

# Future Internet Forum



IN ASSOCIATION WITH ceFIMS FP7 COORDINATION ACTION

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## From ceFIMS ...

Once again, we would like to welcome you to the ceFIMS newsletter. With ceFIMS finishing in June of this year, this will be the final newsletter. We hope we have contributed to the coordination of FI research in Europe and we would like to thank all of you who have supported our work since September 2010.

Having the FIA event in Dublin will be an excellent close to the

efforts of the ceFIMS group which will have been working on their support role for almost 3 years. This is the tenth FIA event and we have seen many changes over this time in the Future Internet and FI research in general since the first FIA in Bled in 2008

In this issue we look at an interesting range of projects, conferences and news from the FI world around Europe.

As always, please remember to submit information on projects and funding schemes from around Europe to the

ceFIMS database. We hope to leave this database in a very useful and usable state for the end of the project. The database is available at <http://www.cefims.eu/databases/> and tracks all information on Future Internet Research around Europe. Please send any updated information to Kevin Quinn at [kquinn@tssg.org](mailto:kquinn@tssg.org).

Thanks

*Willie Donnelly*

**Dr Willie Donnelly,**  
ceFIMS Project Coordinator

## Latest news ...

### New Year

2013 brings many changes to the world of European research. As the FP7 winds down, we look forward to the new opportunities for Future Internet Research that will be provided by Horizon 2020.

The Future Internet Assembly is also back with an upcoming meeting in Dublin, May 8-10. A Future Internet Forum meeting is also planned during this event, as is a workshop from

ceFIMS project (Coordination of the European Future Internet Forum of Member States).

More information on the FIA in Dublin is available at [www.fi-dublin.eu](http://www.fi-dublin.eu)

### FUNEMS2013

The Future Network & Mobile Summit 2013 will take place in Lisbon on July 3-5. Calls for Exhibitors are now open at <http://www.futurenetworksummit.eu/2013/default.asp?page=exhibinfo>

Registration is available at <http://www.futurenetworksummit.eu/2013/default.asp?page=registration>

### FI Award

The final Future Internet award from the ceFIMS project will be announced at the FIA in May. Applications should show excellence in innovation and economic impact from a research project with, preferable real exploitation with benefits for smaller companies. To nominate your project please visit [www.cefims.eu/fiaward](http://www.cefims.eu/fiaward)

# The Fifth FI Award is Now Open!



The Call for the Fifth Future Internet Award is Now Open!

Applications are now being accepted for the fifth FI Award. The details of the award are given below. The winner will be announced at the end of the 10th Future Internet Assembly to be held in Dublin in May 8-10.

The winning FI initiative will be able to use the award for promotional purposes. The award will be a crystal glass vase with the inscription Future Internet Award 2013 and the location where the presentation was made.



Applications for projects and their results to be considered for the award can be made by following the link at [www.cefims.eu/fiaward/](http://www.cefims.eu/fiaward/)

The Future Internet Award recognises excellence in innovation, translating research to economic impact, i.e., real exploitation, including from start-ups, building upon results from Future Internet projects that deliver systems or solutions that are commercially used/deployed.

The winning entry will be announced at the closing ceremony of the Future Internet Assembly Dublin, May 10. This ceremony is attended by renowned industry and academic experts, high-level members of the European Commission, and members of the local and international press. Travel and related costs to attend the ceremony will be at the charge of the winning entry representatives.

Proposals to be submitted by March 31.

The Future Internet Award recognises excellence in innovation among Future Internet projects and initiatives from across Europe. The winner receives a specially engraved Waterford crystal vase, as well as the opportunity to promote their work to a Europe-wide audience of industry, academic and public agency bodies.

The winning entry is announced at the closing ceremony of Future Internet Assembly events. This ceremony is attended by renowned industry and academic experts, high-level members of the European Commission, and members of the local and international press.

Travel and related costs will be paid for the winning entry representative to attend the ceremony.

10TH EDITION

# FUTURE INTERNET ASSEMBLY DUBLIN | 2013



8TH-10TH

MAY 2013

DUBLIN

REGISTER AT

[www.fi-dublin.eu](http://www.fi-dublin.eu)

Registration Fees: Online registration for FIA Dublin 2013 available at [www.fi-dublin.eu](http://www.fi-dublin.eu)

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## Dublin Future Internet Assembly, 8-10 May, Dublin

We are pleased to announce that registration for The Future Internet Assembly 2013 to be held in Dublin from 8th - 10th May in association with the Irish presidency of the council of EU is now open.

With over a billion users worldwide, the current Internet is a resounding success. Yet, today's Internet was designed in the 1970s for purposes that bear little resemblance to current and foreseen usage scenarios to sustain the networked society of tomorrow.

One of the key aims of the Future Internet Assembly is tasked with examining how we develop a sustainable society for Europe. The FIA brings together on the one hand thought leaders to highlight the challenges and opportunities of the Internet, while on the other hand conference exhibitors try to provide technical solutions to problems posed by customers of the future through potential new products and services.

The theme for this event is “Future Internet accelerates Innovation”, and will focus on how European Future Internet research and innovation will support EU’s competitiveness and enable a new wave of technologies at the eve of Horizon 2020.

As we embark on a new phase in the development of the Internet as a critical infrastructure, we recognise its importance in shaping society; driving economic, cultural and social development and most importantly the role it will play in Europe's economic development in the future. This event also provides the opportunity for industry partners to engage with and increase visibility with European decision makers and key influencers within the project and to promote their leadership in this area.

We look forward to a very successful hosting of Future Internet Assembly, Dublin 2013.

Website: [www.fi-dublin.eu](http://www.fi-dublin.eu)



The Connected Vitality Consortium, consisting of 7 European partners, develops technological solutions that enable elderly persons to have meaningful relationships with others, without having to leave the house. Since a growing number of elderly people are living in social isolation. The Internet of the Future gives the possibility for giving an answer to this problem.

The project runs from 2010 to 2013 in Sweden, the Netherlands, Hungary, Cyprus, Spain and Austria, and is funded by the European Ambient Assisted Living Joint Program combined with national funding to enable elderly people to be more self-supporting and support the upcoming demographic changes.

One of the strength of the project and the work is the dispersion of the partners. There are only three technical partners. One of Hungary, the Healthcare Centre of the Budapest and Economics (BME EMT). partners are working to make satisfied. They are organising presentations and reviews. This base of the system services and features.

**Connected  
Vitality's aim is to  
create the  
reconnection tool  
for tomorrow**

them is the team from Technologies Knowledge University of Technology All of the non-technical the results good and users workshops, giving information can create the

A new 'presence' interface, called YoooM, was successfully created at PresenceDisplays (project coordinator, Netherlands). YoooM means: you-and-me, and together we can create worlds like a care world, a family world, a card play club etc. On the YoooM device the consortium developed some useful services for elderly people. All of these are based on the telepresence idea, which became reachable by the new features of the internet evolution.

Another strength of the CVN solution is the designed and developed communication format, where you can feel and see each other with the family, relatives or friends. The grandparents can teach their grandchildren, family and friends, with the feeling of the real contact between the teacher and student.

One of the hardest challenges was to develop a previously unavailable joint browsing tool. The engineers of BME EMT had to start over and create much of the new functionality. The field tests and the reviews are still running with several interesting results. The concept of telepresence is providing an internet-based, and very enjoyable solution for isolation.

Website: [www.connectedvitality.eu](http://www.connectedvitality.eu)

Contact: [robbert.smit@presencedisplays.com](mailto:robbert.smit@presencedisplays.com)

# 4th European Summit on the Future Internet



The debate on the further development of the Internet has taken unprecedented momentum world-wide, thanks in particular to the efforts of the European Commission be it in terms of research, rights of users, privacy aspects, governance and the like.

This effort has been sustained by a sequence of annual Summits on the Future Internet, which this year thanks to the partnership between TICE and SnT, will take place in Aveiro, Portugal from 13th to 14th June 2013.

Jointly organised by SnT (University of Luxembourg) and TICE.PT, the 4th EU Summit on the Future Internet, seeks to provide a forum of exchange and discussion for Internet practitioners. Presentations and discussions will focus on some of the most core issues with which the Internet of tomorrow will be confronted. At a time of massive data proliferation, of major economic uncertainty, of growing cyber threats and of rampant deindustrialisation, understanding what Europe should plan in R&D or in terms of policy, becomes vital. By joining us, you will have the opportunity to confront your views with those of the speakers, thereby contributing to inventing the future Internet.

We cordially invite you to take part in this unique event by registering your participation at: [www.av.it.pt/Future\\_Internet\\_European\\_Summit/](http://www.av.it.pt/Future_Internet_European_Summit/)

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## **Keep Up to Date with the Future Internet Forum**

To keep up to date with FIF activities,  
join the “FIF-EU” LinkedIn group.



FUTURE INTERNET RESEARCH COORDINATION CENTER

## **Future Internet Research, Services and Technology (FIRST)**

FIRST is a Hungarian project supported by the EU and co-financed by the European Social Fund. FIRST was launched on 1 October 2012 at the University of Debrecen, Debrecen, Hungary and is planned to run until 31 December 2014. The participants of the Consortium are the University of Debrecen, the Budapest University of Technology and Economics (BME), the National Information Infrastructure Institute (NIIFI), ETIK and the ATOMKI.

The Future Internet means more end points, users and devices; contents accessible anywhere and anytime with built-in safety and high quality expectations for services. The research objective is to face the challenges posed by the FI, covering basic theoretical questions, performance modelling of networks, scaling of network architecture, content management, the problem of the internet of objects, the creation of an intelligent application platform, the development of the training programme and the establishment of a research coordination centre. With this project, efficient, national research cooperation becomes possible, paving the way for the development of the FI topic at universities, allowing practical implementations in universities and enabling researchers to participate in international programmes.

The research topics of the FIRST project are:

1. Theoretical foundation of Future Internet
2. Modelling and Analysis of Future Internet Networks
3. Network architectures and protocols for Future Internet
4. Customisable content management applications
5. Internet of Things
6. Future Internet for Smart City Applications

The Future Internet Research and Coordination Center (FIRCC) launched the Future Internet National Research Programme in Hungary. The FIRCC participants are the University of Debrecen, the Budapest University of Technology and Economics, the Inter-University Centre for Telecommunications and Informatics (ETIK), the National Information Infrastructure Institute, and the Institute for Nuclear Research of the Hungarian Academy of Sciences (MTA).

The basic role and function of the Center is to co-ordinate future Internet research activity in Hungary and to promote the international cooperation in this field. Furthermore it strengthens the participation of Hungarian researchers in EU programmes, like FP7, and Horizon 2020 in the coming years. The FIRCC provides services for the Hungarian institutions to facilitate know-how transfer, establishment of bilateral cooperation and invitation of foreign speakers. The Centre is planning to organise workshops and conferences to demonstrate the results of the Hungarian research activity in the field of Future Internet

Contact: [sztrik.janos@inf.unideb.hu](mailto:sztrik.janos@inf.unideb.hu), [bakonyip@eit.bme.hu](mailto:bakonyip@eit.bme.hu)



## “Shake Up Your City” - The Future Cities Project Kickoff event

Intended as an annual event, the Future Cities Conference aims at joining together stakeholders in the academic community, industry and public policy to discuss the challenges introduced by the world's growing population and rapid urbanisation. With more than 450 registered participants, the first edition of the Future Cities Conference, addressed subjects such as sustainability, mobility, urban planning and other ICT related issues.

The Future Cities Project is a FP7 European project which aims at unlocking the full potential of interdisciplinary research in urban technologies, as well as strengthening knowledge transfer activities in close cooperation with local and global industrial partners. A key goal is to turn the city of Porto (Portugal) into an urban-scale living lab, where researchers, companies and startups can develop and test technologies, products and services, exploring subjects such as: sustainable mobility, urban-scale sensing, safety and privacy, as well as quality of life for citizens and families. The project aims to work in a very inter-disciplinary way, engaging not only engineers and computer scientists, but also psychologists, urban studies specialists, and social scientists.

Future Cities Project's goal is to expand the Center of Competence in Future Cities of the University of Porto, thereby unlocking the full potential of interdisciplinary research in urban technologies, while strengthening knowledge transfer activities in close cooperation with local and global industrial partners.

Future Cities Project is led by the Center of Competence for Future Cities of University of Porto. Created in October of 2012, and headquartered in Faculty of Engineering, the Center of Competence is based on a multidisciplinary concept that brings together researchers from not only Faculty of Engineering, but also Psychology and Sciences as well as from several investigation units such as University of Aveiro, Telecommunications Institute, Carnegie Mellon University (CMU) and the Massachusetts Institute of Technology (MIT).

The Center of Competence for Future Cities is a platform for scientific and technological collaboration in Portugal involving public services, private companies and other institutions aiming to promote the development of investigation and innovation projects, with scientific depth and major impact on society.

Contact: [rrodrigues@fe-up.pt](mailto:rrodrigues@fe-up.pt)

Website: <http://futurecities.up.pt>



## OpenFlow Competition Results

After a very successful competition, the GÉANT OpenFlow team is proud to announce the results of the slice contest which closed on the 22nd of February.

We would like to thank all researchers, teams and organisations that submitted their proposals. We have received very interesting ideas ranging from FI research topics to OpenFlow technology research and development. Proposals have originated from academic research teams, research institutes, corporate facilities of universities/research centres and NRENs.

### **OpenFlow competition winner**

The winner of the contest is the MTA-BME Future Internet Research Group in the Budapest University of Technology and Economics (Department of Telecommunications and Media Informatics). The team has an extensive track record of scientific achievements in the area of Internet architectures and network management.

The proposal focuses on network resiliency research at the transport layer, utilising OpenFlow capabilities to provide edge-disjoint routes on top of a network core. The research aims to eliminate the need for concurrent resiliency mechanisms at the physical, transport and network layer and associated complexities/costs.

Using the GÉANT OpenFlow facility for this research is considered as particularly relevant, since the facility provides a realistic environment to measure resilience mechanisms and convergence times exploiting the OpenFlow capabilities offered.

### **Announcing the runner-up**

The proposal from the eScience research group of GWDG, a corporate facility of the Georg-August University of Göttingen and the Max-Planck-Gesellschaft, is the runner-up for this contest. This focuses on research on OpenFlow itself, proposing testing and evaluation of a specialised SDN controller developed by the group with focus on the use case of inter-data centre federation. A theoretical framework is suggested to confirm performance findings as a result of testing on top of the GÉANT OpenFlow facility.

For more information, please see the original competition page or contact [openflowcompetition@geant.net](mailto:openflowcompetition@geant.net) for more information on the results.



EUROPEAN COMMISSION PRESS RELEASE

## Mobile communications: Fresh €50 million EU research grants in 2013 to develop '5G' technology

European Commission Vice President Neelie Kroes announces €50 million for research to deliver 5G mobile technology by 2020, with the aim to put Europe back in the lead of the global mobile industry. "I want 5G be pioneered by European industry, based on European research and creating jobs in Europe – and we will put our money where our mouth is," Kroes said.

By 2020 worldwide mobile traffic alone will reach a 33 times increase compared to 2010 figures. In this time Internet access will become dominated by wireless devices such as smartphones, tablets, machines and sensors, requiring more efficient and ubiquitous technology to carry the data traffic.

Every sector of the economy is going digital. Every EU business and citizen needs to know they can enjoy easy-to-use, reliable and fast Internet on the move. This new wave of research projects promises to bring cutting-edge ultra-high-speed mobile broadband technology to the daily lives of Europeans.

METIS, 5GNOW, iJOIN, TROPIC, Mobile Cloud Networking, COMBO, MOTO and PHYLAWS are some of the new EU research projects that address the architecture and functionality needs for 5G / beyond 4G networks.

EU industrial players joining forces with academia and research institutes involved in these projects span from worldwide leading telecom operators (British Telecom, Deutsche Telekom, France Telecom/Orange, Telecom Italia, Telefonica, Portugal Telecom), to the world's major telecom manufacturers (Alcatel-Lucent, Ericsson, Nokia Siemens Networks, Thales Communications), world's leading provider of business software (SAP) and also world-renowned automotive manufacturers (BMW).

In particular, the METIS project gains a € 16 million fresh EU investment.

Overall, from 2007 to 2013 EU investments amount to more than € 700 million for research on future networks, half of which is allocated to wireless technologies, contributing to development of 4G and beyond 4G

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For example, the METIS overall technical goal is to provide a system concept that supports:

- 1000 times higher mobile data volume per area: network operators will serve many more users at the same time.
- 10 times to 100 times higher number of connected devices: new smart technologies will be invented when you connect your car, your fridge, your home energy and water controls.
- 10 times to 100 times higher typical user data rate: you will watch rich video content on the move.
- 10 times longer battery life for low power Machine-to-Machine-Communications: you will have more autonomy on the move and lower energy consumption.
- 5 times reduced End-to-End latency: you will enjoy smoother interaction with bandwidth-hungry applications and less waiting time.

## **Background**

Today there are 1.2 billion mobile broadband users, and the figure is growing by hundreds of millions each year.

EU long-term research support has been instrumental to share risks with industry for communication networks, whose development cycle is ten years.

Past EU research investments have delivered many of the mobile advances we take for granted today. These include the GSM standard (used today by 80% of the world's mobile networks) and technologies used in the current third-generation (3G) 'Universal Mobile Telecom System' (UMTS) standards and the fourth-generation (4G) 'Long-Term Evolution' standard.

## **Useful links**

EU research on Network Technologies: <http://cordis.europa.eu/fp7/ict/future-networks/>

Digital Agenda website: <http://ec.europa.eu/digital-agenda/>

Neelie Kroes' website: [http://ec.europa.eu/commission\\_2010-2014/kroes/index\\_en.htm](http://ec.europa.eu/commission_2010-2014/kroes/index_en.htm)

Follow Neelie Kroes on Twitter: <https://twitter.com/neeliekroeseu>

Twitter hashtags: #METIS #4G #5G #broadband #mobile

### **Contacts:**

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## Future Network & MobileSummit, 3-5 July 2013, Lisbon

Future Network and MobileSummit 2013 takes place in Lisbon, Portugal, 03 - 05 July. This is the twenty-second in a series of Annual Conferences supported by the European Commission, which regularly attracts delegates from industry and research to share experiences and research results, identify future trends, discuss business opportunities and identify opportunities for international research collaboration under the ICT Theme of Framework Programme 7 (FP7)/Horizon 2020. It will thus contribute to showcasing European research in the field, and position it within the multiplicity of related initiatives supported in other regions of the world.

The Scientific Programme incorporates all the key constituents of future communication networks including the themes Radio Access and Spectrum; Converged and Optical Networks; Future Internet Technologies; Integrated Satellite Communications and Internet of Things and Machine to Machine.

Supported by the European Commission and Net!Works, Future Network and MobileSummit integrates high-level industry/policy plenary sessions that discuss strategic issues for Future Networks with high quality technical/scientific tracks and workshop sessions. Technical/scientific tracks present papers that showcase original results and hot topics in all areas of mobile, wireless and fixed broadband communications systems and networks.

### **Call for Exhibitors - Deadline 05 April**

Projects are invited to apply for a demonstration stand or poster panel in the Exhibition. More information is available at [www.futurenetworksummit.eu/2013/default.asp?page=exhibinfo](http://www.futurenetworksummit.eu/2013/default.asp?page=exhibinfo)

All applications should be submitted online. Since the level of competition for available demonstration stands is likely to be high, applicants are advised to clearly state what they are planning to demonstrate and the value add for the conference delegates and justify the space for which they are applying.

Registration [www.futurenetworksummit.eu/2013/default.asp?page=registration](http://www.futurenetworksummit.eu/2013/default.asp?page=registration) with - Early Bird Deadline - 30 April. Presenter and early bird delegate fees available up to 30 April

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