



ALCUE NET

Latin America, Caribbean and European Union Network on Research and Innovation

Jornadas virtuales de Capacitación en H2020

Nanotecnologías; Materiales avanzados;
Fabricación y transformación avanzadas



Pilar 2: Liderazgo en tecnologías facilitadoras e industriales

Apoyo específico a la investigación, desarrollo y demostración

Nanotecnologías

- Desarrollo de la próxima generación de nanomateriales, nanodispositivos y nanosistemas
- Garantía de la seguridad en el desarrollo y aplicación de nanotecnologías
- Desarrollo de la dimensión social de la nanotecnología
- Síntesis y fabricación eficientes de nanomateriales, componentes y sistemas
- Desarrollo de técnicas, métodos de medición y equipos que aumenten la capacidad

Materiales avanzados

- Tecnologías de materiales transversales y de capacitación
- Desarrollo y transformación de materiales
- Gestión de componentes de materiales
- Materiales para una industria sustentable
- Materiales para las industrias creativas
- Metrología, caracterización, normalización y control de calidad
- Optimización del uso de materiales

Fabricación y transformación avanzadas (Nuevas formas de producción)

- Tecnologías para las fábricas del futuro
- Tecnologías que permitan edificios energéticamente eficientes
- Tecnologías sustentables y de baja emisión de carbono en las industrias de gran consumo energético
- Nuevos modelos de negocios sustentables

Calls 2015 NMP

NMP: Nanotechnologies, Advanced Materials, Biotechnology
and Advanced Manufacturing and Processing

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Tipos de proyectos

- Acciones de investigación e innovación (RIA)
 - Acciones de innovación (RI)
- Acciones de coordinación y apoyo (CSA)

Rules

3
legal entities
at least




3
Member states
or associated countries
at least

Budget

≈ 650

Collaborative projects
to be funded
for 2014-2015

≈ 6 M€

Average EU contribution
per project

R&I Research
& Innovation
actions

100%
funded

for non-profit
organisations

100%
funded

for profit
organisations

I Innovation
actions

100%
funded

for non-profit
organisations

70%
funded

for profit
organisations

Schedule

Deposit

Call

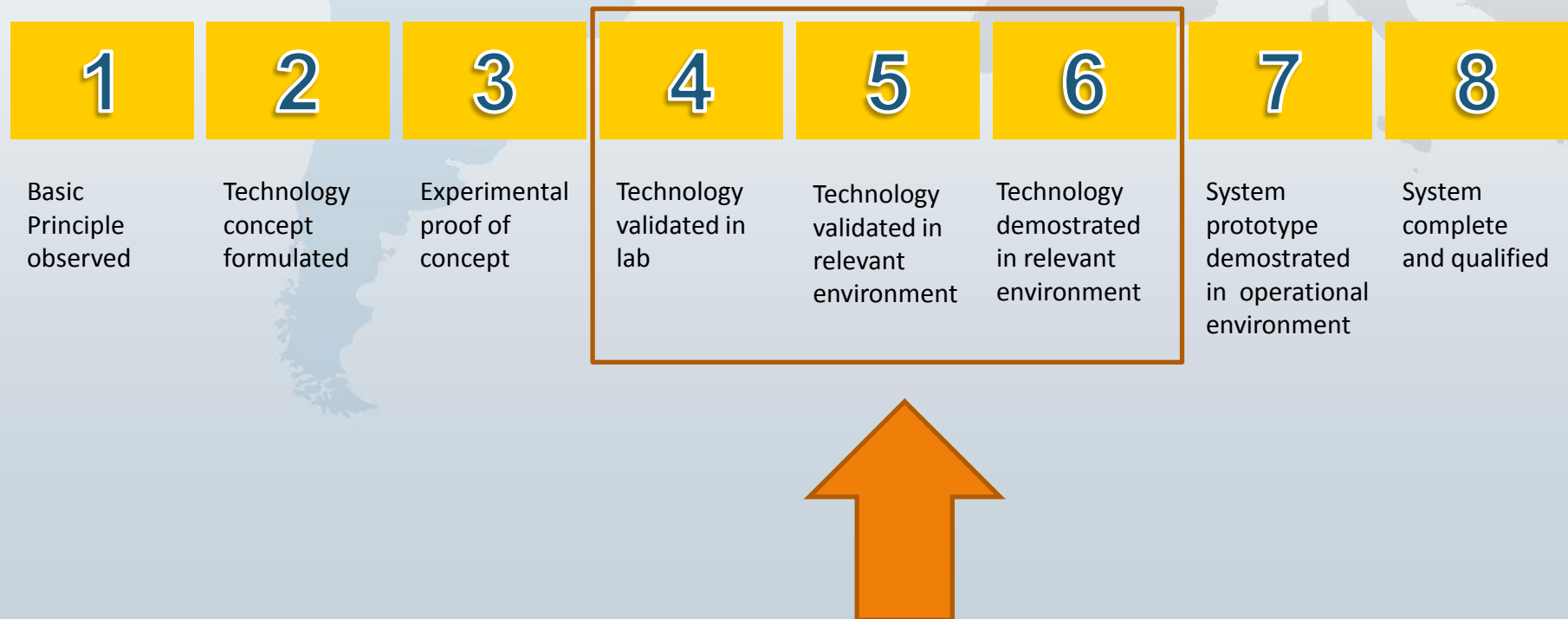
5 months maximum
EU evaluation

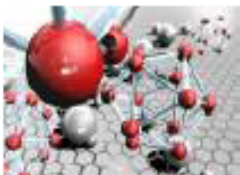
Deadline

3 months maximum
negotiation

Contract

Technology Readiness Level (TRL)





Bridging the gap between nanotechnology research and markets

- Addresses three value chains: Lightweight multifunctional materials and composites, Structured surfaces and Functional fluids
- Expected activities: Developing integration of technologies for using nanomaterials in industry

NMP 2: Integration of novel nanomaterials into existing production lines, IA 66 M€ (5-8 M€ pp) - TRL 5-6

NMP 3: Manufacturing and control of nano-porous materials, IA
66 M€ (5-8 M€ pp) - TRL 4-5

NMP 6: Novel nanomatrices and nanocapsules, RIA
66 M€ (3-5 M€ pp) - TRL 4-5

NMP 7: Additive manufacturing for table-top nanofactories, RIA
66 M€ (3-5 M€ pp) - TRL 4-5



Nanotechnology and Advanced Materials for more effective Healthcare

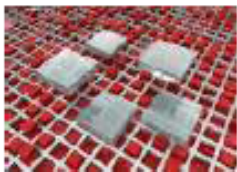
- Potential to enable **more effective therapies** and diagnostics for important diseases
- Development to the point where they can be considered **fit for purpose** in preparation of, but not including, clinical trial stages
- **Gender** issues and the diversity of patients should be considered

NMP 11: Nanomedicine therapy for cancer, RIA

152 M€ (6-9 M€ pp) - TRL 4-5

NMP 12: Biomaterials for the treatment and prevention of Alzheimer's disease, RIA

152 M€ (6-9 M€ pp) - TRL 5



Nanotechnology and Advanced Materials for low-carbon energy technologies and Energy Efficiency

- Support EU goals to increase use of **renewable energy sources** and improve **energy efficiency**
- Demonstrate **technology readiness** and assess time-to-market

NMP 14: ERA-NET on Materials (including Materials for Energy), ERA-NET (COFUND) 13 M€

NMP 15: Materials innovations for the optimisation of cooling in power plants, IA 152 M€ (6-10 M€ pp) - TRL 6

NMP 16: Extended in-service life of advanced functional materials in energy technologies (capture, conversion, storage and/or transmission of energy), IA 152 M€ (6-10 M€ pp) - TRL 6



Exploiting the cross-sector potential of Nanotechnologies and Advanced materials to drive competitiveness and sustainability

- Enabling **multi-sectorial potential**, by developing and advancing technological readiness of solutions with break-through potential
- **International cooperation** is particularly appropriate

NMP 19: Materials for severe operating conditions, including added-value functionalities, **RIA** 152 M€ (6-8 M€ pp) - TRL 5

NMP 22: Fibre-based materials for non-clothing applications, **IA**
152 M€ (6-8 M€ pp) - TRL 5-6

NMP 23: Novel materials by design for substituting critical materials, **RIA** 152 M€ (3-5 M€ pp) - TRL 3-4



Exploiting the cross-sector potential of Nanotechnologies and Advanced materials to drive competitiveness and sustainability

- Enabling **multi-sectorial potential**, by developing and advancing technological readiness of solutions with break-through potential
- **International cooperation** is particularly appropriate

NMP 24: Low-energy solutions for drinking water production, IA

152 M€ (6-10 M€ pp) - TRL 6

NMP 25: Accelerating the uptake of NMP technologies by SMEs, SME Instrument (70%) 25 M€ (0.5-2.5 M€ pp) - TRL 6-8



Safety of nanotechnology-based applications and support for the development of regulation

- **Risk management** should be addressed in the supply chain, including regulatory support and risk governance
- All projects should align with the **EU Nanosafety Cluster** and **international cooperation** is encouraged

NMP 29: Increasing the capacity to perform nano-safety assessment, **RIA** 152 M€ (4-8 M€ pp) - TRL 4

NMP 30: Next generation tools for risk governance of nanomaterials, **RIA** 152 M€ (6-8 M€ pp) - TRL 5



Addressing generic needs in support of governance, standards, models, and structuring in NMP

- Addressing general needs in areas including infrastructure, metrology and standards, skills and networking, dissemination, business models, etc.

NMP 32: Societal engagement on responsible nanotechnology, CSA

3 M€ (0.5-1 M€ pp)

NMP 38: Presidency events, CSA 3 M€ (0.3-0.6 M€ pp)

NMP 40: Support for clustering and networking in the micro- & nanofluidics community, CSA 3 M€ (0.25-0.5 M€ pp)

Grandes iniciativas relacionadas: NMP

- Asociaciones público-privadas contractuales (cPPP)
 - Factories of the Future 2 (FoF-2) 143 M€
 - Energy Efficient Buildings 2 (EeB-2) 17 M€
 - Sustainable Process Industry through Resource and Energy Efficiency (SPIRE) 75 M€
- Asociaciones Europeas de Innovación (EIP)
 - EIP on Smart Cities and the Communities

- **Factories of the Future 2 (FoF-2)**
- Energy Efficient Buildings 2 (EeB-2)
- Sustainable Process Industry through Resource and Energy Efficiency (SPIRE)

FoF 8: ICT-enabled modelling, simulation, analytics and forecasting technologies, RIA & CSA 143 M€ (2-4 M€ pp)

FoF 9: ICT Innovation for Manufacturing SMEs (I4MS), IA&CSA

FoF 10: Manufacturing of custom made parts for personalised products, RIA 3-6 M€ pp - TRL 4-6

FoF 11: Flexible production systems based on integrated tools for rapid reconfiguration of machinery and robots, IA 4-7 M€ pp TRL 5-7

FoF 12: Industrial technologies for advanced joining and assembly processes of multi-materials, IA 4-7 M€ pp - TRL 5-7

FoF 13: Re-use and re-manufacturing technologies and equipment for sustainable product lifecycle management, RIA 3-6 M€ pp – TRL 4-6

FoF 14: Integrated design and management of production machinery and processes, RIA 3-6 M€ pp – TRL 4-6

- Factories of the Future 2 (FoF-2)
- **Energy Efficient Buildings 2 (EeB-2)**
- Sustainable Process Industry through Resource and Energy Efficiency (SPIRE)

EeB 5: Innovative design tools for refurbishment at building and district level, IA 62 M€ (4-7 M€ pp) - TRL 5-7

EeB 6: Integrated solutions of thermal energy storage for building applications, RIA 62 M€ (3-6 M€ pp) - TRL 4-6

EeB 7: New tools and methodologies to reduce the gap between predicted and actual energy performances at the level of buildings and blocks of buildings, IA 62 M€ (4-7 M€ pp) - TRL 5-7

EeB 8: Integrated approach to retrofitting of residential buildings, IA 62 M€ (4-7 M€ pp) - TRL 5-7

EE 2: Buildings design for new highly energy performing buildings, IA (SC 3) 17 M€

- Factories of the Future 2 (FoF-2)
- Energy Efficient Buildings 2 (EeB-2)
- **Sustainable Process Industry through Resource and Energy Efficiency (SPIRE)**

SPIRE 5: New adaptable catalytic reactor methodologies for Process Intensification, RIA 75 M€ (3-6M€ pp) - TRL 3-5

SPIRE 6: Energy and resource management systems for improved efficiency in the process industries, RIA 75 M€ (3-6M€ pp) - TRL 4-6

SPIRE 7: Recovery technologies for metals and other minerals, IA
75 M€ (6-10M€ pp) - TRL 5-7

SPIRE 8: Solids handling for intensified process technology, IA
75 M€ (6-10M€ pp) - TRL 5-7

EE 18: New technologies for utilization of heat recovery in large industrial systems, considering the whole energy cycle from the heat production to the delivery and end use, IA (SC 3)
17 M€ (3-4M€ pp) - TRL 4-7

Deadlines:

FoF, EeB, SPIRE calls: **04/02/2015** (single stage)

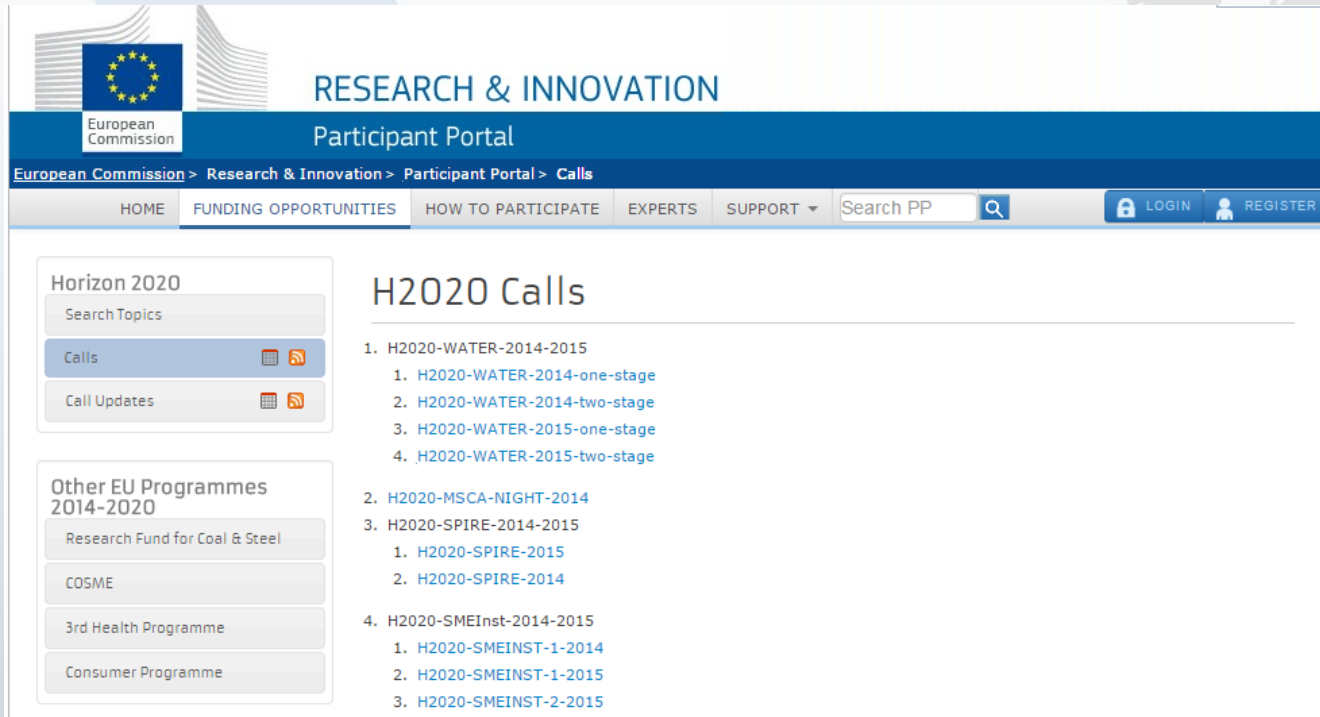
NMP call - nano pilot lines, CSAs, ERA-Net: **26/03/2015** (single stage)

NMP call - other topics: **26/03/2015** (1st stage) / **08/09/2015** (2nd stage)

Biotechnology call: **26/03/2015** (1st stage) / **08/09/2015** (2nd stage)

SME Instrument: Phase 1&2 **18/03, 17/06, 17/09, 16/12/2015**

European Commission Website



The screenshot shows the 'RESEARCH & INNOVATION Participant Portal' of the European Commission. The header includes the European Commission logo and navigation links: HOME, FUNDING OPPORTUNITIES, HOW TO PARTICIPATE, EXPERTS, SUPPORT, and a search bar labeled 'Search PP'. There are also 'LOGIN' and 'REGISTER' buttons.

On the left sidebar, there are sections for 'Horizon 2020' (with links for Search Topics, Calls, and Call Updates) and 'Other EU Programmes 2014-2020' (with links for Research Fund for Coal & Steel, COSME, 3rd Health Programme, and Consumer Programme).

The main content area is titled 'H2020 Calls' and lists the following opportunities:

1. H2020-WATER-2014-2015
 1. [H2020-WATER-2014-one-stage](#)
 2. [H2020-WATER-2014-two-stage](#)
 3. [H2020-WATER-2015-one-stage](#)
 4. [H2020-WATER-2015-two-stage](#)
2. [H2020-MSCA-NIGHT-2014](#)
3. H2020-SPIRE-2014-2015
 1. [H2020-SPIRE-2015](#)
 2. [H2020-SPIRE-2014](#)
4. H2020-SMEInst-2014-2015
 1. [H2020-SMEINST-1-2014](#)
 2. [H2020-SMEINST-1-2015](#)
 3. [H2020-SMEINST-2-2015](#)

http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/master_calls.html

<http://ec.europa.eu/programmes/horizon2020/>

Muchas gracias!!!