



Horizonte 2020

'Salud, cambio demográfico y bienestar'

Convocatoria 2015



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Comisión Europea

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Programa Marco Europeo para la Investigación e Innovación 2014-2020

- **El reto: establecer el marco económico y financiero y adoptar medidas para crear oportunidades económicas**

¿Qué es Horizonte 2020?



El programa de la UE 2014-2020 para Investigación e Innovación (~80.000 millon EUR*)

Una parte esencial de Europa 2020, Unión por la Innovación & Espacio Europeo de Investigación (EEI)

- **Combatiendo la crisis económica:** invertir para el crecimiento futuro y la creación de empleo
- **Respondiendo a las preocupaciones de los ciudadanos** respecto a su calidad de vida, seguridad y medio ambiente
- **Reforzando la posición Europea global** en investigación, innovación y tecnología

*Precios actuales

Horizonte 2020: ¿Qué es nuevo?

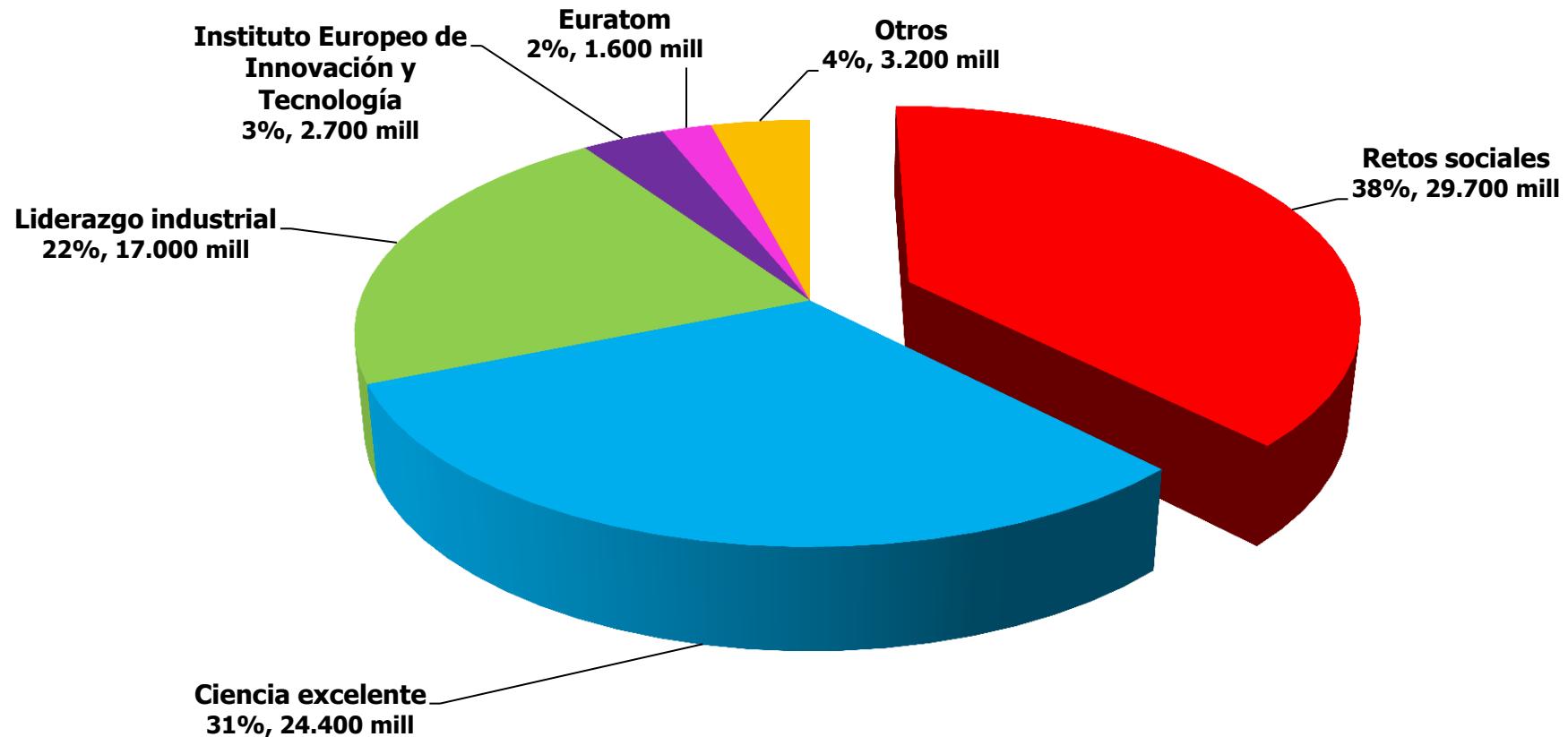
- **Un programa único** que engloba tres iniciativas diferentes*
- **Enlaza Investigación e Innovación** – desde la Investigación hasta el mercado, todas las formas de Innovación
- **Está enfocado hacia los retos sociales** de Europa, e.g. salud, energía limpia y transporte
- **Simplifica el acceso** para empresas, universidades y otras instituciones en todos los Estados Miembros y terceros países

*El Séptimo Programa Marco (FP7), el Programa Marco para la Innovación y la Competitividad (CIP), el Instituto Europeo para la Innovación y la Tecnología (EIT)

Tres pilares



Horizonte 2020 Presupuesto (78.600 millones EUR , precios actuales)



Retos sociales

Financiación propuesta (millon EUR*, 2014-2020)

Salud, cambio demográfico y bienestar	7 472
Seguridad alimentaria, agricultura sostenible, investigación marina y marítima y bioeconomía	3 851
Energía segura, limpia y eficiente*	5 931
Transporte inteligente, sostenible e integrado	6 339
Acción por el clima, medio ambiente, eficiencia de recursos y materias primas	3 081
Sociedades inclusivas, innovadoras y reflexivas	1 310
Sociedades seguras	1 695
<i>Ciencia con y para la sociedad</i>	462
<i>Difundiendo la excelencia y ampliando la participación</i>	816

*Precios actuales

Financiación propuesta

(millón EUR)

Convocatoria	2015*
Medicina personalizada y/o estratificada	543.50
Acciones coordinadas	29
Otras acciones	36
Actividades horizontales	0.77
Presupuesto total	609.27

*Sujeto a disponibilidad de presupuesto

Financiación: un conjunto único de reglas



- Comprende toda la investigación y acciones de innovación de H2020
- Mantiene la flexibilidad necesaria

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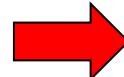
Estrategia Internacional de la Unión Europea para

Investigación & Innovación

- Retos globales
- Ciencia Internacional
- Oportunidades para la Innovación

Recapitulando: el reto 'Salud, cambio demográfico y bienestar'

Financiación propuesta 2014-2020 (millones EUR)



Salud, cambio demográfico y bienestar	7 472
Seguridad alimentaria, agricultura sostenible, investigación marina y marítima y bioeconomía	3 851
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El Programa de Trabajo 2014/15 en breve

Convocatoria 'medicina estratificada y/o personalizada'

34 objetivos (15 en 2014, **17 en 2015**, 1 convocatoria cada año)

Convocatoria para 'acciones coordinadas'

15 objetivos (10 en 2014, **5 en 2015**)

€ 1210
millones



Medicina Estratificada y/o Personalizada

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7 Áreas centrales

Comprender los factores determinantes de la salud, envejecimiento y enfermedad

Mejorar la promoción de la salud y la prevención de las enfermedades, la preparación y detección precoz

Mejora de los diagnósticos

Tratamientos y tecnologías innovadores

Envejecimiento activo y saludable

Promoción de la asistencia integrada

Mejora de la información sobre salud y el uso de los datos aportando una base de evidencia para formulación de políticas y legislación

Comprender los objetivos de la convocatoria: ejemplo

PHC 2 – 2015: Understanding diseases: systems medicine approaches

Specific challenge: The development of new improved understanding of the often very complex (bio) medicine approaches have the potential to transform a variety of biological and medical research domains. A collaborative approach is required to assemble the best available expertise from biology, medicine, mathematics, computational science and other relevant fields to develop new medicine approaches.

Scope: Proposals should focus on new avenues for understanding disease phenotypes in multifactorial diseases and/or development/optimisation and/or application of systems medicine approaches. This should involve the use of biomedical and clinical data to produce or refine computational and mathematical approaches. These should be validated in well-phenotyped patient cohorts, taking into account potential thoroughly investigated.

The Commission considers that proposals requesting up to EUR 4 and 6 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission of proposals requesting other amounts.

Expected impact: This will provide:

- Leverage of existing investments in Europe
- New directions for better disease detection and prevention
- Systems medicine tools and approaches that represent an improvement over existing ones

Type of action: Research and Innovation action

'PHC 2 – 2015'

'Specific challenge'

'Scope'

'Expected impact'

'Type of action'

Unravelling health and disease

- **PHC 2- Systems medicine approaches**
 - ✓ **Understanding the complexity of multifactorial diseases and/or their comorbidities by integration of biomedical and clinical data**
- **PHC 3- Common mechanisms of diseases and potential co-morbidities**
 - ✓ **Integration of pre-clinical and clinical studies for the identification of mechanisms common to several diseases**

From "omics" ... to prevention

- PHC 4- Inter-sector cooperation for environment- and health-based interventions
 - ✓ Quantitative and qualitative indicators, 'health in all' approach; Rio+20 agenda, UN Sustainable Development Goals, Parma declaration 2010
- PHC 9- Vaccine platforms for HIV
 - ✓ Platform for discovery of vaccine candidates, *in vitro* and *in silico*, pre-clinical and early clinical testing

In biomarkers we trust ... and in novel diagnostic tools

- PHC 11-In vivo medical imaging technologies
 - ✓ Innovative *in vivo* imaging tools and technologies.
 - ✓ Not novel applications of existing tools and technologies
- PHC 12-Clinical validation of biomarkers



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agnostic devices
ability of health care systems

Finding the cure ... and evaluating existing treatments

- **PHC 14-Therapies for rare diseases**
 - ✓ **New therapies, repurposing, animal model, preclinical research, GMP**
- **PHC 15- Clinical research on regenerative medicine**
 - ✓ **In-patient regenerative medicine research**

Finding the cure ... (2) and evaluating existing treatments

- **PHC 16-Tools and technologies for advanced therapies**
 - ✓ **Gene therapy, cell therapy, tissues engineering, regenerative medicine, bio-artificial organs**
- **PHC 18- Establishing effectiveness of health care interventions in the paediatric population**
 - ✓ **Understanding of effectiveness, efficacy, safety, HTA of healthcare interventions in the paediatric population**

Adding more life to our years

- **PHC 21-Early risk detection and intervention**
 - ✓ **Early risk detection and intervention(ICT based solutions) for healthy and active ageing**
- **PHC 22-Promoting mental wellbeing in the ageing population**
 - ✓ **Improving therapeutic management of older patients with mental conditions and disorders**
 - ✓ **Preventative strategies favouring the mental dimension of healthy ageing**

The citizen in the centre

- **PHC 24-Piloting personalised medicine in health and care systems**
 - ✓ **New models of care based on personalised medicine and Europe's diverse health systems**
- **PHC 25-Advanced ICT systems and services for integrated care**
 - ✓ **Tele-health and tele-care systems**

The citizen in the centre (2)

- **PHC 27&28-Self-management of health and disease:**
 - ✓ patient empowerment supported by ICT
 - ✓ based on predictive computer modelling
- **PHC 29-Public procurement of innovative eHealth services**
 - ✓ New or improved healthcare services in line with the eHealth Action Plan

**Improving health information,
data exploitation and providing an
evidence base for health policies
and regulation**

Big Data for research

- **PHC 30-Digital representation of health data to improve diagnosis and treatment**
 - ✓ **New decision support systems (DSS) for predictive and therapeutic interventions**
- **PHC 33-Improve predictive human safety testing**
 - ✓ **Early markers of toxicological effects, non-animal approaches for toxicity testing**



Co-ordination activities

Support for European and International Initiatives

- **Global Alliance for Chronic Disease**
 - ✓ Prevention and treatment of lung disease
- **European Reference Networks (2015)**
- **Joint Programming Initiative on Neurodegenerative Diseases**
 - ✓ Sustainability and globalisation





GACD Mission

- Facilitate joint research on non-communicable diseases in low- and middle-income countries and vulnerable communities in high-income countries
- Enable research findings to serve as the evidence base for policymakers
- Focus on innovative collaborations and partnerships

Completing the European Research Area

- **HCO 11 - Brain-related disorders**
 - ✓ Coordinate national and regional programmes for research in brain-related diseases
- **HCO 12 - Antimicrobial resistance**
 - ✓ Coordinate national and regional programmes to implement the Strategic Research Agenda of the Joint Programming Initiative (JPI) on Anti-Microbial Resistance (AMR)
- **HCO 13 - Cardiovascular diseases**
 - ✓ Transnational collaborative research



Other actions

Other actions

- HOA 7-eHealth sectorial inducement prize
 - ✓ Food scanner
- HOA 8-Inducement Prize
 - ✓ Rapid point of care test to reduce the use of antibiotics in upper respiratory tract infections

Strategic Initiatives



Innovative Medicines Initiative 2
www.imi.europa.eu



Active and Assisted Living 2
www.aal-europe.eu



European & Developing Countries
Clinical Trials Partnership (EDCTP2)
www.edctp.org



European Innovation Partnership on
Active and Healthy Ageing
<https://webgate.ec.europa.eu/eipaha>



The International Initiative for
Traumatic Brain Injury Research
(InTBIR)
<http://intbir.nih.gov/>



International rare diseases
research consortium
(IRDiRC)
www.irdirc.org

IMI2*: 2014-2024



- Key objectives:
 - success rate + 30% clinical trials on priority medicines**
 - clinical proof of concept in immunological, respiratory, neurological and neurodegenerative diseases
 - new and approved diagnostic markers for four of these diseases and at least two new medicines which could either be new antibiotics or new therapies for Alzheimer's disease.
- Proposed budget: €3.28 billion, equally shared between public and private partners
- Simplification: common H2020 rules, IPR
- New indicative topics published:

- Remote assessment
- Type 2 diabetes
- Neuropsychiatry
- Vaccine manufacture
- Pertussis vaccines
- Patient engagement

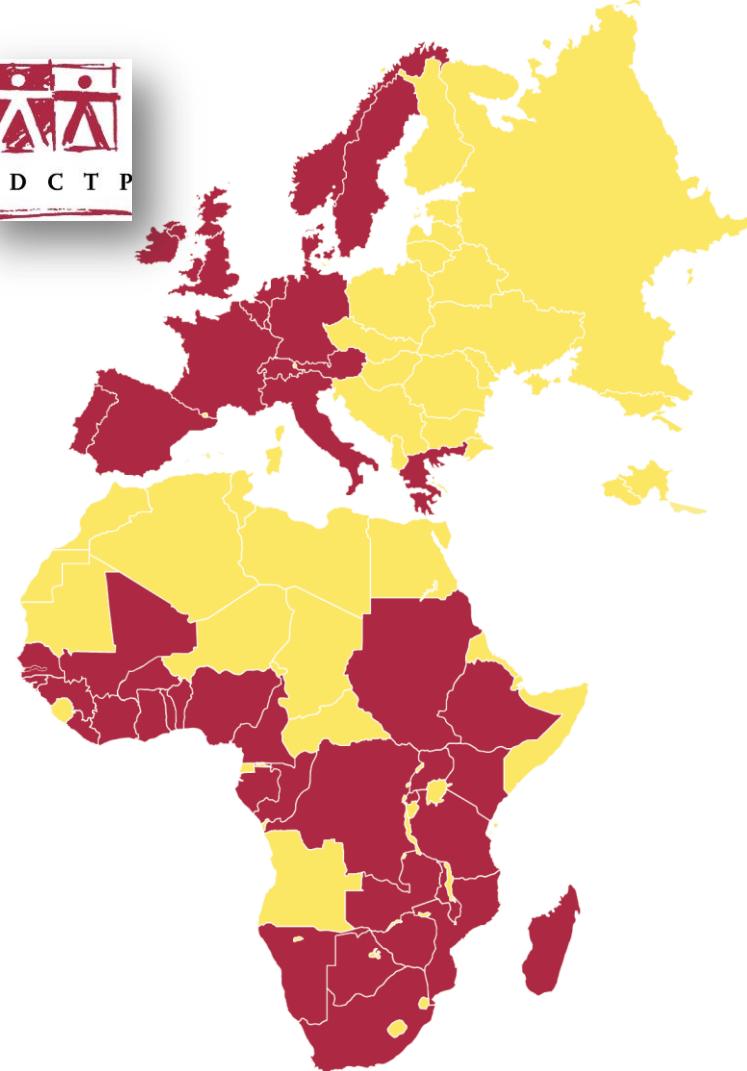
*Innovative Medicines Initiative 2, Art 187, JTI, PPP

**WHO Report, Priority Medicines for Europe and the World 2013 Update
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Not legally binding

EDCTP2*: 2014 - 2024



- **Broader scope**
HIV/tuberculosis/malaria +
neglected infectious diseases, all
clinical phases, diagnostics and
delivery optimisation
- **More EU co-funding**
€683 million
- **Longer duration**
10 years

*European and developing countries clinical trials partnership 2, Art 185, P2P

AAL2*: 2014 - 2022



- **AAL:** €600 million from 22 EU countries + EU funding €150 million
- **Scope AAL 2: Market-oriented ICT research in assisted living technologies & services**
- **New instruments:** e.g. prizes or innovation grants
- **More EU co-funding:** Participating countries pay €225 million (indicative), EU pays up to €175 million (indicative, ~40% of total public funding)



Fechas importantes

Plazos para el envío de propuestas 2015

Convocatorias en dos etapas: : 14 Octubre 2014 y 21 Abril 2015

Convocatorias en una etapa: 24 Febrero 2015 and 21 Abril 2015

Instrumento PYME:

- **Fase 1: 3 fechas límite: 18/06 ; 24/09 ; 17/12/2014**
- **Fase 2: 2 fechas límite: 09/10 ; 17/12/2014**

Diríjase a sus Puntos Nacionales de Contacto

http://ec.europa.eu/research/participants/portal/desktop/en/support/national_contact_points.html

¿Por qué no participar en la evaluación de propuestas?

The screenshot shows the European Commission Research & Innovation Participant Portal. The top navigation bar includes links for Home, Pending, Documents, My Organisations, Experts, and Support. The main content area is titled "RESEARCH & INNOVATION Participant Portal". On the left, there's a "LOGIN" section with a "Login" button and a "Register your account" link. Below it is a "HELP FOR EXPERTS" section with links for FAQ, Technical help, and Questions about FDP. A "NEWS FOR EXPERTS" box contains a message about the H2020 call for expression of interest for experts. A "QUICK LINKS FOR EXPERTS" box lists links for List of appointed experts, Expert recommendations, Logistics for Brussels, and Map of evaluation area. The central "EXPERT AREA" section features a sub-section titled "Join the database of independent experts for European research and innovation". It explains that the European Commission appoints independent experts to assist with research and innovation assignments, including the evaluation of proposals, review of projects, and monitoring of programmes or policies. To the right is a photograph of four people in a meeting. Below this are sections for "New Experts", "What do the assignments involve?", "Who can be an Expert?", "Registered Experts", and "Interested in participating as an expert for the European Commission?". The "What do the assignments involve?" section lists tasks like evaluating proposals, reviewing projects, monitoring progress, and giving advice on future research. The "Who can be an Expert?" section outlines requirements: high expertise, university degree, and availability. The "Registered Experts" section provides instructions for updating profiles. The "Interested in participating" section has two steps: creating an ECAR Account and registering/updating the profile.



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¡Gracias por su atención!

Más información:
www.ec.europa/research/horizon2020