



Coordinating and integrating state-of-the-art  
Earth Observation Activities in the regions of  
North Africa, Middle East and Balkans  
and Developing Links with GEO related initiatives  
toward GEOSS

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## **GEO-CRADLE Kick-Off Meeting Friday, 19<sup>th</sup> of February, 2016**

### **WP2: INVENTORY OF CAPACITIES AND USER NEEDS**

#### **CIMA Research Foundation**



## WP2: INVENTORY OF CAPACITIES AND USER NEEDS Objectives

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- 1) provide a complete and accurate **picture of the current status** of Earth Observation (**EO**) **capacities** and **skills** in the **Balkans, N. Africa** and **Middle East** (collectively Region of Interest - RoI), with regards to *space-borne infrastructure, in-situ networks and modelling and computing facilities*;
- 2) conduct a thorough **user need analysis** utilizing a combination of tools (e.g. surveys, dedicated user workshops).



# WP2: INVENTORY OF CAPACITIES AND USER NEEDS

## Description of work and role of Partners

The two objectives will be realized through 4 Tasks:

*T2.1- Space-borne capacities*

*T2.2- In-situ Networks*

*T2.3- Modelling and Computing Facilities*

*T2.4- User Need Analysis*

	Partners	T2.1	T2.2	T2.3	T2.4
1	NOA	x	x	x	x
2	IBEC		x		x
3	CEDARE	x	x	x	x
4	CERT	x	x		x
5	TAU	x	x		x
6	CUT	x	x		x
7	UZAY	x	x		x
8	SRTI	x	x		x
9	INOE	x	x		x
10	USCM	x	x		x
11	INCA	x	x		x
12	<b>IPB</b>			<b>xL</b>	x
13	<b>CIMA</b>	<b>xL</b>	x		x
14	AOA		x	x	
15	INS	x	x		x
16	EARSC				x
17	<b>EURISY</b>				<b>xL</b>
18	<b>EGS</b>		<b>xL</b>		x



*KICK-OFF Meeting, 19 February 2016,  
IONIC Centre, Athens*

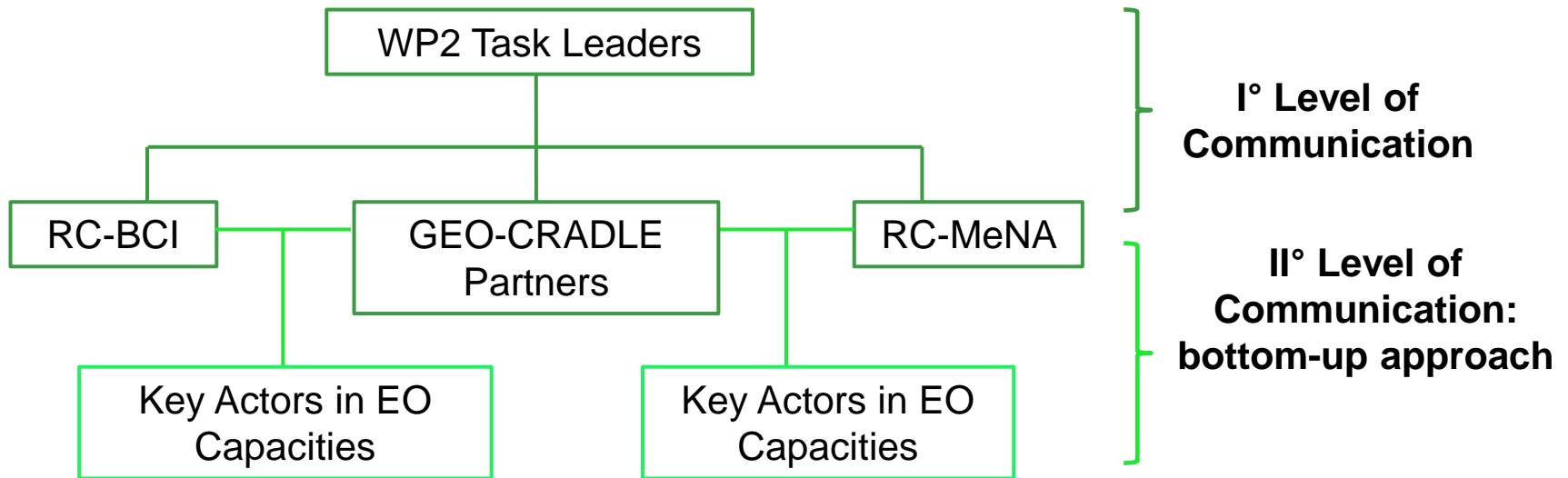


## WP2: INVENTORY OF CAPACITIES AND USER NEEDS

### Description of work and role of Partners

All the actions necessary to pursue these two main objectives will be led by a

### Network of Communication



**RC-BCI:** Regional Coordinator for Balkans-Cyprus-Israel

**RC-MeNA:** Regional Coordinator for Middle East & N.Africa

**The main contribution in the realization of the WP2 will be the KAs identification in each region to arrange the VALUE-ADDED CHAIN for the EO capacities.**



## WP2: INVENTORY OF CAPACITIES AND USER NEEDS

### Description of work and role of Partners

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The **VALUE-ADDED CHAIN** in the EO capacities framework is made by the **KAs** classified in three different categories in relation to the **Role (R)** they cover:

- ***Raw Data Provider*** (R1)
- ***Values Adder or Intermediate User*** (R2)
- ***End users*** (R3)

Many scenarios on the distribution of R1, R2 and R3 in each country are possible, depending on the EO capacity analyzed:

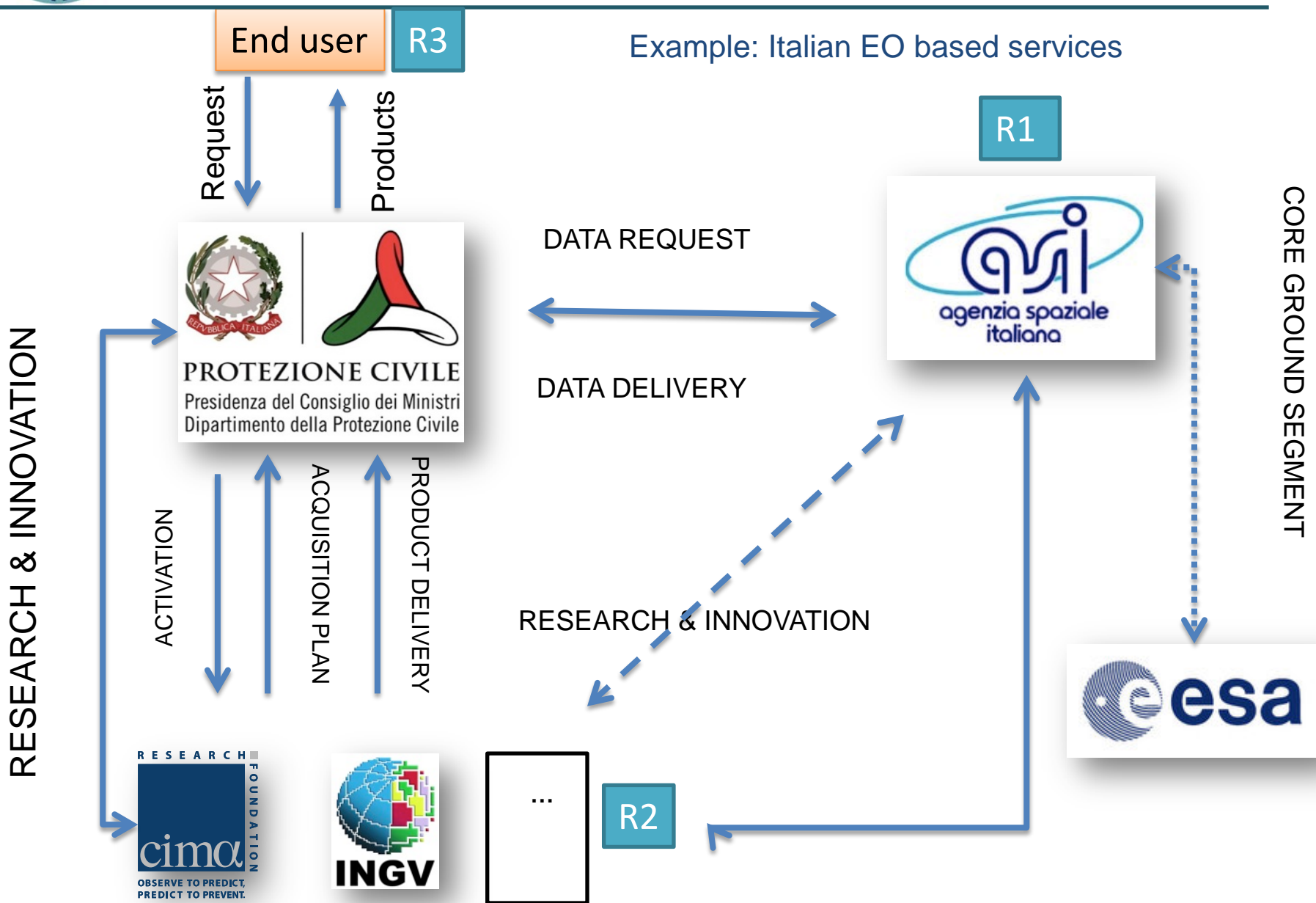
- R1, R2 and R3 exist and are different KAs;
- one or more Role does not exist;
- one KA covers more than one role.





# WP2: INVENTORY OF CAPACITIES AND USER NEEDS

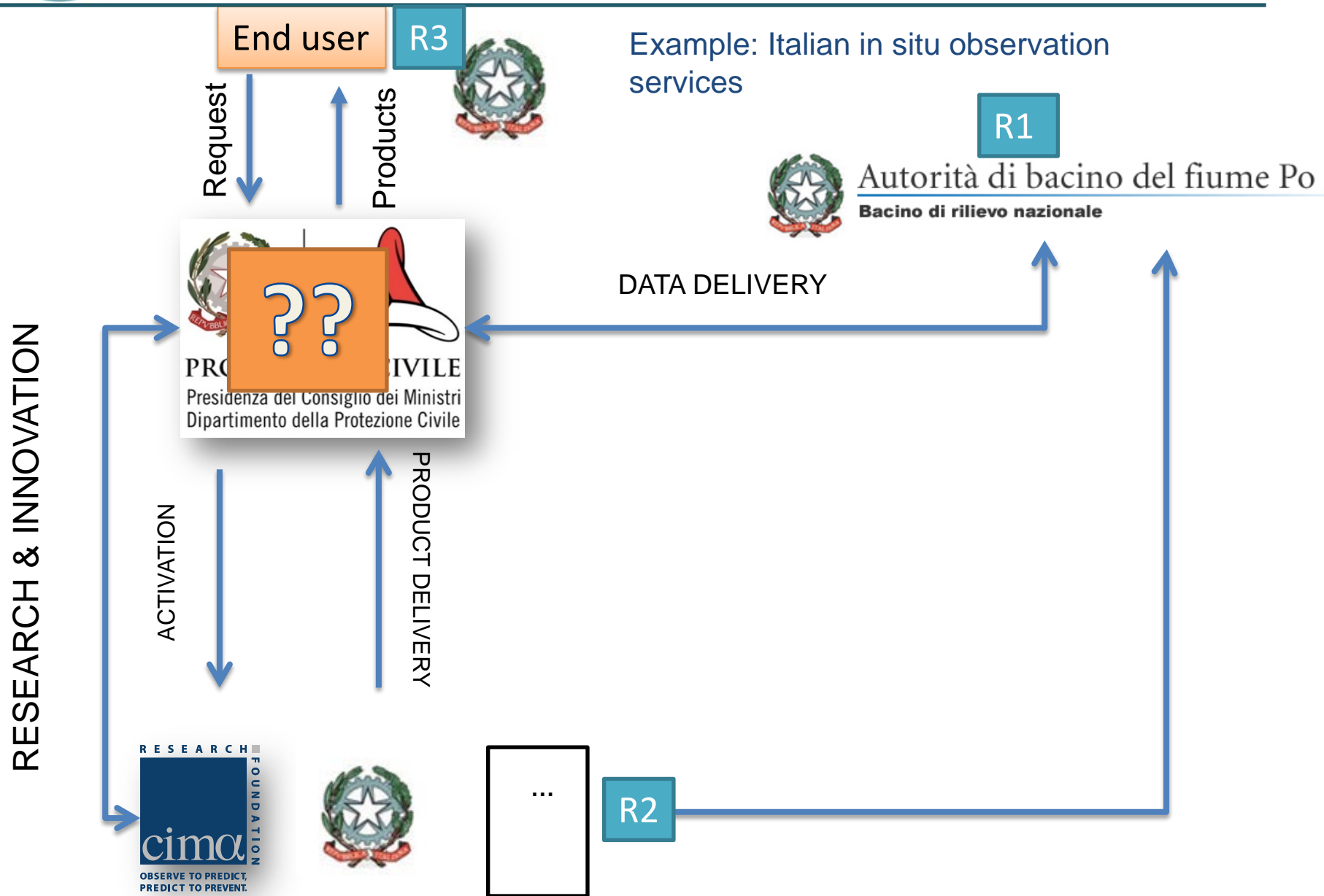
## Description of work and role of Partners





# WP2: INVENTORY OF CAPACITIES AND USER NEEDS

## Description of work and role of Partners

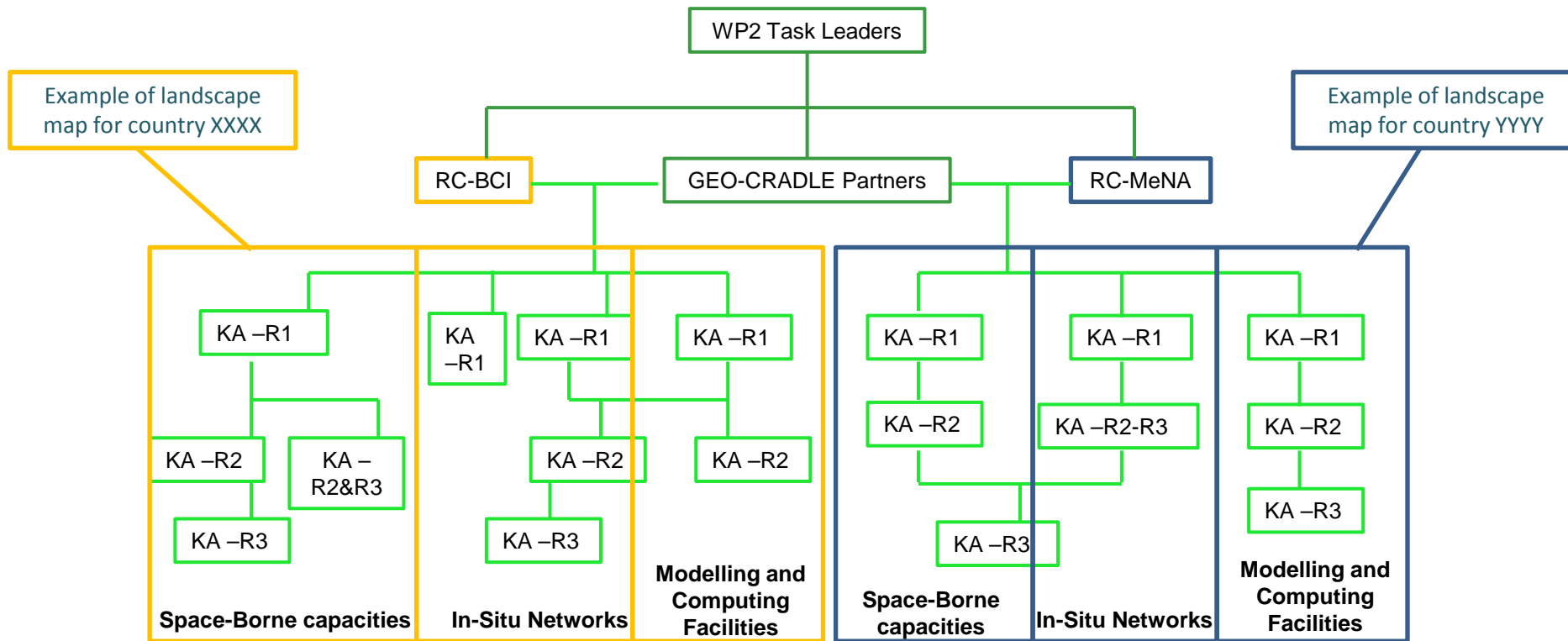




# WP2: INVENTORY OF CAPACITIES AND USER NEEDS

## Description of work and role of Partners

The identified KAs in each region of RoI will be fundamental for drawing a landscape map for each country.



R1: Raw Data Provider  
 R2: Value-Adder /Intermediate User  
 R3: End-users

KA: Key Actor  
 RC-MeNA: Regional Coordinator for Middle East & N.Africa  
 RC-BCI: Regional Coordinator for Balkans-Cyprus-Israel





## WP2: INVENTORY OF CAPACITIES AND USER NEEDS

### Steps to achieve the goals of each task and the overall WP

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The **objectives** will be achieved through the following steps:

1) WP2 Task Leaders will ask to **each partner** and RCs to identify and classify R1, R2 and R3 Key Actors (KA) among:

- *Public and private large and Small-Medium (SM) enterprises*
- *National/Regional/Local institutions*
- *Start-ups*
- *Public and Private Research Institutes*

Respectively for ⇒ **space-borne infrastructure,**

⇒ **in-situ networks,**

⇒ **modeling and computing facilities.**





# WP2: INVENTORY OF CAPACITIES AND USER NEEDS

## Steps to achieve the goals of each task and the overall WP

Table 1

NAME OF COUNTRY: XXXX	Space-Borne Infrastructure	In-Situ Networks	Modeling and Computing Facilities
<b>Raw Data Provider (R1)</b>	Name_KA_1, Name_KA_2	Name_KA_15	Absent in the country
<b>Values Adder or Intermediate User (R2)</b>	Name_KA_3, Name_KA_9, Name_KA_10	Name_KA_7	Name_KA_6, Name_KA_11 Name_KA_12, Name_KA_13 Name_KA_14
<b>End users (R3)</b>	Name_KA_4	Name_KA_5	Name_KA_8

Estimated time to fill the matrix by each partner: 1 month (March)





# WP2: INVENTORY OF CAPACITIES AND USER NEEDS

## Steps to achieve the goals of each task and the overall WP

Table 2

Key Actors for COUNTRY: XXX	Classification of the KA	Contact point	Other useful information
Name_KA_1	National institution	Mr Kōstas Manōlas Kostas.manolas@gmail.com	
Name_KA_2	Regional Agency	....	
Nam_KA_5	Start-up	....	
Name_KA_6	Public Enterprise	....	
Name_KA_3	....	....	
Name_KA_9	.....	....	
Name_KA_10	....	....	
.....	....	....	

Send back to all Task leader Table 1 and Table 2 for the end of March





## WP2: INVENTORY OF CAPACITIES AND USER NEEDS

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### Steps to achieve the goals of each task and the overall WP

- 2) WP2 Task Leaders in collaboration with the RCs will prepare for each of the three Roles (R1, R2 and R3) specific sections of questions
- 3) In relation to the KAs identified in the first step, an **ad-hoc questionnaire** containing a combination of the specific questions identified at the second step will be disseminated by the Partners to each KAs (**Estimated time: begin of April**).
- 4) WP2 Task leaders would be responsible for the collection (**half of May**), visualization and analysis (**half of May - half of June**) of the respective sections of the questionnaire (i.e. CIMA for space-borne, EGS for in-situ etc.)





## WP2: INVENTORY OF CAPACITIES AND USER NEEDS

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### Steps to achieve the goals of each task and the overall WP

The possible required **information** will be

- to identify the **field of expertise** for each KA (Agriculture, Biodiversity, Climate, Disaster, Ecosystem, Energy, Health, Maritime, Water, Weather) and than to create an appropriate **TAXONOMIES** taking into account the ones developed by EURISY and EARSC.  $\Rightarrow$  for R1, R2, R3
- if the KA uses Geographic Information System (GIS) or Spatial Data Infrastructure (SDI) in its activities  $\Rightarrow$  for R2, R3
- if the KA has computing facilities  $\Rightarrow$  for R1, R2
- which type of data the KA uses  $\Rightarrow$  for R2, R3
- if the KA data respond to standardization schemes (INSPIRE Directive)  $\Rightarrow$  for R2



## WP2: INVENTORY OF CAPACITIES AND USER NEEDS

### Steps to achieve the goals of each task and the overall WP

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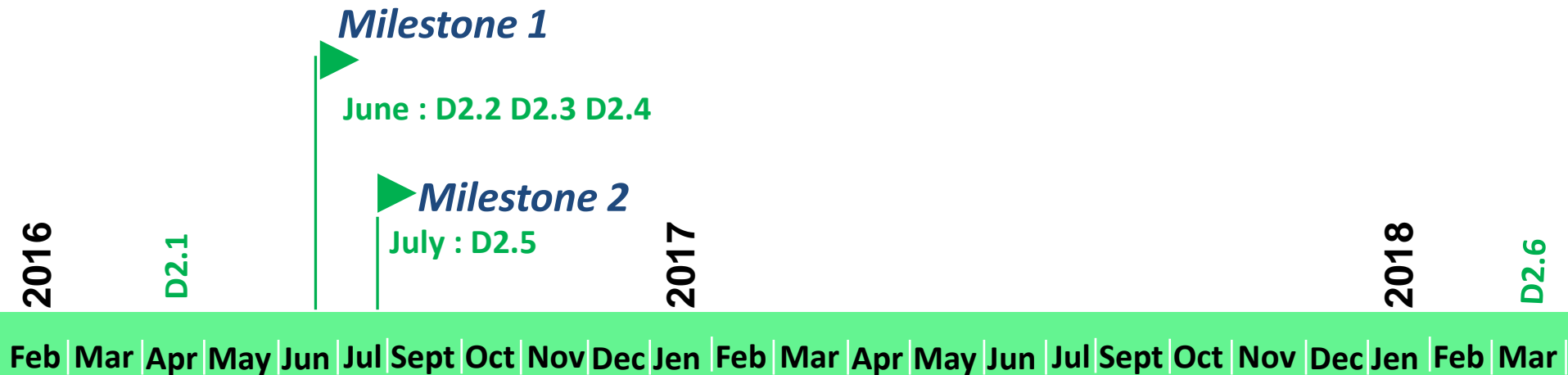
The possible required **information** will be

- Which type of modeling capacity in water extreme, raw material....⇒ for R2
- Which type of post-processing for value adding ⇒ for R2
- which are the main characteristics of the data they use (temporal resolution/spatial resolution/spectral resolution/specific geographical coverage/other) ⇒ for R2, R3
- which are the main characteristics of the data they need (temporal resolution/spatial resolution/spectral resolution/specific geographical coverage/other) ⇒ for R2, R3
- who are the main provider of data the KA use (themselves, private-entities, government institution, research institution) ⇒ for R2, R3
- who the main end-users of KA services are ⇒ for R1, R2
- if KA is familiar with space-born/in-situ data or modeling data ⇒ for R2, R3



# WP2: INVENTORY OF CAPACITIES AND USER NEEDS

## Timing of the WP2



Deliverable Number	Deliverable Title	Lead Beneficiary	Due to MONTH
D2.1	User Need Analysis Survey	17 - EURISY	3
D2.2	Inventory of in-situ instrumentation and regional networks	18 - EGS	5
D2.3	Inventory of numerical modelling and computing facilities	12 - IPB	5
D2.4	Inventory of Space-borne capacities	13 - CIMA	5
D2.5	User Need Analysis Report (I)	17 - EURISY	6
D2.6	User Need Analysis Report (II)	17 - EURISY	26



# WP2: INVENTORY OF CAPACITIES AND USER NEEDS

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## Timing of the WP2-T2.1: Space-borne capacities

### [M1-M5] D2.4: Inventory of Space-borne capacities

Database containing the collected information on :

- available EO Payload Data Ground Segments along with the list of satellite missions and products acquired in real-time,
- geographical range of the acquisition antennas,
- processing units and services provided.

GEO-CRADLE will consolidate and extend the available knowledge base from past project inventories (e.g. JASON, BalkanGEONet)

**ADVANTAGES:** Key players in the RoI (NOA, UZAY, NARSS, CRTS, INOE) and the involvement of representatives of EO service providers (EARSC)







# WP2: INVENTORY OF CAPACITIES AND USER NEEDS

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## Timing of the WP2-T2.2: In-Situ Networks

### [M1-M5] D2.2: Inventory of in-situ instrumentation and regional networks

Database containing the inventory of the available in-situ infrastructure along with the list of products, their quality indicators, and IPR issues, and networking activities.

**ADVANTAGE**: Most of the partners are key participants in large European Infrastructure Networks and Initiatives (e.g. ICOS, ACTRIS, EARLINET, AERONET, EUSAR).

EGS brings together the national geological surveys of Europe (including the Balkans), has strong ties with the African Geological Surveys (OAGS) through PanAfGEO and holds an extensive network of in situ data.

EGS, through the organization of a dedicated networking event (morning session of the February 18th meeting) brought together the geological surveys of Balkan countries exploring the in situ networks in the RoI and acquiring past experience from relative projects..





## WP2: INVENTORY OF CAPACITIES AND USER NEEDS

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### Timing of the WP2-T2.3: Modelling and Computing Facilities

#### [M1-M5] D2.3: Inventory of numerical modelling and computing facilities

Database containing

- available numerical models and their basic features used for simulation of variety of environmental /climate processes
- model products – parameters archived and/or operational
- conditions under which model products are available to users
- computing facilities used (e.g. supercomputing centres, clusters).

**ADVNTAGE**: Most of the partners have extensive expertise in atmospheric, floods, agriculture, water, energy and regional climate modelling.

They are aware of the modelling activities in the RoI but also at the European level, being members of several related European projects and Initiatives (e.g. MACC, SDS-WAS, ENSEMBLES, CORDEX, ECA).



# WP2: INVENTORY OF CAPACITIES AND USER NEEDS

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## Timing of the WP2-T2.4: User Need Analysis

### **[M1-M3] D2.1: User Need Analysis Survey**

Questionnaires targeting end-/intermediate-users (R1 and R3) respectively, disseminated on the website and via mailing.

### **[M1-M6] D2.5: User Need Analysis Report (I)**

Detailed report presenting the stakeholder mapping, a synthesis of the survey results and a consolidated view of the different users' needs in the region.

### **[M1-M26] D2.6: User Need Analysis Report (II)**

Detailed report presenting the stakeholder mapping, a synthesis of the survey results and a consolidated view of the different users' needs in the region. This refined report will include the user feedback gathered in relation to the pilots.





## WP2: INVENTORY OF CAPACITIES AND USER NEEDS

### Inter-dependencies with the other WPs:

The T2.4 analysis will provide the necessary inputs to map the existing EO capacities in the region against the various users' needs (T3.1), will support the elaboration of an action plan (T3.3) towards meeting those needs and assist in the refinement of the scope of the pilot projects to appropriately capture the “ground truth” of the users (WP4).

