

## The new research period is open: FP7, Celtic, ... Time to work and implement NEM vision

●●● During the coming months Research will live an exciting time. After a rather long preparation period in which our organizations have been working together to elaborate a vision and a strategy around Media and Networks, the time is coming to foster the implementation of that vision through actual projects. 2007 will become Year 1 of many collaboration initiatives proposed to the European Commission and to the Member states research programmes. Already identified, a strong contribution of the NEM community can be expected in Challenges 1 and 4 of the FP7 ICT programme, but also in the CELTIC Eureka cluster, and to the many other national initiatives.

The NEM ETP is proud to have contributed to the elaboration of the work programmes of those instruments. Now the time of implementation is coming and our organizations are already committed to produce together the best research projects ●●●

**JEAN-MICHEL DUPONT,**

Director Cooperative Programmes Thomson

## Challenge 1: Pervasive and Trusted Network and Service infrastructures

●●● With almost 3Bn mobile users worldwide and more than 1Bn Internet users, current network and service technologies have enabled a first wave of pervasive communication systems to emerge.

Fuelled by convergence, networked applications and services contribute to a significant growth of the on-line economy. Voice -and media content- over internet are typical examples of convergence. Others, like mobile broadcasting or IPTV are taking off fast.

Beyond user terminal networking, a trend for device connectivity, towards the "Internet of things", is emerging. Increased interconnection of devices like RFID/sensors will likely alter existing value chains and lead to the creation of new economic opportunities. Such environments are expected to be supported with dynamic and smart software based service platforms, enabling the emergence of context aware services, with varieties of networked applications, also complementing the sophisticated media delivery scenarios of the extended home environment.

In parallel, the drive towards user controlled environments, service and content management is quickly accelerating, as illustrated with the Web 2.0 rapid take up.

The ever growing variety of connected devices, service features, application scenarios, environments, context adaptability requirements are in turn putting severe constraints on the underlying network service and content delivery platforms.

Consequently, the need for anytime-anyplace-any device-any content and services cannot be met fully with today's technologies. The overriding objective of "Challenge 1- Pervasive and trusted network and service infrastructures" of the ICT work programme 2007-2008

is consequently to eliminate the technological roadblocks still hampering the full development of a networked economy based on the widest possible pervasiveness of networked services and content, and to open new "user controlled" business scenarios. A companion objective is to optimally position Europe on the global race which is already started on these issues in various regions of the world.

Consequently, Challenge 1 will focus on:

- > New generations of pervasive, large capacity and mobile network infrastructures.
- > Future Internet architecture and technologies overcoming today's limitations of usages.
- > New generations of service platforms gracefully adapting to complexity, with the ability to be dynamically composed of ad-hoc coalition of resources.
- > Architectures and solutions for integrated and interoperable organisations and enterprises.
- > Security and Trust of network and service platforms.
- > End to end, personalised media delivery and collaborative usage.

This Challenge has received the highest budget share under the Work Programme 2007-2008, thus materialising the high priority and importance of its objectives for the future competitiveness of European industry and on line economies.

The NEM community is well positioned to provide a substantial contribution to Challenge 1 by addressing, in an integrated manner, key R&D issues and providing interoperable solutions from the Networked Media perspective ●●●

**JOÃO DA SILVA**

Director - Converged Networks & Services  
 DG-INFOS - European Commission

## diary

### > NEMevents

- > NEM CLUSTER ON "NEXT MULTIMEDIA CONTENT DELIVERY"  
**15 February, Brussels**
- > NEM CLUSTER ON "FUTURE INTERNET"  
**16 February, Brussels**
- > NEM GENERAL ASSEMBLY  
**6 March 2007, Brussels**  
<http://www.nem-initiative.org>
- > NEM INTERNATIONAL COOPERATION-CHILE  
**April 2007, Santiago (Chile)**
- > NEM STEERING BOARD,  
**9-10 May 2007, Dublin**  
<http://www.nem-initiative.org>
- > NEM EXECUTIVE GROUP,  
**20-21 June 2007, Paris**  
<http://www.nem-initiative.org>

### POLICYevents

- > ITU EVENT STRATEGIC ISSUES - CONVERGENCE,  
**19-20 March 2007, Geneva**
- > EUROPEAN STANDARDIZATION CONFERENCE  
**26-27 March 2007, Berlin**  
[www.bmwi.de](http://www.bmwi.de)
- > EUROPEAN COMMISSION SESSION DURING CEBIT 2007,  
**15-21 March 2007, Hannover**  
[www.bmwi.de](http://www.bmwi.de)
- > LAUNCH EVENT FOR THE EU STRUCTURAL FUNDS PROGRAMME,  
**09 May 2007, Hof (Germany)**  
[www.bmwi.de](http://www.bmwi.de)
- > 4TH EUROPEAN CHARTER CONFERENCE FOR SMES,  
**4-5 June 2007, Berlin**
- > EUROPEAN DIGITISATION CONFERENCE,  
**13 June 2007, Berlin** ([www.bmwi.de](http://www.bmwi.de))
- > IST MOBILE SUMMIT 2007,  
**1-7 July 2007, Budapest**  
<http://www.mobilesummit2007.org>

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## Challenge 4: Digital Libraries and Content

When planning the future of networked and electronic media one must consider two distinct although related issues: how to build an advanced infrastructure to deliver digital content and how to fill that infrastructure with high quality content.

... Making available digital content of very high quality is one of the main objectives of FP7 Challenge 4, "Digital Libraries and Content". A first call for proposals in this domain has already been published (FP7 ICT Call 1, closing date 8 May 2007) with an indicative budget of €103M and a second one (FP7 ICT Call 3) will likely be published in November 2007 with an indicative budget of €100M.

Valuable entertainment products such as music, videos and games are the most easily understood examples of high quality content but Challenge 4 is also meant to cover multimedia content for personal, professional or organisational needs. This includes digitally encoding and preserving of our cultural and scientific heritage and making it available via sophisticated digital libraries capable of personalising searches and assisting with the (social) interpretation of complex materials.

Availability of digital content is not just for today. As content becomes more dynamic, adaptive, high-volume and in multimedia formats the challenges of its preservation and curation for future use are increasing. This problem concerns not only memory institutions such as museum, archives and libraries, but almost every organisations and even individuals.

Richly annotated content will also allow a mass-customisation of the learning experience, enabling the delivery of learning resources contextually appropriate to age, situation, and cultures.

Just as digitisation and semantic annotation are needed to bring to digital fruition heritage or legacy content, sophisticated but intuitive tools will need to be developed to support the full creative potential of content born digital. At the point of production this means not only advanced editing tools for immersive and multimodal content but also the social and technological infrastructure needed to encourage a dynamic participatory culture of content sharing and remixing. At the consumption end this will require privacy preserving methods for dynamically matching content with a consumer's context and preferences and for harvesting the feedback needed to improve the quality of future content.

The needs of large scale professional producers of content will be served by workflow environments to integrate creative content across various sources and formats and to repackage it for a wide range of audiences and devices. Likewise, management of organisational information assets will be automated by advanced knowledge and search technologies integrating processes within and across companies ...

### ROBERTO CENCIONI,

European Commission, Head of Unit, INFSO.E2  
Content and Knowledge <sup>(1)</sup>

(1) For all additional information please consult the ICT workprogramme and call related documentation:

[http://cordis.europa.eu/fp7/dc/index.cfm?fuseaction=UserSite.CooperationDetailsCallPage&call\\_id=11](http://cordis.europa.eu/fp7/dc/index.cfm?fuseaction=UserSite.CooperationDetailsCallPage&call_id=11)

For additional information about INFSO.E activities and contacts please see:

<http://cordis.europa.eu/ist/kct/fp7.htm>

[stefano.bertolo@ec.europa.eu](mailto:stefano.bertolo@ec.europa.eu)

[http://cordis.europa.eu/ist/telearn/fp7\\_overview.htm](http://cordis.europa.eu/ist/telearn/fp7_overview.htm)  
[marco.marsella@ec.europa.eu](mailto:marco.marsella@ec.europa.eu)

## CELTIC: an important Eureka label for NEM projects

**NEM platform has already defined a very detailed research agenda.**

... What is next?

The work of the group defining the Strategic Research Agenda for NEM is finished. We have, thanks to the work of the companies involved, a detailed roadmap for the future and we come to the implementation phase. Most researchers are looking to the Call 1 of the 7 Framework program where a significant number of the objectives put forward in the NEM agenda are included. It is time to form the consortia and start the research work...

...Is that all?

The most recent and influential European policy document on research, the "Aho Report", summarizes the results of an Expert Group on how to reinforce European research and innovation performance. A core recommendation of the Aho Report is 'the need for Europe to provide an 'innovation friendly market for its businesses'. This requires policy actions on 'regulation, standards, public procurement, intellectual property and fostering a culture which celebrates innovation'. Rather than stressing innovation inputs such as R&D, the Aho Report stresses innovation demand, both from markets and from government procurement, and the myriad of socio-cultural factors that encourage innovation, such as entrepreneurship, risk taking, flexibility and adaptability, and mobility.

*And there is where CELTIC can help.*

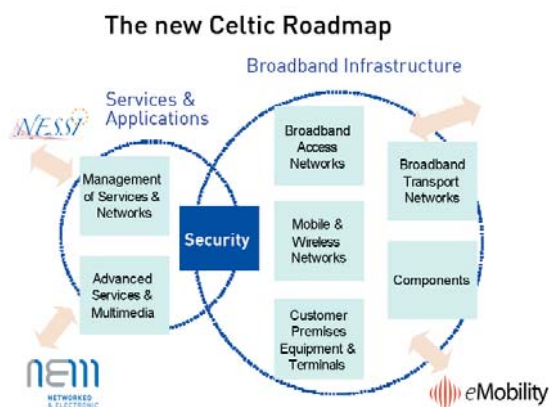
CELTIC's objective is to promote the applied research into Telecommunications, essentially we try to look into the demonstration phases of the innovation change. (see figure 1, outlining the differences between CELTIC and 7 Framework activities).

NEM focuses on the offer to the citizen of an innovative mix of various media forms, delivered seamlessly over technologically advanced networks, to improve the quality and value of life. The Strategic agenda of NEM enhances the relation between new content and services to the future Networks and terminals and how they relate to satisfy users expectations.

NEM's aims are closely related to Celtic's. Service and applications and secure infrastructures are key elements of future multimedia services. To reflect that, the "CELTIC purple book" where CELTIC strategy is laid out, has been enlarged to cover the objectives of some ETPs (including NEM) as indicated in figure 2.

The collaboration among ETPs and Eureka Clusters is a first step towards more integrated research agendas in

FIGURE 2 →



Europe. This should encompass not only the medium term objectives of EC financed research but should be a key element in solving the R&D industrialisation problem facing Europe.

If you want to participate in Celtic, please note that call 5 is already open (until May 22). There is an open information day in Berlin the 21 February 2007. All details about the Celtic initiative are given in <http://www.celtic-initiative.org/>

**JOSÉ JIMENEZ**

Chairman CELTIC EUREKA

## 4th NEM General Assembly

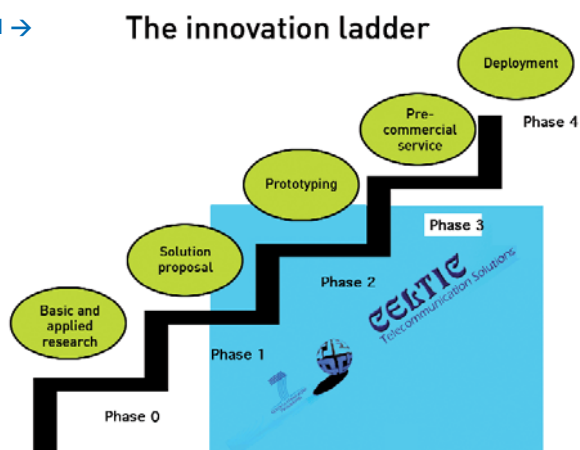
••• The new NEM Steering Board (SB) held its first meeting including the wider representation of 39 members. The Steering Board renewed the interest to further push for successful contribution of NEM to the European Research Area.

As per SB decision, the next, fourth, General Assembly of the NEM Initiative will be held in Brussels, Belgium on 6th March 2007. The scheduled time for the General Assembly meeting is 9:00 – 17:00 and the meeting venue will be Hotel Bedford, Rue du Midi 135, 1000 Brussels. Besides reports on achievements of the NEM Initiative to date and discussions on future NEM activities and actions, the 4th General Assembly will particularly address the following topics:

- > EC 7th Framework Programme opportunities – Call 1.
- > Reports from NEM R&D Clusters.
- > Election of new NEM Steering Board members.

The mandate of the newly initiated NEM R&D Clusters is to define what should be done in their areas and to facilitate networking among NEM members with a view to projects creation. Achievements of the Clusters created to date will be presented and discussed at the 4th NEM General Assembly. Discussions and results from the clusters will also be used to map interests and views of the NEM community on future R&D challenges in the NEM area and eventually to

FIGURE 1 →



recognise some areas which are not enough covered and considered within NEM. To learn more about NEM Clusters, please visit NEM website ([www.nem-initiative.org](http://www.nem-initiative.org)).

In accordance with Governance Model of the NEM Initiative, members of NEM Steering Board are elected for a two-year term. As the mandate of 22 current members of the NEM Steering Board expires in spring 2007, NEM members have been invited to nominate as candidates for new NEM Steering Board. The NEM Steering Board members are divided into categories in accordance with their company or organisational profiles. Similarly, the vacant positions are announced for each of the categories, as listed below, to ensure that a good balance of interest groups in the NEM discussions and decisions is retained:

- > 9 vacancies for Industry/content category,
- > 3 vacancies for Academic/research category, and
- > 10 vacancies for Operator/broadcaster category.

Each NEM member company registered as a NEM member by the 1st February 2007 and present at the 4th NEM GA will be entitled to vote for every Steering Board member category. Details about rules and schedule of the election procedure are available on the NEM website ([www.nem-initiative.org](http://www.nem-initiative.org)).

Everyone is welcome to participate in this event by registering via the NEM website. To be up-to-date with the latest information on the 4th NEM GA and all other NEM related issues please visit the NEM website:

[www.nem-initiative.org](http://www.nem-initiative.org) ...

HALID HRASNICA, Eurescom

## The networked media in a global context. DVB, example of success

... There is no doubt that one of the most important success of Europe in the standardization domain, supported by research projects, has been the set of standards developed by ETSI and CENELEC and based on the specifications produced by the DVB Project. This is a fact recognized worldwide.

It is certainly difficult to raise the interests of so many diverse Institutions, personalities, experts, capable to work together towards a common target: open standards capable to serve the needs of the whole players in the value chain of the digital television business.

The DVB specifications were produced by interest-group (DVB), formally endorsed by European standards bodies (ETSI, CENELEC) while being supported by research projects which produced relevant results before technology was shaped into commercial specifications and projects which validate the applicability of the standards (among others: Euroimage, EU96, EU 256, Validate, Motivate, Digimatv, etc.).

Consequently, the current goals of NEM, included its vision and dealing with ambitious goals in the standardization sphere, have clear and successful cases as a reference. It is expected that many new FP 7 projects in the research areas covered by NEM will include standardization activities as relevant goals within their work plans. NEM is ready to assist projects to get critical masses in order to facilitate the highest impact from R+D projects on the standards making machinery. These efforts have a huge reimbursement: the higher chances of

adopting European standards at world-wide level. ...

JULIÁN SESEÑA, ROSE Vision

## The future of Internet. Dominance of audiovisual content? How to find my content?

... We're on the verge of a revolution. This time the revolution is going to change every aspect of our lives. How we work, how we play, how we socialise and even how our lives are governed. We're even going to give our devices the right to act on our behalf.

The success of internet services today point towards an ever increasing freedom to access the information we want, when we want and how we want. Distance is no longer an issue when we want to find something. Cheap and cheerful video is being distributed globally in minutes when we want to see something. Once content or information is in digital form it is capable of traversing the globe in milliseconds.

This is the new world we must understand and even anticipate when considering the Future Internet.

The current Internet was designed as a minimum control, maximum freedom, best-effort network. As such, it has been remarkably successfully in growing into the comprehensive service support infrastructure it is. However if it is to continue developing we need to reengineer the playground and put some order in system to ensure efficient operation.

This is where we have the big problems. There is an inherent conflict between the concept of an "organised Internet" retaining all the freedoms and a "free Internet" (big dumb network?) addressing the security, quality, reliability, availability, etc., characteristics that users will expect as the internet moves more into supporting our lives.

Many people would argue that the Internet should be allowed to evolve in steps by the solution of problems as they are discovered. However many more would argue that now is the last opportunity we will have to adopt a long-term revolutionary scenario for the Internet.

The evolutionists say that we cannot predict how the Internet will develop so we should concentrate on evolution. The revolutionists state that we can see the limits of today and if we plan for a new network that addresses these problems then the Internet will have more opportunity to develop in its usual exciting and unpredictable way.

What is clear is that in both approaches we have lots of research challenges to address. New network concepts are needed, new service models are needed. New technologies for the storage, retrieval and distribution of content are needed as the scope of information is simply too much to handle now.

The NEM Future Internet Cluster will hold a meeting in February 16th to try to position some of the NEM activities for the Future Internet. We won't debate the merits of evolution versus revolution for too long as the world won't wait for Europe to make up its mind. We'll simply explore the issues and if we have critical mass we'll start working on the revolutionary scenarios. We'll also foster a family of projects addressing evolutionary aspects of the Internet as we know it today. In the next phase of FP7 we'll have to make sure there is a discussion between these approaches.

If Europe wants to lead the next phase of the Internet revolution ...  
- now is the time to act !!!!

**DAVID KENNEDY,**  
Director Eurescom

## A successful NEM networking session was held in Helsinki at the IST event

... NEM has organized a special networking session during the IST event in Helsinki. The session was designed to allow researchers to have a quick inside on what is being done within NEM as well as rising interest from the research community to launch cooperative projects. More than 120 persons attended the event.

The NEM Initiative has also been presented at the IST Event 2006 through a NEM Information Stand. Among other European Technology Platforms, NEM Information Stand has been frequently visited. The impact of the NEM presentation at the booth could be measured by numerous new NEM members, who applied for the membership already during the IST 2006 event and immediately after ...

**NEM SECRETARIAT**



## diary

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### Technologyevents

- > **CELTIC INFORMATION DAY, CALL 5,**  
21 February 2007, Berlin  
(<http://www.celtic-initiative.org/>)
- > **CELTIC EVENT 2007,**  
22-23 February 2007, Berlin  
(<http://www.celtic-initiative.org/>)
- > **FT DIGITAL MEDIA & BROADCASTING CONFERENCE,**  
5-7 March 2007, London  
([www.ftconferences.co.uk/digitalmedia](http://www.ftconferences.co.uk/digitalmedia))
- > **IPTVWORLDFORUM 07**  
5-7 March 2007, Olympia London  
([www.iptv-forum.com](http://www.iptv-forum.com))
- > **CABSAT,**  
6-8 March 2007, Dubai  
([www.cabsat.com](http://www.cabsat.com))
- > **DVB WORLD,**  
7-9 March 2007, Dublin ([www.iab.ch](http://www.iab.ch))
- > **IEEE SYMPOSIUM ON 3D USER INTERFACES,**  
10-11 March 2007, Charlotte, North Carolina, USA  
(<http://conferences.computer.org/3dui/>)
- > **IEEE VIRTUAL REALITY 2007,**  
10-14 March 2007, Charlotte, North Carolina, USA  
(<http://conferences.computer.org/vr/>)
- > **WORKSHOP AT THE IEEE VIRTUAL REALITY 2007 CONFERENCE,**  
11 March 2007, Charlotte, North Carolina, USA  
(<http://conferences.computer.org/vr/2007/>)
- > **CEBIT 2007,**  
15-21 March 2007, Hannover  
([www.cebit.de](http://www.cebit.de))
- > **CONVERGENCE INDIA,**  
20-22 March 2007, New Delhi  
([www.convergenceindia.com](http://www.convergenceindia.com))
- > **MULTIMEDIA HANDSETS**  
20-22 March 2007, Amsterdam  
([http://shop.informatm.com/martin/30000001001/MARKT\\_EFFORT/marketingid/20001473622](http://shop.informatm.com/martin/30000001001/MARKT_EFFORT/marketingid/20001473622))

## NEM Structure

### STEERING BOARD

- > Aido
- > Abertis Telecom
- > Alcatel
- > Barco
- > BBC
- > British Telecom
- > Catalan Broadcasting Corporation
- > Ericsson
- > Eurescom
- > European Broadcasting Union
- > France Telecom
- > Fraunhofer IMK
- > GAME
- > GWT-TUD
- > Hewlett Packard
- > Homega Research
- > INRIA
- > Intel
- > IRT
- > Lucent
- > Micronas
- > Nokia
- > Philips
- > Portugal Telecom  
Innovacao
- > Queen Mary University  
of London
- > ROSE Vision
- > Siemens
- > STMicroelectronic
- > Swissmedia
- > Telefonica
- > TeliaSonera
- > Thomson
- > Universidad Polit cnica  
de Madrid (UPM)
- > University  
of Amsterdam
- > Waterford Institute  
of Technology
- > CELTIC
- > Pole de competitivite  
"Images & Reseaux"

### EXECUTIVE GROUP

- > Alcatel
- > European Broadcasting Union
- > France Telecom

- > Intel
- > Nokia
- > Philips
- > Siemens
- > Telefonica
- > TeliaSonera
- > Thomson

### SUPPORTED BY:

- > Eurescom
- > ROSE Vision

## diary

- > C5 NETWORK WORLD FORUM,  
26-29 March 2007, Milan  
([www.iec.org/events/2007/c5](http://www.iec.org/events/2007/c5))
- > NAB2007,  
14-19 April 2007, Las Vegas, USA  
([www.nabshow.com](http://www.nabshow.com))
- > MIPTV 2007,  
16-20 April 2007, Cannes  
([www.miptv.com](http://www.miptv.com))
- > 3DTV-CONFERENCE,  
7-9 May 2007, Kos Island, Greece  
(<http://www.3dtv-con.org/>)
- > DIGITAL MEDIA DELIVERY,  
10-11 May 2007, London  
([www.advanced-television.com](http://www.advanced-television.com))
- > ANGA CABLE,  
22-24 May 2007, Colonia (Germany)  
([www.angacable.de](http://www.angacable.de))
- > WIAMIS 2007,  
6-8 June 2007, Santorini, Greece  
(<http://mkg.iti.gr/wiamis2007/index.html>)
- > BROADCAST ASIA,  
19-22 June 2007, Singapore  
(<http://www.broadcast-asia.com/>)

## NEM General Assembly

Consult on web site

<http://www.nem-initiative.org/public/structure/GA.htm>

## Contact NEM

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