

UbuntuNet-CONNECT 2016:

EOSC and the Free Riders

Elaborated by:
Margareth Gfrerer & Solomon Mogus, Education Strategy Center Addis
Ababa, Ethiopia

Overview

- Status Quo
- Open Science
- European Open Science Cloud (EOSC)
- Participation in EOSC
- Preliminary Measures to Become a Free Rider
- Importance
- Obstacles
- Overcoming the Obstacles
- Summary

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Status Quo

Research Community

- Science & research communities are closed communities.
- Just invitees allowed to join the 'Club'.
- Exclusion of promising researchers lack of an 'entrance card'.
- Generosity of the Club ends with signed publications and invitations to presentations.
- Discussions, access to databases and insight to methodologies applied is reserved to the elite.

Libraries and Funding Organisations

- Libraries face annual price increases of journals by a static budget.
- Public bodies, which subsidise research have also to pay for permitting other researchers to assess published results.

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Open Science

- Open Science as turning point.
- Stakeholders such as ministries, research funding organisations, universities and public research institutions involve themselves in the definition and implementation of policies and programmes, production and dissemination of scientific results.
- Organisations such as OECD, EU and UNESCO are engaged in defining agreements and setting the ground for open sciences.
- The EU is working on the European Open Science Cloud (EOSC).

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Open Science - Trends

Buzzwords for Transition

- *New modes of scholarly communication*
- *Modern rewards and recognition*
- *Increasing reliance on data experts*
- *Cross-disciplinary collaboration*
- *Fostering transition from science to innovation*
- *A complex eco-system of infrastructure*
- *Machine understanding*
- *Research integrity*

Buzzwords for Open Science

- *Integrity*
- *Inclusion*
- *Interconnectivity*
- *FAIR data and service (Findable, Accessible, Interoperable, Reusable)*

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European Open Science Cloud (EOSC)

The High Level Expert Group (HLEG) first defined the EOSC as

a supporting environment for Open Science and not an ‘Open Cloud’ for science.

The EOSC aims:

“to accelerate the transition to more effective Open Science and Open Innovation in a Digital Single Market by removing the technical, legislative and human barriers to the re-use of research data and tools, and by supporting access to services, systems and the flow of data across disciplinary, social and geographical borders.”

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Research Question

What is the advantage for a research community from an emerging country to get into a free rider position in the EOSC?

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Participation in EOSC

Governance Recommendation

- G1. Aim at the lightest possible, internationally effective governance
- G2. Guidance only where guidance is due
- G3. Define Rules of Engagement for service provision in the EOSC
- G4. Federate the Gems (and Amplify Good Practice).

Policy Recommendation

- P1. Take immediate, affirmative action on the EOSC in close concert with Member States
- P2. Close discussion about the perceived need
- P3. Build on existing capacity and expertise where possible
- P4. Frame the EOSC as the EU contribution to an Internet of FAIR Data and Services underpinned with open protocols

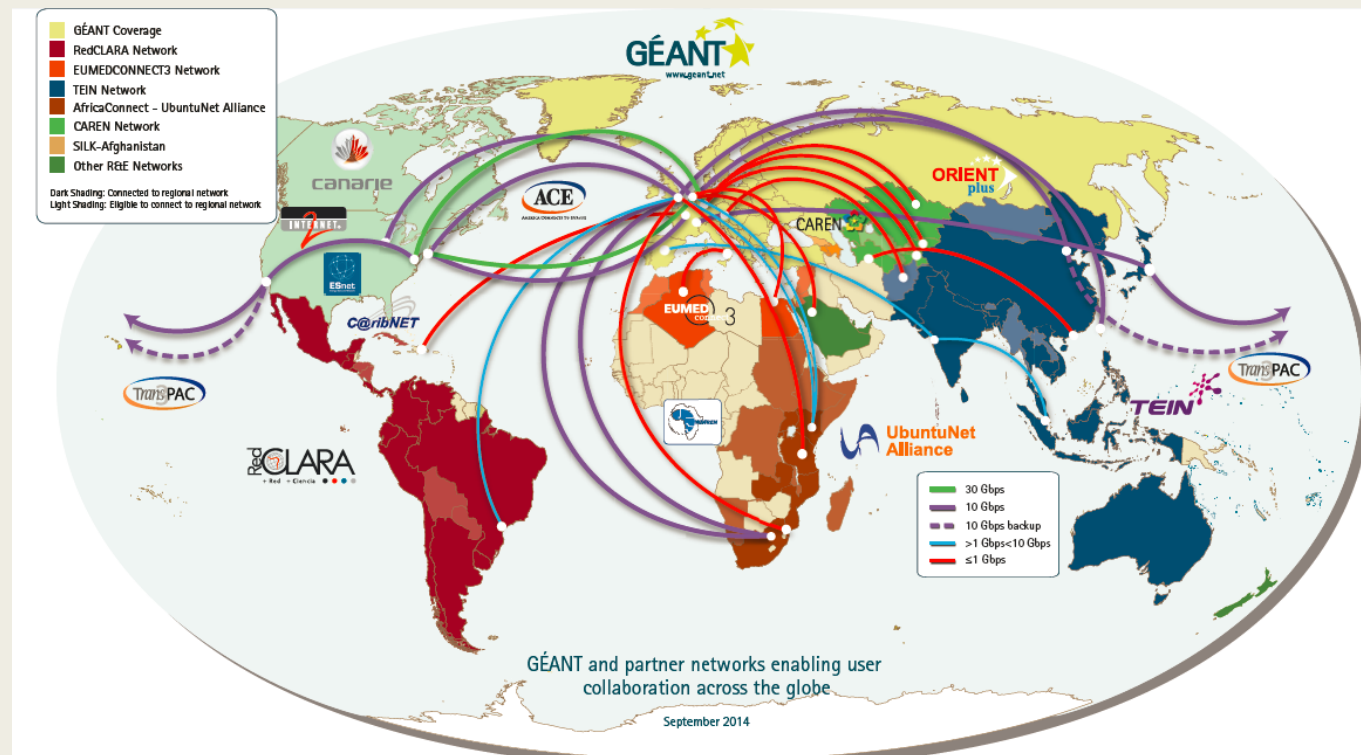
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Preliminary Measures to Become a Free Rider

- *Education and Research Network* as National Research and Education Network (NREN)
- NREN as member of the Regional Research and Education Network such as *UbuntuNet Alliance, WACREN or ASREN*.
- Connectivity to *GEANT the pan-European research and education network* that interconnects Europe's National Research and Education Networks (NRENs) with research and education communities in further 65 countries outside Europe.

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Preliminary Measures to Become a Free Rider



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Preliminary Measures to Become a Free Rider

- *The e-infrastructure is at the state-of-the-art.*
- *Promotion strategy:*
 - Information to researchers and lecturers about the applicability of Open Science, the access to EOSC and the potentials to cooperate with NRENs and GEANT.
 - University administrations take their responsibility to promote the access to the high speed internet for research/study/teaching purposes.
 - The triangle of the individual NREN, national Higher Education Facilitator and University present the frame that individual academics and students could participate in the EOSC.

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Importance

- Commitment to the understanding that research is important for the development of discipline and the update of the lecture content.
- Understanding that economic growth and nation's development depend on education and innovation. Universities and politics work together to set the framework for a smooth development.
- Implementation of multi-disciplinary research teams: Positions of data experts/analysts as link between EOSC, IT-experts of the NREN and the researcher

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Obstacles

- Three-folded risks (human resource, time & money) that the provided means to participate in the EOSC community won't be taken.
- Practice (client) oriented universities.
- Leadership: senior researchers and research assistants are not teamed up.
- Lack of pro-active communication of national researchers towards the international research community
- Lack of confidence to approach international research communities.

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Overcoming the Obstacles

=> Developing a global Research Culture

Institutional Level

- Human Resource: Recruiting of Skills and Knowledge, mentoring, training
- Access: Facilities, EOSC
- Time & money
- Leadership
- Initiation of international cooperation and research talks

Personal

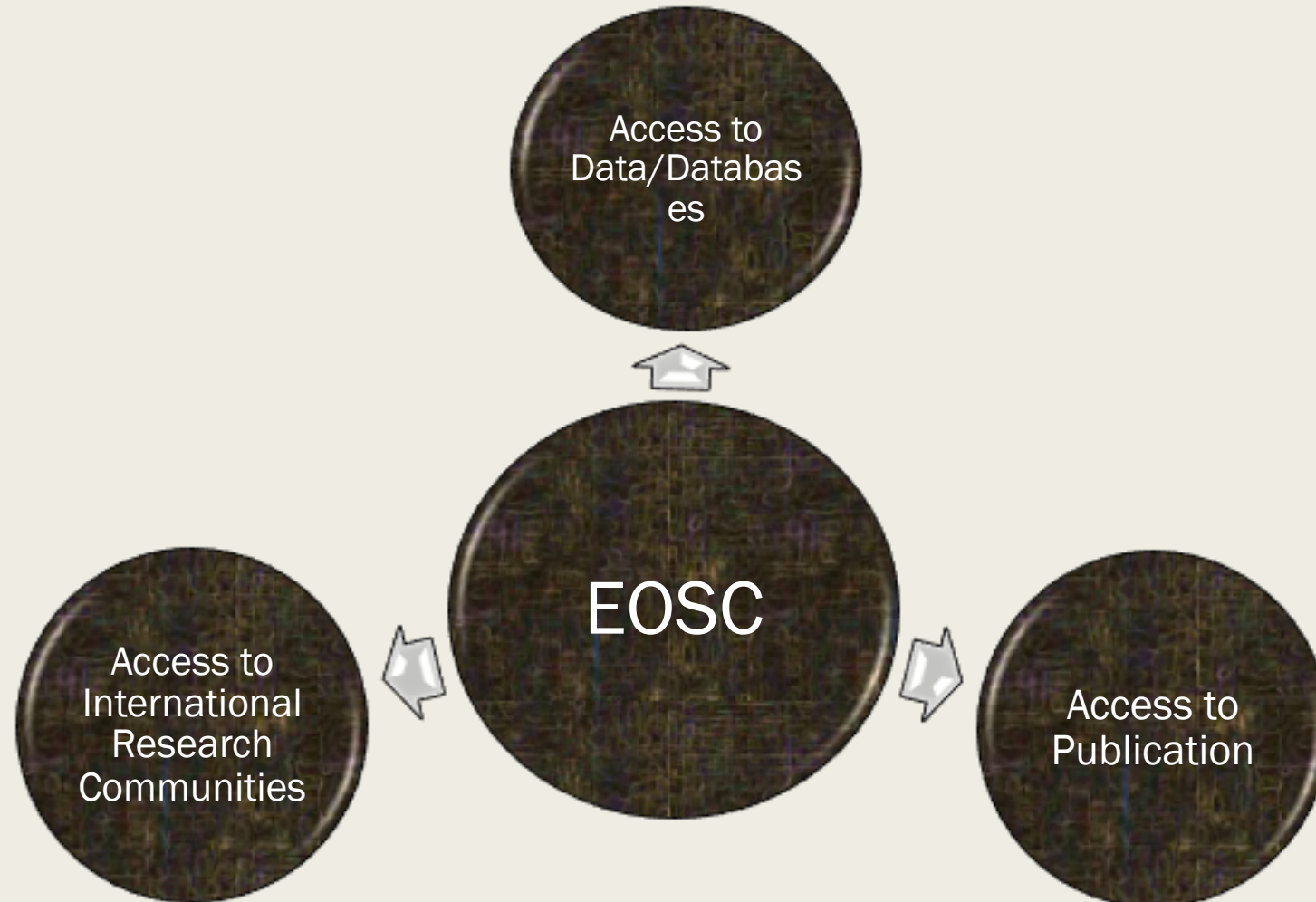
- Behaviour in research
- Ready individual
- Engagement in research
- Self-confidence of researchers and research teams

Research Communities

- Setting up research communities
- Communication and sharing ideas
- Research teams at virtual level
- Mentoring within virtual teams
- Call for research collaboration
- Offering IT-services like Cloud sharing

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Summary: The **Free Rider** Position



Contact details:

margareth.gfrerer@cimonline.de