

Shaping the Future Networked Society

The Future Internet Conference: perspectives emerging from research and development in Europe

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We are heading inevitably towards the networked society. It is important that different actors, including citizens, participate in making its achievement successful and desirable. The European Union has identified this opportunity and has already committed hundreds of millions of research and development (R&D) funding through different instruments to enable the development of the future Internet. Among the new projects funded by the EU is EIFFEL (Evolved Future Internet for European Leadership), which aims to facilitate a high-level think tank and encourage a collaborative R&D approach amongst European stakeholders from industry, public institutions, and academia towards the future networked society. The Slovenian partner of EIFFEL, the Laboratory for Open Systems and Networks of the Jožef Stefan Institute, organised the Future Internet Conference in Bled, 31 March to 2 April.

Today's Internet was never designed to be a critical part of the worldwide economic infrastructure and an integral part of our society, but it has become exactly that. The future Internet must not be seen as a mere technical entity, but as an enabler of the future networked society. This leads to the logical conclusion that new research initiatives and approaches are needed to cover all aspects and that more interdisciplinary research is required in this domain.

It is of key importance in Europe to achieve a balanced research agenda towards the future networked society. There is a clear need to further support evolutionary, applied engineering research, based on present industry projections towards the future. But this will not be enough to ensure that Europe grasps the great opportunities offered by the future Internet. The evolutionary path has to be comple-



mented by a portfolio of radical exploratory research activities that will push beyond the limits of existing ideas, architectures and technologies. This leading edge work was the focus of the conference and the technical meeting of 65 projects from the area that were selected in the first call for the EU Seventh Framework Programme (FP7). The 350 experts who attended discussed the following areas:

- networking (wireless, fibre, the Internet network);
- software and services (SOAs, the Internet of services);
- content creation and distribution (the 3D Internet);
- enterprise (the Internet of objects).

With the aim of searching out the potential sources of talent within Europe for its leadership, other issues that were discussed during the conference were:

- international co-operation and issues (EU strategy, policy);
- relationships with programmes in China, Japan, Korea, Latin America, the USA;
- standardisation (where, why, what ...) requirements;
- network architecture, wireless, service, test beds, policy;
- the common research agenda.

At the end of the first day of the programme, the European Assembly on Future Internet R&D projects was set as a vehicle that permits open interaction and cross-fertilisation. It also enables sharing of information presented in

project workshops and conferences, to minimise duplication and prevent fragmentation.

The Assembly adopted the “Bled Declaration” which was signed by participants in 65 FP7 projects. The declaration defines the European route to development of the future Internet and requests that the EU Member States strengthen and co-ordinate their national R&D efforts and initiatives towards the future Internet. The European Commission is asked to stress the vision and amplify the related R&D in order to drive Europe ahead of tomorrow’s Internet transformations in the way we work, live and interact. Both the Member States and the European Commission are called on to support the creation and activities of the European Future Internet Assembly established at the Bled conference.



Joao da Silva, European Commission: “I have rarely seen a conference so well organised, to the extent that no one noticed that there was an organisation.”



John Domingue, Open University, Netherlands: “These were the three best days of my life.”

The role of EIFFEL within these activities is to ensure that there is enough interaction between the community undertaking exploratory, fundamental research and those involved in more engineering-based approaches, including the possibility that interdisciplinary approaches are considered and debated outside of the limits of narrow technical projects. The EIFFEL project, through the Bled Future Internet Conference and other meetings, is establishing a pan-European discussion platform and an international technical think tank leading discussions on the future of the Internet, particularly on



network architecture and governance issues. Although EIFFEL accesses European expertise, it is uniquely an international, peer-recognition-based think tank, which is embracing experts from around the world. Technical experts explore and debate areas relevant to the shaping of the future networked society, study the fundamental challenges of improving Internet architecture and related technologies, and develop a vision for the future networked society. Cross-fertilisation of scientific investigations targeted at deployable Internet design principles will catalyse, through debates, the adoption of white papers and common roadmaps. This approach and the results from the R&D work of the projects that have signed the Bled Declaration will lead to the transformation of the current Internet towards the future networked society.

There are many questions on how the Internet will develop in the future. What has been clearly identified is that the Internet must progress and that the rate of progress must be revolutionary. Once we determine what kinds of transformations are required, we may start working on how to migrate from today's Internet to the predicted future Internet, or the future networked society.

As a major part of European efforts, the Future Internet conference, the Bled Declaration and the EIFFEL project will build the vision of the future networked society in the 2025 timeframe, as well as an outline of the technical areas of importance for realising it. The Future Internet Assembly is building bridges across disciplines and between different communities to establish the European voice in exploratory research in this field, eventually aiming at constituting the European



Minister Dr Žiga Turk is addressing the conference.

arm of any international activity. With this milestone, the conference, the assembly and the Bled Declaration, Europe has the opportunity to make a major contribution towards the future Internet and set the stage for the future networked society.

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Further information is available on the conference: www.fi-bled.eu, the portal: www.future-internet.eu and the EIFFEL project website at www.fp7-eiffel.eu

