

DEEP project presentation

Brief project overview

Event
Location
January 17, 2018

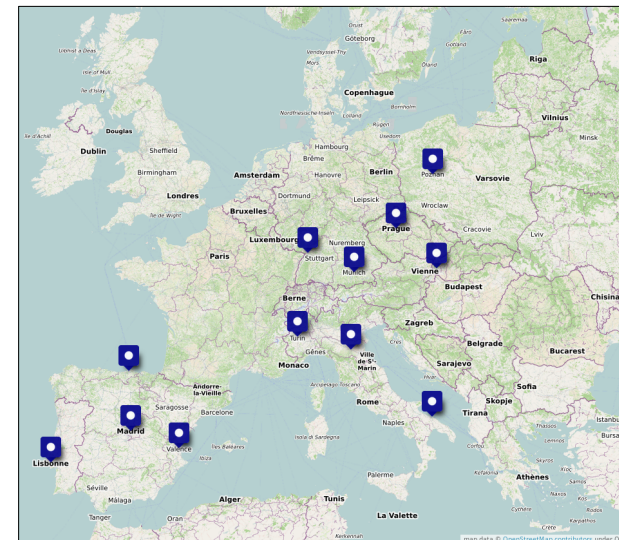
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- **Designing and Enabling E-Infrastructures for intensive data Processing in a Hybrid DataCloud**
- H2020 project, EINFRA-21 call
 - Platform-driven e-Infrastructure towards the European Open Science Cloud
 - Grant agreement number 777435
 - Started November 1st 2017
- **Global objective:** Promote the use of **intensive computing services** by different research communities and areas, an the support by the corresponding e-Infrastructure providers and open source projects

DEEP Partners

- 9 academic partners
 - CSIC, LIP, INFN, PSNC, KIT, UPV, CESNET, IISAS, HMGU
- 1 industrial partner
 - Atos
- 6 countries
 - Spain, Italy, Poland, Germany, Czech Republic, Slovakia



- **Focus on intensive computing techniques** for the analysis of **very large datasets** considering demanding use cases
 - Pilot applications from different research communities
 - Three techniques of wide interest: deep learning, post processing and on-line analysis of data streams
 - Improved list of requirements for e-Infrastructures → future generation
- **Evolve** up to production level **intensive computing services** exploiting **specialized hardware**
 - New solutions to better interact with bare metal resources in the cloud
 - Use of hardware accelerators such as GPUs and low-latency interconnects
- **Integrate** intensive computing services under a **hybrid cloud** approach
 - Assuring interoperability with existing EOSC
 - Expanding over multiple IaaS using high level networking technologies
 - Enrich orchestration tools for supporting multiple services and providers
- **Define** a “**DEEP as a Service**” solution to offer an adequate integration path to developers of final applications
 - Implement a **catalog** of the most useful services and applications as **well defined building blocks**
 - Offer a **DevOps approach** for the application development
- **Analyse the complementarity with other ongoing projects** targeting added value services for the cloud
 - In particular those related to the management of extremely large datasets
 - Explore different e-Infrastructures and complementary services
 - Identification, integration and/or co-development of missing functionalities

Thank you
Any Questions?



<https://deep-hybrid-datacloud.eu>



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