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EDITORIAL

Grid technology is revolutionizing the Information Technology and Communications world in the same way that years ago the World Wide Web and e-mail did. This technology that interconnects an huge variety of computers, information repositories, applications software and scientific instruments distributed all over the world, is going to change the society in the next years. The science, industry and services systems will benefit from this immense capacity of computation that will improve the quality of life and the well-being of the citizens. The future generation of technologies, that will reach all the areas of the society, such as research, medicine, engineering, economy and entertainment will be based on integrated computers and networks, giving a very high quantity of services and applications through an interface easy to use.

The European Union (EU) has been financing the Grid investigation from year 2000, in the 5th and 6th framework programs with the initial goal of facilitating the knowledge and resources sharing to researchers and companies in Europe. The first research projects in Grid technology financed by EU have been EGEE (Enabling Grid for E-science in Europe) and DEISA (Distributed European Infrastructure for Supercomputing Applications). The EGEE project that ended in March, 2006, allowed the development of an European Grid e-infrastructure that integrated computing and storage resources beyond 90 institutions in 32 countries, and developed specific applications in the High Energy Physics and Biomedicine fields, helping to solve very different problems as the analysis of trajectories in the detectors of particles or the development of medicaments for the malaria treatment.

The EGEE project obtained two years of extension, EGEE-II, to support and to improve the e-infrastructure and to develop new applications in Astrophysics, Computational Chemistry, Earth Sciences, Financial Simulation, Fusion, Geophysics, Life Sciences, Multimedia. Also there will be applications for the industrial sector that will run in EGEE, such as geophysics and plastics industry applications.

In addition, the EU promotes other Grid projects related to infrastructure, applications and support. For the infrastructure,

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it promotes the creation of technology and its geographical dispersion: SEE-GRID (extension to European South East), EELA (extension to Latin America), BALTIC-GRID (extension to Baltic countries), EUMedGrid (extension to Mediterranean countries),…For the applications, the very heart of the development of this technology, it facilitates the integration of different areas: BioInfoGrid (Bioinformatics), Diligent (Digital Bookshops), … For the support to Grid technology, it promotes activities in different areas: ICEACE (training in Grid), ETICS (interoperability of software), EU QoS (quality of service), …

The EELA project (E-infrastructure shared between Europe and Latin America) was born as an initiative to disseminate Grid technology, to share European Grid resources with Latin America by means of the communications network created in this continent (RedCLARA), and takes advantage of the high human quality resources of Latin America. The goal is to spread this technology to create a Grid applications network connected to the European network, including as many scientific fields as possible: Biomedicine, High Energy Physics, Climatology, E-education ...

The purposes of EELA project are:

*   To create an e-infrastructure testbed with Latin America and Europe resources and make it interoperable with EGEE.

*   To identify applications of interest in Latin America and Europe, migrate and implement them into the created e-infrastructure.

*   To create a group of skilled technicians in Grid, applications and e-infrastructure in Latin America.

*   To disseminate the knowledge by means of three annual conferences, a dedicated web site, marketing operations and specific bulletins.

*   To implement an ambitious program of Grid technology training in Latin American and European countries.

*   To promote the participation in relevant forums in Europe and the rest of the World.

The EELA project is constituted by 21 institutions from Argentina, Brazil, Chile, Cuba, Mexico, Peru, Venezuela, Italy, Portugal and Spain, along with CERN and CLARA, that will provide computation and storage resources to create the Latin America Grid network that will interconnect with the European network. The structure of this network will allow to dynamically include new partners during the duration of the project and even after its expiration time.

The EELA project has a budget of 2,6 M € and is financed by the EU with 1,7 M €. It started on January 1, 2006 and it has a duration of 2 years. We aspire to make this project the base of a larger project that will make possible the extension of Grid technology to all Latin American countries and implements scientific and social interest applications in all these countries.

The RedCLARA (Latin American Cooperation of Advenced Networks) financed for 80 % by the EU, that interconnects the national networks of 14 Latin American countries with Europe, is an essential part for the development of the EELA project, this is why the continuity of this network must be guaranteed.

The EELA bulletin is born as a way of connecting people and diffusing news and articles and its main objective is the real participation of persons and entities involved or interested in the development of the EELA Project. It is a publication that aims to be written mostly by its own readers.

In its joining function, it will be useful for the current and future users of the Grid technology, who will be able to use it to exchange experiences and opinions. Furthermore, it will encourage and will reinforce the sense of community of the EELA members and will help them to solve the problems and difficulties that will arise during the project.

The EELA bulletin will be published quarterly and will be free. It will be edited by the EELA Project and the redaction committee will be CLARA responsibility.

EELA BLAZED IN ITS 1ST CONFERENCE

Held in Santiago of Chile on September 4th and 5th , in the Técnico Federico Santa María University, the First EELA Conference was developed around the EELA project (E-Infrastructure shared between Europe and Latin America) collaboration with other Grid projects, its activities status, Grid communities and applications and the RedCLARA status. With more than 25 presentations, a fruitful dialogue about the future of RedCLARA and the participation of about a hundred attendees, the First EELA Conference not only was a success, it also showed the evident collaborative potential and liaisons that exist between Latin America and Europe.

In words of Bernard Marechal, EELA Deputy Project Coordinator, the 1st EELA Conference "has clearly proved that one of the main objectives of EELA was to disseminate Grid culture and consequently foster the development of e-Science, opening very wide time slots to several sister projects. The presence of an European Commission representative was of key achievement". The representative that Marechal refers ifs Josephine Arpaillange, Attaché of the Cooperation Section at the European Commission Delegation in Chile, who highlighted the importance that the EELA project has in terms of advancement and collaboration between the old continent and Latin America.

This first Conference was developed around four main sessions:

*   Collaboration with other Grid Projects: this was the space devoted to the EGEE-II, BELIEF, SEEGRID-2, BALTICGRID, EUCHINAGRID, EUMEDGRID, INTERACTIVE GRID, GRIDCC and EELA projects. Here the attendees received all the most relevant information about these projects, its scope of action, the applications that are implementing and the collaboration established between them.

*   Status of EELA activities: this session was referred to three activity work packages of EELA, each one of them addresses different aspects of a Grid e-Infrastructure. Their status and results was showed and very well received by the attendees.

*   Grid Communities and Applications: large Grid e-Infrastructures make sense and can have long term future only if communities of people from different disciplines are interested in using them to run their applications. During this session the emerging communities and interesting applications that are been carried out in Latin America, had their space.

*   Status of RedCLARA and perspectives for the future: the attendees were introduced to the status of RedCLARA and the current situation of the Latin American NRENs, throught the presentation given by Eriko Porto, RedCLARA Network Engineer. After this presentation a very good dialogue took place in the Conference room, as Grid infrastructures unavoidably rely on the underlying high speed networks, and in Latin America RedCLARA is THE network, the last session of the 1st EELA Conference was structured as a forum in which the main issue was the RedCLARA long term sustainability after the end of the ALICE Project. Florencio Utreras, Executive Director of CLARA and Michael Stanton, RNP - CLARA delegate in EELA, were the main voices here.

"The first EELA Conference has been a great success for two reasons: its agenda was technically and politically correct and the local organization was very good", says Bernard Marechal, pointing that the Conference "served to strengthen interactions between EELA partners and enable fruitful contacts with the Chilean e-Science community".

After the 1st Conference, the EELA community was informed that the 2nd EELA Conference will be held in Rio de Janeiro, Brazil, in May of 2007. In the opinion of Marechal, "this Conference should focused on applications relevant to Latin American countries from a sociological/human point of view (e-Health, e-Education, e-Government, e-Society, etc.), attract as much as possible Latin American (Brazilian) decision makers and finally, open doors to industry".

All the Presentations that were given in the 1st EELA Conference are available for downloading at: http://indico.eu-eela.org/conferenceOtherViews.py?view=standard&confId=32.

The EELA Conference participants.

THE ADVANCE OF THE EELA SQUAD

An island located in front of the town of Itacuruça (90 km south of Rio de Janeiro, Brazil) as an idyllic natural setting, the participation of over 40 representatives from several institutions and countries involved in the project, 31 presentations and an openly collaborative spirit, these were the elements that turned the 2nd EELA Workshop, held on 24 & 25 June, into a big success.

Any doubts about the favourable evolution of the "E-Infrastructure shared between Europe and Latin America" project, were cleared during the 2nd Workshop. Thanks to general coordination of Bernard Marechal, Deputy Project Coordinator, the event was held at the Pierre Hotel, located on a small island near the Brazilian town of Itacuruça.

EELA started out officially on January 30, 2006, in Madrid. The promise of developing a human network working on Grids, e-Infrastructure and e-Science in only two years, seemed ambitious, to say the least. However, that promise became a motto, and all the steps guiding participants towards EELA's accomplishment were agreed on at the so-called "Kick-off Meeting" (as in a very long football match that is looking forward to having extra time)

The EELA squad in the beautiful Itacuruça

Thus, at the beginning of the year a multinational team set out to develop strategies for the attainment of precise goals. However, in the middle of the match's first half, the field –thousands of sq. km big, to be exact- seemed to be conspiring against the players: passes were vague, and the captain and the coach's instructions were not heard by the players. But despite the apparent chaos, things were going well and, actually the instructions and strategies were being carefully followed. This became evident at Itacuruça with the presentations of each Work Package, their leaders' words and the information provided by their members.

In short, Itacuruça served to appreciate the real value and know-how of the team and its work. Moreover, it served to realize that the human network promised at the "Kick-off Meeting" was already established. And this does not include the advances presented in terms of Grid development, Certification, Applications and Dissemination, all of them available in the Workshop presentations, which can be downloaded from http://indico.eu-eela.org/conferenceTimeTable.py?confId=36

By the way, since we have mentioned the issue of Dissemination, it is necessary to point out that knowledge dissemination is a fundamental aspect of EELA. Within this context, the third EELA Tutorial, focused on Grid Administrators, was held on June 26 & 27, in Rio de Janeiro, right after the Workshop. The high attendance and the interest on the training contents tell the project's managers about the relevance of the next tutorials. These were: 4th Tutorial, Mexico - August 28 – September 1, 2006; 5th Tutorial (for Grid Users), Santiago de Chile – September 6 & 7, 2006.

In the Dissemination and Training agenda, there are two big events marked, these are:
*   EGRIS-1 *Grid School, Brazil – December 4 - 15, 2006.

*   *Grid School, Venezuela – July 30 to August 10, 2007.

*Only the people who have taken part in one of the Tutorials will have access to Grid schools.

Is there anything else to add? Of course! The 1st EELA Conference, which was held in Santiago de Chile, on September 4 & 5. But this is the subject of another article on EELA News' present edition.

Further information on EELA at: http://www.eu-eela.org

EELA Partners:

Latin America
= CLARA – Cooperación Latinoamericana de Redes Avanzadas

Argentina
= UNLP - Universidad Nacional de La Plata

Brazil
= CECIERJ/CEDERJ – Fundação Centro de Ciências e Educação Superior a Distância do Estado de Rio de Janeiro
= UFF – Universidade Federal Fluminense
= UFRJ – Universidade Federal do Rio do Janeiro
= RNP – Rede Nacional de Ensino e Pesquisa (Brazil)

Chile
= REUNA – Red Universitaria Nacional
= UDEC – Universidad de Concepción
= UTFSM – Universidad Técnica Federico Santa María

Cuba
= CUBAENERGIA – Centro de Gestión de la Información y Desarrollo de la Energía

México
= UNAM – Universidad Nacional Autónoma de México

Peru
= SENAMHI – Servicio Nacional de Meteorología e Hidrología

Venezuela
= ULA – Universidad de Los Andes

Europe
= CERN – European Organization for Nuclear Research

Italy
= INFN – Istituto Nazionale di Fisica Nucleare

Portugal
= LIP – Laboratório de Instrumentação e Física Experimental de Partículas

Spain
= CIEMAT – Centro de Investigaciones Energéticas Medioambientales y Tecnológicas
= CSIC – Consejo Superior de Investigaciones Científicas
= RED.ES – Entidad Pública Empresarial Red.es
= UC – Universidad de Cantabria
= UPV – Universidad Politécnica de Valencia

EELA Tutorials:

ALL ABOUT KNOWLEDGE DISSEMINATION

As a Specific Support Action project, EELA must center its attention not only in the grid infrastructure and the new applications, but mainly in knowledge dissemination: the key that will help the Latin American countries to advance in the development of skills that will take the region at the level that the European countries have in this field.

But, what exactly is, in the EELA project context, knowledge dissemination about? Well, we spoke about it with Herbert Hoeger, Deputy Manager of the EELA Work Package 4 – Dissemination Activities.

Before inviting you to revise the interview that we had with Hoeger, lets check and have in mind what this Work Package declares and states in its section at the EELA Website (http://www.eu-eela.org/eela_wp4.php):

"The dissemination activities are of strategic importance to introduce state of the art grid technologies and services to an international community of users covering a broad range of scientific and technological areas. At the same time, the knowledge dissemination events will contribute to further disseminate the project and the benefits of the grid technologies. This is seen as the first step in the process of bringing more Latin American and European groups into EELA. Dissemination will work closely with the other process project activities with a special focus on the knowledge dissemination, that will be the second step in the process, and on the joining, that will be the third".

"The strategic tool and key enabler of WP4 activities will be the GILDA virtual laboratory for grid dissemination and knowledge dissemination which has originally been developed by INFN and now successfully used in the context of the EGEE Project". To get to know why GILDA was chosen as a key tool for grid dissemination and knowledge, please put an eye to the interview with Giuseppe Andronico (page nº 10).

Now that the scenario of knowledge dissemination in EELA is well established, let's find out what Herbert Hoeger told us about it:

What is knowledge dissemination in the EELA project scenario? What does this mean?
Knowledge dissemination means sharing the expertise, skills, experience that is behind the EELA project mainly with the Latin-American communities. It goes from letting people know about the existence and benefits of the grid technology, to teach them how to use it so as to take as much advantage of it as possible, and to train them so that we can have a good number of grid sites in Latin-American put together and administered by local people.

Why should someone take an EELA Tutorial and who should definitely take one or more than one of them?
There are two types of tutorials. One focuses on users. This tutorial explains what is grid technology, how grids work, the different components/services that the user has available and needs to be aware of, and of course, how to take advantage of this technology by running computation and storage demanding applications on it. This tutorial is aimed at people interested in using this technology or that have demands for computing resources. The second type of tutorials is designed for site administrators. They learn, besides a good deal about

grid technologies, how to install, maintain and keep running the different services required to set up and operate a grid site. This tutorial is for those who have to keep the site working and up to date.

Who are the experts that teach all about grid in these tutorials and what is that makes them experts?
The experts are those who know very well the subject. Initially the experts were the Europeans who through tutorials, lectures, meetings, workshops, transferred or complemented the grid knowledge of our people. Now we have a set of Latin-American training teams, still a few but the number is improving, able to do a quality propagation of this knowledge among our communities. The EELA project points towards reducing the digital gap between Europe and Latin-America and we are getting there.

After five tutorials have passed what would you say it has been the most important achievement of the tutorials that have been already carried out?
We see a good number of people interested in grid technology and wanting to become part of the project. We have already some Latin-American sites adding resources to the EELA infrastructure and these resources are starting to be used. Also, cooperation between countries, institutions and universities are evolving beyond the usual lackluster forms of collaboration. So, we are achieving awareness, cooperation, and expertise on grid technologies.

There are two grid schools in the EELA agenda coming soon, what exactly is a grid school, who should participate in them, and what do expect to reach through them?
These grid schools involve each two full weeks of close cooperation and hard work between users and tutors aiming at making the user's applications work on the grid. The applications drive the grid. Without them there is no need for grid. So, the applications should be tuned to run efficiently on the infrastructure and for this some changes have to be implemented. These are a one or two tutors per few users events. If you want to know more on the First EELA Grid School, please visit the site: http://www.eu-eela.org/egris1/.

Once EELA finishes, what would you like to know that people says about EELA knowledge dissemination and, in particular, about the tutorials?
EELA may end administratively but never die since it will have set the roots for this work to go on. We expect that our dissemination activities reach people in a productive way and allow them, for example, in the time the tutorial is held, reach the foreseen goal: be able to start using the grid and/or have enough knowledge to set up and administer a site without much pain. We want people to be happy with what was taught and learned in the tutorials and so far, according to the evaluations we have had, this is being attained.

Attendees of the 3rd Tutorial, Rio de Janeiro, Brazil, 26 – 30 June, 2006

WHAT HAS GILDA THAT EVERYBODY LOVES IT?

A very important part of knowledge dissemination in EELA is the training in the use of Gilda. But, what exactly is Gilda? Why is it so important? We talk about this with Giuseppe Andronico, Manager of the Work Package 4 – Training and Dissemination.

What is Gilda?
GILDA (Grid Infn Laboratory for Dissemination Activities) is a grid infrastructure completely devoted to training, demonstration and in the starting phase of application integration. This t-infrastructure is based on gLite and owns its services (such as Certification Authority, Information Index, Resource Broker, VOMS, Replica Catalog and much more) to be able to set up a tutorial in a short time. With GILDA it is possible to prepare demonstrations and to let people in test their applications on a grid environment.

Why is important to know and work with Gilda?
GILDA is an important instrument for at least two main categories

For beginners: the people that want start to learn and to practice the use of a grid e-infrastructure. To this aims it is important to signal a interesting instrument of GILDA: the Grid Demonstrator (https://gilda.ct.infn.it/grid-demo.html). This instrument is implemented using a web interface to grid, GENIUS (https://genius.ct.infn.it/), and a set of grid users with reduced privileges. These users are able to execute only a fixed set of examples and are automatically mapped to all the people that want use the Demonstrator.

For trainers: GILDA has been developed with training in mind to be a great instruments for this activity. All the services, instruments, all the material produced in the past tutorials and all the people forming the GILDA team all around the world form an unique set of resources for training.

Within the EELA scope of action, what has been so far the experience with Gilda?
GILDA has been used to handle all the training events in EELA. By means of GILDA lot of people have been trained in using the EELA infrastructure. A statistic of this activity is reported in the following URL: http://www.eu-eela.org/private/eela_tutorials.php

As it is possible to see we have trained a lot of people and we have formed Local Training Teams (LTT) in Venezuela and Brazil while others of such teams are going to being formed in Mexico, Chile and Argentina. These LTTs have the double function of enlarging the GILDA team all around the world and the main goal, to supply the EELA project of a core able to provide all the interested people of the needed knowledge to use the infrastructure at the best.

What is the most important aspect of the Grid t-infrastructure Gilda?
GILDA was chosen from several Projects related to grid activities as the tool for training. This is the main goal of GILDA for which a lot of effort was spent. And the number of events where it was used (https://gilda.ct.infn.it/tutorials.html) is the main demonstration of the results.

Giuseppe Andronico
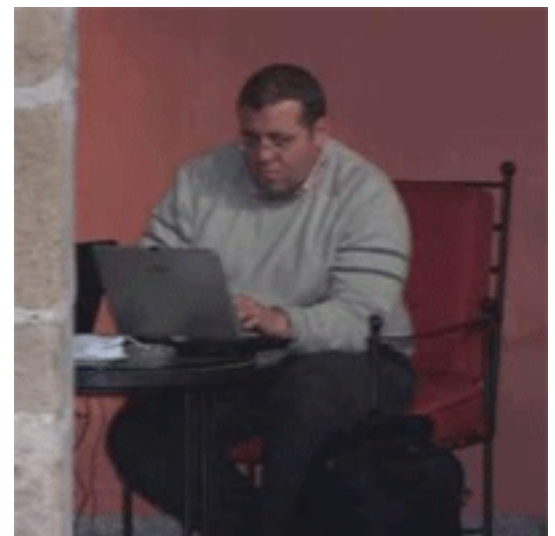
EELA in the IV Ministerial Forum UE-ALC on Society of the Information:
POSITIVE BALANCE OF THE LISBON SUMMIT

The IV Ministerial Forum European Union (UE) - Caribbean Latin America (ALC) on the Society of the Information took place in Lisbon, Portugal, on 28 and 29 of April 2006. The Forum, organized by the Portuguese Government and the European Commission, with the support of AHCIET, allowed to continue the interchanges that took place in previous meetings, celebrated in April 2002 in Seville (Spain), in July 2003 in Lima (Peru) and in November 2004 in Rio de Janeiro (Brazil).

This IV Forum debated a declaration focused on the social impact of Technologies of Information and Communication (TIC) that was displayed to Summit UE-ALC of Chiefs of State and Government, celebrated in Vienna on 11 and 12 of May 2006, in answer to the mandate of Summit ALC-UE of Guadalajara (Mexico) in May 2004.

The forum counted with the participation of ministers, national program coordinators for the society of information and regulatory agency presidents of Europe, Latin America and the Caribbean. Representatives of civil society, private sector and international organizations were also present.

During the Forum, Grid demonstrations were performed in the CLARA booth, with the strong support of RedCLARA, by Diego Carvalho (UFRJ - BRAZIL), Manager of the EELA Work Package 2 (Pilot Tesbed Operation and Support), Roberto Barbera (INFN/Catania - ITALY), EELA Technical Coordinator, and Emidio Giorgio (INFN/Catania - ITALY).

Bernard Maréchal (UFRJ/CEDERJ - BRAZIL), Deputy Project Coordinator of EELA and Diego Carvalho believe that the demonstrations contributed successfully to the dissemination of EELA. The audience was impressed about the applications that were shown.

Bernard Marechal's view of EELA in Lisbon

Bernard, why was the Lisbon Summit so important for EELA?
The sole presence of ministers from Latin American, Caribbean and European countries is an answer to your question. EELA was one of the projects present in Lisbon but several members of our management, Jesús Casado (Ciemat/SPAIN - EELA Project Coordinator), Roberto Barbera, Diego Carvalho, Michael Stanton (RNP/BRAZIL - EELA Task Leader of Network Support and Operation) and I, attended the summit, meeting people and making important contacts.

EELA was mentioned several times during the summit and a worldwide audience is now aware of the existence of this EC funded project.

What kinds of promises were made in Lisbon, related to the EELA project?
Nothing was specifically promised concerning EELA. One of the main objectives of this summit was to provide information to the ministers for subsequent meetings in Vienna in order to guarantee the future of RedCLARA in the next Framework Program (FP7). This important point was mentioned in Lisbon and the continuation of European Funding for CLARA was strongly supported, by, among other authorities, Minister José Mariano Gago, Portuguese Minister of Science and Technology and Education, and Mrs. Viviane Reding, EC Commissioner for Information Society and Media. Obviously such a support is vital for EELA since no future for GRID projects can be foreseen in LA without up to date networks bridging Europe, Latin America and the Caribbean.

What was the commitment of the Minister Gago?
Minister Gago gave his support to the financing of CLARA during FP7 and to every initiative related with e-Infrastructure in Latin American and in the Caribbean.

How was EELA perceived by the authorities in Lisbon?
Well, we did not get a time slot to present formally EELA. However, Florencio Utreras, Executive Director of CLARA, made several references to our project (CLARA is an EELA partner!) during his presentation and EELA has been explicitly presented, during the formal launching of the Portuguese National Grid Initiative, by Dr. Juan Antonio Rubio, Director General of CIEMAT (SPAIN).

How did the community perceive EELA?
I got the impression that, thanks to the summit, people in Europe and Latin America had been impressed by the aims and objectives of EELA. We are currently signing some MoUs with other projects like EGEE2, BELIEF and SEEGRID2. Now you can talk with people about EELA and they know about the project. I think that the dissemination is on the way.

EELA demostration in Lisbon

Diego Carvalho reported about the Lisbon demonstration. "During our demonstration, we showed a group of important applications running on seven EELA resource centers worldwide distributed: 3 in LA and 4 in Europe".

The most impressive application presented was GATE (Geant4 Application for Tomographic Emission), in which a radiotherapy model can be simulated for several different kinds of cancer, helping treatment planning. The use of accurate simulations reduces the morbidity and secondary effects of current practice.

What did you do specifically?
A patient computerized axial tomography scan (CAT scan) is processed with support of auxiliary information in different computers on the grid. The simulation output is made available to the doctor after a number of runs simulating different treatment doses of radiation.

Another application that was shown was gMod (a video-on-demand system on the grid). This application is used to locate video clips in a distributed repository and the broadcast them.

A rather interesting application developed in Italy was the vocalization of seismographic information from volcanoes. During the demonstration, Roberto Barbera presented the Etna activity vocalized as a piano. This technique, CPU intensive, can help researchers to monitor volcanoes already actives.

Finally, the EELA impact on the use of the Alice link between RedCLARA and Geant was presented using a graphic showing the network bandwidth and recorded a couple of weeks before the summit.

How the demonstration was perceived?
Considering the number of visitors and the time they spent on the booth, the demonstration was a success. Moreover, we received VIP visitors as Mario Campolargo, Principal Scientific Officer of the European Commission DG INFSO and Mr. José Mariano Gago, Portuguese Minister of Education, Science and Technology.

The WP3 Information Sheets are now available:

WP3 IDENTIFICATION AND SUPPORT OF GRID ENHANCED APPLICATIONS

The Work Package 3 (WP3) considers communities that have already established research links, and where the experience from other initiatives guarantees that the applications can be enhanced thanks to the use of the Grid.

We will present a summary based mainly in the WP3 Information Sheets, which are available in the EELA Web Site. The Identification and Support of Grid Enhanced Applications - WP3 was initially focused on four well-defined application areas: Biomedicine, High Energy Physics, e-Learning and Climate.

One of the four Work Packages of the EELA project is "WP3 Identification and Support of Grid Enhanced Applications". This WP is crucial to the objectives of the proposal. First of all, the impact of the project depends upon an adequate identification of applications really benefiting from the use of a Grid-empowered e-Infrastructure, and of interest for research communities in Europe and Latin America. The information sheets of the WP3 are available for the users in the URL: http://documents.eu-eela.org/?c=Sheets&as=0&ln=en

In the following pages you can find a summary based on the WP3 Information Sheets which highlight the main characteristics of the Projects supported by EELA. For the full information please visit the Web Site.

I. Biomedical Activities

The first Task of the project is "T3.1 Biomedical Applications", the inclusion of witch is in "WP3 Identification and Support of Grid Enhanced Applications". The selection of this Biomedical Task was due to the fact that this community was already Grid aware and ready to deploy challenging real applications at the beginning of the project in January 2006. EELA is since establishing a broader portfolio of applications across a wider range of sectors in Biomedicine.

The applications have been identified from current existing ones already in use in the EGEE community (GATE and WISDOM) and from the expertise and research activity of the current Latin America and European partners in EELA (BLAST, MrBayes and Biomedical Portal)

Activities:

GATE (Geant4 Application for Tomographic Emission) Radiotherapy and brachytherapy use ionizing radiations to treat cancer. GATE stands for Geant4 Application for Tomographic Emission. It is a C++ platform based on the Monte Carlo Geant4 software. Monte Carlo simulations are the best tool to model and plan the tumor treatment for complex requirements. It has been typically designed to model nuclear medicine applications, such as the Positron Emission Tomography (PET), and a consortium for its deployment is now created: the OpenGATE collaboration.

Currently, this application uses anonymous binary medical images. No information concerning neither the patient nor the physicians is included. In the near future, it is envisaged to have access to metadata by using a secure database where the information concerning the patient is defined and the related disease treated.

WISDOM (Wide In Silico Docking of Malaria) The objective of the Wide in Silico Docking of Malaria project (WISDOM) is the creation of new inhibitors for a family of proteins produced by Plasmodium falciparum and other neglected diseases. This protozoan parasite causes malaria and affects around three hundred million people and more than 4 thousand people die daily in the world.

This application consists on the deployment of a high throughput virtual screening platform in the perspective of in silico drug discovery for neglected diseases. The WISDOM platform a High-Throughput virtual Docking of million of chemical

compound available in the databases of ligands to several targets of Plasmepsin. For this purpose, the following actions will be done in EELA:
* Selection of new targets for malaria and new diseases
* Contribution with resources for the WISDOM Data Challenge.

The benefit of Grids is the reduction of the development cycle of new drugs for neglected diseases which have troubles due to drug resistance by providing in silico simulation of the election of the adequate reactors for specific target and the needed infrastructure to deal with the computational power required.

BLAST (Basic Local Alignment Searching Tool)
The Basic Local Alignment Search Tool finds regions of local similarity between sequences. The program compares nucleotide or protein sequence databases and calculates the statistical significance of matches.

This process of finding homologous of sequences is a very computationally intensive process. The size of the nonredundant databases currently available increases daily, reaching the size of more than a gigabyte.

This demand can be solved by a Grid-enable interface developed in the EELA framework. The use of Grid will allow to increase the number of fragments to be analyzed and the periodical update of this information as wells as the availability of large scale computation for allowing the researchers to perform evolutionary studies.

Phylogeny (MrBayes)
A phylogeny is a reconstruction of the evolutionary history of a group of organisms. Phylogenies are use throughout the life science, as they offer a structure around which to organize the knowledge and data accumulated by researchers. The inference of phylogenies with computational methods is widely used in medical and biological research and has lot of applications.

Bayesian inference is a powerful mathematical method which is implemented in the program MrBayes for estimating phylogenetic trees that are based on the "a posteriori" probability distribution of the trees.

The complexity of large-scale phylogeny studies represents a true computational grad challenge. Due to the nature of Bayesian inference, the stimulation can be prone to entrapment in local maxima. To overcome local maxima and achieve better estimations, the MrBayes program has to run for millions of iterations (generations) that require a large amount of computation time.

Bioinformatics portal
The Ibero-American Portal of Bioinformatics (http://portalbio.ula.ve) installed at the National Centre for Scientific Computations (CeCalCULA) of the Universidad de Los Andes, in Venezuela, is an initiative for the spreading of findings in the Bioinformatics area in Venezuela and in other Spanish speaking countries developed before EELA.

This portal is the result of several servers developed at CeCalCULA to create an on-line academic and research communities.

It also has several on-line applications for registered users, the number of which expects to increase by joining EELA.

II. High Energy Physics Activities

One of the Tasks of the project is "T3.2-High Energy Physics Applications", part of WP3. The selection of this Physics Task was due to the fact that this community was already Grid aware and ready to deploy challenging real application at the beginning of the project in January 2006.

The applications have been identified from current existing experiments already in use in the EGEE community taking into account the expertise and research activity of the current Latin America and Europe partners in EELA. These application are upon to now ALICE and LHCb, but in the future, CMS, ATLAS and the Pierre Auger Project will probably be added.

ALICE (a Large Ion Collider Experiment)
Hosted at CERN, the ALICE collaboration is building a dedicated heavy-ion detector to exploit the unique physics potential of nucleus-nucleus interactions at LHC energies. The aim is to study the physics of strongly interacting matter at extreme energy densities, where the formation of a new phase of matter, the quark-gluon plasma is expected.

The ALICE experiment is designed and optimized to study heavy ion collisions, but it will also observe and analyze protonproton collisions.

LHCb (Large Hadron Collider beauty experiment)
The aim of the LHCb experiment is to full investigate de CP violation in the B_d and B_S systems to possibly renew the physics beyond the standard model. It is a specialized experiment that makes use of the fact that mesons that contain

a b-quark will be copiously produced at the LHC. It turns out that these mesons are most likely to be produced close to the incoming beams direction. In this way, the LHCb detector is designed to catch these low-angle particles. Its key elements will be the vertex detector that will measure charged particle tracks, and the Ring-Imaging Cherenkov, or RICH detectors, that will identify different kinds of particles.

Why those Projects were chosen?
ALICE and LHCb were chosen because Mexican and Brazilian communities are engaged in both projects. The HEP community is growing in Latin America with institutions from various countries participating in Particle Physics experiments around the world.

Currently EELA is promoting the inclusion of new HEP applications according with the increasing number of interested in joining it in Latin America and in Europe. The candidate experiments are:
* ATLAS (A Toroidal LHC ApparatuS)
* CMS (Compact Muon Solenoid)
* The Pierre Auger project

III. e-Learning Activities

The third Task of the Project is "T3.3 Additional Application: Education in the Grid Environment". Education and Development are, more than ever, cause and consequence one of the other. The use of computational technology in the educational process helps the development of intellectual capacity of scientists, other professionals, teachers and students. Nowadays, the situation is becoming more critical because it is not sufficient to have access to education: we are living in a knowledge society so we have to have fast access to global information. Social exclusion and digital gap have to be reduced and a possible way is that of e-Education

Several applications have been selected as strong candidates for being supported in the EELA infrastructure.

ACADIA
The application of long-distance education ACADIA is based on a platform that involves peer-to-peer technology and shared resources, called DEDALUS. ACADIA provides a learning environment for students and teachers since the building of a lesson to the delivery of works and tests. It is intended to increase the interaction between teacher and students, and among students, opening a space for discussing questions, suggestions and criticism. The use of multimedia (images, videos, sounds and texts) stimulates creativity and collaboration among participants. Architecturally, Acadia will act as a wrapper

of the EELA grid middleware

CUBA GRID FOR LEARNING – CuGfL
The main objectives of CuGfL are:
•   To enhance discoverability of e-learning content from heterogeneous sources;
•   To develop e-learning standards to ensure conformance and adoption of best practices in e-learning content and systems;
•   To provide e-Learning systems and tools to enable and support e-Learning activities and processes for the purpose of life-long learning;
•   To encourage sharing and development of local/indigenous content.
This way, CuGfL appears as a general framework to guide the construction of other Learning Management systems. According to their resources, the CuGfL developers are interested in taking part on the following activities:
•   Remote laboratory
•   Multimedia Interactive Course
•   Semantic Grid
•   Collaborative Courses

VoD – Remote Lab
This e-learning application consists of a distributed interactive multimedia server (RIO) that is currently being employed in the distance learning consortium of public universities in the state of Rio de Janeiro. The video stream is coupled with class slides and a brief index of the topics in the lecture. Students can interact with the slides, which are programmable entities and can launch other applications in the client's computer. The RIO server is made of storage units (storage servers) that may reside in different machines at different locations. For the EELA project the RIO server will be adapted to run over the GRID paradigm. The goal is to provide an underlying structure that allows dynamic reconfiguration of resources. As part of the E-learning initiative for this task, a prototype virtual lab is being built. The prototype will be tied to the multimedia server clients' environment. This way, students watching a video course would be able to interact with the class slides and, from those, access the prototype virtual lab while guided by the video-lecturer.

LEMDist
LEMDist is not only an application, but a project itself. Thus, its aim is to get web access to laboratory equipment and another web service to help e-science and e-learning users. The project is driven to build technological support for different pedagogical approach in natural science teaching, and heterogeneous problem solving environment for scientific work. The system is based on applications with access to

distributed computer enhanced instrumentation, remote access to simulation capabilities with high performance computing support, interactive visualization, distributed data analysis and access to heterogeneous data sources systems. For doing this, five layers for the architecture have been identified:

- Access layer: A web user interface.
- Service layer
- Grid layer
- Administration and security layer
- Resource layer

The first steps were made with the Multidisciplinary Experimental Laboratory (LEM) equipment, which has different kinds of instruments for measurement and processing in several fields: Unitary operations, Industrial process simulation, Control process, Physical, Chemical and Physical Chemistry properties determination, etc.

The research in the remote access will be focused in several devices. The most important will be a 200 Mhz Nuclear Magnetic Resonance (NMR) Varian spectrometer, a Capillarity Electrophoresis (CE) equipment and the associated computer controlled laboratory apparatus through a serial interface.

Parallel Inductive Logic Programming

This application is intended to discover hidden data from relational databases. It uses a technique called Inductive Logic Programming (ILP), where, given background knowledge, a set of positive examples, a set of negative examples, and a language bias, the objective is to generate first order rules that (almost) perfectly describe all positive examples and none of the negative examples. It has been working with several domains: drug discovery, analysis of mammograms, link discovery, among others. These domains present very large databases and sets of examples. This application has already been executed in a grid environment.

SATyrus

SATyrus is a novel approach to the specification and solving of optimization problems. In the scope of the SATyrus architecture, a given target problem is specified, using a logical style declarative language, as a set of pseudo-Boolean constraints. Then, this set of constraints is compiled, following a satisfiability (SAT-based) mapping, into an energy function representing the space state of solutions of the target problem. Among other possible computational intelligence models that could have been adopted (e.g., genetic algorithms, artificial immune systems, etc.), higher-order Hopfield networks of stochastic neurons were chosen to map and minimize the resulting energy function. This choice is justified by the linear cost of representing any energy function produced by SATyrus as symmetric neural networks.

IV. Climate Activities

Into the third Task of the Project is also the climate applications "T3.3 Additional Application: Climate in the Grid Environment". Modern climate science deals with different sources of geographically distributed observational data (surface, atmosphere, ocean, etc.) stored in different platforms and formats. Moreover, an increasing number of global climate simulations and predictions is available from numerical atmospheric and oceanic models (reanalysis projects, ensemble model and multi-model experiments, etc.). These sources of data can jointly help to solve many important problems, such as regional climate change projections, i.e., the effects of climate change on different regions of interest. To this aim, efficient problem-driven statistical analysis tools are required for discovering knowledge, or useful information, within the huge amount of information. Data mining and machine learning techniques have been developed in the last decades to deal with this task, and different alternatives have been studied to make easier the process in a distributed environment such as the GRID.

Typical climate applications required by end-users (agriculture, energy, etc.) usually require a set of processes to be run in cascade:
• Simulation of atmosphere/ocean model
   o Efficient data access to observations and previous simulations
     > Data analysis and mining applications.

The climate applications involved in EELA are organized around these three tasks and focus on their interconnection to solve typical end-user climate-related problems

CAM

The Community Atmosphere Model (CAM) is the latest in a series of global atmosphere models developed at NCAR for the weather and climate research communities. CAM also serves as the atmospheric component of the Community Climate System Model (CCSM). CAM is a numerical model that uses governing equations of atmosphere to make climate forecast for long periods of time (centuries). The proposal is to use CAM model in a global scale at 300 Km of resolution simulating the climate system of the last fifty years in a global scale. An ensemble of different simulations from different initial conditions can be produced as different GRID jobs to characterize the model climatology. This model can be also run with different forcing emission scenarios to analyze climate change.

MM5

The PSU/NCAR mesoscale model (known as MM5), and the recent Weather Research and Forecasting (WRF) version, are limited-area models designed to simulate or predict regional atmospheric circulation. These models can work with nested domains with different resolutions and require as input the boundary conditions from a global model (e.g., the CAM model). The model is supported by several pre- and post-processing programs, which are referred to collectively as the MM5 modelling system, and has been used as a computing performance benchmark in several tests.

Regional models are highly dependent on the specific parameterizations chosen for different sub-grid physical phenomena resolved explicitly. Therefore, an optimal tuning of the model for a given region requires running an ensemble of simulations with different combinations of model parameters (e.g. running slightly different models with the same initial files.

SOM

Due to the high-dimensional character of the data involved in the climate simulations, it is necessary to first analyze and simplify the data in order to extract some useful knowledge. Some data mining techniques are appropriate for this context. Unsupervised clustering techniques allow partitioning the simulation databases, producing realistic weather or climate models of great variability governing the global dynamics. Self-Organizing Maps (SOM) is one of the most popular clustering algorithms, which is especially suitable for high dimensional data visualization and modelling. It uses an unsupervised learning (no domain knowledge is needed and no human intervention is required) for creating a set of prototype vectors representing the data. Moreover, a topology preserving projection of the prototypes from the original input space onto a low-dimensional grid is carried out. Thus, the resulting ordered grid can be efficiently used for extracting data features, clustering the data, etc. Self-Organized maps have been recently applied in several meteorological problems, such as classifying climate modes and anomalies for El Niño phenomenon in the area of Peru.

EELA Support System is operational:

40 EXPERTS ARE READY TO ANSWER TROUBLE TICKETS

A few months ago, the technical team of EELA designed a new support system where 40 experts try to find and solve problems and put that information inside a tickets system where the users can find the support they need.

The system involves two ways, first role is a universal interface with the user and the second role is to keep the project memory as some knowledge base that may be used time to time.

Te EELA Support System relies in a traditional web based ticket system as a centralized problem-tracking tool. There are five main area support teams, namely GOC, ROC, Application Support, CA and VO Support, and Resource Center. The first team is in charge of coordination and will act as a global knowledge repository.

The ROC team is divided in Latin America and Europe due to the existence of several time zones in EELA project and they are bases in Brazil and Spain. It is in charge of the support of any core service provided in each individual region. Experts appointed by Work Package 3 Manager compose the Application Support Team and they are accountable for the support of specific EELA applications.

The CA and Vo Support team are liable for any subject related to Certification Authorities, Certificates, Virtual Organizations and User Interface use.

The Resource Centre team is specific resource centre operation. The ticket system also provides the inter-team knowledge repository.

The Support Categories implemented in EELA Ticket System are defined as follows:

*   **Core Services (ROC)** is related to any Core Infrastructure service, such as BDII, RB, etc.

*   **Certificates, File Catalogues and VOMS** category is related to all issues concerning Certificates, Certificate Authorities, File Catalogues and VOMS.

*   **Network** category is associated to network issues.

*   **RC Sites** category is connected to any problem related to Computing Element, Storage Element and Worker Node misbehavior. There is one RC Site category for each EELA Resource Centre.

*   **Application** category is subdivided in HEP, Biomedical and Additional.

The next table presets the category versus team mapping.

CATEGORY	TEAM
Core Services	ROC
Certificates, File Catalogues and VOMs	CA and VO Support
Network	ROC and forwarded to GOC/NOCL
RC Site (1..N)	RC Site
HEP Applications	Applications
Biomedical Applications	Applications
Additional Applications	Applications

The first level ticket routing will be performed by REUNA and UFF partners.

Roberto Barbera:

ANALYSING EELA AFTER NINE MONTHS OF OPERATION

The EELA project has accomplished nine months since it was launched in the Kick-off meeting that was held by CIEMAT in Madrid in January 2006. And after the first six months, a biannual report document has been delivered under the title of "Periodic Project Highlights" (http://documents.eu-eela.org/getfile.py?docid=215&name=EELA-D1%204%201-v1%200&format=pdf&version=1), a document that obviously serves as a first evaluation of the project. About this issue we dialogued with Roberto Barbera, Technical Coordinator of EELA.

A first evaluation of the EELA project has been done. Having that in mind and looking back to the Technical Annex, what were the bigger promises of the EELA project and after nine months, how many of them have been achieved in time and how many of them have failed, and why?

After its first nine months EELA has held all its promises. All deliverables have been written and all milestones have been achieved on time. Two striking examples can be done; 1) the EELA pilot infrastructure counts more sites, CPUs, and storage than promised in the Technical Annex for this month and 2) the number of people trained and inducted is larger than what planned at the beginning.

Which are the main problems and/or failures that you see in the EELA project development?
I don't see any failures in the project at the moment. In my opinion, the only problem we face, and we need to address and solve quite rapidly, is communication. We have to let all EELA partners "feel", even if they have different "speeds", as part of a big community whose most important "plus" are sharing, care, and support.

Which are, for you, the strengths of the EELA project?
The strength of the EELA resides in the human network the project managed to build. Professionalism, hard work and dedication are three most important characteristics of the people working in the project.

How has the EELA project been evaluated by the EC?
The formal evaluation has not been done yet. The EELA First Review will take place most probably in March next year. However, informal discussions with several EC representatives clearly indicate the appreciation of the work done by the project so far and the invitation to keep the momentum and continue on this path.

What should be done in EELA before the next evaluation and when is that going to be carried out?
As I said before, the First Review of the EELA project will most probably take place in March 2007. The whole project must prepare this important event consolidating the technical activities, achieving good results, and being ready and solid from the administrative point of view.

How do you envision that the project should go on in the next months?
In my opinion, in the next months EELA will have to concentrate its work to:
· consolidate and expand the e-Infrastructure;
· define the LA specific applications in the fields of climate and e-learning;
· follow up on the survey of new communities conducted in the last months.

What do you expect to be the result of the next evaluation?
The next evaluation will not be done by ourselves but by our reviewers and EC Project Officers. In fact, in March 2007

EELA will undergo its First Review. All the Work Packages are aware of this important milestone and everybody in the project is working hard to prepare this event. If we want to dream about any possible future of EELA in the EU Seventh Framework Programme the review "must" be successful.

What would you like to be the final words of the EC after the EELA project ends?
We all must work as hard as we can so let our EC Officers say that the money invested for EELA were worth and that we managed to put a good seed for a sound social and scientific progress of Latin America.

According to European Commission:
SEVENTH FRAMEWORK PROGRAMME INCREASE EUROPE'S GROWTH AND COMPETITIVENESS

FP7, the EU's chief instrument for funding scientific research and technological development over the period 2007 to 2013, is one of the most important elements in realising the Lisbon agenda for growth and competitiveness.

The call for proposal of the Seventh Framework Programme will be done in the beginning of 2007, and the official launched is programed for march 2007, during the event called "Evening on European research", which will take place in Brussels.

The Seventh Framework Programme (http://cordis.europa.eu/fp7/faq.htm#1) is the next programme in a series of multi-annual Framework Programmes that have been the European Union's main instrument for funding research and development since 1984 - as provided for by the Treaty establishing the European Community.

The FP is proposed by the European Commission and adopted by Council and the European Parliament following a co-decision procedure. FPs have been implemented since 1984 and cover a period of five years with the last year of one FP and the first year of the following FP overlapping. The current FP is FP6, which will be running up to the end of 2006.

In the Commission's proposals for the Seventh Framework Programme (http://cordis.europa.eu/fetch?ACTION=D&SESSION=&DOC=1&TBL=EN_DOCS&RCN=6797&CALLER=FP7_LIB) to the European Parliament and the Council of 6 April 2005, the

Commission proposed that the maximum overall amount for Community financial participation in the EC Seventh Framework Programme should be EUR 72 726 million for the period 2007 - 2013. For nuclear research and training activities carried out under the Euratom treaty EUR 3092 million are foreseen for 2007-2011.

The Programmes for FP7
The proposed Seventh Framework Programme will be organised in four programmes corresponding to four basic components of European research:

Cooperation
Support will be given to the whole range of research activities carried out in trans-national cooperation, from collaborative projects and networks to the coordination of national research programmes. International cooperation between the EU and third countries is an integral part of this action.

This action is industry-driven and organised in four sub-programmes:

* **Collaborative research** will constitute the bulk and the core of EU research funding

* **Joint Technology Initiatives**

* **Coordination of non-Community research programmes**

* **International Cooperation**

Ideas

This programme will enhance the dynamism, creativity and excellence of European research at the frontier of knowledge in all scientific and technological fields, including engineering, socio-economic sciences and the humanities. This action will be overseen by a European Research Council.

People

Quantitative and qualitative strengthening of human resources in research and technology in Europe by putting into place a coherent set of Marie Curie actions (http://cordis.europa.eu/mariecurie-actions/).

Capacities

The objective of this action is to support research infrastructures, research for the benefit of SMEs and the research potential of European regions (Regions of Knowledge) as well as to stimulate the realisation of the full research potential (Convergence Regions) of the enlarged Union and build an effective and democratic European Knowledge society.

Each of these programmes will be the subject of a Specific Programme. In addition, there will be a Specific Programme for the Joint Research Centre (non-nuclear activities) and one for Euratom nuclear research and training activities (http://cordis.europa.eu/fetch?ACTION=D&SESSION=&DOC=1&TBL=EN_DOCS&RCN=6797&CALLER=FP7_LIB).

Themes

FP7 presents strong elements of continuity with its predecessor, mainly as regards the themes which are covered in the Cooperation programme. The themes identified for this programme correspond to major fields in the progress of knowledge and technology, where research must be supported and strengthened to address European social, economic, environmental and industrial challenges. The overarching aim is to contribute to sustainable development.

The nine high level themes proposed for EU action are the following:

Health

Food, agriculture and biotechnology

Information and communication technologies

Nanosciences, Nanotechnologies, Materials and new Production Technologies

Energy

Environment and Climate Change

Transport and Aeronautics

Socio-economic sciences and the humanities

Space and Security Research

In addition, two themes are covered by the Euratom Framework Programme:

- Fusion energy research
- Nuclear fission and radiation protection

In the case of particular subjects of industrial relevance, the topics have been identified relying, among other sources, on the work of different "European Technology Platforms" (http://cordis.europa.eu/technology-platforms/home_en.html).

New elements in FP7

While building on the achievements of its predecessor, the Seventh Framework Programme will not be "just another Framework Programme". In its content, organisation, implementation modes and management tools, it is designed as a key contribution to the re-launched Lisbon strategy.

The new elements in FP7 include the following:

* Emphasis on research themes rather than on "instruments"

* Significant simplification of its operation

* Focus on developing research that meets the needs of European industry, through the work of Technology Platforms and the new Joint Technology Initiatives

* Establishment of a European Research Council, funding the best of European science

* Integration of International cooperation in all four programmes

* Development of Regions of Knowledge

* A Risk-Sharing Finance Facility aimed at fostering private investment in research

The Official Launched of FP7

On 7 March 2007, high-level representatives of the German EU Presidency and the European Commission will open a major event on European research in Brussels. The event will begin with an "Evening on European research", which will comprise:

* Speeches by high-level representatives of the German

Presidency and the European Commission

*	The opening of the public exhibition "Today is the future" (working title)

*	The award ceremony for the Descartes Prizes for collaborative research and science communication.

This event will mark the launch of the Seventh Framework Programme 2007-2013. The overall aim of the event is to raise the level of political commitment to European research, expand media coverage and increase public awareness.

The event will be composed of Political speeches and an attractive public exhibition and will be open to the public, with special emphasis on the media and young people (school), from Wednesday 7 March to Sunday 18 March 2007. The 'European research' evening will target Heads of State and Government, Ministers and the media.

The calls for proposals under FP7 will be set out in annual work programmes which will provide details about the topics, timings and implementation. The Commission is drawing on a wide range of inputs and advice for the preparations of these work programmes.

For more information please visit the European Union Website about FP7 http://ec.europa.eu/research/fp7/ , or the CORDIS guide in http://cordis.europa.eu/fp7/.

EELA MARKED ITS PRESENCE

During 2006 EELA has participated in several events that involve science, technology, grid applications among others in order to become known and have a positive response from this environment. We now present eight events in which EELA took part.

During this year EELA has participated in important events about Grids. At these events some of the EELA members have shown EELA objectives, main projects and applications. We highlight the following:
*	Lisbon Summit
*	TAGPMA meeting
*	IV Workshop on Computational Grids and Applications
*	Second meeting about science, technology and society
*	Int.EU.Grid Project Kick-Off Meeting
*	The Workshop on Complex Systems: New trends and expectations
*	EUMEDGRID 1st Conference
*	EGEE'06

Lisbon Summit
The IV Ministerial Forum European Union (UE) – Caribbean Latin America (ALC) on the Information Society took place in Lisbon, Portugal, on the 28 and 29 of April of 2006.Ê This event was organized by the Portuguese Government and the European Commission, with the support of AHCIET.

During the Forum, EELA demonstrations were run by Diego Carvalho (UFRJ), Manager of the Work Package 2 (Pilot Tesbed Operation and Support), and Emidio Giorgio (INFN). The demonstrations were about the applications GATE and gMod. Demonstrations of the EELA usage of the ALICE link between RedCLARA and GÉANT networks were also done.

The overall result of the Summit was successful. , At the ALICE Stand, EELA received the visit of important European Ministers, national programme coordinators for the information society and regulatory agency presidents for Europe and Latin America. As well as from the civil society, the private sector, and international organizations.

First TAGPMA Meeting
The Americas Grid Policy Management Authority (TAGPMA) is a federation of authentication providers and relying parties headed by a Policy Management Authority of those responsible for grids in North and South America. The goal of TAGPMA is to foster the cross-domain trust relationships that are needed to deploy grids in the Americas and around the world.

TAGPMA is also involved globally with other regional grid PMA's - EUGridPMA and APGridPMA - to define authentication profiles and related minimum requirements. Members who meet these minimum requirements will be trusted globally through our involvement in the International Grid Trust Federation.

Four times a year a face-to-face meeting of TAGPMA takes place with the objective of creating links, increase confidence and show each partner's work. During this year there have already been two meetings where the fundamental idea has been:
* Define the accreditation process: Repositories, minimum requirements, CP/CPS revisions, and others.
* Contributions to IGTF.
* Themes related to GRID, and PKI in general.

The first meeting was held in Rio de Janeiro, between the 27 and 29 of March and was hosted by RNP. In that opportunity Diego Carvalho (UFRJ), Manager of the Work Package 2 (Pilot Tesbed Operation and Support) of EELA, gave a talk about the EELA Project, where he explained the objectives and the applications that EELA has been working with during this year. This talk was the official presentation of EELA as part of TAGPMA.

To see the presentation please visit:
http://www.tagpma.org/files/EELA%20@%201st%20TAGPMA.ppt

The second meeting, with EELA as a member, was held in Canada, Ottawa on the 17th – 19th of July and in this occasion TAGPMA admitted eight new members: UFF/Brazil represented by Vinod Rebello, ULA/Venezuela represented by Vanessa Hamar, REUNA/Chile represented Juan Carlos Martinez, UNLP/Argentina represented by Javier Diaz, UNAM/Mexico represented by Alejandro Nunez, NCSA represented by Jim Basney, TACC represented by Margaret Murray, and Purdue represented by Matthew Lundmark.

IV Workshop on Computational Grids and Applications WCGA

On the Second of June the IV Workshop on Computational Grid and Applications WCGA was held in conjunction with the Brazilian Symposium on Computer Networks (SBRC 2006), in Curitiba, Parana, Brazil.

It is a joint organization of LNCC, RNP, NCSA, and SBRC 2006. This event is taking place every year since 2003 and has had the objective to act as a forum for technical presentations of ongoing research and relevant activities in the area of Computational Grids, Infrastructure, Middleware Development and Applications, gathering researchers and professionals actively working in these areas.

The workshop intended to form multi-institutional collaborative networks, groups with technical and scientific competence, and strengthen ongoing activities.

During the Technical Session 3, Diego Carvalho (UFRJ), Manager of the Work Package 2 (Pilot Tesbed Operation and Support) of EELA, was invited to talk about the project. The Abstract of the speech is as follows:

"The EELA project is building a bridge between consolidated e-Infrastructure initiatives in Europe and emerging ones in Latin America by creating a Human Collaboration Network in e-Science oriented to the dissemination of knowledge in Grid Computing. Furthermore, a pilot Grid infrastructure is being deployed in LA integrated into the European one, as an element of know-how transfer and to support the proof of- concept of enhanced scientific applications of interest for both research communities. The EELA Consortium is formed by institutions from Spain, Portugal, Italy, Argentina, Brazil, Chile, Cuba, Venezuela, Peru and Mexico."

The speech is available at:
http://wcga06.lncc.br/slides/wcga06-slides-talk02.pdf

Second Meeting About Science, Technology and Society
Between the 5th and 8th of June, 2006, the second meeting about Science, Technology and Society took place at the Museo Argentino de Ciencias Naturales Bernardino Rivadavia in Buenos Aires, Argentina. Ministers of Science and Technology of Argentina and Brazil supported the development of the meeting, which is taking place since 2004. The objective was to consolidate a space for Science, Technology and Society, for thinking and the generation of proposals. One objective was also to integrate societies of other regions.

In this opportunity, Diego Carvalho (UFRJ), Manager of the Work Package 2 (Pilot Testbed Operation and Support) of EELA, participated in a discussion group about "Research and Technologies of the Information and Communication, TICs, on the 6th of June. He also presented the EELA Project.

More information about the meeting is available at:
http://www.reunioncts.org.ar/

INT.EU.GRID Kick-Off Meeting
In the Institute of Physics of Cantabria (IFCA - Santander, Spain) the first meeting of the Interactive European Grid

Project, int.eu.grid Kick-off Meeting, took place between the 19th and 23rd of June, 2006. Dr. José Manuel Gutierrez presented the EELA application in meteorology.

The event, brought together around 30 partners from the project for the first time. This meeting introduced the members of the project and provided the opportunity to discuss the role of each member in the project work. The sessions were transmitted through VRVS.

During the meeting, Dr. José Manuel Gutierrez, of the University of Cantabria, presented about EELA applications in meteorology.

This presentation is available in the following URL: http://www.interactive-grid.eu/KoM/Presentations/EELApresentation-Intergrid.ppt#1.

Workshop On Complex Systems: New Trends and Expectations
This Workshop took place between the 5th and 9th of June in Santander, Spain.

It focused on the interdisciplinary aspects of current complex systems' research. Scientists from Europe and Latin America, working on different topics in physics, chemistry, biology, economy, and sociology, gathered in Santander and contributed with their different approaches and views to give an up to date view of the estate of the art, as well as a cross-fertilization of ideas. The meeting pretended contributes to build up a bridge between the scientific communities in Latin America and Europe.

During the event, the director of the IFCA, Jesús Marco de Lucas, made a presentation about the EELA project, explaining the principal aspect of EELA: the goal, the objectives, the members, the WP2, WP3, WP4, the dissemination activities and the GILDA t-Infrastructure. In the opportunity Marco de Lucas offered the contacts with EELA to all the interested as well.

For more information please visit: http://www.ifca.unican.es/%7Efises/complex/index.html.

EUMEDGRID 1st Conference
The Conference was held in September 15th in Rome (Italy). Jointly organized by INFN, GARR and the Department of Physics of the University of Roma Tre, the first EUMEDGRID Conference counted with the participation of international-level speakers that presented the vision of Euro-Mediterranean collaborations in Research, Culture and

Other Events

Besides the aforementioned events, WP3 - Identification and Support of Grid Enhanced Applications, marked its presence in the following events:

* Madrid (Spain), ALICE-CIEMAT Meeting, 4 May 2006
    * A presentation of the status of the EELA HEP Applications
* Valencia (Spain), IV HealthGrid Conference, 7-9 June 2006
    * Participation in the WISDOM and SHARE Workshop.
    * Poster with all the EELA Biomed Applications.
    * Paper in Studies In Health Technology and Informatics 120, 397-400 (2006)
    * Talk about Technical Details of BiG.
    * Stand of the UPV with a Demo on BiG and a Poster and Shared Flyer.
    * Discussions on Biomed Collaboration
        * International Relationships Coordinator of the Latin American Bioinformatics Network.
* Brussels (Belgium), ICT for BIO-Medical Sciences Meeting, 29-30 June 2006
    * A presentation of the status of the EELA Biomed Applications
    * Concertation Meeting on HealthGrid - Health Information Infrastructure and Applications.
* Sardinia (Italy), NETTAB-Network Tools and Applications in Biology Conference, 10-13 July 2006
    * Invited Plenary Talk about Biomedical EELA Applications
    * Paper in Proceedings of the NETTAB conferences 6, 8-13 (2006)
* Santiago (Chile), XXXII Conferencia Latinoamericana de Informática – CLEI, 20-25 August 2006
    * "HealthGrids: Challenges and Opportunities" – Invited Plenary Talk.
* Santiago (Chile), Coordination Meeting of CYTEDGRID Project, 22-26 August 2006
    * A presentation of the status of the EELA Biomed Applications
* Geneva (Switzerland), EGEE06 Conference, 25-29 September 2006
    * Demo in Phylogeny, Biomed Application
    * A presentation of BiG in the NA4 parallel session
    * A presentation of EELA Biomed Applications in the NA4 parallel session
* Madrid (Spain), CONAMA8 Congress, 27 November-1 December 2006
    * A poster with the climate applications
    * Paper in Proceedings of NETTAB Congress XX, XX-XX (2006).

Education and namely in the creation of cross-national e-Infrastructures supporting such collaborations as a driving force towards widening the European Research Area and bridging the digital divide between Europe and the neighbouring Mediterranean Countries, thus bringing them closer to each other.

EELA was represented by Jesus Casado, Project Coordinator, who gave a presentation about the project. This presentation is available in the following URL:

http://agenda.eumedgrid.org/askArchive.php?base=agenda&categ=a0658&id=a0658s2t16/transparencies.

For more information please visit:

http://www.eumedgrid.org/Conf-Roma06/

EGEE'06
Under the title "Capitalising on e-Infrastructures", the conference was carried out during la last week of September (25 – 29) at the International Conference Centre Geneva (ICCG), in Geneva (Switzerland). The EGEE'06 conference was the focus point of a large number of grid projects featuring prominently in both plenary and parallel sessions that were developed during the 5 days of the event. There, EELA was represented by Rafael Mayo, Giuseppe Andronico and Diego Carvalho. Please, to revise their presentations, refer to the following links:

·   Rafael Mayo:

http://indico.cern.ch/getFile.py/access?contribId=121&sessionId=126&resId=1&materialId=slides&confId=1504

·   Diego Carvalho:

http://indico.cern.ch/getFile.py/access?contribId=119&sessionId=126&resId=2&materialId=slides&confId=1504

·   Giuseppe Andronico:

http://indico.cern.ch/getFile.py/access?contribId=119&sessionId=126&resId=2&materialId=slides&confId=1504

For more information please visit:

http://egee-intranet.web.cern.ch/egee-intranet/conferences/EGEE06/

GRID EVENTS AGENDA

October

VI EELA Tutorial for Users and System Administrators
16 - 20 October, Faculty of Informatica of the University Complutense of Madrid
http://indico.eu-eela.org/conferenceDisplay.py?confId=54

November

GridPP 17 meeting
1 and 2 of November in South College Street, Edimburgh
http://www.nesc.ac.uk/esi/events/666/

December

EGRIS-1 The First EELA Grid School
From 4 to 15 of December, Itacuruça, Brazil
http://www.eu-eela.org/egris1/index.html

2nd IEEE International Conference on e-Science and Grid Computing
From 2 until 4 of December in Amsterdam
http://www.escience-meeting.org/eScience2006/CFPeScience2006.pdf

International Conference on High Performance Computing
From 18 to 21 of December en Bangalore, India
http://www.hipc.org/hipc2006/papers.html

8th International Conference on Distributed Computing and Networking ICDN 2006
From 27 to 30 of December in the Indian Institute of Technology Guwahati, Guwahati, India.
http://www.icdcn.org

E-infrastructure shared between Europe and Latin America

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