



NMP Theme 2012- Specific Information

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8 April 2011, Prague



NMP Theme 2012 - Objective

The **NMP Theme** covers the entire range of industrial research activities!

Central objective:

To support the transformation of European industry from a resource-intensive to a knowledge-intensive and sustainable industry.

The **NMP Theme** focuses:

- On smart and sustainable growth for greener industry
- Its three constituent activities being the tools rather than ends in themselves



Approach for 2012 - Policy

2012 – 2013 From *enabling research* to *applications and demonstrations*

Key feature:

Starting with the WP 2010, the NMP Theme supports participation within the
European Economic Recovery Plan

Public-Private Partnerships (PPPs):

“Factories of the future”

“Energy efficient Buildings”

“Green cars”



One stage submission
and **evaluation** of proposals

Longer-term, **Enabling Research** as a source of innovation!

- Especially in areas of Materials and Nanotechnology
- Supported through Small and Medium Collaborative Projects



The guiding policy in this area:

Strategy for Key Enabling Technologies sets basis of future European industry

“Nanotechnology”

“Materials”

“Manufacturing”

Roadmap for Innovation with Nanotechnologies

Earlier *Nanotechnology Action Plan* to address industrial competitiveness and societal challenges, while ensuring safety for the consumer!

- Innovation in nanotechnology
- Effective safety and regulatory measures
- Strong societal and communication dimension



Issues addressed:

Energy and Energy efficiency: activities in tune with Strategic Energy Technology (SET) Plan.

Topics in support of "**European energy-efficient buildings**" PPP initiative

- Green technologies
- Development of energy-efficient systems and materials
- New and renovated buildings
- Reducing radically energy consumption and CO₂ emissions

Environmental issues and sustainable development:

Topics complement activities of Environment and Knowledge-Based Bio-Economy (KBBE) Themes.



Health and safety: covers research based on nanomedicine and materials for health, complementing the Health Theme

- To ensure the safe use of nanotechnologies
- Building on a previous extensive work under the NMP Theme

Factory of the Future: to help EU manufacturers across sectors, in particular SMEs, to adapt to global competitive pressures by increasing development of:

- Engineering technologies for adaptable machines and industrial processes
- Safe use of nanotechnologies in ICT, and advanced materials
- Demonstration-targeted activities (high-performance manufacturing)
- Technologies for casting, material removing and forming processes



Green Cars: supports research on a broad range of technologies and smart energy infrastructures to achieve breakthrough in:

- Use of renewable and non-polluting energy sources
- Safety
- Traffic fluidity



Research for industrial innovation and SMEs

*Direct industry participation in FP7 projects increased from **35%** to **40%***

- More general and strategic interactions (with ETPs) make sure the innovation is addressed from the beginning
- Continue to provide strong support to SME participation through SME-targeted Collaborative Projects →

currently around 23% in budgetary terms in NMP projects

- Enhance industrial participation further
- Introduce more innovation-related elements
- Increased allocation of budget to each topic for LARGE Collaborative Projects ⇒ for application-oriented topics (as in previous WPs)



Demonstration – DEMO-targeted projects

Demonstration and validation activities already addressed in PPP topics

- Needed to prove viability of new technologies with societal advantages
- Creation and testing of prototypes or demonstrators
- Possibly going beyond pilot implementations in industrial settings
- Evolving from laboratory environment into industrial scale production
- Technical/economic review of new technology
- Development of application and maintenance guidelines
- Benchmarking and validation activities
- Creation of technology infrastructure for end users

The focus of projects should be not only on demonstration but also on research and technological development!



Demonstration – DEMO-targeted projects

Demonstration of new technologies to wider community:

- Dissemination and exploitation plan as a project deliverable
 - ⇒ to guarantee further application and market uptake

NO lower or upper limit on requested EU contribution!

NMP also aims:

- Enhance the use of project results
- Provide external assistance through the “**Exploitation Strategy and Innovation Consultants**” service
- Identify and address possible obstacles in exploitation of intended results



International Cooperation

The focus is on:

subjects which are of interest to European industries (e.g. standardisation).

Examples:

- Factory of the Future which includes support for the international initiative of **Intelligent Manufacturing Systems (IMS)**
- **SICAs** for collaboration on materials with Eastern Partnership and ASEAN countries



Work Programme 2012 – Funding scheme

Work programme 2012 → introduces areas → gives description of topics
It specifies which funding scheme is to be used:

Collaborative Projects: *Small or medium scale focused research projects
and Large scale integrating projects*

SMALL → more research-oriented

LARGE → more at research for applications and innovation

- Additional activities (demonstration, innovation-related activities, education, training) implemented via separate calls
- Allocation of budget to each topic for LARGE is being increased – from **EUR 15 million** to **EUR 18 million per topic**



SME-targeted Collaborative Projects

Participating SMEs should have:

- Decision making power
- Coordinator needs to be SME
- Output should be for benefit of SMEs and targeted SME dominated industrial communities

There is no lower or upper limit on requested EU contribution!

Additional eligibility criterion on distribution of funding will be set out in Section III – Implementation of Calls

Collaborative Projects (incl. SME-targeted) → **Two stage submission** and **evaluation** of proposals



Coordination and Support Actions may relate to coordination, networking or supporting activities at European and international, national or regional level

Examples:

- Organisation of events, studies, where relevant
- Organisation and management of joint or common initiatives
- Activities aimed at supporting the implementation of Theme
→ dissemination, information and communication
- Activities to stimulate and encourage participation of civil society organisations



NMP focuses on a wide range of industrial sectors and RTD domains

Key industrial sectors:

- *Industrial production* (manufacturing and chemical processing)
- *Traditional sectors* (construction, textiles etc) moving up the high-technology innovation stream

Other sectors: striving to maintain and increase their leading position within the EU

- *Electronics, photonics, medical equipment etc*

Manufacturing and construction have been specifically addressed through the PPP initiatives.



RTD domains: addressing the RTD challenges for strategic industrial transformation range from:

- (a) **Nanosciences** and **nanotechnologies** that are becoming one of the new paradigms and enabling factors across virtually all fields of science and technology, to
- (a) **Materials** rapidly acquiring the knowledge-based features, to
- (b) **Products/production-related technologies** pushing towards the 'factory of the future'
 - ⇒ Illustrated by emergence of the "Factories of the Future" PPP initiative within the EU recovery package



Thank you for your attention!

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