

**Otvorené výzvy v oblasti
„Nanovedy, nanotechnológie, materiály a nové výrobné
technológie“ (NMP)
PPP projekty z pohľadu NMP
na rok 2012**

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Prehlásenie

**Táto prezentácia je určená výhradne na
informovanie potenciálnych príjemcov
podpory zo 7. RP.**

**Táto prezentácie nie je právne záväzná
a nepredstavuje žiadnen záväzok
zo strany Európskej komisie.**

**Vždy skontrolujte právne záväzné
dokumenty.**

„Malá“ štatistika 7. RP (2007 – 2013) ...

...Slovensko v 7. RP od 2007 dodnes....

Spolupráca (COOPERATION):

1	Zdravie (HEALTH)	13
2	Potraviny, poľnohospodárstvo, rybolov a biotechnológia; (FAFB)	14
3	Informačné a komunikačné technológie (ICT)	28
4	Nanovedy, nanotechnológie, materiály a nové výrobné technológie (NMP)	18
5	Energetika (ENERGY)	7
6	Životné prostredie (vrátane klimatických zmien) (ENV)	12
7	Doprava (vrátane vzdušnej dopravy) (TRANSPORT)	14
8	Socioekonómia a spoločenské vedy (SSH)	8
9	Vesmír (SPACE)	3
10	Bezpečnosť (SECURITY)	7

Myšlienky (IDEAS):

0

EURATOM (FISSION): (FUSION = 0)

8

Ľudia (PEOPLE):

25

COORDINATION (ERA-NET):

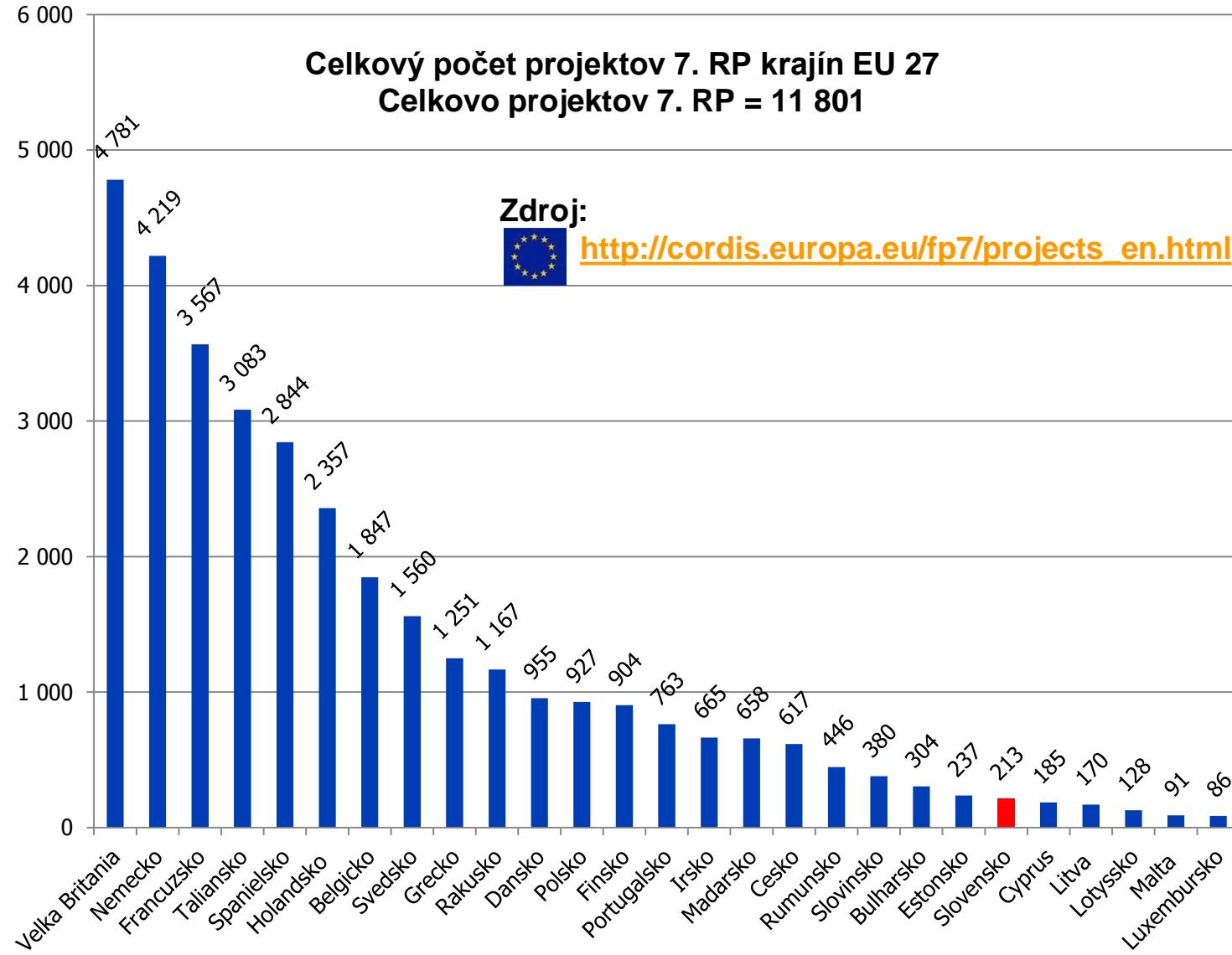
1

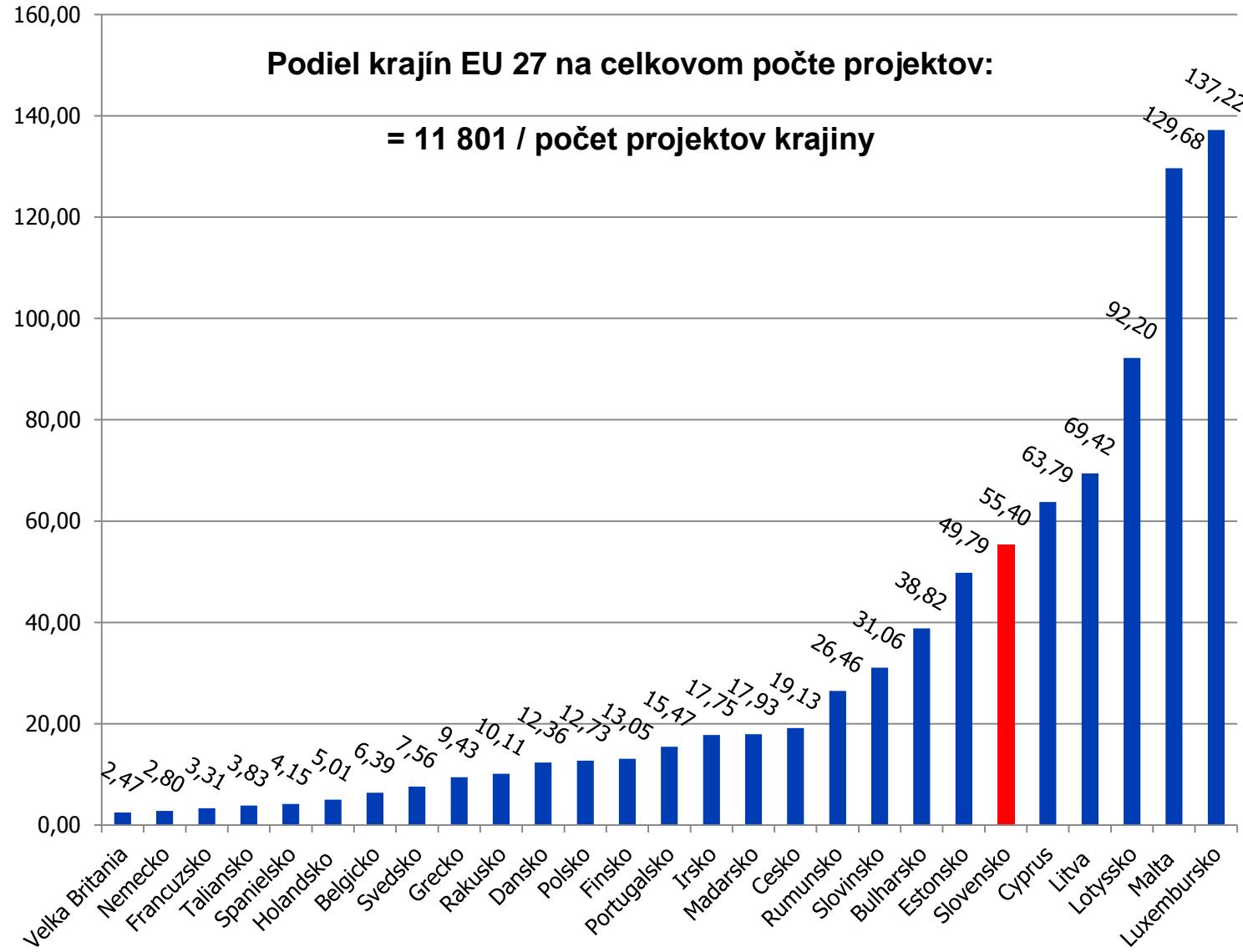
Spolu : 213

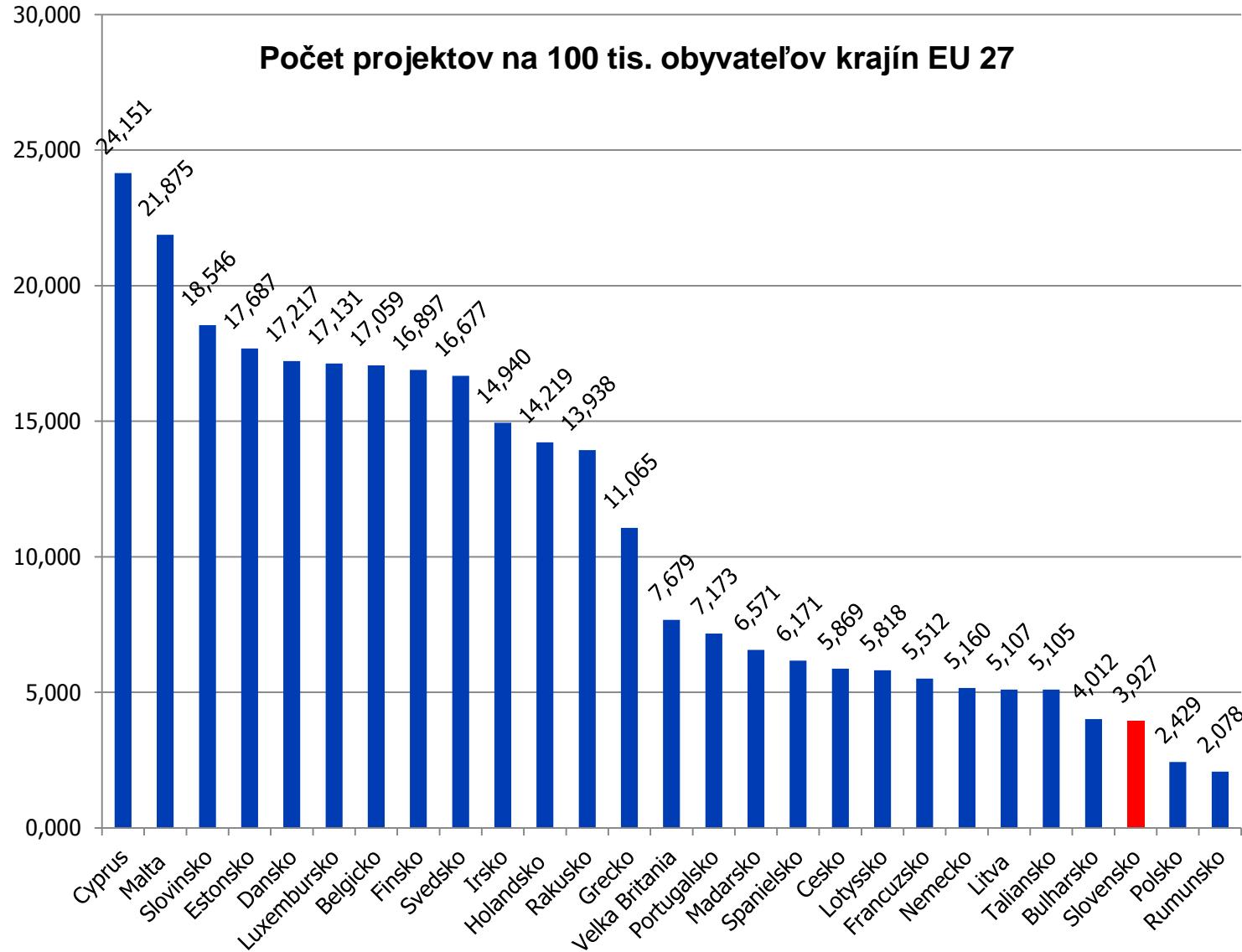
Kapacity (CAPACITIES):

Research infrastructures	19
Research for the benefit of SMEs	17
Regions of knowledge	7
Research potential of Conv. Regions	2
Science in Society	10
International Cooperation	0

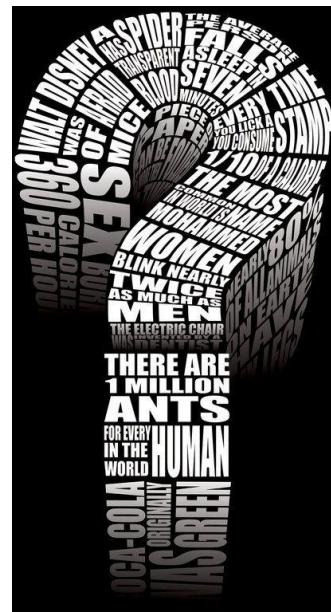








Čo s tým ...?



Pripravovaný „NMP 2012 – Work Programme“

NMP Programme (Theme 4) – 6th call – 2012

Aktivita 4.1 Nanosciences and Nanotechnologies	12 topics
Aktivita 4.2 Materials	10 topics
Aktivita 4.3 New Production	2 topics
Aktivita 4.4 Integration	8 topics
5. Recovery Package : Public Private Partnerships	15 topics

Zdroj: „NMP Orientation Paper 2012“



http://ec.europa.eu/research/industrial_technologies



NMP 2010 – 2013 – Rozpočet (mil. €)

	2010	2011	2012	2013
SPOLU*	327.5	450	514.5	628.2
NMP Calls	198	306**	~310**	~314**
PPP FoF	60	80	100	160
PPP EeB	30	40	70	110
PPP Green cars	10	10	20	20
JTI FCH	9.6	9.6		
Metrology	9.9	7.0		
Other NMP activities	4.1	5.3		
FP7 activities	4.1	11.358		

* Third countries + EFTA contribution NOT included

** Including Other NMP and FP7 activities



Témy : základný výskum → aplikácie + demonštračné aktivity

- Key Enabling Industrial Technologies ~18% – **Nanotechnology Action Plan, FoF**

Rast pozície NMP v 7. RP !!!

- Energy and Energy Efficiency ~25% - EeB
- Environment and Sustainable Development ~17% + FAFB
- Health and Safety ~16% – tu je najviac „nano – “
- Factories of the Future FoF ~20%
- Green Cars GC ~4%
- Raw Materials – zvýšený dôraz → 45 mil. €

Zvýšená podpora aplikáciám a **Inovačným Prvkom** :

- Up-scaling, pilot schemes etc
- Demonstration activities (DEMO), e.g. technical and economic reviews, validation etc (increased budget per topic in LARGE call) – v FoF
- Support for innovation, e.g. standardisation, safety, skilled work forces, raw materials etc

Ochrana Duševného vlastníctva (IP) !





Aktivita 4.1 Nanosciences and Nanotechnologies

- 1.1 Maximising the contribution of Nanotechnology to sustainable development
- 1.2 Nanotechnology for benefiting environment, energy and health
- 1.3 Ensuring the safety of Nanotechnology
- 1.4 Cross-cutting and enabling R&D

Aktivita 4.2 Materials

- 2.1 Enabling Research and Development
- 2.2 Innovative materials for advanced applications
- 2.3 Structuring actions

Takže:
... nielen „nano – “ !

Aktivita 4.3 New Production

Aktivita 4.4 Integration

- 4.0 Remaining objectives reflected by NMP part
- 4.1 Raw materials

Recovery Package: Public-Private Partnership (PPP)

- 5.1 'Factories of the Future' (FoF) - Cross-thematic Coordination between NMP and ICT
- 5.2 'Energy-efficient Buildings (EeB)'
- 5.3 'Green Cars (GC)'



Typy projektov v NMP:

1. Collaborative Projects (CP) :

- Small or medium scale focused research projects :

do 4 mil. € (additional eligibility criteria)

SMALL

MEDIUM

- Large scale integrating projects :

nad 4 mil. €, demonstration, innovation-related activities, education + training

LARGE

2. SME – targeted collaborative Projects :

rozhodujúca pozícia SME (partner), výstup pre SME !

SME

3. DEMO – targeted collaborative Projects: NOVÉ !

Silný dôraz na demonštračné aktivity - preukázanie výrobného a ekonomickejho potenciálu, benchmarking, up-scaling, pilotné prevádzky....

DEMO

4. Coordination and Support Actions

Koordinácia (národná i medzinárodná úroveň), networking, podporné akcie, štúdie, manažment spoločných aktivít.... Podpora účasti verejných organizácií v 7. RP

CSA



Podávanie a evaluácia projektov v NMP:

Pre **CP** projekty (vrátane **SME**) – dvojstupňové

Dôvod:

Multidisciplinárna téma, „cross-sectoral“, zahrnutie SME – podpora „bottom-up“ prístupu

Pre **PPP** – projekty len jednostupňové

Dôvod: Naliehavosť EERP (Plán hospodárskej obnovy Európy)

Dvojstupňový proces:

1. etapa: dôraz na S&T a identifikáciu očakávaných výsledkov a impaktu (ekonomický, sociálny, environmentálny, atď) – len 10 strán !

Hodnotenie na základe len 2 kritérií: Vedecká kvalita + očakávaný prínos

Evaluation Summary Report - už len pre „GO“ projekty

2. Etapa : „GO“ projekty – predkladajú plný návrh, hodnotenie podľa kompletného súboru kritérií

1. etapa	Minimum threshold
S/T quality	4/5
Impact	3/5
Overall threshold required	8/10



2. etapa	Minimum threshold (PPP)
S/T quality	4/5 (3/5)
Implementation	3/5 (3/5)
Impact	4/5 (3/5)
Overall threshold required	12/15 (10/15)



Aktivita 4.1 Nanosciences and Nanotechnologies

1.1 Maximising the contribution of Nanotechnology to 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

- 1.2-3 ERA-NET on Nanomedicine

CSA

Aktivita 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 (*max. 1 mil.€/projekt*) SMALL
- 1.3-3* Regulatory testing of nanomaterials (*max. 10 mil.€/projekt*) 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 nano-scale 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

* Bude podporený najviac 1 projekt

Aktivita 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 (*Research under this topic will contribute to the FET-Flagship initiative, in synergy with the FP7-ICT work programme*)

SMALL

2.2-3 Advanced materials for high-temperature power generation (*Specific International Cooperation Actions (SICA) : Eastern partnership countries*)

SMALL

2.2-4 Cost-effective materials for larger blades for off-shore wind energy applications (*doplnková výzva v Téme 5, "Energia"*)

SMALL

2.2-5 Halogen-free flame retardant materials

SME

2.2-6 Photocatalytic materials for depollution (*SICA, doplnok k 1.2-1 a Téme 2: FAFB*)

SMALL



Aktivita 4.2 Materials

2.3 Structuring actions

- 2.3-1* Networking of ETPs and main materials collective stakeholders in materials science and engineering (max. 1 mil.€/projekt, max. 36 mesiacov)

CSA

Aktivita 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

Pozn.: Ďalšie témy pre „New Production“ sú implementované cez PPP – iniciatívu “Factories of the Future”

Aktivita 4.4 Integration

- | | | |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 4.0-1 | Novel materials and design-based solutions for the creative industry | SME |
| 4.0-2 | Support for standardisation needs (<i>max. 0,5 mil.€/projekt, max. 18 mesiacov</i>) | CSA |
| 4.0-3 | Innovation in the forest-based sector for increasing resource efficiency and
tackling climate change with competitive customer solutions – <i>ERA-NET</i> Plus topic
<i>jointly implemented by Theme 2, FAFB, and Theme 4, NMP (min.20% príspevku EÚ pre SME)</i> | CSA |
| 4.0-4 | Organisation of events related to the Presidencies of the European Union | CSA |

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
(<i>doplňková výzva k Téme 6: ENV.2012.6.3-1</i>) | SME |
| 4.1-3 | Development of advanced magnetic materials without, or with reduced use of,
critical raw materials (<i>pre spoluprácu s Japonskom a USA, nie povinné</i>) | SMALL |
| 4.1-4* | Substitution of critical raw materials: networking, specifying R&D needs and
priorities (<i>max 3 mil. €/projekt</i>) | CSA |

5. Recovery Package : Public Private Partnerships

„Cross-thematic Calls“ :

„Iniciatíva závodov budúcnosti“ - “Factories of the Future” (FoF)
– podporené z NMP a ICT

„Iniciatíva Európskych energeticky účinných budov“ - “Energy-efficient buildings” (EeB)
– podporené z NMP, Energy, ICT a Environment

„Európska iniciatíva ekologických áut“ - “Green Cars” (GC)
– podporené z NMP, Transport, ICT a Environment



Public-Private Partnerships – Hlavné črty:

Zahrnutie priemyslu do plánovania a implementácie

Potreba rýchlej reakcie – využitie jestvujúcich nástrojov :

- 7. Rámcový program
- Strategic Research Agendas – vypracované priemyslom v ETP

Spôsob implementácie:

- spoločné výzvy v rámci 7. RP
- Paralelne: využitie ďalších výziev a možností pre dlhodobé plánovanie/projekty: napr. „Joint Technology Initiatives“





- Priemysel potrebuje hrať **rozhodujúcu úlohu** v definovaní priorit pre R&D a podieľať sa na implementácii programu
- **Dlhodobý integrovaný Work Programme** s definovaným rozpočtom umožňuje kontinuitu v plánovaní výskumných stratégií a umožňuje dlhodobé investičné plány
- Aktivity od základného a aplikovaného výskumu až po „*large-scale demonstration*“. **Zdôraznený impakt**
- Zvýšený podiel **SME-orientovaných** výskumných nástrojov



5. Recovery Package : Public Private Partnerships

5.1. Factories of the Future – Cross-thematic Coordination between NMP and ICT

5.1.1 Factories of the Future (FoF)' - Topics covered by the NMP Theme

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 (<i>doplňková výzva k FoF-ICT-2011.7.1(b)</i>)	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



5. Recovery Package : Public Private Partnerships

5.2 Energy-efficient buildings - Cross-thematic Coordination between NMP, ICT, Energy and Environment (including Climate Change)

5.2.1 Energy-efficient Buildings - Topics covered by the NMP Theme:

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

Pozn.: HVAC = Heating, Ventilation, and Air Conditioning



5. Recovery Package : Public Private Partnerships

5.3 Green Cars - Cross-thematic cooperation between NMP, ICT, Environment (including Climate Change) and Transport (including Aeronautics)

5.3.1 Green Cars - topics implemented jointly by NMP, Transport (including Aeronautics) and Environment (including Climate Change) Themes

- | | | |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| GC.NMP.2012-1 | Innovative automotive electrochemical storage applications based on nanotechnology (<i>max. 3 mil. €/projekt</i>) | SMALL |
| GC.NMP.2012-2 | Innovative advanced lightweight materials for the next generation of environmentally-friendly electric vehicles
<i>(topic implemented jointly by NMP, Transport and Environment Themes)</i> | LARGE |

NMP 2012 – LARGE, SMALL a SME 2012

Zverejnenie : 20. júla 2011

Deadlines : 1. etapa 8. november 2011 – 2. etapa 26. apríl 2012

Orientečný rozpočet : 115 mil. € pre LARGE
125 mil. € pre SMALL
36 mil. € pre SME

NMP 2012 – ERANET

Zverejnenie : 20. júla 2011

Deadline : Február 2012

Orientečný rozpočet : 6 mil. €

PPP 2012 – FoF, EeB, GC

Zverejnenie : 20. júla 2011

Deadline : 1. december 2011

Orientečný rozpočet :

FoF: 100 mil. € pre NMP topics

EeB: 70 mil. € pre NMP topics

GC: 35 mil. €, z ktorých je 20 mil. € z NMP

Vyhľadávanie partnerov :

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Partner Search - Partner Offer

Theme 4 - Nanosciences and Nanotechnologies, Materials and new Productions technologies

An important pre-requisite for a promising funding application is a suitable consortium of project applicants. Usually, project consortia must have a minimum of three partners from three European countries; more details concerning such rules and regulations may be found in the document "EC rules for participation". In general, when building a project consortium the expertise of the project partners should compliment each other and ideally, the prospective partners should already be in close contact or collaboration.

The partner search activities aiming at the NMP Work Programme 2012 have been started on the basis of an [orientation paper](#) that has been published by the EU Commission.
The next round of NMP and PPP calls are expected to open July 20th 2011.

On this web-service we discern between
Partner Offer - Researchers who offer their research expertise and who are looking for collaboration in possible project consortia and
Partner Search - Researchers or consortia with a definite idea for a project who are looking for further partners to complement the expertise scope of the consortium.

In order to submit your own partner offer or partner search you first have to [register](#). Registered users can administer their account and provide new entries via their personal user login.

With the following online forms, you have the opportunity to send your own partner offer or partner search to the NMP-TeAm consortium. This information will appear online as soon as it has been quality checked by the responsible, country-specific NCP.

Disclaimer: The published information is not legally binding and does not represent any commitment on behalf of the European Commission or the NMP Team consortium.

To get information about the requests already submitted, please choose one of the following links:

[List of Partner Offers](#) (for the NMP and PPP calls 2012)

[List of Partner Searches](#) (for the NMP and PPP calls 2012)

In a searchable database partner profiles are offered also from organisations that have submitted requests for the participation in previous NMP Calls.

[Search for partner entries](#)

You will find further instructions on how to use this facility in the [user manual](#).

To submit your own partner offer or partner search you must have activated cookies and Javascript.

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Partner Search Tool:

Na báze siete národných NCP – projekt
NCP-TeAm : <http://www.nmpteam.com/>

Ďakujem Vám za pozornosť'

Kontakt:

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