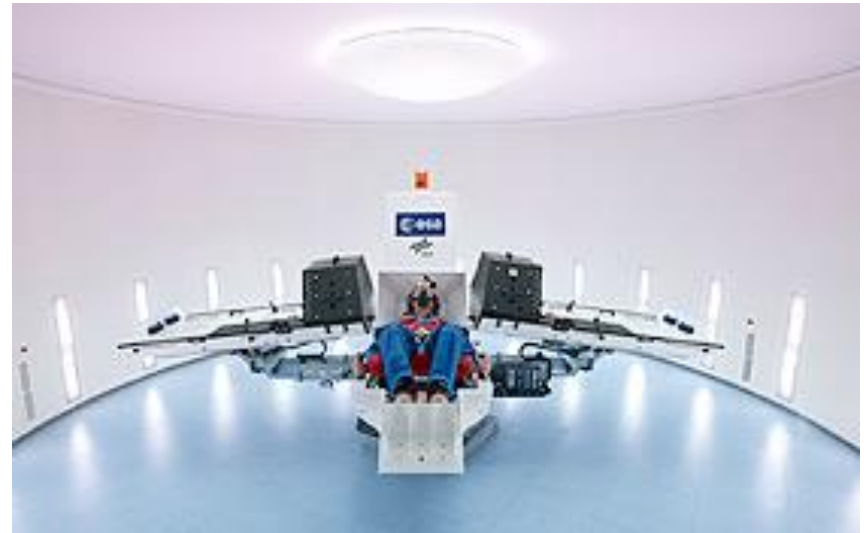


Research Potentials in the NREN Domain

Rainer Herpers
Bonn-Rhein-Sieg University of Applied Sciences

- ▶ Historic review and motivation
- ▶ Status quo of digital services
- ▶ Sample research questions
- ▶ Intermediate conclusions
- ▶ Open Source Software
- ▶ Final conclusions



- ▶ Literacy
Language, ICT and Culture
(HE Talal Abu Ghazaleh)
- ▶ International Cooperation in an Era of Information Explosion
(Stéphanie Truillé-Baurens, EC)
- ▶ Develop new services quickly,
enable collaborations
(Yousif Asfour, AUB)
- ▶ Development from „service provider“ to „service
brokers“
(unknown)

- ▶ Globalisation, increasing competition (also for HEI), we (researchers/educators) are not as good as business people (providing digital services), change of the NREN business model, we need to approach more the end users, (Steve Cotter, GEANT)
(Opportunities and Challenges of NREN)
- ▶ General conclusions:
Changes/development processes in the R&E community(ies)

-
- ▶ What are the consequences?
 - ▶ What kind of changes/development processes?
 - ▶ Who are the „end users“, „service users“?
 - ▶ What kind of IT services?
 - ▶ Who are the target groups in general?
 - ▶ What are the prerequisites?
 - ▶ What are the challenges / opportunities?
 - ▶ What role does open source software play within this context?
 - ▶ Whom do we need to involve (to move forward)?

- ▶ Mobile communication / public transportation
 - ▶ everywhere
 - ▶ at every time
 - ▶ by everybody
- ▶ Example eduroam
- ▶ Why just offer this great service just for the R&E community(ies)?
- ▶ Duty to serve the society!

- ▶ It is not just App and game development
- ▶ E-government, e-community services, etc.

- ▶ Get out of your ivory tower!
- ▶ Develop IT-services for the entire society?
 - ▶ Which communities (first)?
 - ▶ Which services?
 - ▶ Developers, Scientists, Business, entire Society
- ▶ **For free!?**
(not necessarily)

Sample Research Questions

(go back to the talk analysis slide)

- ▶ How to identify the most important and requested community services?
- ▶ How to focus on which sub-community?
- ▶ How to role out community services?

More or less non technical questions!

- ▶ Data science
 - ▶ Compression
 - ▶ Representation (and others)

Still some technical questions left.

Twofold

- ▶ Social component
 - ▶ Open up the IT/Digital services at your HEI or REI institutions to „non academic communities“
 - ▶ Expand and extend your outreach (stepwise)
- ▶ Scientific component
 - ▶ Research on data sciences and social sciences
 - ▶ Data engineering

You all are invited to contribute!

-
- ▶ Partnership with Enterprises Towards Building **Open Source Software Communities** and Rejuvenation of Technical Education and Innovation (EU-Tempus Project)
 - ▶ Jordan
 - ▶ Lebanon
 - ▶ (Morocco)

Challenges and Motivation

- ▶ Main challenges
 - ▶ High cost of access and adoption
 - ▶ Large spending of software licensing
 - ▶ Lack of awareness in OSS and its potential
 - ▶ Lack of skillful workforce in OSS technology
- ▶ Motivation
 - ▶ Support wider and lower cost adoption of technology resource
 - ▶ Increase diffusion of OSS in key sectors
 - ▶ Create awareness and opportunities for more knowledge and technology innovation
 - ▶ Setup business acceleration facilities to support job creation
 - ▶ Build technology hubs for increased diffusion

Main goal:
Building links
between HEIs and
private sector
towards a wider
spread of OSS

Building links
between HEIs and
the private sector

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Developing Technical
and Educational
Resources

Main goal:
Building links
between HEIs and
private sector
towards a wider
spread of OSS

Objectives

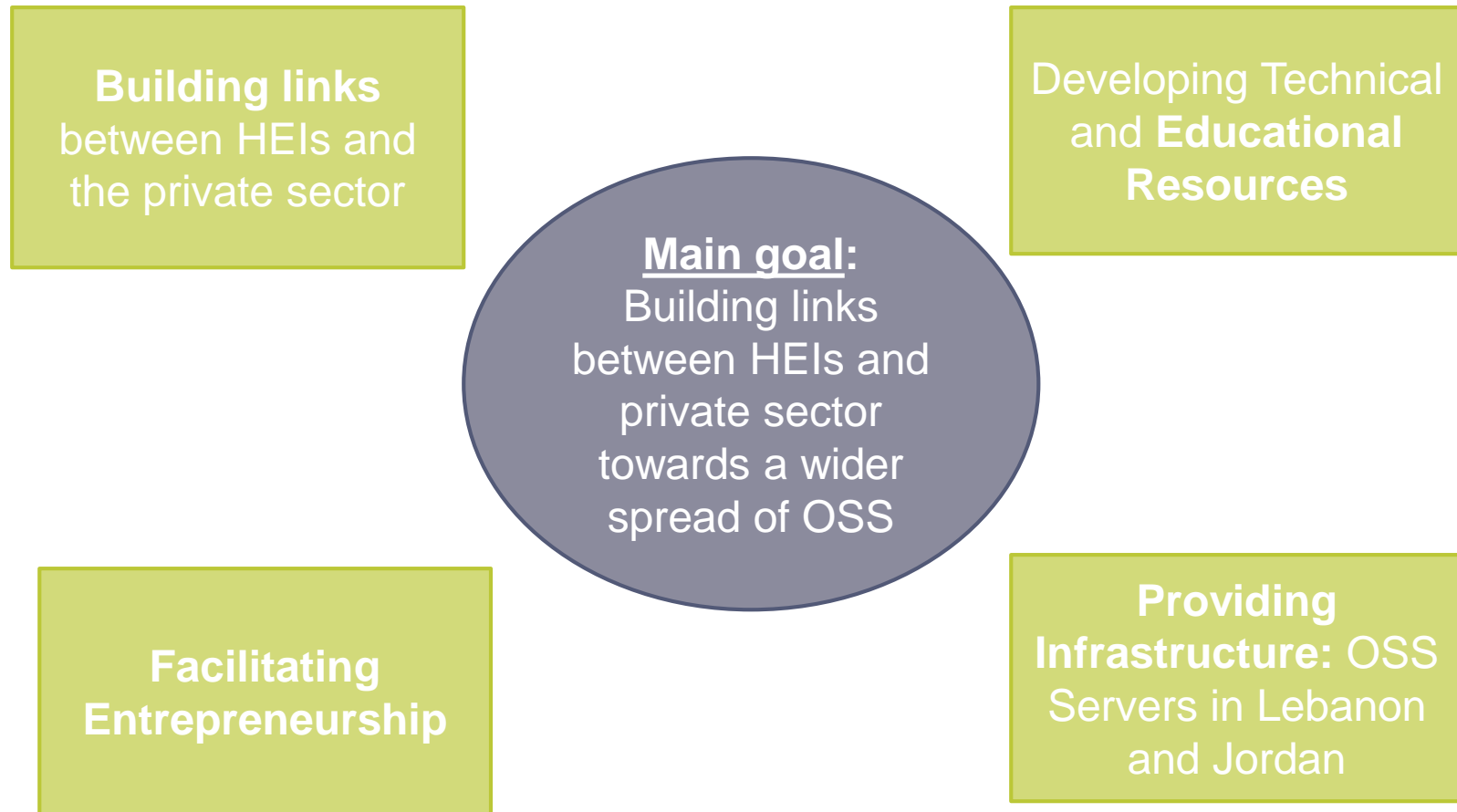
Building links
between HEIs and
the private sector

Developing Technical
and Educational
Resources

Main goal:
Building links
between HEIs and
private sector
towards a wider
spread of OSS

Providing
Infrastructure: OSS
Servers in Lebanon
and Jordan

Objectives



Partner country institutions



Jordan:

German Jordanian
University

Yarmouk University

Talal Abu-Ghazaleh
Information Technology
International

Lebanon:

The Lebanese University

Notre Dame University

Information Management
Ltd.

European institutions

Germany:
Bonn-Rhein-Sieg University
of Applied Sciences in
Sankt Augustin
tarent AG in Bonn

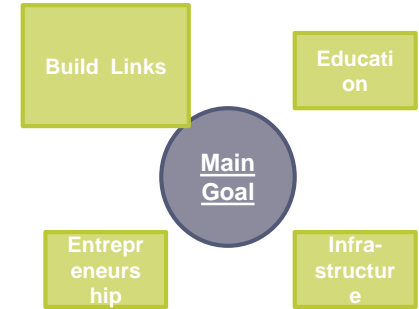
UK:
Brunel University in
Uxbridge/London

Spain:
University of Castilla-La
Mancha in Albacete



Activities

Building Links between Higher Education Institutions and the Private Sector:

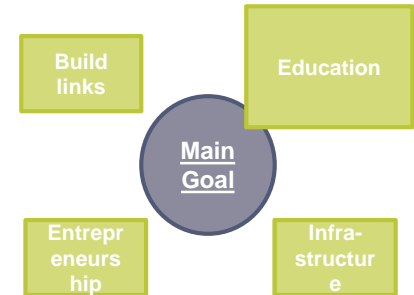


- Liaison Offices at HEIs
- University-Enterprise Partnership Model
- Capstone Projects

Activities

Developing Technical and Educational Resources:

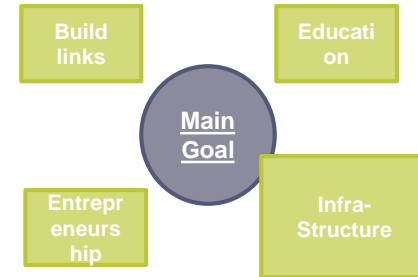
- Staff exchange / Capacity Building
- Revision of Curricula
- Online-Inventory of Learning Resources
- Executive Professional Diploma Program



Activities

Establishing OSS Technology Centers

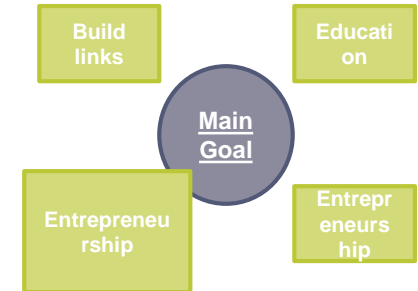
- Blueprint
- Procure and Install Hardware
- Training and Technology Workshops



Activities

Promotion of Entrepreneurship at HEIs:

- Technology Parks
- Model of Incubator and Business Accelerator
- Workshops and Training
- Sample Start-up / Spin-off



Bonn-Rhein-Sieg University of Applied Sciences:
Business Campus in Sankt Augustin

- ▶ **O**pportunity **P**latform towards transformative higher **E**ducation and innovative research **N**etwork
- ▶ German-Arab University Partnership of Moroccan partners and German HEI (to be funded by the DAAD)
 - ▶ University Mohammed V in Rabat (UM5A)
 - ▶ Cadi Ayyad University, National School of Applied Sciences in Marrakesh (ENSA)
 - ▶ National Centre for Scientific Research (CNRST)
 - ▶ Arab State Research and Education Network (ASREN)
 - ▶ Bonn-Rhein-Sieg University of Applied Sciences (BRSU), Germany (grant holder)
- ▶ Learning opportunities (by exchange and mobility)
- ▶ 2016-2017

- ▶ Raising awareness for OSS/FOSS
- ▶ Promote a new culture of sharing, “invest in new openness”
- ▶ All people are targetted and should be involved!
- ▶ Research communities still play an important role
- ▶ Education and training have to be guided to OSS/
new culture of sharing/ IT-services as commons
- ▶ Convince policy markers and government
representatives

Thank you for your attention!

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Tempus

