G-reqs: Towards an In-Situ Data Requirements Model for GEO

Joan Maso

CREAF

CREAF SEVERO OCHOA EXCELLENCE

Learn more here:

https://g-reqs.grumets.cat/

CREAF Open Geospatial Consortium evenflow

HELLENIC REPUBLIC MINISTRY OF DEVELOPMENT AND INVESTMENTS | GSRI GENERAL SECRETARIAT FOR RESEARCH AND INNOVATION

European Commission

Future GEO

GEO so far

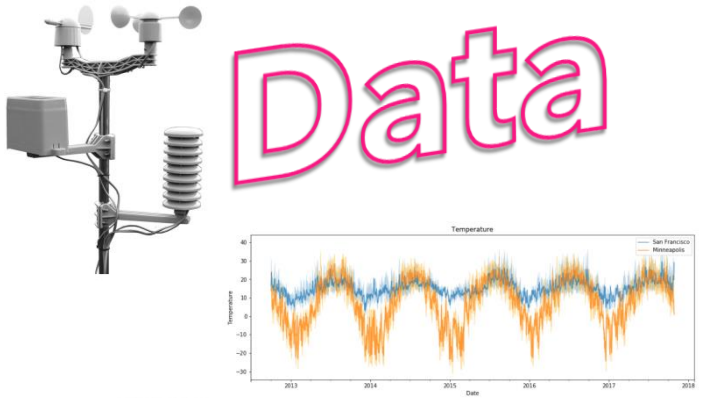
- Objective: Sorting the EO resources available
- Focus on Remote Sensing
- GEO yellow pages: A catalogue of providers
- GEO portal: A catalogue of existing offerings

Proposed evolution GEO

- Objective: Responding user needs
- Focus on In-situ data
- Knowing the needs and requirements of the Work Plan Activities
- G-Reqs: A Database to record needs and requirements in a formal way

HELLENIC REPUBLIC
MINISTRY OF DEVELOPMENT AND INVESTMENTS
GSRI GENERAL SECRETARIAT FOR RESEARCH AND INNOVATION
European Commission

GEO users' needs for in-situ data are diverse

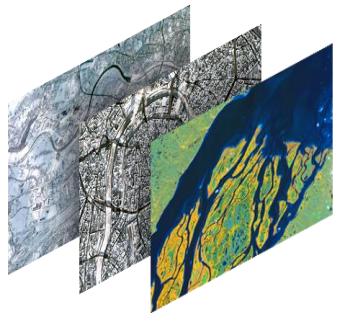


HELLENIC REPUBLIC
MINISTRY OF DEVELOPMENT AND INVESTMENTS
GSRI
GENERAL SECRETARIAT FOR RESEARCH AND INNOVATION
European Commission

Parameterize requirements

– *Topic*

– Quality



– *Area*

– Timeliness

HELLENIC REPUBLIC
MINISTRY OF DEVELOPMENT AND INVESTMENTS
GSRI
GENERAL SECRETARIAT FOR RESEARCH AND INNOVATION
European Commission

and we call it affectionally...

G-reqs

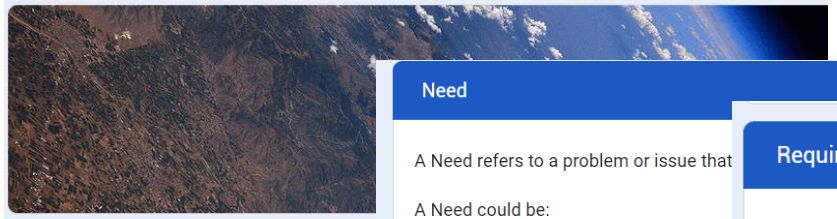
HELLENIC REPUBLIC
MINISTRY OF DEVELOPMENT AND INVESTMENTS
GSRI GENERAL SECRETARIAT FOR RESEARCH AND INNOVATION
European Commission

EUROGEO WORKSHOP 2022

It looks like it, but it is not a survey!

It is an interface to capture in-situ data requirements

Takes only 5 minutes to populate



Capturing requirer
G-Reqs. Model

In order to know about the in-situ data th
G-Reqs. database model. The model sta
responder into specifying precisely deta
of users (e.g. scientists, modellers, com
purpose in-situ datasets.

This form is designed to test and conso
model, gather the first set of reference r
activities, including inter alia:
- evolve the Copernicus In Situ Compon
requirements arising from GEO related a
- support the creation of a database of r
cases;
- develop recommendations and best pr
in-situ data.

Documenting this form would require ar

The InCASE project is supported by EEA
contribution to GEO and EuroGEO.

This work is at an early stage and the G-

Need

A Need refers to a problem or issue that

A Need could be:
- calibration, validation or comparison of
- scientific research question, a decision
- monitoring the evolution of an indicato
- other.

This section helps to specify ONE concr
situ requirements (in the following secti
use this form several times

Are you representing a GEO Initiativ
Need? (Named EntrustedEntity in th

- [ ] GEO Initiative
- [ ] Project
- [ ] In-situ Data Infrastructure Provide
- [ ] Organisation
- [ ] Other:

Provide the name of the organizatic

Your answer

Requirement 1

A Requirement is a concrete technical description of the properties of a potential in-situ dataset that will fulfil the Need.

Please, focus on the requirements of a single potential in-situ dataset.

* Due to limitations on Google Forms, this section is designed for describing a single requirement. If the Need has generated more than one requirement, more Requirement sections will follow for you to populate.

Considering the Need expressed, can you provide a short name for the in-situ data requirement? (e.g. Water Flow in Greece)

Your answer

Provide a short description that will help in better understand the in-situ data requirements?

Your answer

What are the essential variables, if any, related to the in-situ data requirement?

ATHENS 7-9 DECEMBER 2022

HELLENIC REPUBLIC
MINISTRY OF DEVELOPMENT AND INVESTMENTS
GSRI GENERAL SECRETARIAT FOR RESEARCH AND INNOVATION
European Commission

Help us by capturing requirements!

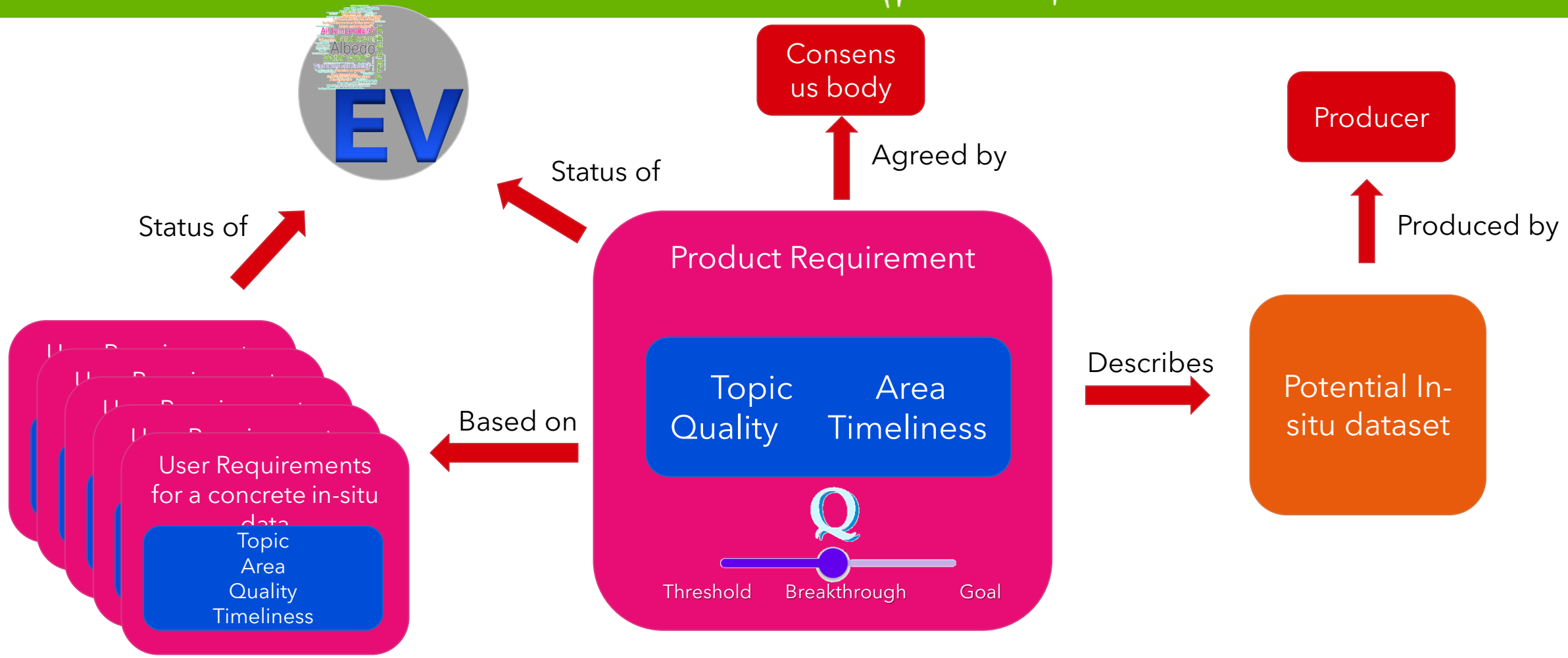
- Are you a in-situ data user?
- G-reqs corner next to the registration desk.
- We can help you to formulate your requirements
- We have an small gift for you

HELLENIC REPUBLIC
MINISTRY OF DEVELOPMENT AND INVESTMENTS
GSRI GENERAL SECRETARIAT FOR RESEARCH AND INNOVATION
European Commission

Questions and reports

- Once we have gathered enough reqs. we will be able to formulate questions such as:
  - What in-situ dataset is required from more GEO work plan activities
  - What GEO work plan activity has more unfulfilled requirements
  - How many GEO work plan activities has unfulfilled requirements
  - What SBA could benefit more for a new in-situ dataset
  - What is the distribution/proportion of in-situ reqs. by need type (Remote sensing Cal/Val|Scientific question|Commercial product|Decision making|Policy monitoring)
  - What is the distribution/proportion of in-situ reqs. by Essential Variable

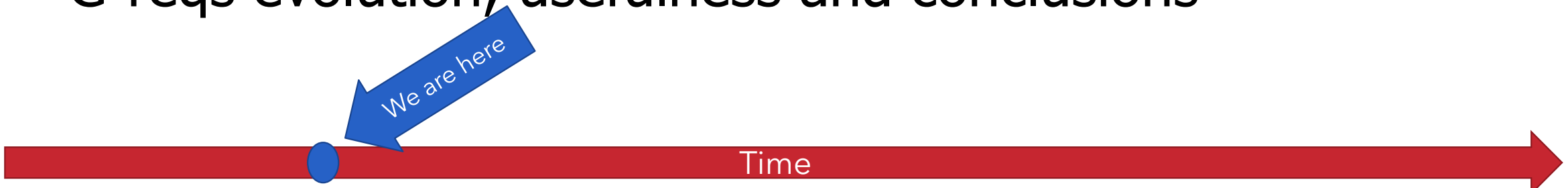
HELLENIC REPUBLIC
MINISTRY OF DEVELOPMENT AND INVESTMENTS
GSRI
GENERAL SECRETARIAT FOR RESEARCH AND INNOVATION
European Commission



To product requirements

HELLENIC REPUBLIC
MINISTRY OF DEVELOPMENT AND INVESTMENTS
GSRI
GENERAL SECRETARIAT FOR RESEARCH AND INNOVATION
European Commission

G-reqs evolution, usefulness and conclusions



Collect	Share	Analyse	Detect	Recommend
G-reqs allows capturing requirements in a systematic and standardized way. Through a user-driven approach, it facilitates the definition of users' needs and its translation into **parameterized requirements**.	G-reqs is designed to be an open and accessible database for all by following FAIR and **GEO data management principles**.	G-reqs includes a predefined set of reports to **analyse** and statistically **summarize** the content of the database.	G-reqs reports can be used to detect potential in-situ usages and **gaps** that could constitute new **opportunitie**s for further Earth Observation monitoring.	G-reqs **consensus** process can result in agreement on recommendations to data that cover **emerging needs** of the Earth Observation users community.

HELLENIC REPUBLIC MINISTRY OF DEVELOPMENT AND INVESTMENTS
GSRI GENERAL SECRETARIAT FOR RESEARCH AND INNOVATION
European Commission

Thanks.

Joan Maso
CREAF

CREAF SEVERO OCHOA EXCELLENCE

G-reqs

BTW: ***Help us by capturing requirements!***

- Are you a in-situ data user?
- G-reqs corner next to the registration desk.
- We can help you to formulate your requirements
- We have an *small* gift for you

HELLENIC REPUBLIC MINISTRY OF DEVELOPMENT AND INVESTMENTS | GSRI GENERAL SECRETARIAT FOR RESEARCH AND INNOVATION

European Commission