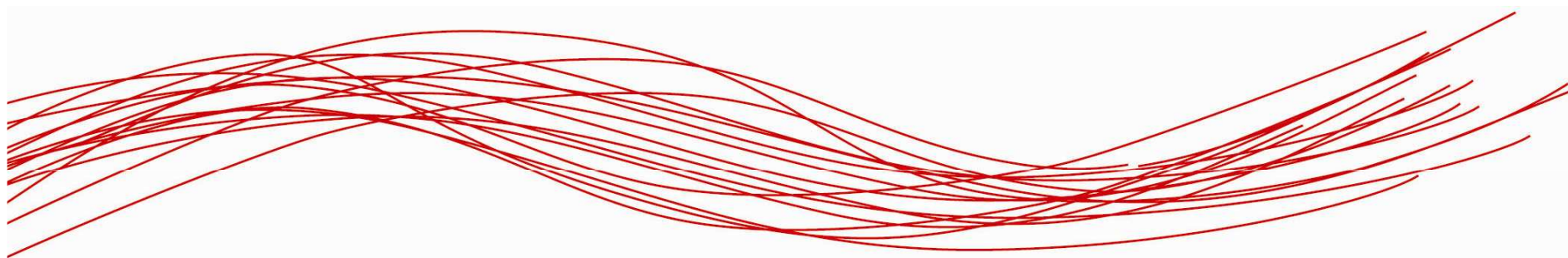


Convocatoria NMP en el WP2012



José-Lorenzo Vallés
Industrial Technologies
DG Research
European Commission

Disclaimer: This presentation is not legally binding and does not represent any commitment on behalf of the European Commission

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EUROPE 2020

- **Strategy for smart, sustainable and inclusive growth:**
 - Innovation, Competitiveness, Green & Social aspects
- **Focus on facing the Grand Challenges:** Ageing, Energy ...
- **3% for R&D** and **20/20/20 climate targets** should be met
- Among 7 **flagship initiatives**, the NMP area has a strategic role in Innovation Union, Resource-efficient Europe and Industrial policy
- **Innovation Partnerships** as a forum to foster innovation
- **Support to PPPs** as a tool to combine public and private funding
- **Acting efficiently together** as in the Recovery Plan

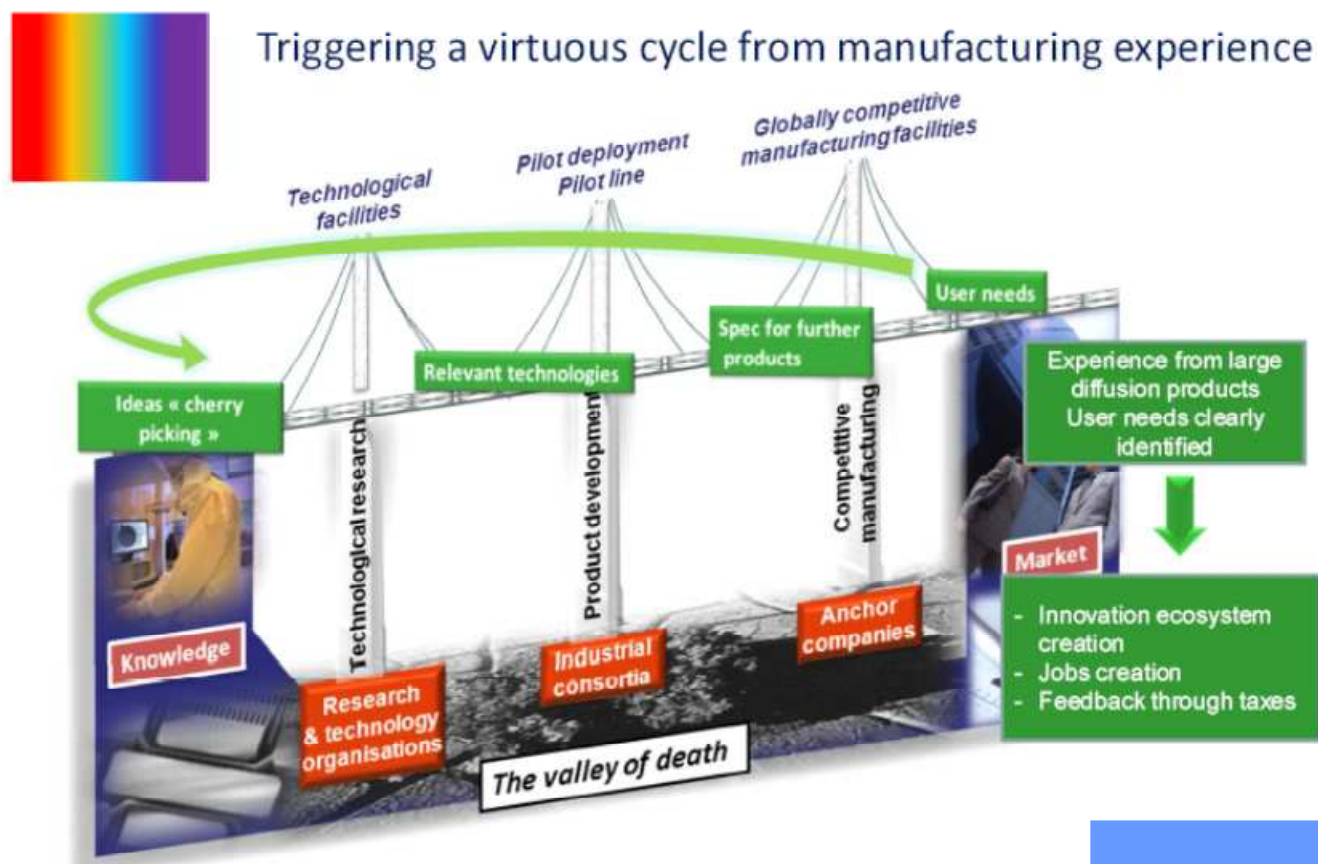
Key Enabling Technologies

The basis for products to address societal challenges

HLG Case example: the electric car



KETs HLG analysis: the “valley of death”



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Common Strategic Framework for EU Research & Innovation

- Covering FP, CIP and EIT in a Common Strategic Framework
- With a coherent set of funding instruments along the whole innovation chain (from basic research to market uptake)
- Far reaching simplification of procedures and rules

Very good response to the **Green paper** seeking the views of all stakeholders on the priorities and proposed improvements

Horizon 2020

- Based on **Europe 2020** and the Innovation Union
- Seamless integration of **Research and Innovation**
- Proposed amount: **€ 80 billion** for 2014-2020
- **46% increase** compared to 2007-2013
- Commission proposals for Horizon 2020: by **end of 2011**

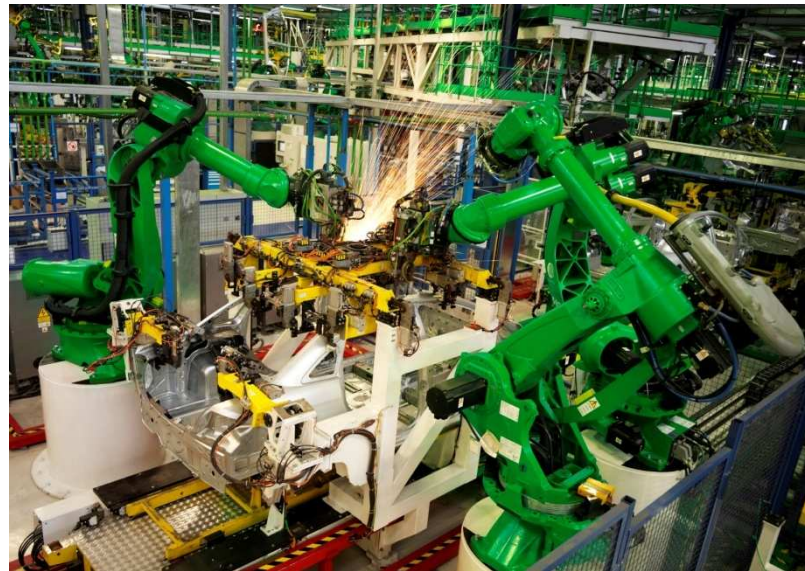
Objectives and structure:

- Tackling societal challenges
 - Strengthening competitiveness
 - Excellence in the science base
-
- Much shorter negotiation and selection phases and radically simplified cost-reimbursement approach

Factories of the Future PPP

Manufacturing sector (1.2 billion in 4 years)

- 21% of the EU's GDP and 30 million jobs before the crisis
- Manufacturing production declined by 20% in 2009
- Need to produce more with less resources and waste
- Themes: NMP, ICT



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Energy-efficient Buildings PPP

Construction sector (€ 1 billion in 4 years)

- 10% of the EU's GDP and 32 million jobs before the crisis
- Building activity dropped by 8% in 2009 and declines further
- 40% of energy use and 33% of GHG emissions in Europe
- Themes: NMP, ENERGY, ICT, ENVIRONMENT



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Green Cars PPP

Automotive sector (€ 1 billion for research in 4 years)

- 11% of the EU's GDP and 14 million jobs before the crisis
- Total vehicle production decreased by 23% in 2 years
- In Europe, 73% of oil is used in transport
- Themes: TRANSPORT, NMP, ENERGY, ICT, ENVIRONMENT



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Advantages of a PPP

- **Industry has a leading role** in defining research priorities
- **Ad-hoc Industrial Advisory Group** advises on implementation
- **Multi-annual Roadmap** allows long-term investment plans
- **Pre-defined budget** ensures continuity
- More emphasis on **relevance of industry** and **impact**
- Focused on **enabling industrial technologies**
- Increased use of **SME-friendly** instruments and **demonstration**

Special features in the PPP calls

- **Involvement of industry** in the preparation
- **Industrial partners** provide added value
- **High share of industrial experts** in the evaluation
- **Single stage** evaluation to **reduce time** to contract
- **Coordinated & Joint** Calls for Proposals
- **Specific PPP Annex** to the WP for higher visibility

Open to ALL stakeholders according to normal FP7 rules

Eligibility in FP7

- **Meeting the deadline**
- **Completeness of Parts A and B of the proposal**
- **Minimum participation for both Collaborative Projects & Coordination Actions:**
 - At least 3 independent legal entities, each of which is established in a Member State or Associated Country and no two of which are established in the same Member State or Associated Country
- **In scope of the Call and topic**
- **Funding limits (in some topics)**

Maximum Funding Rates

- **Research and technological activities:**
- **up to 50% of eligible costs, except for**
 - Public bodies: up to 75%
 - Secondary and higher education centres: up to 75%
 - Research organisations (non-profit): up to 75%
 - SMEs: up to 75%
- **Demonstration activities: up to 50%**
- **Other activities: up to 100%, e.g. Management**
- **Coordination and support actions: up to 100%**



NMP characteristics in WP 2012

- **NMP pays particular attention to the involvement of industry, through its direct participation in projects** (which has increased from 35% in FP6 to 40% in FP7)
- **Strong support to SME participation** – which is currently around 23% in budgetary terms in projects funded under the NMP Theme
- **Innovation-specific elements have been included in 29 out of 47 topics in WP2012** : Demonstration and validation, safety and regulation; IPR; standardisation; the availability of skilled workforces; substitution of critical raw materials; and support to technology transfer

Funding schemes

- **Small or medium scale focused research projects** (< 4 M€ EC funding)
- **Large scale integrating projects** (>4 M€ EC funding)
- **SME-targeted Collaborative Projects:** The SMEs should have the decision making power (although no need that the coordinator is an SME); and the output should benefit the participating SMEs. No lower or upper limit on the EU contribution, but an additional eligibility criterion applies: EU contribution to the participating SMEs has to be 35% or more of the total.
- **DEMO-targeted Collaborative Projects:** Special emphasis on demonstration, in order to prove the industrial viability of new technologies. No lower or upper limit on the EU contribution, but the target is that proposals allocate around 50% of the total eligible costs of the project (excluding management costs) to demonstration activities, and the other 50% to research.
- **Coordination and Support Actions** may relate to coordination, networking or supporting activities at European and international, national or regional level.

Outline of Theme 4 (NMP) in Work Programme 2012

Activity 4.1 Nanosciences and Nanotechnologies	12 topics
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Activity 4.2 Materials	10 topics
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Activity 4.3 New Production Technologies	2 topics
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Activity 4.4 Integration, incl. Raw materials	8 topics
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Recovery Package : Public Private Partnerships	15 topics
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NMP-WP Sub-areas

1. NANOTECHNOLOGY

1. Maximising the contribution of Nanotechnology on sustainable development
2. Nanotechnology for benefiting environment, energy and health
3. Ensuring the safety of Nanotechnology
4. Cross-cutting and enabling R&D

2. ADVANCED MATERIALS

1. Enabling research and development
2. Innovative materials for advanced applications
3. Structuring actions

3. NEW PRODUCTION

Several objectives are covered by "FoF PPP and EeB PPP"
Remaining objectives are included in the NMP part

4. INTEGRATION

Topics integrating nanotechnology, materials & production
Raw Materials (new area)

5. Recovery Plan: FoF, EeB & GC Public-Private Partnerships



Content of Calls

Activity 4.1 Nanosciences and Nanotechnologies

1.1 Maximising the contribution of Nanotechnology on sustainable development

1.1-1 Rational design of nano-catalysts for sustainable energy production based on fundamental understanding

SMALL

1.2 Nanotechnology for benefiting environment, energy and health

1.2-1 Nanotechnology solutions for in-situ soil and groundwater remediation

LARGE

1.2-2 Development and phase-I clinical trials of novel therapeutic nanotechnology-enabled systems for the diagnosis and treatment of atherosclerosis

LARGE

CSA

1.2-3 ERA-NET on Nanomedicine

Content of Calls

Activity 4.1 Nanosciences and Nanotechnologies

1.3 Ensuring the safety of Nanotechnology

1.3-1 Systematic investigations of the mechanisms and effects of engineered nanomaterial interactions with living systems and/or the environment

LARGE

1.3-2 Modelling toxicity behaviour of engineered nanoparticles

SMALL

1.3-3 Regulatory testing of nanomaterials

LARGE

1.4 Cross-cutting and enabling R&D

1.4-1 Pilot lines for precision synthesis of nanomaterials

LARGE

1.4-2 Hierarchical assembly of nanoscale building blocks

SMALL

1.4-3 Nanoscale mechanical metrology for industrial processes and products

SME

1.4-4 Evaluation of EC communication and dialogue on research and innovation in nanotechnologies and design of future needs for the EU (industry and society)

CSA

1.4-5 Improving education in nanotechnologies to match the skill needs of EU industry and society

CSA

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Content of Calls

Activity 4.2 Materials

2.1 Enabling Research and Development

2.1-1 Joining dissimilar materials (excluding applications specific only to healthcare)

SMALL

2.1-2 Fine chemicals from CO₂

SMALL

2.1-3 Self-healing materials for prolonged lifetime

SMALL

2.2 Innovative materials for advanced applications

2.2-1 Biomaterials for improved performance of medical implants

LARGE

2.2-2 Materials for data storage

SMALL

2.2-3 Advanced materials for high-temperature power generation – SICA (Eastern partnership)

SMALL

2.2-4 Cost-effective materials for larger blades for off-shore wind energy applications

SMALL

2.2-5 Halogen-free flame retardant materials

SME

2.2-6 Photocatalytic materials for depollution – SICA (ASEAN)

SMALL

Content of Calls

Activity 4.2 Materials

2.3 Structuring actions

2.3-1 Networking of ETPs and main materials collective stakeholders in materials science and engineering

CSA

Content of Calls

Activity 4.3 New Production

3.0-1 Highly efficient chemical syntheses using alternative energy forms

SMALL

3.0-2 Total Safety Management for industrial organisations

SMALL

NB: Other objectives of New Production are implemented through the PPP initiatives “Factories of the Future” and “Energy-efficient buildings”

Content of Calls

Activity 4.4 Integration

4.0-1 Novel materials and design-based solutions for the creative industry

SME

4.0-2 Support for standardisation needs

CSA

4.0-3 ERA-NET Plus on Innovation in the forest-based sector for increasing resource efficiency and tackling climate change with competitive customer solutions (FAFB-NMP themes)

CSA

4.0-4 Organisation of events related to the Presidencies of the European Union

CSA



Content of Calls

Activity 4.4 Integration

4.1 Raw materials

4.1-1 New environmentally friendly approaches in minerals processing

LARGE

4.1-2 Innovative recycling technologies of key metals in high-tech applications

SME

4.1-3 Development of advanced magnetic materials without, or with reduced use of, critical raw materials

SMALL

4.1-4 Substitution of critical raw materials: networking, specifying R&D needs and priorities

CSA

Recovery Package : Public Private Partnerships – NMP topics

5.1 “Factories of the Future” PPP (FoF) – Cross thematic Call NMP & ICT

FoF.NMP.2012-1 Adaptive production systems and measurement and control equipment for optimal energy consumption and near-to-zero emissions in manufacturing processes

LARGE

FoF.NMP.2012-2 Methodologies and tools for the sustainable, predictive maintenance of production equipment

SME

FoF.NMP.2012-3 Intelligent production machines and 'plug-and-produce' devices for the adaptive system integration of automation equipment, robots and other intelligent machines, peripheral devices, smart sensors and industrial IT systems

SME

FoF.NMP.2012-4 High-performance manufacturing technologies in terms of efficiency (volumes, speed, process capability etc), robustness and accuracy

DEMO

FoF.NMP.2012-5 High precision production technologies for high quality 3D micro-parts

SMALL

FoF.NMP.2012-6 Knowledge based tools and approaches for process planning and integrated process simulation at factory level

SMALL

FoF.NMP.2012-7 Innovative technologies for casting, material removing and forming processes

DEMO



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Recovery Package : Public Private Partnerships – NMP topics

5.2 “Energy-efficient Buildings (EeB)” PPP – Cross thematic Call NMP, ICT, Energy, Environment

EeB.NMP.2012-1 Interaction and integration between buildings, grids, heating and cooling networks, and energy storage and energy generation systems

LARGE

EeB.NMP.2012-2 Systemic Approach for retrofitting existing buildings, including envelope upgrading, high performance lighting systems, energy-efficient HVAC systems and renewable energy generation systems

LARGE

EeB.NMP.2012-3 Development and validation of new 'processes and business models' for the next generation of performance based energy-efficient buildings integrating new services

SME

EeB.NMP.2012-4 Nanotechnology based approaches to increase the performance of HVAC systems

SMALL

EeB.NMP.2012-5 Novel materials for Smart Windows, conceived as affordable multifunctional systems offering enhanced energy control

SMALL

EeB.NMP.2012-6 Methodologies for Knowledge transfer within the value chain and particularly to SMEs

CSA

Recovery Package : Public Private Partnerships – NMP topics

5.3 “Green Cars (GC)” – PPP – Cross-thematic coordinated call NMP, Transport, ICT, Energy, Environment

GC.NMP.2012-1 Innovative automotive electrochemical storage applications based on nanotechnology

SMALL

GC.NMP.2012-2 Innovative advanced light-weight materials for the next generation of environmentally-friendly electric vehicles (NMP, Transport & Environment Themes)

LARGE



Implementation of the Calls NMP - WP2012

LARGE, SMALL and SME 2012

- **Date of Publication : 20 July 2011**
- **Deadlines : 1st stage 8 November 2011 – 2nd stage 3 May 2012 (Indic)**
- **Indicative budgets : € 110 million for LARGE**
€ 124 million for SMALL
€ 48 million for SME

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Implementation of the Calls NMP - WP2012

CSA 2012

- **Date of Publication : 20 July 2011**
- **Deadline : 24 January 2012**
- **Indicative budget : € 10.5 million**

ERA-NET and ERA-Net +

- **Date of Publication : 20 July 2011**
- **Deadline : 28 February 2012**
- **Indicative budget : € 5.5 million from NMP**

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Implementation of the Calls NMP - WP2012

PPPs: FoF, EeB and GC

- **Date of Publication : 20 July 2011**
- **Deadline : 1 December 2011**
- **Indicative budgets :**
 - FoF: € 100 million for NMP topics**
 - EeB: € 70 million for NMP topics**
 - GC: € 35 million, of which € 20 million from NMP**

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To bear in mind... when preparing proposals

- **Two-stage (NMP) and one-stage (PPP) evaluations**
- **Importance of expected impact**
- **Evaluation criteria and thresholds**
- **Strategic context of calls**
- **NCPs and networking**
- **Planning ahead**

Further information ...

FP7 Research Themes and Call information
cordis.europa.eu

Information on the Research PPPs
ec.europa.eu/research/industrial_technologies/



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COOPERATION