

Panlab Infrastructure Implementation

FIRE and Living Labs

Luleå, 1 July 2009

Value proposition

- ▶ **Suppose that you are a testbed owner and operator** and you have spent a lot of resources to develop, operate and maintain a world class testbed
- ▶ You use it for your own projects – but you do not use it all the time. So **why don't offer it to your fellow researchers and developers?**
- ▶ Tell Panlab what you can offer, under which conditions and when is it available. Panlab will store this information in its database – the **Teagle** tool
- ▶ Panlab can help you to find the customers for your experimental facility.
- ▶ Increase utilisation of your testbed – and compensate for the investments you made in building the testbed

Value proposition

- ▶ **Suppose that you are an application developer** and you create innovative applications for the Future Internet
- ▶ You need to test your applications before you give it to your customers
- ▶ But testing environment is expensive – you cannot afford to own and operate one
- ▶ Then Panlab has a solution for you. It operates a database of testbeds and capabilities called **Teagle**. You can use Teagle to configure the testbed and deploy your application
- ▶ If you also need friendly users, ...

Collaboration

- ▶ It is a win-win-win situation for the
 - testbed customer,
 - testbed owner/operator and
 - testbed broker (the Teagle)
- ▶ Open to all collaborations that adhere to the principles for building Federated, Open, and Trusted research and experimentation environments



Current FIRE scope

- Facilities for experimentation and testing
 - Networking research – This is the main focus area of existing experimental and testing facilities. For example new protocols, new management schemes and new networking architectures can be deployed on existing facilities.
 - Service support research – This is an emerging capability of current offerings of the experimental and testing facilities. Ongoing work is providing flexible means to combine existing experimental networks with service provisioning and delivery platforms. Future general purpose service environments can equally be supported as cloud computing infrastructures.



Current FIRE scope

- Experimentally driven research
 - This area provides research methodologies to support future research. As a rule future work should more strictly require experimental evidence and prototyping. Prototyping should come at the early stage of any project and should be used to foster collaboration between projects where applicable.
- User centred research
 - This area can be supported through a tighter collaboration with the existing Living Labs to facilitate interdisciplinary research covering at least technical, usability and societal aspects.



PPP Future Internet Initiative

- Federated, Open and Trusted platforms for the Future Internet by nature cut across all levels from network connectivity to high level services and user involvement
- Experimentation is key to discovery and validation throughout the research process
 - Component level, interworking, system level, ...
 - Diversity, scalability, performance, ...
 - Inter-disciplinary



PPP Future Internet Initiative

- Starting from the offering of the prototypes, FIRE facility matures and evolves
 - to become more customer-friendly, e.g. through an intelligent portal, brokering support, one-stop shopping across facilities, provisioning of measurement tools
 - to go beyond the support of horizontal testing on one level towards vertical system-level testing from connectivity to service delivery platform level
 - to provide stable and sustainable services for the FI research community at large
 - to allow for experimentation in a socio-economic context with broad end-user involvement