FP7-ICT-2013-11-4.2

Scalable Data Analytics

**Deadline: 16 April 2013
at 17:00:00 (Brussels local time)**

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Agenda

Time	Programme
14H30	Overview of Objective 4.2 – Scalable Data Analytics *By Carola Carstens,* *European Commission, Project Officer*
	Presentations by proposers
	Meet-the-Speakers
16H00	End of the session

4.2: Scalable Data Analytics

Target Outcomes

Tools and skills to deploy and manage robust and high performance data analytics processes over extremely large amounts of data.

a) Scalable Algorithms, Software Frameworks, Visualisation (IPs, STREPs)

b) Big Data Networking and Hardware Optimisations Roadmap (CSA)

c) Societal Externalities of Big Data Roadmap (CSA)

4.2: Scalable Data Analytics

Funding Schemes

- a) IPs, STREPs (26 M€)
- b), c): CSAs (5 M€)

What is Big Data?

- When the size of the data becomes part of the problem that is to be solved
- Definition is domain-dependent

Background

- Target a: Continuation of call 8.4.4 on big data
  (http://cordis.europa.eu/fp7/ict/content-knowledge/fp7-call8_en.html)
- Targets b, c: Bridge to H2020

4.2: Scalable Data Analytics

Impact

- Advanced querying and analytics applications with sub-second response times over distributed information resources consisting of trillions of records.

- Ability to query or detect in real time complex events against dynamic feeds of millions of data streams generating hundreds of thousands of events per seconds.

4.2: Scalable Data Analytics

Impact

- Visualization systems enabling exploratory analysis and manipulation without any perceptible delay on data resources containing billions of items.

- Enabling European suppliers to reach by 2020 a share of the Big Data market compatible with the size of our economy (30% of world market).

4.2 a): Scalable Algorithms, Software Frameworks, Visualisation (IP, STREP)

Novel algorithms, software infrastructures and methodologies

- for real time interaction, visualization, analytics and decision support applications
- over extremely large volumes of data

Structured or unstructured data with very high growth rates, especially stream data

Non-traditional, robust database and storage solutions, data integrity protection tools

4.2 a): Scalable Algorithms, Software Frameworks, Visualisation (IP, STREP)

Recommendations

- Highlight the challenge(s) in terms of data

- Point out the availability of extremely large and realistically complex data sets and/or streams from day 0

- Describe sample of subjects for human factors testing (usability and effectiveness)

- Test the solution in a realistic environment of professional organisations with a clear stake in the solution and a clear path to deploying it, if effective

4.2 b): Big Data Networking and Hardware Optimisations Roadmap (CSA)

- Develop vision for future H2020 activities on the design of processing or networking hardware for optimising the performance of big data analytics

- Bring hardware and networking experts together with designers of algorithms and software frameworks and Big Data practitioners (interdisciplinary)

- The roadmap will chart advances in
  - scalability and run-time performance
  - energy efficiency and sound methods
  - optimising capital versus operating costs of Big Data operations

4.2 b): Big Data Networking and Hardware Optimisations Roadmap (CSA)

Recommendations

- Interdisciplinary, involve different communities:
  - Big data R&D community
  - Hardware & networking experts

- Empirical basis

- Involve EU industrial leaders

- Strategic roadmap

4.2 c): Societal Externalities of Big Data Roadmap (CSA)

- Social, legal, economic and technical study of externalities in the (re)use and linking of data to design a European data environment capable of amplifying positive externalities and minimize negative externalities

- Negative externalities: (not limited to) privacy risks

- Positive externalities: (not limited to) economic and legal models for efficient data markets

4.2 c): Societal Externalities of Big Data Roadmap (CSA)

Recommendations

Interdisciplinary: involve different communities, e.g.

- sociologists
- lawyers
- statisticians
- economists
- computer scientists
- ...

Address positive **and** negative externalities

4.2: Scalable Data Analytics

References

WP 2013, Annexes

See links on

https://ec.europa.eu/research/participants/portal/page/cooperation?callIdentifier=FP7-ICT-2013-11

Call-specific eligibiligy & evaluation criteria

See WP 2013 p.123-126

General eligbility & evaluation criteria

See WP 2013 Annex 2

Minimum number of participants

See WP 2013 Appendix 1

Additional Information

Technical background document:
http://cordis.europa.eu/info-management

Pre-proposal service:
Form at
https://ec.europa.eu/research/participants/portal/page/cooperation?callIdentifier=FP7-ICT-2013-11

Send to **CNECT-G3@ec.europa.eu**

Come and visit us in objective booth 4.2 in Hall 1