DeCLARA

The EC funds extension of RedCLARA Network and GÉANT to support development of Latin America

Thanks to @LIS 2, ALICE2 is now running

Guatemala moves forward

RAGIE grows in order to walk along the path of advanced applications

e-Science-LA Project (OEA/FEMCIDI)

Strategic Agenda for e-Science in Latin America

March 2009 - Year 5, nº 18

The DeCLARA bulletin is made in the framework of the dissemination actions of ALICE2, a Project co-funded by the European Commission through the @LIS2 Programme.

This project is funded
by the European Union

A project implemented
by CLARA

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«The European Union is made up of 25 Member States who have decided to gradually link together their know-how, resources and destinies. Together, during a period of enlargement of 50 years, they have built a zone of stability, democracy and sustainable development whilst maintaining cultural diversity, tolerance and individual freedoms. The European Union is committed to sharing its achievements and its values with countries and peoples beyond its borders».

The European Commission is the EU's executive body.

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Editorial

Florencio Utreras,
CLARA Executive Director

In the present year 2009, CLARA partners and all those who work in the organisation can feel particularly glad and full of hopes for the future. In fact, the European Commission (EC) has trusted in our novel Latin American organisation to put forward the ambitious ALICE2 Project, which aims to consolidate and deepen the ALICE Project's results with a total funding of €18 millions.

The EC's trust in our capacity for coordination, convocation and execution, and the permanent support from our partners on the other side of the Atlantic – DANTE, FNCC, GARR, RENATER and RedIRIS-, binds us to live up to their expectations and challenges us to go beyond what we have already achieved: we will seek to engage the entire region in order to ensure not only each country's incorporation, but also the development in all countries of stable policies which ensure the position deserved by the infrastructure for Science, Technology, Education and Innovation, i.e., e-Infrastructure or Cyber-infrastructure. This infrastructure will be the one that will ensure for these key sectors of society a suitable incorporation into the regional and world context, which is the basis for the countries' competitiveness within the global scenario.

By means of ALICE2 we will grow as an organisation, increasing our services for national networks and the support for research communities, particularly in those areas which are more relevant for the region to achieve the Millennium Goals (UN – MDG) as a whole, but without neglecting the support for emerging activities where the region offers comparative or geographical advantages.

Infrastructure as such will also have to grow substantially. We must increase our networks' capacity by 100 times if we really want to have an infrastructure which lives up to the demands of today's research and innovation. It is imperative that we bridge the Digital Divide between our Science, Technology, Education and Innovation systems and those of developed countries; otherwise we will never be competitive. This has been understood by all those nations which have managed to move from being pre-industrial societies to developed ones in a twenty-year timescale.

In order to carry out this project we must engage all the countries and, within them, all the Higher Education institutions, all research institutions and all researchers. We must build powerful institution networks which work together and integrate their activities by making use of today and tomorrow's technologies and which seek new ways for collaboration, thus building a nurturing fabric for innovation, which is the basis for development.

These are ALICE2's challenges and we are certain that with everybody's collaboration we will achieve the success that is expected from us. We must thank the European Commission for their trust and contribution, because without it CLARA and its infrastructure would not exist; thanks to their vision and commitment, today the region has the opportunity to strengthen and consolidate this collaboration system which we have called CLARA.

Welcome Costa Rica!

Within the context f the CLARA Meeting, in preparation for ALICE2, held in Rio de Janeiro on 27-28 November 2008, Alejandro Cruz, General Director of Costa Rica's National Centre for High Technology (CeNAT), an entity dependent on the National Council of University Vice-chancellors (CONARE), signed the incorporation of his country to RedCLARA and ALICE2. The agreement establishes Costa Rica's 155 Mbps link to RedCLARA.

María José López Pourailly

Alejandro Cruz, General Director of Costa Rica's National Centre for High Technology (CeNAT), and Florencio Utreras, Executive Director of CLARA, signing the agreement that establishes Costa Rica's link to RedCLARA.

In the past Costa Rica had already been a great ally of CLARA and the ALICE project. This is why CLARA firmly welcomes this country. It is necessary to point out that the new incorporation also serves ALICE2's objective of connecting RedCLARA to those countries not yet connected.

Regarding the relevance of this link and incorporation to RedCLARA and ALICE2 we talked to the person who signed the agreement, the Engineer Alejandro Cruz, General Director of CeNAT.

What made Costa Rica resume its process of connectivity to RedCLARA?

The preoccupation at not having a suitable means for relating to the international community, especially now that science is increasingly interdisciplinary and international.

Which scientific and academic communities, and which lines of research do you expect to immediately benefit from this new link?

Those which have developed projects and activities for which international interrelation and cooperation are crucial, such as the areas of biology and the environment, areas of physics and chemistry, computer science and social sciences.

For CeNAT, nanotechnology advanced computing, geotechnologies and geographical information systems will be fundamental.

Biodiversity is one of the scientific areas and lines of research in which Costa Rica has gone into detail in terms of collaboration with the USA; do you intend to extend your collaboration links in this field to Europe?

At present, there are links in the filed of biodiversity with American, European and Asian entities. The RedCLARA network represents the opportunity to further strengthening these links and Europe in particular is a fundamental front.

Which do you think will be the most immediate concrete contributions that RedCLARA will bring to Costa Rica?

The possibility of developing joint postgraduate studies and projects with universities and research centres at an international level; processing significant volumes of data using advanced computing; videoconferences; the exchange of scientific and technologic information and the application of other tools of information and communication technologies.

How does the link to RedCLARA fit into CeNAT's action plan?

CeNAT is a meeting point and a bridge for the external projection of state university higher education; the link to RedCLARA will serve to better meet this objective of its Action Plans.

What is the degree of collaboration that Costa Rica has with its national provider of internet connectivity?

There are important collaboration links with the members of the ICE Group (Electricity and Communications) in different areas of action and we are in the process of signing a Framework Agreement.

What level of support do CeNAT's participation in ALICE2 and its link o RedCLARA get from universities?

CeNAT has worked on managing the reconnection to RedCLARA and ALICE2 upon the expressed request of the University Vice-chancellors that are members of CONARE, who have signed the contract and contribute with the entire funding, and therefore CeNAT coordinates with the ICT Directors from CONARE and the Universities everything related to this link.

Will this support result in a strengthening of the old CR2Net as a National Research and Education Network, or will it lead to the creation of a new Costa Rican NREN?

The final answer is in the hands of University Vice-chancellors, since the initiative and the resources are different from those which sustained the old CR2Net.

Let us take a brief look towards the future. What would you like people in Costa Rica to say about the link to RedCLARA that is currently being established and its participation in ALICE2 on the first anniversary of this event?

After one year, I would feel very satisfied if the academic community from state universities and other related institutions found in RedCLARA and ALICE2 an effective means of interrelation with their colleagues in Latin America, Europe and North America. It is too soon to fix quantitative goals, but initially having a small but qualified group of researchers and educators who are users of the link is fundamental.

About CeNAT: The National Centre for High Technology (CeNAT) was created in March 1999, with the aim of supporting national development as an entity dependent on the National Council of University Vice-chancellors (CONARE) and it is constituted by the State Universities in Costa Rica. It represents a space for inter-university and interdisciplinary development devoted to research and outreach in areas of high scientific-technologic development, such as advanced computing, materials and nanotechnology, environmental management, simulation of manufacturing processes and the interrelation of science, culture and society.

The EC funds extension of RedCLARA Network and continued interconnection with Europe's GÉANT to support development of Latin America

Thanks to @LIS 2, ALICE2 is now running

Within the framework of the @LIS 2 programme, the European Commission (EC) signed an €18-million contract on 30.11.2008 with the not-for-profit international organisation CLARA for the ALICE2 project. ALICE2 will consolidate and extend the RedCLARA network in Latin America, thus improving connectivity between Latin American and European Researchers. The e-infrastructure for collaborative research and education will provide a first class platform to support Latin American development and the project will work towards disseminating the potential of its use for applications that impact the Region, thus helping to reach the goals agreed by Governments in the UN MDG Plan.

María José López Pourailly

The ALICE project (América Latina Interconectada Con Europa – Latin America Interconnected with Europe), which ran from June 2003 to March 2008 and was co-funded by the European Commission's @LIS programme, established CLARA, the Latin American research networking association, and built a research and education network infrastructure in Latin America –the RedCLARA network. This network interconnects 13 countries in the region and provides them with connectivity to GÉANT2, the high-bandwidth, pan-European research network. Built on this success, the EC has approved funding for the ALICE2 project, which will run until August 2012 with the goal of reaching and connecting more Latin American countries and broadening the possibilities for collaborative research and regional development.

Basile T. Papadopoulos, Head of Unit EuropeAid/B/2, commented the reason for supporting ALICE2: "The success of the ALICE Project who was able to create a Latin American Research and Education Network (RedCLARA) linking together 12 Latin American Countries among themselves and to the pan-European Network GÉANT2 has been one of the major achievements of the EU-LAC Cooperation in Information Society. And this success as been such not only for the construction of the physical telecommunications network, but mostly because the Latin Americans have been able to create an independent working organisation which manages and operates the network and promotes collaboration between the countries, each with its national organisation of networks for research. It has been the trust in this young organisation and its sincere work towards self sustainability that has convinced us to support the ALICE2 Project aiming at expanding the network and its benefits to all the countries in the region".

The specific objective of the first ALICE project to create an infrastructure (although of a virtual nature) on which the «brains» of Europe and Latin America could interconnect was achieved and the @LIS Final Evaluation assessed the project very highly. The first phase of ALICE was managed by DANTE, but for ALICE2 the regional research networking association CLARA will take the reigns from DANTE and coordinate the project, a pioneering innovative strategy not yet repeated in any other world region.

"We are very pleased that the impetus gained during the ALICE project has enabled CLARA to take full responsibility for the Latin American research and education network from DANTE", said Dai Davies,

General Manager of DANTE. "Whilst we will continue to be a partner in the ALICE2 project and will provide management and technical support, CLARA will drive the future development, expansion and sustainability of the RedCLARA network and the growth of the user community in Latin America."

ALICE2 objectives: Were the arrow must be targeted

In order to carry forward the success story of Latin America's advanced research network infrastructure, which since 2004 has been enabling Latin American and European researchers to exchange large amounts of data in the fields of scientific and social development, CLARA will need to build on the foundation laid by ALICE.

ALICE2 aims at consolidating the results of the ALICE Project by creating a long lasting, state of the art infrastructure for the Research and Education community of Latin America as well as increasing the impact of the RedCLARA network in the Latin American region and strengthening the organization of the Latin-American National Research and education Netwroks (LA-NRENs): CLARA.

To do this, ALICE2 will pursue the following main objective: Stimulate and support collaborative Research within Latin America and with Europe by strengthening the Latin American organization CLARA and the enabling network infrastructure RedCLARA, connected to Europe's GÉANT2, while fostering the creation and maintenance of research communities working in development related (Millenium Development Goals – MDG, defined by the United Nations) as well as Seventh Framework Programme (FP7) related issues.

«ALICE2 will permit CLARA to create a state-of-the-art RedCLARA network by deploying an Optical Network Infrastructure that will provide first class support to networked research and education, thus facilitating the creation across Latin America of virtual research laboratories and educational facilities. The project will also target researchers, educators, and technicians, by empowering them through training and community-building so that they can jointly create solutions to some of the more pressing regional problems while improving collaboration with Europe and the rest of the world", explains Florencio Utreras, Executive Director of CLARA.

The creation of user communities will be another focus of ALICE2, ensuring the proper utilisation of RedCLARA in applications related to the Millennium Development Goals as well as fostering collaboration with European researchers on the Seventh Framework Programme (FP7) priorities. It will also empower the National Research and Education Networks (NRENs) and their user communities to become active players in the research and education networking community by providing training and tools for their technical, management and academic communities.

Based on an up-graded hybrid network of IP, dark fibre and wavelengths, an important aim of the project will be to establish long-term stability and sustainability for Latin American regional research and education networking. Many examples of successful on-going projects in the fields of health, physics, astronomy,

ALICE2 Specific Objectives:

The ALICE2 project plans to start from the results of the ALICE Project and implement the recommendations of the evaluation reports, in order to strengthen CLARA and RedCLARA to ensure long term sustainability of Research and Education Networking in Latin America by:

1. Maintaining and further developing the network infrastructure of RedCLARA with the provision of a continuous, inclusive and persistent environment for electronic collaboration for research and education within Latin America, with the emphasis on supporting a higher education and research collaboration space between Latin America and Europe. This upgraded version of RedCLARA will be based on IRU (Irrevocable Right of Use) contracts for dark fibre and wavelengths, to ensure low ongoing costs.
2. Creating user communities to ensure the utilization of RedCLARA in applications related to the MDG, as well as fostering the collaboration within Latin America and with European Researchers in FP7 priorities and strengthen the collaboration with European facilities such as: ESO, Pierre Auger and TIGO Observatories among others.
3. Developing a funding model that provides long term stability and sustainability for Latin American regional research and education networking. This model will be based on a stronger CLARA organisation, a widely embraced cost distribution model and a solid financial management.
4. Consolidating the long term existing geographical coverage of RedCLARA, and seek to expand it to include the developing research and education communities of additional Latin American countries and to further contribute to the region's digital inclusion via its research and education communities. To do this, the project will seek to involve all Latin-American countries in the Project and generate synergies with the NRENs by creating a terrestrial communications infrastructure that can also be locally used to build or extend the NRENs.
5. Empowering the NRENs and their user communities to become active players in the research and education networking community by providing training and tools for their technical, management and academic communities.

climate change and environment, information and communication technologies, and education are proving that the connection to the regional research and education network infrastructure, and to the rest of the research world via other networks, is a key factor for the development of Latin American nations.

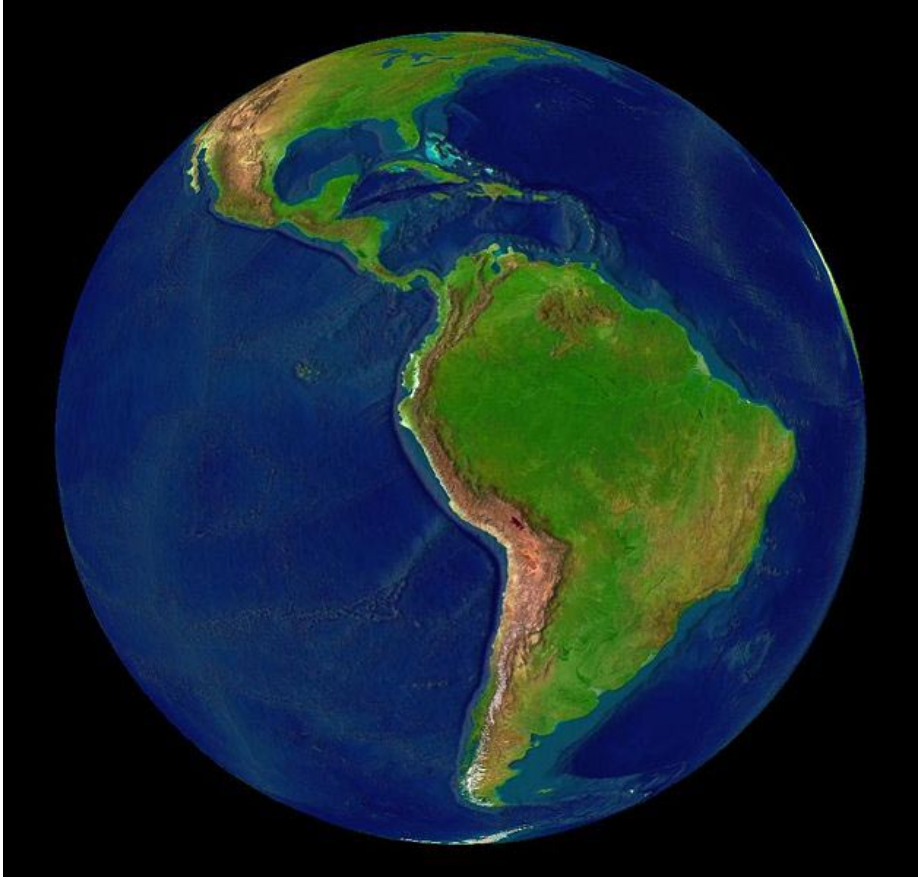
Costa Rica is one of the Latin American countries that will connect to the RedCLARA network in the framework of the ALICE2 project. Alejandro Cruz, General Director of CeNAT (the Costa Rican National Centre of High Technology – the institution that is leading the process of integration of the country to the project), explains the importance of this new endeavour: "The Costa Rican academic and scientific community has been developing important initiatives in research, post-graduate studies and training in the most diverse technological and scientific fields at a national level. At the same time it is also participating in thematic networks at an international level. The connection to the RedCLARA network is a challenge and an opportunity to enhance our collaboration and exchange knowledge in the different scopes of action with academic and research communities in Latin America and the rest of the world".

A race of 45 months

The ALICE2 project started to run in December of 2008 and it is envisioned to be in the race till September of 2012. Coordinated by CLARA, the Project is partnered by the NRENs of 14 Latin American countries, all @ LIS 2 beneficiaries, and of four European countries. ALICE2 it is also partnered by DANTE, a not-for-profit organisation, co-funded by the EC and working in partnership with NRENs to plan, build and operate advanced networks for research and education.

The obvious question is: What will ALICE2 have to deliver after those 45 months? Well, the expected results are the following:

1. A high-end upgradeable infrastructure with low maintenance costs, RedCLARA2, which will become the infrastructure of choice for collaboration in research and education within LA and with Europe.
2. A set of user communities (researchers, educators, students) working together in solving MDG related issues and participating in ALFA & FP7 calls
3. A strong, well managed, participative, sustainable organisation with a clear funding model.
4. A network with wide coverage in the Latin American Region with strong ties to the Caribbean.



5. A large group of technicians, managers and community leaders empowered to collaborate with their European counterparts and take advantage of funding opportunities.

For more information, please visit:
http://alice2.redclara.net

About @LIS 2:

Building on Alliance for the Information Society - @LIS 1 achievements, the European Union will support, through the second phase of the Alliance for the Information Society programme - @LIS 2, the continuation of dialogue and cooperation on policy and regulatory frameworks in the Information Society area, boost interconnectivity and collaborative research in Latin America and with the EU and promote the Latin American ongoing regulatory integration effort.

@LIS 2 will support the regional political dialogue process - eLAC, strengthen collaborative research intra-LA and with the EU, increasing access to the RedCLARA network and promote on-going regulatory integration efforts. Particular attention will be given to the social impact of information and communication technologies. @ LIS 2 activities cover the period 2009-2013.

@LIS 2 was officially launched in Santiago (Chile) in March 17th. In the event the three projects that are co-funded by the Programme –led by REGULATEL, CEPAL and CLARA- were also introduced. You can check out the information related to this event in: http://alice2.redclara.net/index.php?option=com_content&view=article&id=5%3Anueva-noticia&catid=2%3Anoticias&Itemid=24&lang=es.

ALICE2 and CLARA representatives met in Rio de Janeiro in November 2008.

Los socios del Proyecto son:

CLARA, Coordinating Partner, LA
http://www.redclara.net

DANTE, UK:
http://www.dante.net

INNOVA|RED, Argentina:
http://www.innova-red.net

RNP, Brazil:
http://www.rnp.br

REUNA, Chile:
http://www.reuna.cl

CONARE, Costa Rica
http://www.conare.ac.cr/

RENATA, Colombia:
http://www.renata.edu.co/

Cedia, Ecuador:
www.cedia.org.ec/

RAICES, El Salvador:
http://www.raices.org.sv

RAGIE, Guatemala:
http://www.ragie.org.gt

CUDI, México:
http://www.cudi.edu.mx

RedCyT, Panamá

RAAP, Perú:
http://www.raap.org.pe

RAU2, Uruguay:
http:// www.rau.edu.uy/redavanzada/

Centro Nacional de Innovación Tecnológica (CENIT) - Red Académica de Centros de Investigación y Universidades Nacionales / REACCIUN, Venezuela:
http:// www.cenit.gob.ve

RENATER, France :
http://www.renater.fr

GARR, Italy:
http://www.garr.it

FCCN, Portugal:
http://www.fccn.pt

RedIRIS, Spain:
http://www.rediris.es

ALICE2 contract forecast for Latin American R&E network and connectivity to Europe

A Supply Procurement Notice has been published for the new ALICE2 Research and Education Network in Latin America with connectivity to Europe.

To view the Supply Procurement Notice (2009/S 51-072726) on the Tenders Electronic Daily website, please go to:
http://ted.europa.eu/Exec?DataFlow=N_one_doc_access.dfl&Template=TED/N_one_result_detail_curr.htm&docnumber=72726-2009&docId=72726-2009&StatLang=EN

The Procurement Notice can also be downloaded in PDF from:
http://www.redclara.net/doc/2009/ALICE2_DO1_2-03_Tender_Procurement_Notice_v3-2_As-published.pdf

The tender dossier is available at:
https://webgate.ec.europa.eu/europeaid/online-services/index.cfm?do=publi.welcome
and is also available from the contracting authority (http://www.redclara.net).

Tenders must be submitted by 14:00 GMT on Monday, 4th May 2009.

ALICE2 has a face and an entry door

One of the first actions of the ALICE2 project in terms of visibility was the creation of its branding image, in other words, its logo. The next step was the construction of its virtual house to invite the whole connected world to learn about this great project.

María José López Pourailly

There are as many opinions regarding the importance of the image as there are human beings, and trying to find a common argument would be a breakneck task. But whether we like it or not, the image we project towards the world around us, and here we are only talking in terms of marketing, transmits what we are, what we want to be and how we want to be perceived by the others. This is why the creation of a logo for a product is so crucial; the consumer's initial prejudice regarding a product will be conditioned by the approval, rejection or indifference that such logo generates in him or her. In the case of a project, what happens is basically the same; thus is why the work of elaborating the branding image of ALICE2 and its final result, the logo, is the subject of this DeCLARA's edition.

Pre-Concept and Colour

At the onset of the process of creating a new branding image for ALICE2, it was considered as highly relevant to find visual relations with the preceding project's logo, ALICE, given the recognition and status that its brand had and the need to establish a visual and conceptual coherence with the evolution of the brand (from ALICE to ALICE2) and the new stage that is established every time a new project is initiated and implemented.

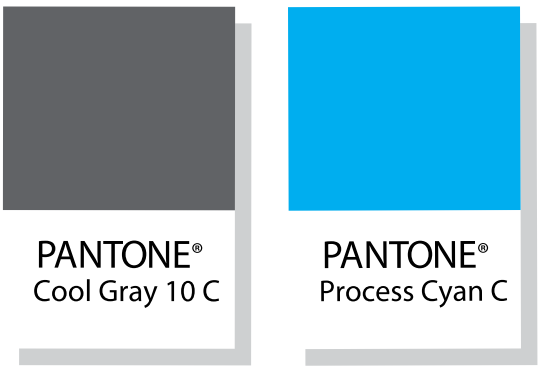


Figura 1: Gris y Cyan, composición cromática del logo ALICE2.

The initial conditioners established for the brand were keeping the Europe and Latin America maps graphics, the incorporation of the number 2 to the logo, the keeping of the caption below the logo (América Latina Interconectada con Europa) and the visual correlation of at least two of the colours to be used.

In terms of meaning, it was intended that the ALICE2 brand would communicate modernity, technology, advanced network connections, the interconnection of Latin America and Europe and integration. In addition, it had to graphically show the relationship with European Union and CLARA.

The Language of Colour is given by chromatic signs, regarded as essential elements in communication; the chromatic sign is made up of a signifying expression and a meaning or content; it is an entity with psychical, and event physical character, made up of a chromatic image and concept, reciprocally united. Cyan (blue – light blue) is a concentric colour which produces a sense of depth; it is a short length colour which connotes sobriety, maturity, wisdom, innovation, technology. Besides, cyan was the colour which presented the positive evaluation regarding the brand of the preceding ALICE project.

Grey is the preferred colour to use in scientific, academic and research institutions; it connotes culture, competency, sobriety and control of emotions. Cyan and grey make up the chromatic composition (see Figure 1) chosen for the logo and are the ruling element in the brand. This composition offers a dynamic movement of depth and perspective of colours, and denotes what it is intended to be communicated.

Elements

The decision was to create a Marks-type brand, that is to say, a literal representation of (a project) a company or product, where the image is usually reference of an attribute of the company or product (project) in question.

As for the constituting elements of this brand, the specification was to use typography consistent with

the message that was intended to be communicated for the logo. For the Isotype or symbol, the following elements were defined:

a. Map of Latin America and Europe
b. Star: in a projection exercise, this symbolises the European Union
c. Profile of a Globe symbolised by means of the drawing of parallels and meridians.
d. Optical fibre: symbolising the advanced networks' connexions

Result

After many drafts and efforts on the defined idea, and after having been approved by all members of the project, the final result, the ALICE2 logo is the following:

The logo has been applied to stationary, templates for presentations, etc. Its mode of usage in any kind of printing, either colour or black and white, has been established by means of the "ALICE2 Manual for Branding Image and Corporate Image", which is already published in the Project section of the ALICE2 Web.

Entry Door

And if you think the branding image is relevant, the same relevance must be given to the project's Web space, as this will be the first face of ALICE2 for the whole world, be it project partners, European Commission and cooperation agencies representatives, academics, scientists, researchers, students, government representatives or even internet surfers who just happened to get to this space by mere accident.

The construction work of this "virtual house" was carried out during February and March, and although it is true that you can "enter it" through http://alice2.redclara.net, allow us to introduce its navigation map, which will be fully developed in Spanish, English and Portuguese by the end of April:

- Project
  - Partners
  - Work Packages
  - Branding image
  - Background: ALICE
  - @LIS 2 Programme
- Project Management
  - Structure
  - Documentation
  - Clarizen Access
- Towards RedCLARA2
- Communities
  - Propose your Community
- Inclusion
- Training
  - Learning Resources
  - Leadership Courses
- Documents
  - Deliverables
  - Presentations

They will be accessed with an Internet password

- Visibility
  - News Archive
  - ALICE2 in the Media
  - Branding Image
  - Brochures
  - Templates
  - Maps
  - Ask for material
- Events

Knowing Tom after he knew ALICE, ALICE2 and CLARA

Tom Fryer, International Relations Officer of DANTE, is going to play a very relevant role in the ALICE2 project. Most of all the Latin-American National Research and Education Networks leaders had the chance to dialogue with him and share some thoughts about ALICE2, during the CLARA – ALICE2 preparation –almost starting- meeting held in Rio de Janeiro in November 2008. But what does he think about the project after almost four months? Would you like to know? Check out this interview.

María José López Pourailly

The profile published in DANTE's Website:

Tom joined DANTE in October 2008 as a member of the International Relations Team. As International Relations Officer, he supports international dialogue between the GÉANT2 community and regional R&E networking organisations. One of his particular responsibilities is to collaborate with CLARA in the preparations and implementation of the ALICE2 project. In addition he assists in the management of relations with GÉANT NRENS, promoting wider uptake of the GÉANT service portfolio.

Tom has a background in international event organisation and coordination acquired in Germany, the UK and finally Spain where he lived from the beginning of 2000 until joining DANTE. He also has wide experience in translation and has worked as part of the support team for the Spanish Blind Sports Federation and the Spanish Paralympic Committee at a number of world class sporting events including the Beijing Paralympics.

Tom has a degree in modern languages and linguistics from the University of Essex.

Knowing Tom…

Over the last few months you have had to learn all about ALICE and CLARA in order to be able to assist CLARA in the implementation and preparation of the ALICE2 project. Let's talk a little about your approach and visions of the old and new projects and of course about CLARA.

When I first learned about the existence of research and education networks some years ago, I was enthralled by the idea of an intranet designed specifically and exclusively to bring together researchers and the world of education. Yet it is only when one learns about the nature of the projects carried out over the networks, as I have done over the past few months, that one can really appreciate their enormous value.

For regions such as Latin America, the beauty of such infrastructures lies in their ability to facilitate projects which can have direct, practical benefits for society, be it in the fields of health, weather patterns and climate change, improved agriculture, the prediction of volcanic eruptions, etc. Yet also of great importance are more theoretical projects such as the Large Hadron Collider in Europe or the Pierre Auger Observatory in Argentina (which will be connected to RedCLARA later

this year). In addition we must not forget applications in the arts and humanities (such as the creation of music from seismic data captured for the prediction of volcanic eruptions).

As I see it, the ALICE project has established a solid foundation which has enabled many projects in the fields I have just mentioned. With ALICE2 CLARA will be able to build on this and work towards a sustainable research and education network in Latin America.

In November last year I was fortunate enough to participate in the CLARA meetings in Rio de Janeiro. This provided me with a great opportunity to meet many of the people involved in CLARA and the ALICE2 project who made me feel very welcome. The week proved to be both instructive and enjoyable, and I shall never forget the dawn bicycle ride along Copacabana Beach.

What would you say the most important contribution of the ALICE project was both for Latin America and Europe?

It is clear that the establishment of the RedCLARA backbone was a vital contribution of the ALICE project. However, another landmark during the lifetime of the project which deserves highlighting is the fact that numerous countries which formerly lacked an NREN were able to establish one. The proud result is that by the end of the ALICE project a total of 12 NRENs were connected to the Latin American backbone.

This has given Latin American researchers access to a wealth of resources and involvement in projects with counterparts both in other parts of Latin America and in Europe, enabling more of the great "brains" of the world to communicate and collaborate with greater ease.

We are therefore witnessing the integration of Latin America into a Global Information Society alongside a reduction in the digital divide experienced by the Region, as set out in the objectives of the European Commission's 'Alliance for the Information Society' or @LIS programme.

It is hence safe to say that the ALICE project has successfully contributed both to members of the research and education communities in Latin America and Europe, and to furthering the objectives of the European Commission. A healthy result, I would say.

Apart from what you have studied about CLARA, you had the chance to meet most representatives of all the Latin American NRENs connected to RedCLARA, plus the representative of Costa Rica, and also the whole CLARA staff, in the meeting held by CLARA in Río de Janeiro in November of 2008. Considering your current knowledge of CLARA, how would you describe it and which would you say are its strengths and weaknesses?

At the start of ALICE2 Latin America is standing at an exciting threshold. A successful Regional Research and Education Network has been established, providing a solid foundation for the continued reduction of the digital divide within the region.

As I indicated earlier, the meetings held in Rio de Janeiro in November last year were a great opportunity for me to meet many of the people involved in ALICE2 project, and I left Brazil with the distinct feeling that there exists in Latin America a community which shares and firmly believes in a common goal in spite of the diverse nature of the countries and NRENs involved.

Although a relatively young organisation, CLARA is the first regional organisation in the world, after DANTE of course, to take full responsibility for the EC-funded project which co-finances the network in its region and connectivity to Europe. During the implementation of ALICE2, there will of course be challenges to meet if CLARA is to fulfil the project objectives, yet the common vision and direction which I perceived in Rio de Janeiro demonstrates that there is a strong desire to face up to these challenges with the success of the ALICE2 project in mind.

Now, talking about ALICE2, from your personal point of view, what would you say its main importance is?

Now that a solid foundation has been established with the RedCLARA backbone, it will be of great importance to extend the network to include other Latin American countries which are not yet included. I think it is very important that there be a focus to include as many more countries as possible. This will contribute to

further breaking down the digital divide and I will follow news on this front with keen interest.

The development of communities and applications are a key factor in ALICE2, from your experience in the International Relations Office of DANTE, and knowing the international scenario, which scientific, technological and humanities areas do you think that CLARA should focus its efforts on to really make a contribution?

The world today is faced with many demanding issues ranging from weather patterns and climate change to healthcare, the struggle against diseases and epidemics, the production of both food and energy, the provision of education and the reduction of poverty around the world. Under ALICE numerous projects were carried out in these areas (e.g. CLARIS, T@ lamed, WISDOM, CGIAR, LACLO, to name but a few) and it is on these areas that I think emphasis should again be placed when seeking to create communities in Latin America whose work can have a direct impact on the lives of people in the Region as well as in other parts of the world.

However, the arts and humanities can also prove to be of interest as we have recently seen in Europe with the digital recreation of an Ancient Greek harp-like instrument called the epigonion, or the composition of music derived from volcano sonification melodies (including melodies from Mount Tungurahua in Ecuador). So I think we should keep a watchful eye out for potential applications in such fields in Latin America as well.

The Millennium Development Goals are of most relevance for the European Commission and the ALICE2 project will have to meet those goals. How do you think that could be done?

The Millennium Development Goals are of obvious relevance for Latin America, as their success will improve the lives of countless people in the Region. It will be essential to continue to raise awareness among

the Latin American research and education community of the existence of RedCLARA and its connectivity to GÉANT2, and further the uptake of its services. ALICE2 can also participate by identifying international projects which can contribute to the achievement of these goals and facilitating their success across the network.

What would you like DANTE's contribution to the ALICE2 project to be?

The continued success of the Latin American network and its sustainable future is a must, of that there can be no doubt. But that future cannot be taken for granted. DANTE holds a wealth of knowledge about the ALICE project and has vast experience in managing projects and procurement processes. I would therefore like to see a situation where the CLARA organisation feels that it may call on DANTE's experience for advice in the implementation of the ALICE2 project. And I think it is important to stress that whilst Cathrin Stöver is now involved in other projects, her interest in the Latin American project has by no means diminished and her door is as open to CLARA as mine.

What would you like Tom Fryer's contribution to the ALICE2 project to be?

I am particularly interested in identifying transatlantic projects which could benefit from the bandwidth made available by RedCLARA and its connectivity to Europe, particularly projects that tie in with the objectives of the Millennium Development Goals.

I am also keen to look at developing case studies on projects which use the network in order to develop a portfolio which can be used to promote uptake of the services offered by the network.

Finally, I would like to wish the whole CLARA team the very best for the implementation of ALICE2. For me it is very exciting to be a small piece playing my part in this vital jigsaw.

RAGIE grows in order to walk along the path of advanced applications

On 5 December 2008 RAGIE, the Guatemalan Advanced Network for Research and Education, increased the bandwidth of its link to RedCLARA from 10 Mbps to 18 Mbps. Regarding the actual importance of its traffic capacity extension we talked to Luis Furlán, President of the Network.

María José López Pourailly

Just as in the case of each country in Central America, Guatemala's history in the world of advanced networks has not been a straightforward one. The problem does not have any relation with political frameworks or socio-cultural situations, but with something incredible more simple but hard to fight against: the cost of connection. Internet Service Providers in Central America offer the highest rates in the continent. However, it is always possible to move forward and find alliances if the bid involves a nation's development. RAGIE has shown this, and intends to keep on doing so, with a 100 Mbps national backbone network which almost doubled its link to RedCLARA's bandwidth on December 5.

Such increase of the link to RedCLARA evidently represents a solution in terms of improving the data capacity that can be exchanged over the network, but in order to learn about the actual importance that this entails for Guatemala we contacted its President, Luis Furlán.

Luis, why did you decide to increase the bandwidth of your link to RedCLARA?

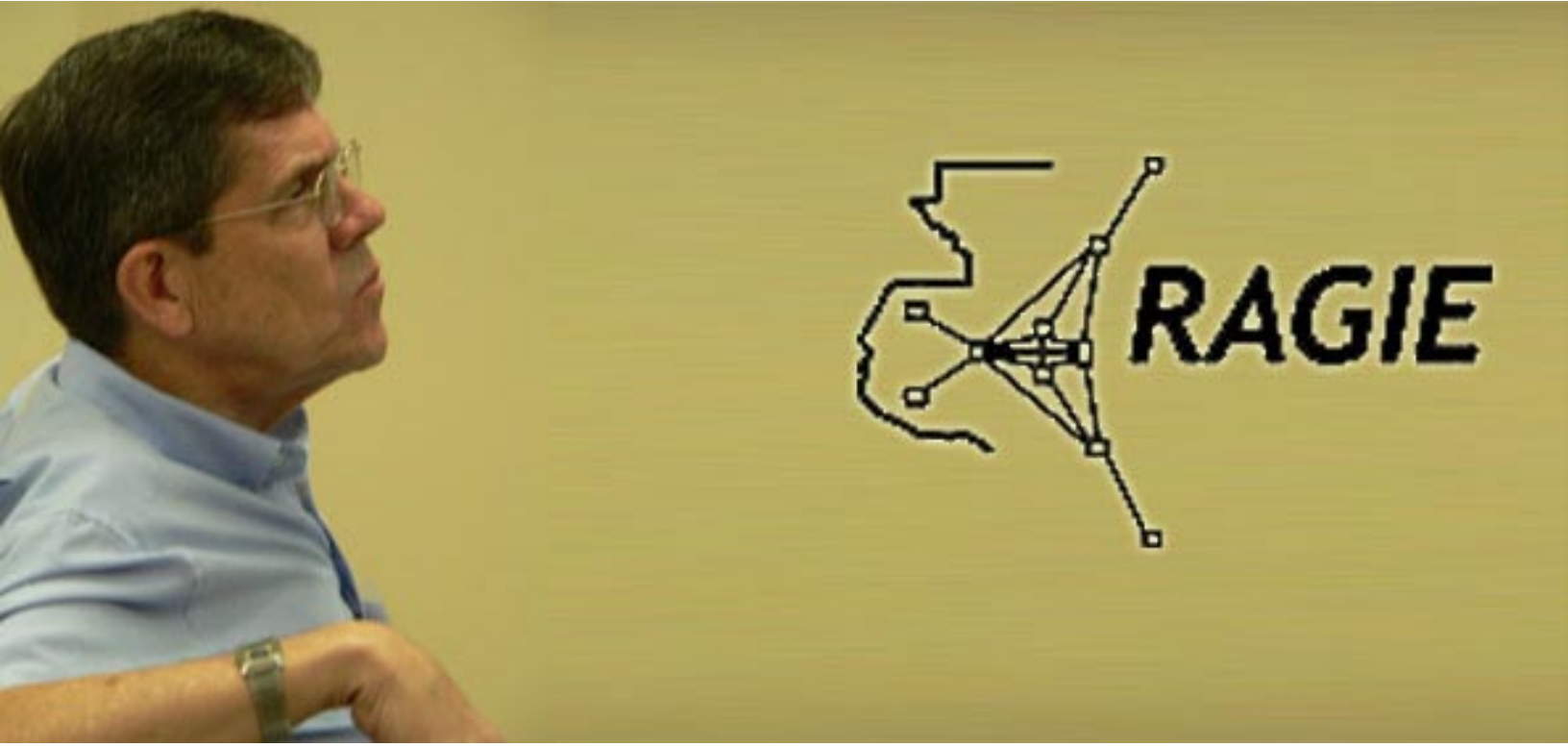
Until the date on which this came into effect, in RAGIE we had five universities connected – Universidad del Valle, Universidad Mariano Gálvez, Universidad Rafeal Landívar, Universidad Galileo and Universidad San Carlos - and we were about to connect Universidad Mesoamericana. It was evident that a bandwidth extension was necessary for them and their applications, something that was impossible with 10 Mbps. The major limitation for accomplishing this bandwidth before was the high cost that this has in Central America.

How did you overcome this barrier?

In RAGIE we have had three providers for the international connection. The link we have now was made possible thanks to agreements with LAUREN and has enabled us, with the same cost for RAGIE, to increase our link to RedCLARA to 18 Mbps. Another great advantage of this new link is that it can physically get to 155 Mbps. Previously, the physical link did not allow any extensions.

Regardless of the figures, what is the actual importance of this increase?

Undoubtedly, the possibility of providing universities with a greater bandwidth, since this will allow them to develop applications which require a greater capacity. In fact, the change was very notorious, for instance, in videoconferences, which improved significantly: previously they were deficient in terms of audio and image transfer, and now they are of a very high quality.



Furthermore, unlike before, today we have at least the chance of participating in initiatives like "Opera Oberta", which require a greater bandwidth.

Which applications will be benefited?

The truth is that given the bandwidth we used to have, we did not have any advanced applications. This increase has allowed us to start working along these lines. In fact, we are already making contacts to join international grid initiatives such as EELA-2, which several universities are already establishing relations with. We are also taking the first steps towards the establishment of a national grid which we intend to connect to the rest of the world.

The increase has almost been the double, but which bandwidth do you actually aspire for RAGIE's link to RedCLARA?

The ideal, for our current situation, would be to get to 45 Mbps, but we are not in a financial position to afford this. However, we have developed a strategy which will allow us to walk along this path. The idea is to bring commercial internet for universities through the (LAUREN) 155 Mbps link; this will allow us to offer the commercial internet service to our members at a significantly lower price that that of local ISPs. By reducing the cost and maintaining the membership conditions we could save a great amount of money which would allow us to develop a "financial cushion" to afford the increase to 45 Mbps in the future.

And do you envision any movements along these lines in the near future?

In fact, we do. We expect to have a commercial internet provision of about 60 Mbps by the end of March, just when the new edition of DeCLARA will be being distributed. This is when we will be starting to develop the financial cushion I mentioned before.

For further information on RAGIE, visit its website: http://www.ragie.org.gt/

Declaration aimed at the Governments of Latin America

Scientists, representatives from Latin American governments and NRENs brought together in Lima, within the context of the CLARA Workshop: "Strategic agenda for e-Science in Latin America", suggest authorities from Latin American countries the creation of the "First Framework Programme for the Development of Science and Technology in Latin America".

Declaration aimed at rulers from Latin America

Lima, November 7th, 2008

Brought together in the CLARA Workshop "Strategic agenda for e-Science in Latin America", the participants have agreed upon suggesting the authorities in our countries to carry out the appropriate actions to create the "First Framework Programme for the Development of Science and Technology in Latin America". The European Union, already in its seventh framework programme (with a significant funding), shows that the concept is a powerful and successful one.

We are confident that Latin America needs the development of education and science in order to achieve the progress of its societies and its true political, cultural and economic independence. We are also confident that our future as a region depends on our unity and decision and we must not expect from others what we ourselves are not willing to do. A thoughtful stance will undoubtedly contribute towards strengthening the relation with the rest of the world, from a stance of collaboration, rather than from one of dependence.

We propose that the next presidential summit takes a resolution in this regard, to be followed by the creation of a technical commission in charge of elaborating this proposal.

Luis Núñez (Universidad de los Andes, Venezuela)
GregoryRandall (Universidad de la República, Uruguay)
Bernard Marechal (CIEMAT, Spain and Universidad Federal de Río de Janeiro, Brazil)
Angel Bustamante (Universidad Nacional Mayor de San Marcos, Peru)
Carlos Conca Rosende (Universidad de Chile, Chile)
Marcio Faerman (Rede Nacional de Ensino e Pesquisa, Brazil)
Laurent Sass (Universidad San Francisco de Quito, Ecuador)
Rossana Rivas (Pontificia Universidad Católica del Peru, Peru)
Gina Caraballo (Universidad Bolivariana, Venezuela)
Silvio Alvarez (President of the Ecuadorian Consortium for the Development of Advanced Internet, Ecuador)
Carlos Monsalve Arteaga (Executive Director the Ecuadorian Consortium for the Development of Advanced Internet, Ecuador)
Ida Holz (Universidad de la República, Uruguayan Academic Network, RedCLARA Uruguay)
Nelson Cacho Araujo (Universidad Nacional de Ingeniería, FIGMM, Peru)
Juan Carlos Torres (Interamerican University Organisation)
Moisés Tacle Galárraga (Escuela Superior Politécnica del Litoral, Ecuador)
Luis Furlán (Universidad del Valle, Guatemala)
Rubén Medinacelli (Executive Committee of the Universidad Boliviana, Bolivia)
Jeremìas Herrera (Representative from REDCYT Panamá, Universidad Tecnológica de Panamá)
Juvenal Castromonte Salinas (Universidad Peruana Cayetano Heredia)
Alberto Zambrano Elizondo (Universidad Autónoma de Nuevo León)
Jorge Alberto Del Carpio Salinas (CONCYTEC, Peru)
Rennato Tello (SENACYT, Guatemala)
José Luis del Barco (Universidad Nacional del Litoral, Argentina)
Erlinda Hándal Vega (Universidad de El Salvador, El Salvador, C.A.)
Carlos Benjamìn Orozco (Ministry of Education, El Salvador)
Daniel Díaz Ataucuri (Universidad Nacional de Ingeniería INICTE UNI, Peru)
Martha Giraldo (Red Nacional Académica de Tecnología Avanzada RENATA, Colombia)
María Luisa de Boehm (Universidad del Valle, Guatemala)

Strategic Agenda for e-Science in Latin America

Formulated as a document which intends to gather the main political guidelines for the development of e-Science in Latin America, the Strategic Agenda has the main objective of guiding the efforts related to the areas of science and technology in the countries from the region, through the proposal of thematic axes, strategic lines, specific activities for its execution and a work itinerary.

The Strategic Agenda for e-Science in Latin America expects to become a regional reference which makes it possible to validate the concept of e-Science and, which allows the nations in the region to focus on the thematic axes proposed within it, namely:

- Political, institutional and support mechanism definitions for the development of science, technology and innovation in Latin America
- Priorities and strategic guidelines for the development of e-Science in Latin America
- Development of the Latin American scientific community

These three axes were defined by the scientific, political and academic community which was brought together by the CLARA Workshop held in Lima, Peru on 5, 6 and 7 November 2008. The process resulted in the definition of priority actions for Latin America in these subjects.

It is necessary to point out that the Agenda takes the shape of a work itinerary which intends to transcend the level of discourse and become an actual execution tool which makes it possible to bring together the efforts of the different sectors involved in the development of science and technology in Latin America.

¿What do we mean by e-Science? In the whole world, and in the Strategic Agenda, the concept of e-Science refers to the set of scientific activities developed through the use of distributed resources (data, instruments, computers, human resources, digital libraries) accessible through Internet Advanced Networks. Today, this is regarded as one of the most relevant elements to develop research at a competitive level.

The three Thematic Axes

Thematic Axis 1: Political, institutional and support mechanism definitions for the development of science, technology and innovation in Latin America

Objective: To contribute to the generation of a political framework for the development of science, technology and innovation in Latin America in general, and of e-Science in particular. This political framework will have to be made coherent with the regulation in force at a regional level, including legal and financial instruments, and by bringing together players from the

political, research, education and private enterprise fields.

Elements considered:

- The development of science and technology within the context of consortium initiatives at a regional level in order to increase the use and access to the available infrastructure and resources by means of Internet Advanced Networks.
- The design of incentive programmes for scientists, aimed at strengthening the competitiveness of science, technology and innovation in the region.
- The promotion of effective management and administration of the information generated in the areas of science, technology and innovation, as well as of the knowledge from existing regional projects.

Based on these elements, the courses of action defined in order to advance this thematic axis are the following:

1.1 Generation of incentive programmes for the shared use of equipment
1.2 e-Infrastructure Policies
1.3 Use of Information and Communication Technologies (ICT)
1.4 Dissemination and promotion of Advanced Academic Networks
1.5 Management of generated information
1.6 Human Resources mobility and training
1.7 Collaborative research
1.8 Science and technology administration
1.9 Knowledge about existing Human Resources in the region

Thematic Axis 2: Priorities and strategic guidelines for the development of e-Science in Latin America

Objective: To strengthen the advance of scientific research in the region by means of the definition of priorities for the scientific community, specifically regarding the fields of education, integration and participative management.

Elements considered:

- The relevance of the development, within a regional framework, of teaching systems and methodologies which promote science, technology and innovation.
- The priority that must be given to integration and the empowerment of the scientific community in the region.
- The definition of initiatives within the context of national as well as regional (CLARA) Advanced Networks, which engage the scientific community in actions for the strengthening of e-Science development.

Based on these elements, the courses of action defined in order to advance this thematic axis are the following:

2.1. Education in science, technology and innovation
2.2. Political integration of the scientific community
2.3. Participative management of the Latin American scientific community

Thematic Axis 3: Development of the Latin American scientific community

Objective: To boost the scope of the collaborative initiatives in the fields of science, technology and innovation in Latin America, recognising Advanced Academic Networks as a substantial element for the development of these issues in the region, but at the same time appraising their articulation with national governmental agencies and the private enterprise, on the understanding that this conjuncture (scientific community, Government and private enterprise) represents the key for the generated projects to be both competitive and consistent with the priorities for the region and for each country.

Elements considered:

- The management of information for the education of the scientific community is a critical element for the effective development of human resources related to science, technology and innovation.
- The creation and development of competencies in human resources are key aspects in the development and strengthening of science, technology and innovation.
- The educational process must incorporate both consolidated researchers as well as those

from an initial level and supporting technicians in Advanced Academic Networks, in a national and regional dynamic.

Based on these elements, the courses of action defined in order to advance this thematic axis are the following:

3.1. Systematisation of information for the education of the scientific community
3.2. Development of competencies for the new generations
3.3. Regional programmes for Doctorates, post-Doctorates and permanent training
3.4. Education of supporting technicians in Advanced Networks
3.5. Permanent training of consolidated researchers for the formulation of regional collaborative projects

Work Itinerary

Organised into work groups, the participants of the "CLARA Workshop: Strategic Agenda for e-Science in Latin America", held in Lima (Peru) in November 2008, acknowledging that e-Science is regarded as one of the most relevant elements to achieve research of competitive level, defined the execution of the following stages as necessary for the materialisation of the Strategic Agenda:

- Political validation of the Strategic Agenda
- Dissemination and socialisation of the Strategic Agenda
- Implementation of the Strategic Agenda

Other complimentary actions are linked to these stages, such as the continuity of the work done within the context of the SEDI/AICD/AE/319/07 project and the strengthening of the general coordination for the implementation of the Strategic Agenda led by CLARA. Regarding the dissemination, they highlighted the need to promote the Strategic Agenda in political contexts (national and regional forums) in which it can be revised and discussed, as an opportunity for socialisation and political validation.

a) Political validation of the Strategic Agenda for e-Science in Latin America

In terms of political validation, two important levels of discussion were initially recognised:

- To carry the Strategic Agenda for its adoption to the corresponding national instances in the respective Ministries, Vice-Ministries, Secretariats, Councils and National Agencies for Science, Technology and Innovation in the region.
- To place the Agenda in the directive levels (policy makers) of the national agencies involved in the development of science, technology and innovation in Latin America.

To do this, the following was suggested:

- To officially send the Strategic Agenda for e-Science from CLARA to the political institutions for Science and Technology from the countries participating in the project.
- To spread the Strategic Agenda among the institutions with responsibilities in the implementation of the courses of action established for each of the thematic axes.
- To strengthen and institutionalise the work groups in order to develop permanent links which make it possible, in the mid and long term, to constitute themselves as revising and updating entities for the present Agenda (Technical Committee).

b) Dissemination and socialisation of the Strategic Agenda for e-Science in Latin America

In parallel to the processes described above, a dissemination and socialisation work plan for the Agenda will have to be defined for:

- The institutions which are part of the respective Ministries, Vice-Ministries, Secretariats, Councils and National Agencies for Science and Technology, particularly the people in charge of the promotion and development on Science and Technology policies (policy makers).
- The local and regional instances involved in the development of science and technology.
- The new players who, in the light of the present document, are regarded as necessary to be incorporated into the process of dissemination and socialisation of the Strategic Agenda.

- The general public, by means of the institutional web sites from the networks participating in the project.

All these initiatives have two fundamental elements: the Strategic Agenda published in CLARA's Website and the commitment of the project to spread the document in three regional forums during the second year of its execution.

c) Implementation of the Strategic Agenda for e-Science in Latin America

Based on the political validation and dissemination and socialisation of the Agenda, it is necessary to develop the institutional and coordination mechanisms which enable its actual implementation. The former implies the establishment, among other things, of specific plans, or else, of a set of activities which make it possible to implement the activities proposed, associated to each of the thematic axes. To do this, the necessary human, technical and financial resources must be materialised.

On the other hand, the work groups organised during the CLARA Workshop: Strategic Agenda for e-Science in Latin America, will be able to support the Agenda's implementation, becoming formalised and institutionalised, which would imply the following activities:

- Recognition of the work groups by CLARA, as a valid mechanism for discussion and reflection, whose main mission results in the proposal of strategies for the implementation of the Agenda in their corresponding institutions.
- Definition of permanent representatives in the work groups, and of coordination mechanisms within the groups and between them.
- Beginning of the operation of work groups and incorporation of new members for the dissemination and socialisation of the Strategic Agenda in the different work contexts.

The role of the Project

The SEDI/AICD/AE/319/07 project "Programme for the promotion of the use of Advanced Networks in Latin America for the development of science, technology and innovation", funded by OAS/FEMCIDI, has an active role in the process of implementation of the Strategic Agenda, by supporting the development of those courses of action of the thematic axes proposed which have special affinity with the project's objectives.

In order to generate this synergy, it is necessary to contrast and compare the objectives and results engaged by the project and those specific actions proposed by each country in the region in the areas of science, technology and innovation. The former will make allow for the identification of common and complimentary actions, thus saving efforts and resources to all those involved.

In principle, the Project's main role is that of serving as a bridge between the CLARA Workshop work groups and the regional scientific community, which will be verified after the implementation of the management and collaboration system. This will be translated, specifically, in the fact that the work groups will have a particular virtual space to conduct their reflections and contributions, proposals and adaptations, in a secure and collaborative environment that will boost the permanent contact of their members, both with the regional scientific community as well as with all the users that will daily visit the portal, considering that the user profile will comprise political, academic, expert and novel agents, as well as national and international financiers.

Thanks to the initial endorsement of the IDB's line of Public Regional Assets

Project for Scientific Documentation Repositories in Latin America is about to begin

Led by Carmen Gloria Labbé, Manager of Training and Knowledge Management of CLARA, with the collaboration of Salma Jalife, Project Coordinator of CUDI (Mexico) and Rocío Cos, Project Manager of CLARA, the initiative aims to materialise a dream desired for long by Latin American scientific and academic communities: having a federated repository of scientific documentation of regional nature.

María José López Pourailly

Under the title "Conformation of a Federated Network of Institutional Repositories of Scientific Documentation in Latin America", the project presented on 10 October 2008 by CLARA to the Inter-American Development Bank's (IDB) line of Public Regional Assets (PRA) was notified on 9 January as shortlisted, and today is about to begin.

The IDB's function in the promotion of the PRA is to correct those disincentives which prevent PRA from arising or making progress towards the production stage. In this context, the objective of the project presented by CLARA is the following: "The Public Regional Asset will consist of a federated network of institutional repositories of scientific publications with the aim of storing, sharing and giving visibility to their scientific production, thus supporting the region's scientific and technologic development under an agreement framework related to interoperability and information management. Such initiative will offer public access, thus contributing to the recording and dissemination of scientific knowledge, regarding knowledge as a public asset which represents a crucial element for the scientific and technologic development of each country and of the region as a whole".

The countries that presented the proposal are Brazil, Chile, Colombia and Mexico; the applicant institutions are: the Brazilian Institute for Information in Science and Technology (IBICT), Brazil; the National University Network (REUNA), Chile; the National Academic Network for Advanced Technology (RENATA), Colombia; the University Corporation for Internet Development (CUDI), Mexico; the National Commission for Research in Science and Technology (CONICYT), Chile; Colombia's Ministry of National Education, and the National Council for Science and Technology (CONACYT), Mexico. It is necessary to point out that Ecuador actively participated throughout the proposal's development, and it is expected that it will soon b incorporated as a beneficiary country, as will be the case of all the countries in the region in the future.

With a funding of U$ 600,000 and an execution timescale of two years, according to Rocío Cos, Project Manager at CLARA, "the project aims to provide a greater visibility to the research conducted in each country, to the researchers and institutions, as well as to make possible the sharing and exchanging of the knowledge that is generated".

"Its actual importance – continues Rocío – lies in the fact that since knowledge is the countries' most important asset and since scientific knowledge in particular is the main element for scientific and technologic development, by making such knowledge available the project will benefit the Latin American academic and research community in their dissemination and development activities". Given the initiative's open nature, it is possible to expect this benefit to be extended towards the whole of society, thus contributing to the reduction of social inequalities and the promotion of a greater development of the scientific and technologic activity of each country and of the region as a whole".

Going deeper into the relevance of this new initiative, Carmen Gloria Labbé indicates that: "scientific and technologic development is a process of continuous feedback, and scientific information is its main input. Thus, a greater availability and accessibility to information will result in a greater scientific and technologic development. On the contrary, a scarce access to information promotes a residual scientific and technologic development.

The Project's executing entity is CLARA.

Rocío Cos.

Carmen Gloria Labbé

Gigantic real-time astronomical observation started the International Year of Astronomy

33 hours and 17 telescopes from 13 countries of Europe, North America, South America (represented by Chile and the Transportable Integrated Geodetic Observatory - TIGO and the network of REUNA and its interconnection to the RedCLARA network), Asia and Oceania, linked by the advanced networks, did analyse quasars J0204 +1514.0234 +285 and 3C395, to provide more detailed images of the universe than previously to January 15th obtained.

The International Year of Astronomy begun on January 15th and 16th at the headquarters of UNESCO in Paris, France. It is in this scenario where the most outstanding experience in radio astronomical observation of our times was carried out. RedCLARA had a fundamental role in this initiative: the RedCLARA network interconnects the Chilean national research and education network, REUNA, which is the network that allowed the Geodetic Observatory TIGO (Transportable Integrated Geodetic Observatory, University of Concepción - UDEC, located in the south of Chile) to send data from its radio telescope –of 6m in diameter-, to the pan-European network GÉANT2 and therefore to JIVE (Joint Institute for VLBI in Europe), the institution that commanded the experiment. TIGO was the only Latin American participant in this great observing experience that was part of the inauguration of the International Year of Astronomy.

The Observation

Through a technique called real-time, electronic Very Long Baseline Interferometry (e-VLBI), all the 17 radio telescopes that were part of the project were simultaneously observing the same region of sky. Data collected by each telescope was sampled and sent to a central processor via high-speed communication networks. This central data processor, a purpose-built supercomputer that is located in JIVE, decoded, aligned and correlated the data for all possible pairs of telescopes. This resulted in the generation of images of cosmic radio sources with up to 100 times better resolution than images from the best optical telescopes. A "movie" of the sequential, automatically-generated images and three hand-crafted images of the target source J0204+1514 are now available in the main page of the EXPReS project Web site.

The ability to send data electronically and correlate that data in real time, has the additional advantage of eliminate the shipping of disks and provides astronomers with correlated data in a timely fashion, allowing them to exploit short-lived astronomical events such as supernovae and gamma ray bursts. This is what the EXPReS project (Express Production Realtime eVLBI Service) is doing, and this means to change the VLBI traditional method (which requires the shipping of disks).

The 17 radio telescopes that participated in this experience were placed in the UK, Germany, Italy, Finland, Sweden, Poland, the Netherlands, US, Chile, Puerto Rico, Australia, China and Japan are taking part in the observation. The telescopes were observing three quasars J0204+1514, 0234+285 and 3C395, switching between the three to accommodate different frequency observing capabilities of the participating telescopes and streaming the data in real-time to JIVE.

As well as RedCLARA, REUNA and GÉANT2 networks, the observation used the following data networks – APAN, AARNet, AMPATH, AtlanticWave, CANARIE, CENIC, Centennial, CSTNET, DFN, FUNET, GARR,

Internet2, JANET, JGN2plus, Jülich Supercomputing Centre, MIT Lincoln Laboratory, Netherlight, NGIX, NORDUnet, PIONIER, Southern Cross Cables Network, StarLight, SUNET, SURFnet and TransPAC2.

The director of the Geodetic Observatory TIGO, Dr. Hayo Hase, noted that «once again we are demonstrating that astronomy is not only done in the north of Chile, but is also developed in Concepción. The challenges in astronomy have no solution without an engineering that always exceeds the limits, that created the required technical solutions. TIGO>s participation shows that Chile, for its engineers, can have a significant contribution to world science. We thank REUNA and RedCLARA for their unconditionally support that is helping us to achieve that goal that we are reaching today.»

Dr Huib van Langevelde, director of JIVE and coordinator for the EXPReS project (a three-year project funded by the European Commission, uses data networks to link the telescopes and send the data electronically and correlate it in real-time) commented that: «The International Year of Astronomy aims to make the general public more aware of the advances in astronomy and our understanding of the universe. This demonstration is particularly appealing as it shows how modern day techniques can advance astronomy by allowing new discoveries. High speed, scalable networks are at the heart of our operations, and working with partners such as DANTE enables us to chart evidence of previously unseen astronomical events.»

About JIVE

The Joint Institute for VLBI in Europe (JIVE, www.jive.nl) is a scientific foundation with a mandate to support the operations of the European VLBI Network (EVN). The major activity has been the development, construction and successful operation of the EVN Data Processor, a powerful supercomputer that combines the signals from radio telescopes located across the planet, creating a single virtual telescope of intercontinental dimensions. Using this technique of Very Long Baseline Interferometry (VLBI), astronomers can make detailed images of cosmic radio sources, providing astronomers with the clearest, highest resolution view of some of the most distant and energetic objects in the Universe.

About TIGO

The Mission of TIGO is the realization of a fundamental reference point in time, space and gravitation for the realization of global reference systems. The legal basis for the operation of TIGO in Concepción is a bilateral note exchange between Germany and Chile, it was published as Decree 489 in the Diario Oficial of the Republic of Chile on November 29, 2001. Since then TIGO is a german-chilean project in which universities and public administration cooperate as partners The operation of TIGO is executed by an interdisciplinary team of employees , which is made available by the cooperating institutions. The continuation of the TIGO project is discussed and defined at the yearly meeting of the Directing Board. On this occasion the annual report of TIGO is being presented.

For more information, please visit the following Web sites:
Inauguration of the International Year of Astronomy: http://www.astronomy2009.fr/opening
EXPReS: http://www.expres-eu.org
JIVE: http://www.jive.nl/
TIGO: http://www.tigo.cl/

David West, Gerente del proyecto EUMEDCONNECT2.

EUMEDCONNECT2

A success story in the Mediterranean region

The second generation of the research and education network for the Mediterranean - EUMEDCONNECT2 - was launched in the context of the EU-Med Event 2 which took place in November 2008 in Amman, Jordan. The launch marked the confirmation of two further years of European Union funding for the network, which builds on the achievements of the EUMEDCONNECT project. EUMEDCONNECT2 provides high-capacity Internet connectivity for academic and scientific collaborations across the Mediterranean, and links the region to the pan-European GÉANT2 network. This project is jointly funded by the European Commission and the Mediterranean partners and aims to reduce the digital disparity between the Mediterranean and European regions.

Helga Spitaler, DANTE Regional Marketing Officer,
And María José López Pourailly, CLARA PR Manager.

EUMEDCONNECT2 is a high-capacity IP-based data-communications network serving the research and education communities in seven countries across the southern Mediterranean, enabling them to participate in collaborative projects. Algeria, Egypt, Jordan, Morocco, Palestine, Syria and Tunisia are those countries and they are represented by their National Research and Education Networks (NRENs). In addition, other NRENs in the region can collaborate with EUMEDCONNECT2 partners via their direct GÉANT2 links, and - why not? – in the near future Latin America could also be collaborating with this initiative by means of its interconnection to GÉANT2.

And collaborating in what? You must be thinking. Well, world-class collaborative research projects and exciting e-learning activities is what EUMEDCONNECT2 is supporting. Most applications supported by it are of high societal impact and of particular relevance to the Mediterranean region, and are thus bringing direct benefits to the general population.

By offering a direct link to GÉANT2, its pan-European counterpart, EUMEDCONNECT2 is allowing approximately 2 million users in around 700 institutions across North Africa and the Middle East to collaborate with their peers at more than 3000 research and education establishments in Europe.

Those bandwidth-hungry applications include climate research and impact studies, e-health, e-learning and e-culture. Many of them require grid resources which are supported and running on the powerful EUMEDGRID, which is enabled by the underlying network infrastructure.

e-Health

Medical professionals across the Mediterranean can today participate - on an equal footing with their peers in Europe and in other parts of the globe - in world-class research aimed at combating killer diseases, such as malaria, and at identifying effective treatment for medical disorders particularly common in the Mediterranean basin. EUMEDCONNECT2 contributes to better healthcare provision across the Mediterranean by:

- enhancing multi-party dialogue, supporting scientific workgroup meetings with video-conferencing
- encouraging the sharing of best practice, particularly with regard to clinical protocols
- facilitating practical tele-medicine such as remote consulting
- providing direct access to medical databases and libraries
- fostering innovative drug design via fast 'in silico' screening of millions of chemical compounds
- allowing clinical trials to be conducted across various research sites
- enabling time-saving, cost-effective remote training and ongoing professional development of medical practitioners

ITHANET (the Electronic Infrastructure for Thalassaemia Research Network) is the name of the project that EUMEDCONNECT2 is supporting for innovative drug development to cure thalassaemia, a blood-related disease particularly common in the Mediterranean basin, and to reduce dependency on expensive and frequently unsafe blood transfusion (the ITHANET case study is available for downloading at: http://www.eumedconnect2.net/upload/pdf/ITHANET.pdf).

A world-class research aimed at identifying new drugs to treat malaria and other emergent diseases such as avian flu by contributing computational resources to massive biomedical data challenges, that is WISDOM, another initiative supported by EUMEDCONNECT2 and its predecessor (the WISDOM case study is available for downloading at: http://www.eumedconnect2.net/upload/pdf/WISDOM.pdf).

EUMEDCONNECT2 is also supporting a pioneering e-learning training programme in genetics: EuMed Cancer-GeMed Network (download the EUMed case study at: http://www.eumedconnect2.net/upload/pdf/EUMEDcase_study.pdf).

e-Learning and Collaborative Tools

EUMEDCONNECT2 provides an enabling environment for the delivery of remote, interactive training in a wide variety of disciplines. It also provides cost-effective and time-saving communication support to geographically dispersed partners in collaborative research projects. And how can this project do all of these? Simple: By making easier all the regular procedures to its users, by reducing the sense of distance, by making learning more flexible and accessible, by facilitating online training, by allowing students to enrol virtually at remote universities and to participate interactively in lectures via video links, by encouraging the development of e-education centres across the Mediterranean and enhancing multi-party dialogue, supporting scientific workgroup meetings

with video-conferencing, which also means supporting time-saving, cost-effective remote training and ongoing professional development in many disciplines; by facilitating communication between geographically dispersed partners in collaborative research projects by complementing face-to-face contact with virtual meetings. Isn't that a lot?

Check out a couple of the case studies in this field:

ICT-LEAP: leaping barriers to education through e-learning – a case study describing how EUMEDCONNECT2 supports the creation of e-education centres across the Mediterranean (http://www.eumedconnect2.net/upload/pdf/ICT_LEAP.pdf).

CIRCE: e-infrastructures help save the Mediterranean - a case study describing how EUMEDCONNECT2 supports virtual scientific workgroup meetings between 64 geographically dispersed research teams participating in this climate change research project (http://www.eumedconnect2.net/upload/pdf/CIRCE.pdf).

e-Culture

How important would you say is it to preserve the cultural heritage of your nation? Digital technologies are an effective way to help retain and curate important elements of culture before they disappear for ever. EUMEDCONNECT2 is trying to play an important role in facilitating this by supporting the ASTRA project (Ancient instruments Sound/Timbre Reconstruction Application - http://www.astraproject.org/). By tapping into the huge computing power of the EUMEDCONNECT and GÉANT2 networks, ASTRA has managed to recreate the sounds of the harp-like Epigonion musical instrument from Ancient Greece.

How does the ASTRA project works? Using archaeological findings, historical pictures and literature, researchers used an advanced physical modelling technique to create a virtual model of the instrument and reproduce the sound that the instrument would have made. This physical modelling process requires extreme amounts of computing power – taking about four hours for a high-powered computer to reproduce correctly a sound lasting only 30 seconds. To bring together sufficient power, the ASTRA project used the GILDA and EUMEDGRID grid computing infrastructures, which link computing resources across the Mediterranean through the EUMEDCONNECT and GÉANT2 research networks.

The aim of the ASTRA project is to create a sound library of ancient instruments that will be available for historians, musicians and students to study the musical sounds of the past. The successor network EUMEDCONNECT2 will play a major role in making this happen, by providing multimedia access to distributed collections of cultural heritage objects and supporting the digitalisation of cultural heritage and thus helping to retain and curate it.

David West y Daniel Weiss, Oficial de Proyecto de la CE para EUMEDCONNECT2.

Climate Research

EUMEDCONNECT2 is supporting collaborative research between 64 geographically dispersed research teams participating in this climate change and impact study. The name of this initiative is CIRCE (http://www.circeproject.eu/) and what is EUMEDCONNECT2 doing for them? Check out the following list:

- supports collaborative research between geographically dispersed research teams
- enables scientists to harness the processing power from multiple distributed computer centres thanks to the powerful EUMEDGRID infrastructure
- facilitates exchange of huge datasets
- allows computer-intensive observations, simulations and modelling
- provides access to remote databases with climate-related observational and geographic information system (GIS) data
- allows researchers to address complex computational tasks, such as the creation and analysis of patterns of physical parameters
- enhances multi-party dialogue, supporting scientific workgroup meetings with video-conferencing

- enables scientists and policy-makers in the southern Mediterranean to respond to global challenges, whilst addressing local concerns.

Learn more about the contribution of EUMEDCONNECT2 to CIRCE in the related Case Study at: http://www.eumedconnect2.net/upload/pdf/CIRCE.pdf.

Words of a manager behind a successful project

David West is the project manager at DANTE for EUMEDCONNECT2. We spoke with him in order to learn a bit more about the project and, of course, to explore the possibilities of collaboration between the initiative he leads and ALICE2.

In your own words, which is the main importance of EUMEDCONNECT2 for the Mediterranean region?

EUMEDCONNECT2 maintains the only regional data-communications network for research and education in the Mediterranean region which started operating in 2004. It was tough to set up EUMEDCONNECT due to the many monopoly telcos unused to competition, the difficult political conditions, and the learning curves of the NRENs and the users. Now, collaborative projects within the area and with Europe and beyond are finally benefiting and we need to make sure they can continue to rely on EUMEDCONNECT2.

What can Europe and Latin America learn from the experience of EUMEDCONNECT and EUMEDCONNECT2?

EUMEDCONNECT pioneered the model for regional R&E network development which ALICE and subsequently TEIN2 have adopted. While the model is of course customised to local circumstances, I think it shows that there is great commonality of needs amongst emerging NRENs and users worldwide. Your question about Europe is not one I am often asked! I think EUMEDCONNECT has helped to remind us in Europe of the continuing digital divide and the importance of getting the basic connectivity in place for collaborative research to take place. Moving from nothing to 34 Mbps is a huge step forward which is often easily forgotten in Europe where gigabit speeds are the norm.

Do you envision the extension of EUMEDCONNECT2 to other countries of the region? Which, when?

Hopefully, yes. Lebanon and Libya are further Mediterranean countries that are already participating in user programmes and which could benefit from EUMEDCONNECT2 connectivity. We are also beginning to talk to some of the Gulf States, though it is too early to give firm timescales

Do you think that Latin America, the members of the ALICE2 project could collaborate with EUMEDCONNECT2 and, if so, in what way?

I would like to see more collaboration between users in the Mediterranean and Latin American regions - EUMEDCONNECT2 and ALICE2 are great programmes for encouraging this. Also, I have always been impressed by how CLARA has become self governing and I would welcome greater co-operation between Latin America and the Mediterranean partners, who are keen in moving in this direction too and look at CLARA as a role model.

For more information, please visit:

EUMEDCONNECT2: http://www.eumedconnect2.net

Agenda

APRIL

March 31 – April 3: International Congress of Computing Technologies for the Education in Health

Chiapas, Mexico
http://www.congresosalud.unach.mx

1 - 3: Tenth Passive and Active Measurement Conference - PAM 2009

Seoul, South Korea
http://pam2009.kaist.ac.kr/

7 - 8: EuroAfricaICT Awareness Workshops

Cotonou, Benin
http://euroafrica-ict.org/events/awareness_workshops.php

20 - 24: XVIII International World Wide Web Conference

Madrid, Spain
http://www2009.org/

22 – 23: FRIDA Programme: first meeting: "Researches on Information and Communication Technologies and public policies in Latin America and the Caribbean"

Montevideo, Uruguay
http://www.programafrida.net/sp/eventos/frida2009/index.html

22 - 24: 13th International Conference on Computer Supported Cooperative Work in Design (CSCWD 2009)

Santiago, Chile
http://2009.cscwd.org/

MAY

26 - 29: VI International Workshop of Educational Innovation - 21st Century

La Habana, Cuba
http://cedut.freeservers.com/whats_new.html