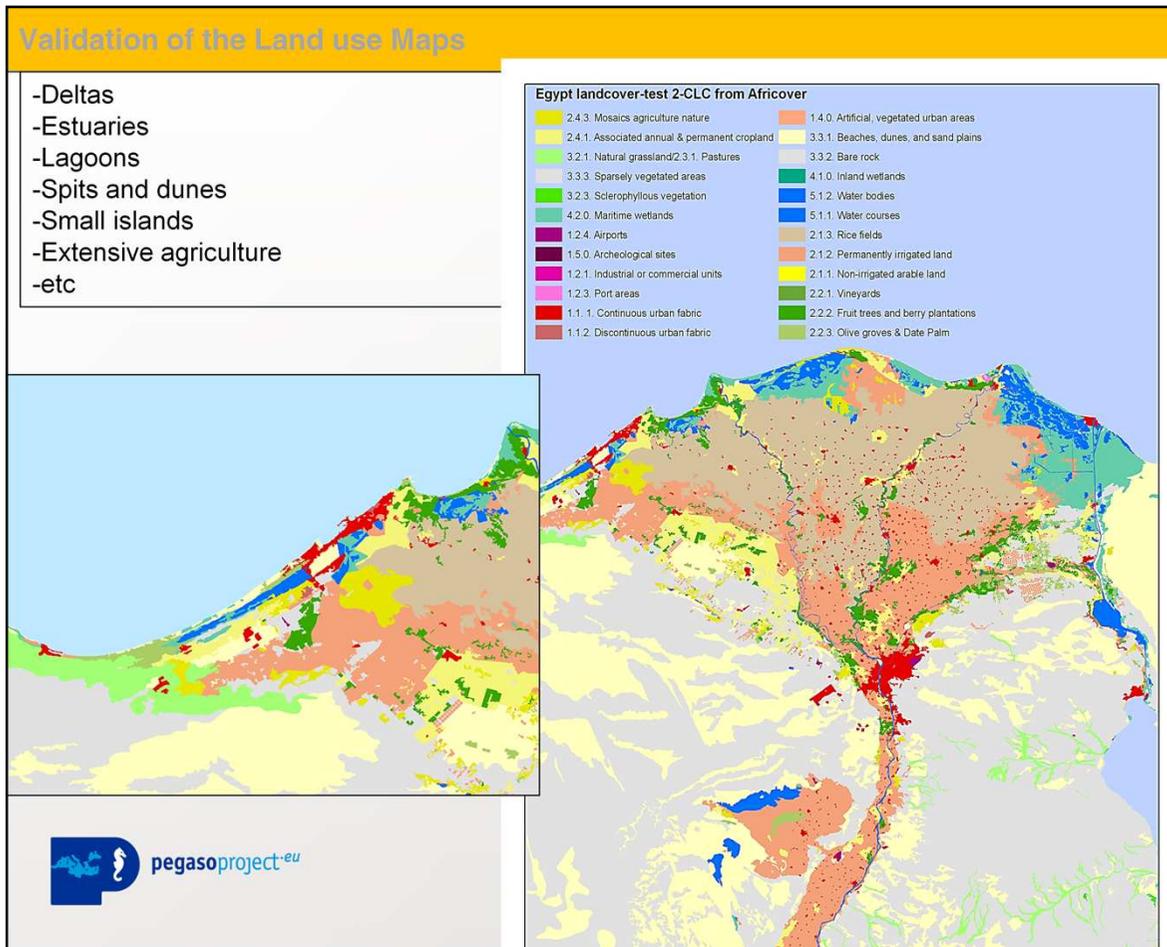
1st recommendation: comprehensive cartography of territories EU and neighbours is key for spatial integration.

In the PEGASP EU FP7 project, There was a need to have a comparative Land Cover Map for all the countries around the two bassins. So a first prototype was produced in 2000 and 2011, showing 23 different land cover units (urban areas, industrial, forest, agriculture intensive and extensive, deserts, etc..

It is a regional product at 250m resolution, but we worked with the different countries and local areas (ex. Magreb coast, Danube Delta, Nile Delta, Turkish protected area (Dalyan), North Lebanon etc). This work represents an important challenge in term of data, to get a comparative frame where local data can be fitted/integrated, using a grid system (of 1km).

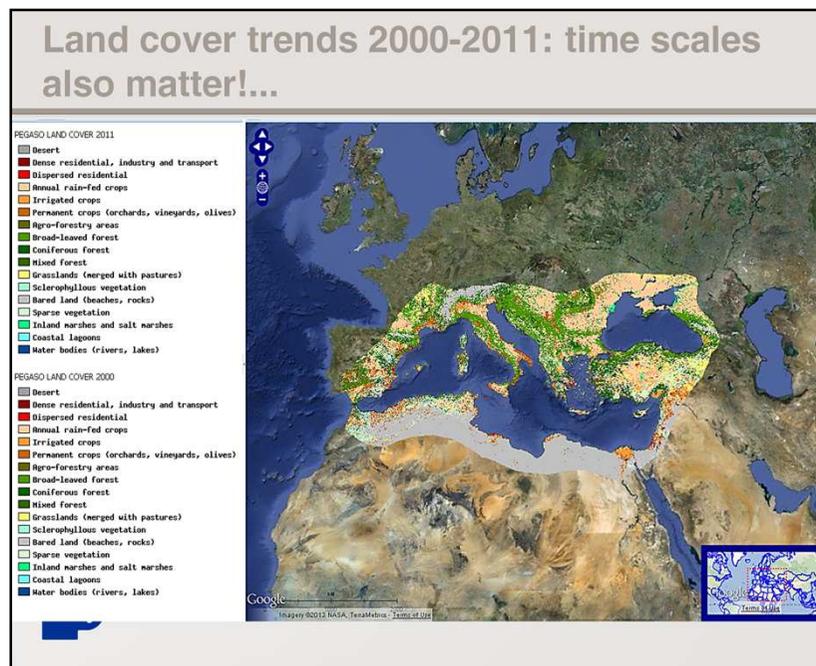
First land cover maps for the two basins (Mediterranean and Black Sea) at 2 dates





2 recommendation: Local, national and regional scales are nested. There is a clear relations between them that can be visualised on map and also expressed on statistics

Nesting local scales within regional scales, allows a good understanding of the context in which we and our neighbours live and should manage our common territory. Very Important for functional integration



Recommendation 3: time scale matters. Territorial trends are important.

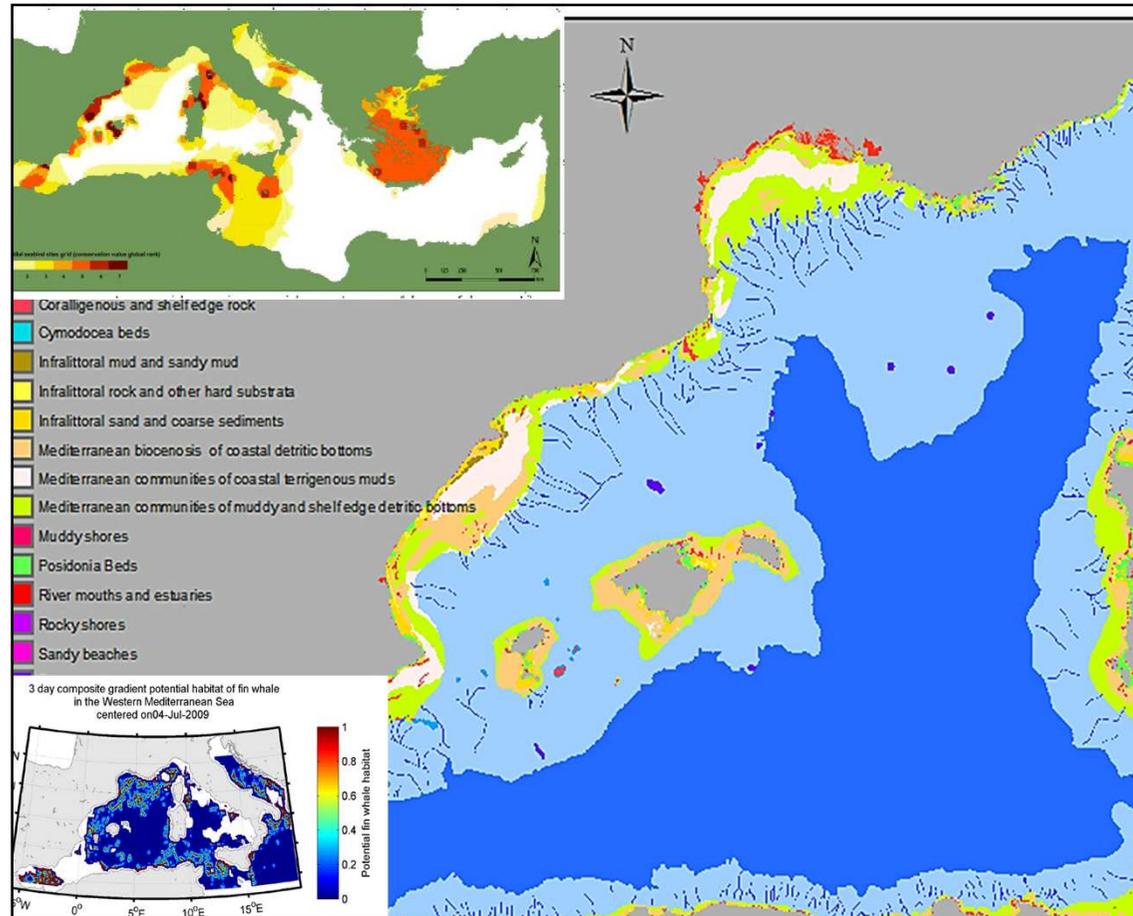
what is the data useful for:

The land cover trends, shown in a 1 km grid, are used to understand how the areas covered by cities, forests, natural landscape, agriculture, etc have changes between 2 dates. We can calculate how **land cover stocks have changes**, and also which are the main **flows**, defined as drivers of changes during certain period of time (eg Forest can grow because of agriculture land loss, or decline by fire or cuts).

This stocks and flows are expressed in statistics by different analitic units (geometrics: grids or buffers, administrative: Nuts, or geographical such as a catchment, high/low coast, etc) in a concrete time scale.

This information explain us what has happened during the last 10 years. It can also serves as a basis for future projections. We use them to make participative scenarios (using also other local and regional data) to understand how people, stake holders, scientists, etc see our common future, the “desired” and “undesired” trends, emerging issues, etc, pointing out the main uncertainties and common priorities..

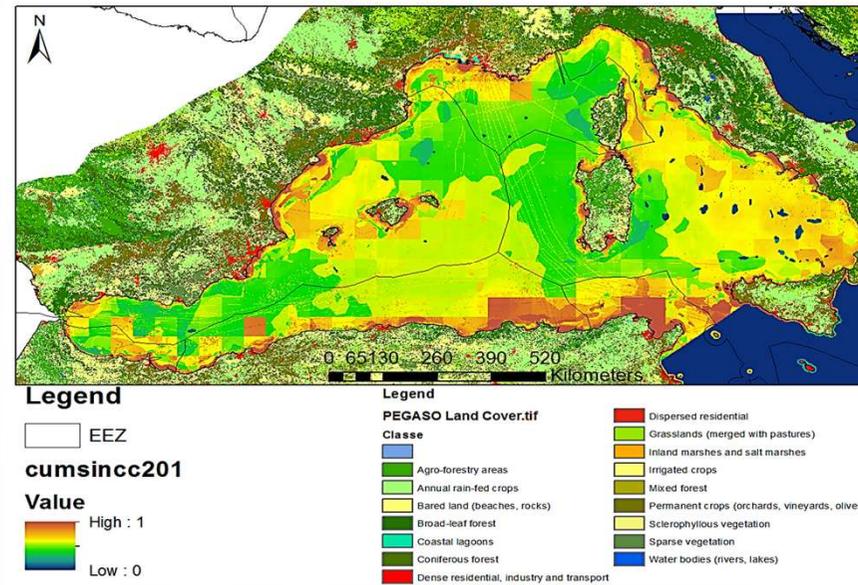
Source: Prepared at the Centre for Environmental Management, University of Nottingham using MODIS (NASA) and CORINE land cover (EEA) data



Recommendation 4: there is also the need to map sea uses and sea ecosystems. EU policies urge us to work in an ecosystem based framework, so that land is strongly connected to the sea and viceversa. Activities at sea are done by people living on land....

This question makes us thought about data, tools, methodologies and procedure, to advance in this land-sea territorial, social, economic knowledge together

WMIIE Impact index for ecosystem vulnerability



Recommendation 5th: From data to collaborative assessments.

This is the resulting product of the cumulative impact index on ecosystems in the Western Mediterranean.

It shows **the ecosystems vulnerability to human pressures**, coming from both land and sea.

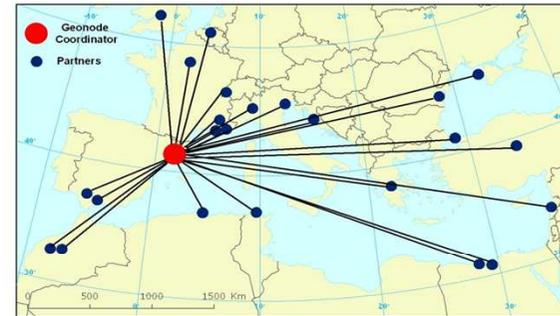
This is a key information for integrated management, as we can assess who are the drivers, the intensity of their impacts and, then, intend to make them change their way of production towards more respect for common goods.

I will not explain here how it is done, telling you only that this and all previous products have been produced and tested together scientists and stakeholders, through a collaborative work.

The construction of a Spatial Data Infrastructure (SDI) for the Mediterranean and Black Sea Basins

Various types of data can be shared on the SDI: satellite imagery, geographical data, maps, statistical data, tools, etc.

Participating institutions constitute **Geonodes** – each responsible for own data management



Our UAB team provides a common service for interoperability, Design of a viewer
Giving possibility to upload and download information using the online portal



Hands on training on SDI
(Ostende, 23-25/10/2012)

6th recommendation

-Need to share all data and information through a common tools: a spatial data infrastructure

Where: ...

GEONODE status in CASES (October 2013)

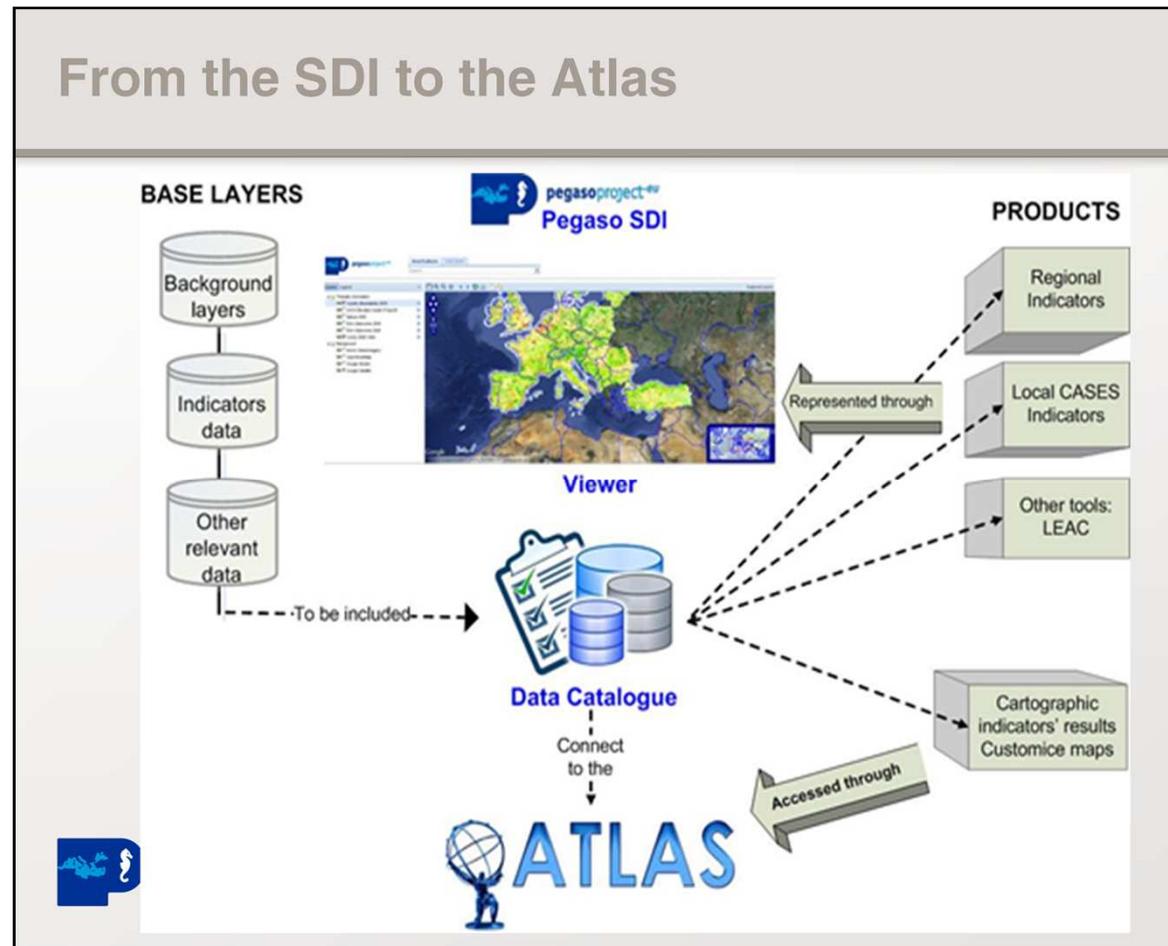
	Installed & Running	Data published	Connected to central geonode
Greek CASE HCMR	YES	YES	YES
BSCPS	Just began	-	-
Libanese CASE UBO	In progress	-	-
Egyptian CASE NARSS	YES	YES	YES
Ukraine CASE	YES	YES	YES
North Adriatic CASE UNIVE	YES	YES	-
Romanian CASE, DDNI	YES	YES	Not yet
Bouche du Rhone CASE	In progress	-	-
Georgian CASE	Just began	-	-

Other partners geonodes working; UAB, UPO, VLIZ (links with IODE, EUSea...), UNIGE (links with Envirogrid) (DONE), IFREMER, RESMAR, Algeria... in progress



Capitalising the SDI with other projects (for ex. MEDINA), Marroccain and Algerian institute are preparing their own geonode to be part of the exchange platform

From the SDI to the Atlas



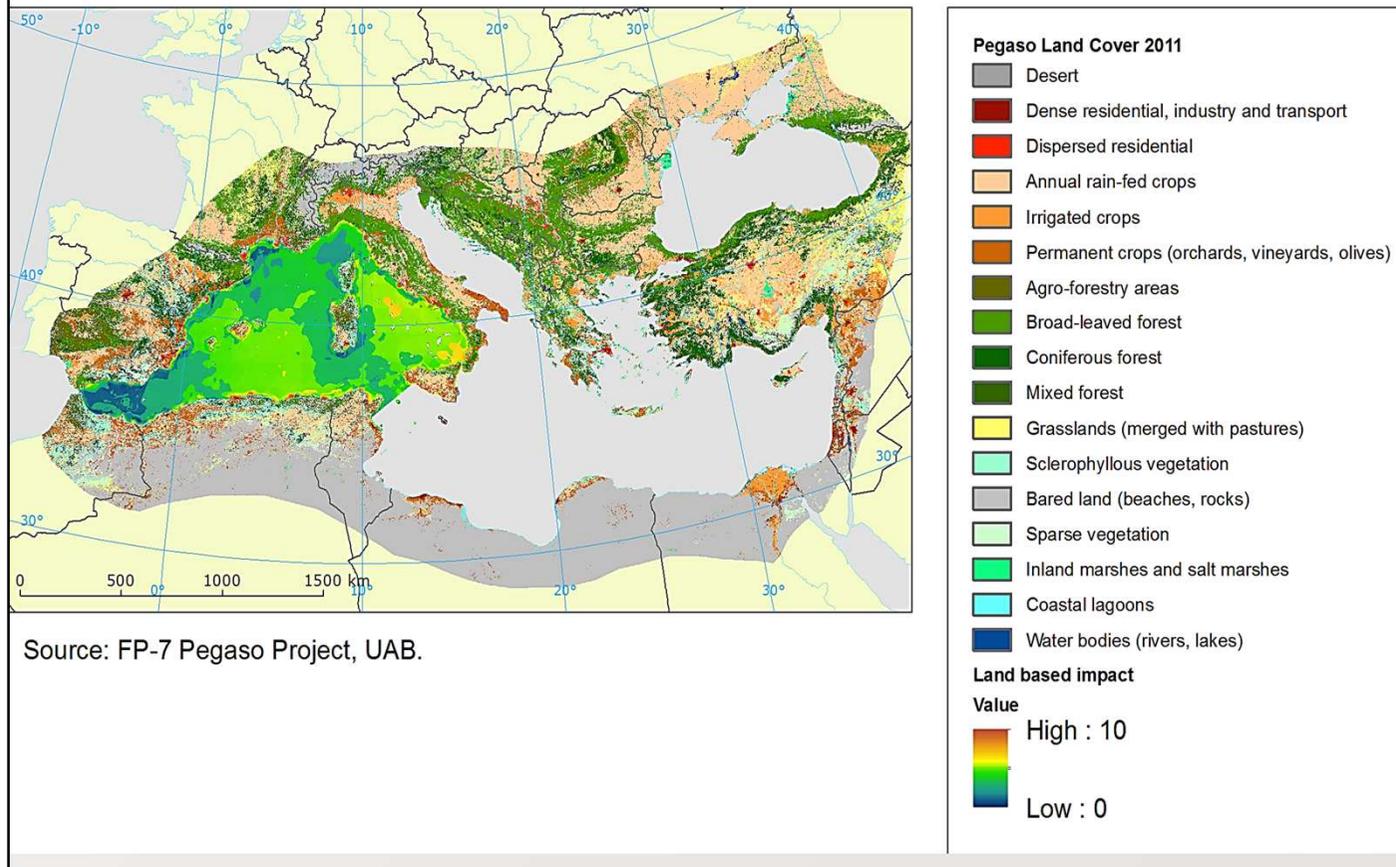
Recommendation 8: Data are transformed in information through a number of co-produced tools (indicators, customised maps, etc). To create a shared Atlas.

The atlas is built by all partners of the SDI network.

As it is reliant with EU INSPIRE Directive, it is open to other partners and can be easily interoperable with EMODNET, ESPON or any other information system.

SDI allows to put data together in a coherent and harmonised way

Land based impact on the Western Mediterranean Sea



Source: FP-7 Pegaso Project, UAB.

Maps such this can be created in the atlas...

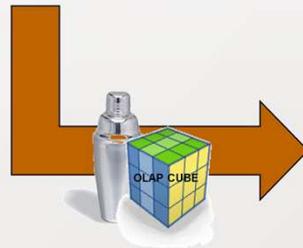
Mapping of statistical data (ESPON DATA BASE)

Disaggregation at 1 km² of socioeconomic data from global data sources and creation of OLAP database

Grid Database (1x1km) for the Neighbourhood

In cooperation with UNEP/GRID (University of Geneva). Contents:

- Population 2000
- GDP 2010
- Employment 2007
- Globcover 2004
- Globcover 2009
- SNUTS 2012



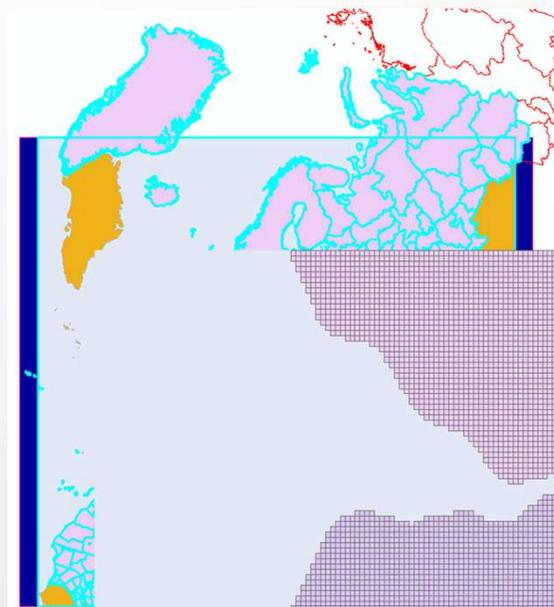
	A	B	C	D
1	SNUTS	Population in inhabitants	Employment in Numbr	GC2009 - Artificial surfaces and associa
96	DZ109	714585	181604	5588,366595
97	Tipaza	714585	181604	5588,366595
98	DZ10A	1250803	317519	38,80824
99	Alger	1250803	317519	38,80824
100	DZ201	867516	220421	2813,780626
101	Mila	867516	220421	2813,780626
102	DZ202	731038	185405	13842,42205
103	Skikda	731038	185405	13842,42205
104	DZ203	710302	180284	3000,561219
105	Constantine	710302	180284	3000,561219
106	DZ204	510442	129420	3501,59793
107	Jijel	510442	129420	3501,59793
108	DZ205	489423	124298	6458,972088
109	Annaba	489423	124298	6458,972088
110	DZ206	480393	121378	14567,44406
111	Gulema	480393	121378	14567,44406
112	DZ207	407461	103121	7374,091216
113	Souk Ahars	407461	103121	7374,091216
114	DZ208	457874	116320	16127,07149
115	El Tarf	457874	116320	16127,07149
116	DZ301	1121120	284870	1637,41415
117	Oran	1121120	284870	1637,41415

Recommendation 9th: Apportion statistical data into space through the grid

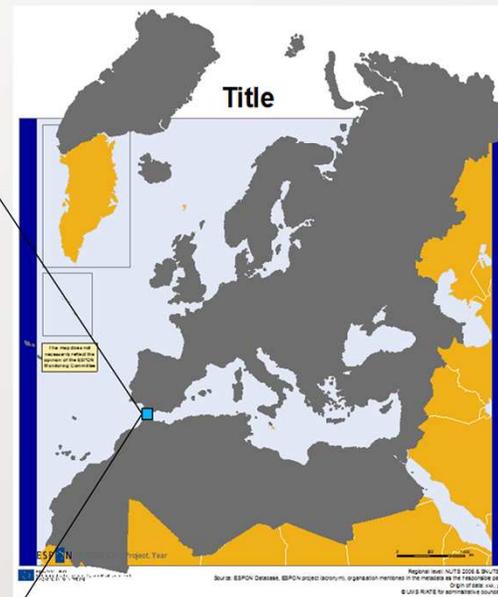
Through ESPON DATA BASE project we have worked on the mapping of statistical data,

A 1 km² grid for the neighbourhood

Under ESPON M4D (Database II), in collaboration with UNEP/GRID: extension of European Reference Grid (1 km²) to the “neighbourhood”



Extended grid coverage



Network in many Neighbourhood countries in a collaborative work involvement



Recommendation 10th: Give priority on existing networks and data platforms to capitalise, not to loss momentum, or creating frustration!

Important efforts have been dedicated to collaborative work on data gathering and sharing, co-construction of tools for analysis, participative scenarios, and collective assessments.

More than 1000 persons (experts and Decision making) have been implicated in local sites and at national and regional level.

The diagram illustrates the ICZM PLATFORM for adaptive management, structured into two main pillars: KNOWLEDGE and GOVERNANCE. At the top, the acronym 'CASES' is displayed with 'Pilot Applications' underneath, flanked by two blue arches. The KNOWLEDGE pillar includes 'Data & Info' (with SDI) and 'Methods & Tools' (with Toolbox, Products, and ICZM Process). The GOVERNANCE pillar includes 'People' (with Mediterranean end-users, Black Sea end-users, Project partners, and Network), 'Legal Framework', and 'Awareness & Training'. The central text reads 'ICZM PLATFORM for adaptive management'. To the right, a vertical red banner lists the ICZM Protocols in English, French, and Spanish, accompanied by logos for UNEP, the Black Sea Action Plan, and the NFPs. Below this is an orange banner for the 'Black Sea Strategic Action Plan 1996'. At the bottom left is the 'pegasoproject.eu' logo, and at the bottom right are the 'SEVENTH FRAMEWORK PROGRAMME' and 'EUROPEAN UNION' logos.

CASES
Pilot Applications

KNOWLEDGE

- Data & Info
SDI
- Methods & Tools
Toolbox
Products
ICZM Process

GOVERNANCE

- People
Mediterranean end-users
Black Sea end-users
Project partners
Network
- Legal Framework
- Awareness & Training

ICZM PLATFORM
for adaptive management

PROTOCOL ON INTEGRATED COASTAL ZONE MANAGEMENT IN THE MEDITERRANEAN
-
PROTOCOLE RELATIF A LA GESTION INTEGREE DES ZONES COTIERES DE LA MEDITERRANEE
-
PROTOCOLO RELATIVO A LA GESTION INTEGRADA DE LAS ZONAS COSTERAS DEL MEDITERRANEO

Black Sea Strategic Action Plan 1996

pegasoproject.eu Since October 2011, all the NFPs of ICZM Protocol became PEGASO users

SEVENTH FRAMEWORK PROGRAMME
EUROPEAN UNION

Here the example of the PEGASO governance, that began with a project and plan to be continued for the Mediterranean with UNEP-MAP support.

Last but not least---Data and information should be transformed through common work in a shared knowledge. To do that a governance model and implementation is key. It is a complex question to build a governance that works. Can we use the same model in all places ? There are basic criteria for replication? My experience tells me that recommendations for a good model are needed, but it could eventually be adapted at the different places and different culture, keeping however democratic principles of representation and equity.

Some recommendations from our experience for building territorial integration

1. **Comprehensive cartography of EU and neighbours territories** is key for spatial integration.
2. **Local scales data** should be nested with others (esp.national and regional), visualisation of local data by themselves and within regional maps and statistics
3. **Temporal scales matter.** Territorial trends are crucial to be detected and analysed collectively. Spatial integration depends on a **shared vision of a desirable futures.**
4. There is also the need **to map sea uses and sea ecosystems** and link them with coasts and catchments.
5. Use local data to produce and test **co-produced assessment tools (indicators, customised maps...).**
6. **Share all data and information through a common tool, a viewer (SDI)**
7. Data are transformed in information in a **shared Atlas, the expression of a growing shared knowledge.**
8. **Apportion statistical data into space through the grid to harmonise maps and statistics**
9. Capitalise on existing data platforms and associated networks, not to loss momentum!
10. **Forgathering local data, steering common work and shared knowledge, a governance model and implementation is key.** Allowing work together, in equity, creating confidence and complicity among neighbours, and value.

All these points are important to build territorial integration...

DATA is not only data, it is rooted in people and institutions, in cultures, sharing it and working together is a change of mentality for the neighbours and also for the North.



Thank you very much.

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www.pegasoproject.eu



People for Ecosystem based Governance
in Assessing Sustainable development of
Ocean and coast: pegasoproject.eu

