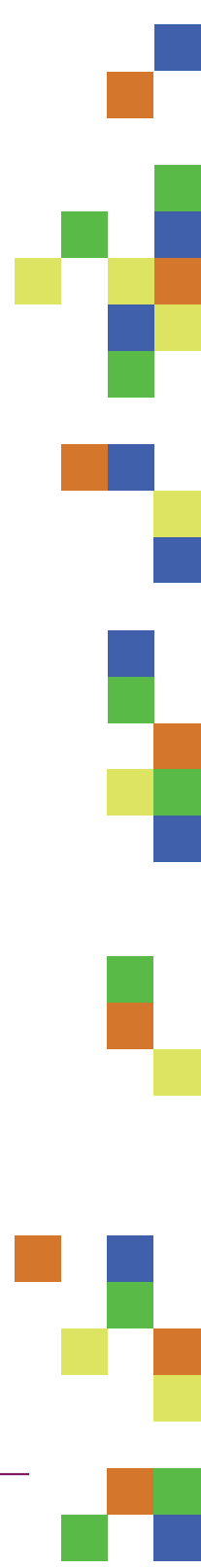
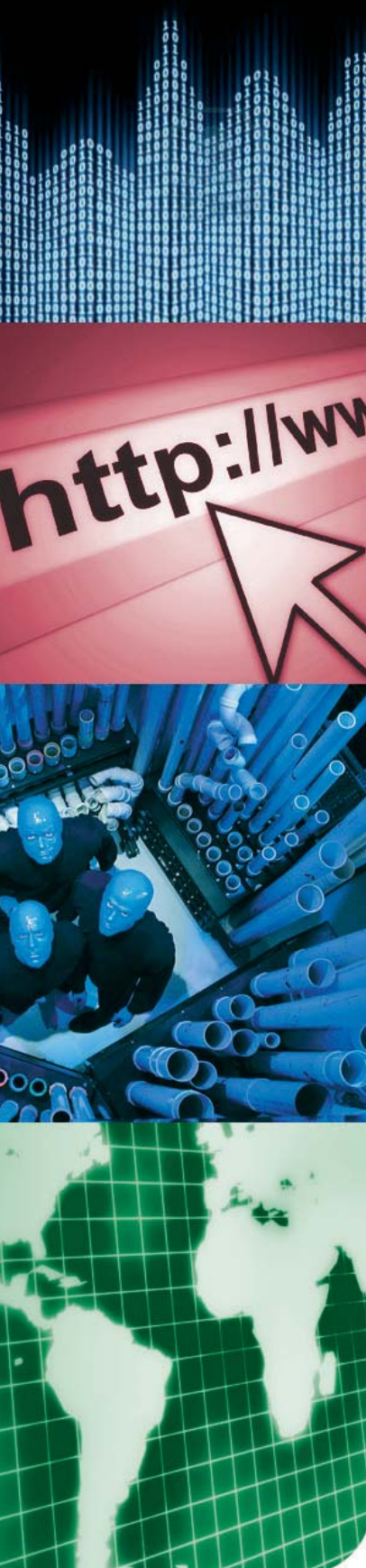


First to know

FIRST is an ICT project supported under the EU's 7th R&D Framework Programme (FP7)

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First is a Support Action funded by the European Commission Seventh Framework Programme in order to foster International Cooperation in the areas of Future Internet and ICT Components and systems between Europe and Latin America.

First



European Commission
Information Society and Media

European and Latin American researchers on Future Internet meet in Poznan, Poland

FIRST is organizing an encounter between recently created Latin American technology Platforms (LATPs) on Future Internet and ICT Components and stakeholders of key European ICT Technology Platforms (ETPs) in Poznan, Poland, on 26th October 2011 in the context of the Future Internet Assembly. The event focuses on seeking possible ways for international cooperation in research between LATPs and ETPs around Future Internet and ICT Components. The experience gained by the European Technology Platforms throughout the last 6 years is serving to inspire Latin American research communities to organize themselves, create critical masses and foster a well focused cooperation with European researchers.

The LATPs from Argentina (PLATA), Brazil (BraFIP), Chile (MACHI), Colombia (RECIIF) and México (MTP) will be widely represented with the local support from FIRST partners helping them to approach to the following ETPs which will also participate in the meeting: NEM, NESSI, ISI, Net !Works, Photonics, ARTEMIS, ENIAC, ePOSS. In addition, representatives from the European PPP projects on Future Internet will be present. The call that FIRST has been made to the European key ETPs, have been responded enormously positive and with high interest from the European stakeholders. All invited representatives will take part in this important milestone towards the cooperation among European and Latin Americans. The way FIRST project is approaching, through the efficient channel based on Technology Platforms, will undoubtedly set an inflexion point for more effective international cooperation approaches

in the European Frame Work programmes.

LATPs and ETPs will be represented by some of their main representatives and key members: Chairs, Vice Chairs, Steering Council Members, mayor stakeholders from industry and academia. Additionally some National Technology Platforms will also participate to the encounter to transfer their experience of setting, managing the national platform with the horizon to empower the international collaboration opportunities.

On the first hand, the LAMP presentations will aim at sharing the challenges of each targeted Latin American country with regard to FI and ICT Components and at informing on the process, the experiences gained, the mechanics set up for the launch of LATPs: LAMP membership composition and governance rules and LAMP Structure and the action undertaken so far.

On the second hand, each LAMP will focus on their Strategic Research Agenda, highlighting their research areas around Future Internet and the roadmap for the future of the LAMP. The common areas for cooperation with Europe and ETPs will be clearly depicted as part of the presentations.

For each LAMP, the activities, target and focus of the Working Groups will be presented together with the details contacts of their key representatives in order to favor the collaboration with their European counterparts.

The ETPs representatives will also present a general brief and concise presentation of the ETP and the

status and main research areas of each ETP.

It is expected that both LATPs and ETPs will use the FIRST encounter as a vehicle to present their research challenges around Future Internet, to exchange viewpoints and identify synergies, etc.

The final goal is to highlight the opportunities for cooperation between LATPs and ETPs, to promote a closer relationship between Latin American and European researchers and to reinforce links between ETPs and LATPs around Future Internet.

The event will include a presentation of two projects CONCORD and FIWARE that will focus on the views and interest from Public Private Partnership on Future Internet (PP FI) and the economical and political aspects of the EU-LatAm cooperation.

The LATPs / ETPs encounter will benefit from the contribution of two key actors in the field of Future Internet and International Cooperation: Mr. Bernard Barani, FIA SC Chair who will focus his talk on international collaborations and the Future Internet and Mr. Klaus Pendl, the FIRST Project Officer, who will make a presentation of the International Relations perspective at the European Commission and in particular the International Cooperation with Latin America.

A press release with the outcome of the encounter will be published after FIA.

Julián Seseña, *President ROSE Vision*
Tonny Velin, *FIRST Coordinator*

PLATA: Priority themes to cooperate with the European Union



One goal that Argentines have set as a PLATA mission is to solve local problems and challenges by international cooperation projects with countries that have the same issues. Therefore, Argentina can collaborate in projects that have different challenges: creating competitiveness and new employment with high added value, working towards well being and ageing, healthcare and demographic changes such urbanization, rural inclusion, or projects that contribute to a greener world, among others.

This is a huge opportunity since it gives a high class level and quality to the local solutions. The production of the local Strategic Research

Agenda resulted successful since Argentine stakeholders could explore the themes to carry out R+D+i activities. 37 organizations of Industry and Academia participated in the identification of the research priorities.

In the following paragraphs, it will be displayed the most important research topics chosen:

1) Nanoelectronics: Argentine national policies show the identification of micro and nanotechnologies as key-enabling technologies, for the competitiveness of the industry and to meet the new societal challenges. Mr. Daniel Lupi, current leader of this working Group, have wrote a SWOT analysis about this field that we recommend to read¹. The priorities are:

- MEMS -NEMS
- Memmistors - memories tech.
- LEDs high efficient
- Microsensors

- Design for reliability
- Design and co-design (set top box)
- Lab-on-a-chip
- Photonics
- Spintronics

The agenda shows the specific applications that the research priorities have.

2) Software and Services²: The most chosen themes are:

- Service and System Engineering
- Services-oriented utility infrastructure
- Business Process Modelling
- Adaptive Interaction

3) Networked Electronic Media: During the lasts years, this field had a great progress since the Argentine Government launched public programs and plans with high impact in this area. For example: Conectar Igualdad Program³, Argentina Conectada⁴, Mi TV Digital⁵, Plan fomento y promoción



de contenidos audiovisuales del sistema argentino de tv digital⁶. The most important fields are:

- Content Creation. This field was the most chosen of all the topics of the agenda. The same happened in Chile.
- Content search and media application
- Technology drivers and enabling technologies.

4) Embedded Intelligence and Systems: A high number of companies are working with own designs. Government identified this area as key, for instance, it supported the proposal of a Platform for High Complexity Electronic Technology in Bahía Blanca city.

- Embedded Systems for Health-care systems
- Methods and processes for safe-

ty-relevant embedded systems

- Embedded Systems for Health-care systems

5) Smart System Integration:

The most chosen themes are:

- Internet of Things.
- Smart Systems for Information and Telecommunication
- Smart Systems for Safety and Security

PLATA at FIA POZNAN and NESSI Service WAVE!

PLATA will be represented by the Argentine Industry at FIA Poznan. Mr. Gustavo Guaragna, CEO of SME Snoop Consulting and member of CESSI, the Argentine ICT Chamber, will travel to Poznan in the last week of October. Mr. Guaragna will present PLATA in an encounter, organized by the FIRST project, that will gather the key representatives of ETPs and LATPs.

October 6th 2011: 1st PLATA General Assembly at ICT Forum Argentina-UE

It will be held at Fundación Cassará (Buenos Aires City) together with the Pro-Ideal Plus project, which local partner is the Ministry of Science, Technology and Productive Innovation – National Direction of International Relations - (MINCyT) through the Liaison Office Argentina-EU (ABEST).

¹ PLATA SRA, chapter 4.1 "ICT Components, page 12. Online: (http://www.latin-american-technology-platforms.eu/uploads/SRA_PLATA.pdf)

² More information at at FIRST to Know n°6. Online: (<http://www.latin-american-technology-platforms.eu/uploads/NewsletterFIRST6.pdf>)

³ <http://www.conectarigualdad.gob.ar/>

⁴ <http://www.argentinaconectada.gob.ar/contenidos/home.html>

⁵ <http://www.mitvdigital.gov.ar/mitvdigital/>

⁶ <http://www.incaa.gov.ar/castellano/index.php>



BraFip as a tool to address the needs of Brazilian society

For actual society the information is the most valuable assets for enterprises and persons, so the ICT (Information and Communication Technology) is the main operation base for the business and society. The industries or persons that do not follow the developments of ICT area and apply them in your activities are doomed to fail. In Brazil with the expansion of ICT infrastructure is bringing the technology accessible for anyone. Around 93% of population has a mobile phone, although a large percentage is pre-paid.

According ABES (*Associação Brasileira das Empresas de Software*), the perspectives for world and Brazil are:

- 1 billion of internet mobile users;
- 700 millions of peoples connected on digital social network;
- 630 millions of laptops;
- 220 millions of smart phones;
- 23 billions of Brazilian Reais spent on applications acquired by Internet;
- 50 millions of servers;
- 7 billions of devices that have communication channel and 5 billions are not a computer.

From 2010 the market tendencies for Brazil, according IDC are:

- Brazil's economic growth will boost the investments in ITC, including infrastructure, software and services renewals;

- Mobility is the key requirement;
- Reduction of assets through the use of cloud computing;
- Intensive use of digital social network;
- Increasing of complexity will bring more attention to ITC governance;
- Growth of broadband and mobility boost the ITC market;
- Large events (world cup and Olympic) request investments on ITC;
- Investments on digital inclusion (e-inclusion);

technology and innovation in Brazil through the international mobility and exchange.

Considering the environment presented above, the Brazilian society need to have an effective technological platforms that permit to establish policy and technical aspects. The technological platform needs to promote the cooperation between government, enterprises and academia to implement activities on research and development of innovative solutions. However, today it is no

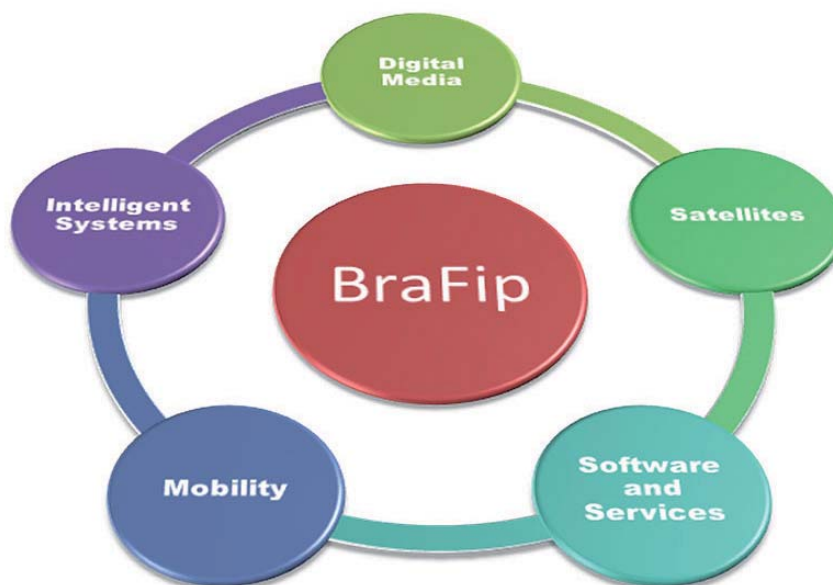


Figure 1: BraFip's working groups

Also the Brazilian government are investing in human resource formation by the programme called *Ciências sem Fronteiras* (Seamless Science) with the aim to promote the consolidation, expansion and internationalization of science,

longer viable to research and develop new technology and/or innovative solutions alone, because the time demanded by society is short and to solve this problem it is necessary to execute the activities in a collaborative network.

Due to this context, BraFip is a technological platform that permit to identify research and technological priorities of common interest between the Europe Union and Latin America, including Brazil. The subject of interest in BraFip is ICT, mainly Future Internet in the medium and long-term, so BraFIP promotes joint research initiatives.

The SRA (Strategic Research Agenda) of BraFip already contribute to the Brazilian society, because joint the government, industries, associations, research centres and academia to discuss the research priorities in ICT. The BraFip is divided in 5 (five) working groups: Digital Media, Satellites, Software and Services, Mobility and Intelligent Systems (figure 1).

The concept of Digital Media involves any kind of communication device, network, content or service that uses digital means for its purposes. In this area the priorities are:

- Media application and business models;

- Content creation;
- Networking and delivery infrastructure;
- Content search and media presentation;
- Technology drivers.

The working group of Satellites aim to bring together aspects related to satellite communications, including broadcasting, broadband, mobile satellite communications, as well their convergence and integration with terrestrial networks. The main priorities are: Higher frequency bands, Flexible satellite missions and Interworking with terrestrial networks.

In Software and Service, the working group is focussing on the Internet of Services and with the aim to build a Brazilian common position and strategic plan. The main priorities are: Internet of future, Infrastructure and software for mobility

The working group of Mobility is aim to improving the individual's quality of life. Mobility is a revolution and the success depends on what will be offered to users. In this context, the main priorities are: Com-

munication and connectivity, Technological convergence, Intelligent services, Quality of services and Information security and privacy.

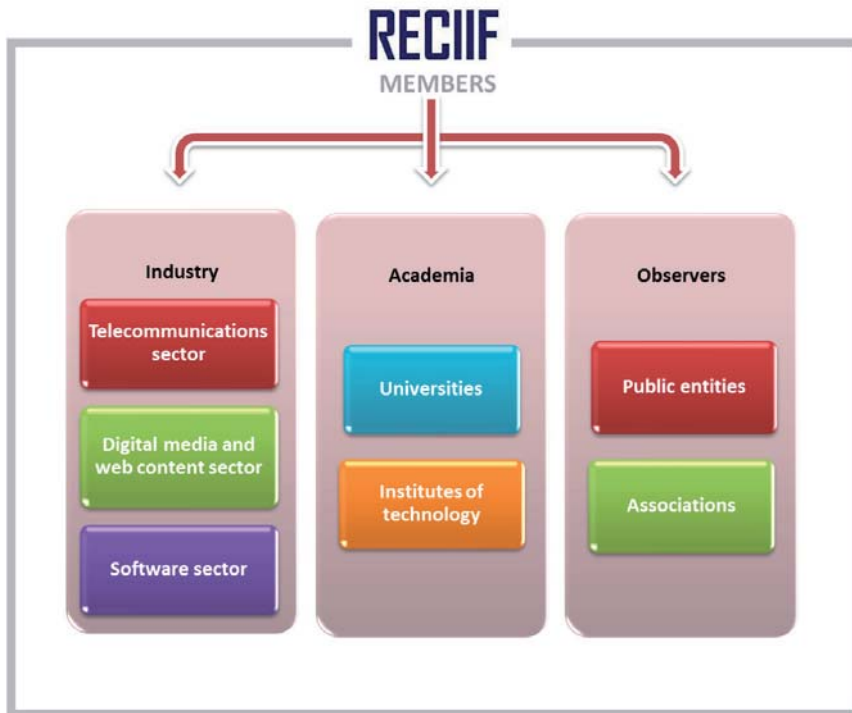
The intelligent systems working group is an industry-driven initiative focused on smart systems integration and embedded intelligence technology. The main priorities are: Sensors, Actuators, RFID, Electronic seal, Data storage, Telecommunications, Energy management, Information processing and standardization applied on Logistics, Telecommunications, Health, Agribusiness and Safety and Security.

In the Future Internet field some other European projects are complementary to BraFip, such as the TEFIS project, with focus on providing testbeds to support an experiment life-cycle.

Using the European Technology Platforms concept as basis, the Brazilian ICT industry are discussing and defining a strategic plan aligned with Brazilian society needs, thus contributing to the growth of country.



RECIIF launches Colombian SRA to foster collaborative research, development and innovation



RECIIF Member's taxonomy

RECIIF - Colombian Technology Platform on Future Internet – presented on June 29th 2011 the Strategic Research Agenda (SRA) to foster collaborative research, technological development and Innovation (R&D&I) at national and international level, a proposal by the members of RECIIF on the R&D&I priorities to be considered by Colombian Industry and Academia to strengthen the development of Future Internet in Colombia. The launch of the SRA took place at the Campus Party Bogota 2011, an event organized by Futura Networks, where technology enthusiasts gathered to participate on activities related with Computers, Communications and New Technologies.

The main objective of RECIIF, and the interest of all of its members, is

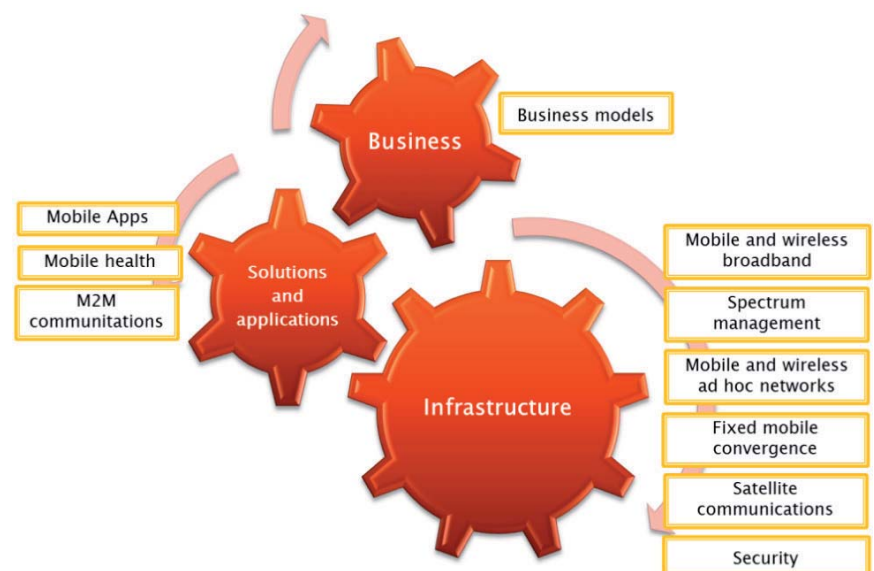
to be able to articulate in a joined and collaborative manner different projects on R&D&I in any field related to Future Internet that has great impact on Colombia and

tackles global issues that can be solved by the implementation of this SRA. RECIIF aims to be the meeting point to promote new ideas and collaborative R&D&I on Future Internet.

Structure

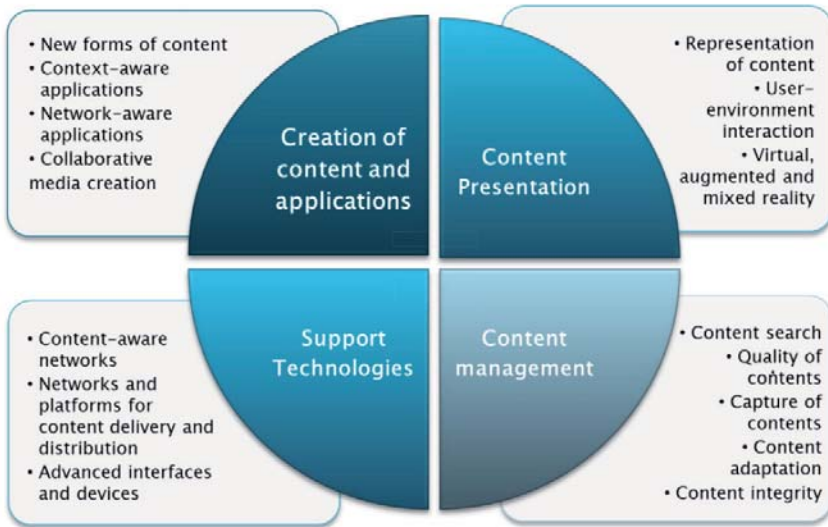
Currently RECIIF is composed by representatives of different Universities and Enterprises, interested in the ICT technological advance, particularly in the areas of Mobile and wireless communications, digital contents (networked electronic media) and Software and services.

One of RECIIF's biggest concerns is the divergence existing between needs perceived by the Industry and the ones perceived by Academy. The aim is to integrate three groups (Academy, industry and observers) to obtain a complementary perspective that is nationally driven and transversal to all the country,



Mobile and Wireless Communications.

Source: RECIIF – SRA. Available at www.interactiv.org.co



Digital Content

Source: RECIIF – SRA. Available at www.interactic.org.co

Current work:

RECIIF is working to produce a roadmap document that contains at least five initiatives on Future Internet in line with the priorities identified in the SRA. The desire of RECIIF is to bring those initiatives closer to a reality by fostering collaborative work among RECIIF’s members, Latin American and European potential partners and taking advantage of external funding, foreign alliances and the opportunities provided by the Government to sponsor this type of projects.

Achievements:

During its first year of work, RECIIF has been able to pave the way of Colombian R&D&I potential in an international market. In the following, a list of achievements of RECIIF is presented:

- Presentation of 8 Colombian R&D&I initiatives at the ICT 2010: Digitally Driven, one of the biggest events for R&D&I.
- Identification of R&D&I priorities in Future Internet.
- Elaboration of the Strategic R&D&I Agenda.
- Dissemination to the ICT sector

thus augmenting the valuable impact that can be achieved through mechanisms like the technology platforms. Currently RECIIF has 38 entities associated.

Strategic Research Agenda

The SRA covers the following topics:

Mobile and Wireless Communications

Mobile and wireless communications are a tool to achieve that all Colombians have access to the information highway. These communications foster economic development, job creation and improvement of quality of life in different scenarios, RECIIF approaches this topic as seen in Illustration 2.

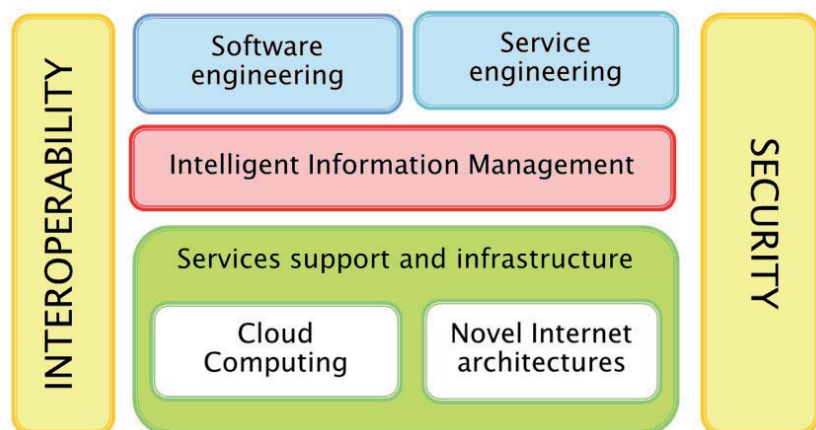
Digital Contents

As Internet evolves to an Internet of people, content and knowledge, where people connect to social networks, share photos, videos, opinions, Colombia will need to build a content industry with high potential for develop-

ment by reducing the current gap in certain aspects, specially the absence of tools for everyone in their language. RECIIF approaches this topic as seen in Illustration 3.

SW & Services

Currently the Software and services sector is taking a big leap forward; therefore it is mandatory to embrace studies on this field in order to make Colombia capable of achieving the highest demands and standards by fostering the development of this sector. SW & Services is approached as seen in illustration 4.



Software and services

Source: RECIIF – SRA. Available at www.interactic.org.co

of the SRA in Colombia.

- Acknowledgement of RECIIF at the Colombian Government entities that define politics on R&D&I: COLCIENCIAS and the Ministry of ICT, and the European Commission through the project FIRST.
- Bringing together the Colombian Academia and Industry
- First contacts with the Technology Platforms equivalents: Net!works, NEM and NESSI.
- Constant interaction with COLCIENCIAS.

- Participation at meetings and workshops related to the 7FP.

Contact:

Please feel free to contact RECIIF any time. RECIIF invites Colombian ICT industry and Academia to join the community and to work collaboratively towards the development of the Future Internet in Colombia. It also invites international potential partners to contact it for potential future cooperation.

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Chilean SRA is launched and consolidates MACHI Technology Platform

Last days of June 2011, MACHI Technology Platform gave another important step to consolidate its community. 33 organizations from Industry, Academia and Government participated in this process by choosing their Future Internet research priorities.

It is the first time that such a document has been produced in Chile since the discussions around Future Internet never happened before the FIRST Project. MACHI is composed by five Working Groups which have chosen priorities described below:

1) NESSI Chile

Has the crucial task of developing IT services for vertical industries thus making them more dynamic, competitive and global. The priorities of NESSI Europe chosen by Chileans are:

- Business Process Modeling: The goal is to pave the way towards the collaborative executable enterprise. Chile remarks two fields to work in: mod-



PLATAFORMA TECNOLÓGICA CHILENA DE INTERNET DEL FUTURO

First

els for integration services of horizontal business processes for small and medium industries. And Collaboration models of vertical processes by industry and transactional expertise to state companies and public institutions.

- Service-oriented utility infrastructure: The objective is to provide a flexible infrastructure to support the networked economy. An area, among others, that is being fostered is the Astro-informatics.
- Adaptive Interactions: This field aims to add the dimensions of knowledge and reasoning to the interaction between users and (business and societal) services.



- End to end Trust, Security, Privacy and Resilience: The objective of this area is aim for a secure, reliable, resilient, compliant and trustworthy (hybrid) service-based systems.
- Reference Architecture and Implementations: The goal is to define open architectures for intranet- to internet-scale service delivery.

2) EPoSS Chile

Is one of MACHI's smaller groups, but it has a promising future and potential in Chile since it can help to address some of Chile's societal challenges through a new spectrum of product applications. The two main priorities are:

- Smart Systems for the Internet of Things (IoT): It embraces Intelligent Systems and Energy Sustainability. It is important to stress that Energy efficiency and the use of non-conventional energy sources are a declared priority of development in Chile.
- Smart Systems for Safety and Security: Smart systems can provide the necessary sensors, computing power and reliability at cost levels that allow safety and security to be built into the fabric of our environment. Detection, Authentication and surveillance.

3) Artemis Chile

The strategy for embedded Chilean companies and research centres is differentiating the designs (versus high volume producers such as China) by the high quality, the capability to work in hard environments and by incorporating higher levels of "intelligence" in the systems and certifications. The research priorities chosen are:

- Manufacturing and production automation
- Methods and processes for safety-relevant embedded systems
- Embedded Systems for Healthcare systems
- ES for the Security and Critical Infrastructures Protection

- Human-centred Design of Embedded Systems
- Embedded Systems in Smart Environments

4) Emobility Chile

The research priorities of Emobility Chile are focused on the principle of Simplicity, which "emphasizes research into new solutions for managing complexity seamlessly on behalf of service providers and for hiding complexity from a user in accessing, using and creating services". The other focus is the Efficiency principle, since it is pointed out that in Chile there is a permanent need for improvements in coverage optimization and coexistence of several services in a more spectral efficient way

5) NEM Chile

It has the following themes:

- Content creation. This research theme is the most chosen by Chileans. It means the creation of content to guarantee the offer and availability of new and innovative services.
- Content search and media presentation
- Technology drivers and enabling technologies
- Networking and delivery infrastructure
- Media-related applications and business models

Next Activities!

Roadmap of Implementation of SRA
MACHI General Assembly (October 18th)
Travel of MACHI NEM/ NESSI leader, Mr. Mario Bruno, to FIA POZNAN 2011.



For participating in MACHI, please contact ALETI Secretariat (rrpp@aleti.org)

Mexico:

A strategic partner to European countries

According to the global competitiveness report 2010-2011 of the World Economic Forum, Mexico has important competitive strengths that have grown in the past decades and have helped to place the country in significant positions. To take an example we can mention: large size of the market available for local companies, placed 12th and a sophisticated and innovative private sector, ranked 67th for business sophistication and 78th ranking for innovation; also continuing the ascension with well-developed clusters, position 50th and companies operating throughout the value chain, now 49th for the variable on value chain breadth.

Therefore, in the latest years the public politics of Mexico are redirected in creating a knowledge-based society and economy along with advanced-accessible services and applications.

Mexico is part of a group of 20 leading countries in science, technology and innovation, investing 3.0% of GDP on FDI. Has achieved a balance in its trade of goods and services of high technology, and achieve big progress in education and natural resources. The country is now one of the top 10 countries in the world in terms of human development, sustainable economy and standard of living of its population. In this purpose, the government has decided to promote ICT pri-

ority among other scientific and technological areas.

The great importance of the Mexican Technology Platform on Future Internet (MTP FI) can speak for its own as the nation state will need a main discussion and action forum as this. MTP FI and its Strategic Research Agenda (SRA) will be essential in the development of public policies on ICT and Future Internet in Mexico. As shown in *Figure 1* MTP FI is an entity that brings together members of the community of Future Internet (or broad ICT) in Mexico and will also have an advisory role to the bodies responsible for public policies. The MTP FI has developed a

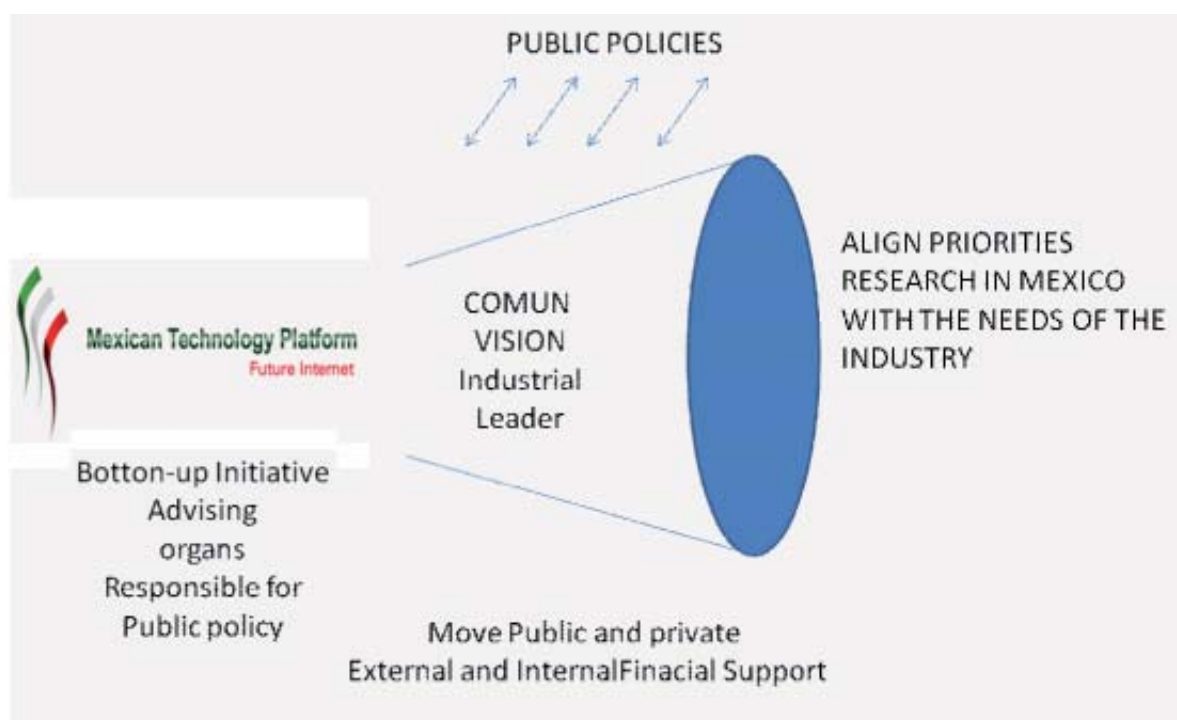


Figure 1. MTP FI and the Public

common vision to redirect the research efforts according to global market trends and to fulfill the need of entrepreneurs supported by the researchers to establish a cooperative interaction with government entities such as “Bottom up”.

Since its creation in November 2010, the MTP FI comprises more than 100 members which are the key actors of the ICT sector in Mexico (industry, academia and government) such as: CONACYT, Ministry of Economy, Ministry of Communications and Transport, Ministry of Education, National Contact Point on ICT, ICT Clusters of the whole Mexican republic, Edu-

cation, and Operators’ Associations , Thematic Network of ICT (REDTIC) the National Chamber of Electronics, Telecommunication and Information Technologies (CANIETI) among others.

The MTP FI is an industry-led network of entities with very different nature and profiles, (industrial companies -large and SME-, research organizations -Technological Centers, Universities- and PROs) but with a common interest in R&D activities within a particular sector. Our primary objective is “To raise the competitiveness of the Mexican ICT industry through the identification of common priorities, challenges and research goals that

shall facilitate the achievement of these challenges”.

In this matter, the SRA will be a very important guide for industry and academia, as well as a reference document for the development of public policies in Mexico. It will also be a support tool for decision makers and will serve as a reference also to the European Commission in the sense of seeking common ground for developing joint programs to encourage Mexico-EU joint research as seen in Figure 2. Therefore, research priorities will be identified considering its long-term strategic value for both European and Mexican ICT stakeholders.

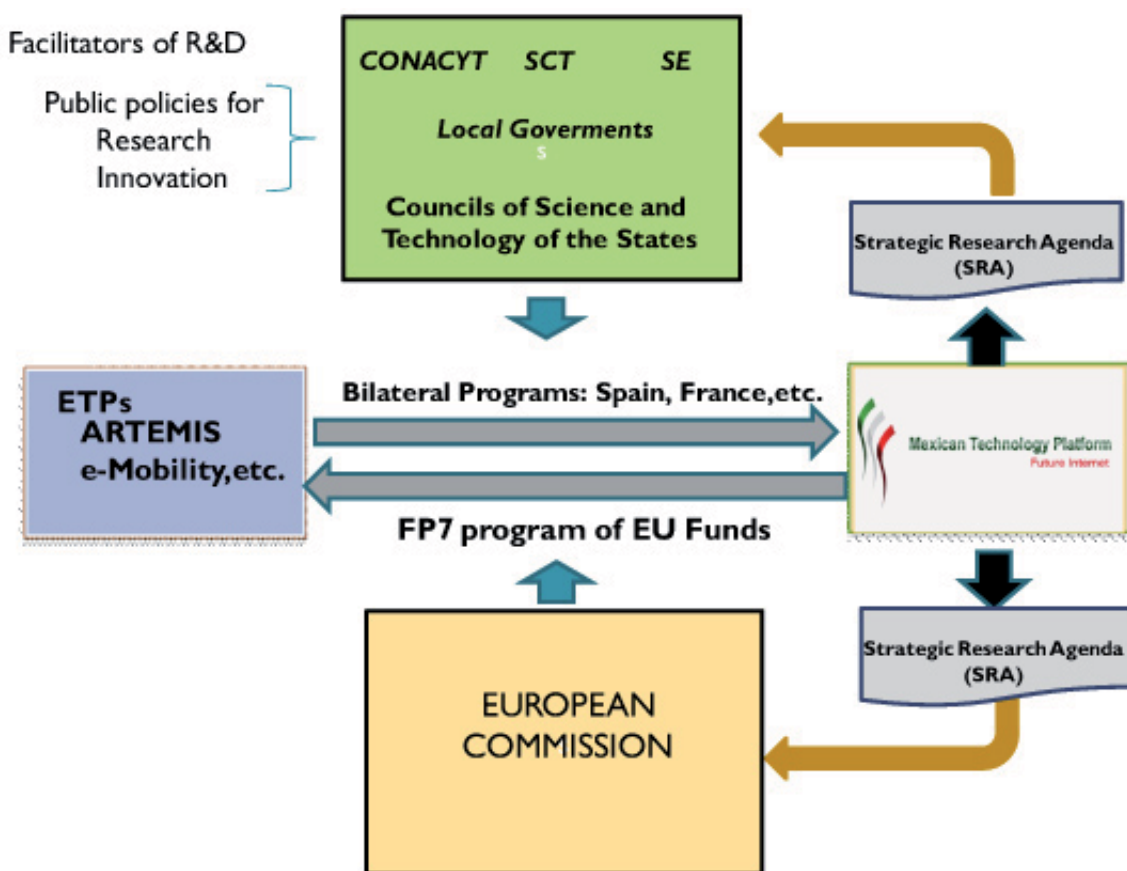


Figure 1. MTP FI and the Public

Extending Latin-American Technology Platforms in the region: the case of Uruguay

Many months earlier than its conclusion, the FIRST project has achieved its ambitious goal of creating the Technological Platforms in the 5 targeted Latin-American countries, Chile, Argentina, Brazil, Mexico and Colombia. Building on this impressive result and the immediate enthusiasm that the transferring of the TP mechanism to the Latin-American context has generated, the FIRST consortium is encouraged to replicate the experience in additional Latin-American countries.

Before launching the implementation process, it is important to assess the interest and maturity of the local RDT context in view to host the platform. FIRST has taken into consideration one possible candidate, Uruguay, and has already organized in Montevideo on the 19th of September a preparatory workshop under the initiative of the FIRST partner TESEO and the joint effort of ALETI.

Hosted by the Uruguayan Chamber of Industries, CIU, the workshop was attended by representatives of the national agencies for innovation and research AGESIC and ANII, as well as of the University of Republic and of the Ministry for Education and Culture, which is in charge of the local S&T policies. Other participants were from the Uruguayan Chamber for ICT CUTI and LATU/inGenio, incubator for innovating companies that brought the voice of the enterprises, in particular small businesses.

Such an articulated and high-profile audience was the evidence of the high interest and maturity that the Uruguay is showing in the cooperation with Europe, as demonstrated also by fact and the figures of country's successful participation into the European programmes. Uruguay has won 28 projects in the FP7, including 4 in ICT and 8 in research infrastructure, out of 14 applications. The latter figure related to research infrastructure is particularly remarkable, as it marks a success rate of 57%!

This promising collaborative framework can be further enhanced in the country by adopting the concept of the technology platform, that the audience considered really interesting as a way to structure the dialogue and better address mutual interests. Mr. Ariel Sabiguero, Associate Professor at the Computing Institute of Universidad de la República, highlighted the fact that Uruguay is facing several technological and social challenges that are also being addressed by Europe.

The TP shows a winning method of integration among the different actors of IT/TICS sector, endorsing a democratic, plural and scalable proposal that allows different sectors and actors of the society to interact. For this reason Mr. Sabiguero believes that an efficient Uruguayan Technology Platform would provide the necessary synergies for actors to be productive having as little overhead as possible.



Research in Latin America usually means a huge investment of time in networking, funding and finding partners: the idea of bringing together a whole sector of activity in the country, region or even internationally is really appealing.

Mr. Juan Pablo Garcia, AGESIC, recalled the importance of planning actions at international level to tackle common challenges. ICT is a perfect example in this sense, since by definition it does not have frontiers. On the other hand, each country has specificities that can be shared by other countries thus saving costs, time and risks. Historically, Uruguay is a country with strong relations with the EU and takes in high consideration the possibility to adapt best practices from EU as ETP's are,

and tailor them to its own context. Besides, the local research system in Uruguay is in a favorable position to be integrated into the structure of a technology platform: Uruguay is a small country but boasts a high level of education that it is important to focus on key themes, and ICT, as well as bioengineering, are the priority.

Another interesting point was raised by Ms. Maria Laura Fernandez, ANII, who stressed the added value represented by the technology platform as an actor facilitating not only cooperation with EU, but also among the other Latin-American countries.

Milena Patuelli, TESEO



NESSI Strategic Research Agenda: Sharing the view on future research challenges

Technology forecasts describe scenarios where people, devices, sensors, machines, and businesses get increasingly interconnected, huge amounts of data need to be managed, user behavior and life style are changing, and business and technology lifecycles are becoming faster. Along with those ICT trends, society will face challenges for example in delivering sustainable economic and social benefits, in overcoming the fragmented digital markets and the lack of interoperability in the Internet of Services, and in dealing with the rising cybercrime.

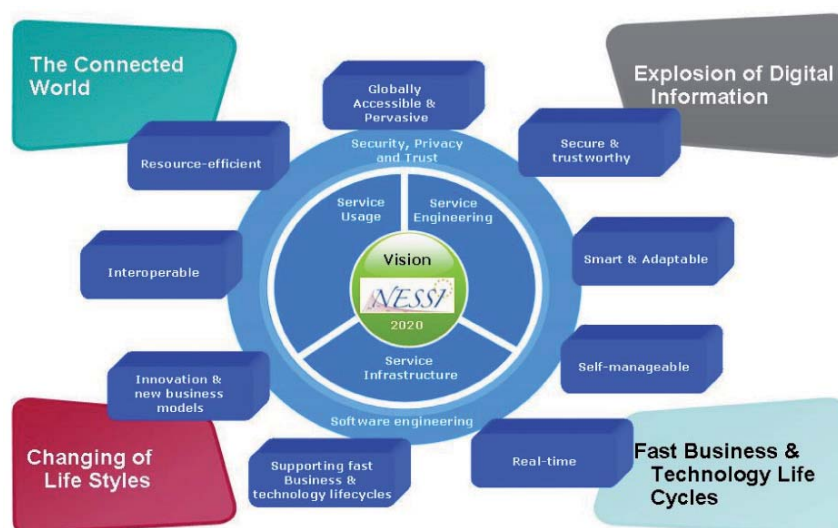
Just recently NESSI, the Networked European Software and Services Initiative, has analyzed those trends and challenges and their impact on software and service technologies. NESSI with more than 400 member organizations from industry and the academic world provides an excellent community to run those discussions and to identify, in particular, the requirements which those future scenarios will put on software and service technologies. Requirements such as interoperability and global accessibility of services, the support of fast business cycles, as well as improved security and trust have been identified, among others, as the most important ones for NESSI's technology areas - areas and disciplines which deal with service usage, service infrastructures, service engineering, software engineering, and security, privacy and trust.

An extended notion of service

In the light of these visionary scenarios and the societal challenges ahead, NESSI felt that the notion of a service will need to be extended from

today's mainly software-centric view towards a more comprehensive view that includes the environment and the deployment scenarios, where services are shaped by the devices and sensors which are deployed in the service provisioning and, where, for example, a community might be the service provider and not a single entity anymore.

2011. This document is freely available from the NESSI website <http://www.nessi-europe.com/> and provides more details and background information about these research priorities. The intention of this document is to provide a consolidated common view of the NESSI community about the research challenges lying ahead of us and to provide it as input to policy makers re-



The research priorities for the future

The final result of all these considerations is a list of strategic research priorities as indicated in the table below. Focusing future research activities on these priorities will help to achieve the identified research objectives and in turn will help to enable software and service technologies to play a key role in solving major challenges across all sectors of the economy and society.

Update of the NESSI SRA available

NESSI published an update of its Strategic Research Agenda (SRA) in May

2011. This document is freely available from the NESSI website <http://www.nessi-europe.com/> and provides more details and background information about these research priorities. The intention of this document is to provide a consolidated common view of the NESSI community about the research challenges lying ahead of us and to provide it as input to policy makers responsible for the definition and setup of new research programmes. In particular, it aims to provide input for the preparation of the next Framework Programme for Research and Technological Development of the European Commission.

Topics for potential cooperation between Europe and Latin America

Of course, the NESSI SRA serves also as a basis for sharing and aligning research strategies with other organisations such as the Latin American Technology Platforms involved in the FIRST project. FIRST has also published just recently the Strategic Research Agen-



Challenges	Research objectives	Research priorities
Deliver sustainable economic and social benefits	Support fast business cycles	Priority 3.1-2: Service usage in a fast changing business world Priority 3.4-1: Engineering for future service platforms Priority 3.4-2: Community based service engineering Priority 3.4.3: Engineering complex and adaptive heterogeneous services Priority 3.5.1: Productivity in software engineering Priority 3.5.2: New ways to increase software performance and energy-efficiency
Lack of interoperability	Improved service interoperability	Priority 3.2-1: SLA handling in heterogeneous service scenarios Priority 3.2-2: Management for single hybrid and multi cloud scenarios
Fragmented digital markets	Extend global accessibility and pervasiveness	Priority 3.1-1: Personalized, intuitive, and seamless service usage
Rising cybercrime and risk of low trust	Secure services and improved trust	Priority 3.3-1: Service usability Priority 3.3-2: Identity and trust management Priority 3.3-3: Internet cyber security Priority 3.3-4: Security by design

das of its members. Comparing both, the NESSI SRA and the corresponding document of the FIRST project, you can easily identify common research objectives and priorities.

Examples of research objectives, mentioned in the FIRST document, are: to improve the productivity in software development, to ensure high level of service interoperability, or to guarantee security and privacy in the Internet of Services. These objectives correspond nicely with the NESSI research objectives indicated in the table above: support of fast business cycles, improved service interoperability, and secure services and improved trust. Reading both SRAs in more detail unveils shared research priorities such as the context-dependant personalization of services matching with the NESSI priority on personalized, intuitive and seamless services usage or the management of service level agreements in cloud based services deploying approaches as described by the NESSI priority on SLA handling in heterogeneous service scenarios.

These examples show clearly that there is common ground for po-

tential collaborations. The SRAs can provide the trigger to start discussions among the members of the Latin American Technology Platforms and NESSI as the European Technology Platform for Software and Services.

How is NESSI organised? Who is part of its Community?

NESSI partners include Answare, ATC, Atos Origin, Cini, Engineering Ingegneria Informatica, HP Labs, France Telecom, IBM, Inria, IT Innovation, Nokia Siemens Networks, SAP, Siemens, Sintef, Software AG, Telecom Italia, Telefonica, Thales, TIE Kinetix, Universidad Politecnica de Madrid and University of Duisburg-Essen.

How can collaborations be set-up with NESSI?

NESSI is an open community, interested in gathering as many contributions as possible from all aspects of services research and results.

While its annual events (NESSI Projects Summit and ServiceWave) are open to all, the most effective way of contributing is to join as member. Mem-

bership is an open online process and rules for membership are online at www.nessi-europe.eu. Joining as a member eases the access to all NESSI activities, including working groups, the definition and refinement of the NESSI vision through the Strategic Research Agenda and the creation of new research collaborations.

Other opportunities for collaboration include the National Initiatives, a network of national platforms including Bulgaria, Hungary, Norway, Poland, Spain, Slovenia, and The Netherlands. The overall goal of the NESSI Platforms network is to promote the development and application of ICT technologies within National industry and government



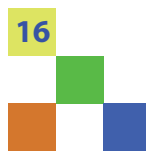
More information?

www.nessi-europe.eu

NESSI general information, activities and memberships

www.servicewave.eu

Dedicated specifically to the ServiceWave conference series



eMobility under new brand Net!Works

In December 2010 the former eMobility European Technology Platform (ETP) has changed its name to **Net!Works** and also changed its brand in order to reflect the convergence of fixed and mobile systems as well as to distinguish its area from “electro mobility”.

Net!Works is the European Technology Platform for the communications network community, promoting public and private investment in R&D on communications networking research challenges. This platform established a liaison with the Photonics21 ETP to address optical broadband communications.

The Net!Works ETP has now 800 members from industry (144), the research domain (298), small and medium size companies (SMEs) (298) and cooperation members (60).

The main objectives of Net!Works are to set trends on identified research topics by means of a Strategic Research Agenda and White Papers (<http://www.networks-etp.eu/publications/sra-and-white-papers.html>), to provide information to members on latest developments, to offer networking opportunities in particular for the preparation of project proposals for upcoming Calls and to influence research priorities in publicly funded programs.

Why collaborative research in the communications networks domain?

The overall economy is significantly dependent on information and communication technology (ICT), which contributes to 50% of the economic growth (directly or indirectly) in the European Union. Major network operators and communication network infrastructure vendors are based in Europe. According to a study of the World Bank increased broadband penetration can generate a GDP growth up to 1.38 percentage-points¹. Therefore, this sector is essential for the economic development. The ICT sector is very research intensive. In 2007 the ICT sector represented about 4.8 % of the EU Gross Domestic Product (GDP) (€ 540 billion), represented 3 % of total employment (6.1 million employees) and accounted for 25 % of the overall business expenditure in R&D and employed 32.4 % of all business sector researchers. This is a good basis to prepare and influence global standards.

The communications network domain depends on internationally accepted standards to ensure interoperability of system interfaces and to ensure economy of scale. Collaborative research plays an important role in inter-

national consensus building at an early stage in the precompetitive phase, where common interests between different stakeholders help to jointly develop new solutions and systems. Such basic consensus can be exploited in forthcoming standardisation activities, which eases future standardisation activities. These development usually require several years.

Collaborative research contributed to new systems on mobile and wireless communications, optical communications ADSL etc. In particular the following examples show how powerful collaborative research can contribute:

- The development of the **GSM** standard was part of the early formation of the European Union at the level of technology and mobile communications. For the first time, a solution was developed for Europe and the world enabling users to roam internationally using only one phone. Europe pooled its R&D, industrial base and services to provide the user with a mobile world without national borders. This initiative and the further collaborative R&D created a

¹ World Bank. Information and Communication for Development: Extending Reach and Increasing Impact. 2009, <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTINFORMATIONANDCOMMUNICATIONANDTECHNOLOGIES/EXTIC4D/0,,contentMDK:22229759~menuPK:5870649~pagePK:64168445~piPK:64168309~theSitePK:5870636,00.html>.



new generation of technologists focused on European and global needs. The GSM group was formed in 1982. GSM networks are now accessible in more than 85% of the world's land area. This system was first commercially introduced in 1991.

- European research projects in the RACE (Framework Program 3) and ACTS programs (Framework Program 4) developed the key contributions to the **3G UMTS** standard in the nineties. 3G systems provide users with broadband multi-media mobile communications, including voice and video services, mobile Internet access, mobile TV services and machine to machine communications services. It was first introduced in 2001.
- European research projects in Framework Programs 6 and 7 developed key contributions to the **LTE system** and **IMT-Advanced** since about 2000. **LTE** provides high speed mobile broadband connectivity to laptops, smart phones, tablet PC's and other mobile devices. On-line gaming services, streamed video and cloud computing services are brought to life by LTE. The LTE service is already commercially available in Stockholm and is being introduced widely in Eu-

ropean cities in 2011. The first deployment was in 2010.

Net!Works and societal challenges

Future research will increasingly support societal challenges. Two flagship projects of the EU Commission, the "Digital Agenda" and the "Innovation Union" are addressing this. The ICT sector will be essential to contribute to overall solutions. Net!Works is supporting these objectives. Major contributions are expected from the ICT sector for the Environment and Energy Efficiency challenge, the Health and Demographic Change challenge and the Transport challenge. The Future Internet Public Private Partnership of the EU Commission is has implemented respective research projects.

With respect to societal challenges research priorities have been identified in different areas such as applications, context provisioning, user profiling for user-centric services, roadmaps on standardisation, regulation and technology, trust, security, dependability and privacy, mobile and wireless communication, green wireless communications, machine-to-machine communications – Internet of Things, cog-

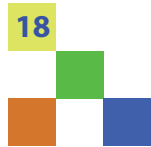
nitive radio systems, broadband mobile systems, optical fibre technologies and radio over fibre and Future Internet (key enabler for societal challenges).

Conclusions

Net!works is the European Technology Platform for communication networking technology. Future networks are key enabler for economic growth, the Future Internet and solutions for Grand Societal Challenges. Collaborative research plays an important role for consensus building and the preparation of future standards. Therefore, Net!Works is contributing to the discussion on Horizon 2020, the new Framework Research Program, facilitates networking opportunities and discussions between stakeholders and is collaborating with national and European activities in order to help to align research agendas and to use resources efficiently. The Strategic Research Agenda and white papers are major deliverables in this discussion.

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EU-Latin America ICT Research Cooperation Projects' Common Entry Page



FIRST aims to further improve cooperation between Europe and Latin America focusing on the field of Future Internet, ICT components and systems. The central goal of the project is to adapt the successful concept of European Technology Platforms (ETPs) to the Latin American Region, and launch 5 Technology Platforms focused on Future Internet, in Argentina, Brazil, Chile, Colombia and Mexico, bringing cooperation between Europe and Latin America in the ICT R&D field to a new level.



PRO-IDEAL and PRO-IDEAL PLUS promote the ICT dialogue and support the ICT R&D cooperation between Europe and Latin America through on-line tools (ICT Wiki, training modules, partner search) and face-to-face events (ICT Days and ICT Fora). Furthermore, local "Project Angels" are trained to create a sustainable support network in Latin American countries..



FORESTA The project aims to promote research cooperation between the European Community and Latin America (EU-LA) in terms of Information Technology to identify research opportunities between communities and examine the IT policies in each country to identify the main future complications for researchers (and how to make best use of instruments of support among the communities to avoid such complications).

<http://www.lac-ictgateway.eu/>



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<http://www.itesm.mx>
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For more information, please visit www.latin-american-technology-platforms.eu