





### FP7 NMP

- Work Programme and Calls for Proposals 2013
- FP7 NMP Example Projects

Dr. Vladimir Arkhangelski, International Summer School for Young Scientists 26 August – 2 September, 2012, Bukovel, Ukraine

#### What is FP7-NMP?

- NMP Thematic Area under FP7 Cooperation Specific Programme
- NMP: Nanosciences, nanotechnologies, Materials and new Production technologies
- Objective: Improve the competitiveness of European industry and generate knowledge to ensure its transformation from a resource-intensive to a knowledge-intensive industry

#### WP NMP 2013 Structure

- Context (approach, innovation, Horizon 2020, International Cooperation, Funding Schemes etc)
- Content of Calls (technical content/scope, funding scheme, expected impact)
- Implementation of Calls (ID, eligibility, evaluation, timetable, administrative issues)
- Other actions and public procurement (independent experts and services)
- Indicative budget (summary table)

WORK PROGRAMME 2013

**COOPERATION** 

THEME 4

NANOSCIENCES, NANOTECHNOLOGIES, MATERIALS AND NEW PRODUCTION TECHNOLOGIES - NMP

(European Commission C(2012) 4536 of 09 July 2012)



## Specific Challenges

- Energy and Energy efficiency
- Environmental Issues (+ENV and FAFB Themes)
- Raw Materials (extraction and processing; reduction of waste and recycling)
- Health and safety (nanomedicine and materials for health, complementing the Health Theme)
- Factories of the Future (integration of engineering technologies,
   ICT and new materials)
- European energy-efficient buildings
- Green Cars

## Content of Calls 2013 (1)

- Nanosciences and Nanotechnologies (11 Topics) examples:
  - Self-assembly of naturally occurring nanosystems
  - Nanotechnology based sensors for environment monitoring
  - Safety in nanoscale production and products
- Materials (7 Topics) examples:
  - Biomaterials for Advanced Therapies and medical Devices in the neurological or cardiovascular fields
  - Wide band gap semiconductor materials and structures for power electronics in energy technologies

## Content of Calls 2013 (2)

#### ■ New Production (2 Topics)

- Tools for monitoring and assessing resource-efficiency in value chain of process industry
- Integrated processing and control systems for sustainable production in farms and forests

#### ■ Integration (16 Topics) examples:

- Graphene production technologies
- Breakthrough solutions for mineral extraction and processing in extreme environments
- Biosensors for real time monitoring of biohazard in the marine environment

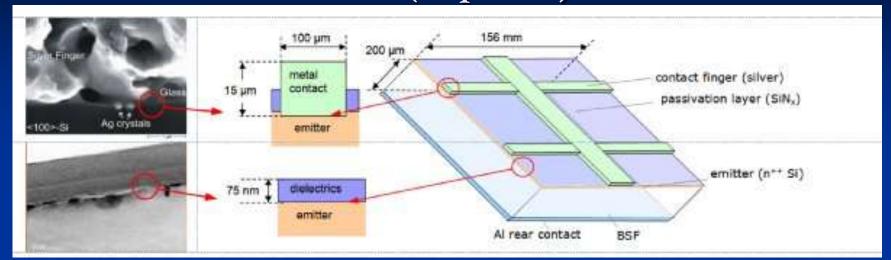
## Content of Calls 2013 (3)

- Recovery Package: Public Private Partnership (PPP) topics within NMP
  - 'Factories of the Future' Cross-thematic coordination between NMP and ICT (11 Topics)
  - Energy-efficient Buildings (6 Topics)
  - Green Cars (1 Topic)
- Totally 56 topics for > Euro 600 million
- Source: Work Programme NMP 2013
  <a href="http://ec.europa.eu/research/participants/portalplus/static/docs/calls/fp7/common/32819-">http://ec.europa.eu/research/participants/portalplus/static/docs/calls/fp7/common/32819-</a>
  - annex 7 to the decision nmp for cap en.pdf

# "Average" NMP project looks like:

Funding Schemes	Project duration	Number of partners	Budget € M	Activities
Small scale focused research project (SMALL)	2-3 years	6-15	1-4	RTD/DEM/M GT/Other
Large scale integrating project (LARGE)	3-5 years	10-20	4-20	RTD/DEM/R TD/Other
Coordination & Support Actions (CSA)	2-3 years	5-10 SA 10-25 CA	0,5-3	COORD/SUP P/MGT/Other

# Modelling of Interfaces for High Performance Solar Cells (HiperSol)



- To increase understanding of interfaces between the silver contact and silicon and the passivation layer and silicon in standard silicon-based solar cells
- To enable a decrease of the cost/efficiency ratio of solar-cell devices
- See project website <u>www.sintef.no/Projectweb/HiperSol</u>







# HiperSol Info

Proposal Title	Modelling of interfaces for high performance solar sell materials
Funding Scheme	Small or medium-sale focused research project
Consortium Partners	8 partners: 2 companies, 3 Universities and 3 public research organisations 7 European countries: Norway, UK, Germany, Sweden, Holland, Spain and Austria
Coordinator	SINTEF (Norway)
Total Budget	4,5 million EUR (3,4 – EU contribution)
Duration	3 years



#### European scale infrastructure in Nanobiotechnology (EURONANOBIO)

- To define the key features of a future EU infrastructure in nanobiotechnology and the roadmap to reach this goal
- Support Action divided into three phases:
  - An analytical phase where the existing data will be scrutinised and analysed to extract some success factors to be used for defining the EU infrastructure in nanobiotechnology
  - A building and consensus phase where many diverse stakeholders are invited to jointly define and adopt the key features of the infrastructure, and the way to build it
  - A dissemination phase where the project results will be widely disseminated using Internet, mailing and conferences
- See project website: <u>www.euronanobio.eu</u>

## EuroNanoBio Info

Proposal Title	EUROpean scale infrastructure in NANOBIOtechnology
Funding Scheme	Support Action
Consortium Partners	7 partners: 2 Universities and 5 public research organisations 7 European countries: France, Ireland, Spain, Romania, Holland, Germany and Italy
Coordinator	Commissariat à l'Energie Atomique, France
Total Budget	100,000 Euro
Duration	1 year

#### Exercise 1: How to find a call

- •FP7 Participant Portal / Find a Call / Cooperation / NMP
- http://cordis.europa.eu/fp7/home\_en.html



## To be continued...

