



Activity

“GlobalNEM – NEM beyond Europe”

This document constitutes a position paper of the NEM Technology Platform in the context of international cooperation activity of NEM

Activity

“GlobalNEM – NEM beyond Europe”

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Activity

“GlobalNEM – NEM beyond Europe”

1. Activity

GlobalNEM – NEM beyond Europe. International Cooperation

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- Name and e-mail address of NEM Activity Leader: Dr. Julián Seseña, jsesena@rose.es, Tel +34 630047191, ROSE Vision, Spain.

NEM Activities are being launched in late 2007/early 2008. From the NEM governance point of view, they are similar to already created NEM R&D Clusters. However, because the NEM Activities aim to involve a larger NEM community and to significantly increase visibility of NEM, an approval by Steering Board for their creation is necessary. GlobalNEM was launched as a cluster in 2007.

4NEM project supports establishment of necessary governance rules, in accordance with the NEM Governance Model, for the GlobalNEM Activity and observes its implementation.

At the NEM General Assembly October 2007 the GlobalNEM concept, goals, relevance, priorities were presented, launching a general call for all those NEM participants interested to get involved in the GlobalNEM actions. At the NEM Steering Board held early December 2008, GlobalNEM work was converted into a new Global NEM Activity in order to align its activities to the general context of NEM efforts.

2. Overall context of Global NEM activities

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 Technology Platform, in order to maximize its effectiveness and impact.

The first step should be to achieve the highest cooperation at the European level (Framework Programme, Eureka/Celtic, Eureka/Eurostar), in all the regions including coordination with national initiatives.

This overall goal has three main objectives:

1. The first one is to identify consistent strategic objectives at European level. This objective is to be achieved through higher cooperation among stakeholders in the EU and this will be implemented through NEM

- technology platform itself, its mirror group, the European Commission committees, the Eureka-Celtic programme and a number of supporting projects running under the Eureka and FP7 flags.
2. The second is to harmonize national programmes aiding R&D efforts, make them more efficient by exploiting synergies, with particular focus on those national R+D programmes specialized on the Media technologies: networked, audiovisual, electronics, etc.
 3. The third one is to extend this European cooperation at worldwide level, aiming at enlarging the markets where R+D results could be exploited. In order to make this goal happen, it is fundamental that stakeholders and R+D communities from key areas around the world start cooperating with NEM community and relevant European projects.

The objectives 1 and 2 are considered as international cooperation within the European Union, while the objective 3 constitutes the main goals of this position paper of GlobalNEM, NEM beyond Europe. Although there will be targets of GlobalNEM to ensure NEM vision and NEM SRA fluids till the National corners of Member States (there are regional and local R+D incentives in addition to the Member States R+D programmes through goals 1 and 2 above, a specific goal is addressing the extension of the European Research Area beyond European territories (goal 3).

Further discussions and actions will be conducted in order to implement goals 1 and 2 above defined.

Active involvement of key players is being pursued: private industry, public authorities, research institutes, academic community, financial community, civil society, users and consumers from Member States including New Member States and Associate Candidate Countries.

Therefore, International Cooperation has to be pursued through specific activities in regular projects, through ad-hoc support actions raising adequate profiles in Europe and selected areas around the world and bringing the committed contribution from key national R+D programmes of cooperating countries.

Several projects are already working and others will be launched in the FP7 to strength the cooperation at different levels:

- disseminating the results of the European R+D activities,
- identification of the key stakeholders in the different regions of the world for promoting European technologies,
- promoting the cooperation of researchers from key areas around the world with relevant European projects, involving national projects, when appropriate,
- promoting roadmaps 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 harmonized standards,
- Identification of the relation between policies, regulation and technologies, pushing for the development of technologies capable to supersede/remove regulatory barriers.

Initial focus is made on the following regions of the world: China, India, Russia, Latin America, South Korea, South Asia, Sub-Saharan Africa, Japan, Mediterranean area.

3. Expected results from GlobalNEM Activity.

Activities of NEM in Regions around the world may differ on goals, impact, outcome, schedule, etc., due to intrinsic starting point of the European cooperation in each region, but in general, goals of GlobalNEM can be defined as pursuing the following results:

- o A contribution, on international cooperation activities, to be made to the on-line consultation of the EC, 18th January. This input may be separate one from other inputs or part of a comprehensive input from NEM to that consultation. NEM-SB has to approve that input.
 - o A general position paper stressing the relevance of international cooperation to meet the NEM Vision and as a part of implementing the NEM SRA. Deadline: on time for input to the online consultation, 18-01-2008. If not achieved, this position paper should be completed for the first NEM SB meeting in 2008.
 - o Several country-specific or region-specific NEM recommendations. Example: NEM-India, NEM-Latin-American, NEM-Uruguay, etc. Goal: foster cooperation with those countries and regions.
 - o Further inputs to update NEM Vision and NEM SRA, bringing the international cooperation as a high priority topic.
- In addition to the above short term activities, Global NEM aims at:
- o Liaise with other specific projects, like SMART, Roadibrom, SALA, Euro-India, etc., in order to widely disseminate NEM vision and NEM Strategic Research Agenda.
 - o Stimulate inputs from international perspective to the NEM SRA and NEM vision updating
 - o Identification of activities, projects and initiatives running or launched elsewhere
 - o Promotion of European cooperation in the RTD
 - o Identification of international committees, fora, events of interest to NEM at a worldwide basis promoting the active presence of NEM participants

In summary, the outcome of the GlobalNEM Activity will be:

- Identification of critical worldwide areas and regions with which Europe should intensify its R+D efforts in the networked media field
- Identification of stakeholders, groups, projects who are the basis for the cooperation with each region.
- Identification of events, venues, opportunities to execute the recommendations made by the GlobalNEM position paper.

The following section addresses the above points for each relevant Region of the world.

4. Organization of activities per Regions/countries

4.1. China

4.1.1. European stakeholders and Coordinator

Coordinator: Yizhen Yang, Huawei Technologies Sweden AB.

4.1.2. International stakeholders

Among others: Huawei Technologies (www.huawei.com), MOST Ministry

4.1.3. Goals, activities, work-plan

China is one of the largest content producers and consumers, following figures show the fact:

- 1.31M registered websites, 7 billion webpages (July, 2007)
- 145M registered internet users (June, 2007)
- 110M broadband internet users (June, 2007)
- 902M telecomm users, 371M fixed line users, 531 mobile users (Oct, 2007)
- 26.33M internet game users (Dec, 2007)
- 2507 TV stations, 3500+ TV programmes (Dec, 2005)
- 300+ movies , 13000 teleplay episodes (Dec, 2007)

But the research and technology development (RTD) of electronic media section of China is restricted to normal IP based applications for distribution, no breakthrough happened over a long period, this dramatically reduced the development of media based service, though the amount of applications and the areas and subscribers those applications covered is huge . NEM takes it for granted that cooperation in this area will lead to a double-win result to both stakeholders, new IPRs will be widely generated and deployed in the future, new media based application will benefit both stakeholders and subscribers.

Following actions should be carried out step by step:

1. Let NEM become well known to China industry and academic so as to involve more and more stockholders
2. Combine NEM activities with Chinese government funding schemes so as to speed up the progress
3. Organize interest clusters and other regular NEM activities to keep NEM EU-China cooperation in track

Following factors can be taken into account:

1. China has a large amount of software/hardware engineer and companies with research excellence in NEM areas but they don't know how they can show themselves to EU-China cooperation.
2. China local IT governors has great interests in EU related cooperation

The main activities supporting above issues can be:

1. Connect with other EU-China cooperation development officers
2. Express NEM to Chinese R&D sections by organize news release conferences, pro-seminars etc
3. Help local stockholders apply EU and China funding projects through guidance of NEM SRA.
4. Constitute NEM Chinese cooperation roadmap, involve new members and establish regular research and administrative events

According to the state of the art of China electronic media industry, following SRA sections should be focused at the beginning

1. Security of content exchange. Due to the pirate, much attention have been attracted by content producers, intelligent pirate finder and light weight DRM are two most important areas. Related technologies are automatically media metadata tagging, certificate free right manager system, embedded right manager system etc
2. Interactive electronic media. Both local and network inter-activable media (like macromedia flash) will be an important element of Chinese media market in the future due to the rapid development of UGC (user generated content). Easy to create and upload, operable are their distinguish features
3. Open middle platform for media distribution. China has high quality transportation network suitable for media operation, but because of the lag of technology and policy, producers have to distribute content by their own. An open middle platform for media distribution and interaction has a clear future.
4. Network game development. Internet game industry is a sunrise industry, but lake of professional game development engineers. One of most important usage of media is for entertainment; it is a sustainable growing industry under Chinese society environment.
5. Mobile media and game services provisioning platform. Chinese youngsters accept mobile services much quickly, high-end mobile phones are widely owned by people aged 15-30, so mobile media and game services has a huge user group and worth paying more attentions to.
6. Advanced media codec algorithms, chip sets and terminals. The hardware supporting chain will also win future media applications.

The development of S&T cooperation in the ICT area between the EU and China has started in the late 90's, involved DG INFSO and Chinese authorities (MOST, MII) and has been strongly supported by FP6 support actions such as ECCITE (organisation of a major cooperation event in Beijing in April 2005), ROADIBROM (Support Action), FACTS and CHINACOOP (focusing on Digital Olympics), and more recently SPICE.

See www.eurochina-ict.org for full details.

China has become under FP6 the first third country in terms of participation in research projects in the ICT area (a total of around 100 participations). Under FP7, it is envisioned that the development of this cooperation will less target quantitative objectives than qualitative ones: the priority will be the identification of, and the support to strategic projects of mutual interest (which is in particular an objective of the SPICE support action). Several cooperation events are planned in 2008.

In this environment, NEM will consider:

- being involved in planned cooperation events,
- extracting from NEM SRA the topics which are the most relevant for China,
- setting up joint research projects related to these topics

4.2. Latin America

4.2.1. [European stakeholders and Coordinator](#)

The European FP7 project SALA+ would coordinate and set the focal point for activities in Latin America. Countries where activities are planned include: Argentina, Chile, Uruguay, Colombia, Guatemala, among others.

Stakeholders: AETIC, SIGMA, CETIM, QUEEN MARY UNIVERSITY OF LONDON, Impulsa TDT, Comunicare Italia, and many others.

Coordinator of these activities: AETIC (Julián Seseña, jsesena@aetic.es)

4.2.2. [International stakeholders](#)

International stakeholders: Federation of Associations ALETI, ARETEL BIO BIO, ROCKSAUD Argentina, HyCAmericas Chile, Superintendencia Telecomunicaciones de Guatemala, Regulatel, Ministry of Industry, Energy and Mining Uruguay. In addition, the following Associations are involved.

COUNTRY	ENTITY
ARGENTINA	CESSI - Cámara de Empresas de Tecnologías de Información de Argentina.
BOLIVIA	CICOMBOL - Camara de Informática y Telecomunicaciones de Bolivia
CHILE	ACTI - Asociación Chilena de Empresas de Tecnología de Información. GECHS - Sociedad Chilena de Software y Servicios A.G.
COLOMBIA	FEDESOFTE - Federación Colombiana de la Industria del Software y Tecnologías Infomáticas Relacionadas
COSTA RICA	CAMTIC - Cámara Costarricense de Tecnología de Información y Comunicación.
CUBA	GTI - Grupo de Tecnologías de la Información
ECUADOR	AESOFT - Asocacion Ecuatoriana de Software
ESPAÑA	AETIC - Asociación de Empresas de Electrónica, Tecnologías

	de la Información y Telecomunicaciones de España.
GUATEMALA	AGESFA - Asociación Guatemalteca de Empresas de Software y Fabricantes de Aplicaciones.
PANAMA	APS - Asociación Panameña de Software.
PARAGUAY	APUDI - Cámara Paraguaya de la Informática y las Telecomunicaciones
PERU	APESOFT - La Asociación Peruana de Productores de Software.
REPUBLICA DOMINICANA	ANEIMFO
URUGUAY	CUTI - Cámara Uruguaya de Tecnologías de la Información.
VENEZUELA	CAVEDATOS - Cámara Venezolana de Empresas de Tecnologías de la Información.

4.2.3. [Goals, activities, work-plan](#)

Activities in Latin-American can be supported extensively by SALA+ project.

SALA+ is a Support Action (SA) intended to foster International Cooperation in the area of Networked Electronic Media (NEM) between Europe and Latin America. SALA+ will create a number of channels to set up an intensive and sustainable cooperation structure between European and Latin-American organisations.

SALA+ will identify specific areas for Scientific & Technologic cooperation within the Networked Electronic Media field. One of most relevant results expected for SALA+ is to set up relationships between European and Latin-American entities (universities, technologic centres, companies, associations, etc.) in order to foster cooperative R+D projects, for which European Commission FP7 programme is an excellent framework in the period 2008-2013.

Cooperation areas will be specifically discussed for each country addressed by SALA+. Some of the fields of cooperation that will be considered by the project are: video/audio processing, digital home, interoperability, satellite, terrestrial, interactivity, broadcasting, applications for people with special needs, games (serious and entertainment), advanced convergent architectures, etc.

In addition, SALA+ project will:

1. Identify opportunities for EU-LatAm cooperation in Networked Media field, as well as possible ways to eliminate barriers in order to foster the cooperation in R&D activities, making visible the technological status, R&D and advancements made by EU players on NEM technologies.
2. Pave the way for harmonized EU-LatAm, or country specific, strategic research agendas.

3. Organisation of conferences, workshops, info days and other dissemination activities in order to increase awareness of the opportunities which are suitable for Latin-American countries through the FP7 and other European R+D programmes.

4.2.4. Results expected in Latin-America through SALA+ support

The main results of SALA+ are:

1. Identify scenarios and opportunities for cooperation EU-Latin American: **national and regional R&D programmes**, studying the current environment.
2. Identification of stakeholders for future enhanced EU-LatAm cooperation. **Mapping and classification of organisations** both in Europe and Latin American countries, interested to launching collaborative R&D projects in the NEM field. Analysis of **Resources and Interest** of industrial companies, Technology centres, universities, R&D national plans, etc. Identification and study of **best practices on R&D**.
3. Produce common **EU-LatAm Strategic Research Agenda** to inspire the launch of Latin America/Europe joint R&D projects in the networked media sector. That Agenda will take into account the NEM research Agenda as well as the ICT FP7 work programme.
4. Create and increase **awareness** in Latin American countries through the organisation of events, the production of articles, newsletters, the creation of a webpage, etc. Some of the best practices of R+D activities identified in WP3 will be used in the dissemination efforts.

4.3. Brazil

4.3.1. European stakeholders and Coordinator

Coordinator: Oscar Mayora (CREATE-NET), oscar.mayora@create-net.org

Interested: Luis Miguel Silva (PT Inovacao), Ebroul Izquierdo (QMUL, London), Thomas Owens (Brunel University, London). Maurizio Roscani [DIDA Group], Stephen Benians (Metaware). Coordinators from other ongoing projects between Brazil and EU will be invited in early 2008.

4.3.2. International stakeholders

Edison Spina (EPUSP, São Paulo), Moacyr Martucci (EPUSP, São Paulo). Pedro Jatoba (Aptel/Eletronbras, Rio de Janeiro), Paulo Egler (CGEE, Brasilia) Akio Sakurai (Thales, São Paulo) – invited. Other Brazilian partners already involved in ongoing EU-Brazil projects will be invited.

4.3.3. Goals, activities, work-plan

During the past years, an intensive exchange between Brazil and EU has been taking place in the area of Networked Electronic Media through the activities of various EU Projects. These collaborations have enriched the international cooperation thanks to the creation of successful partnerships between

European and Brazilian institutions as stakeholders of several technologies sensitive to NEM. A non exhaustive summary of these collaborations include the following EU-Projects:

- ✚ BEACON -Concerned with Digital Terrestrial Television (DTT) services for T-Learning
- ✚ BELIEF – About E-Infrastructures and Digital Libraries for bringing Europe’s eLectronic infrastructures to an expansion of its frontiers
- ✚ BRASIL – Dealing with broadband communications over satellite integrated links for providing access to rural areas and with a special focus Digital Video Broadcasting (DVB)
- ✚ C@R - On Collaborative Working Environments (CWE) as key enablers catalyzing rural development in the form of Rural Living Labs (RLL)
- ✚ SAMBA- Interested in developing a framework for enabling the creation of Community Access iDTV Channels, based on iDTV technologies and cross-compatible between DVB-T MHP and DVB-H.
- ✚ WINDS-LA – A support action interested in widening IST networking development support between EU and Latin America
- ✚ INSTINCT – an integrated project that delivered a converged broadcast and telecommunication service platform able to create, deliver, and manage interactive, multimedia content and services for consumption on three different terminal types.
- ✚ BBice - B.Bice is a project oriented to the enhancement of the international cooperation activities in science, technology and innovation between Brazil and the European Union (EU).

The main activities envisioned by the Brazil – EU Working Group are the organization of joint events and development of a research agenda and roadmap for defining the main interests of Brazilian-EU Cooperation in NEM-related areas. The Working Group will also foster the identification and involvement of key industries interested in promoting EU-Brazil collaborations based on topics of interest previously identified (see items list below) and by defining new topics of interest. The starting list of topics includes:

- ✚ Interactive and Mobile Multimedia Services
- ✚ End to End Quality of Service on a heterogeneous environment
- ✚ Interactive Digital Television
- ✚ The influence of Interactive DTV on the Digital Divide – Social issues
- ✚ Interoperability between European, American, and Brazilian DTV Standards
- ✚ Middleware for Interactive DTV
- ✚ Mobile TV
- ✚ Digital Rights Management
- ✚ Professional and Users-Generated Content Creation

- ✚ Business Models, Regulation Harmonization, and Return Channels
- ✚ Multimedia Signal Processing
- ✚ Source and channel coding
- ✚ Visual and media information retrieval, etc.)
- ✚ Networked Media and Users experience
- ✚ Multimedia Communities

The work plan . includes three main stages:

1. The Working Group core members will revise and identify new relevant topics and potential stakeholders in EU and Brazil for consolidating a more extensive Working Group. Envisioned conclusion of this activity is end of February 2008.
2. The extended Working Group will refine the topics of interest and will put together a first draft document with the Brazilian-EU perspectives of collaboration under NEM topics and a joint research agenda. Envisioned time for completing the draft document is end of April 2008.
3. The Working Group will promote the organization of a workshop for discussing in-depth about the most interesting topics of the joint research agenda between EU-Brazil. Expected time for this activity is during Fall 2008.

4.4. India

4.4.1. European stakeholders and Coordinator

The following Entities are interested to get involved in activities associated to cooperation EU-India in the networked electronic media field:

- Julián Seseña, ROSE Vision
- Roger Torrenti, Sigma Consultants
- Juan Mari Okina, ISEA, Spain
- Pierre Yves Danet, Orange France Telecom
- Yolanda Ursa, Inmark
- Elias Perez, Quobis Networks
- Juka Kaario, Nokia
- Perttu Heino, TAMK
- Ferdinand Aicher, aico-software, Austria
- Roland Grunder, SwissMedia
- Apostolos Vontas, ALTEC, Greece
- va@telecompare.gr
- Haluk Gokmen, Beko-Grundig Elektronik, Turkey

Coordinators: Surbhi Sharma, ITSMA. Pierre-Yves Danet (Orange-France Telecom) acting as co-coordinators.

4.4.2. International stakeholders

Some Indian key stakeholders to implement the cooperation are:

- NCP: Surbhi Sharma, ITSMA India
- Ministry of Information and Communication Technology
- R&D: India Institute of Technology

- *Some Local industry:*
 - FT-Orange
 - Nokia Siemens Networks
 - Alcatel Lucent

Others:

- *NASSCOM (association indienne pour le logiciel):*
- *FICCI (Federation of Indian Chamber of Commerce & Industry):*
- Federation House
- *CII (Confederation of Indian Industries):*
- *Le European Business Group*

4.4.3. Goals, activities, work-plan

NEM believes that, based on the experience of some NEM members on EU-Asian cooperation, focussing on pure RTD cooperation projects with third countries (like India ...) may not get short term results, but efforts should be focused on actions oriented to the alignment of the R&D interests of stakeholders from the two regions.

Therefore as a priority, discussions on strategic trends should be the main matter for cooperation. These actions would include:

- co-organising events: summit, workshops....
- roadmap, exchange, clustering projects...

This would mean that NEM efforts should be focused to get clear areas and players where further technological cooperation can be implemented. The initial set of technological areas of interest for EU-India cooperation could be the following:

1. REPRESENTATION OF CONTENT. Content formats relying on open (and, if possible, open-source) standards that are widely used and shared between large communities of the whole content publication chain, especially scene-based content description and metadata (including indexing and search engines for rich-media content)
2. INTELLIGENT DELIVERY. Research on the key concepts of 'Next Generation Network' architectures (i.e. control of services independently of the bearer resources, and open and standardised interfaces between the services control and the resources control).
3. QUALITY CONTROL. In order to operate in heterogeneous networks where the underlying network connection may be transferred from one access

technology to another (e.g. from WLAN to optical to 3G), applications need to include mechanisms to adapt their operation to tracking and changing network QoS.

4. VIRTUAL REALITY. Entertainment applications, including interactive applications such as games.

5. FEDERATED SERVICES. Creating services for different terminals, networks and media formats is becoming more complex all the time. Billing/payment.

6. MIDDLEWARE. Allow application software to execute multimedia functions with a minimum knowledge of the inner workings of the multimedia terminal – which may be used for generating content or for reproducing it.

7. RESIDENTIAL NETWORKS. Application of the well known European experiences on collective use of domestic network infrastructures, like SMATV, MATV or the recent Common Infrastructures for Telecommunications rules developed in some European countries. There are similarities of residential structures in India and some European countries, where people live and work in community buildings, which are equipped with common infrastructures for telecommunications, including audiovisual networks.

8. STANDARDS dialogue. One of the main points for discussions should be the stimulation of commitment for the adoption of standards, which may result as a consequence of R+D activities. It is extremely important that R+D priorities take into account the perspective and environment of the Indian scenario about the adoption of standards.

9. Innovative BUSINESS MODELS and Market trends. Exchange of information on innovative business cases and successfully exploitation of services and products.

4.4.4. [Relevant FP6 – FP7 projects addressing R+D cooperation with India.](#)

Relevant projects addressing cooperation EU-India are:

- **INCITE** - To strengthen ICT co-operation between European and Indian researchers. Preparatory activities for the establishment of a National Contact Point in India, mapping of EU-India ICT complementarities, and nine training events. The project ended May 2007.



- **MONSOON** - Enhancing **EU-India** scientific and technological co-operation in the ICT field. Organisation of several workshops (**Euro-India**) . WWW.euroindia-it.org



4.4.5. Global NEM further actions EU-India

Organize an EU-India summit during the Second Quarter 2008. Pierre yves Danet and Surbhi Sharma are preparing the context with the support from GlobalNEM.

In addition to the organisation of summit or workshop, the following action plan is proposed:

1. Make a presentation and share the NEM vision and the NEM Strategic Research Agenda
2. Try to identify which topics are missing according to Indian view
3. Establishing a roadmap positioning the research topics by priority.
4. Identifying common projects addressing these topics.

4.5. Mediterranean area

4.5.1. European stakeholders and Coordinator

Perttu Heino, perttu.heino@tamk.fi, Perttu EDA Institute of TAMK, www.medainstitute.fi

Julián Seseña, Rose Vision, is also preparing actions for INCO-MED ALTEC S.A. Greece with experience and collaborations established in the Mediterranean area

EuroMed Permanent University Forum (EPUF) (www.epuf.org) :

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www.wmin.ac.uk
Instituto Superior de Comunicação Empresarial de Lisboa - Portugal
www.efap.com/index.php?/efap/lisbonne

4.5.2. International stakeholders

Key stakeholders in the first stage (first part of 2008) are the international partners of TAMK MEDA Institute in Morocco:

- University of Mahamadia in Casablanca
- University of Abdel Malek Essadi in Tetouan

In connection to the yearly seminar of EPUF in 2008, a proposal will be made to extend the activities to cover all the international members of the Euromed Permanent University Forum (EPUF) (www.epuf.org)

Non-EU members of the EPUF management Committee are:

Abdelmalek Essaâdi de Tanger- Tétouan Morocco
www.uae.ma

University of Aleppo - Syria
www.alepuniv.shern.net

Université Saint-Joseph de Beyrouth - Lebanon
www.usj.edu.lb

University du 7 Novembre à Carthage - Tunisie
www.univ7nc.rnu.tn

Birzeit University - Palestine
www.birzeit.edu

Karadeniz Technical University - Turkey
www.ktu.edu.tr

4.5.3. Goals, activities, work-plan

A meeting will be arranged in Morocco in April-May 2008 to pilot the ideas of GlobalNEM with representatives of University of Mahamadia in Casablanca and University of Abdel Malek Essadi in Tetouan, including their partners from the local industry and the government.

In the yearly meeting of EPUF, GlobalNEM issues will be introduced in the workshops of the five working groups of EPUF:

- WG 1 Mobility
- WG 2 Harmonization and quality assurance
- WG 3 Management and Training
- WG 4 Human development and active citizenship
- WG 5 Communication and e-learning

The discussions will be continued for the rest of the year 2008, resulting with a detailed action plan which involves a number of key international partners from EPUF together with their local industry and government partners.

4.6. Africa sub-Saharan

4.6.1. European stakeholders and Coordinator

The European EU-Africa project, START, acts as coordinator (Sigma consultants, info@euroafrica-ict.org).

Interested on Angola, Luis Miguel Silva, PT Inovacao (LuisMiguel-H-Silva@ptinovacao.pt)

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4.6.2. International stakeholders

4.6.3. Goals, activities, work-plan

- Addressed research topic: Networked media.

The objective is to develop Interoperable multimedia network and service infrastructures, to design end to end system and application that enable i) intuitive, intelligent, professional and non-professional creation, manipulation, storage/handling/search, management and rendering of media; ii) new creative forms of interactive, immersive and very high quality media (such as 3D, virtual and augmented reality) as well as new forms of experiences for individual users or user communities

- Expected research output(s):
 - World leadership in a new generation of media technologies providing significantly higher performances in terms of intelligence, scalability, flexibility, speed, capacity, ease of use and cost.
 - New and sustainable market opportunities based on converged business models between content, telecom, broadcast and consumer electronics industries. Reinforced European position vis-à-vis global interoperability and standardisation initiatives.
 - Widespread adoption of new digital media consumption and production patterns. Enhanced quality of life through new usage forms contributing to social, intellectual and leisure well-being. New opportunities for content production and exploitation
- Targeted country(ies) / region(s): South Africa, Senegal, Botswana, Cameroon, Côte d'Ivoire, ...

One of the objectives is to decrease Digital divide between rich countries and poor ones. Information access is one of the vital aspects for development of local industries and the implementation of Mobile and any other networked consumer devices in sub-Saharan Africa countries is able to provide them a way to access to this information. This multimedia information is necessary to residential but also to professional users helping them in developing their business.

NEM should help these countries in establishing the roadmap of service development according to the local needs. Objective 1.5 is very ambitious but some of the results could help in decreasing digital divide in Africa.

The development of S&T cooperation in the ICT area between the EU and this region is mainly addressed by the START FP6 support action that will be followed up by the FP7 EuroAfrica-ICT support action. Both are coordinated by Sigma Consultants and involve several European and African partners. See www.euroafrica-ict.org for full details.

In the framework of EuroAfrica-ICT (and of another support action called IST-Africa), cooperation forums will be organised in 2008 and 2009 in Europe and in Africa and dialogues between the EC and African national and regional authorities will be strengthened.

There are presently only some EU-funded research projects involving sub-Saharan organisations, and mainly South African ones.

Concerning Sub-Saharan Africa, NEM will consider:

- being involved in the planned cooperation events (taking care for instance of a specific NEM parallel session),
- extracting from its SRA the topics which are the most relevant for this region
- setting up joint research projects and trials related to identified topics

This region is already of clear interest to many NEM members, for instance Orange, a company already present in Mali, Senegal, Guinea Bissau, Guinea, Ivory coast, Equatorial Guinea, Cameroon, Botswana, Mauritius, Madagascar, and more recently in Central Africa, Nigeria and Kenya. All these countries have not the same level of technology but Orange mentions that in sub Saharan-Africa most of the telecom development will be done through wireless technologies due to the fact that infrastructure does not exist everywhere. For this reason, Orange proposes to extract from the NEM SRA in priority the topics which could be supported by mobile phone and of course services which could help people in there daily live such eServices: eAdministration, eInclusion, eEducation, etc.

4.7. SouthAsia

4.7.1. European stakeholders and Coordinator

Roger Torrenti, SIGMA. The project SEACoop, (<http://www.eurosoutheastasia-ict.org>) will work on cooperation EU-SouthAsia

ALTEC S.A. Greece, coordinated by Apostolos Vontas has experience, collaborations and contacts established in SE Asia, in Indonesia, Malaysia and Thailand though involvement in the SSA ENGAGE project

4.7.2. International stakeholders

Organizations that showed interest to further collaborate with EU, in the context of R&D especially in Telecommunications and Multimedia in Indonesia, Malaysia and Thailand.

- School of Computer Sciences, Universiti Sains Malaysia, Penang, Malaysia
- Multimedia Development Corporation Sdn Bhd (MDeC), Selangor Darul Ehsan, Malaysia
- EU-Malaysia Chamber of Commerce & Industry (EU-MCCI)
- Software Consortium of Penang (SCoPe), Penang, Malaysia
- Telekom Malaysia Berhad, Kuala Lumpur, Malaysia
- National Electronics and Computer Technology Center (NECTEC), Thailand
- Indonesian Chamber of Commerce (KADIN), Jakarta, Indonesia
- PT Uptrans Telekomunikasi, Jakarta, Indonesia
- Masyarakat Telematika Indonesia (Mastel), Jakarta, Indonesia
- Badan Regulasi Telekomunikasi Indonesia (BRTI), Jakarta, Indonesia

4.7.3. Goals, activities, work-plan

The development of S&T cooperation in the ICT area between the EU and this region is mainly addressed by the SEACOO FP7 support action coordinated by Sigma Consultants, and involving the national Agencies managing ICT research in the 7 most advanced Southeast Asian countries:

- The Advanced Science and Technology Institute (ASTI), Philippines
- The Institute for Infocomm Research (I2R), Singapore
- The Agency for the Assessment and Application of Technology (BPPT), Indonesia
- Mimos Berhad, Malaysia
- The National Council for Science and Technology Policy (NCSTP), Vietnam
- The National ICT Development Authority (NIDA), Cambodia
- The National Science and Technology Development Agency (NSTDA), Thailand.

See www.eurosoutheastasia-ict.org for full details.

In the framework of SEACOO, a cooperation forum will be organised in October or November 2008 in Europe, awareness workshops will be organised in Cambodia, Lao, and Vietnam and dialogues between the EC and Southeast Asian authorities will be strengthened. The main objective of the project is however to identify and support the development of 10 to 15 strategic cooperation projects of mutual interest.

Concerning Southeast Asia, NEM will consider:

- being involved in the planned cooperation forum (taking care for instance of a specific NEM parallel session),
- leading one of the strategic cooperation projects to be identified.

4.8. Korea

4.8.1. European stakeholders and Coordinator

Roger Torrenti, SIGMA. The project COJAK, (<http://www.eurojapan-ict.org>) will work on cooperation EU-Korea focusing on SouthKorean region

4.8.2. International stakeholders

4.8.3. Goals, activities, work-plan

The development of S&T cooperation in the ICT area between the EU and South Korea is mainly addressed by the ASIACOO FP6 support action that will be followed up by the FP7 COJAK support action. Both are coordinated by Sigma Consultants. See www.eurosouthkorea-ict.org for full details.

In the framework of ASIACOO and COJAK, an EU-Korea cooperation forum will be organised in June 2008 in Seoul (on the occasion of OECD ministerial

meetings) and in October or November 2008 in Europe, and dialogues between the EC and Korean authorities (MIC, MOST) will be strengthened.

Concerning South Korea, NEM will consider:

- being involved in the planned cooperation events (taking care for instance of a specific NEM parallel session),
- extracting from its SRA the topics which are the most relevant for South Korea
- setting up joint research projects related to identified topics

Current priorities of the ICT Research in :

- Indonesia
 - Rural Telecommunication (NGN)
 - Digital Broadcasting
 - Digital Library
 - Creative Multimedia
 - Wireless communication
- Malaysia
 - ICT infrastructure
 - E-government
 - E- learning
 - Online TV
 - Networking
 - Business computing
 - Multimedia · Wireless communication
- Thailand
 - ICT infrastructures
 - E- learning
 - E-Commerce
 - Computer Electronic Engineering
 - Network Applications
 - Wireless Communication

4.9. Russia

4.9.1. [European stakeholders and Coordinator](#)

4.9.2. [International stakeholders](#)

4.9.3. [Goals, activities, work-plan](#)

[To be completed at a later stage]

4.10. USA

4.10.1. [European stakeholders and Coordinator](#)

Prof. Ebroul Izquierdo (QMUL. London)

4.10.2. [International stakeholders](#)

Prof. A. Katssaggelos, North-western University Chicago (QMUL contact)

4.10.3. Goals, activities, work-plan

[To be completed at a later stage]

4.11. Japan

4.11.1. European stakeholders and Coordinator

Roger Torrenti, SIGMA. The project COJAK, (<http://www.eurojapan-ict.org>) will work on cooperation EU-Japan

4.11.2. International stakeholders

4.11.3. Goals, activities, work-plan

The development of S&T cooperation in the ICT area between the EU and Japan is mainly addressed by the ASIACOOOP FP6 support action that will be followed up by the FP7 COJAK support action. Both are coordinated by Sigma Consultants. See www.eurojapan-ict.org for full details.

In the framework of ASIACOOOP and COJAK, a EU-Japan cooperation forum will be organised beginning of March 2008 in Tokyo and in October or November 2009 in Europe, and dialogues between the EC and Japanese authorities (MIC, MEXT, METI, MOFA) will be strengthened.

Concerning Japan, NEM will consider:

- being involved in the planned cooperation events (taking care for instance of a specific NEM parallel session),
- extracting from its SRA the topics which are the most relevant for Japan
- setting up joint research projects related to identified topics

5. Overall Schedule of activities and events related to GlobalNEM scope

The following events and international activities are identified, where workshops, lectures, speeches, presentations, posters, demos, etc., related to NEM project and activities can be implemented. This list is part and is maintained by the NEM secretariat as NEM events list:

- ANDICOM Colombia Feb 2008
- WEBIST 2008, Madeira, Portugal
- NAS 2008 Conference, April 2008, USA
- SBRC Simposio Brasileiro de Redes de Computadores, May 2008, Brazil
- SET 2008, August 2008, Brazil
- EU-India NEM Summit 22-23 April 2008 (TBC dates)
- EXPOCOMM Mexico

- CAPER Argentina

6. Overall list of GlobalNEM participants

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7. Summary of recommendations

Based on the actions being conducted, or planned, for international cooperation between Europe and Regions around the world, the following Recommendations are brought to the attention of NEM Steering Board, NEM General Assembly, European Commission DG INFSO, Eureka/Celtic, Eureka/Eurostar, Member States, National Technology Platforms:

- ✚ Recommendation 1. European Entities, and in particular NEM participants, are strongly interested on the scientific and technological cooperation with Entities around the world. Priority Regions to pursue results from this cooperation are: India, China, Latin America, Brazil, South Asia, Japan, South Korea. Other regions are under analysis: USA, Russia.

➤ **NEM Recommends the continuation of activities around the stakeholders groups set for each Region in order to coordinate, liaise, support, as appropriate, the activities of running support actions in the corresponding Regions, in fulfilling the expected outcome for each Region.**

- ✚ Recommendation 2. The organization of workshops, seminars, discussion for a, working groups where European and other international researchers can meet are valuable tools to meet the goals of the International cooperation.

➤ **NEM Recommends the support to the organization of those events and commits the support from NEM participants to those support actions and projects organizing any sort of the above events where the strategy and goals defined by NEM can be discussed and implemented.**

- ✚ Recommendation 3. As fortunately NEM is not alone in the efforts of international cooperation and there are a number of activities being conducted elsewhere around the world with supporting projects from

INCO and other objectives and challenges of the FP7, NEM participants should exploit the synergies with those other projects at most.

➤ **NEM Recommends the formal liaison with all those relevant support actions and projects running under the international cooperation with priority regions defined in this paper. GlobalNEM should report periodically on liaisons and activities conducted by those projects in order to exploit synergies and assist mutually for enhanced cooperation of EU and other Regions researchers. The presentation of NEM Strategic Research Agenda should facilitate the promotion of research activities in its technology targets. A map of research priorities with each region should be developed.**

✚ Recommendation 4. GlobalNEM should continue pushing for the mechanisms to empower, enhance, as necessary, the cooperation within the EU Member States. Re-launching of the Mirror Group, launch of ERANET project, etc., are options which have to be seriously studied as tools to make easier the cooperation of Member States in order to harmonized, discuss, make consistent, the many national research programmes which address NEM technologies.

➤ **NEM Recommends the promotion of the above tools towards facilitation of discussion among Member States. A position paper on International Cooperation within EU is recommended.**

✚ Recommendation 5. The promotion of the above activities require the organization of workshops, dissemination of research priorities, etc, which are activities to be conducted as tools to achieve the serious participation of research international entities in the EU projects and viceversa.

➤ **NEM Recommends the European Commission to call for support projects addressing the above recommendations with the priority Regions identified, as mechanisms to foster strategic research projects with participation from key entities from priority Regions**

GlobalNEM

International Cooperation