

## Agenda

### *Moving Geodata and services to the Cloud: exchanges about use cases and challenges*

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#### The Workshop

The aim of the “*Moving Geodata and services to the Cloud: exchanges about use cases and challenges*” workshop is to give a brief review on cloud computing, to discuss the challenges of moving data and services to the cloud, and provide an insight into how geodata services can take advantage of the cloud technology (in terms of data integration and standardization, system availability, performance and scalability, cost savings and enhanced manageability). Specific administrative issues regarding moving data and services to the cloud will also be addressed.

As a demonstration of potential geodata applications that can benefit from moving to a cloud infrastructure, the InGeoCloudS project is now addressing a number of use cases along with the underlying necessary. Through interaction with the interested parties, these use cases will be further elaborated and tuned in order to better meet the needs of the Geo-community.

Ideas and suggestions about other relevant use cases will also be discussed and will help refining the candidate services that will be uploaded to the cloud.

The so-far elicited data/services will cover the subjects of (a) groundwater and (b) natural hazards, monitoring and/or management. Briefly, the use cases that will be presented in the workshop by the five consortium data providers are the following:

1. **EPPO – Greece.** Web service that publishes Site Information on Accelerometer Stations of the Greater European Region. It includes geoinformation that describes each site like Morphological, Geological, Geotechnical, and Geophysical data. The service will be extended to include shake-maps (maps showing ground movement and shaking intensity following major earthquakes). Through this service it will be possible to propose the land usage (urban planning, type of structures), increase preparedness in case of a strong earthquake event, and provide the first information in a disaster management system
2. **GeoZS - Slovenia.** Web based GIS application for estimation of geohazard induced by mass movement process. It enables simple, but effective access to the landslide susceptibility map. The service will be extended to include prediction modeling of geohazards (demanding versatile calculation infrastructure), usable for risk assessment and vulnerability analyses.
3. **GEUS - Denmark.** Web service that identifies areas where high concentrations of pesticides are found in groundwater. To facilitate pan European searches, the service will be extended to consolidate the resulting data from several countries' web services into a single

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- result which is harmonized, despite differences in database structure, exchange format, measurement units or other country specific conditions.
4. **GEUS - Denmark.** Web service that extracts cross border groundwater levels. To facilitate cross border modeling, the service will be extended to consolidate the resulting data from several countries' web services into a single result which is harmonized, despite differences in database structure, exchange format, reference level or other country specific conditions.
  5. **BRGM - France.** Web service to publish geospatial data for environmental public information in relation with description Aarhus and Inspire requirements. The service will take advantage of the scalability of the cloud infrastructure to adjust service load. The service will be extended to allow quick and smooth publishing of data with respect to regulation requirements (INSPIRE). Also, it will allow the sharing and re-use of data published by each partner to create new services without technical issues.
  6. **BRGM - France.** Web service for the aggregation of geodata information about geohazards provided by local authorities allowing creating national or European data in the risk and hazard fields. The service will be extended to provide a generalization of the process, allowing for automatic checking and aggregating of geodata web services for providing information and updates to producers, public and private users of the data
  7. **IGME – Greece.** Ground Water resources management in granular aquifers: The Greek use cases. Web based GIS applications for the water balance estimation, for the creation of hydro chemical and salinization maps and for the regional contamination. The services could be extended with data from several countries.

# InGeoCloudS experts workshop, Paris, 9<sup>th</sup> and 10<sup>th</sup> of May, 2012

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### General information about the location

The workshop will be held at “*Société Géologique de France*”, 77 rue Claude Bernard, 75005 Paris

Tel.: +33 (0)1 43 31 77 35, Wed. 9th and Thu. 10th of May 2012, room: “Van Straelen”.

Attendance is free but registration is kindly required at: [info\\_event@ingeoclouds.eu](mailto:info_event@ingeoclouds.eu)



Lunch will be offered for both days.

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### Day 1 – Wednesday May 9<sup>th</sup> 2012 - Meeting Room “Van Straelen” (80 persons)

10:00 – 10:30 Registration – Coffee

#### 1st session – Presentation of the project

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##### 10:30 – 11:00 Welcome (Benoit Baurens, AKKA Technologies, InGeoCloudS project coordinator)

- Presentation of participants
- About the InGeoCloudS project and the CIP Programme of the EC.
- Why cloud computing? Why INSPIRE?
- Project plan
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#### 2nd session – About the Workshop

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##### 11:00 – 11:30 Workshop Roadmap (member of consortium)

- Expectations from this workshop: new use cases, new ideas, shared understanding...
- Utilization of the workshop results
- Work in groups how-to: methodology, tools, roles and reporting.
- Introduction to the project's use cases

#### 3rd session – Presentations on Cloud Computing and Data management

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##### 11:30 – 12:15 Cloud Computing in a nutshell (Claudio Lucchese - CNR)

- Definitions, principles, properties, business models
- Myths, issues, added-values
- Suitability for our use cases

12:15 – 13:30 Lunch break

##### 13:30 – 14:00 Semantics of data and the LinkedData approach (Dimitris Kotzinos, FORTH)

- Giving sense to data
- Facilitating uniformity and exchanges

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4th session - Cloud computing: A solution to the INSPIRE Directive?

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**14:00 – 14:30 INSPIRE Directive: summary and foreseen impact in relationship with cloud computing paradigm (BRGM)**

14:30 – 15:00 Coffee break

**15:00 - 16:30 Roundtable: Cloud computing and INSPIRE**

- Challenges public data producers face to meet INSPIRE
- Limitations of the technology
- Users expectations on the INSPIRE Directive. Regulatory aspects.
- Cloud computing: is it an interesting solution - technical, functional, and financial?
- Business models

**16:30 -17:00 Presentation of a geo-platform for INSPIRE publication (BRGM)**

About 17:00: end of Day1

A proposal will be made for a joint dinner place in the evening.

**Day 1 - Wednesday May 9<sup>th</sup> 2012 - Meeting Room “Ami Boué” (15 persons)**

Time slots of 1-2 hours for meetings between partners and participants (to be defined)

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#### **Day 2 – Thursday May 10th 2012 - Meeting Room “Van Straelen” (80 persons)**

8:45 – 09:15 Registration – Coffee

1st session Short summary of Day 1

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9:15 – 10:00 For those who could not attend, a short overview of Day 1 exchanges

2nd session – Presentation of Use Cases – Group on Hydrogeology

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10:00 – 10:40 Pesticides in Groundwater and Groundwater levels (Jørgen Tulstrup, GEUS)

10:40 – 11:00 Ground Water resources management in granular aquifers (The Greek use cases) (Makis Atzemoglou, IGME)

11:00 – 11:30 Coffee break

11:30 – 12:30 Discussion on Hydrogeology use cases

- What Cloud technology and INSPIRE directive can bring on these topics?
- How we see it, more ideas, return of experience from attendance, InGeoCloudS objectives
- Ideas about extending or transforming the services to better meet the users’ needs

12:30 – 13:45 Lunch break

3rd session – Presentation of Use Cases – Group on Hazards due to Earth phenomena

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13:45 – 14:10 GeoHazard - estimation of geohazard induced by mass movement process (GEOZS)

14:10 – 14:30 ShakeMaps – Near-real time ground movement and shaking intensity maps (EPPO)

14:30 – 15:00 Coffee break



# InGeoCloudS experts workshop, Paris, 9<sup>th</sup> and 10<sup>th</sup> of May, 2012

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### 15:00 – 16:00 Discussion on Earthquakes and other Hazards use cases

- What Cloud technology and INSPIRE directive can bring on these topics?
- How we see it, more ideas, return of experience from attendance, InGeoCloudS objectives
- Ideas about extending or transforming the services to better meet the users' needs

### 4th session – Conclusions

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### 16:00 – 16:30 Prioritizations

- Summaries of exchanges in the sessions
- How we will handle the input afterwards
- Elicitation of priorities, impact on InGeoCloudS Pilot iterations

### 16:30 – 17:00 Thank you and “What’s next” (Benoit Baurens, AKKA Technologies)

- Keeping contact with the experts panel: information channel, further steps/milestones

## Day 2 - Thursday May 10<sup>th</sup> 2012 - Meeting Room “Ami Boué” (15 persons)

Time slots of 1-2 hours for meetings between partners and participants (to be defined)