



Ciencia Excelente Programa Horizon2020

CONAMA 2016

29 de noviembre, Madrid.

*Nicolás Ojeda – NCP/Representante FET
Oficina Europea FECYT/MINECO*

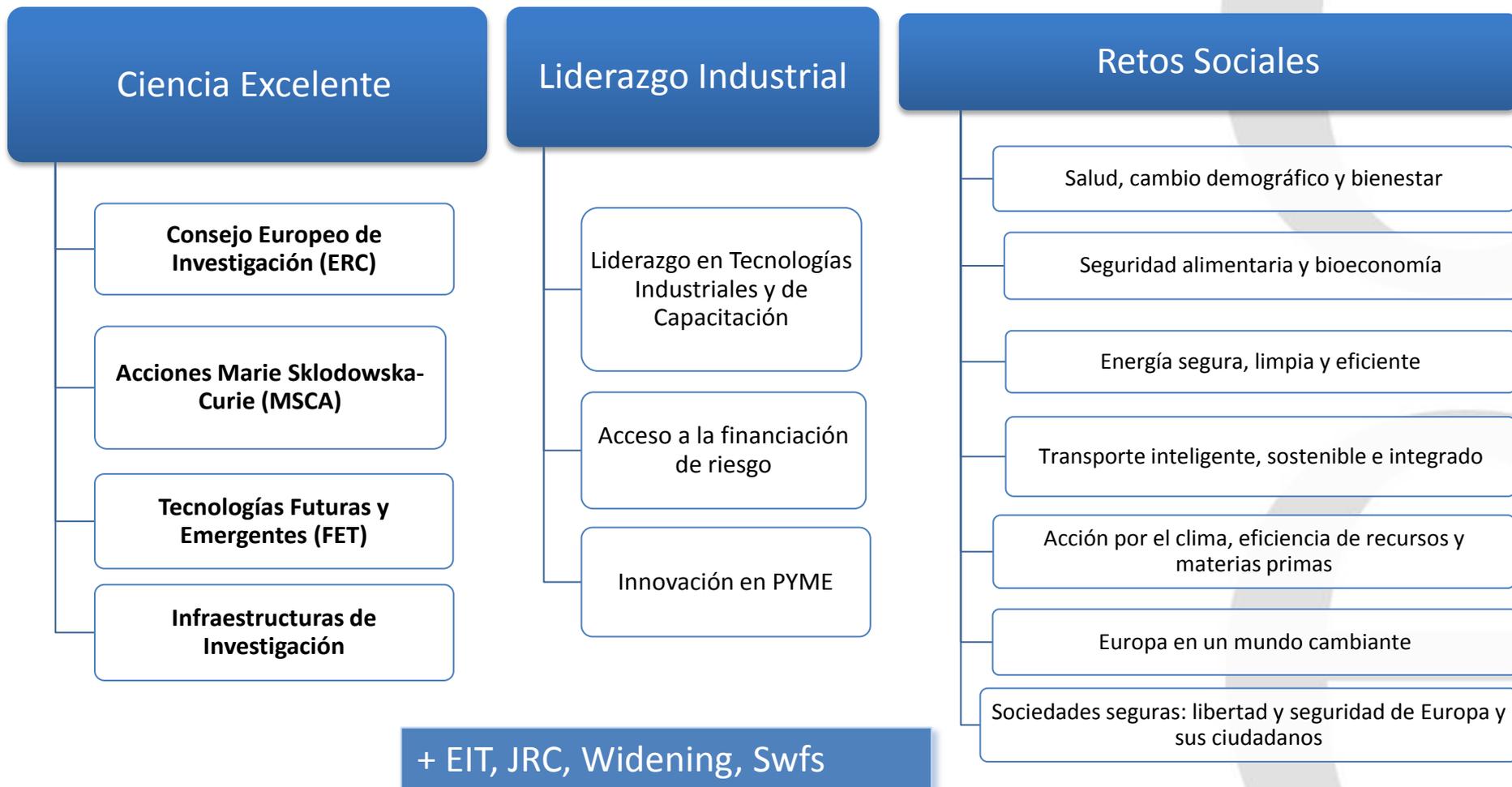


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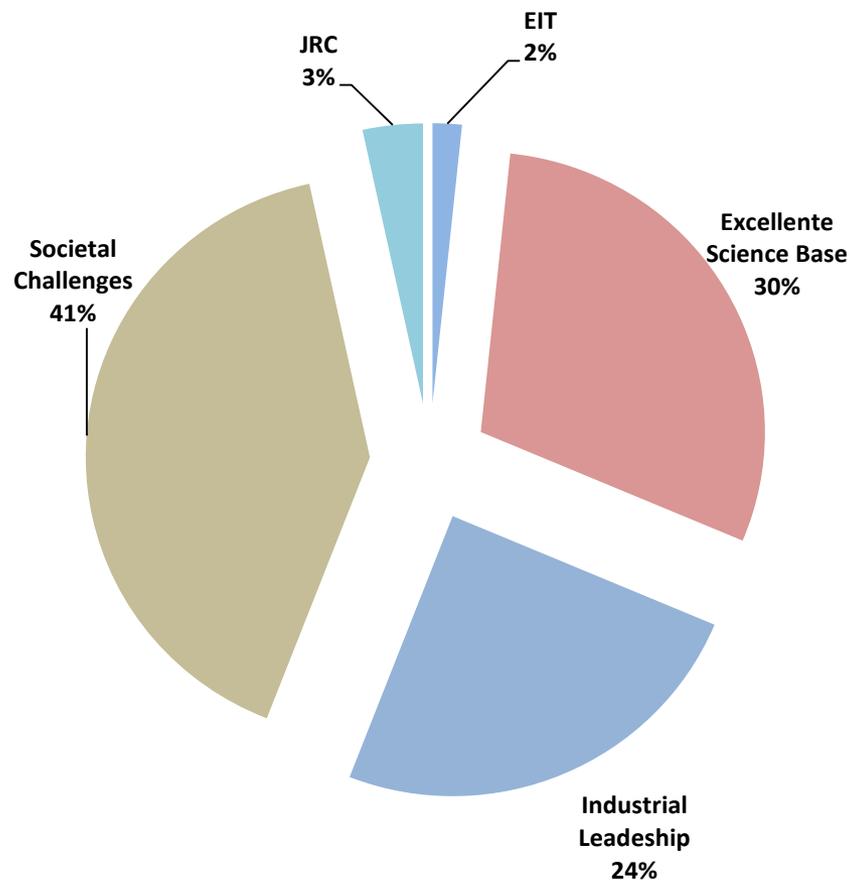
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- II. European Research Council (ERC)
- III. Future and Emerging Technologies (FET)
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I. Horizonte 2020 - Ciencia Excelente

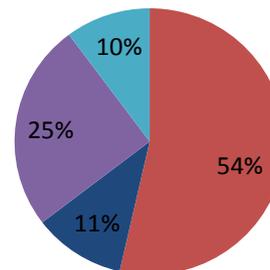


I. Horizonte 2020 - Ciencia Excelente



ERC	13.094,81 €
FET	2.695,99 €
MSCA	6.162,26 €
Infraestructures	2.488,01 €
TOTAL	24.441,07 €

ERC FET MSCA Infraestructures



II. The European Research Council (ERC)

"The European Research Council (ERC)" shall provide attractive and flexible funding to enable talented and creative individual researchers and their teams to pursue the most promising avenues at the frontier of science, on the basis of Union-wide competition"

- Scientific excellence
- Bottom-up approach**
- individual (IP-centered) research** supported
- Attractive long term funding
- Commitment** from the Host Institution (HI), that must be in Europe
- Portability** of grants



European Research Council

Established by the European Commission



II. The European Research Council (ERC)- WP 2015

Starting Grants

starters
(2-7 years after PhD)
up to € 2.0 Mio
for 5 years

Consolidator Grants

consolidators
(7-12 years after PhD)
up to € 2.75 Mio
for 5 years

Advanced Grants

track-record of
significant research
achievements in the
last 10 years
up to € 3.5 Mio
for 5 years

Proof-of-Concept

bridging gap between research - earliest
stage of marketable innovation
up to €150,000 for ERC grant holders

II. ERC- Características StG

Starting Grants

PI Profile:

- Any current place of work but working or moving to work in Europe (EU MS or FP7 AC)
- Any nationality or age
- Over 2 and up to 7 years of experience after PhD
- Potential for independence and evidence of maturity
- Good track-record of early research achievements, appropriate to their research field and career stage

PI Commitment:

- Minimum 50% of PI working time on ERC project
- Minimum 50% of PI working time in a EU Member State or Associated Country

Funding:

Up to 1.5 million € for a period of 5 years (pro rata for projects of shorter duration).

Up to 0.5 million € additional

II. ERC – Características CoG

PI Profile:

- Any current place of work but working or moving to work in Europe (EU MS or FP7 AC)
- Any nationality or age
- Over 7 and up to 12 years of experience after PhD
- Independence and evidence of maturity shown
- Promising track-record of early research achievements, appropriate to their research field and career stage

PI Commitment:

- Minimum 40% of PI working time on ERC project
- Minimum 50% of PI working time in a EU Member State or Associated Country

Funding:

Up to 2.0 million € for a period of 5 years (pro rata for projects of shorter duration).

Up to 0.75 million € additional

II. ERC – Características AdG

PI Profile:

- Any current place of work but working or moving to work in Europe (EU member state, FP7 Associated Country)
- Any nationality or age
- Strong leadership profile (impact, recognition,...)
- Excellent track record in recent years (achievements during the last 10 years)

PI Commitment:

- Minimum 30% of PI working time on ERC project
- Minimum 50% of PI working time in a EU Member State or Associated Country

Funding:

Up to 2.5 million € for a period of 5 years (pro rata for projects of shorter duration).

Up to 1.0 million € additional

II. The European Research Council (ERC)- Paneles

Life Sciences

- LS1 Molecular & structural biology & biochemistry
- LS2 Genetics, genomics, bioinformatics & systems biology
- LS3 Cellular and developmental biology
- LS4 Physiology, pathophysiology & endocrinology
- LS5 Neurosciences & neural disorders
- LS6 Immunity & infection
- LS7 Diagnostic tools, therapies & public health
- LS8 Evolutionary, population & environmental biology
- LS9 Applied life sciences & biotechnology

Social Sciences and Humanities

- SH1 Markets, individuals and institutions
- SH2 The social world, diversity, institutions and values
- SH3 Environment, space and population
- SH4 The human mind and its complexity
- SH5 Cultures & cultural production
- SH6 The study of the human past

Physical Sciences & Engineering

- PE1 Mathematics
- PE2 Fundamental constituents of matter
- PE3 Condensed matter physics
- PE4 Physical & analytical chemical sciences
- PE5 Materials & synthesis
- PE6 Computer science & informatics
- PE7 Systems & communication engineering
- PE8 Products & process engineering
- PE9 Universe sciences
- PE10 Earth system science

II. The European Research Council (ERC)- propuesta

PART A – online forms

Info on Proposal, PI, HI and overall budget

Annexes – submitted as .pdf

Statement of support of HI

If applicable: explanatory information on ethical issues; copy of PhD (StG, CoG); document for extension of eligibility window (StG, CoG)

PART B1 – submitted as .pdf

- Extended Synopsis 5 p.
- CV 2 p.
- Track Record 2 p.

Funding ID beyond the 2 page limit CV

Explanatory comment if interdisciplinary. Optional CV template

PART B2 – submitted as .pdf

- Scientific Proposal 15 p.
- Template for the budget

II. ERC- Evaluation and resubmission rules WP 2016

Evaluation of *excellence* at two levels

• Excellence of the Research Project

- ✓ Ground breaking nature
- ✓ Potential impact
- ✓ Scientific Approach

• Excellence of the Principal Investigator

- ✓ Intellectual capacity
- ✓ Creativity
- ✓ Commitment

Resubmission rules for 2016 applicants

- Those who receive **B** at Step 1 have to wait out one year to apply again
- Those who receive a **C at Step 1** will have to wait out two years to apply again
- All candidates having reached Step2 can apply again in the next call for proposals

II. ERC- Convocatorias 2017

	StG	CoG	AdG	PoC
Call Opens	19 July 2016	20 Oct. 2016	16 May 2017	05 OCT 2016
Deadline(s)	18 OCT 2016	09 FEB 2017	31 AUG 2017	19 JAN 2017 25 APR 2017 05 SEP 2017
Budget (M€)	605	575	567	20
(nr. of grants)	(415)	(320)	(245)	(130)
Results	April 2017 Sept. 2017	July 2017 Dec. 2017	Dec. 2017 Jul. 2018	+3

FET WP 2016-2017

- **FET Open:** (bottom-up). **Nuevas ideas** para tecnologías radicalmente nuevas.
- **FET Proactive:** Áreas concretas. **Consolidar comunidades de investigación** y crear masa crítica.
- **FET Flagships:** Graphene y Human Brain Project.

Open, light and agile ← → Roadmap based research

FET-Open

Early Ideas

Individual
research projects

**Exploring
novel ideas**

FET Proactive

*Exploration and
Incubation*

Topical clusters
of research projects

**Developing
topics & communities**

FET Flagships

*Large-Scale
Partnering Initiatives*

Common research
agendas

**Addressing
grand challenges**



GOBIERNO
DE ESPAÑA

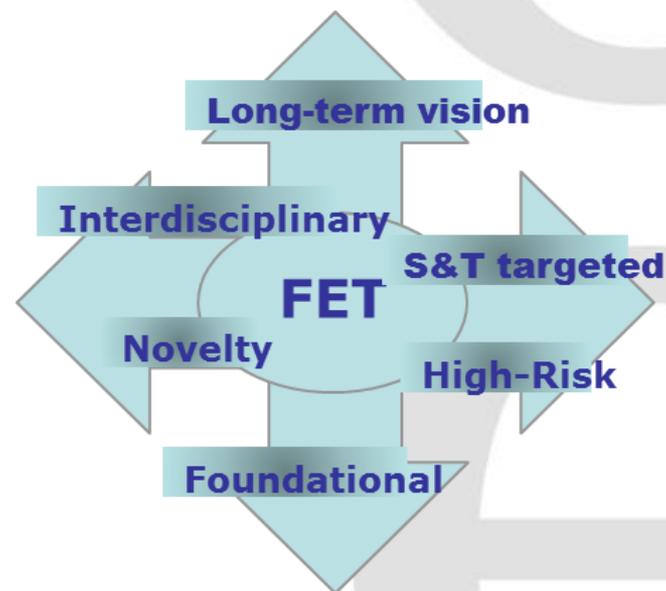
MINISTERIO
DE ECONOMÍA
Y COMPETITIVIDAD

oficina
europea

III. Líneas de actividad: FET OPEN

FINALIDAD: investigación colaborativa no convencional y en su etapa inicial en torno a nuevas ideas que den lugar a tecnologías futuras y radicalmente novedosas

- ❑ **“Novel ideas for radically new technologies”**
- ❑ Detección temprana de nuevas áreas, desarrollos y tendencias involucrando nuevos actores.
- ❑ **40% del presupuesto total**
- ❑ **FET Gatekeeper:** define el alcance de la investigación que se busca, todos deben cumplirse
- ❑ “Open is open”, selección bottom-up
- ❑ Propuestas no anónimas, en una fase, 16 páginas
- ❑ 160M € 2014-2015 – 260M€ 2016-2017



FETOPEN-01-2016-2017 (RIA)

Acciones de investigación e innovación:

- Proyectos I+D en cualquier área o línea de investigación. No solo ICT.
- Proyectos “bottom up” pero no “blue sky research” (No ERC) Orientado a la tecnología
- **TRL 1 -3.** Resultados proyecto FET **prueba experimental** de un concepto en laboratorio.

Technology Readiness Levels

- TRL 0: Idea.** Unproven concept, no testing has been performed.
- TRL 1: Basic research.** Principles postulated and observed but no experimental proof available.
- TRL 2: Technology formulation.** Concept and application have been formulated.
- TRL 3: Applied research.** First laboratory tests completed; proof of concept.
- TRL 4: Small scale prototype** built in a laboratory environment ("ugly" prototype).
- TRL 5: Large scale prototype** tested in intended environment.
- TRL 6: Prototype system** tested in intended environment close to expected performance.
- TRL 7: Demonstration system** operating in operational environment at pre-commercial scale.
- TRL 8: First of a kind commercial system.** Manufacturing issues solved.
- TRL 9: Full commercial application,** technology available for consumers.

ESTRUCTURA DE LAS PROPUESTAS

Part A: Administrative part of the proposal

Part B : Scientific part of the proposal

16 pages – core proposal

Cover page

Section 1: S&T Excellence

Section 2: Impact

Section 3: Implementation

Additional information

Section 4: Members of the consortium

E.g. legal entity, CV, subcontract, third party

Section 5: Ethics and Security

Ethics self-assessment & supporting documents

Security checklist

Cover page strictly limited to 1 page

Section 1,2 & 3 are strictly limited to 15 pages!

Section 4 & 5 are not covered by the page limit.

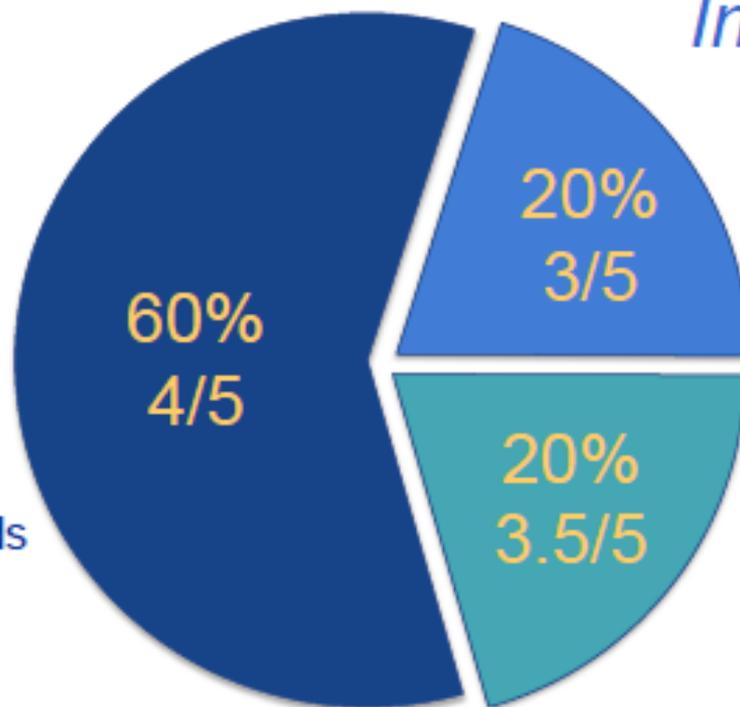
Enlace a la convocatoria:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/fetopen-01-2016-2017.html>

III. Evaluación: FET OPEN

S&T quality

Clarity of target
Long-term vision
Novel
Foundational
Inter-disciplinary
Soundness of methods



Implementation

Detail of workplan
Expertise
Resource allocation

Impact

Technology outcome
Transformational
Leadership

III. Convocatorias: FET OPEN

FET OPEN		
FETOPEN-01-2016-2017 (RIA)	FET-Open research and innovation actions	84 M€+ 84 M€ + 84 M€
FETOPEN -02-2016 (CSA)	FET-Open Coordination and Support Actions	3 M€
FETOPEN-03-2017 (CSA)	FET-Open Coordination and Support Actions	1,5 M€
FETOPEN-04-2016-2017 (CSA)	NEW! FET Innovation Launchpad	3 M€

Tipo de acción	Presupuesto		Deadlines
	2016	2017	
FETOPEN-01-2016-2017 (RIA) (abre 8 de diciembre 2015)	84 m€	84 M€ 84 M€	11 MAYO 2016 17 ENERO 2017 27 SEPTIEMBRE 2017

III. Líneas de actividad: FET PROACTIVE

FINALIDAD: Impulsar **iniciativas temáticas emergentes** que están en fase de maduración para estructurar nuevas comunidades interdisciplinares a su alrededor y apoyar el diseño y desarrollo de temas de investigación transformadores de forma conjunta (generar masa crítica)

- **Explorar** diversas direcciones y crear **un *pool* de conocimiento y nuevas alianzas interdisciplinares alrededor de temas emergentes prometedores** que permitan dirimir el camino hacia nuevas tecnologías.
- **Transformar** ciencia en **direcciones tecnológicas determinadas** por medio de proyectos que se basan en pruebas de concepto y que pretenden llevarlas a una escala de desarrollo superior.

III. Líneas de actividad: FET PROACTIVE

Proyectos con resultados concretos para:

- Madurar **nuevas áreas estructurando comunidades emergentes** y apoyando el diseño y desarrollo de temas científicos transformadores y **nuevas comunidades de investigación interdisciplinaria**.
- Establecer cimientos e **impulsar ecosistemas innovadores** en nuevas tecnologías

WP 2014 - 15

- Sistemas científicos globales (GSS)
- Knowing, doing, being
- Cognición más allá de resolución de problemas
- Simulación cuántica

Presupuesto total: 35 M€

WP 2016 - 17

- Tecnología futuras para el cambio social
- Biotecnología para una vida mejor
- Tecnologías de la información disruptivas
- Nuevas tecnologías para energía y materiales futuros

ERANET COFUND “Chistera”

ERANET COFUND Tecnologías Cuánticas

Presupuesto total: 95 M€

Proyectos entre 4-10 M€ y hasta 5 años

III. FET PROACTIVE: Boosting Emerging Technologies

- **Incremento** de casi 3 veces el presupuesto en comparación a WP2014/15
- **10 subtopics** identificados tras consulta pública y otras fuentes (Comité Programa, FETAG, ETP4HPC, ...)
- Cada vez más “bottom – up” en su diseño sin perder el enfoque “estratégico”.
- Propuestas: 30+1 páginas.
- Proyectos entre 4-10 M€, duración de hasta 5 años. 3 a 8 socios por proyecto.
- Propuestas enfocadas a un solo subtopic no a varios.
- Un solo *deadline, one step submission*.

FET PROACTIVE: Boosting emerging technologies		95 M€
FETPROACT-01-2016	FET Proactive: emerging themes and communities (RIA)	80 M€
FETPROACT-02-2017	FET ERANET COFUND (CHIST-ERA)	5 M€
FETPROACT-03-2016	FET ERANET COFUND Quantum Technologies	10 M€

Cerradas el 12 de abril

Proactive Consultation Overview

- **59 contributions** + 296 comments
- They cover a **broad range of topics**:
 - decentralised media and information services (3),
 - bio-medical technologies (11),
 - new components (notably spin-based) (14)
 - complex adaptive systems (5)
 - Science, art, design (3)
 - global systems science (2)
 - New computational paradigms (5)
 - energy (3)
 - sustainability (2)
 - geology (2)
 - cosmology (1)
 - smart materials (3)
 - robotics (1)
 - High-Performance computing (1)
 - Human-computer interaction (1)
- 16 have been submitted through organised efforts (**CSAs, COST actions, Platforms**); others by **single institutions** often with supporting information on global developments.

Enlace a consulta pública Proactive: <https://ec.europa.eu/futurium/en/digital4science/consultations/fet-proactive>

III. Future and Emerging Technologies: FET FLAGSHIPS

FINALIDAD: Reducir la fragmentación y optimizar recursos en relación a la investigación e innovación alrededor de las Flagships

Graphene & Human Brain Project selected



Stimulating ideas & structuring the scientific community
2009 - 2010

Call for Preparatory Actions
21 → 6
July 2010

Preparatory Phase Pilots
05/2011 - 04/2012

Flagship selection
6 → 2
end 2012

FP7 ramp-up phase
10/2013- 03/2016

SCIENCE WORLD REPORT

Home Space & The Future Nature & Environment Health & Medicine Tech Physics Human

Brain Simulation and Graphene Research Receive Billion Euro Each

0 Comments 0 Likes 0 Shares 0 Retweets 0 Email 0 Print

The result of the highly anticipated decision of which two research projects will receive a one billion Euro research grant, the largest single research award ever, from the European Commission were announced by the European Commission's Vice President Neelie Kroes today.



The first project is the **Human Brain Project**, led by neuroscientist Henry Markram at the Swiss Federal Institute of Technology (EPFL) in Lausanne, which aims to simulate the human brain in a supercomputer. In order to aid medical advancement in brain disorders.

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III. Future and Emerging Technologies: FET FLAGSHIPS



- ❑ Estudio, simulación y comprensión del uso del cerebro y aplicación a tecnologías de la información (incluida supercomputación y computación neuromórfica).
- ❑ Coordinado por la Escuela Politécnica de Lausana (Suiza). Participan 87 grupos de investigación.
- ❑ www.humanbrainproject.eu <http://flagera.eu/>



- ❑ Trasladar la investigación en grafeno y materiales 2D desde la academia a los mercados, aprovechando el liderazgo científico europeo.
- ❑ Propiedades del grafeno muy atractivas: 2D; transparente; flexible; conductor de electricidad, conductor calor (mejor que el acero), resistencia, estable químicamente, biocompatible, impermeable...
- ❑ Coordinado por Chalmers University of Technology (Suecia), 75 entidades participantes
- ❑ <http://graphene-flagship.eu/>

Flagship Consultation

Overview of Contributions

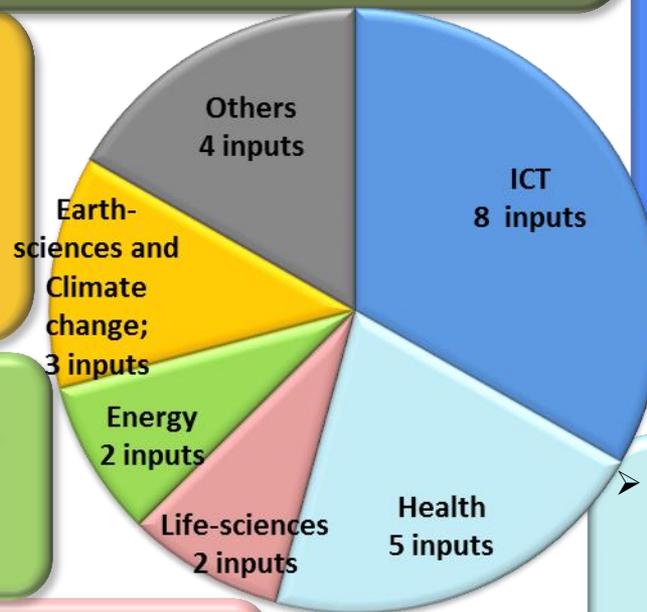
- **Social Sciences and humanities:** *A multidimensional model of Venice and its evolution; Computational sociology capturing the complexity of society and human behaviour*
- **Economy and finance:** *Moving European finance onto standardised pan-European virtual platforms; building a new global governance infrastructure based on interdisciplinary education*

- **Materials, nanocomponents, and systems:** *nanoarchitectronics, superconductors, Quantum Engineering for Silicon Technology*
- **Robotics, interfaces, computational linguistics:** *Robot companions, representing meaning & content, interface technologies for*
- **Big data, computing and health:** *Digital health, sensory restoration*

- **Climate simulation and modelling:** *HPC platform for developing very high resolution models of the climate; Mitigating climate change impacts along the agro-food chain*
- **Computing, modelling & simulation for understanding the earth system**

- **Technologies for Energy:** *Direct conversion of Solar Energy*
- **Computing and modelling:** *Forecasting the energy demand, consumptions and price*

- **Synthetic biology:** *Building a synthetic cell*
- **Cell biology:** *The 4D Nucleome (understanding how the full human genome functions)*



- **Personalized medicine and S&T for health:** *The future of health care (individualised healthcare and disease prevention system), A 4D human atlas, Biosensors for point of care applications*
- **Stem cell biology, bioprinting and regenerative medicine:** *Regenerative medicine, HOPE (printing human organs)*

Flagships consultation

Links to the proposals (1/2)

Nanoarchitectronics – University of Sienna (IT)

<https://ec.europa.eu/futurium/en/content/nanoarchitectronics>

Superconductors – CEA Saclay (FR)

<https://ec.europa.eu/futurium/en/content/superconductors>

Quantum Engineering for Silicon Technology – Consiglio Nazionale delle Ricerche (IT)

<https://ec.europa.eu/futurium/en/content/quantum-engineering-silicon-technology-0>

Robot Companions for Citizens ++ – Scuola Superiore Sant'Anna, The BioRobotics Institute (IT)

<https://ec.europa.eu/futurium/en/content/robot-companions-citizens>

Fet Flagship Initiative in Sensory Restoration – The Vision Institute, Paris (FR)

<https://ec.europa.eu/futurium/en/content/fet-flagship-initiative-sensory-restoration>

Meaning: universal multisensorial meaning representation stimulating tailored information exchange – KU-Leuven (BE)

<https://ec.europa.eu/futurium/en/content/meaning-universal-multisensorial-meaning-representation-stimulating-tailored-information>

ACE: ACcessible Europe – Istituto Italiano di Tecnologia - Robotics, Brain and Cognitive Sciences (IT)

<https://ec.europa.eu/futurium/en/content/ace-accessible-europe>

Proposal for "Digital Health" Flagship – School of Computer Science, University of Manchester (UK)

<https://ec.europa.eu/futurium/en/content/proposal-digital-health-flagship>

HOPE (Human Organ Printing Era) – University Medical Center Utrecht (NL)

<https://ec.europa.eu/futurium/en/content/hope-human-organ-printing-era>

Biosensors for Point-of-Care Applications – Institute of Neurological Sciences - Italian National Research Council (IT)

<https://ec.europa.eu/futurium/en/content/biosensors-point-care-applications-0>

European Initiative for Regenerative Medicine – Italian Regenerative Medicine Infrastructure (IT)

<https://ec.europa.eu/futurium/en/content/european-initiative-regenerative-medicine>

The Future of Health Care – Max Planck Institute for Molecular Genetics Berlin (DE)

<https://ec.europa.eu/futurium/en/content/future-health-care-deep-data-smart-sensors-virtual-patients-and-internet-humans>

Flagships consultation

Links to the proposals (2/2)

A 4D Human Atlas: Charting Human Development and Ageing in Health and in Disease - Department of Computer Science and Applied Math and Department of Biological Chemistry, Weizmann Institute of Science, Rehovot , Israel

<https://ec.europa.eu/futurium/en/content/4d-human-atlas-charting-human-development-and-ageing-health-and-disease>

Building a Synthetic Cell - Technical University Delft (NL)

<https://ec.europa.eu/futurium/en/content/building-synthetic-cell>

The 4DNucleome Initiative in Europe – CNAG-CRG (ES) on behalf of The 4DNucleome Community in Europe

<https://ec.europa.eu/futurium/en/content/4dnucleome-initiative-europe>

Direct Conversion of Solar Energy: Renewables and More - University of Leiden (NL)

<https://ec.europa.eu/futurium/en/content/direct-conversion-solar-energy-renewables-and-more>

Forecast of the Energy Price – University of Rome "Tor Vergata" (IT)

<https://ec.europa.eu/futurium/en/content/forecast-energy-price-0>

Climate change impacts along the agro-food chain: End-user relevant research for food security - Thünen Institute of Market Analysis (DE)

<https://ec.europa.eu/futurium/en/content/climate-change-impacts-along-agro-food-chain-end-user-relevant-research-food-security>

The Ultimate Earth Project as an FET Flagship - British Geological Survey (UK) and EPFL (CH)

<https://ec.europa.eu/futurium/en/content/ultimate-earth-project-fet-flagship>

A Flagship European Programme on Extreme Computing and Climate - University of Oxford (UK)

<https://ec.europa.eu/futurium/en/content/flagship-european-programme-extreme-computing-and-climate>

The New Capacity Building Programme Flagship Project – IMNRC-NewPOL Network (BE)

<https://ec.europa.eu/futurium/en/content/new-capacity-building-programme-flagship-project>

Universal Digital European Finance EDUF – Loughborough University (UK)

<https://ec.europa.eu/futurium/en/content/universal-digital-european-finance-eduf>

Venice Time Machine Flagship – EPFL (CH)

<https://ec.europa.eu/futurium/en/content/venice-time-machine-flagship>

Computational Socio-Geonomics/Metaloger, The Peoples' Toolkit – Independent Professional Services Ltd (UK)

<https://ec.europa.eu/futurium/en/content/computational-socio-geonomicsmetaloger-peoples-toolkit>

IV. Marie Skłodowska-Curie Actions (MSCA): finalidad

Asegurar el desarrollo óptimo y uso dinámico del capital intelectual de Europa para generar nuevas habilidades, conocimiento e innovación

- Apoyo a la **carrera** investigadora
- Movilidad**: dimensión triple “i”: internacional, intersectorial, interdisciplinar
- Fomento de nuevas **habilidades** y competencias
- Amplia participación industrial: participación de **empresas** (incluyendo PYMES) y actores **socio-económicos**
- Excelentes **condiciones de trabajo y empleo**, equilibrio de **género** e igualdad de oportunidades
- Fuerte énfasis en **actividades de divulgación** y en actividades de comunicación de la investigación
- Enfoque **Bottom-up**

CHE Chemistry	SOC Social Sciences and Humanities	ECO Economic Sciences	ENV Environmental Sciences and Geology	ENG Information Sciences and Engineering	LIF Life Sciences	MAT Mathematics	PHY Physics
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IV. ¿Qué criterios debe cumplir un investigador para optar a una MSCA?

1. EXPERIENCIA INVESTIGADORA: En función de la misma optarán a diferentes modalidades:

- Investigadores PRE-DOCTORALES (Early Stage Researchers – ESR)** que se encuentren en **sus primeros 4 años de carrera investigadora a tiempo completo** y que no hayan obtenido el título de doctor en el momento de su contratación (modalidad en Red ITN)
- Investigadores POST-DOCTORALES (Experienced Researchers – ER)**, **con título de Doctor** o acreditación de un mínimo de 4 años de experiencia en investigación a tiempo completo a la fecha límite de presentación de propuestas (modalidad Individual IF)

2. REGLA DE MOVILIDAD

- El investigador que desee presentar la propuesta **no podrá haber residido ni trabajado en el país del centro de acogida más de 12 meses en los 3 años anteriores:**
 - ✓ a la fecha de cierre de convocatoria (Acciones Individuales IF para Investigadores ER)
 - ✓ a la fecha de la primera contratación (Acción en Red ITN para Investigadores ESR)
- Dentro de las Acciones Individuales existen excepciones a la regla de la movilidad, reglas específicas de movilidad para algunos de las submodalidades y restricciones de nacionalidad

IV. Conceptos clave MSCA

2 SECTORES IDENTIFICADOS

- Sector académico:** organismos públicos o privados de educación superior que otorgan títulos académicos, organizaciones de investigación públicas o privadas sin ánimo de lucro donde la misión principal sea la investigación Organizaciones internacionales de Interés
- Sector no académico:** cualquier actor socio-económico no incluido en el sector académico y que cumpla las reglas de participación en H2020. Por ejemplo: PYMEs, hospitales, grandes empresas, ONGs, fundaciones, organismos gubernamentales, organizaciones internacionales, bibliotecas, museos, etc.

2 TIPOS DE PARTICIPANTES

TIPO	Firma Acuerdo Subvención (GA)	Contratación personal ESR / ER	Formación / Estancias	Participación Comité Supervisor	Solicitud Fondos
Beneficiario	✓	✓	✓	✓	✓
Partner Organization	X	X	✓	✓	X

IV. Conceptos clave MSCA



3 CATEGORÍAS DE PAÍSES

- Estados Miembros (MS)
- Países Asociados (AC)
- Terceros Países (TC)

Mínimos de participación variarán en función de la modalidad

I. MSCA 2016 Calls: 1.600M€ (2016/2017)/ 6.162M€ H2020



ITN
Innovative Training Networks

What does it offer?
High-quality research training delivered through international and interdisciplinary networks, industrial doctorates or joint doctorates

Who applies?
International networks of research organisations from the academic and non-academic sectors

Who is funded?
Researchers at doctoral level (less than four years of full-time research experience and no doctoral degree)

Open until 10/01/2017



IF
Individual Fellowships

What does it offer?
Opportunities to work on personal research projects by moving between countries and possibly sectors to acquire new skills

Who applies?
Individual researchers together with the host organisation

Who is funded?
Postdoctoral researchers

Open until 14/09/2017



RISE
Research and Innovation Staff Exchange

What does it offer?
The exchange of staff members involved in research and innovation to develop sustainable collaborative projects and the transfer of knowledge

Who applies?
International networks of research organisations from the academic and non-academic sectors

Who is funded?
Researchers, technical, administrative and managerial staff of any nationality and at all career levels

Open until 05/04/2017



COFUND
Co-Funding of Regional, National and International Programmes

What does it offer?
Regional, national or international programmes to foster excellence in researchers' training, mobility and career development

Who applies?
Organisations funding or managing doctoral programmes or fellowship programmes

Who is funded?
Researchers at doctoral and postdoctoral level

Open until 28/09/2017



European Researchers' Night (NIGHT)

IV. Innovative Training Networks (MSCA - ITN)

FINALIDAD: Mejorar la «empleabilidad» de los jóvenes investigadores (ESRs) mediante una formación en una red internacional y con participación empresarial y fomentar la **excelencia** y **estructurar la formación doctoral a nivel europeo**

ACTIVIDADES COMUNES

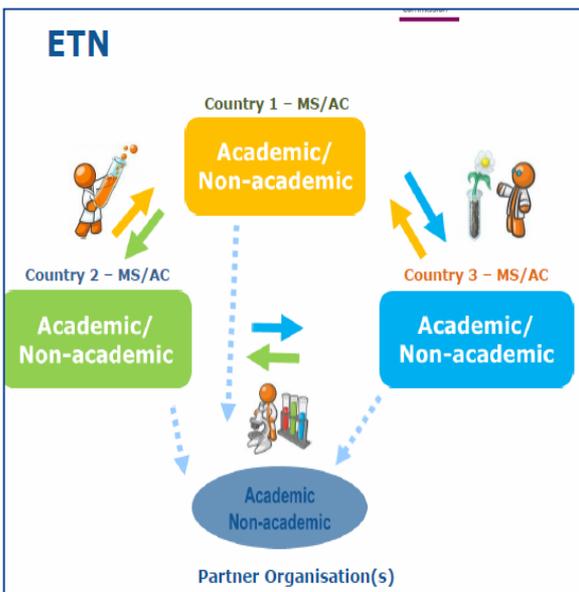
- Creación de un consorcio internacional – intersectorial en el que se contratará y formará a ESRs
- Capacitación en **investigación avanzada** y formación complementaria en **transferable skills**
- Contratación mínima de 3 meses hasta un máximo de 36 meses, duración proyectos: 48 meses

3 MODALIDADES

- European Training Network (ETN):** consorcio mín. 3 beneficiarios de 3 Estados Miembros/ Países Asociados, realización de un proyecto conjunto con líneas de investigación individuales
- European Industrial Doctorate (EID):** consorcio mín. 2 beneficiarios de 2 EM / PA, 1 del sector académico, otro del sector industrial. Programa de Doctorado en el que el ESR pasará un 50% del tiempo en la empresa
- European Joint Doctorate (EJD):** consorcio mín. 3 beneficiarios de 3 EM/ PA, del sector académico, dando lugar a la obtención de un doctorado conjunto / doble / múltiple

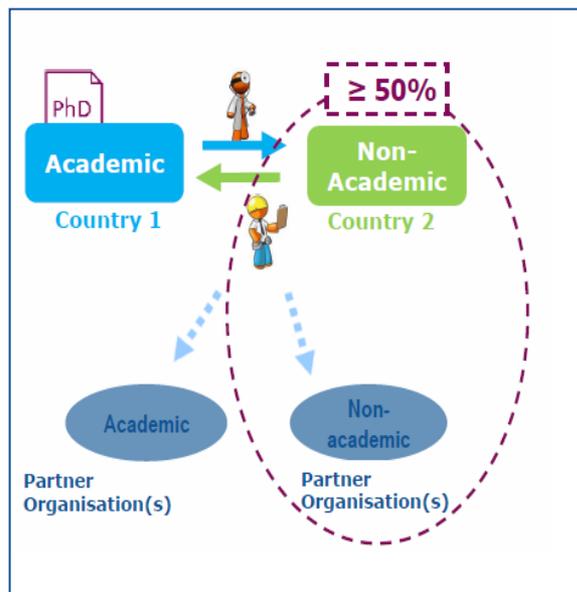
IV. Innovative Training Networks (MSCA - ITN)

European Training Networks



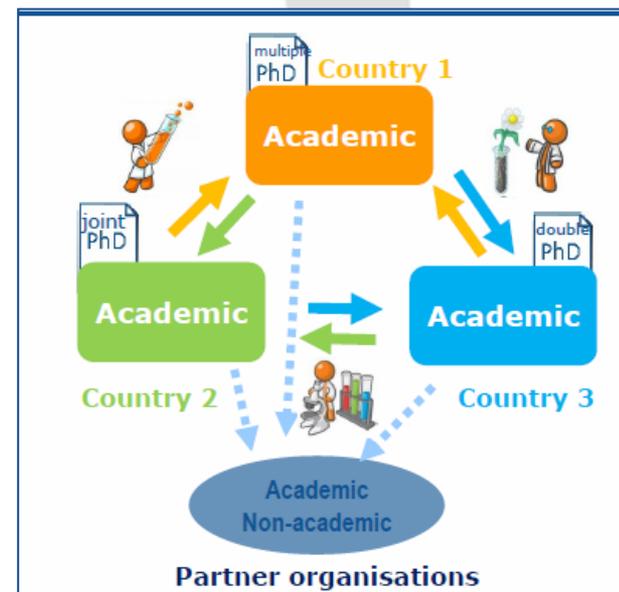
- Programa conjunto de formación / investigación
- 3 beneficiarios MS / AC de cualquier sector
- Contratación máx. 15 ESR, 36 meses
- 30% estancias en otros socios

European Industrial Doctorates



- Programa de doctorado
- 2 o + beneficiarios MS / AC
- 1 sector académico / sector no-académico
- Contratación máx. 5 ESR, 36 meses
- 50% estancias sector empresarial

European Joint Doctorates



- Programa conjunto de doctorado, obtención título conjunto / múltiple
- 3 beneficiarios MS / AC, las entidades serán del sector académico (otorgando títulos de doctorado)
- Contratación máx. 15 ESR, 36 meses

IV. Individual Fellowships (MSCA - IF)

FINALIDAD: Mejorar el **potencial de investigadores con experiencia (ER)**, mediante la **adquisición de nuevos conocimientos interdisciplinares** y nuevas habilidades gracias al el desarrollo de **proyectos de investigación en Europa o fuera de ella.**



EUROPEAN FELLOWSHIPS (EF): facilitan la movilidad entre países europeos y hacia Europa mediante la realización de proyectos de 12 a 24 meses de duración.

Paneles específicos de apoyo a investigadores que deseen retomar su carrera investigadora tras un periodo de inactividad (CAR) y para aquellos que deseen retornar a Europa a un puesto más permanente (RI)



GLOBAL FELLOWSHIPS (GF): permiten la movilidad para realizar un periodo de investigación en un tercer país (de 12 a 24 meses) con fase final de retorno a Europa (12 meses).

IV. Research and Innovation Staff Exchange (MSCA – RISE)

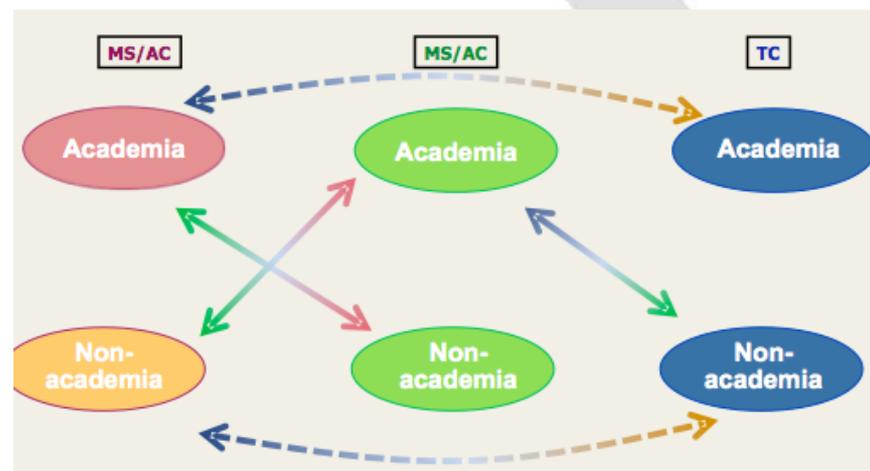
FINALIDAD: promover la colaboración internacional e intersectorial a través del **intercambio de personal** investigador e innovador mediante el desarrollo de un proyecto de investigación e innovación conjunto

DEFINICIÓN DE PERSONAL / STAFF

- Vinculación contractual en temas de I+D+i, 6 meses antes de la realización de la 1ª estancia
- ER, ESR, Personal de administración – técnico – de investigación

CARACTERÍSTICAS COMUNES

- Intercambios de personal de 1 a 12 meses
- No existe regla de movilidad**
- Todos los países pueden participar en RISE (no todos los Terceros Países reciben financiación)
- Proyectos de 48 meses



II. Financiación y evaluación MSCA

100% financiación Costes Unitarios

MSCA	Researcher Unit Cost (person/month)			Institutional Unit Cost (person/month)	
	Living Allowance *	Mobility Allowance	Family Allowance	Research, training and networking	Management and overheads
ITN	3.110	600	500	1.800	1.200
IF	4.650	600	500	800	650
RISE	2.000			1.800	700
COFUND (co-financing 50%)	ESR		3.710	650	
	ER		5.250		

3 criterios evaluación

Criteria	Weight	Priority (ex.aequo)
Excellence	50%	1
Impact	30%	2
Implementation	20%	3

- Necesidad de obtener un mínimo de 70% en la evaluación...**programa muy competitivo** (ITN: del 7% al 18% en función modalidad)
- Sub-criterios específicos por Convocatoria
- Más información en GfA, Parte B

V. Más Información - Agentes

ERC

- Representante: Jose Luis Garcia (MINECO-CSIC)
- NCP: Lucía del Rio (ISCIII) ldrio@isciii.es
- NCP y experto: Esther Rodriguez (OE) esther.rodriguez@oficinaeuropea.es
- Experto CCAA: Amaia Esquisabel (Gobierno Vasco)

FET

- Representante y NCP: Nicolás Ojeda (Oficina Europea)
- Experto: Fernando Martin Galende (CDTI)
- NCP: Severino Falcon (MINECO) severino.falcon@mineco.es
- NCP: Pablo Fernández (UPC) pablo.fernandez.gonzalez@upc.edu
- Experto CCAA: Amaia Esquisabel (Gobierno Vasco)

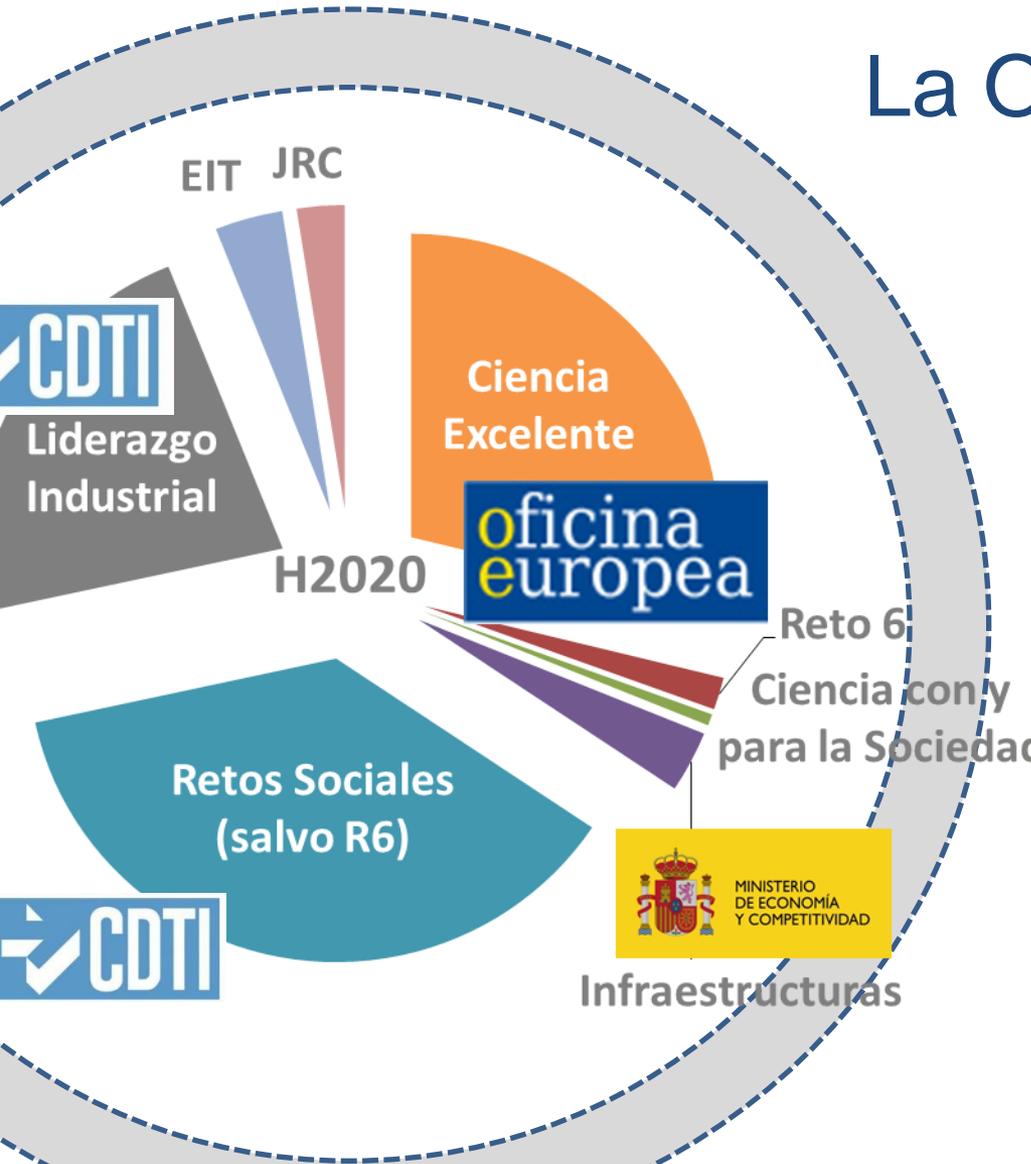
MCOSA

- Representante: Antonio Skarmeta (MINECO-UM)
- NCP y experto: Cristina Gómez Corchete (OE) cristina.gomez@oficinaeuropea.es
- NCP: Jesús Rojo (madrimasd) jesus.rojo@madrimasd.org
- Experta CCAA: Amaia Esquisabel (Gobierno Vasco)

INFRAS.

- Representante: Inmaculada Figueroa (MINECO)
- NCP: Marta March (INTA) marta.march@inta.es
- NCP: Gloria Villa (ISCIII) gvillar@isciii.es
- Experto: Paloma Dorado (CDTI)
- Experto CCAA: Juan Ruiz (ACIISI)

La OFICINA EUROPEA



Objetivo

- Promote the participation and leadership of Spanish R&I centres in H2020.

Areas

- EXCELLENT SCIENCE: ERC, FET & MSCA
- SWAFS
- Challenge 6
- COST

Target group

- OPs, Universities, public R&I institutions

V. Enlaces de interés

<http://www.eshorizonte2020.es/>



<https://twitter.com/EsHorizonte2020>



<https://www.linkedin.com/groups/EsHorizonte2020-7412129>



<https://www.youtube.com/channel/UCeCRYQLW28pj5IDcjvsDk2w>



MUCHAS GRACIAS

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