

Four excellent ICT projects awarded at Celtic-Plus Event 2013

For some years Celtic has honoured the most successful and most promising finished projects with an excellence award.

The prestigious Celtic-Plus Innovation Award was given to the very successful 100GET project. In the Celtic Excellence Awards category, the 4GBB project received the Gold Award, MEVICO received the Silver Award, and HOMESNET the Bronze Award.

“We are very proud to have such impressively successful projects within our programme portfolio, which clearly demonstrates how successful the EUREKA clusters perform,” said Celtic-Plus chairman Jacques Magen.



Winners of the 2013 Celtic Awards, together with Celtic-Plus officials in Kayseri

The Celtic Innovation Award 2013 goes to 100GET

100GET, actually should be more considered as a cluster project as it was composed of 5 separate but linked subprojects, each in the size of a rather big Celtic project:

In the 100GET project 40 organizations from 5 countries participated between October 2007 and December 2010. This 65 million euro project was coordinated by Kurt Loesch from Alcatel-Lucent, Germany and Rainer Derksen from Nokia Siemens Networks, Germany. The project was largely funded by around 30 M€ from the German Federal Ministry of Education and Research

(BMBF), the French Ministry – DGCIS, and by Tekes, the Finnish Funding Agency for Technology and Innovation.

The project was focusing on the development of 100 Gbps Ethernet based carrier-grade transport networks (“Ethernet across the entire network”). The project has realized an impressive work that was worth the investment and performed world class research especially on the area of optical layers where a number of new devices have been developed. Also in the area of networking the results have been very promising as they cover a broad field in optical communications. Attention was given to different important aspects including multilayer planning, advanced switching and routing, techno-economic evaluation, etc.

The project realized 21 new products, improved another 15 products, filed 56 patents, contributed to 32 standards and performed 53 pilots to mention only the most important achievements.

Celtic Excellence Awards 2013 go to 4GBB, MEVICO, and HOMESNET

The about 150 participants of the Celtic-Plus Event had further opportunity to applaud, as there were three more winning projects.

The **Gold Award** winner in the traditional Celtic project excellence category was **4GBB** (4th Generation Broadband Systems), which had shown that Gbit/s bandwidths can be reached over copper-based access lines up to 250 meters. The project could convince the Broad Band Forum (BBF) and the ITU to standardise this "hybrid fibre-copper" solution under the brand name “G.fast”. 4GBB has provided to this standard 87 contributions that represents more than 1/3 of the total standardisation effort. It is in the reach of this technology to multiply the bandwidth of residential access by a factor of 10 compared to VDSL at a cost levels that are affordable for operators.

The business relevance is high and 4GBB project has shown that a hybrid fibre-copper system, as a virtual fiber-to-the home (FTTH) solution, is technically achievable and is cost efficient for Gb/s range home access service. It is very plausible that this technology can generate a mass market with a clear advantage for the European companies that are at the origin of this technology. The very fast uptake of the subject and the important success in standardisation also proves the business relevance of the project results.

The project was led by Per Ola Börjesson of Ericsson AB in Sweden. 12 companies from 6 countries participated in this project. The total budget was about 7.9. M€.

The **Silver Award** went to **MEVICO** (Mobile Networks Evolution for Individual Communications Experience) focused on the network aspects of the 3GPP LTE-mobile broadband network and its future evolution. The goal was to contribute to the technical drive and leadership of the Evolved Packet Core (EPC) network (3GPP), and thus support the European industry to maintain and extend its strong technical and market position in the mobile networks market.

The business relevance of the project results is very high and strategic; first results have already been transferred to products. The project results are likely to directly influence investments and

exploitation plans for operators. It brings European stakeholders in a more favourable position, especially when compared with IP giants CISCO and IBM as well as the CDN providers like AKAMAI. The outcome of the project includes 6 new products and 10 product improvements.

The MEVICO project was led by Jari Lehmusvuori, Nokia Siemens Networks Oy, Finland. 23 companies from 8 countries participated in this project. The total budget was about 15.3 M€.

Finally, the **Bronze Award** went to **HOMESNET** (Home Base Station: An Emerging Network Paradigm). This project was focusing on the development and integration to realize a Home Base Station (HBS), also known as “Femto cell”, which is a small cellular base station. It is characterized by very low costs, plug-and-play installation, low transmission power, use of existing fixed broadband (typically, digital subscriber lines) backhaul.

Very interesting for the market could become the optical backhauling technology incorporating the photonic antenna allowing a Femto-cell type powered only by the light from the fiber. The underlying technology of the photonic antenna is highly innovative quantum microwave photonics.

The achieved results are especially valuable in terms of novelty with respect to the current Femto market that is growing rapidly. These prototypes are key elements to develop “next generation” Femto that will go beyond coverage extension only.

In addition, to these prototypes, the work conducted in the project addressed the key issues in Femto network deployment and operation, including architecture, interferences avoidance and mitigation, self-configuration. The partners delivered analysis and solutions with proven performance through simulations. Several dedicated technology (Green, VL-DAS) have been developed in the scope of HOMESNET.

The HOMESNET project was led by Olivier Marcé from Alcatel-Lucent Bell Labs, France. 13 companies from 4 countries participated in this project. The total budget was about 7.95 M€

About Celtic-Plus

Celtic-Plus is an industry-driven European research initiative to define, perform and finance through public and private funding common research projects in the area of telecommunications, new media, future Internet, and applications & services focusing on a new "Smart Connected World" paradigm. Celtic-Plus is a EUREKA ICT cluster and belongs to the inter-governmental EUREKA network.

Celtic-Plus is open to any type of company covering the Celtic-Plus research areas, large industry as well as small companies or universities and research organisations. Even companies outside the EUREKA countries may get some possibilities to join a Celtic-Plus project under certain conditions.

Press contact: Milon Gupta, Public Relations Officer, CELTIC Office c/o Eurescom

Phone: +49 6221 989-121, e-mail: press@celticplus.eu