

The renewed NEM commitment for successful implementation of FP7



●●● Our latest General Assembly held in Brussels last November was a good illustration of the first NEM initiative achievements: the initiative is well in place with around 600 members acting in the heart of the convergence, from broadcasters to operators, with a vision up to 2010 disseminated into a Strategic Research Agenda and with topics clearly identified in the FP7 first calls. The results of the first Call 1.5 translated the success of NEM participants who submitted a project linked to the NEM SRA.

The world is moving fast, the technology world is moving even faster. The NEM community needs to accompany this evolution in reviewing its SRA in early 2008 in order to provide inputs for the next FP7 calls, to accelerate its works towards a 2015 vision, in focusing its perimeter around two to four challenging technology fields, in increasing its visibility, and to enlarge its perimeter to content players (content producers, publishers, games industry, etc). What will networks be without content?

The 2008 NEM Summit will be a key international event where NEM initiatives will be organized in the second half of 2008. It will be the illustration of NEM actions regarding projects, platforms and international lobbying. I count on all NEM members to make 2008 an even more challenging and interesting year for all of us, industrial leaders, academics or content providers, and a reference initiative in the Electronic Interconnected Media.

JEAN CHARLES HOURCADE
 Executive Vice President & CTO – Thomson

diary

POLICYevents

- > **INFO DAY: CHALLENGE 4, CALL3, FP7**
 12-13 December 2007
 Luxembourg
www.cordis.europa.eu/ist/kct/eventcall3-in-motion.htm
- > **WORKSHOP ON FUTURE R&D CHALLENGES IN THE AREA OF NETWORKED MEDIA**
 29 January 2008
 Brussels, Belgium
www.cordis.europa.eu/fp7/ict/netmedia/neweve/c200801/c200801_en.html

POLICYevents

- > **EUROPEAN ICT STANDARDISATION POLICY AT CROSSROADS**
 12 February 2008
 Brussels, Belgium

NEMevents

- > **7TH NEM SB MEETING**
 3-4 December 2007
 Torino, Italy
- > **NEM SUMMIT 2008**
www.nem-initiative.org



New projects in the FP7 Networked Media start to meet FP7 work programme

●●● It is the Commission's intention to contribute to the challenges of the media revolution under way through a series of R&D projects. The aim is to increase the quality (of the media and of the user experience) and to address new creation and consumption patterns, such as content personalisation content on the move, user generated content, community media, as well as distributed storage and peer to peer communications, just to mention a few.

A first analysis of the selected R&D projects on the launch pad indicates that they are in the good track to meet the above objective. An EU industry share of 50% of the total participants and a proper blend of hi-tech SMEs and large industry are a guarantee for future exploitation, while the participation of known centres of excellence on media research ensures a sound scientific and technological basis.

An initial clustering of the selected projects can already be made around three main areas: New Forms of Media (3D, end-to-end immersive media experiences), Multimedia Services and Applications (shared interactive media experiences, IPTV...) and Media Systems and Platform Management (IPTV via P2P networks).

On the New Forms of Media, 3D has the lion's share as future 3D Digital Cinema, 3D Digital TV and 3D environments in mobility are addressed by the new portfolio of projects, encompassing the entire value chain from capture to delivery, rendering and visualisation, whilst new collaborative environments based on 3D presence will be actually developed and experimented.

Some projects aim at the change of paradigm of today's TV broadcasting, towards personalised on-demand TV. This is addressed from an operator-driven and a broadcaster-driven perspective. Trials are based on an Open Source Software platform for P2P on IPTV whereas a contribution to the underlying legal and policy framework is also envisaged so as to ensure a future proper lawful use of P2P.

A group of projects will focus on end-to-end systems delivering new and creative forms of highly interactive and immersive shared media experiences for individuals and groups of users. These systems are based on open reference architectures and will be validated through application scenarios. User-centric approaches become very prominent in most projects, contrary to the more classical professional/broadcast content, including some specific projects aiming to explore the new role of the user as content generator or as "virtual director" of TV programmes. A more "traditional" research area is represented by projects addressing Content Management tackling multi-source, multi-network streaming and adaptation, quality of service and Multimedia Content Management Systems (MCMS).

Some areas require further research in the coming years, such as Multimedia content search engines enabling easy access to the wealth of available media in all its new forms and the new Media & 3D Internet. Indeed, both issues are at the core of the future media landscape at a time of an ever increasing overabundance of distributed media and at a time witnessing a discussion on the future Internet. The new media raise new requirements on the network, which will have to evolve in order to cater for a fully distributed control and to provide a much richer experience, a more vivid "physical" presence based on 3D. The combination of virtual worlds with the new media generation will lead to advanced services that will open up new business opportunities in the future.

The contribution of NEM to the new research agenda for the coming years is very much needed so as to ensure that any future research is in line with industry vision and underpinned by sound business prospects.

LUIS RODRIGUEZ ROSELLO
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NEM technology platform: serving European R&D in the networked electronic media challenges



●●● Developing new technologies to answer to societal needs is always challenging. Building new uses and new services utilizing those technologies

is even more challenging and is becoming a necessity as soon as we want to develop new business, and therefore new employment. Those new uses and services now need new technologies: a virtuous circle is created.

European Technology Platforms can play a key role in this circle by valorising all the European initiatives in a dedicated field. NEM initiatives in the Networked Electronics Media allow, and will allow, European actors to build projects with the ambition of answering to the networking media challenges in front of us: future home, future intranet, and the future way of life. Projects are part of the answers; testing new technologies, new usages, and new business in experimental platforms can be another part of the answer.

The NEM platform should, and will, support all initiatives towards this direction. Let's take the Media & Networks cluster as an emerging example for a reference: The Media & Networks French competitiveness cluster, a member of the NEM Steering Board, has just been recognized as a living lab by the European Community and will interconnect its Im@ginLab to other European platforms through the Netlab FP7 project. This connection is being specified through another European project, Panlab. Finland, France, Spain, and Germany will soon have a European test bed on which Industry (SMEs or Groups) and Academia (private or public research) could test the interoperability of their technology, test new usages, and test new business, having access to the technology of others and a European panel of users.

By being concrete through dedicated projects and platforms, and by involving European actors at our European scale, the NEM initiative will serve European R&D in networked electronic media worldwide challenges. Speed is key. The NEM initiative can contribute to this challenge by anticipation (our 2015 vision), by sharing efforts (our collaborative FP7 breakthrough projects), and by pushing our technologies through international lobbying (Global NEM cluster) and standards (NEM standardization working group).

JEAN DOMINIQUE MEUNIER

Director, Cooperative Programs of THOMSON
 Executive Director of NEM
 Vice Chairman of Media & Networks French cluster

The future Internet is starting now



●●● Europe is heading for a huge Internet crash as we're ignoring the limits of today's Internet. If we continue as we are, it is quite likely that the standards of service in the Internet will start to decline dramatically by 2010. The

issue now is to work out a European solution for the European market.

We are also plagued in Europe with a crisis of confidence as once we begin discussing the changes and necessary improvements, there is a significant part of the intellectual community that feels insecure having such a discussion without bringing in players from the US and Asia.

This cannot continue. Europe has to take responsibility for the future of the Internet in Europe. Once we have our ideas on what we want, we can present our concepts and discuss them on the global stage. Our current practice of sending individual experts to inter-continental meetings is merely exporting our competence and handing the industrial advantage to others.

Europe has now motivated more research capital in the FP7 framework and related national programmes than any of the current US initiatives. The planned expenditures over the next five years are sufficiently substantial to have a major impact in developing the future Internet but we need to be brave.

Why is it so difficult today to discuss the inevitable changes? It is almost a total contradiction that the early adopters of the Internet - who have led dramatic changes in technology and society over the past few years - are now becoming the Luddites, refusing to move on to consider the next stage of the information age revolution. Yesterdays' revolutionaries have become the roadblock. They are mentally attached to the solution invented by them and can not (or do not want to) see its limits and thus are incapable of moving forward.

The basic architecture of the Internet needs a new approach. Best effort has served us well but it has been supported by over-dimensioning networks to date. However the rate of growth of content and its universal distribution is shortly going to mean the data flows exceed the practicality and financial sense of continual over-dimensioning of networks.

The new network architecture must have the flexibility of the Internet, both personal and terminal mobility, the stability and bandwidth of the fixed networks, the richness of content from professional and private content creators and the overall security that gives us all confidence to do business and commercial transactions.

NEM is currently gathering its first compilation of Future Internet issues and assembling them into a publication. We should be able to publish our first set of future Internet scenarios next spring. All are welcome to join the NEM future Internet activity.

We now propose the launch of the European Internet Forum as there are a significant number of European projects in 2008 addressing various aspects of the future Internet, each of the technology platforms are considering the subject and it will be necessary to bring together all the emerging ideas into some common forum.

This forum will have the objective of bringing together the European views on the Future Internet and being the representative of the European views in the global forum. We have a mature market in Europe that requires European solutions, as distinct from being forced to adopt solutions developed for other markets.

This will also give European industry and network operators a good degree of confidence to invest in the products and the migration strategies that will actually enable this revolution.

NEM is committed to helping define the Future Internet and will help set up the European Internet Forum. You now have to decide if you are going to be part of this revolution. The train won't wait.....

DAVID KENNEDY
 Director, Eurescom

Recommendations from Networked Media Task Force



●●● In the Networked Media of the future all the elements of the media value chain will have a network capacity attached to them. Not only does it mean that all devices and multimedia content will be network-enabled but it also means that users and providers will participate and collaborate actively in a community network.

The Networked Media Task Force (NM-TF) Vision is built upon three axes that will be available in the future, i.e. true broadband, personalized media, and distributed control. The NM-TF envisions "new models of rich media interactions and cooperation based on enhanced AV content at the community level with distributed control infrastructure and community intelligence allowing pervasive personalized media services without the need of central control".

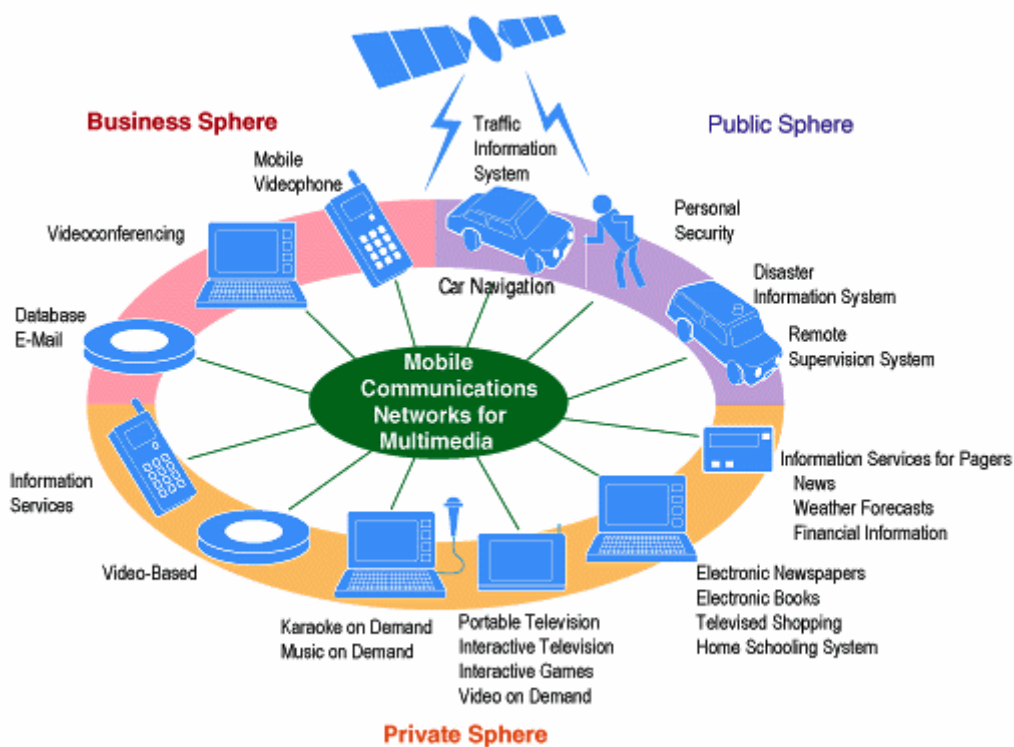


Figure: Available mobile communication networks for multimedia

The coverage of NEM SRA by new R&D projects



●●● Following decisions made by the Executive Group to provide a priority list of research topics for period 2009-2010, a detailed analysis of FP7 Call1 projects (objectives 1.5 and 4.2) has been

done in order to identify which topics of the SRA have not been completely covered. This analysis is still in progress on the basis of information provided by project coordinators but so far it shows that most of the existing topics are well covered.

The European Commission is waiting for these results in order to finalise the next work programme for call 3 and 4. From a total of 35 projects, 20 projects from objective 1.5 and 6 projects from objective 4.2 have been analysed and the draft results indicate that:

- Services and Applications are covered by about 75 research activities but the following ones are not so well covered (less than 2 research activities):
 - Super-distribution and content sharing
 - Micro-payments
 - Mobile payments interface for commercial applications
 - Multimodal interactivity with remote environment
 - Remote management
- Content is covered by about 51 research activities but the following one is not so well covered (less than 2 research activities):
 - Entertainment in the Zipf tail
- Networked Infrastructure and delivery networks is covered by about 23 research activities but the following ones are not so well covered (less than 2 research activities):

- Home networking
 - Network based intelligent for end-to-end service control
 - Seamless service provisioning
 - Network planning and optimisation
 - Ubiquitous multimedia networking
- Terminals and User devices are covered by about 25 research activities but the following ones are not so well covered (less than 2 research activities):
 - Residential Gateway – Architecture
 - Residential Gateway – HAN/WAN interaction
 - Advanced home Gateway
 - Home multimedia Devices
 - Media Home Terminal
 - Broadband portable terminal
 - Multimedia Home terminal
 - Virtual distributed devices
 - Enabling technologies are covered by about 48 research activities but the following ones are not so well covered (less than 2 research activities):
 - Interoperable Digital Right Management, content protection (watermarking)
 - Transition from analogue to digital TV, radio
 - Flexible compression
 - Platform independent porting tools-Adapters
 - Multimedia search engines
 - Object recognition and tracking
 - Acoustic and Sound generation
 - Natural and multimodal user interfaces

This first analysis needs to be completed by the other 9 projects from objective 4.2 in order to finalise this list. Then this topics list will be provided to the Commission before December; it should be completed by new additional topics which will be collected through the SRA update process.

NEM fosters cooperation with India and Latin America

●●● The definition of a clear European strategy for international cooperation in the area of NEM is recognised to possess major relevance in the design of the NEM Initiative, in order to maximize its effectiveness and impact. Many activities closely related to NEM goals are being conducted at national and European levels by different players – EU projects, national projects and individual companies. The R&D activities conducted in other areas of the world have to be taken into account by NEM when fostering R&D within Europe. Global NEM is currently focusing on the following regions of the world: China, India, Russia, Latin America, Philippines, Australia, USA, Japan. During the past months particular interests in cooperation within NEM field have been detected coming from India. From NEM platform the process to respond to these interests has been activated through the Global NEM cluster.

Activities foreseen by Global NEM, among others, are:

- Disseminating the results of the R+D activities in Europe
- Promoting the cooperation of researchers from key areas around the world with relevant European projects, involving national projects, when appropriate
- Promoting roadmap for technological cooperation between European and other areas of the world. Alignment of strategic research agendas and work programmes
- Identifying specific issues, like interoperability between European and non-European technologies.
- Promoting of harmonized standards

Regarding cooperation with **India**, a first draft containing relevant cooperating research

areas has been made. The preliminary list of cooperation areas:

1. Representation of content.
2. Intelligent delivery.
3. Quality control.
4. Virtual reality.
5. Federated services.
6. Middleware.
7. Residential networks.
8. Standards dialogue.

In addition to this task of identification of possible fields of cooperation, a dedicated EU-India NEM workshop during 2008 is being discussed, in which active promotion of cooperation would be the key topic.

Regarding cooperation with **Latin America**, Global NEM cluster has recently (22nd October) held an informative workshop in Santiago de Chile where some representatives from Chilean companies, universities and governmental institutions were present. In this workshop a general overview of European R&D programmes (such as 7th Framework Program, or Iberoeka) and NEM platform (organization, activities, strategic research agenda, etc.) were offered.

As a consequence of this workshop, an experts group of interest in Chile has been created. A circulation of project ideas, research areas is being implemented, so far, mainly with the active support of the Spanish NEM technology platform.

Global NEM cluster is at this moment discussing a general position paper on international cooperation and also defining possible ways of reinforcing the cooperation between Europe and India and Latin-America within NEM field. Any NEM member interested in participating in these activities is invited to join the Global NEM cluster.

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