



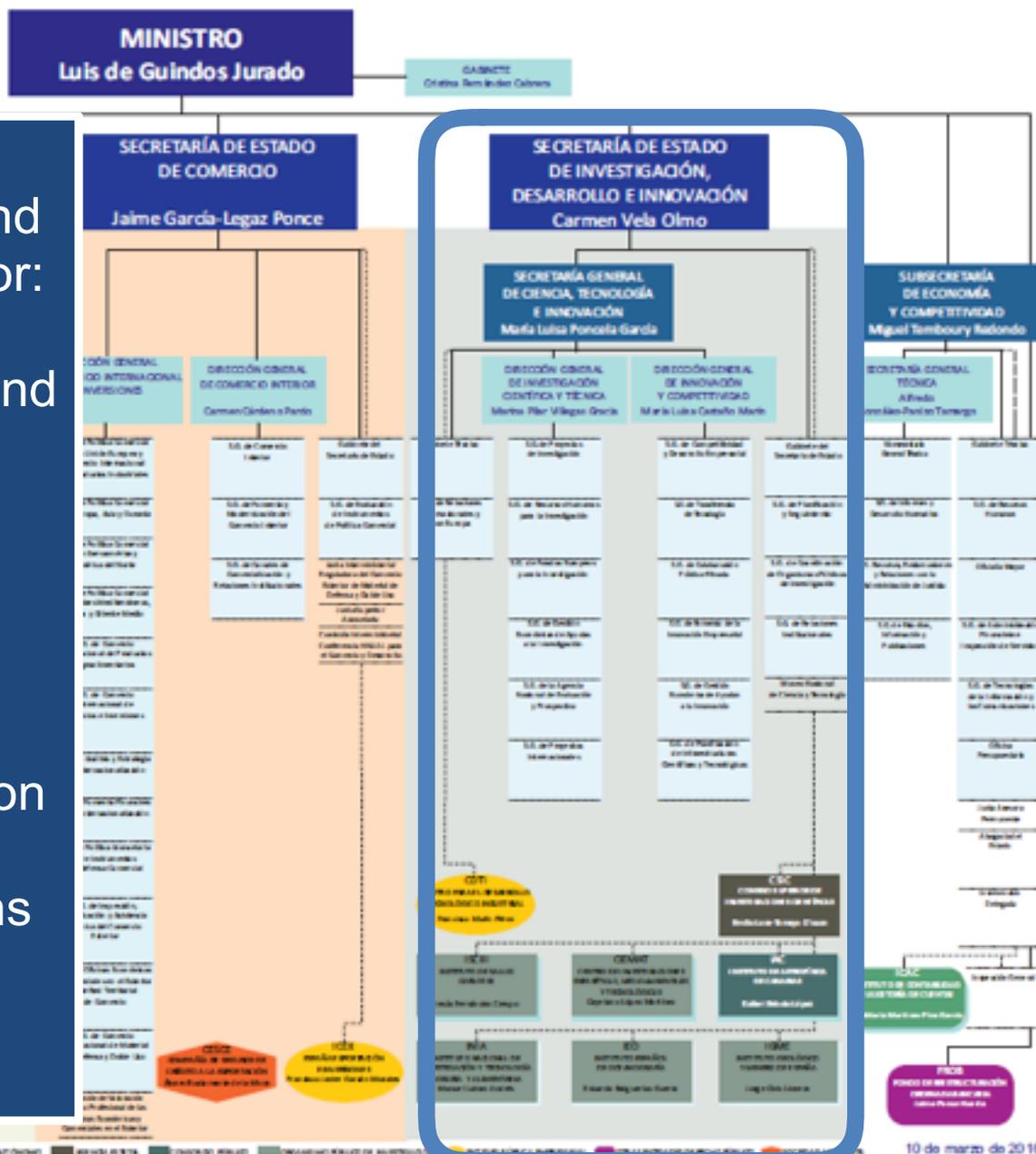
THE INFORMATION EXCHANGE

Strategic information on funding initiatives in the area of Graphene



The State Secretariat for Research, Development and Innovation is responsible for:

- the policies of scientific and technical research, development and innovation,
- the management of international relations in this area
- the Spanish representation in programs, and international organizations and forums of the European Union competence.



Organisation information: MINECO

- Ministry of Economy and Competitiveness (MINECO): Secretariat of State for Research, Development and Innovation.
- Proposal, management, monitoring and evaluation of the State programmes and strategic actions of the State Plan for Scientific and Technical Research and for Innovation 2013-2016, in line with the Spanish Strategy of Science, Technology and Innovation 2013-2020.
- Basic research, applied research and innovation for non-profit research organizations.
- Funding Bottom-up: no specific programmes, but State programmes cover related research and innovation projects (materials science and engineering areas)
- Severino Falcon Morales, Technical Adviser to the Deputy Director General of international projects: Email: severino.falcon@mineco.es

Organisation information: MINECO

- Yearly budget: 4.280 M€
 - Loans
 - Grants
 - Transfers for international programs, national initiatives
- The funding is bottom-up for R&D projects and strategic for some areas and initiatives
- MINECO supports basic, applied research and innovation

Spanish participation in Graphene FLAGSHIP

R&D Non profit organizations
CSIC. ICMM
Universidad Autónoma de Barcelona
Universidad de Castilla-La Mancha
CIC Energygune
Instituto de Ciencias Fotónicas
Instituto Catalán de Nanotecnología
CIC Nanogune
CIBER-BBN
CIC energigUNE
IDIBAPS
University of Castilla-La Mancha
The University of Zaragoza
Tecnalia Research and Innovation

Profit organizations
Grupo Antolín (GRANPH)
Avanzare
Graphenea
REPSOL
Airbus
IQ Interquimica
nvision systems &

Flag ERA

Project	Institution
TUGRACO	UPC
SOGraph	FUNDACION IMDEA NANOCIENCIA
HiMagGraphene	UAM

Activities in support of the Graphene flagship

Three main actions to support Graphene Flagship

GRAPHENET: the Spanish graphene network



Cluster on Graphene and 2D materials
under preparation

Inter-platform group on Graphene. GRAFIP

Activities in support Graphene Flagship

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Activities in support Graphene Flagship

GRAPHENET: the Spanish Graphene Network

- Strategic network linking excellence in graphene
- Duration 2 years
- Start: December 2015
- Coordinator ICMM/CSIC M. García-Hernández
- marmar@icmm.csic.es

Activities in support Graphene Flagship

GRAPHENET: the Spanish Graphene Network

Initial supporting partners

- **Industrial partners from the FG:** Airbus, Avanzare, Grupo Antolín, Graphenea, Repsol, Interquímica
- **Academics from FG:** CSIC, ICN, ICFO, UniZar, UAB, IDIBPAS, UCLM, CIC Energigune, CIC Biomagune, Cic-Nanogune, CIBER, Tecnalia
- **Others No FG members:** AERNOVA; Aimplas; Andaltec; CIDETEC, Graphenano, Graphene Nanotech; Hércules de Armamento; INDRA; Nanoinnova; Numat Biomedical, S.L., Tekfeninvest, GRAPHENASTUR, ACERLORMITTAL, Abengoa, Dropsense, Ferroatlantica, Biolan, CENER, Eurecat, FLUBETECH, Nanobasque, Instituto Tecnológico de Castilla y León, AENOR
- GRAPHENET is a dynamic and open space. Any Spanish institution or company can incorporate into the network and participate in our activities



40 entities

Activities in support Graphene Flagship



EUREKA Clusters are long-term and strategically significant initiatives that develop technologies of key importance for European competitiveness.

8 clusters:
PENTA;
METALLURGY
EUROPE;
ITEA 3;
EUROGIA 2020;
EUROPIDES;
CELTIC PLUS;
CATRENE;
ACQUEAU

EUREKA Clusters are essential in order to:

- Accelerate the introduction of R&D&I results to the market
- Share research and development cost and results
- Facilitate consortia involving partners along the entire value chain
- Create an industrial network for long term win-win collaboration

Proposal for
An European cluster on graphene and 2D materials
under preparation

Complements the Graphene Flagship

Activities in support Graphene Flagship



An European cluster on graphene a 2D materials *under preparation*

- **INDUSTRIAL & TECHNOLOGICAL CHALLENGES**

Mass production of high quality graphene .

- Scaling up*
- Industrial applications*

- **IP Scenario**

- Patenting in graphene has risen rapidly in recent years . Leading of South Korea entities.*
- Chinese influence since 2013 has continued to grow*

- **RESEARCHING IN EU**



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Activities in support Graphene Flagship

Inter-platform group on Graphene. GRAFIP

Materias
Primas



Demanda de
Propiedades

Productos
intermedios



Estándares

Fabricación

Aplicaciones
Industriales

Uso Final /
Mercado



Interna

Externa

Creación Cluster de Grafeno

Acción Estratégica GRAFENO

Código de Buenas Prácticas

PLATAFORMAS TECNOLÓGICAS ESPAÑOLAS

Materiales Avanzados y nanomateriales. MATERPLAT	http://www.materplat.com/
Energía Solar de Concentración	http://www.solarconcentra.org/
Hidrógeno y Pilas de Combustible	http://www.ptehpc.org/
FOTOPLAT (Fotovoltaica)	http://fotoplat.org/
REOLTEC (Eólica)	http://reoltec.net/
AEROESPACIAL	http://www.plataforma-aeroespacial.org/
Ferroviaria Española. PTFE	http://www.ptferroviaria.es/
Automoción y Movilidad – Move to Future M2F	http://www.move2future.es/
3NEO (Tecnologías de Impresión)	http://www.3neo.org/
Envase y Embalaje – PACKNET	http://www.packnet.es/
Química Sostenible	http://www.suschem-es.org/
Fotónica - FOTONICA 21	http://www.fotonica21.org/
Acero - PLATEA	http://www.aceroplatea.es/
Construcción	http://www.plataformaptec.com/
Domótica y Ciudades Inteligentes - Smart Living Plat	http://smartlivingplat.com/
Nanomedicina	http://www.nanomedspain.net/

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¡GRACIAS!