FutureNEM
D5.2.2 - Report 2 on the launch, support & results on the promotion to SMEs & content producers

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Abstract

This document is the report 2 about the activities launched by NEM regarding promotion of NEM membership to key stakeholders: content producers and SMEs. Among other actions, NEM has launched a specific NEM Activity on SME including a wide questionnaire to SMEs (mainly SMEs participant in NEM, but also other SMEs who are not participants to NEM, action carried out as a consequence of the cooperation with other projects addressing SME affairs). The preliminary results of the responses received to the questionnaire are here reported. Further work is ongoing in order to better profile the SME participants.

Executive summary

The FutureNEM task 5.2 "NEM Membership" contemplates several activities which are related to the promotion of NEM among relevant stakeholders: the content producers and the SMEs. A number of actions have been done by NEM community at its public events (NEM General Assembly and NEM Summit) promoting NEM among representatives from these communities.

In particular, a NEM Activity was launched in order to increase the level of importance of SMEs within the NEM Community. This activity includes a questionnaire to SMEs in order to better understand their profiles, needs, and requirements regarding technology priorities.

SMEs have become increasingly important in our society as providers of employment opportunities and as key players for the well-being of local and regional communities. Hence, European SMEs represent more than 90% of the overall European industrial entities. However, the visibility of SMEs in the specific field of R&D is really low, being in the order of 15% in the best cases.

Therefore, there was a need to specifically target the role of SMEs, motivate them, facilitate their involvement and ensure that their interests and capabilities are duly taken into account by NEM as a European Technology Platform.

In order to better characterize the NEM SME community, a survey was developed and wide consultation made to all NEM participants so main barriers, interests and capabilities of NEM SMEs could be identified. Another objective was to identify research priorities that are of interest for SMEs within NEM field and learn more about the interests of NEM SMEs and thus be able to focus NEM SME Activity efforts on these priorities and liaise with international initiatives, projects, bodies and events promoting SME interests.

At the time that this report was written 114 responses had been received and the conclusions presented in this report are based on the analysis of these responses. Note that the survey carried out during 2010 got 61 responses and the survey carried out in 2011 got 53 responses. With very minor differences, the results of the surveys in both years provide consistent thinking of the NEM SMEs. The main conclusions of the report are:

From the different SME ranges, most of the NEM SMEs belong to the smaller group (less than 50 employees), representing almost the 75% of NEM SMEs. Nonetheless, and despite its relatively small size, a very relevant percentage of these companies (86%) carry out R&D activities demonstrating the high level of R&D activity in the NEM sector specifically among SME companies.

The distribution of both employees and budget dedicated to R&D activities shows the high intensity in R&D of the companies surveyed. In terms of budget 83% of the surveyed companies spend more than 10% of their total budget in R&D projects, which is a tremendously high investment. In this sense it is also important to remark that most of them have received public funding from European programmes, which indicates that these R&D activities have been conducted at a very high level since European funding implies certain levels of excellence and high quality in the definition and execution of the R&D projects.

When it comes to barriers for SMEs to perform more and better R&D, the main impediments that the surveyed companies perceive to participate in R&D programmes are:

- Barriers on access to funding.
- Finding the most appropriate research partner for the development of a project idea.

Finally, with respect to R&D interests, there are not important differences between the interests of SMEs companies in the different R&D topics. This result can be interpreted as the fact that the current NEM SRA fully meets the SME expectations and interests not having singularities regarding the interests from SMEs versus the interests of the whole NEM Constituency.

In order to provide more details on how this activity and survey were conducted this deliverable includes as annexes the following documents related to the NEM SME activity:

- Annex 1. Questionnaire on profiling of NEM SMEs
- Annex 2. NEM SME Brochure

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1. Introduction

This document provides the information about the activities conducted by NEM in connection with the promotion of NEM membership on two specific stakeholders' communities: the content producers and the SMEs.

2. Promotion of NEM among content producers

The mobilisation of the content driven SME's is been effectuated especially by events.

2.1 GDCE 2010.

GAME prepared a workshop session on GDCE in Cologne for August 2010. On the 17th of August GAME organized a session (short workshop) about the cooperation of FP7 at GDCE in Cologne for August 2010. This conference is the largest game developer conference in Europe. This was the session:

European Technology Support for Game Development
    Speakers:
    Malte Behrmann (General Secretary, EGDF),
    Halid Hrasnica (Programme Manager, Eurescom),
    Fred Hasson (CEO Redbedlam, CNG Project, EGDF On-line SIG)
    Martin May, (Technicolor, NaDa Project)
    Jonatan Freeman, (i2 Media, Games@Large Project)

    Date/Time: Tuesday (August 17, 2010)   17:45 — 18:35
    Location (room): Congress Saal 1, 4th Level
    Track: Business & Management
    Format: *50-minute* Lecture
    Experience Level: All

Session Description:
This session is aimed at game developers, who are interested in participating in EU funded collaborative research projects. The opportunities to receive research and development funding through programs like Framework Seven are significant. Game developers from Europe can participate in these programs and finance parts of the technology through collaborative European support programs. The session will highlighting aspects which will be addressed in the upcoming work program which are likely to be of interest to European game developers. Game developers are ideally situated, as they are content driven small medium enterprises for information and communication technologies.

The first part of the session will explain thematic aspects of the Framework Seven program relevant for game developers and also the role of NEM initiative. The second part of the session will show examples, namely game related research projects which are currently ongoing from a networked media perspective. They show that it is possible to participate in research projects as game developers and that is worth it. The presentation of the research projects will also highlight opportunities for game developers to participate at a later stage in ongoing research projects.
The session explained in detail the possibilities of FP7 to game developers. The discussion was vivid aid and a number of contacts were made.

2.2 NEM Summit 2010.

A larger impact had the more specifically focused workshop for business models etc. on the NEM Summit. GAME did consult in face to face meetings a number of individuals on how to submit a paper there. On the NEM summit, GAME organized track 4. This was a unique occasion to promote NEM to the relevant industry with a higher visibility than would have been reached with a separated workshop. Especially the last track, the so called "freestyle" session was intended to make the summit also a platform for more independent content creators.

The final program of track 4 organized during the last NEM Summit event was as follows:

NEM Summit Track 4 - Innovative Media Services
        Chaired by:
Malte Behrmann (Game)
Man-Sze Li (IC Focus Ltd.)

Date/Time: Thursday (October 14, 2010)   14:00 — 17:30
                    Friday (October 15, 2010) 9:00 – 12:30
Location: Hesperia Tower, Barcelona
Track: Innovative Media Services
Format: *3,5 hours-session*
Experience Level: All

Program:

Thursday, October 14

Session 1 chaired by Adrian Woolard (BBC R&D)

> **"Media Sector Business Drivers in 2020"**, Raphael Giesecke, Aalto University School of Science and Technology, Finland

> **"The Competitiveness of the European Videogame Software Industry"**, Giuditta De Prato, Institute for Prospective Technological Studies, JRC, European Commission, Spain

> **"Legal Implications of media and emulation"**, Jeffrey van der Hoeven, Koninklijke Bibliotheek, Netherlands

Coffee break

Session 2 chaired by Thorsten Herfet (Intel)

> **"The Community Network Game Project: Enhancing Collaborative Activities in Online Games"**, Raouf Hamzaoui, De Montfort University, UK

> **"AAA Stereo-3D in CryEngine 3"**, Francesco Carucci, Crytek, Germany

> **"MobiAR: Tourist Experiences through Mobile Augmented Reality"**, David Marimon, Telefonica R&D, Spain

> **"Is Mobile Search finally going mainstream? An attempt to reconcile expert views"**, Margherita Bacigalupo, JRC Institute for Prospective Technological Studies, Spain

Friday, October 15

Session 3

>**"Responsive, Energy-Proportionnal Networks"**, Dejan Kostic, EPFL

>**"Broadband Hitch Hiking: greening residential broadband networks"**, Alberto Lopez Toledo, Telefonica Research

>**"Tracking Energy in Embedded wireless networks"**, Rodrigo Fonseca, Brown

Coffee break

Session 4 - Panel Discussion

2.3 CAP DIGITAL symposium.

NEM representatives have been invited to a symposium organized by CAP DIGITAL in Paris on the 28 April 2011. We had the opportunity to present NEM activities to content producers and we have establish a strong contact with Digital Art International (http://www.digitalarti.com/en/%252Fblog/digitalarti/digitalarti_presentation) which is a international organization of artist interested to use digital technologies. They just become NEM members and they also will inform their community about the NEM and especially about the NEM art&design contest in order to attract them.

Digitalarti welcomes digital art pros, artists, festival organizers, journalists, collectors, galleries, institutions, digital art fans and all festival-goers around the world, and invites them to share experiences, information, artworks presentations, use the tools and data bases, and have fun.

2.4 GDCE 2011.

On the 16th of August 2011 GAME organized a session (short workshop) about standardisation at GDCE. This conference is the largest game developer conference in Europe. This was the session: "Middleware and European Standardisation"
Moderator: Dr. Malte Behrmann, European Games Developer Federation (EGDF)
Panel:

- Anne-Marie Sassen, European Commission, InfoSoc
- Felix Roeken, Havok
- Dr. Andreas Gerber, Xaitement

Minutes of this session:

Malte Behrmann: Middleware and European Standardisation
First of all, with Game Co-op Malmö we run a website www.gamemiddleware.org. It is like a phone book of the game middleware. The game middleware is important. It is between a platform and a game itself. It allows higher portability and allows better maintainability.
Why do we talk about standardisation? The standardisation has a long history in Europe. One of the biggest success stories is the metric system, as a result of its introduction our economy went up. More recent success

was the introduction of GSM standard, which gave Europe a good head start compared with other parts of the world; a head start that we have lost now.

Another thing is that Europe does not control end-user technology. We do not control consoles at all, less and less mobile phones etc. Middleware gives greater independence to European developers.

In addition, European developers want less and less reinvent the wheal while developing their games. European middleware companies have a greater and greater role in markets. Not necessary in the USA, but e.g. in Korea Europeans almost dominate middleware markets. Thus although Korea is ahead of us in game development, this is not the case with game middleware. European middleware is becoming stronger and stronger outside Europe. We should see that on the technology side we do not have to hide.

Europeans are confronted by standards from other continents. These are de facto standards run by network effect and the economy of scale. Google was a small company not a very long time ago, that we should not forget. Thus our vision is: interoperability, multiavailability and tools that serve game developer community. My last point is that standardisation happens anyway. The standardisation machine is going on all the time. The problem is that we, the game industry, do not contribute to that discussion. Our voice is not heard.

Anne-Marie Sassen: Standardisation in the European Union

Standardisation does not always work, but sometime it does. If you have a standardised product, the development is easier, trading is easier; it simply makes life easier. Even if you are a newcomer, you don't have to reinvent everything. It improves interoperability and leads to better competition. In addition, it creates less dependence.

The European success story was GSM, as it created the base of mobile industry in Europe. The question is if something like that can be created for game industry in Europe. In the game industry Europe holds a good position in middleware. The industry is driven by high-tech SME's and it has great potential for growth. Consequently, the digital agenda of Europe can help the game industry. The agenda tries to remove barriers and create a single digital market in Europe. Barriers like cyber crime, the lack of skills and fragmentation are hindering the growth of high tech companies.

The Digital agenda tries to create more standards and introduce standards that all countries in Europe should use. These standards are developed for certain policy areas (e.g. e-health, accessibility) and for single markets. A standard is only useful if it is used. The digital agenda proposes that whenever a national government pays for an ICT product, it should demand that it follows certain standards. This is not the case at the moment. This could be an intensive for certain standards, perhaps not for games, but perhaps for serious games.

In addition, EU supports research projects. That could be something that could be used to help game developers to develop right standards. Of course, global industry and big consortia develop important standards that are widely used and are important. But when does standardisation work? If there is really a need for the members of an industry group to co-operate in order to keep their market share and globalize their business (eg. telephone companies while roaming), then it works.

It does not work when a dominant player does not benefit from the standard (e.g. odf and ooxml). Or when the technology is not mature enough. Then new technologies just replace old standards quickly. What should be done: try to identify good candidates for standardisation, choose appropriate standard body and check how European research projects can help you.

Panel:

Dr. Behrmann: One good example is mobile chargers. European parliament just forced it to happen.

Ms. Sassen: Behind that was also environmental issues. I would not use laws to force standards for game industry.

Dr. Behrmann: The game industry really knows that laws are not always good

Dr. Behrmann: Mr Roeken, please introduce yourself.

Mr Roeken: I'm working for Havoc now. I used to be the CEO of Trinigy that has been acquired by Intel recently. On the other hand having choices is a good thing. But if a game developer has to merge six middleware tools for their products, it is not fun. The industry has to consolidate. And it is happening quicker that I expected. What we are seeing now is that consolidation is the first step to standardisation. But in some years we will have some middleware companies dominating markets. Do these dominant players want to co-operate? Most probably not.

Dr. Behrmann: Mr Gerber, please introduce yourself.

Dr. Gerber: I am the founder of Xaitement. I suppose that big companies are not looking for standardisation, because standards are making markets more open. They do not want that, as it only creates competition for their own products.

Dr. Behrmann: Here in the GDC Europe, we are taking the view of game developers. Can we improve the situation of European game developers with standards? Our industry is moving quick…but where would you place standards?

Dr. Gerber: Graphic engines have standards, but not physics engines do not.

Mr Roeken: It is a nice idea, but I wonder how the providers of physic engines would be ready to open their product.

Dr. Gerber: Business and technology are two separate things.

Mr Roeken: From an ideal perspective I would agree, but from a business perspective it is impossible.

Dr. Behrmann: Are there any other industries that have a similar situation as game industry?

Ms. Sassen: I don't know, but if you think about the open source community, they are forcing big players to open their products. If many small players co-operate, they can make the difference.

Dr. Behrmann: You can see the change in the game market: the digital shift, less and less games are sold in stores. As a result, we have web-driven companies like Unity…what is the impact on a technology side? Is this good or bad for Europe?

Dr. Gerber: On the other hand, Unity is good. Less technology you have to use while developing games for browsers and thus for Indie market it is very good. On the other hand, in the beginning they ware open, but not anymore. I think it is the same for all companies: while they are small, they are open for standards; when they get big, not anymore.

Mr Roeken: In all 3D browser games, we have the same problem, no matter if we use Shiva, Unity etc., a plug-in downloading problem. Flash is a good example, how it should be done.

Mr. Maarten Noyons: Is Unity profitable company today?

Dr. Gerber: Yes, I suppose so.

Mr. Maarten Noyons: If you think companies like Unity, the best things for them is to be acquired by another company, like EA. Then they claim that everything will stay the same, but why they would offer tools for their competitors? That creates the problem.

Dr. Behrmann: I think the acquirement of Criterion by EA is an important milestone, as after that, many developers have refused to outsource technology from their company.

Mr. Hannes Blick(?): I would think that game industry as a creative industry will have huge problems to follow standards?

Dr. Gerber: The technology side of game industry is developing extremely fast. There are no standards and it is very challenging to develop standards. If standards become too large and too complicated, nobody will use them.

Dr. Behrmann: Serious games have lots of connections to military and there are lots of standards? What is your relationship to there?

Mr Roeken: When we started to do business in security and defence industry, we learned quickly that if you do not support standards, you are out of business. The reason for this is that governments require them.

Dr. Gerber: I have a similar example. And it is very challenging to enter those markets. It keeps small companies out and helps big companies to keep their dominant position.

Mr. Fred Hasson: Can European Commission fund open source projects?

Ms. Sassen: Yes, external experts decide what the best projects and if open source projects are among them, they are funded.

2.5 NEM Summit 2011

On the NEM summit GAME organized an invited talk of Bigpoint. This was a unique occasion to promote NEM to the relevant industry with a higher visibility than would have been reached with a separated workshop.

But, NEM summit 2011 was also the organization of the NEM art&design contest.

2.5.1   Purpose of that contest:

The aim is to offer to NEM members the possibility to show their innovative content which can be a video, flash illustrator or any other animated virtual/real content **representing the NEM mission**.

For the NEM platform, it is also a way to make a better dissemination. The needs are the following ones :

- NEM is a research ETP, there is a need to make advertising showing the future in its field.

- NEM is covering content; there is a need to build that future image using advanced content.

- NEM is user centric oriented, there is a need to show use cases describing what shall be the future.

- NEM is addressing the entire path between content productions to content consumption; there is a need to explain the overall system.

The objectives are the following ones :

- Make more attractive our web site

- Make dissemination in NEM booth during conferences. (a beamer could display the content)

- Broadcast an innovative image in the research community

- Make more understandable the SRA and our vision.

In order to achieve that goal there is a need to achieve the following steps :

1. Organisation of annual contest within the NEM community

2. Selection of 4-5 contents through an evaluation by the contest committee

3. Designation of the winner

4. Production of a DVD, availability on the NEM Web Site

2.5.2   Organisation of the annual contest :

The annual contest has to be organised in a similar manner as the call for paper we usually do for each NEM Summit.

Then, we also have to set up a specific committee which will have to objective to evaluate the received proposals.

2.5.3   Call text

NEM, the Networked & Electronic Media Technology Platform, is evolving to address the challenges of the Future Internet, with the ambition to drive the fast-paced evolution of networked and electronic media industry. High bandwidth and CPU availability (both at home and on mobile devices) opens the way to high quality and immersive media and content consumption. The amount and diversity of data that will be accessible through network connections are also increasing with (among other) home automation, smart grid, assistive technologies, and sensors.

The NEM platform is willing to extend its aura and attractiveness through a new design of the NEM web site. This new design should integrate innovative multimedia content that represent the NEM challenges in a prospective manner.

We invite all stakeholders of networked and electronic media to submit a multimedia content in any format (video, flash, …). These content should be integrated easily in a web page accessible from any regular web browser (Internet explorer, Firefox, …) and **shall represent the NEM mission**. The proposals will be analysed and selected by the NEM steering board which will not retain the copyright of the submissions; therefore, authors can feel free to submit work that they intend to publish later. There is only a need to give for free a licence of usage that could allow NEM to publish the content on the web site and in any form of presentation.

The content should address topics such as :

- Content creation, management, distribution, presentation and consumption by and for users (professional and amateur)

- Empowered end-users accessing any content, anytime, anywhere from trusted services and applications in simple, secure, fast and reliable fashion

- Life experiences are recorded to share in social communities, to achieve 'togetherness', to support belonging to various digital social groups, to create expressiveness and immersion in many varied ways

- eServices : eHealth, eAdministration, eInclusion, eBanking, eLearning, eCommerce

- Answers to Sustainable development challenge

- Service distribution at community building, house or home and everywhere on any types of devices including continuity (hand over)

- The distinction between today's basic routing technologies – such as unicast, multicast and broadcast – must become invisible, not only to the user but also the media application itself;

- Media must become networkable, an integral part of any kind of network rather than just something to be transmitted from A to B;

- Media must become ubiquitous; content will come from any user, with highly sophisticated and user-friendly indexing engines to generate the accompanying metadata;

-The infrastructure must become context-aware, recognising users to know their needs, and adapting itself to the environment;

- Intuitive and multi-modal interfaces must offer a more natural way to interact with and within media environments;

- To make networked media communication inclusively available to all, using or consuming any kind of media should be known by its content and not by the technology used ('FM', 'MP3', 'DVB' etc.);

- Media retrieval must become affective, using genre-based playlists representing moods and degrees of user involvement;

- Networked media should allow new groups to form, for social or business purposes, defined by their media interests;

- Video must be represented in a much more human way, by realistically modelling entire media environments on an object-by-object basis, offering exciting new creative possibilities;

- There must be seamless and intuitive service handover between devices and environments, allowing users to access services wherever they are, whatever terminal they are using;

- 'Federated' services – complex services built up from multiple elements from different originators – must be enabled, offering valuable commercial opportunities for service differentiation;

- Service providers must address, in a way that is fair to all, the security and rights issues involved when handling audio-visual material in networked and electronic media.

2.5.4   Evaluation committee

A specific committee will be setup with well known personalities in order to insure impartiality of the ranking of the proposals.

2.5.5   Award

The winner, the second and third ranking will receive an award which could be money (up to 5 k€) and/or advertising on the NEM web site main page as well as the NEM summit 2011 site. It should also be a free booth at the 2011 NEM Summit.

All the proposals will be uploaded on our Web site with the name of the producers.

2.5.6   Results

The 2011 NEM Summit will feature 16 artworks, showcased in a dedicated area of the exhibition. A jury was set up and had the high difficulties to select the best one. Finally the winner was 'Isabella..' ,but some of the others was also at high quality namely Afghan War Diary, Oscilla, Loopjam, Surround Video and Virtual Maestro..

These artworks are now available on the NEM website at the following address : http://www.nem-initiative.org/home/contest.html

A cooperation event in Ankara initially planned for 2010 was finally postponed to 2011.

3. NEM SME Activity: Background and origin

Following the terminology, procedures and tools which NEM has to carry out its work, the Activity is one relevant element for NEM community to focus on specific issues.

3.1 NEM Activity framework.

The procedures set by NEM Steering Board and endorsed by the NEM General Assembly regarding Activities are precisely described in the NEM rules and they follow the principles:

> As NEM Steering Board has the responsibility to push for action at all levels of interest within the NEM community, in order to provide response to the NEM Vision and encourage further evaluation of NEM Strategic Research Agenda, it created a new instrument for collaboration among NEM members by establishing **NEM Activities**. On advice and request, the Steering Board may set up the NEM Activities of limited duration to deal with particular issues of special concern to its mission. Furthermore, the NEM Activities should increase visibility and strength of the NEM Initiative improving its impact in public and among relevant European and national organizations and bodies.

NEM Activities should ensure:

- **Significant involvement** of NEM community / NEM members,
- Coverage of various **topics of interests** from NEM area, and
- **Regular contributions** of Activity results to NEM community and wider.

How to join a NEM Activity:

In order to join a NEM Activity, you have to contact respective Activity leaders or co-leaders. **Links to NEM Activities are available on the NEM Initiative website.**

Procedure for creation of NEM Activities:

1) NEM Activities are established by NEM Steering Board on request from NEM members.

2) Each NEM Activity must be coordinated by a designated Activity leader. If an Activity is proposed by a NEM member who is not in the NEM Steering Board, one Steering Board member will serve as rapporteur to represent the Activity at respective meetings.

3) Proposals for creation of new NEM Activities have to be sent to NEM Office by e-mail to: **info@nem-initiative.org**.

The proposal should include the following:

- Activity title
- Name, affiliation, and e-mail address of the Activity Leader - to be published on the NEM website as main Activity contact
- Name, affiliation, and e-mail addresses of Activity Co-leaders (optional)
- Abstract/summary describing scope of the Activity - to be published on the own website under NEM domain
- Detailed Activity description (optional) in PDF format - to be made available on the NEM website for download
- **Important**: Abstract/summary and/or detailed Activity description must contain clear Activity plan for next period (6 – 12 months) and objectives to be achieved within this period
- Any results, deliverables, reports, etc., created by the NEM Activity must be published on the NEM website (in form of PDF files ready for download)

4) After approval by the Steering Board, NEM Office will publish received information on the website, create a corresponding e-mail list under NEM domain, and distribute a Call to all NEM members to join the Activity. The e-mail list will be updated on request received from the Activity Leader. Dedicated FTP space for each Activity can be created on request as well.

5) In the case of submission of Activity ideas with similar scope, an appropriate merge between Activities will be proposed by the Steering Board. Final decision right has NEM Executive Group.

6) Regular review of NEM Activities on recent achievements and future plans will be carried out at NEM Steering Board meetings. Rule: "**no activity performed - no NEM Activity** (Activity cancellation)" will be strictly applied by the Steering Board.

Consequently, in accordance with the NEM rules, FutureNEM continued the very first steps launched by the previous support action 4NEM and made reality the **NEM Activity on SMEs** with the following proposal which was endorsed by NEM Steering Committee and later on by NEM General Assembly.

3.2 NEM Activity on SMEs (or NEM SME Activity)

SMEs have become increasingly important in our society as providers of employment opportunities and as key players for the well-being of local and regional communities. Hence, European SMEs represent more than 90% of the overall European industrial entities. However, the visibility of SMEs in the specific field of R&D is really low, being in the order of 15% in the best cases.

Therefore, there is a need to specifically target the role of SMEs, motivate them, facilitate their involvement and ensure that their interests and capabilities are duly taken into account by NEM as a European Technology Platform. SMEs participation in NEM would mean an opportunity to establish tide contacts with main industry players in several research areas where NEM is active, being up-to-date with actual R&D targets defined by the industry, being able to find appropriate partners for creation of successful R&D projects and increasing chances to get funding for realisation of the projects where SMEs can launch specifically dedicated projects or become part of wider and more ambitious R&D projects in cooperation with large NEM participants.

Being European technology platforms, one of the main vehicles fostering R&D in Europe, it seems appropriate that NEM should also promote a specific Activity (as defined by NEM) where SME interests can be openly discussed, and views of SMEs can be channelled to the relevant bodies of NEM (GA, EB, EG, position papers groups, etc.).

3.2.1   NEM SME Activity: Objectives

In order to enhance and promote SMEs competitiveness by means of R&D results, a new specific Activity within NEM is launched. The Activity targeting SMEs will cover several actions:

- Dissemination among SMEs and SMEs Associations of the benefits to participate in NEM activities.

- Specific action to promote a more active involvement of SMEs from the several technology fields within the scope of NEM (content producers, broadcasters, middleware developers, etc...).

- Orchestration of small scale workshops (e.g. besides General Assembly, NEM Community/Projects workshops, etc.), with emphasis on the participation of SMEs.

- Promotion of active participation of NEM representatives and NEM participants (SMEs among them) at international events.

Various reports will be produced from events and workshops organised as a result of this Activity, which will depend on the interests to be expressed by the interested SMEs. In many cases, contacts with SMEs Associations will constitute the main vehicle for channelling the relations with SMEs in the most effective and efficient manner.

3.2.2   How the NEM SME Activity was organized

The NEM SME Activity is based on a group of NEM participants interested to discuss how to enhance the SME participation in NEM actions, how to channel SMEs views and interest with more emphasis towards the NEM bodies and how to promote more involvement of SMEs in the Networked media projects. Consequently, several actions will be conducted: meetings, promotion of SMEs participation, dissemination, discussions of the SMEs research interests, etc…, organized and promoted by 4NEM/FUTURE NEM projects that will assume the early stages of the activity, depending on the general NEM participants' interests and views. The NEM SME Activity group, made up of SMEs members, supported by 4NEM/FUTURE NEM, will set up its own priorities as result of its own deliberations.

The NEM SME Activity group will discuss the main priorities for SMEs within the current NEM Vision and NEM SRA, taking into consideration the interests and research proposals of the NEM SMEs.

One possible outcome of this effort will be a sort of subset of thematic priorities of high strategic interest for SMEs: a sort of NEM focussed vision for SMEs and NEM focussed Strategic Research Agenda for SMEs.

The following graph shows the NEM SME Activity group structure.

NEM SME Activity group

Network Media
Activity coordinators

Supported by FutureNEM

SMEs and SME
Associations
(NEM members)

SMEs and SME
Associations

NEM SRA
NEM Vision
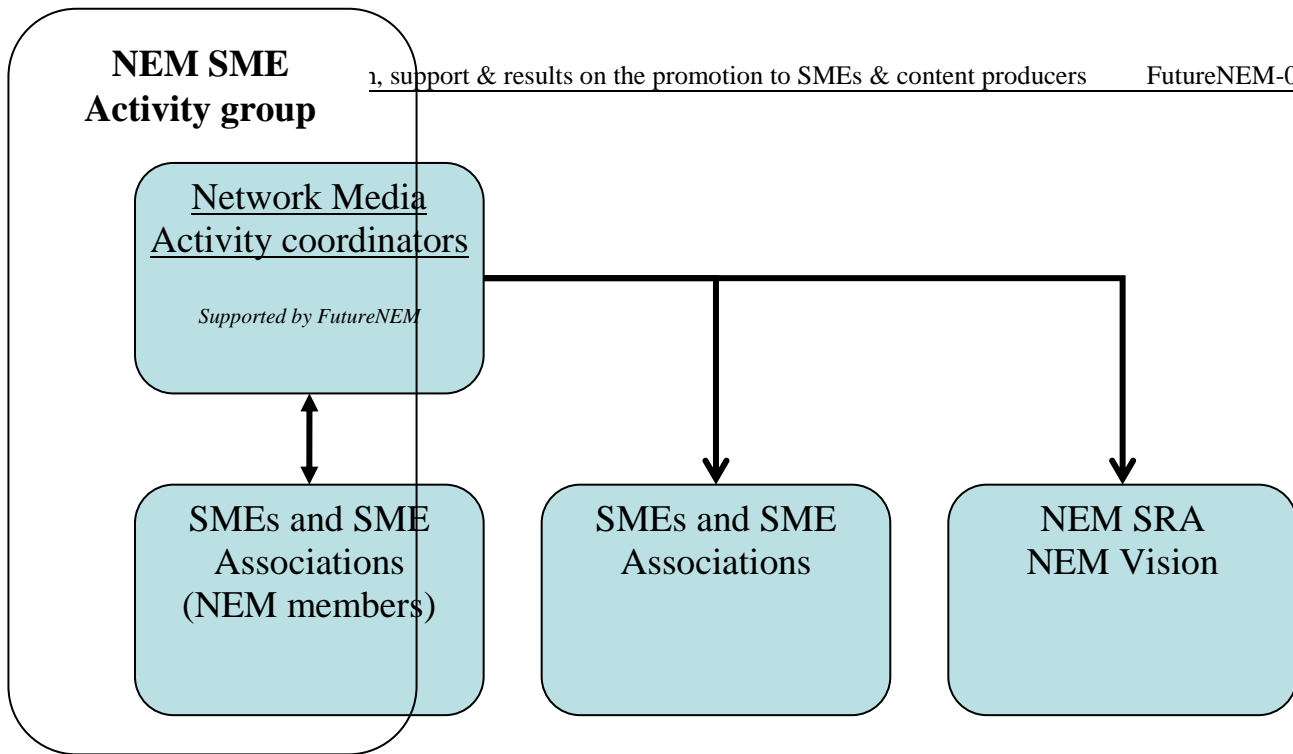
This Activity will be also the liaison body within NEM to cooperate with other specialized projects in the SME field, like the PRESTO or MAPEER SME projects, which focus on SMEs in the construction sector and other industrial sectors respectively, or like the FASTER project, related to transport and logistics SMEs, or other similar actions launched by other ETPs, like eMobility, NESSI.

3.2.3   NEM SME Activity: Members

More than 800 NEM participants joined the NEM Initiative, amongst others, a significant number of SMEs. Therefore, it is expected that this NEM SME Activity would continue raising the interest from the SME constituency, either for the current NEM SME participants and also attract other SMEs to become NEM participants as a consequence of this effort by NEM to focus on SMEs interests. In accordance with recently performed review of the NEM membership, around 37% of the members are SME's, which mean that about new 50 SMEs have joined NEM during last year.

The coordinator of this NEM SME Activity is Dr. Julián Seseña (Rose Vision) with the support from the 4NEM/FutureNEM projects. jsesena@rose.es, Phone: +34 630047191.

Current supporters of the NEM SME Activity are listed below:

NAME	POSITION	ENTITY	TELEPHONE	EMAIL
Julián Seseña	President	Rose Vision	+34 630 047 191	jsesena@rose.es
Andreia Moreira	Business Development Director	Rose Vision	+34 636 817 905	andreia.moreira@rose.es
Artur Krukowski		INTRACOM		krukowa@intracom.com
Eustache MUTEBA Ayumba	Researcher		+243812780105	emuteba@hotmail.fr
Elías Pérez Carrera		Quobis Networks SLU	(+34) 902 999 465/ (+34) 600 44 81 51	elias.perez@quobis.com
Fotis K. Liotopoulos	R&TD Director	Virtual Trip	+30-2310-498294 / +30-693-66.48.656	liotop@vtrip.net
Philippe Letellier				Philippe.Letellier@institut-telecom.fr
Jean Gelissen	Senior Director Strategic Partnerships	Philips Research	+ 31 40 27 49777 / +31 6 53177715	jean.gelissen@philips.com
George Ioannidis				gi@in-two.com
Jon Arambarri		Gowex		jarambarri@gowex.com
Jacques GOUIMENOU		TIGA TECHNOLOGIES SARL	+33(0) 6 07 39 14 08	gouimenou@tiga-technologies.com
José Carlos González		DAEDALUS		jgonzalez@daedalus.es
Luca Mion	Innovation Manager	TasLab - Informatica Trentina		Luca.Mion@infotn.it
Edwardo Oliveira		Cap Digital		eduardo.oliveira@capdigital.com
Nozha BOUJEMAA	Research Director	Inria	+33 1 3963 5154	
David Monteau		Inria		
Saverio Mascolo				saverio.mascolo@gmail.com
Daniel Harris	Founder	Kendra Initiative	+44 20 7993 6339 / +44 7853 627 355	daniel@kendra.org.uk
Philippe Wacker	Executive Director	EMF	+ 32 2 219 0305	phw@emfs.eu
Pierre Yves Danet		Orange-ftgroup		pierreyves.danet@orange-ftgroup.com
Sourabha Rani Theophilus		ITSMA	+91 80 4152 6640	sourabha@itsmaindia.org
Thomas Stockhammer	CEO	Nomor Research GmbH	+49 89 978980 02 / +491725702667	stockhammer@nomor.de
Gerhard Wagner				gkwagner@via.at
Philippe Martineau		Eureva		philm@eureva.fr

3.2.4   NEM SME Activity: working practices

As a working method, a reflector has been created with all those NEM participants interested to get involved. Initial membership is by those NEM participants aiming to reach critical mass of memberships towards supporting and defending the needs of SMEs and fostering them to be more active within NEM bodies.

Although the NEM SME Activity group can set up its own priorities as result of its own deliberations, the initial actions for the NEM SME Activity included several specific tasks:

- List of NEM current membership with SMEs profile.

- Identify NEM SMEs Associations which can be further multipliers of the NEM SME Activity work.

- Discuss the main priorities for SMEs within the current NEM Vision and NEM SRA. Ensure that the interests of NEM SME researchers are duly taken into consideration. Surveys can be carried out to provide the identification of priority research topics for the SMEs.

- Propose specific research items to be included in the ongoing revision of the NEM SRA.

- Organize small scale workshops, roundtables or specific meetings with SMEs of several technology fields (content, devices, middleware developers, etc) to foster and promote specific research areas of interest to SMEs, raise interest on possible project areas (FP7, Celtic, National R&d Programmes, Eurostars, etc.).… In those meetings, not only the benefits to participate in NEM activities will be disseminated among SMEs, but also their needs, problems, successful engagements or the situation of their research programmes and initiatives will be discussed.

- Circulate an estimated events calendar through all those SME members. It will contain information about the meetings: the specific area of interest, type and number of participants, objectives, premises, etc.

- Liaise with other similar SME groups from other technology platforms and other projects (Presto, ERA Study, FASTER, SECURE FORCE, eMobility SME, …).

- Develop a reference back-up repository (available on-line) where the reports, produced from events and workshops organised as a result of this Activity.

3.2.5   NEM SME Activity: outcome and impact

As a consequence of the work and operational actions described above, a number of outcomes were expected:

- List of NEM SME participants interested to conduct research in the network media field
- Recommendations about measures to enhance the SMEs involvement in the NEM ETP
- Identification of research priorities for NEM SMEs
- Improvement or confirmation of the NEM Vision and NEM SRAs at the light of specific interests by NEM SMEs
- New SMEs attracted to become active members of NEM community.
- Wide dissemination of NEM activities among the SME Community

3.3 Results from NEM SME Activity

In order to better characterize the NEM SME community, a survey was developed and wide consultation made to all NEM participants. The full questionnaire is provided in Annex 1 to this report. A NEM SME Activity brochure was jointly distributed and is also provided in Annex 2. The objective was to identify research priorities that are of interest for SMEs within NEM field and learn more about the interests of NEM SMEs and thus be able to focus NEM SME Activity efforts on these priorities and liase with international initiatives, projects, bodies and events promoting SME interests.

Although the consultation is permanently open, some preliminary results have been already obtained based on 114 responses received during this period. By mid September 2011 the list of NEM SMEs that have joined to the group and responded to the questionnaire is shown in the following table:

Organisation	Contact person		Country
	First Name	Last Name	
21media innovations ltd	Keith	Mitchell	U.K
21media innovations ltd	Keith	Mitchell	U.K
ACTIC	ALBERTO	AMO DE LA FUENTE	Spain
AICO Software GmbH	Ferdinand	Aicher	Austria
AICO Software GmbH	Ferdinand	Aicher	Austria
AIDO	Elena	Boronat	Spain
ALECOP S. Coop.	Andoni	Aregita	Spain
ARKAMYS	Jean-Michel	Raczinski	France
Ascora GmbH	Sven	Abels	Germany
ATC	Nikos	Sarris	Greece
Autoentrepreneur Openlearning	Jacques	Beslot	France
AUVALIE	Pierre	MICHEA	France
AUVALIE	Laurent	MASSCHELEYN	France
AwoX	Olivier	Carmona	France
BOTTCO	Wolfgang	Bott	Germany
Calamares Europe BV	Wouter	Maagdenberg	The Netherlands
celum gmbh	Michael	Kraeftner	Austria
CINTEL	CAROL	RENDON	Colombia
Computer Technologies Company S.A.	Sakis	Psonis	Greece
Condat AG	Rolf	Fricke	Germany
Creativ-IT	Wendy	Moreno	Spain
DAEDALUS, S.A.	Jose C.	Gonzalez	Spain
Digitalarti	Malo	Girod de l'Ain	France
DTSys	Itsik	Arbel	Israel
EFP Consulting (UK) Ltd	Myer	Morron	U.K
EGDF / GAME	Malte	Behrmann	Germany
ekospor	Sebahattin	Devecioğlu	Turkey
Elettronika Srl	Marco	Fiore	Italy
Elise Van Marcke	Elise	Van Marcke	Belgium
EMF	Margaretha	Mazura	Belgium
Entrepreneur ICT & media	Carlos Eduardo	PEREZ	France
Eurescom GmbH	Uwe	Metz	Germany
Eureva	Philippe	Martineau	France
everis	Marino	Gallego	Spain
Evre Consulting	Ozgur Devrim	Orman	Turkey
GATCOM group @ Miguel Hernandez University	Manuel	Perez Malumbres	Spain
Grassroots Arts and Research	Carmen	Mac Williams	Germany
Grupo DEX	Javier	Martinez	Spain
Grupo GOWEX	Luis Manuel	Calvo	Spain
HI-IBERIA INGENIERIA Y PROYECTOS SL	ROBERTO	GMENEZ	Spain
Holken Consultants & Partners	Hadmut	Holken	France
Holografika	Peter Tamas	Kovacs	Hungary
Hungarian Association of Content Industry (MATISZ)	Ferenc	Hargitai	Hungary

ICI Bucharest	Gabriela	Florescu	Romania
ICIN Events Ltd	Stuart	Sharrock	United Kingdom
IDATE	Roland	MONTAGNE	France
IN2 search interfaces development Ltd	George	Ioannidis	Germany
Independent Consultant	Nigel	Jefferies	U.K
Independent Researcher	Eustache	MUTEBA Ayumba	Africa
Independent Researcher	Eustache	MUTEBA Ayumba	Africa
Information & Image Management Systems	Ismael	Fuentes	Spain
Information & Image Management Systems	Albert	Armisen	
InfoSector as	Baard	Krogshus	Norway
INMARK	Yolanda	Ursa	Spain
INSTITUTO TECNOLÓGICO DE CASTILLA Y LEÓN	Maite	Cobo	Spain
Interactive Technology, Software and Media Association (ITSMA)	Surbhi	Sharma	India
IRIDA Labs	Christos	Theoharatos	Greece
IRT GmbH	Christoph	Dosch	Germany
ISA	Jose /	Malaquias	Portugal
ISEA MCC	JUAN MARI	OKINA	Spain
ISMB	Antonio	Sciarappa	
ISOIN	Victor	Sanchez	Spain
IT Strategy	Silvina	Bidart	Argentina
ITCL	Maite	Cobo	Spain
ITEA Solutions	Jovan	Pehcevski	Macedonia
itrust consulting	Robert	Nieradka	Luxembourg
JCP-Consult SAS	Roman	Kaurson	France
Kerdry	Keromnes		
Levering Ltd	Mervyn	Levin	U.K
Limecraft	Maarten	Verwaest	Belgium
Limecraft	Maarten	Verwaest	Belgium
LUDMATEC	Ludger	Marwitz	Germany
M.B.I. S.R.L.	Sabino	Titomanlio	Italy
MAG comLine	Alexandr	Rakushin	Ukraine
Mavigex S.r.l.	Massimo	Neri	Italy
MediaWorks UAB	Almantas	Silinskas	Lithuania
Mera Labs, LLC	Nikolay	Mikhaylov	Russia
Microgenesis	Laura	De la rúa Rodríguez	
Mobilera Bilisim	ZEYNEP	SARILAR	Turkey
MUFICATA s.l.	Ferran	Cabrer i Vilagut	Spain
National School of Applied Sciences of Tangier	mohamed	Moussaoui	Morocco
Nomor Research GmbH	Thomas	STOCKHAMMER	Germany
ONDA Communication	Michele	Capobianco	Italy
Optibase Technologies	Yael	Lapid	Israel
OTARIS Interactive Services GmbH	Frank	Bittner	Germany
PLANET MEDIA	Victor	Moracho	Spain
playence	Katharina	Siorpaes	Austria
Pro-Active sprl	Thomas	Zadrozny	Belgium
Project-E Ltd.	Marcello	Hinxman-Allegri	United Kingdom
QUOBIS	ELIAS	PEREZ CARRERA	Spain

RFSAT Ltd	Artur	Krukowski	Greece
RFSAT Ltd	Martin	Pollock	U.K
Rooter	José	Chamón Parra	Spain
Rooter	Alberto	Abella	Spain
ROSE VIsion	Julián	Seseña	Spain
RS	Ronit	Shamay	Israel
Salzburg Research	Georg	Güntner	Austria
SDIdigital Media Solutions SL	Federico	Jimenez	Spain
SECARTYS	Jessica	Kamps	Spain
Sigma Orionis	Karine	Valin	France
Signosis Sprl	Elena	Tavlaki	Belgium
Signosis Sprl.	Elena	Tavlaki	Belgium
SIPRO	Michele	Capobianco	Italy
Skaitmeninio sertifikavimo cen tras (SSC)	Moudruck	Dadashov	Lithuania
Smart Solutions	Petr	Skobelev	Russian Federation
Smarthome Challenges	Alain	LAMBERT	France
SOMFY	Richard	Beuhorry-Sassus	France
Sonovista	Marcus	Miletich	Austria
SPiDCOM Technologies	Scott	Willy	France
Student at Universidade Catolica Portuguesa	Gonçalo	Serras	Portugal
Synelixis Solutions	Thedore	Zahariadis	Greece
TeamCast	Gérard	Faria	France
Telecommunications and Information Technologies Center - Government of Catalonia	Christian	Klein	Spain
Testaluna s.r.l.	Ivan	Orvieto	Italy
The Mobile Experience Innovation Centre	Kathleen	Webb	Canada
TIE	Stuart	Campbell	The Netherlands
Tivit	Pauli	Kuosmanen	Finland
Treelogic	Sergio	García	Spain
UAE-ENSAT	Ahmed	El Oualkadi	Morroco
UFMG	Frederico	Faria	Brazil
University of Gezira	Hago	Dafalla	Sudan
University of Oulu	Xiang	Su	Finland
Value Grid Engineering Group	Klaus	Bonn	Germany
Value Grid Engineering Group	Alexander	Picolin	Germany
Varaani Works Oy	Juha	Kaario	Finland
virtualware	jon	arambarri	Spain
Vitec Multimedia	Olivier	Guye	France
vsonix	Gregor	Heinrich	Germany
W3C	Philipp	Hoschka	France
Wellness Telecom	Teresa	Alamos	Spain
Zentrick	Pieter	Mees	Belgium
Other members			
	Alain	Untersee	
	Miguel	Egido	
	Philippe	Wacker	
	Chauveau	Gilles	

Hassan	Triqui	
Luca	Mion	
Yannic	Bourbin	
J	Elte	
Guy	Mordret	
Ander	Altura	
E	Mahe	
Miguel	Egido	
Ares	Neophitou	
Daniele	Sangiorgini	
Frank	Jaeger	
Stephane	Donikian	
Philippe	Roland	
Andreas	Demetriades	
Popi	Tsiakka	

The main results to report are here below summarized.

The survey was aimed at SME companies whose main focus is on the NEM sector and therefore the results from the study obtained a priori correspond with the targeted companies of this questionnaire:

- Almost 3 out of each 4 of surveyed companies have less than 50 employees
- More than 6 out of 10 companies active participate in the NEM platform
- A very relevant percentage of companies (86%) carry out R&D activities demonstrating the high level of R&D activity in the NEM sector specifically among SME companies.

Conduct R&D

14%

86%

■ Yes
■ No
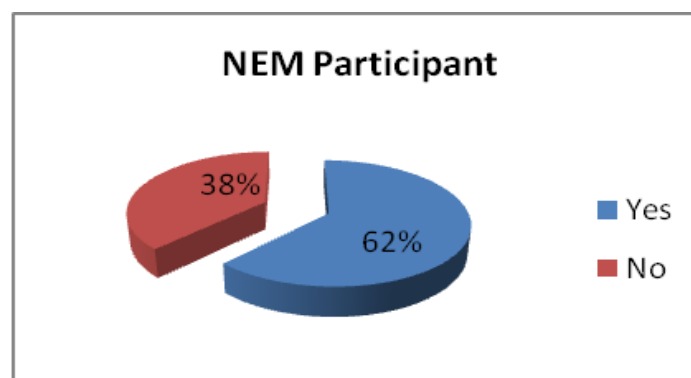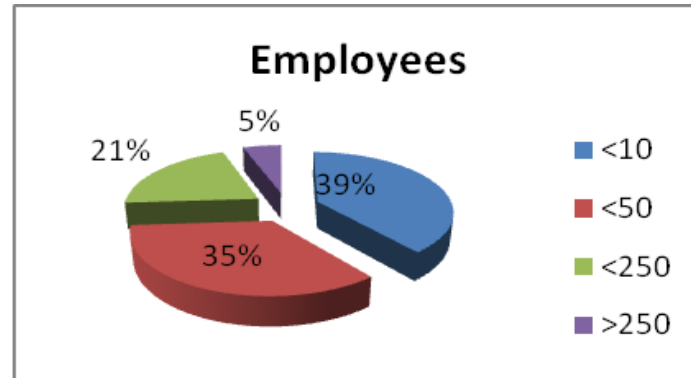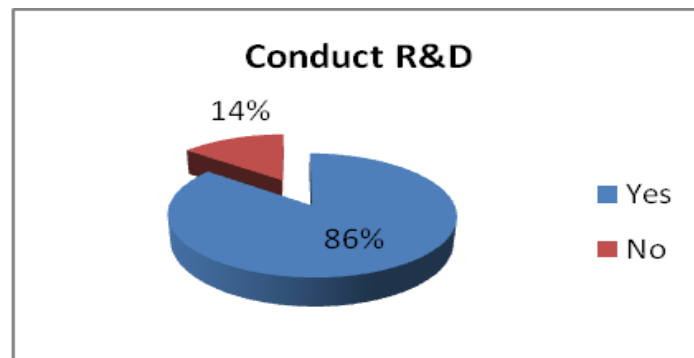
The distribution of both employees and budget dedicated to R&D activities let see the high intensity in R&D of the companies surveyed. Not so much in terms of employees (Around a 40% of surveyed entities devoted less than 20% of total employees) but on budget. (83% spend more than 10% of total budget).

% employees dedicated to R&D activities

17%

31%

24%

28%

■ 0-10%
■ 10-20%
■ 20-50%
■ >50%

% Budget dedicated to R&D

17%

24%

26%

33%

■ 0-10%
■ 10-20%
■ 20-50%
■ >50%
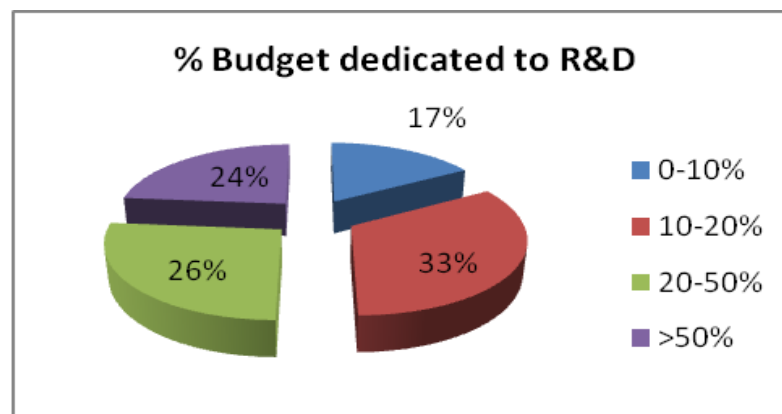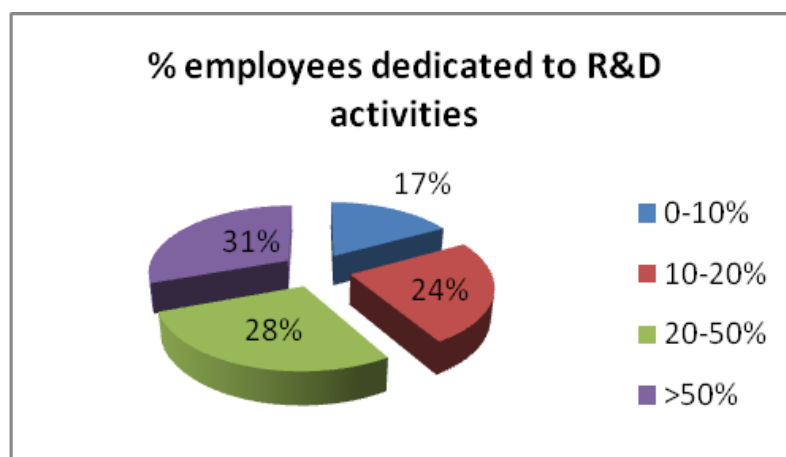
With regards to funding of R&D activities of SME companies, most of them have received public funding from European programmes.

Have received public funding

23% No
77% Yes

At which programmes did you take part

25% Regional
32% National
43% European
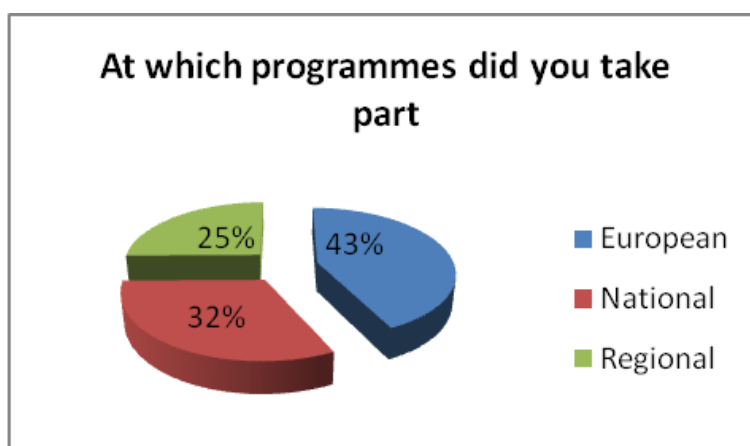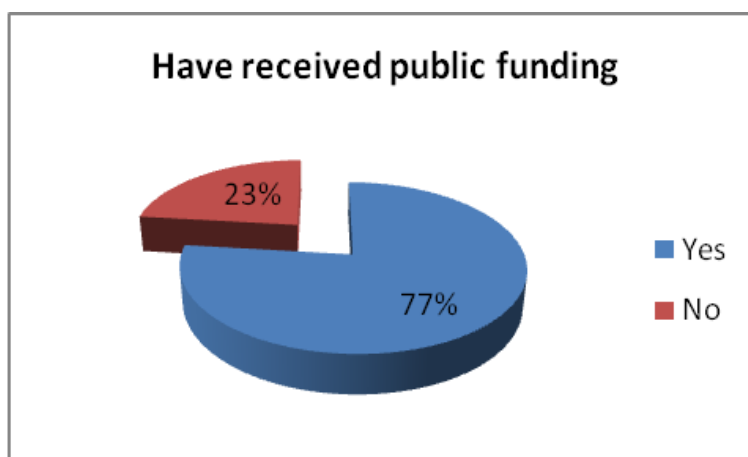
At the time of the analysis of these results the main impediments that the surveyed companies perceive to participate in R&D programmes are:

- Barriers on access to funding.
- Finding the most appropriate research partner for the development of a project idea.

Main barriers for taking part in R&D programmes

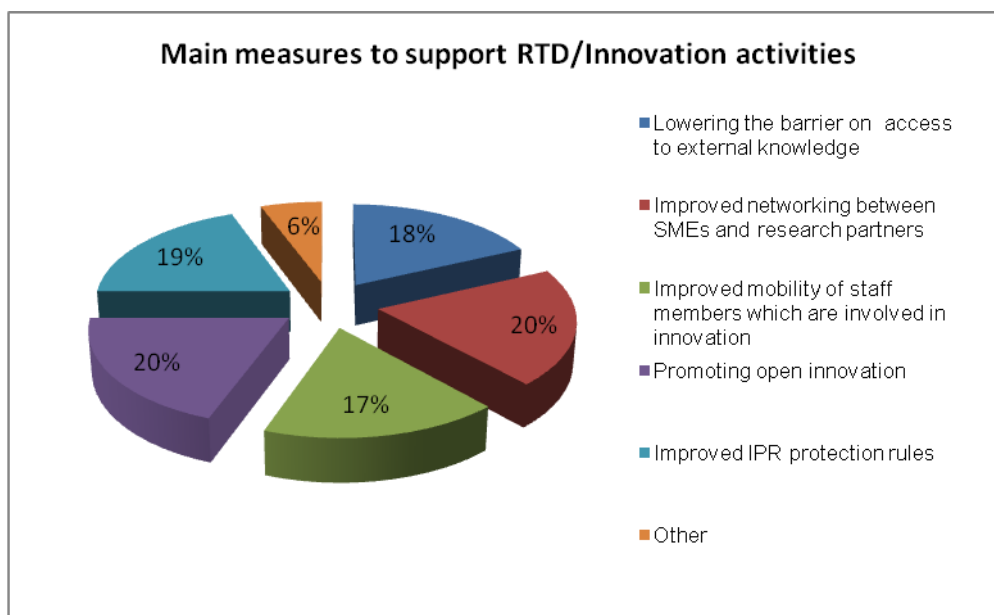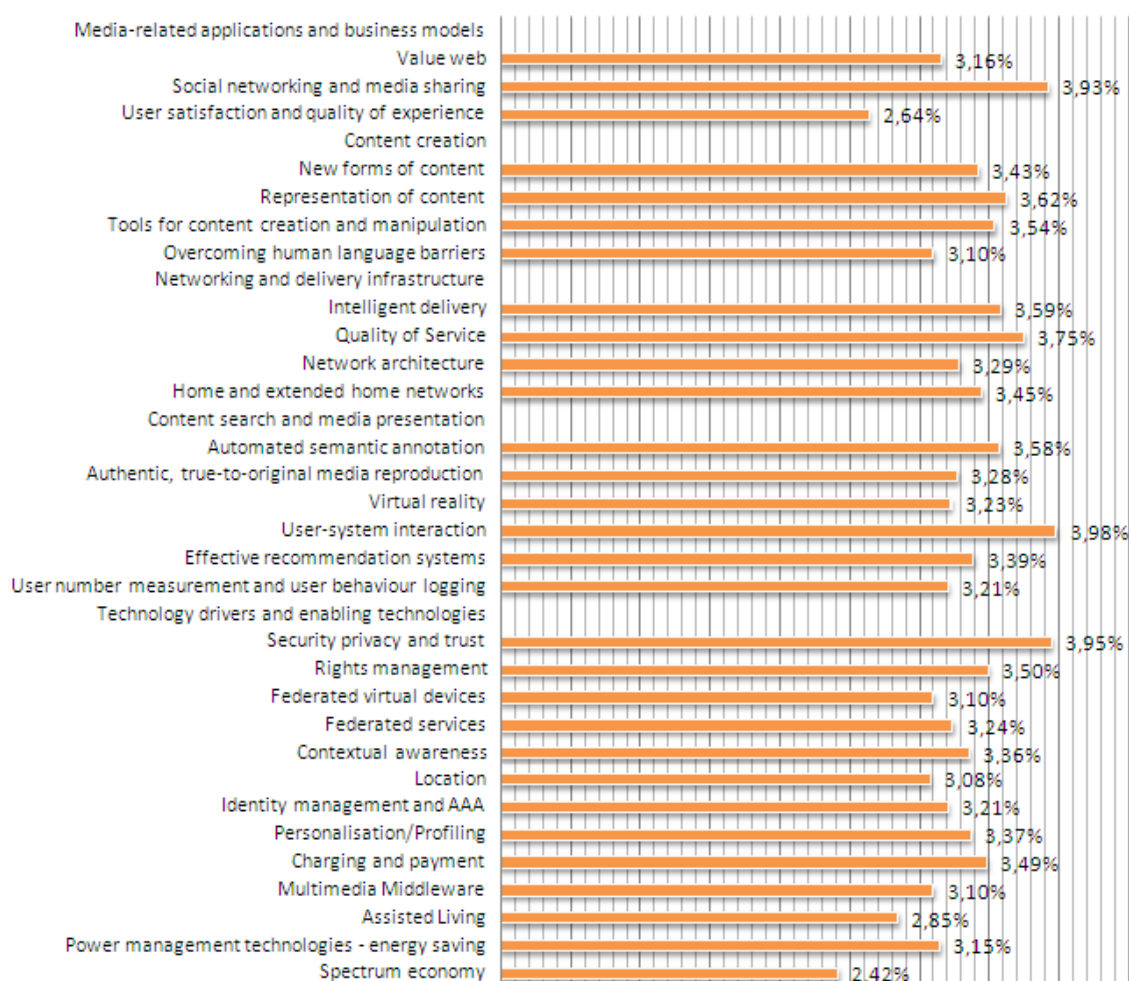| Barrier	%
1) Barriers on access to external knowledge	7,2%
2) Barriers on finding qualified staff	5,8%
3) Barriers on management capabilites including innovation management	4,5%
4) Barriers on knowledge about the advantages of innovation	2,7%
5) Barriers on access to funding	16,4%
6) Barriers on information on RTD /innovation support programmes/instruments	7,2%
7) Barriers on incentives for cooperating with other players	7,4%
8) Barriers on access to knowledge driven platforms and clusters	5,6%
9) Barriers/Problems in finding the right cooperating partner	13,8%
10) Barriers related to application procedures of programmes	8,5%
11) Problems related to IPR protection	7,2%
12) Innovation costs are too high	10,3%
13) Other	3,4%

On the other hand, the distribution of responses regarding the measures to support the innovation activities is divided equally among the various options available.

Main measures to support RTD/Innovation activities

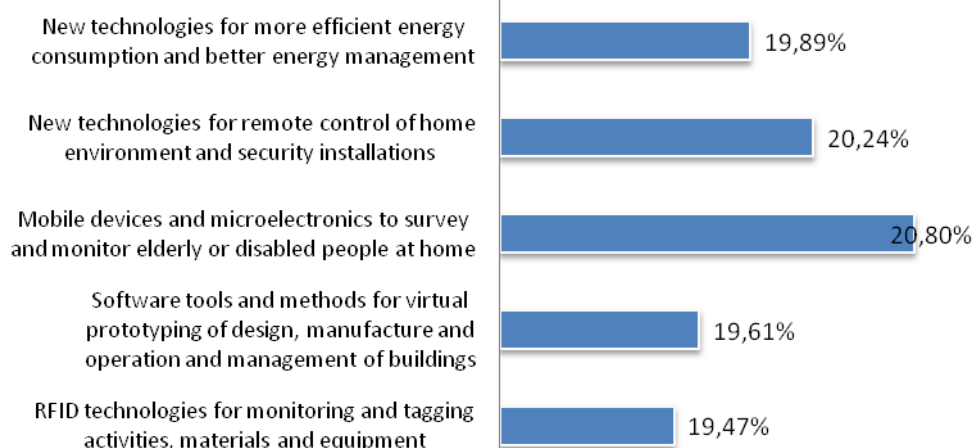| Measure	%
Lowering the barrier on access to external knowledge	18%
Improved networking between SMEs and research partners	20%
Improved mobility of staff members which are involved in innovation	17%
Promoting open innovation	20%
Improved IPR protection rules	19%
Other	6%

While there are not many differences between the interests of SME companies in the different R&D topics, there was a slightly greater interest of the companies on issues related to User-system interaction, Security, privacy and trust and new topics raised as technologies for efficient energy consumption. This result can be also interpreted as the current NEM SRA agenda fully meets the SME expectations not having singularities regarding the interests from SMEs versus the interests of the whole NEM Constituency.
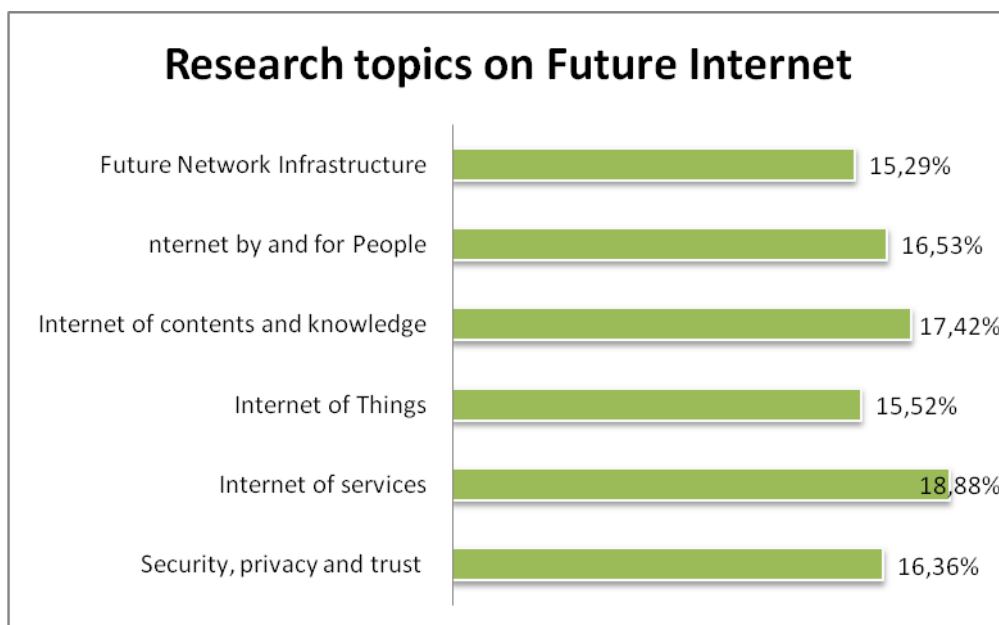
NEM R&D Topics

Topic	Value
Media-related applications and business models	
Value web	3,16%
Social networking and media sharing	3,93%
User satisfaction and quality of experience	2,64%
Content creation	
New forms of content	3,43%
Representation of content	3,62%
Tools for content creation and manipulation	3,54%
Overcoming human language barriers	3,10%
Networking and delivery infrastructure	
Intelligent delivery	3,59%
Quality of Service	3,75%
Network architecture	3,29%
Home and extended home networks	3,45%
Content search and media presentation	
Automated semantic annotation	3,58%
Authentic, true-to-original media reproduction	3,28%
Virtual reality	3,23%
User-system interaction	3,98%
Effective recommendation systems	3,39%
User number measurement and user behaviour logging	3,21%
Technology drivers and enabling technologies	
Security privacy and trust	3,95%
Rights management	3,50%
Federated virtual devices	3,10%
Federated services	3,24%
Contextual awareness	3,36%
Location	3,08%
Identity management and AAA	3,21%
Personalisation/Profiling	3,37%
Charging and payment	3,49%
Multimedia Middleware	3,10%
Assisted Living	2,85%
Power management technologies - energy saving	3,15%
Spectrum economy	2,42%

New research topics

Topic	Value
New technologies for more efficient energy consumption and better energy management	19,89%
New technologies for remote control of home environment and security installations	20,24%
Mobile devices and microelectronics to survey and monitor elderly or disabled people at home	20,80%
Software tools and methods for virtual prototyping of design, manufacture and operation and management of buildings	19,61%
RFID technologies for monitoring and tagging activities, materials and equipment	19,47%

With regard to the interest shown by companies about future internet, internet of services is the issue that raised most interest among surveyed companies at the time of conducting this analysis.

Research topics on Future Internet

Topic	Percentage
Future Network Infrastructure	15,29%
nternet by and for People	16,53%
Internet of contents and knowledge	17,42%
Internet of Things	15,52%
Internet of services	18,88%
Security, privacy and trust	16,36%

4. Annex 1. Questionnaire on profiling of NEM SMEs

Questionnaire: Identification of research priorities for SMEs

1. Basic Information

Name _____ | Email _____
 Company _____ | Sector _____
 Country _____ | Region _____
 Number of employees *(one cross in one option):*
     __ fewer than 10 employees
     __ fewer than 50 employees
     __ fewer than 250 employees
     __ more than 250 employees

2. Are you a participant in NEM (Networked and Electronic Media) European Technology Platform?

☐ Yes   ☐ No

3. Do you conduct R&D (Research and Development) activities?

☐ Yes   ☐ No

(if you chose "no" go to question nr. 8)

4. % of full-time employees dedicated to R&D activities

☐ 0 - 10%
☐ 10 - 20%
☐ 20 - 50%
☐ > 50%

5. % of last year's budget dedicated to R&D activities

☐ 0 - 10%
☐ 10 - 20%
☐ 20 - 50%
☐ > 50%

6. Did you receive public funding to support R&D activities (EU, national, regional programmes)?

☐ Yes   ☐ No

7. At which programmes did you take part?

a) European level ☐   Please specify which ones
programmes   _____

b) National level ☐   Please specify which ones
programmes   _____

c) Regional level ☐   Please specify which ones
programmes   _____

8. **In your opinion, what are the main barriers/problems for taking part in RTD /Innovation programmes for SMEs?** (s*elect cross the 5 most important ones*)

1)	Barriers on access to external knowledge	
2)	Barriers on finding qualified staff	
3)	Barriers on management capabilites including innovation management	
4)	Barriers on knowledge about the advantages of	

innovation	
5) Barriers on access to funding	
6) Barriers on information on RTD /innovation support programmes/instruments	
7) Barriers on incentives for cooperating with other players	
8) Barriers on access to knowledge driven platforms and clusters	
9) Barriers/Problems in finding the right cooperating partner	
10) Barriers related to application procedures of programmes	
11) Problems related to IPR protection	
12) Innovation costs are too high	
13) Other (please specify):	

9. How important are the following measures to support RTD/innovation activities'?

	High	Medium	Low
Lowering the barrier on access to external knowledge			
Improved networking between SMEs and research partners			
Improved mobility of staff members which are involved in innovation			
Promoting open innovation			
Improved IPR protection rules			
Other *(please specify)*			

10. What are your recommendations to overcome the barriers for the SMEs participating or wanting to participate in RTD/innovation programmes?

11. How would you rate the importance of the following topics in terms of its alignment with the research priorities for SMEs? *(one cross per bullet point)*

A. Research Topics of NEM SRA

	1 Not relevant	2	3 Somewhat relevant	4	5 Very relevant
Media-related applications and business models					
• Value web					
• Social networking and media sharing					
• User satisfaction and quality of experience					
Content creation					
• New forms of content					
• Representation of content					
• Tools for content creation and manipulation					
• Overcoming human language barriers					
Networking and delivery infrastructure					
• Intelligent delivery					
• Quality of Service					

• Network architecture					
• Home and extended home networks					
Content search and media presentation					
• Automated semantic annotation					
• Authentic, true-to-original media reproduction					
• Virtual reality					
• User-system interaction					
• Effective recommendation systems					
• User number measurement and user behaviour logging					
Technology drivers and enabling technologies					
• Security privacy and trust					
• Rights management					
• Federated virtual devices					
• Federated services					
• Contextual awareness					
• Location					
• Identity management and AAA					
• Personalisation/Profiling					
• Charging and payment					
• Multimedia Middleware					
• Assisted Living					
• Power management technologies - energy saving					
• Spectrum economy					

B. New research topics

The table below is editable. NEM SME Members can suggest other/additional research topics by adding lines below.

Additional / Other research topics of interest for SMEs which are not yet included in the NEM Strategic Research Agenda	
• Topic 1	
• Topic 2	
• Topic 3	
•	

Below is a preliminary list of some research topics which may be of interest for SMEs and which you are invited to qualify

	1 Not relevant	2	3 Somewhat relevant	4	5 Very Relevant
• New technologies for more efficient energy consumption and better energy management *					
• New technologies for remote control of home environment and security installations *					
• Mobile devices and microelectronics to survey and monitor elderly or disabled people at home *					
• Software tools and methods for virtual prototyping of design, manufacture and operation and management of buildings *					
• RFID technologies for monitoring and tagging activities, materials and equipment *					

* Priorities identified as a result of the High Level Group Consultation Meeting with PRESTO project

C. Research topics on Future Internet challenges

Indicate your interest areas regarding research on Future Internet technology challenges					
	1 Not relevant	2	3 Somewhat relevant	4	5 Very Relevant
• Future Network Infrastructure					
• Internet by and for People					
• Internet of contents and knowledge					
• Internet of Things					
• Internet of services					
• Security, privacy and trust					
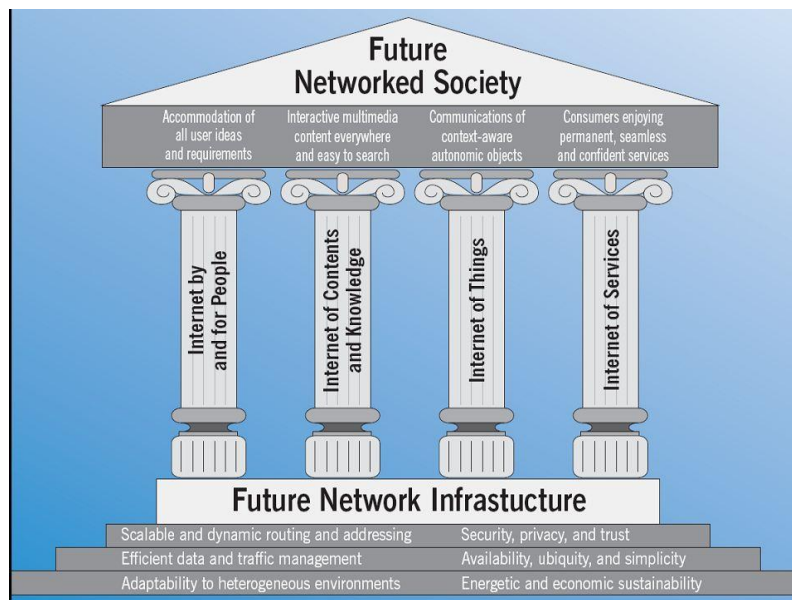
5. Annex 2. NEM SME Brochure

Jointly with the questionnaire distributed to SME companies, the following brochure was sent explaining the NEM SME activity.