

STUDY TO MAP GREEK REQUIREMENTS AND CAPABILITIES IN EARTH OBSERVATION

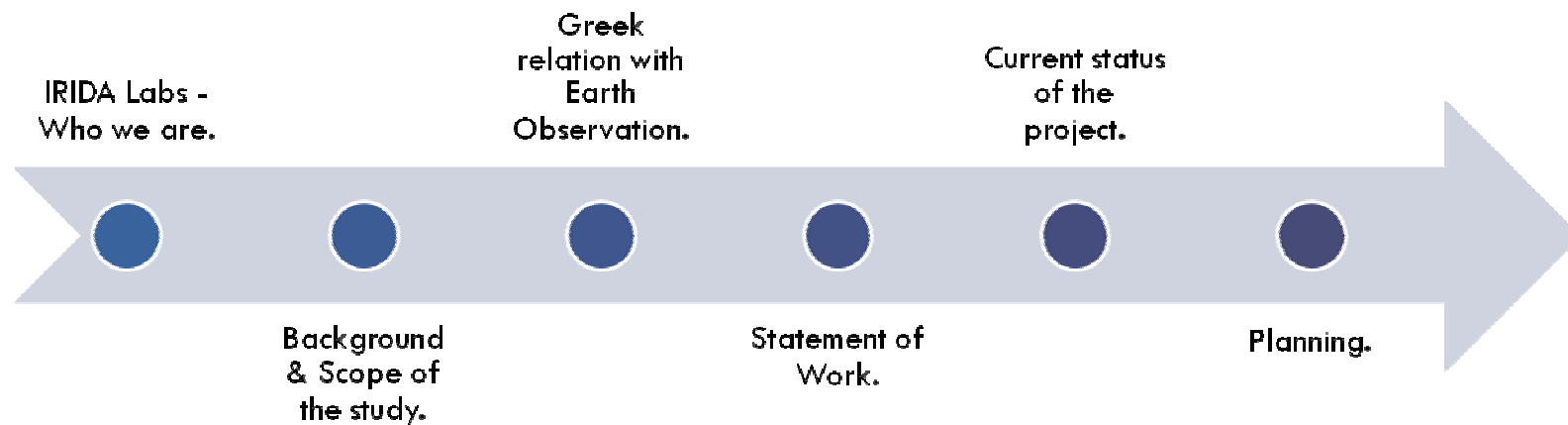
GEO Capacity Building Committee meeting - Athens, 28th April 2009

Dr. Vassilis Tsagaris, Project Manager



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IRIDA Labs - Profile

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- IRIDA Labs is a high technology Greek company established in 2007 in the technological city of Patras from experienced researchers of the University of Patras.
- Fields of expertise
 - ▣ Computer Vision and Multimedia Systems
 - ▣ Earth Observation and Remote Sensing
 - ▣ Wireless sensor networks
- IRIDA Labs is a member of the Corralia clusters initiative.

Background of the Study

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- ❑ The concept of the Study was proposed in the first call of proposal of the Greek – ESA Task force – March 2005.
- ❑ Greek – ESA task force accepted the concept and decided to issue a tender for this topic.
- ❑ ESA issued the A0/1-5472 entitled “Study to Map Greek Requirements and Capabilities in Earth Observation”, on the 27th of November 2007. Budget is 50K€.
- ❑ IRIDA Labs formed a team in order to response to the ITT and implement the study.
- ❑ The project officially started on the 1st November 2008.

Scope of the Study

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The «Mapping of the Greek requirements and capabilities in EO» is a study concerning the mapping of existing and emerging public sector needs and the mapping of the available industrial expertise that can be applied to ESA EO programs. The study will focus on the determination of specific application needs and the means to cover these, and it will locate and specify:

- ▣ the exact end-users,
- ▣ the available and the required EO – related expertise,
- ▣ the available and the required infrastructure (instrumentation, satellites, algorithms, data, etc.).

Greece and Earth Observation

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- ▣ Greek participation in EO related programs
- ▣ Efforts and application of Greek EO
- ▣ Greek communities
- ▣ Problem areas

Greek participation in EO related programs

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- Greece participates since 2002 in ESA's Earth Observation programmes.
- Via its subscription to the Earthwatch GMES (Global Monitoring for Environment and Security) Service Element (GSE).
- This preliminary participation showed that GR service industry will face no problems in achieving a fair georeturn in EO applications.
- Today we also participate in the ESA Earth Observation Envelope Programme (EOEP-3), 2008-2012. Rather limited subscription around 2MEuros.
- Participation in the Global Earth Observation System of Systems (GEOSS).
- No participation in the Space component of GMES.
- RISK-EOS, LIMES, PROMOTE, MARISS, GSE elements etc.

Efforts and applications of Greek EO

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Efforts

- ❑ Participation in EC Framework Programs, ESA, EUROSTAT, EC/DGs (e.g. DG Agriculture, DG Environment, DG Enterprise), EEA programs, etc.
- ❑ Response to 1st and 2nd call for ideas through the ESA-GR Task Force.
- ❑ Study of Greek Technology and Science Initiatives (GTSI) for Space.
- ❑ Publications and dissemination activities from related projects.

Applications

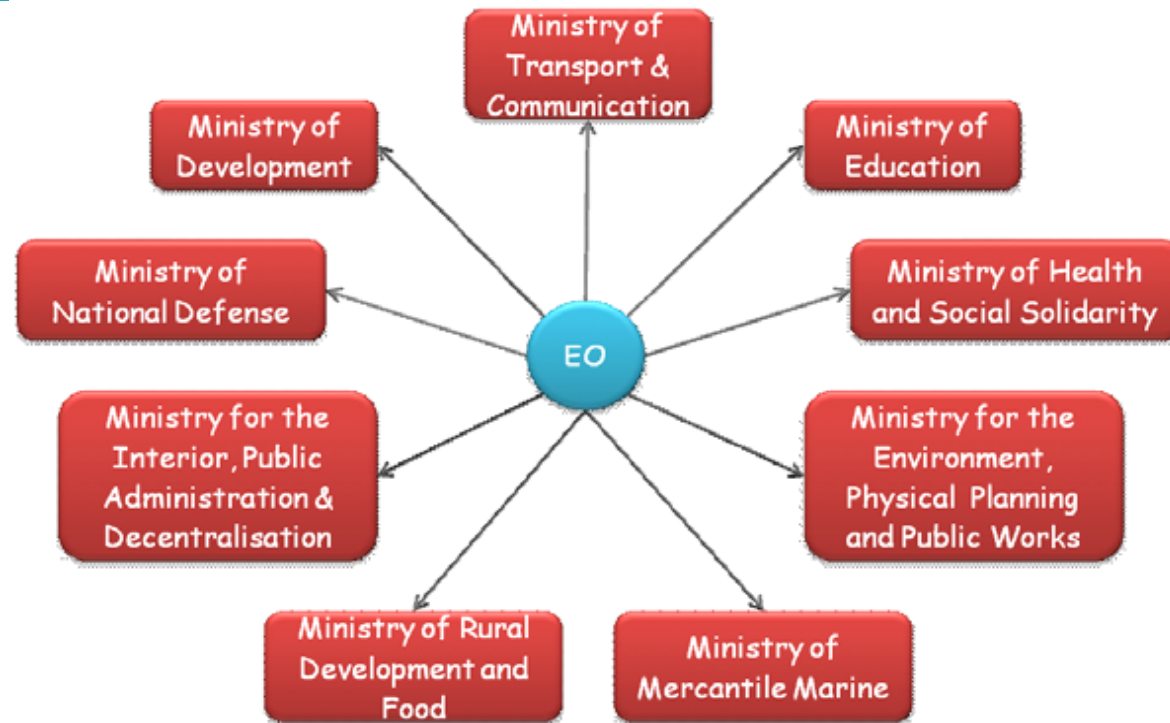
- ❑ Crisis/disaster management.
- ❑ Monitoring - surveillance for security and Schengen border monitoring.
- ❑ Agricultural and forest studies.
- ❑ Monitoring of the marine and coastal environment.
- ❑ Land deformation and earthquake studies.
- ❑ Combined use of EO with SatNav systems (GPS, GALILEO, GLONASS).
- ❑ Archaeological and cultural heritage studies.
- ❑ Atmospheric/climate research/monitoring.



Greek communities (1)

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Public authorities
High level



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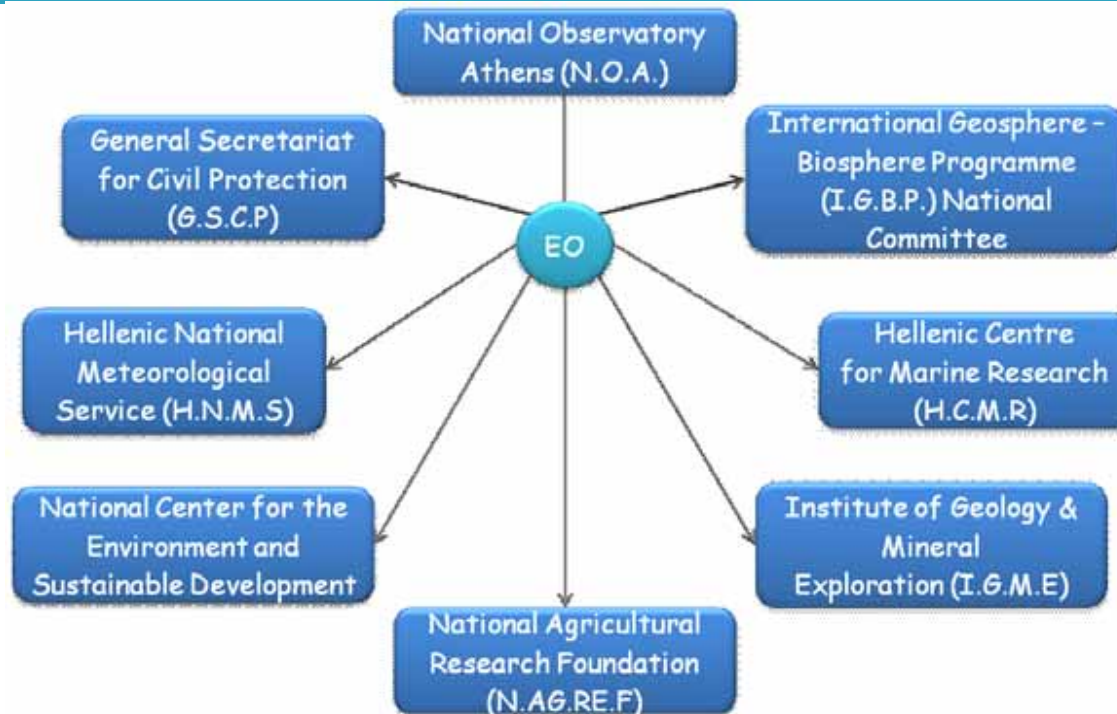
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Greek communities (2)

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Public organizations
Requirements and
capabilities



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Problem areas

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Drawbacks

- ❑ The lack of integrated national research agenda and national space policy.
- ❑ That national spatial data infrastructure is not been put into practice.
- ❑ That education in this domain is still not fully developed, even though consistently expanding over the last 10-15 years.
- ❑ There is no partnership/ communication among public sector. This encumbers the exchange of data and technology.

Weaknesses

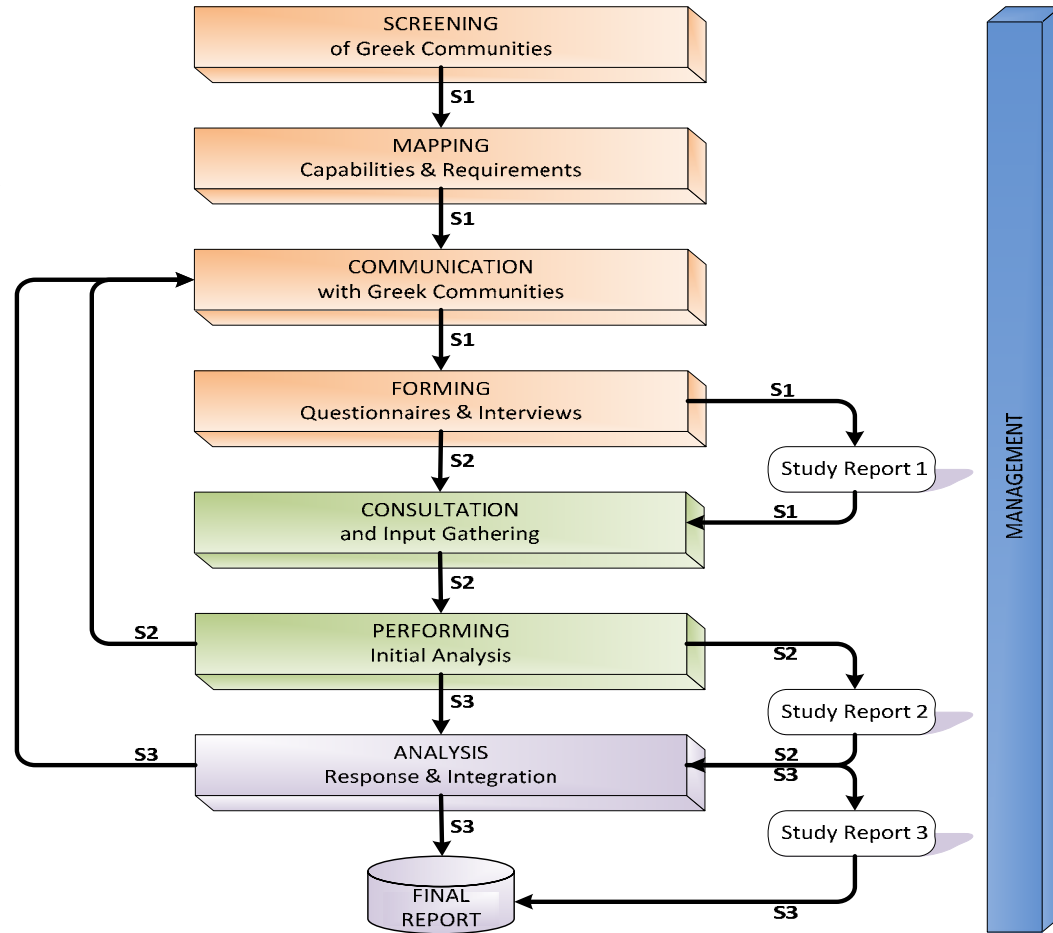
- ❑ The space-related industry avoids long term investments as the total activity is not part of a secured national space policy with continuity at national level.
- ❑ Small size research teams and enterprises acting in the EO-domain (fragmentation).
- ❑ Lack of national funding for Space R&D, mainly due to the lack of national space policy.
- ❑ Little space-related experience of industry.
- ❑ No direct links were developed between the user and service/product provider communities with the research and educational communities.

Statement of Work

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- Stage 1- Initial survey and scoping
- Stage 2- Detailed consultation and analysis
- Stage 3- Analysis, review and final drafting

- Project workflow



Current status (1)

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- Identification of existing EO related communities
 - ▣ List of contact points.
 - ▣ Key persons in large – important organizations.
- Formulate and implement web-questionnaires
 - ▣ The web questionnaire is available on line at www.mysurveys.gr/irida
 - ▣ An account is needed in order to access the questionnaire.
 - ▣ The login names and passwords were sent to the contacts identified in the previous stage.
 - ▣ The questionnaire is divided in three sections. General, Budget and personnel and Technical section.

A. General Section

1. In how many projects related to EO (Earth Observation) have you participated over the last 5 years? (*)

- None
- 1-5
- 6-20
- >20

2. In what level do you carry out work in your EO-projects? (*)

- Regional
- National
- European
- Global

3. What is the main topic of interest related to EO? (you may choose more than one) (*)

- Research
- Development
- Use of services
- Use of data

4. Do you use EO services? (*)

- NO
- YES

5. Do you use EO data? (*)

- NO
- YES

6. Have you ever started a project/application on your own initiative? (*)

- NO
- YES

7. Have you ever coordinated an EO project? (*)

- NO
- YES

Current status (2) – Web questionnaire



B. Budget & Personnel Section

8. Personnel working in EO-related projects

Average people in each project: (*)

- 1-2
 3-5
 6-10
 >10

Percentage of personnel working in EO-projects: (*)

- <10 %
 25-50 %
 10-25 %
 >50 %

9. Budget related to EO projects

Average budget of your projects: (*)

- 0-20 K€
 20-50 K€
 50-150 K€
 >150 K€

Estimated turnover of EO-related projects during the last 5 years: (*)

- 0 - 1 M€
 1 - 2 M€
 2 - 3 M€
 3 - 4 M€
 4 - 5 M€

10. What percentage of your turnover is related to EO? (*)

- <10 %
 10-25 %
 25-50 %
 >50 %

C. Technical Section

11. Are you an EO user or provider? (*)

- User
 Provider

If you are an EO provider you can be characterized as

- Service provider
 Hardware manufacturer
 Hardware developer
 Hardware or software retailer
 Software developer

12. In which type of application or activity are you involved? (you can choose more than one) (*)

- Atmosphere
 Coastal zones / Oceanography
 Hazards
 Land environment
 Topographic mapping / geodesy
 Hydrology
 Development of new methods
 Renewable resources
 Climate
 Geology
 Other (please specify)

13. Have you collaborated with a user provider in the development of a custom service for your needs? (*)

- NO
 YES

General Comments

OK

Reset

Current status (3)

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- Interviews – briefings
 - An extended version of the questionnaire (including details on responsibilities, synergies, success stories) is used for personal communication mainly with public authorities.
 - The interviews reveal issues relating with
 - data order and sharing among public authorities
 - lack of information about EO services developed in European level
 - quality of service for EO service in order to be adopted in everyday procedures

Planning

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- ❑ Interviews and briefings with public authorities.
- ❑ Provide a preliminary analysis report to ESA.
- ❑ Update the part of the Study dealing with Greek participation in Earth Observation programmes.
- ❑ Mid-term review meeting.
- ❑ Organization of a national workshop in order to present and discuss the findings of the Study. Autumn 2009.

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Study to map Greek EO



Thank you

Vassilis Tsagaris

tsagaris@iridalabs.gr