ISSUES ARISING

The issues we intend to cover within discussion time include:

State of the art experience and lessons learned: how could the organisation and provision of large-scale Earth data improve to best support known and unforeseen trends of their use? how is data protection impacted when scaling to large and heterogeneous data sets? which are the fields that will increasingly rely on (fusion of) large-scale heterogeneous Earth observations? how close are big Earth data services to the Internet of Things? what could be the major innovation fields?

Processes and skills to allow experts deriving meaningful insight from big Earth data analytics: what instruments presently lack to allow effectively capturing and understanding the value of heterogeneous large-scale Earth data sets?

Concerted solutions: could all the different interests involved be addressed consistently? would individualised solutions to prefer? how could traditional Earth data centers solutions best support the sustainability and take-up of big Earth data services? would isolated silos of data and islands of functionality fit a big Earth data service model?

The Etna crater, Italy | CHRIS

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ORGANISING COMMITTEE

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REGISTRATION AND ABSTRACT SUBMISSION

Abstract Submission Closing___**20 March**
Registration_____**15 May**

CONTACT POINTS

ESA Conference Bureau
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http://congrexprojects.com/13c10

Bloom in Baltic Sea | ENVISAT

→ BIG DATA FROM SPACE

5–7 June 2013 | ESA-ESRIN | Frascati (Rome), Italy

ANNOUNCEMENT

esa

www.esa.int

European Space Agency

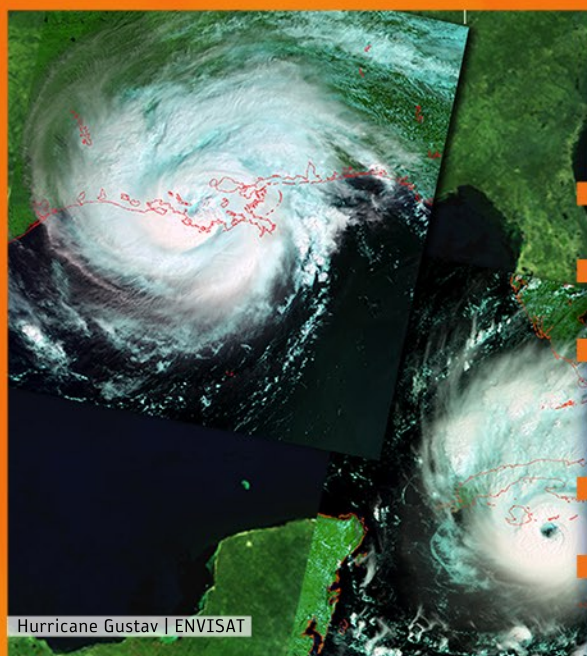The European Space Agency in Frascati is organising a Big data from Space event to address the barriers that hamper an effective use of large volumes of Earth observation data. The event will focus on issues associated with the organisation and delivery of large volumes of contemporary and historical Earth observations, either space-based or from ground (including ubiquitous information-sensing mobile devices, aerial sensory technologies, wireless sensor networks).

Agricultural crops in Aragon and Catalonia |KOMPSAT-2

PARTICIPATION

The event is open to decision makers and technical representatives from all organisations active in using or delivering large complex data sets of Earth observations are invited to attend this event and shape it actively, in particular:

- Space agencies and satellite operators
- Agencies/institutions with any R&D/operational requirement for using large Earth data volumes
- European industrial operators providing services running large Earth data volumes
- Earth and computer scientists and professionals, as well as students in those areas

OBJECTIVES

This event intends to stimulate discussion between the different communities involved in the business of providing and manipulating very large-scale data and complex analyses of Earth observations. The primary objectives are therefore:

1. To examine current solutions, practices and role of big Earth data services, and identify a common ground

2. To examine issues associated with data organisation and provision, and the associated costs

3. To identify scenarios of data-intensive services, traditional and innovative with respect to new form of processing, enabling additional information derivable from navigation, analytics and correlation of large Earth data sets, and integration across heterogeneous resources

4. To identify challenges, barriers, opportunities for such scenarios, and attempt to define a baseline of activity to make the identified scenarios actionable

5. To critically review current working methods and approaches with respect to the baseline proposal and its application.

Hurricane Gustav | ENVISAT

PROGRAMME

The programme will cover diverse aspects of handling large-scale data and complex analysis of Earth observations, including:

- Typical order of data volumes involved (Tera to Exa scale) and their trends, primarily with respect to the utilisation of streaming of data from presently available and upcoming satellite capabilities, and from ubiquitous ground devices.

- Challenges of data access, including timeliness, needs and policies for their dissemination, data capture, storage, search, sharing (including use of interoperability standards), transfer capacity, mining and analysis (including identification of representative samples), fusion, systematic and peak processing, and visualisation.

- The cost and weighting factors against identified challenges and in support of continuous evolution of techniques and technologies, in short and long-term.

Such aspects will be analysed with reference to specific domains, e.g. **climatology, meteorology, oceanography, maritime monitoring, land cover/use monitoring, geology, support to situational awareness, geo-based statistics and economy**, among others.

Australia | SPOT-4