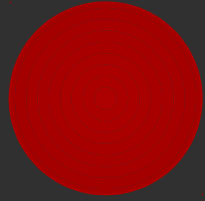


## EULASUR

Network in Advanced Materials and Nanomaterials of  
industrial interest between Europe and Latin  
American Countries of MERCOSUR  
(Argentina-Brazil-Uruguay)

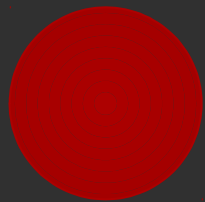
Marta Vendrell (ICMAB-CSIC)  
28th February 2013



# About eulasur

- **EULASUR** Network in Advanced Materials and Nanomaterials of industrial interest between Europe and Latin American Countries of MERCOSUR (Argentina-Brazil-Uruguay)
- **Start date:** 2009-08-01
- **End date:** 2012-07-31
- **Duration:** 36 months
- **Grant Agreement No. / Project Reference No.** 233467
- **Abstract** The main objective of this Coordination Action is to create a cooperation platform for forming strategic partnerships between scientists, scientific managers, policy makers, technology transfer and industrial experts in the European Community and three Latin-American (LA) countries belonging to MERCOSUR: Brazil, Uruguay and Argentina (BRAU).
- **Nr of Partners:** 13\*
- **EC Contribution:** 999.817€

\*Initially there were 14 project partners with University of Campinas (Brazil). But this partner left the project at the beginning due to administrative reasons



# About eulasur

Beneficiary Number	Beneficiary name	Responsible	Beneficiary short name	Country
1(coord.)	Consejo Superior de Investigaciones Científicas	Carles Miravittles	CSIC	Spain
2	Centre National de la Recherche Scientifique	Jean Etourneau	CNRS	France
3	Deutsches Elektronensynchrotron	Helmut Dosch	DESY	Germany
4	Imperial College	John Kilner	IMPERIAL	United Kingdom
5	Copenhagen Business School	Leif-Bloch Rasmussen	CBS	Denmark
6	Universitat Autònoma de Barcelona	José Luis Briansó	UAB	Spain
7	Veneto Nanotech S.C.p.A.	Nicola Trevisan	VN	Italy
8	Université Pierre et Marie Curie	Clement Sanchez	UPMC	France
9	Universidad Nacional de Luján	Hernán Bacarini	UNLu	Argentina
10	Universidad de la República	Álvaro Mombrú	Udelar	Uruguay
11	Consejo Nacional de Investigaciones Científicas y Técnicas	Ernesto Calvo / Jorge Tocho	CONICET	Argentina
12	Universidade Federal de Minas Gerais	Wagner Rodrigues	UFMG	Brazil
13	Comisión Nacional de Energía Atómica	Carlos Balseiro	CNEA	Argentina



# EULASUR MAIN Activities



A Survey

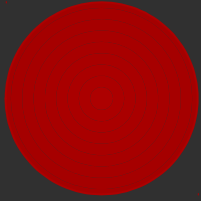
B  
Exchanges



C  
Summer  
Schools

D  
Workshops



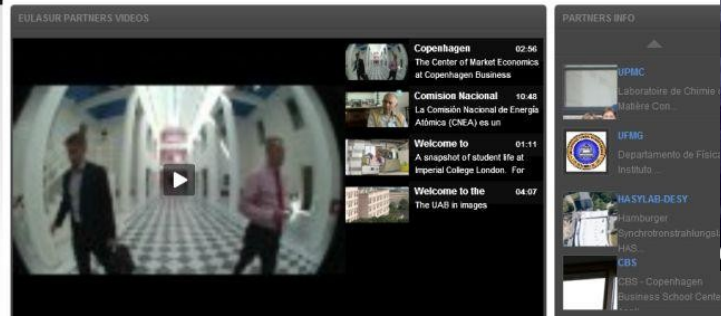
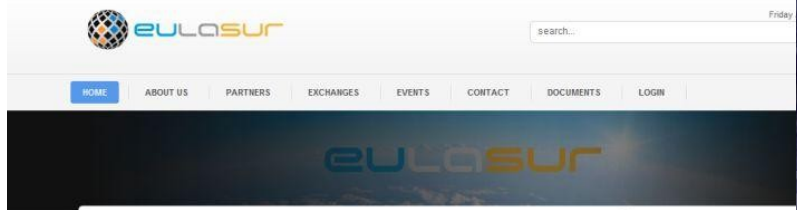
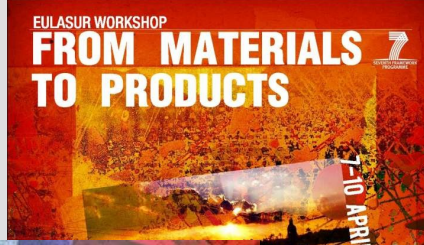
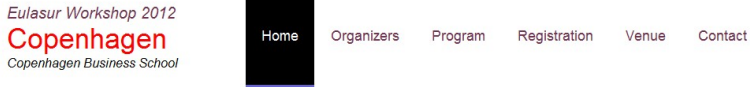


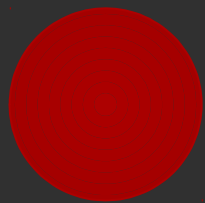
# Eulasur main activities

## ■ Dissemination:

EULASUR Website, corporate image, miniwebsites, posters and leaflets created for

Traductor de Google | Galeria de Web-Slice | desktop.ini | Web Slice Gallery | Pin It | Otras sugeridos





# Eulasur main activities

## ■ Dissemination

5 Newsletters released



THIS IS THE FIRST EULASUR NEWSLETTER



### Message from a partner...

Alvaro Membré  
UdelAR, Uruguay



### Report

Since December 2009, a new interdisciplinary Centre in Nanotechnology has been created in Uruguay, the Centro Interdisciplinario en Nanotecnología y Química y Física



CERRO TRONADOR, BARILOCHE



### Message from a partner...

Carles Miravittles  
ICMAB-CSIC, Spain

nanotechnology and research Infrastructures Barcelona, 26 - 28 May 2010



### Report

GENNESYS International Congress on Nanotechnology and Research Infrastructures Barcelona, 26 - 28 May 2010



BELO HORIZONTE, BRAZIL



**Report**  
First EULASUR Summer School "Properties and Applications of Nanomaterials" Bariloche, Argentina, Oct 3-8 2010

3-8 October 2010



**Latest n**  
First EULASUR "From Monticelli to PR" Belo Horizonte, 7th to 10th, 2011

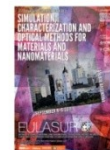


LA PLATA, BUENOS AIRES



**Report**  
Jose Luis Brionés "EULA-NETCERMAT" UAB, Spain

the operational phase will start in 2018



COPENHAGEN, DENMARK



**Report:**  
Copenhagen EULASUR Workshop March 14-16, 2012 Copenhagen, Denmark

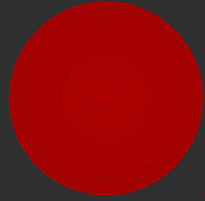
4-9 September 2011, La Plata, Argentina



**Uruguay:**  
Council for the Bio and Nanotechnology Sectors



**Argentina:**  
Industry sponsored projects at INQUIMAE and opportunities for students and postdocs.



# Eulasur main activities

- Policy makers have participated in all EULASUR events showing their support to the project and to collaboration EU-BRAU.
- Kick off Meeting in Barcelona: **Montserrat Torné** (General Director of Scientific Policy of MICINN); **Carles Solà** (UAB Rector); **Lluís Calvo** (Delegate for Catalonia of CSIC); **Britta Thomsen** (Vice-president of the Industry, Research and Energy Commission of the European Parliament); **Oscar Galante** (Instituto Nacional de Tecnología Industrial - Argentina);
- Bariloche Summer School: **Daniel Lupi** (Fundación Argentina de Nanotecnología); **Raul Conde**, Vice-rector of the University of Mar del Plata.
- Minas Gerais Workshop: **Angel Lanadabaso** (EU Counselor on Science and Technology in Latin America); **Britta Thomsen**
- La Plata Summer School: **Carlos Gianella** (President of the Comisión de Investigaciones Científicas - Argentina); **Carlos Rapela** (Director of CONICET La Plata)
- Copenhagen Workshop: **Britta Thomsen**; **Lise Thorsen** (Municipality of Copenhagen, Science and Technology); **Roger Eriksson** (Dir. of Communication, European Spallation Source, Lund, Sweden)



A

# CONSULTATION EXERCISE

## ■ SURVEY

- FR, DE, IT, GB, ES, DK, UY, AR, BR
- National coordinators, leading researchers, business dev & research directors (450 [RC, HE, SMEs])

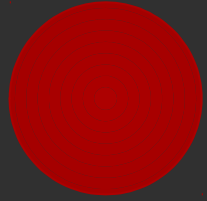
## ■ Part one:

- Proposal preparation issues, role, type of organization, other involved institutions, topics covered by both the EU & BRAU institutions.

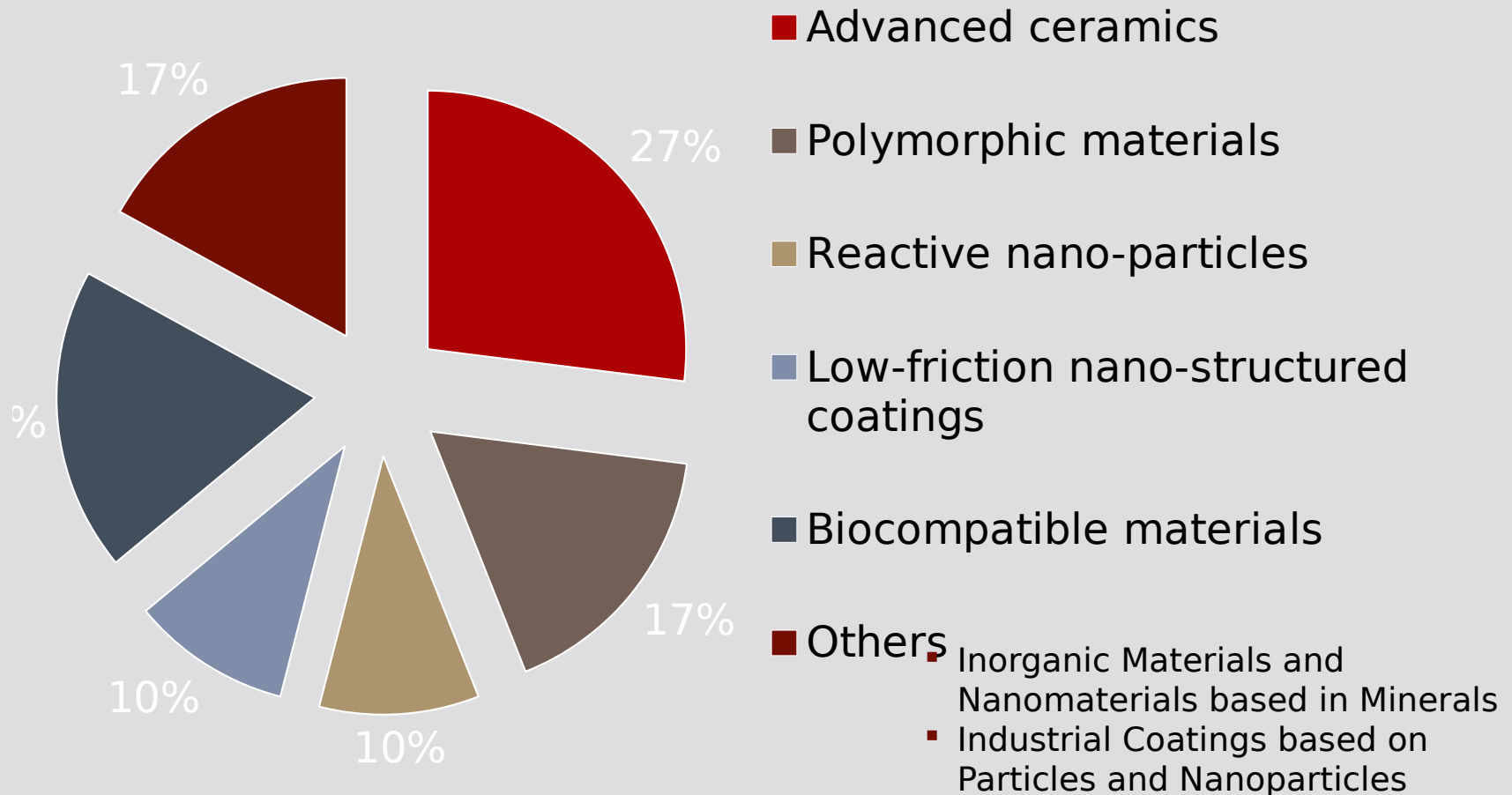
## ■ Part two:

- Valorization of the outcomes, the reasons of involvement, benefits/difficulties from the established collaboration.





# Materials of interest for future BRAU-EU cooperation



## B

## EXCHANGES

<b>Name</b>	<b>Origin Institution</b>	<b>Destination Institution</b>	<b>Period</b>
1 David Grosso	UPMC	CNEA	February 2011
2 Gustavo Torchia	CIOp-CONICET	ICMCB-CNRS	February 2011
3 Antonieta Daza	CNEA	ICMAB - CIN2- CSIC	March 2011
4 Daniel Schinca	CIOp-CONICET	VN	March 2011
5 Lucia Scaffardi	CIOp-CONICET	VN	March 2011
6 Juan José Zárate	CNEA	UFMG	April 2011
7 Romain Clarenc	ICMCB-CNRS	INQUIMAE-CONICET	April 2011
8 Helena Pardo	UdelaR	ICMAB - CSIC	May 2011
9 Ricardo Faccio	UdelaR	ICMAB - CSIC	May 2011
10 Romain Haize	ICMCB-CNRS	CIOp-CONICET	June 2011
11 Clement Sanchez	UPMC	CNEA	Setember 2011
12 Janni Nielsen	CBS	UNLU	Setember 2011
13 Leif-Bloch Rasmussen	CBS	UNLU	Setember 2011
14 Mercedes Perullini	INQUIMAE	UPMC	January 2012
15 Andrea Atias	INQUIMAE	ICMAB	March 2012
16 Nadim Morhell	CNEA	CBS	March 2012
17 Pablo Vaccaro	ICMAB	CNEA	May 2012
18 Marcos Flávio Oliveira	UFMG	IMPERIAL	May 2012
19 Marta Vendrell	ICMAB	INQUIMAE-CONICET	July 2012

C

# Summer schools

## Bariloche Summer School

### “Properties and Applications of Nanomaterials”

*Bariloche, Argentina, 3-8 October*

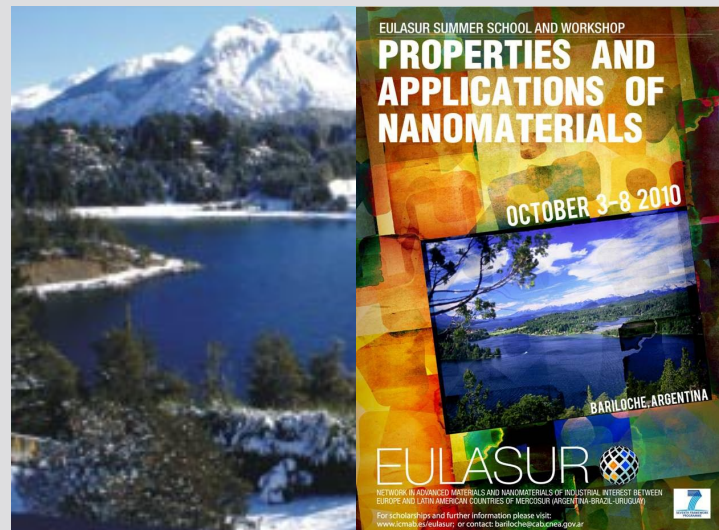
#### Organizers:

- Carlos Balseiro - **CNEA**, Director
- Rainer Gehrke - **DESY**
- Clément Sanchez - **UPMC**

The scope of the Eulasur School on “Properties and Application of Nanomaterials” is to provide a selected group of Ph-D students and Postdoctoral fellows from European and Mercosur countries, an up-to-date view the Synthesis, Processes, Properties and Applications of Materials for Nanotechnology. The participation of young scientists creates a unique opportunity to establish strong and long standing bonds and new collaborations between the two communities.

- Attendees: **95**

**See final report at: [www.icmab.es/ess2010](http://www.icmab.es/ess2010)**



C

# Summer schools

## La Plata Summer School

### “Simulation and Characterization of Materials and Nanomaterials (Multifunctional Ceramics and Hybrids Materials)”

*La Plata (Argentina), 5-9 September 2011*

#### Organizers:

- Marcelo Trivi & Daniel Schinca - **CONICET-CIOp**, Directors
- Jean Etourneau - **CNRS-ICMCB**

The purpose is to provide graduate students knowledge on the latest scientific and technological advances in the field of computational simulation and experimental characterization of multifunctional hybrids materials and nanomaterials as well as to serve as a forum for researchers to present their own work (posters) and to establish connections between researchers from all the participating entities.

It will encompass (but not limited to) the following subjects in the area of Simulation: surfaces simulation of STM images, methodological developments (SIESTA, ABINIT), multifunctional thin films and multilayers, piezoelectrics, magnetoelectric multiferroic, defects, surfaces and interfaces; and in the area of Characterisation: powder and surface X-ray diffraction, neutron diffraction (FullProf), solid NMR, electronic microscopy and optical methods for characterization of materials.

■ Attendees: **104**

See final report at: [www.icmab.es/ess2011](http://www.icmab.es/ess2011)



D

# Workshops

## Minas Gerais Workshop

### “From Materials to Products”

*Belo Horizonte, Brazil. April 7-10, 2011*

#### Organizers:

- Wagner Rodrigues - **UFMG** - Director
- John Kilner - **IMPERIAL**

This workshop focuses on the path to be followed in order to obtain innovative products from innovative materials, taking into account their behavior, properties, availability, cost of synthesis and manufacturing methods but also issues such as environmental impact, safety and disposal. The workshop will also give special importance to the concept of Innovation: Material-Design-Application. Other topics of interest would be: Metrology, Durability and Resistance.

■ Attendees: **116**

See final report at: [www.icmab.es/ews2011](http://www.icmab.es/ews2011)



# D

# Workshops

## Copenhagen Workshop

“Materials of social, economical and political interest” and “Starting-up and managing companies in the field of Materials and Nanomaterials”

*Copenhagen, Denmark. March 14-16, 2012*

### Organizers:

- Leif-Bloch Rasmussen & Janni Nielsen - **CBS**
- Susana Garelik - **ICMAB-CSIC**

Public policies of R&D according to the economic and social development; impact on the environment and impact on the health of the industry in general, and in particular for the Advanced Functional Ceramic and Hybrid Materials industry; organization and management of research in universities and in public centres in the Materials and Nanomaterials area; intellectual property of innovation processes in Europe and BRAU; activities of knowledge and technology transfer organizations

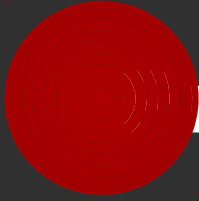
■ Attendees: **66**

**See final report at: [www.icmab.es/ews2012](http://www.icmab.es/ews2012)**



# Brief Workshops

- **Understanding Innovation.** Brief Workshops of 3 day duration held during other EULASUR events to maximize and obtain concrete partner collaborations.
  - **Bariloche, 4-8 October 2010**
  - **Minas Gerais, 7-10 April 2011**
  - **La Plata, 5-9 September 2011**
  
- **Design, Innovation and Entrepreneurship In Praxis.** Lujan (Argentina) August 31 - Sept 2, 2011. Identification of opportunities for institutional linkage: design of joint projects; cooperation agreement between institutions.
  
- **The Nano house.** Copenhagen, 6-7 October 2011. Workshop on one specific proposal resulting from previous events.
  
- **Properties and Applications of Nanomaterials.** Córdoba (Argentina), 18-19 May, 2012. The aim of this workshop is to gather PhD students, young scientists and senior participants of the EULASUR program working on Properties and applications of Nanomaterials to discuss the advances of the different research lines and promote collaborations among the different groups.



# resented project PROPOSALS

## ■ OUTPUTS

### EULANETCERMAT

### DRUGNETPOL

#### UAB

ICMAB

CBS

IRELA  
C

KTH

INTEM  
A

UNLU

ADRA  
M

SENAI

UFMG

UCH



#### ICMAB

UAB

UB

RUB

U2M

CINDEC  
A

CIOP

ADRAM

UNISC

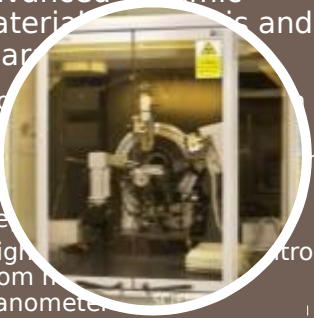
UDEC



# EULA-NETCERMAT

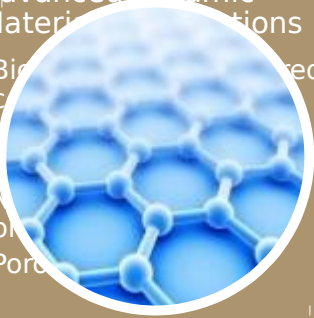
## Advanced Ceramic Materials Synthesis and characterization

- High purity
- Advanced synthesis and characterization
- Real-time monitoring and control
- High resolution control from nanometers
- Characterization by X-Ray and Neutron Diffracton



## Advanced Ceramic Materials Applications

- Bioceramics
- Ultra-high temperature
- Nanoceramics
- Piezoceramics
- Porous ceramics



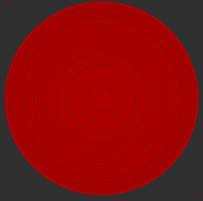
## Advanced Ceramic Materials Economic aspects

- Strategic materials
- Advanced materials
- Sustainable materials



## Dissemination and Business Plan

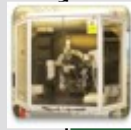




# DRUGNETPOL



- Homogeneous composition and controlled crystal size
- Arrangement, integration and dispersion control
- Regular pore structures
- High order structural control from micrometer to nanometer order



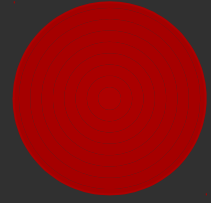
- DRX (Powder and Single Crystal)
- IR, Raman
- THZ, DSC
- TG



- State of the art and needs in EU-LA
- Academia, industry, civil society
- Structure vs Pharmacological Activity Studies



- SWOT analysis & Action Plan
- Workshops & periodic newsletter
- Training Courses, Seminars, Publications, Conferences and Congresses
- Open day sessions



Other proposals presented

<b>Institution / Programme</b>	

**EU / NIMD**

**EDP**

D

## OTHER Results

- New research project developed: “Nano-vaccines” and “Nano-based portable diagnostic device” Ana Laura Zamit (INTA)
- 1 spin off in creation: “Tester for diagnostics of blood viscosity in neonates” Nadim Morhell (CNEA). Project awarded by the MIT Technology Review Magazine.



eULASUR

