

**The EOSCpilot Science
Demonstrators as a
demonstration of the EOSC in
practice**



What is the EOSC

- Initiative promoted by the EC
- Federated access to services facilitating daily research
- EOSC pillars:
 - 2 HLEG
 - EOSC Declaration
 - EOSC implementation roadmap
 - EOSC portal (launch Nov 23)



What is the EOSCpilot project

- 2 year-project: 2017-2018
- Mission: setting the basis of the EOSC
- 48 partners + 15 Science Demonstrators
- Pilot discussion on Governance, Policies, Interoperability, Services, Architecture, Skills, Science Demonstrators



What are the Science Demonstrators

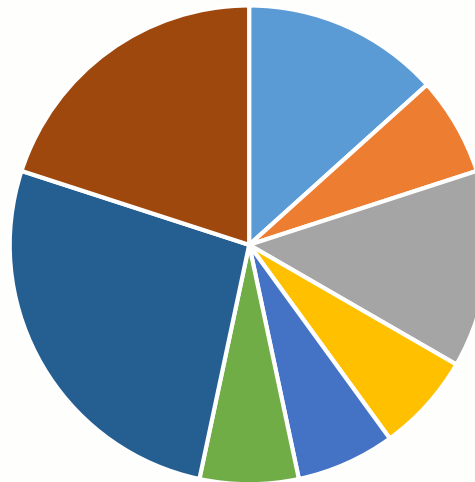
- Science demonstrators are pilots in the pilot
- They cover different research disciplines
- They are proposed by already existing and well establish research communities
- They make use of the public services provided by the project partners (e.g. Indigo DataCloud, EGI, EUDAT)
- They aim at testing the potential of the EOSC with REAL science use cases



What are the Scientific Demonstrators

15 Science Demonstrators funded in 2-year project in three waves

Distribution among disciplines



- Social Sciences and Humanities
- Generic Technology
- Physical Sciences/Astronomy
- Physics/Material Science
- High Energy Physics
- Energy Research
- Life Sciences and Health Research
- Environmental and Earth Sciences



Social Sciences and Humanities



Generic Technology



Physical Sciences / Astronomy



Physics / Materials Science



High Energy Physics



Energy Research



Life Sciences and Health Research



Environmental & Earth Sciences



- Text and archaeological reports
- Issue: textual sources don't have a semantic structure
- Goal: extract information from the textual sources and build a corpus of semantic information
- Challenges:
 - Could infrastructures usability to be improved
 - Support a modular approach
 - Build the interfaces around end users' needs



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The European Open Science
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www.eoscpilot.eu



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Science Demonstrator

TEXTCROWD

<https://www.youtube.com/watch?v=7ipW0UdeYFo>



In the practice: PROMINENCE

- Energy/fusion

- Issue: HPC capacity and availability

- Goal: distributed HPC cloud for the fusion clusters

- Challenges addressed by the demonstrator:

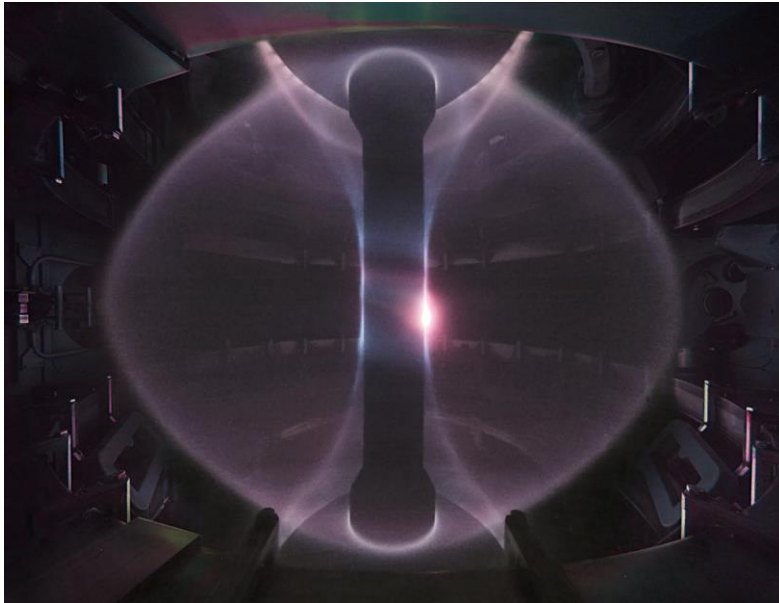
 - Need for a better integration of cloud resources

 - Improve the data upload workflow for users

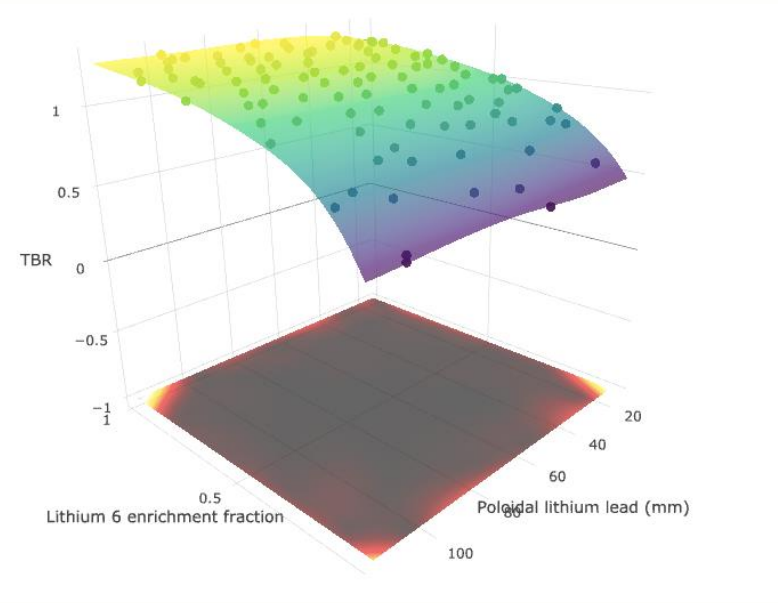
 - Reduce 'time to science'



Fusion images



Tokamak plasma for energy



Real scientific results from
PROMINENCE



- Standardization and interoperability
- Standardized definition and workflows
- Federated Environment and authentication
- Licensing
- Improved usability of cloud infrastructures
- Reusability of components
- Easy solutions



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Join us! Agenda and registration at

<https://www.eoscpilot.eu/events/second-eosc-stakeholders-forum>



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ICT 2018

VIENNA
4-6 DECEMBER

IMAGINE DIGITAL
CONNECT EUROPE



Thanks!*

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*also to Shaun De Witt for revising the presentation

