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 intiatives toward GEOSS

Work Package 2, Task T2.4

End-users needs analysis

OUTCOMES:

Morocco, Tunisia, Egypt

HORIZON 2020

GEO-CRADLE REGIONAL EVENT
ACCESS TO RAW MATERIALS

MOROCCO & ALGERIA
17-23 OCTOBER 2016

EuroGeoSurveys
The Geological Surveys of Europe

CONTENTS

- Introduction
- WP2 & T 2.4
  - Part 1: Process outcomes & main findings
  - Part 2: A focus on North Africa

Going beyond the RoI

Netherlands Space Office

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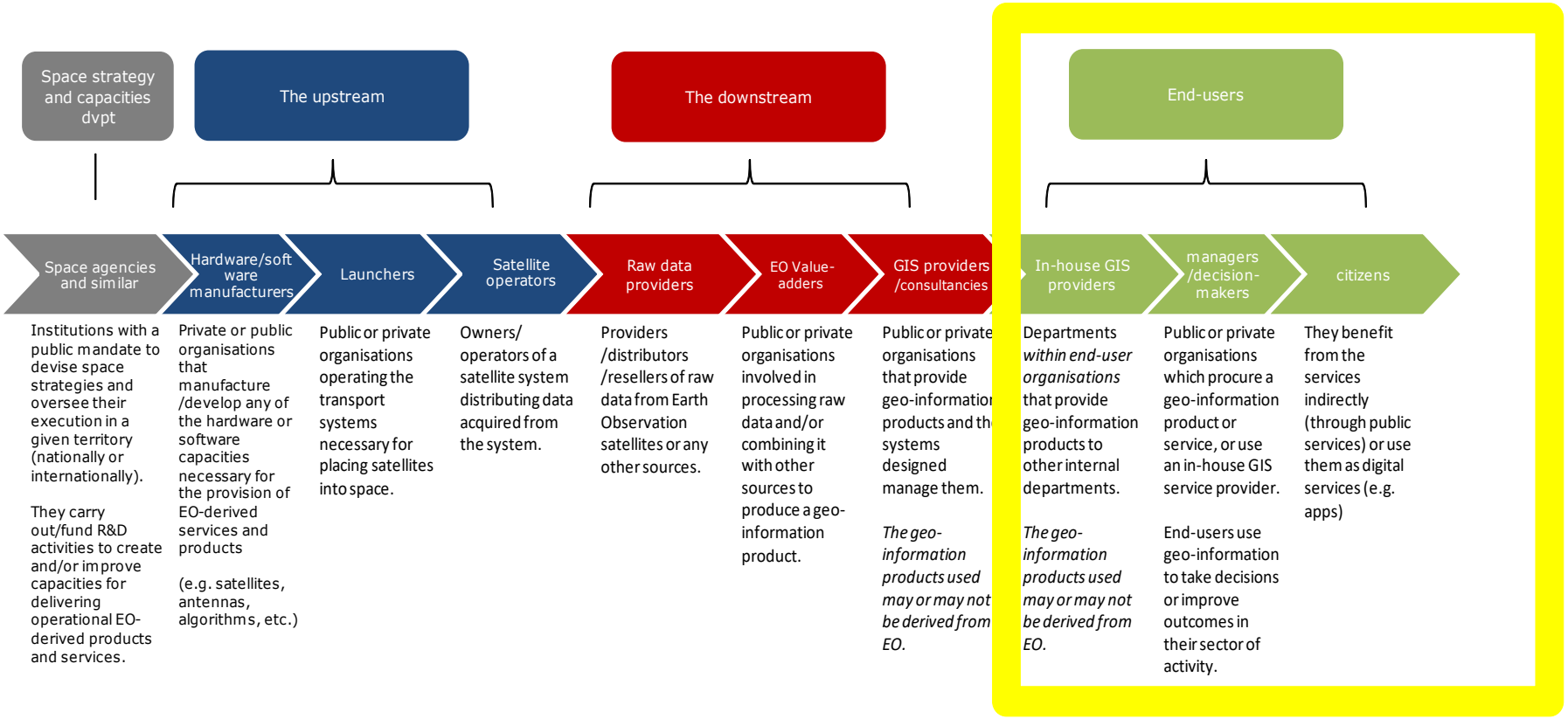
T2.4 User Need Analysis

Scope:

- Define “end-users” the and “value-added chain”.
- Stakeholder mapping: the value-added chain (raw data providers > intermediate users/service providers > end-users)
- Conduct a survey on user needs in the ROI & beyond;

WP2-Inventory of capacities and user needs

Data value-added chain

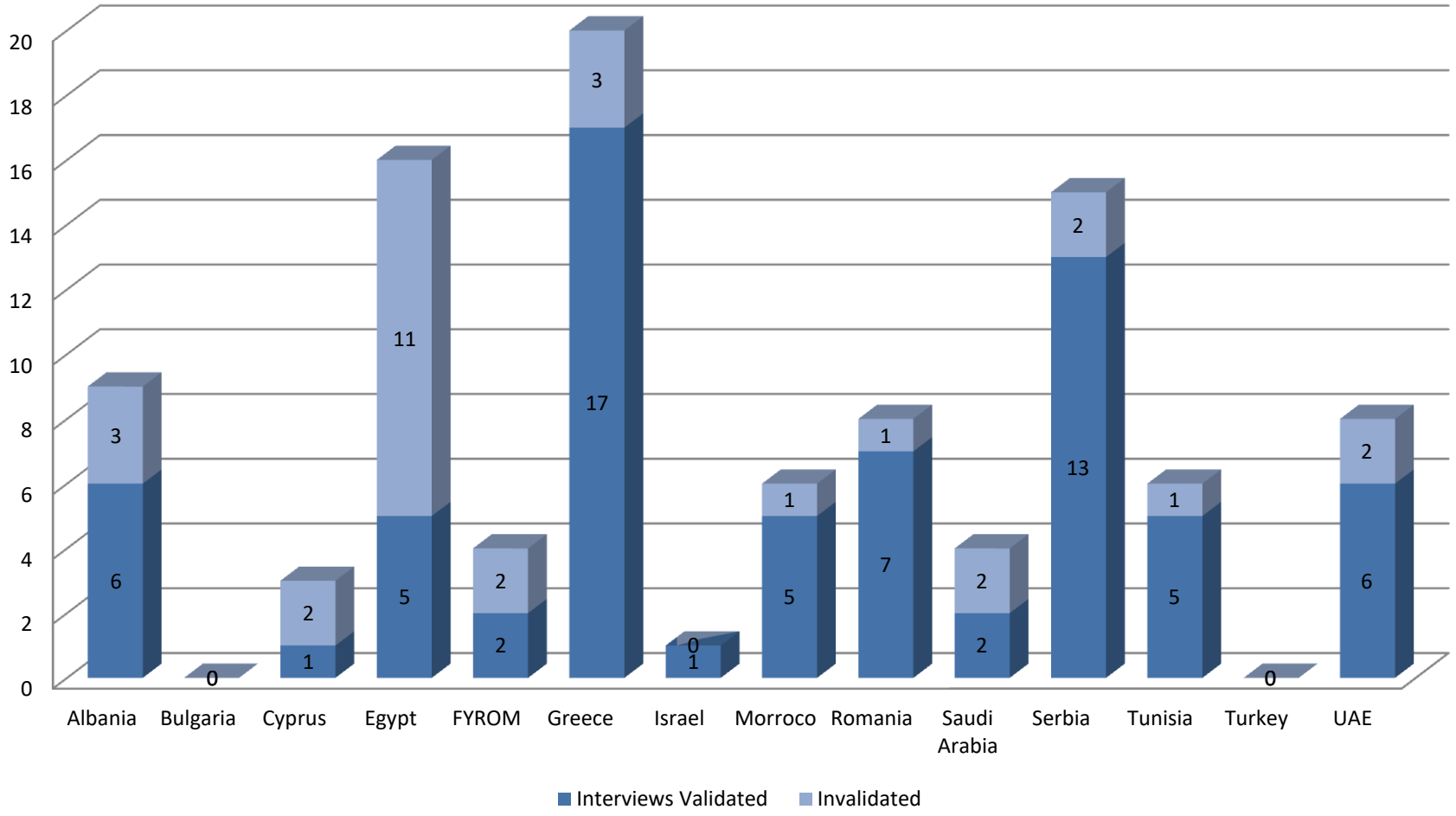


Part 1: Process outcomes & main findings

WP2-Inventory of capacities and user needs

T2.4 User Need Analysis

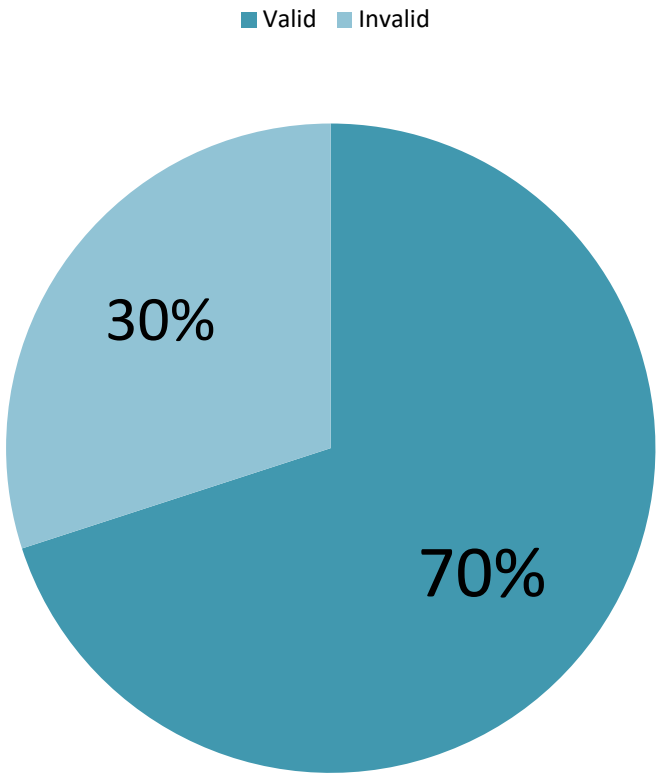
Interviews received



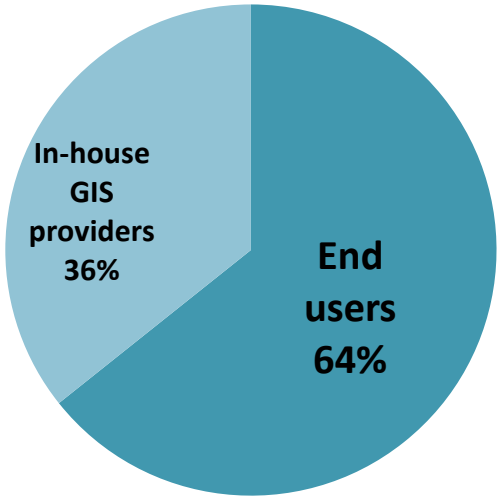
WP2-Inventory of capacities and user needs

T2.4 User Need Analysis

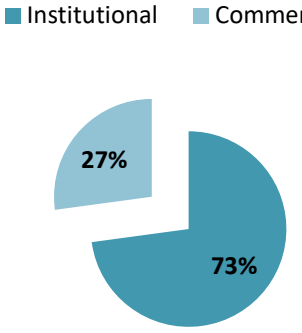
Interviews received



Sample composition validated interviews



End user Activity



WP2-Inventory of capacities and user needs

MAIN FINDINGS

- It is possible to identify homologue user organisations and networks across countries:
  - Equivalent public authorities structure
  - Submitted to similar regulations (esp. EU, International), which often link public and private sector
  - They may be different but working on the same theme (e.g. water is a big transversal topic to energy, raw materials, climate change, food security)
- Information needs:
  - Similar across these networks, across thematics
  - For geo-information services to be relevant to end users, they need to include non geo-data (e.g. demographics, information on land available for sale etc).

WP2-Inventory of capacities and user needs

MAIN FINDINGS

- Information sources:
  - Case 1: paper maps, paper sources
  - Case 2 (quite frequent): use of multiple and advanced data and information sources, incl. satellite and more and more UAVs (Google, Landsat heavily used)
  - Budget constraints → driving open data policies
  - Little awareness of Copernicus and GEO
  - Limited access to new data sets;
  - Variations in data collections & formats obstruct transferability

WP2-Inventory of capacities and user needs

MAIN FINDINGS

- Regulations & standards
  - International regulations and standards mentioned, good indicator for information needs → driving geo-information use

- Constraints (main):
  - Lack of data sharing principles (applies to both procurement and use)
  - Red tape during procurement of data, especially in centralised countries
  - Often data is procured in the framework of externally funded project: no reliable continuity

WP2-Inventory of capacities and user needs

MAIN FINDINGS

- End users need the information to be accessible, shared and shareable, precise, OPEN and FREE
- End users need more knowledge on how to use the product (use of new technology)

→ This is seldom the case

Part 2: Focus on Morocco, Tunisia & Egypt

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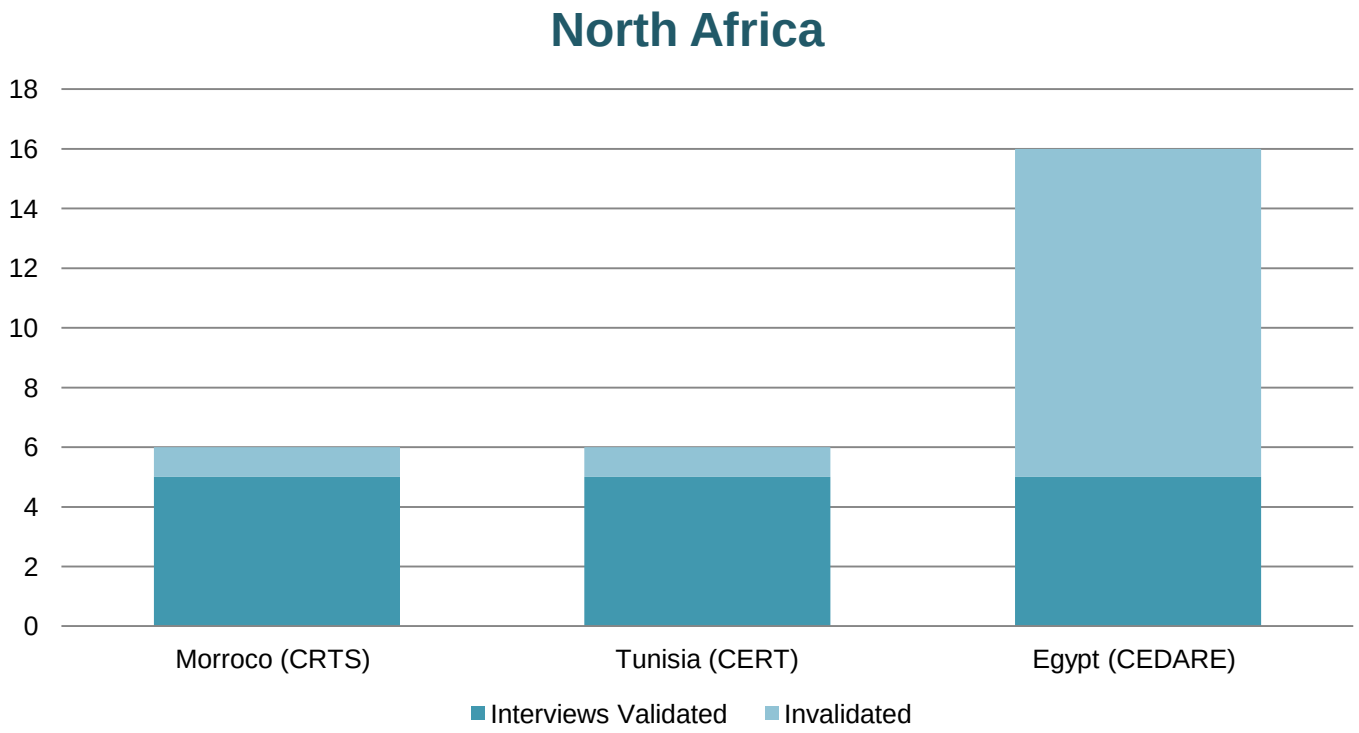
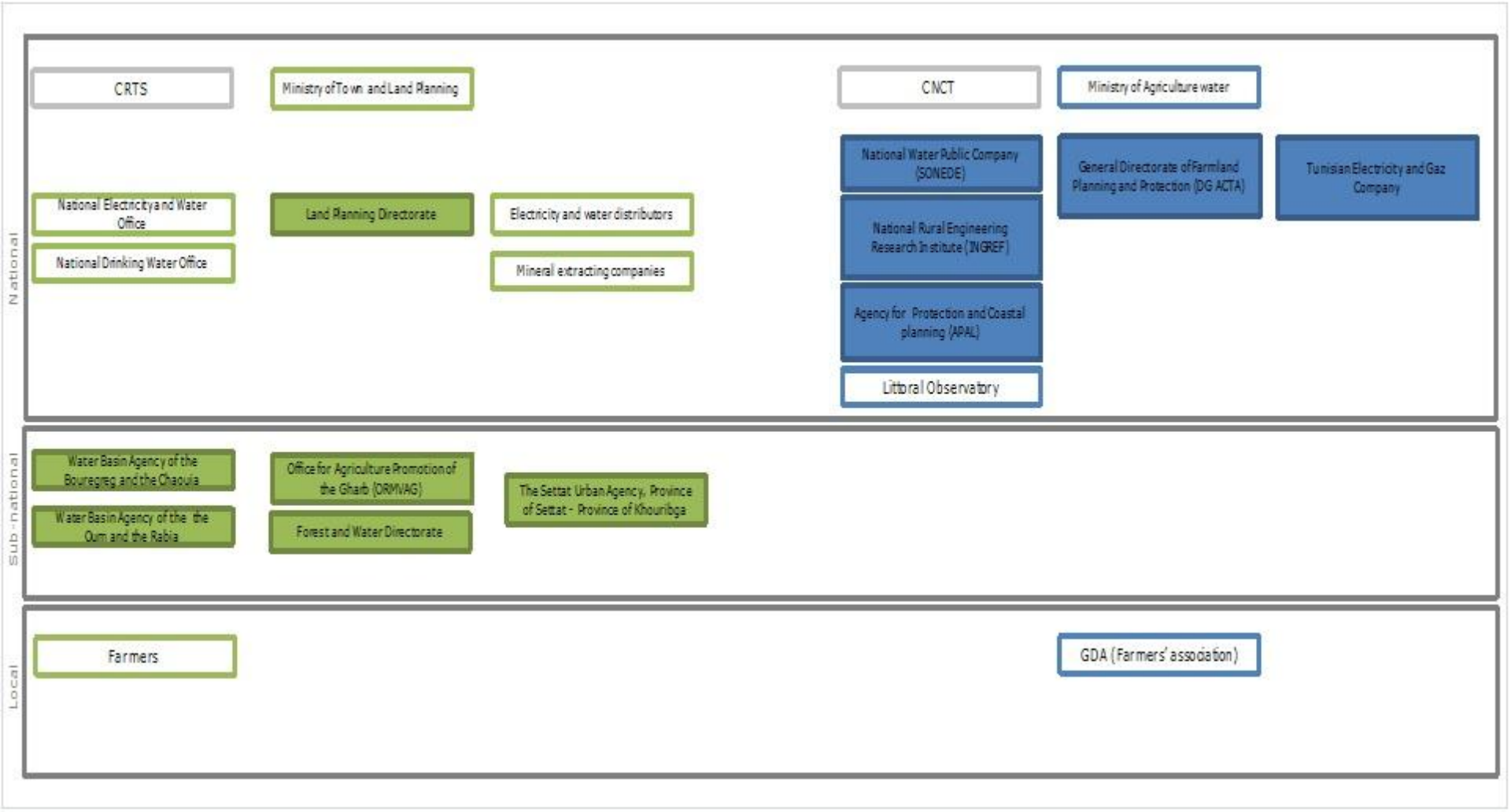


WP2-Inventory of capacities and user needs

Water , agriculture, energy & risk management



WP2-Inventory of capacities and user needs

MAIN FINDINGS

- Information needs

- geographic distribution of gas and gas pipes
- renewables potential (esp. Solar)
- environmental impact of pipe networks
- natural resources (water)
- water pumping stations
- coast and coastal monitoring data
- soil and water quality
- land degradation and priority
- land use and change monitoring
- mapping of public water resources and water users
- mapping of extraction sites
- mapping of irrigation sites
- mapping of water spring drilling sites
- river basin erosion, topography
- identifying industrial discharges
- flood risk monitoring, damage monitoring
- salty water penetration in coastal areas
- water quality, quantity, speed of water courses
- pollution
- environment impact assessment etc.

WP2-Inventory of capacities and user needs

MAIN FINDINGS

- Data sources:
  - LandSat and RadarSat images;
  - Copernicus data
  - Aerial images
  - Older online free satellite datasets
  - Google Earth
  - Geological maps
  - Nile River water quality index maps
  - Ikonos high-resolution images;
  - Egyptian Survey Authority for Maps
  - SPOT images;
  - In-situ measurements etc.

WP2-Inventory of capacities and user needs

MAIN FINDINGS

- Constraints (main- depending on country):

- Data on natural resources is difficult to collect and hard to verify
- Data changes quickly and is sometimes inaccurate
- In the case of Tunisia: legally every tender must go through the CNCT for validation and approval > too much red tape and delays
- Data cost (In Egypt, some research centers could spend up to 60% of their budget on data)
- Limited IT infrastructure for advanced analysis
- Lack of qualified personnel and expertise on GIS
- Lack of data sharing principles & coordination among public authorities → duplication of data acquisition & analysis → limited interoperability
- Outdated & incomplete legislation (Egypt)
- Lack of cooperation among & within public authorities

How the region may benefit from a free and open regional data hub?

- Morocco and Tunisia, CRTS (Royal Remote Sensing Centre) and CNCT (The National Mapping and Remote Sensing Centre of Tunisia) → key entry points for end users → federate needs
- give access to relevant additional data
- platform for users with common stakes (e.g water managers)
- New opportunities for the private sector