



ENVIROFI

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“ENVIROfying” the Future Internet

**THE ENVIRONMENTAL OBSERVATION WEB AND ITS
SERVICE APPLICATIONS WITHIN THE FUTURE INTERNET**

ENVIROFI. FI-PPP AND THE BIG DATA

EGU 2013 Townhall session : “Big data and software architecture meet
geophysics and crisis management” (08.04.2013)

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European Commission
Information Society and Media

ENVIROFI Today's Discussion

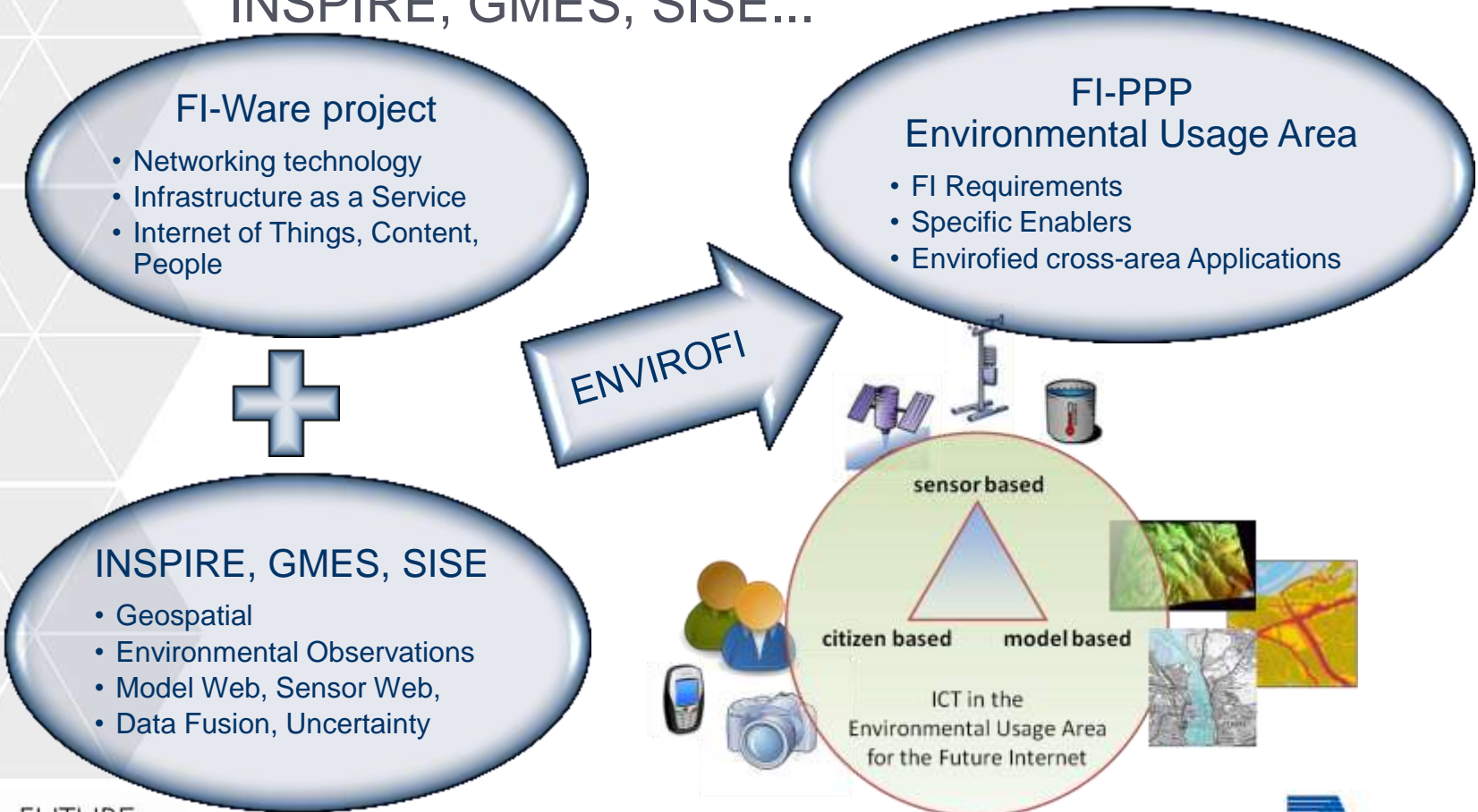
Relation of ENVIROFI,
FI-Ware & FI-PPP.

Why would we need
“big data” in
environmental
applications?

Where do FI-Ware
enablers come in?



ENVIROFI links the Future Internet Public Private Partnership programme and on-going activities in INSPIRE, GMES, SISE...





1. Bringing Biodiversity into the Future Internet

- Enables biodiversity surveys with advanced ontologies
- Analysis, quality assurance and dissemination of biodiversity data



2. Personal Information System for Air Pollutants, allergens and meteorological conditions

- Enhance human to environment interaction
- Atmospheric conditions and pollution in “the palm of your hand”

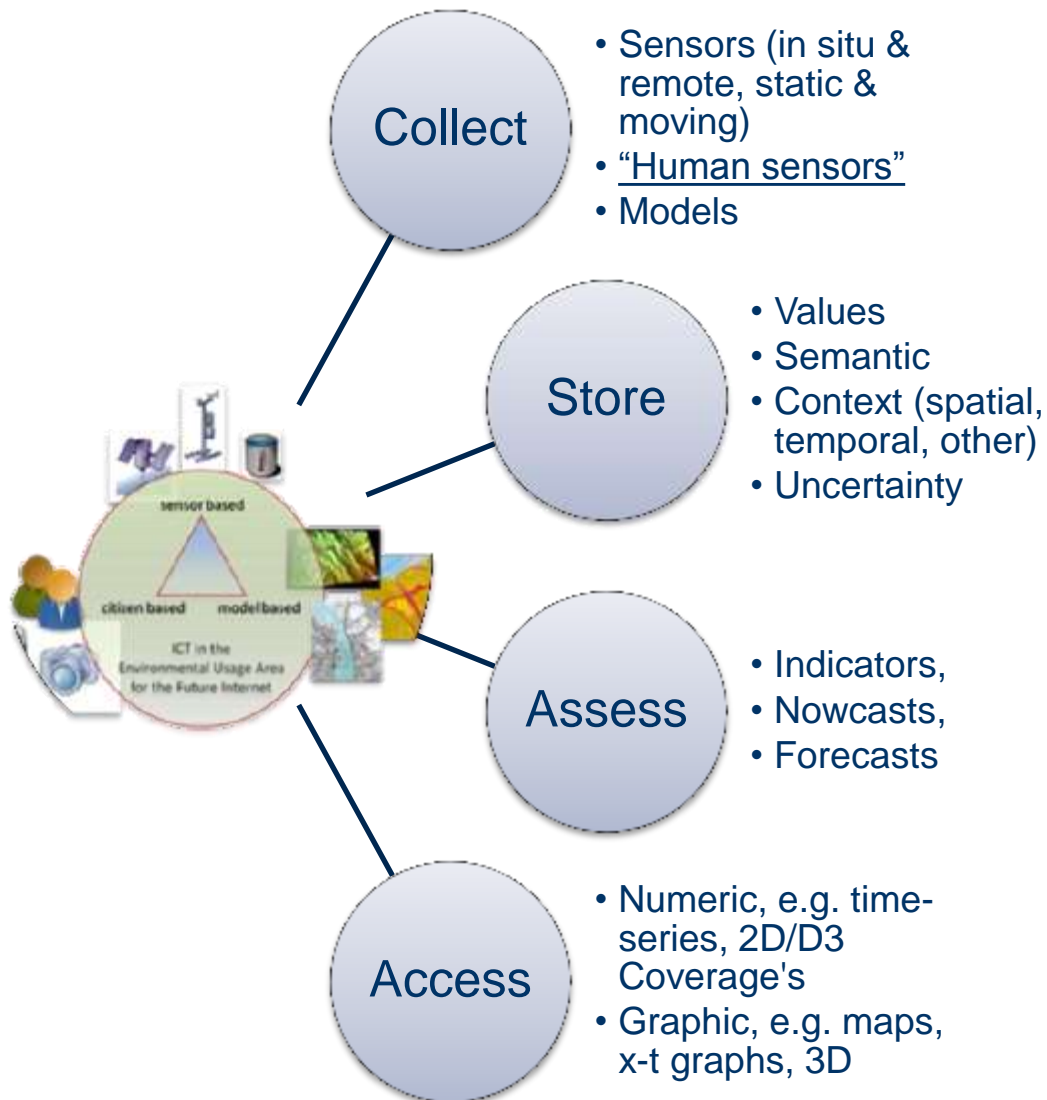
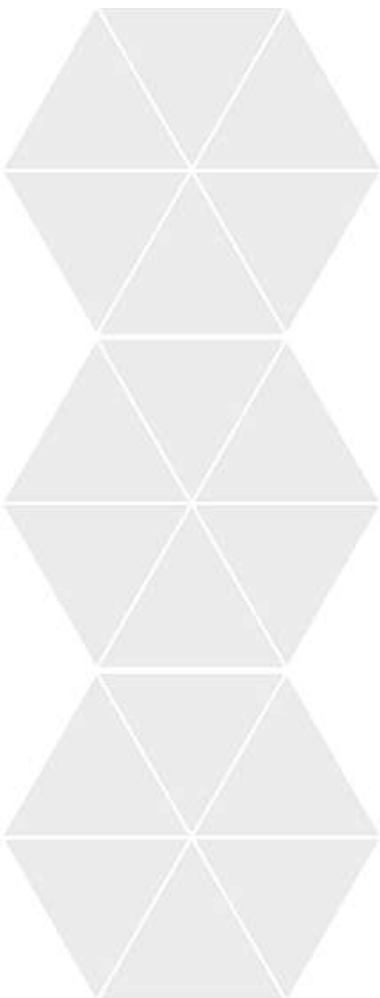


3. Collaborative Usage of Marine Data Assets

- Assess needs of key marine user communities
- Selection of representative marine use cases for further trial: leisure and tourism, ocean energy devices, aquaculture, oil spill alert

“Observation Piles”

- growing bigger and messier...



ENVIROFI Human sensors are tricky...

View existing knowledge

- Map view
- Table view
- Detailed View
- Areas of Interest



Report observations

- “New” things, e.g. “here and now I see a tree”
- Personal, e.g. “I have a headache”
- Obs. on existing thing, e.g. “this tree currently blossoms”



Server
Backend
(or proxy)

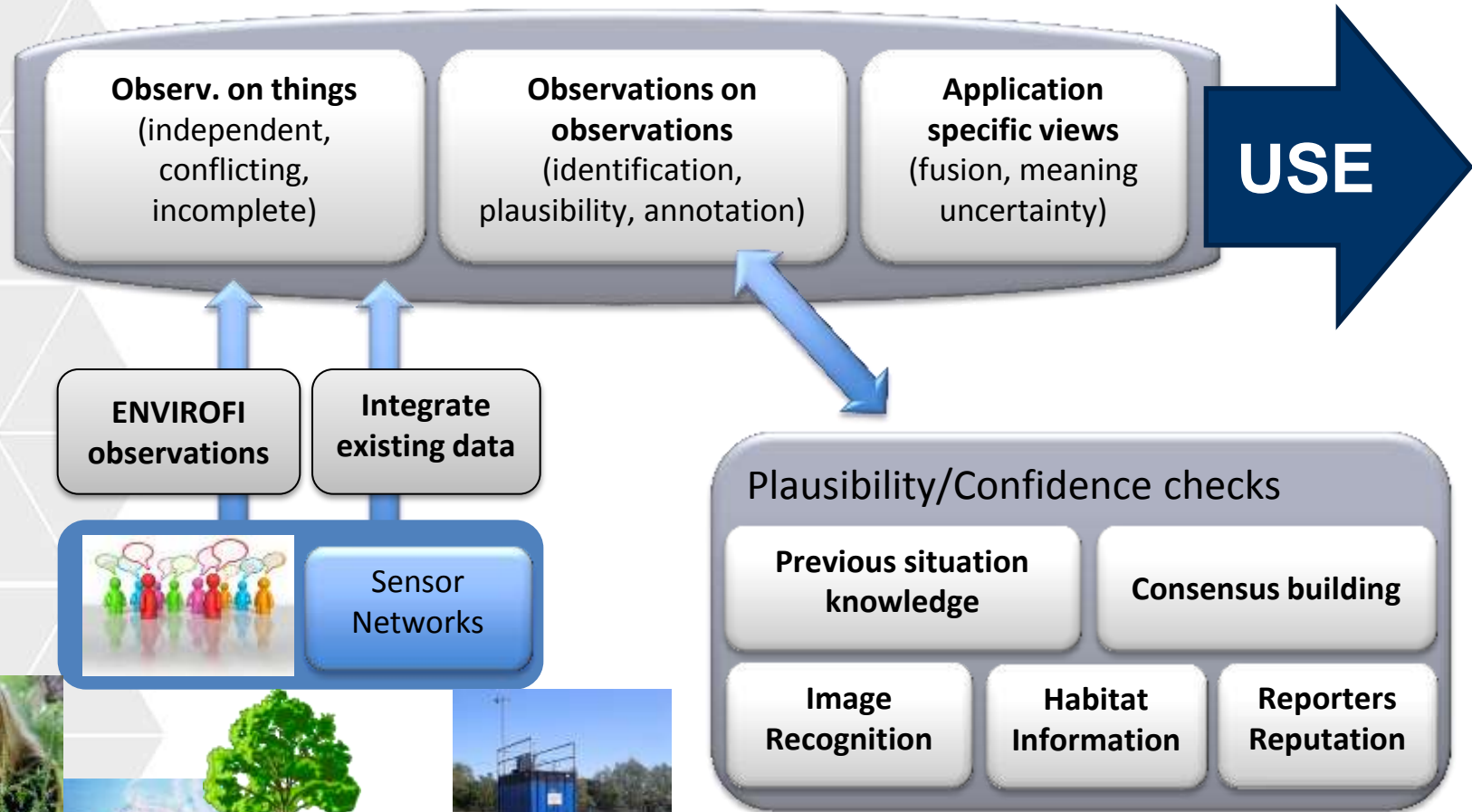
Receive information (events!)

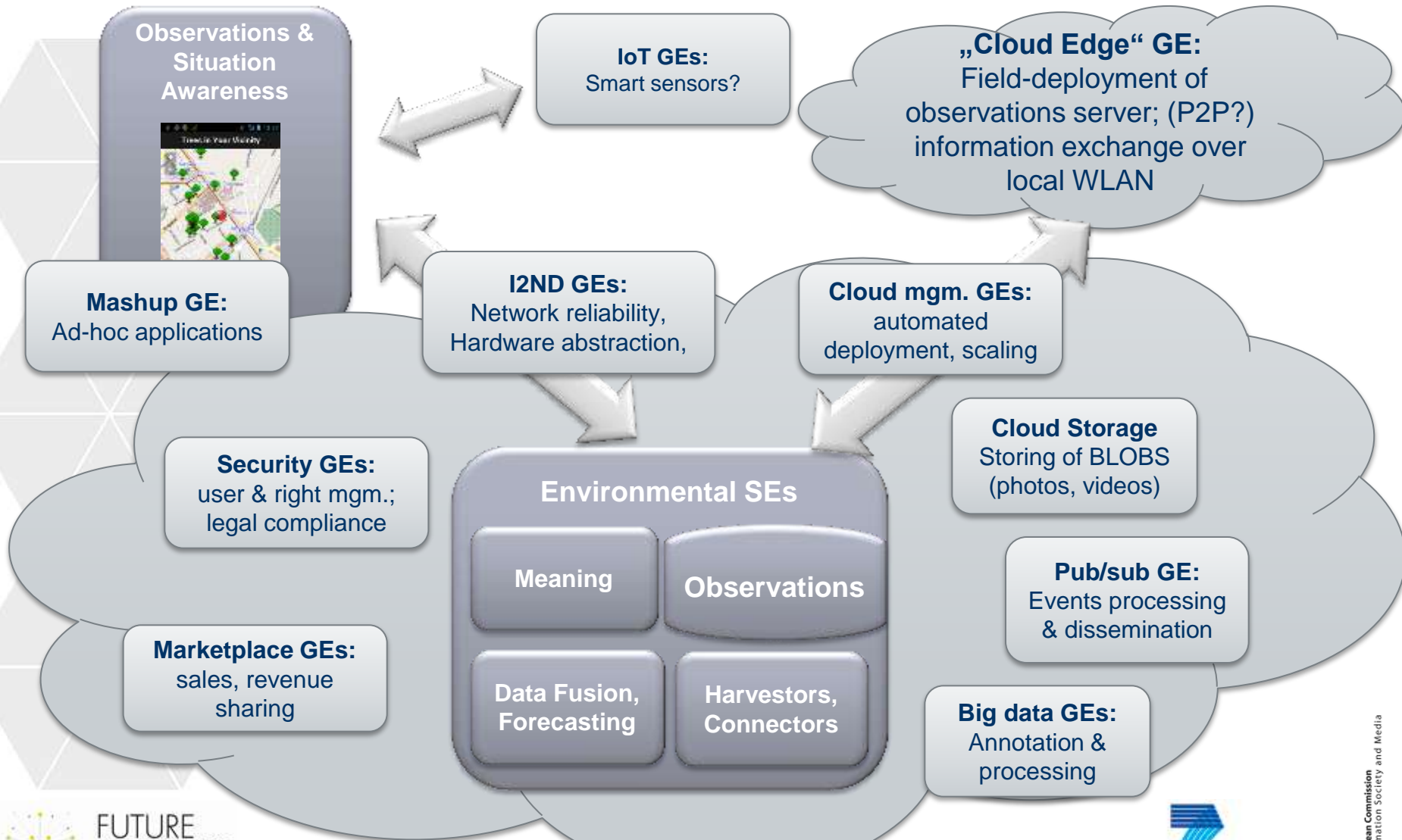
- Requests for more observations,
- Warnings, e.g. “pollen warning”
- Interests, e.g. “monumental tree in vicinity”

Inform

Alert!

We need to sort it all out - on demand & inexpensively





Thank you for your attention

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FI-Ware “Generic Enablers” already fulfill several requirements common to many environmental application scenarios:

1. “Single sign on” and authorization (Identity Management GE)
2. Event handling (Complex Event Processing GE, Publish/Subscribe Context Broker GE)
3. On demand scaling (cloud hosting GEs)
4. BLOB storage and retrieval (cloud storage GE)
5. Ad-hoc applications for specific users (composition & Mashup GEs)

See: <http://www.fi-ppp.eu/>, <http://www.fi-ware.eu/>