

# International initiatives to promote Spanish Nanotechnology Industry

Phantoms Foundation

Antonio Correia

nanoscience & nanotechnology

knowledge

expertise

excellence

innovation

Management

Networking

Dissemination

Training

Nanoscience

Nanotechnology

Nanobusiness

Nanoelectronics

Nanomaterials

Nanobiotechnology

# International initiatives to promote Spanish Nanotechnology Industry

## OUTLINE

1. Phantoms Foundation: CV
2. ICEX Nanotechnology Plan (activities, results, future calls)
3. Imaginenano2011
4. Projects/Events/Networks
5. Other dissemination activities

Management

Networking

Dissemination

Training

Nanoscience

Nanotechnology

Nanobusiness

Nanoelectronics

Nanomaterials

Nanobiotechnology

- ☐ Private non-profit organisation
- ☐ Founded in November 2002
- ☐ Location: Madrid (Spain)
- ☐ WEB site: [www.phantomsnet.net](http://www.phantomsnet.net)
- ☐ Staff: Dr. Antonio Correia (President) / Dr. Maite Fernandez / Jose-Luis Roldan / Joaquin Ramon Laca / Paloma Garcia Escorial / Conchi Narros / Carmen Chacon / Viviana Estevao
  
- ☐ Focus activities on Nanoscience & Nanotechnology
- ☐ High level management profile to National and European scientific projects
- ☐ Key actor in:
  - Structuring and fostering European Excellence and enhancing collaborations in these fields
  - Integrating the Spanish “Science – Technology – Company – Society” system in other countries

Management

Networking

Dissemination

Training

Nanoscience

Nanotechnology

Nanobusiness

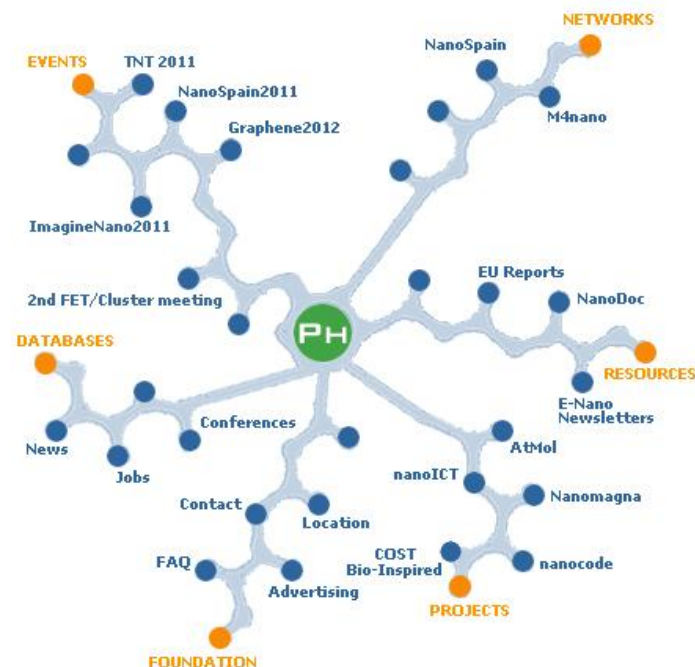
Nanoelectronics

Nanomaterials

Nanobiotechnology

## CURRENT ACTIVITIES

- ☐ Project Management (European Commission, National, etc.)
- ☐ Scientific Network Coordination (NanoSpain, M4nano Initiative)
- ☐ Scientific Conference Organisation (TNT conference series, **Imaginenano**)
- ☐ Support to Conference Organization (WEB site, management)
- ☐ Promotion of educational activities (schools, etc.)
- ☐ Scientific Dissemination (Newsletters, reports, articles in journals, roadmaps)
- ☐ **Management of activities fostering relationships with other markets/countries**





Management

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Dissemination

Training

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## ICEX Nanotechnology Plan

Since 2007, Phantoms Foundation is the **coordinator of the Spanish Nanotechnology Plan** funded by ICEX (Spanish Institute for Foreign Trade), as an initiative under the program **España, Technology for Life**, to enhance the promotion in foreign markets of Spain's more Innovative and leading industrial technologies and products

- ☐ Represent the Scientific, Technological and Innovative agents of the country as a whole.
- ☐ Foster relationships with other markets/countries.
- ☐ Promote country culture of innovation.
- ☐ Better integrate the Spanish "Science - Technology - Company - Society" system in other countries.
- ☐ Generate and develop scientific and technological knowledge.
- ☐ Improve competitiveness and contribute to the economic and social development of Spain.

# ICEX Nanotechnology Plan

## Funding Agencies



Activities performed since 2007 by the Phantoms Foundation under **the Spanish Nanotechnology Plan** funded by ICEX (Spanish Institute for Foreign Trade). More than 60 companies, technological centers, nanotechnology platforms or nanocenters participated in these activities.

2007

Promotion of **TNT** (Trends in Nanotechnology)  
**Conference & Exhibition**

2008

**Nanotech Tokyo Fair (Japan)**

Conferences International Promotion:  
**NanoSpain 2008** (Braga, Portugal)  
**NANOBIOEUROPE 2008** (Barcelona)  
**TNT 2008** (Oviedo)

Study Mission COMS Fair Mexico

2009

**Nanotech Tokyo Fair (Japan)**

**NSTI Houston Fair (USA)**

Conferences International Promotion:  
**NanoSpain 2009** (Zaragoza)  
**TNT 2009** (Barcelona)

2010

**Nanotech Tokyo Fair (Japan)**

**Taiwan Nano 2010 Fair (Taiwan)**

Conferences International Promotion:  
**NanoSpain 2010** (Málaga)  
**TNT 2010** (Braga, Portugal)

2011

**Nanotech Tokyo Fair (Japan)**

Conferences International Promotion:  
**IMAGINENANO 2011**

**BIOCOM Berlin**

**RUSNANOTECH Fair, Russia**

**Catalogue of N&N Companies in Spain (52)**



# International Nanotechnology Exhibition and Conference Tokyo (Japan)

## 2008

Spain Pavilion  
12 Companies / Technological Centers



## 2009

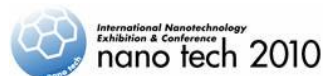
Spain Pavilion  
22 Companies / Technological Centers

Negotiation to develop a cooperation Spain - Japan,  
between MICINN and Japan Science and Technology  
Agency on nanotechnology and materials



## 2010

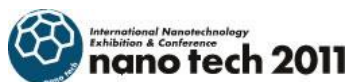
Spain Pavilion  
14 Companies / Technological Centers



## 2011

Spain Area  
11 Companies / Technological Centers

Spain Area distinguished with the  
"Special Award"



# ICEX Nanotechnology Plan - nano tech Japan





## Internationalization Results

### AVANZARE

First export non EU, USA countries. Clients in Mexico, Canada, Korea and Japan and contacts in other countries.

Export turnover 350.000 - 400.000 USD, potentially 10 times higher  
Opening a new plant exclusively to attend non EU exports.

### LUREDERRA / TECNAN

Specific Agreement A. R. Brown Co Ltd. and TECNAN/Lurederra for the production of synthetic nanoparticles.

### Neoker

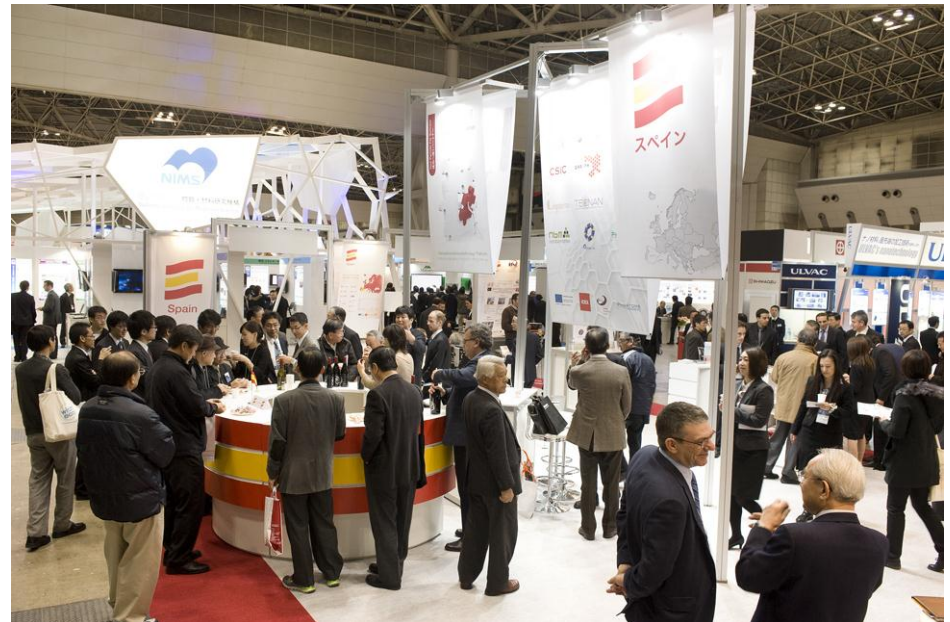
Neoker products were introduced in the Japanese market among other advanced materials. Local distributor in Japan.

### NanoBiomatters

Nanoclay based additives for performance improvement in polymers, resins and bioplastics were introduced in the Japanese and Taiwanese markets. Local distributor in Japan.



*Spain Pavilion 2010*



*Spain Area 2011*





**Nano tech 2011 (Japan)**

Spain Area among the top 3 biggest pavilions



*The Spanish Area awarded at nano tech 2011*

The Spain Area was distinguished with the “Special Award”. The reason of the award, as mentioned during the nano tech award 2011 ceremony:

- ☐ Eleven organisations, including seven private companies and national research institutions, exhibiting in the Area
- ☐ Four organisations already have offices for distribution
- ☐ State of the art of nanotechnology development in Spain, actively promoted for commercialisation in Japan

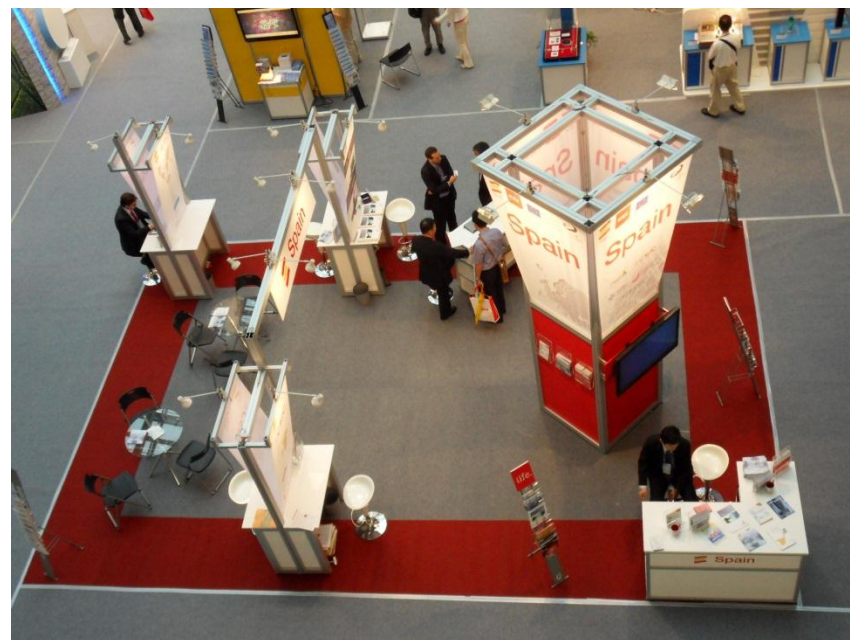
# ICEX Nanotechnology Plan – Other Fairs

## Nanotech Conference & Expo 2009

May 3 - 7, 2009 • Houston, TX  
George R. Brown Convention Center



## 2010 Taiwan Nano Taiwan Nano Exhibition Oct. 7th-9th Taipei World Trade Center, Hall 1





**Rusnanotech**  
NANOTECHNOLOGY  
INTERNATIONAL FORUM  
MOSCOW, OCTOBER 26-28 **2011**

- Over 8000 persons from 50 countries attended Rusnanotech 2010 and more than 350 Russian and foreign companies presented their innovations.



- ☐ Dual year Spain-Russia 2011
- ☐ Spain Stand – 100 m<sup>2</sup>
- ☐ One to one meetings
- ☐ Visits to Russian Institutions/Companies of interest

## Participants



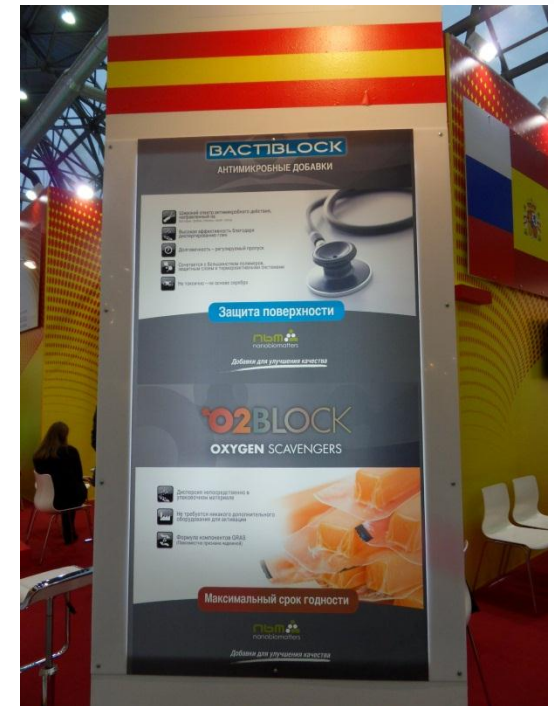




## Rusnanotech

NANOTECHNOLOGY  
INTERNATIONAL FORUM  
MOSCOW, OCTOBER 26-28 2011

foundation  
SIZO-ZATON





- Around 47000 persons attended nanotech Japan 2011

- ☐ 5<sup>th</sup> participation of the Spain Area
- ☐ Spain Stand – 135 m<sup>2</sup>
- ☐ ICEX funding available (travel grant: 1660 Euros per institution)
- ☐ Registration fee: 2500 Euros per institution
- ☐ One to one meetings (to be confirmed)
- ☐ Call launched – deadline: December 01, 2011
- ☐ Contact person: Maite Fernandez ([maite@phantomsnet.net](mailto:maite@phantomsnet.net))

**Participants (tentative)**



Number of Visitors			
Date	Weather	Visitors	Total
Feb, 16 (Wed)	Sunny	13,604	-
Feb, 17 (Thu)	Cloudy	15,402	29,006
Feb, 18 (Fri)	Rainy to Cloudy	17,496	46,502

Number of Exhibitors		
Domestic	Overseas	Total
448 Exhibitors	190 Exhibitors	638 Exhibitors
549 Booths	205 Booths	754 Booths
Exhibitors from overseas (20 countries / areas) Australia, Belgium, Canada, China, Denmark, France, Germany, India, Iran, Italy, Russia, Saudi-Arabia, Singapore, Switzerland, Spain, South Korea, Taiwan, Thailand, UK, USA		

# ICEX Nanotechnology Plan - nano tech Japan 2012



**Nano tech 2012 (Japan)**

**Spain Area**

## ICEX Nanotechnology Plan Catalogue of Nano companies in Spain

[illegible]



# ICEX Nanotechnology Plan

## Catalogue of Nano companies in Spain

### N&N Companies in Spain

#### TECNOLOGÍA NAVARRA DE NANOPRODUCTOS S. L. (TECNAN)



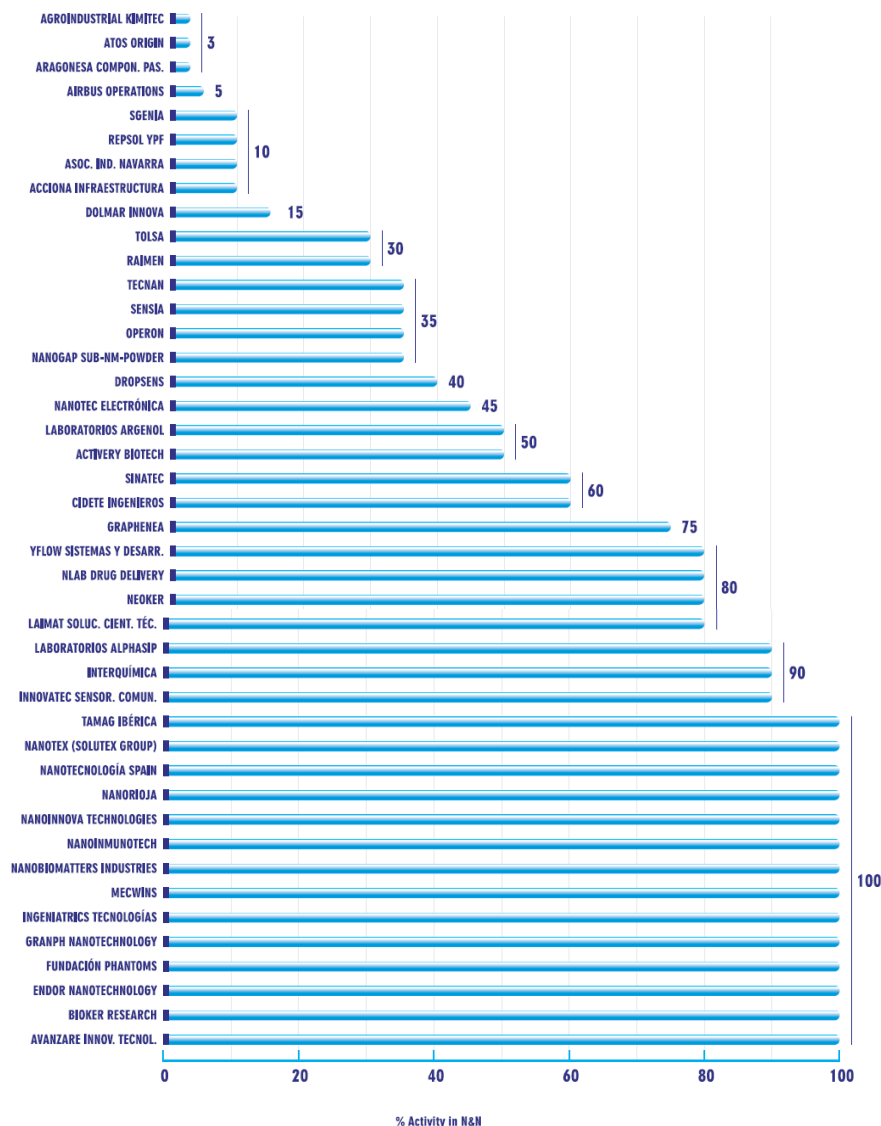
Address	Área Industrial "Perguita" A1 - 31210 Los Arcos - Navarra (Spain)
WEB site	www.tecnan-nanomat.es
Contact person	Germán Medina
e-mail	german.medina@tecnan-nanomat.es
Phone	+34 948 640 318
Main Research Areas	Nanocoatings • Nanomaterials • Nanoparticles
Created in	2008
No. of employees in R&D	3
% Nanoscience and Nanotechnology (R&D)	35



#### THREELLOP NANOTECHNOLOGY

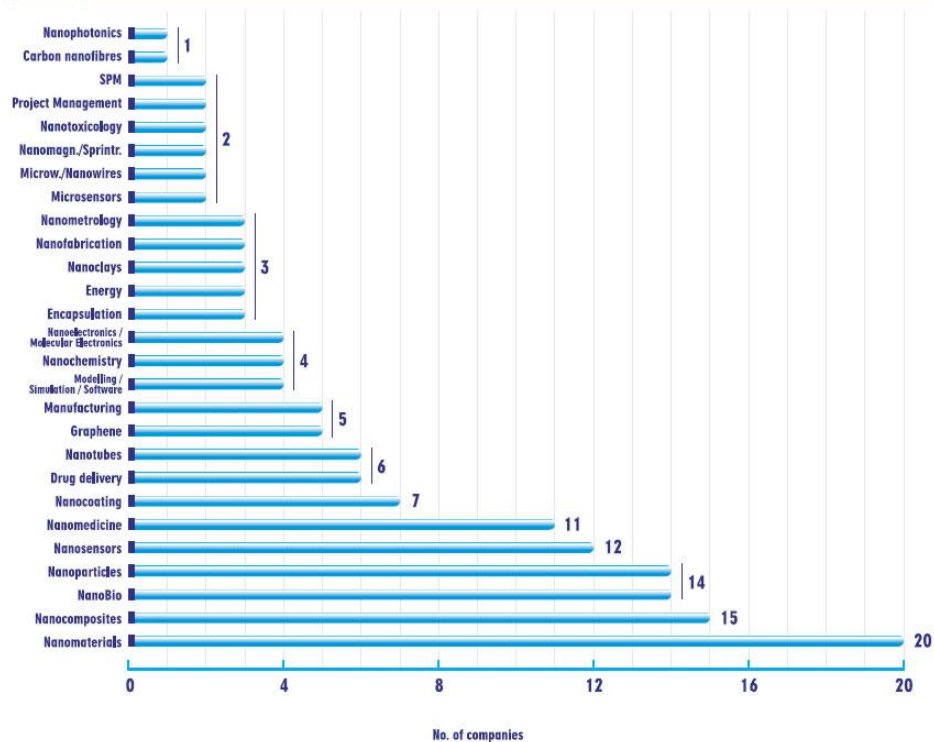
Address	C/ Puig, 10 2B - 46980 Paterna - Valencia (Spain)
WEB site	www.threellop.com
Contact person	José Daniel Llopis
e-mail	jdaniel.llopis@threellop.com
Main Research Areas	NanoBio • Modelling/Simulation/Software
Created in	2007
No. of employees in R&D	4
% Nanoscience and Nanotechnology (R&D)	100
No. of Patents	20

### % Activity in Nanoscience and Nanotechnology in R&D

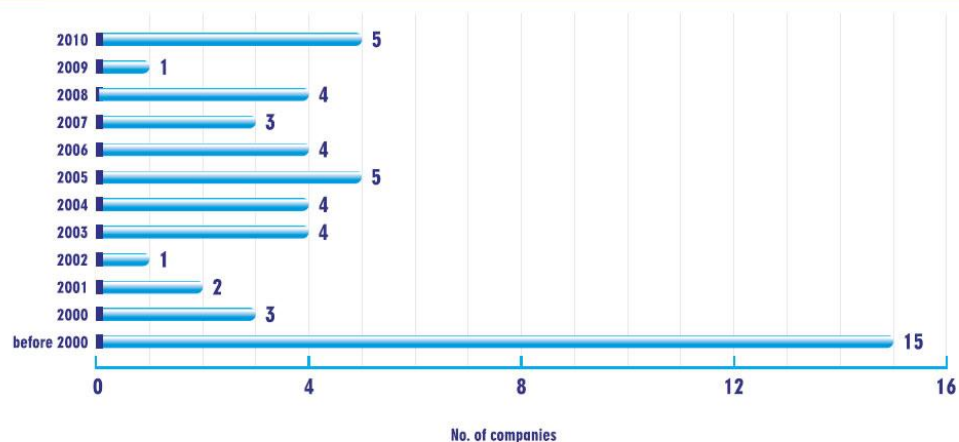


# ICEX Nanotechnology Plan Catalogue of Nano companies in Spain

## Distribution of Research Topics vs No. of Companies



## Created in vs No. of Companies





Applied Mass Spectrometry Laboratory S.L.

# ICEX Nanotechnology Plan Catalogue of Nano companies in Spain

- ☐ Updated catalogue (78 companies listed) published in November 2011.
- ☐ Contact person:  
Carmen Chacon ([carmen@phantomsnet.net](mailto:carmen@phantomsnet.net))
- ☐ WEB site of Nano companies in Spain under construction  
(in collaboration with ICEX)



Version 2



Version 1

Full catalogue available for download (pdf format) at: [www.phantomsnet.net](http://www.phantomsnet.net)

science • industry • society

# IMAGINENANO

Bringing together  
Nanoscience and Nanotechnology

[www.imaginenano.com](http://www.imaginenano.com)

INDUSTRIAL FORUM



NanoSpain  
Conf 2011

NANOSUDDE CONFERENCE

nano  
bio & med



PHANTOMS  
foundation

CIC  
nanogUNE  
NANOSCIENCES COOPERATIVE RESEARCH CENTER

dipc  
Donostia International Physics Center

EUSKAMPUS  
Nanoscience Research Campus  
Campus de Nanociencia (Donostia)  
Universidad del País Vasco Euskal Herriko Unibertsitatea

BILBAO  
EXHIBITION  
CENTRE  
EXPOSSIBLE!



## SCIENCE: 6 conferences in parallel

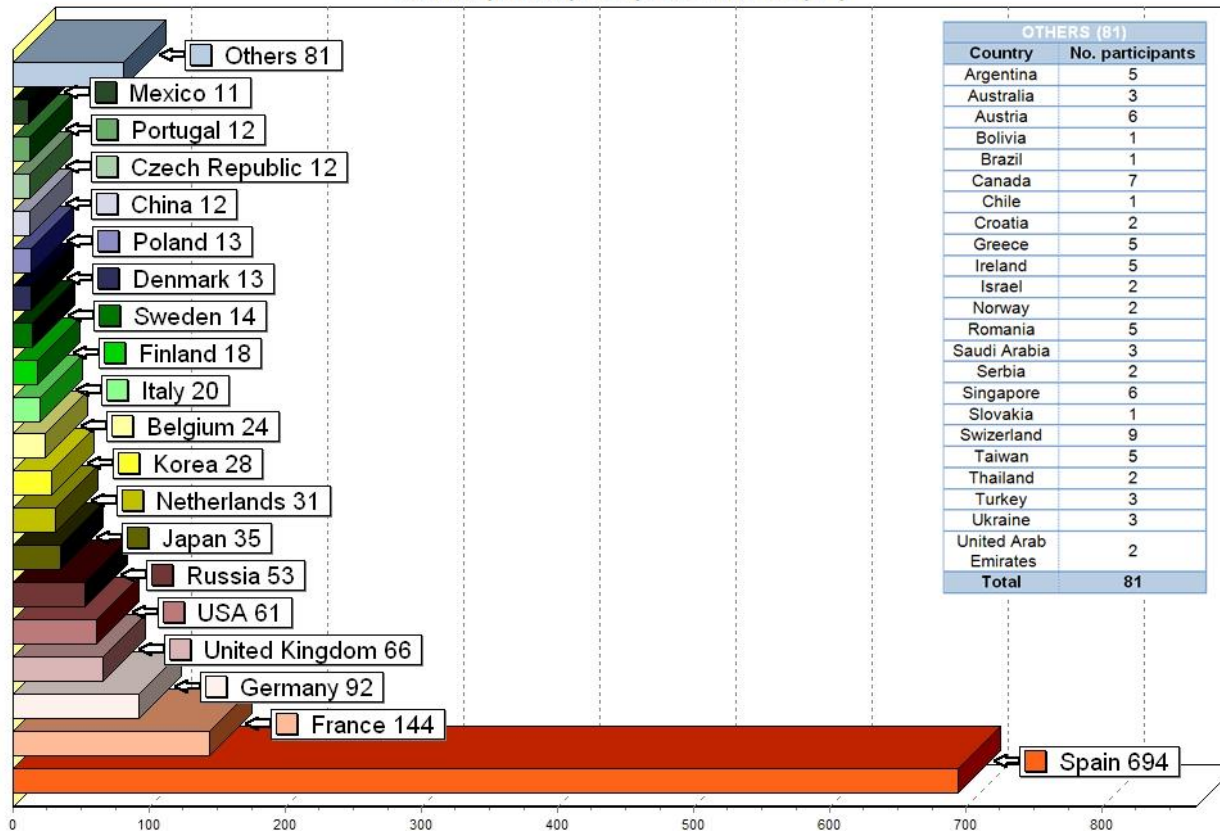


- More than 300 speakers, including:
  - Two Nobel Prize winners in Physics: Kostya Novoselov (2010) and Albert Fert (2007)
  - Two Prince of Asturias Scientific Research Prize: Pedro Miguel Echenique (1998) and Sumio Iijima (2008)
  - 63 Invited Speakers
  - 44 Keynotes
- 600 posters
- Nearly 70 grants awarded

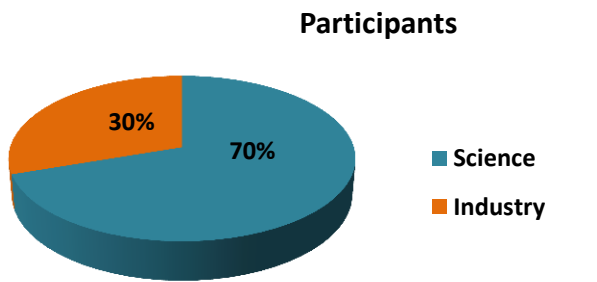
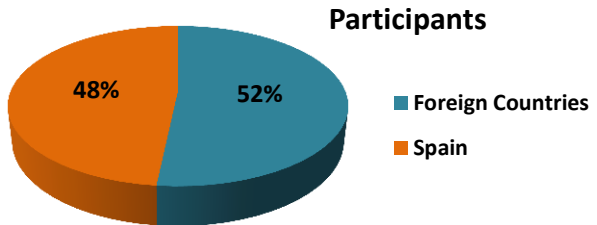
## INDUSTRY: Industrial Forum + Brokerage events + Exhibition



## IMAGINENANO 2011 Participants (1434) / Countries (42)



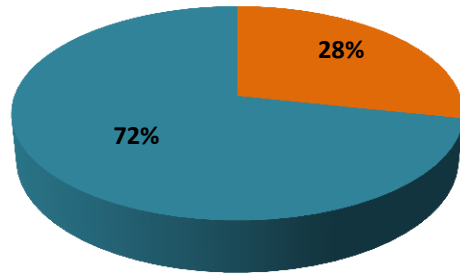
- ❑ Nearly 1500 Participants from 42 countries
- ❑ 48% from Spain and 52% from foreign countries
- ❑ Top six foreign participants: France, Germany, United Kingdom, United States, Russia and Japan



From 1434 participants 434 were exhibitors

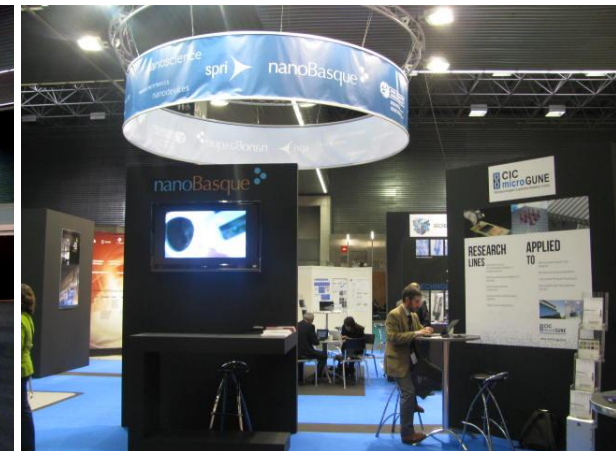
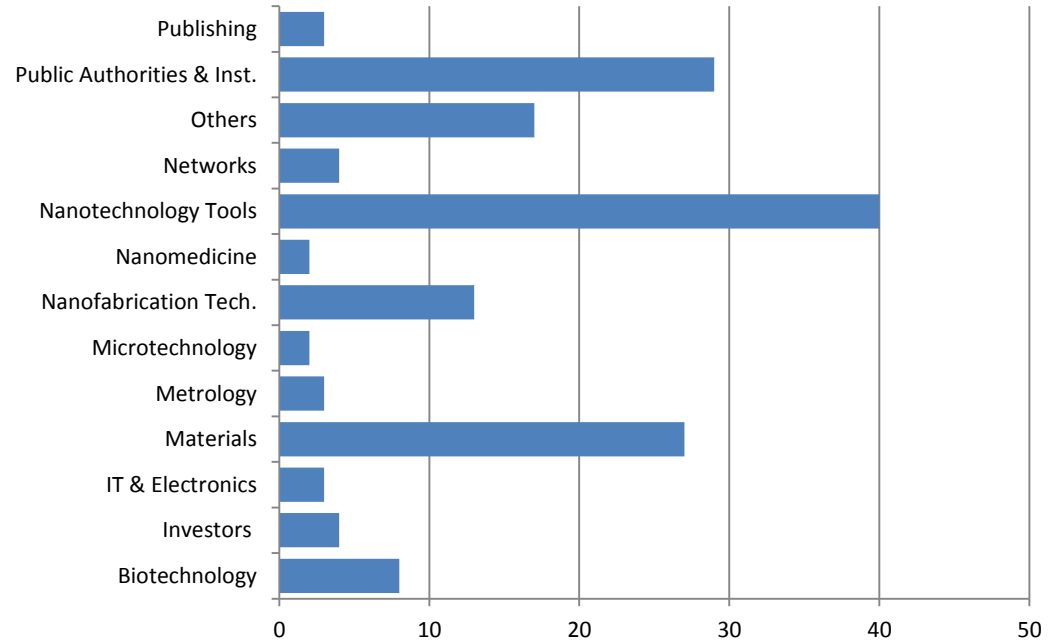


**Exhibitors**



■ Exhibitors Science  
■ Exhibitors Industry

**Exhibitors - Sectors**





## Exhibition

90 Booths

160 Companies/Institutions

Represented Country/Region Pavilions: 5



## Brokerage Events (One to One Meetings)

- Enterprise Europe Network (Nanoscience & Micro-Nanotechnology)
  - 101 persons registered
  - 88 Institutions
- CIBER-BBN (Biomaterials and Nanostructures in Biomedicine)



*Business Support on Your Doorstep*



## Industrial Forum

- Funding
- Tech Transfer
- Nanomagnetism
- Nanomaterials
- Nanosafety
- NanoInstrumentation

## Short facts

- 10 sessions
- 40 speakers

science • industry • society

**IMAGENANO**

Bringing together  
Nanoscience & Nanotechnology

April 11-14, 2011 - Bilbao Exhibition Centre (Spain)

Tentative Schedule INDUSTRIAL FORUM (THEATER)				
	April, 11 MONDAY	April, 12 TUESDAY	April, 13 WEDNESDAY	April, 14 THURSDAY
09h00			<b>FORUM:</b> <b>"Biomaterials and Nanostructures in Biomedicine"</b> (Ciber-BBN)	NanoInstrumentation
13h30	Funding & Technology Internationalization (CDTI)	NanoBasque		Nanotechnologies in BioMedicine
15h00	Down to earth start up funding	NanoMagnetism From Science to Industry	<b>NanoSafety</b> Toxicology (HINAMOX)	
19h30	Tech Transfer and Opportunities for international cooperation	Nanomaterials From Science to Industry		
* BROKERAGE EVENT (EEN) – One-to-one meetings				

\* The Brokerage event will be organized in collaboration with EEN (Enterprise Europe Network) during all day.





## Events

IMAGINE NANO

NanoSpain  
Conf



## Projects



## Networks



## PROJECTS/EVENTS/NETWORKS



Industrial Forum + Brokerage events + Exhibition



**Industrial Working Group**  
2012 edition – Santander (Spain)  
February 28 – March 01, 2012



The objective of NanoCode is to define and develop a framework aimed at supporting the successful integration and implementation, at European level and beyond, of the Code of Conduct (CoC) for nanosciences and nanotechnologies (N&N) research as developed by the European Commission.





## Events



## Projects



## Networks



Red Española de Nanotecnología  
Spanish Nanotechnology Network

Andalucía



Aragón



Asturias



Cataluña



Madrid



País Vasco



Castilla La Mancha

Instituto de Materiales Moleculares, Nanociencia y Nanotecnología / INAMOL (in project)

Comunidad Valenciana



Instituto de Ciencia Molecular / ICMol

Portugal / Spain



# PROJECTS/EVENTS/NETWORKS

## Regional Distribution of research groups NanoSpain Network

Total: 294 groups - as of March 31, 2010



## Main Centers in Spain



As of March 31, 2010

-294 groups registered

-33 companies

As of November 11, 2011

-320 groups registered

-43 companies

Management

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Training

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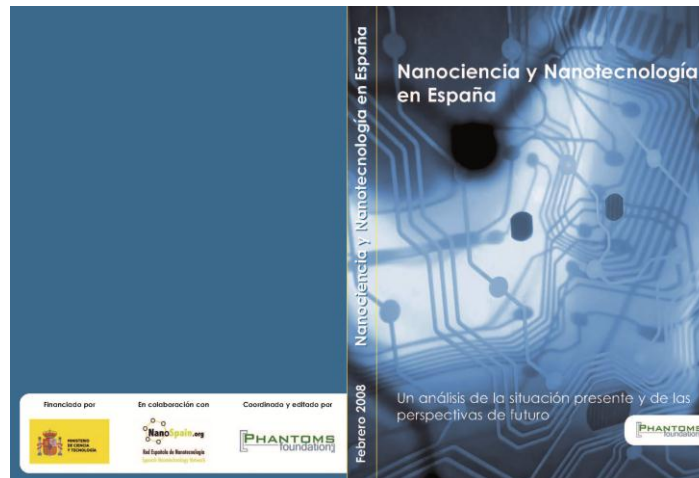
Nanobiotechnology

## OTHER DISSEMINATION ACTIVITIES



### Short facts

- 1500 printed copies
- pdf available for download (free of charge)
- Distributed to around 800 groups in Europe
- Distributed at major events such as Imaginenano



### Short facts

- 5000 printed copies
- pdf available for download (free of charge)
- Distributed at major events
- 2008 edition
- Spanish

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Nanotechnology

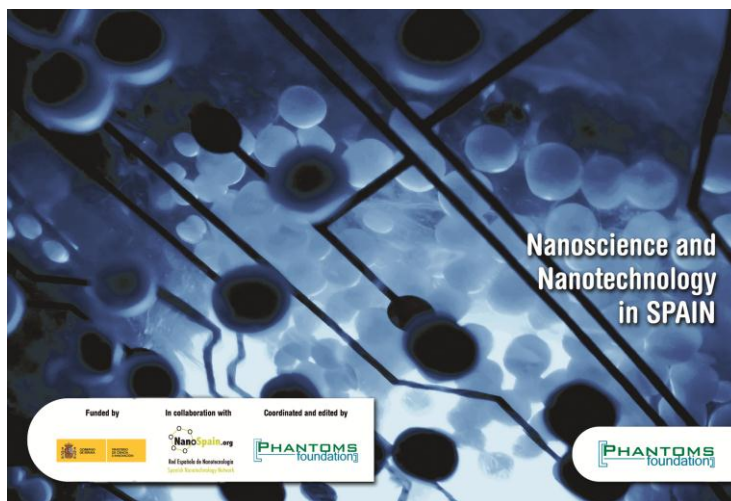
Nanobusiness

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Nanomaterials

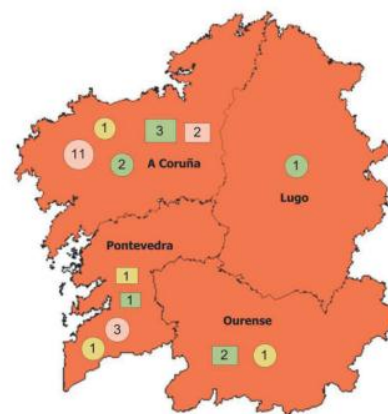
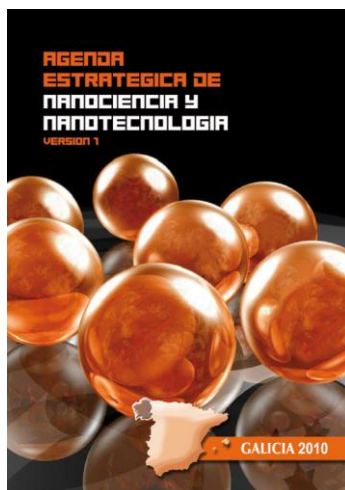
Nanobiotechnology

## OTHER DISSEMINATION ACTIVITIES



**Short facts** (2010 / 2011 edition)

- 1500 printed copies
- pdf available for download (free of charge)
- Distributed at major events
- English



- Universidades que tienen actividad I+D en Nanociencia y Nanotecnología
- Empresas que tienen actividad I+D en Nanociencia y Nanotecnología
- Centros Tecnológicos que tienen actividad I+D en Nanociencia y Nanotecnología
- Universidades que han presentado interés en Nanociencia y Nanotecnología
- Empresas que han presentado interés en Nanociencia y Nanotecnología
- Centro Tecnológico que ha presentado interés en Nanociencia y Nanotecnología

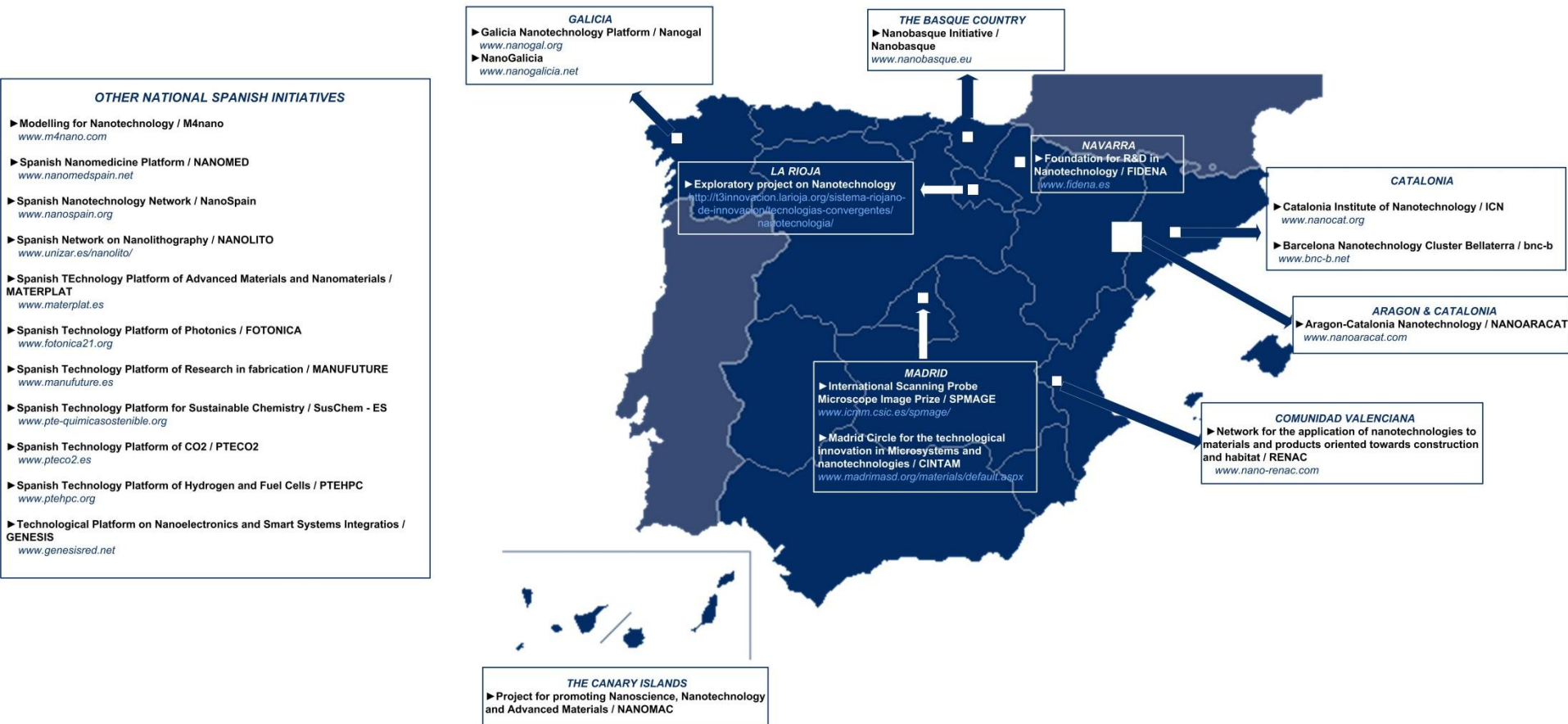
-GALICIA 2010-

pdf available for download (free of charge)



# OTHER DISSEMINATION INITIATIVES

Other initiatives (networks, platforms, regional programmes, etc) related with nanotechnology promotion





[www.phantomsnet.net](http://www.phantomsnet.net)

Phantoms Foundation

knowledge

expertise

excellence

nanoscience & nanotechnology



innovation

Thank you