



Agentschap NL  
Ministerie van Economische Zaken,  
Landbouw en Innovatie

# *Wegwijzer KP7-Cooperation*

» *Als het gaat om innovatie*

Calls 2011-2012

# Voorwoord

Deze wegwijzer geeft een overzicht van de mogelijkheden in de tien thema's van het KP7-Cooperation programma:

1. *Health*
2. *Food, Agriculture and fisheries, and Biotechnology (KBBE)*
3. *Information- and Communication Technologies (ICT)*
4. *Nanosciences, Nanotechnologies, Materials and New Production Technologies (NMP)*
5. *Energy*
6. *Environment*
7. *Transport*
8. *Socio-Economic Sciences and Humanities (SSH)*
9. *Space*
10. *Security*

Verder zijn de mogelijkheden in de PPP's handig samengevat:

*PPP Factories of the Future*  
*PPP Energy Efficient Buildings*  
*PPP Green Cars*

De calls gaan open op 20 juli 2011. De sluitingsdatum varieert. In totaal is 4 miljard euro beschikbaar.

Kijk voor meer informatie op [ec.europa.eu/fp7calls](http://ec.europa.eu/fp7calls), de KP7-website van de Europese Commissie. Daar vindt u van elk thema een 'werkprogramma 2012' met uitgebreide beschrijvingen van de calls en onderwerpen. Let op: ga bij het indienen altijd uit van de officiële documenten.

Bel voor persoonlijk advies Agentschap NL, afdeling Internationaal Innoveren, tel. 088 602 5250. Of kijk op [www.agentschapnl.nl/kp7](http://www.agentschapnl.nl/kp7). Onze adviseurs staan voor u klaar!

# Projectvormen

KP7-Cooperation financiert vooral Research & Development projecten, de zogenaamde 'Collaborative projects' (CP). Deze kunnen kleinschalig zijn (Small-medium of STREP project) of juist grootschalig (Large of IP project). Soms wordt specifiek gevraagd om deelname van het MKB (SME) of specifieke landen buiten Europa (SICA).

Daarnaast is er soms financiering voor programmaondersteunende projecten, de Coordination and support actions (CSA), zoals het organiseren van een evenement of het schrijven van een onderzoeksagenda. In een enkel geval wordt gevraagd om het opzetten van een virtueel onderzoeksinstituut, een Network of Excellence (NoE), of het opzetten van een financieringsprogramma, een ERA-Net.

# Thema 1

## Health

Het call-budget bedraagt 656 miljoen euro.

Topic	Omschrijving	Type project	Budget (miljoen euro)	Sluiting
<b>1</b>	<b>Biotechnology, Generic Tools And Medical Technologies For Human Health</b>			
1.1	High-Throughput Research			
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<b>1.2</b>	<b>Detection, Diagnosis And Monitoring</b>			
1.2-1	Development of technologies with a view to patient group stratification for personalised medicine applications	CP-SME	Max. 6 per proj.	05-10-2011
<b>1.3</b>	<b>Suitability, Safety, Efficacy Of Therapies</b>			
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<b>1.4</b>	<b>Innovative Therapeutic Approaches And Interventions</b>			
1.4-1	Innovative approaches to solid organ transplantation	CP	Max. 6 per proj.	05-10-2011
1.4-2	Medical technology for transplantation and bioartificial organs	CP	Max. 6 per proj.	27-09-2011
1.4-3	Innovative Strategies for translation of stem cell based therapies in regenerative medicine (European Union-Australia cooperation)	CP	Max. 6	05-10-2011
1.4-4	Targeted nucleic acid delivery as an innovative therapeutic or prophylactic approach	CP	Max. 6 per proj.	05-10-2011
<b>2</b>	<b>Translating Research For Human Health</b>			
<b>2.1</b>	<b>Integrating Biological Data And Processes: Large-Scale Data Gathering, Systems Biology</b>			
2.1.1	<i>Large-scale data gathering</i>			
2.1.1-1-A	Support for international rare disease research	CSA	Max. 2	05-10-2011
2.1.1-1-B	Clinical utility of -omics for better diagnosis of rare diseases	CP	Max. 12 per proj.	05-10-2011
2.1.1-1-C	Databases, biobanks and 'clinical bio-informatics' hub for rare diseases	CP	Max. 12	05-10-2011
2.1.1-2	Validation of -omics-based biomarkers for diseases affecting the elderly	CP-SME	Max. 12 per proj.	05-10-2011
2.1.1-3	Statistical methods for collection and analysis of -omics data.	CP-SME	Max. 6 per proj.	05-10-2011
2.1.2	<i>Systems biology</i>			
2.1.2-1	Systems medicine: SME-driven research applying systems biology approaches to address medical and clinical needs	CP-SME	Max. 3 per proj.	05-10-2011
2.1.2-2	Systems medicine: Applying systems biology approaches for understanding multifactorial human diseases and their co-morbidities	CP	Max. 12 per proj.	05-10-2011
2.1.2-3	Preparing for the future research and innovation activities in systems medicine	CSA	Max. 3	05-10-2011
<b>2.2</b>	<b>Research On The Brain And Related Diseases, Human Development And Ageing</b>			
2.2.1	<i>Brain and brain-related diseases</i>			
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2.2.2	Human development and ageing				
2.2.2-1	Integrative systems biology and comparative genomics for studying human ageing and/or most common age-related	CP-SME	Max. 6 per proj.	05-10-2011	
2.2.2.-2	Investigator-driven clinical trials for optimisation of management of elderly patients with multiple diseases	CP-SME	Max. 6 per proj.	05-10-2011	
<b>2.3</b>	<b>Translational Research In Major Infectious Diseases: To Confront Major Threats To Public Health</b>				
2.3.0	<i>Cross-cutting</i>				
2.3.0-1	Diagnostics for infectious diseases in humans	CP	Max. 6 per proj.	27-09-2011	
2.3.0-2	ERA-NET on infectious diseases	CSA	Max. 2	28-02-2012	
2.3.1	<i>Anti-microbial drug resistance</i>				
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2.3.2	<i>HIV/AIDS, malaria and tuberculosis</i>				
2.3.2-1	Co-infection of HIV/AIDS, malaria, tuberculosis and/or hepatitis.	CP	Max. 6 per proj.	05-10-2011	
2.3.2-2	Co-morbidity between infectious and non-communicable diseases	CP	Max. 6 per proj.	05-10-2011	
2.3.2-3	Prevention and treatment for HIV/AIDS, malaria and tuberculosis	CP-SME	Max. 6 per proj.	05-10-2011	
2.3.2-4	Low-cost interventions for disease control in resource poor settings	CP	Max. 3 per proj.	05-10-2011	
2.3.3	<i>Potentially new and re-emerging epidemics</i>				
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2.3.4	<i>Neglected infectious diseases</i>				
	-				
<b>2.4</b>	<b>Translational Research In Other Major Diseases</b>				
2.4.1	<i>Cancer</i>				
	-				
2.4.2	<i>Cardiovascular diseases</i>				
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2.4.3	<i>Diabetes and obesity</i>				
2.4.3-1	Innovative approach to manage diabetes	CP-SME	Max. 6 per proj.	05-10-2011	
2.4.3-2	Investigator-driven clinical trials for type 1 diabetes research	CP	Max. 6 per proj.	05-10-2011	
2.4.4	<i>Rare diseases</i>				
2.4.4-1	Preclinical and/or clinical development of substances with a clear potential as orphan drugs	CP	Max. 6 per proj.	05-10-2011	
2.4.4-2	Observational trials in rare diseases	CP	Max. 3 per proj.	05-10-2011	
2.4.4-3	Best practice and knowledge sharing in the clinical management of rare diseases	CSA	Max. 2	05-10-2011	
2.4.5	<i>Other chronic diseases</i>				
2.4.5-1	Technological approaches to combating sensory impairments	CP-SME	Max. 6 per proj.	27-09-2011	
2.4.5-2	Biomarkers and diagnostics for chronic inflammatory diseases of the joints and/or digestive system	CP-SME	Max. 6 per proj.	05-10-2011	
<b>3</b>	<b>Optimising The Delivery Of Health Care To European Citizens</b>				
3.1	<b>Translating The Results Of Clinical Research Outcome Into Clinical Practice Including Better Use Of Medicines, And Appropriate Use Of Behavioural And Organisational Interventions And New Health Therapies And Technologies</b>				
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<b>3.2</b>	<b>Quality, Efficiency And Solidarity Of Health Care Systems Including Transitional Health Systems</b>				

3.2-1	Improving the organisation of health service delivery	CP	Max. 3 per proj.	05-10-2011
3.2-2	New methodologies for health technology assessment	CP	Max. 3 per proj.	05-10-2011
3.2-3	Social innovation for active and healthy ageing	CP	Max. 3 per proj.	05-10-2011

### 3.3 Health Promotion And Prevention

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### 3.4 International Public Health & Health Systems

3.4-1	Research on health systems and services in low- and middle-income countries	CP-SICA	Max. 6 per proj.	05-10-2011
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## 4 Other Actions Across The Health Theme

### 4.1 Coordination And Support Actions Across The Theme

4.1-1	Network to encourage knowledge transfer activity in FP-funded health research (especially in academic and governmental organisations)	CSA	Max. 2	05-10-2011
4.1-2	Training actions linked to intellectual property rights management and knowledge transfer	CSA	Max. 2	05-10-2011
4.1-3	Support for Presidency events: Organisation of supporting actions and events related to the Presidency of the European Union	CSA	Max. 0,1 per proj.	05-10-2011
4.1-4	Communicating the benefits of European research to the general public	CSA	Max. 1 per proj.	05-10-2011
4.1-5	Preparing the future for health research and innovation	CSA	Max. 0,5 per proj.	05-10-2011
4.1-6	Setting health-related development goals beyond 2015	CSA	Max. 2 per proj.	05-10-2011

### 4.2 Responding To Eu Policy Needs

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## Thema 2

# Food, Agriculture and fisheries, and Biotechnology (KBBE)

Het call-budget bedraagt 300 miljoen euro.

Topic	Omschrijving	Type project	Budget (miljoen euro)	Sluiting
<b>1</b>	<b>Sustainable production and management of biological resources from land, forest, and aquatic environment</b>			<b>15-11-2011</b>
<b>1.1</b>	<b>Enabling Research</b>			
1.1-01	Improving seeds for agriculture and conservation activities	CP	3	
1.1-02	Animal and farm-centric approach to precision livestock farming in Europe	CP	6	
1.1-03	Precision technologies to improve irrigation management and increase water productivity in major water-demanding crops in Europe	CP	6	
<b>1.2</b>	<b>Increased sustainability of all production systems (agriculture, forestry, fisheries and aquaculture); plant health and crop protection</b>			
1.2-01	Development of new or improved logistics for lignocellulosic biomass harvest, storage and transport	CP	3 x 3,5	
1.2-02	Managing semi-natural habitats and on-farm biodiversity to optimise ecological services	CP	2 x 3	
1.2-03	Plant growth-promoting bio-effectors (microorganisms and active natural compounds) for alternative plant nutrition strategies in non-leguminous crops.	CP	6	
1.2-04	Vineyard agronomic management and optimised production systems for improved grape quality to reinforce competitiveness of the winegrowing sector	CP	6	
1.2-05	Development of seed testing methods for pests and pathogens of plant health concern	CP	3	
1.2-06	Multipurpose trees and non-wood forest products for an innovative forestry in rural areas	CP	6	
1.2-07	Development of management strategies for planted and managed forests to increase mitigation capacity	CP	3	
1.2-09	Integrating the role of marine benthic ecosystems in fisheries management (The Ocean of Tomorrow)	CP	6	
1.2-10	Prevention of important diseases of farmed fish species	CP	6	
1.2-11	Bridging the gap between science and producers to support the European marine mollusc production sector	CSA	0,65	
1.2-12	Providing molecular tools for assessing and monitoring the potential genetic impact of aquaculture on native populations (The Ocean of Tomorrow)	CSA	3	
<b>1.3</b>	<b>Optimised animal health, production and welfare across agriculture, fisheries and aquaculture</b>			
1.3-01	Development and evaluation of scientific methodologies for cost-effective risk-based animal health surveillance.	CP	3	
1.3-02	Targeted research effort on African swine fever	CP	5	
1.3-03	Monogastrics Feed Efficiency - Efficiency of terrestrial livestock digestive systems and reduction of the ecological footprint through a combination of systems biology, 'omics' and nutrition	CP	6	

1.3-04	Optimised terrestrial farm animal reproduction systems and/or technologies	CP	2 x 3
<b>1.4</b>	<b>Socio-economic research and support to policies</b>		
1.4-01	Design of a systems analysis tools framework for the EU bio-based economy strategy	CSA	0,5
1.4-02	Boosting the translation of FP projects' results into innovative applications in the field of agriculture, forestry, fisheries and aquaculture.	CP	3 x 1
1.4-03	Advocacy and informational material for different media targeting decision makers at different levels and end-users in Africa in the fight against neglected zoonotic diseases	CSA	0,5
1.4-04	Improved management practices and alternative treatments to improve animal health in organic farming systems	CP	3
1.4-05	Volatility of agricultural commodity markets	CP	1,5
1.4-06	Short chain delivery of food for urban-peri-urban areas	CP	2 x 1,5
1.4-07	Agricultural Knowledge and Innovation Systems for an inclusive Europe	CP	1,5
1.4-08	Development and application of methodologies and tools, including indicators, for the assessment of environmental impacts of rural development programmes in the EU	CP	2
1.4-09	International comparisons of product supply chains in the agro-food sectors: determinants of their competitiveness and performance on EU and international markets	CP	2,5

<b>2</b>	<b>Fork to farm: Food (including seafood), health and well being</b>		<b>15-11-2011</b>
<b>2.1</b>	<b>Consumers</b>		
2.1-01	Role of health-related symbols and claims in consumer behaviour	CP	3
<b>2.2</b>	<b>Nutrition</b>		
2.2-01	Beneficial effects of bioactive compounds in humans	CP	2 x 6
2.2-02	Study on the need for food and health research infrastructures	CSA	2
2.2-03	Impact of lifestyle on well-being and diet-related disease	CP	9
<b>2.3</b>	<b>Food processing</b>		
2.3-01	Feed production from food waste	CP	3
2.3-02	Exploitation of Framework Programme project results in food processing by small and medium-sized enterprises	CP	5 x 1
2.3-03	Automation in food packaging systems	CP	9
2.3-04	Personalised approaches to food production and distribution	CP	2 x 3
2.3-05	Insects as novel sources of proteins — SICA	CP	3
<b>2.4</b>	<b>Food quality and safety</b>		
2.4-01	Contaminants in seafood and their impact on public health (The Ocean of Tomorrow)	CP	4
2.4-02	Food safety and quality issues related to parasites in seafood	CP	4
2.4-03	Strengthening cooperation for global food safety research	CSA	1
2.4-04	Towards evidence-based risk management of food allergies	CP	9
2.4-05	Post-market monitoring of GMOs based on epidemiological studies	CSA	1
<b>2.5</b>	<b>Environmental impacts and total food chain</b>		
2.5-01	Microbially safe water for human consumption	CP	9
2.5-02	Optimising food use for social innovation	CP	4
2.5-03	A comparative analysis of global versus local food supply systems	CP	3

<b>3</b>	<b>Life sciences, biotechnology and biochemistry for sustainable non-food products and processes</b>	<b>15-11-2011</b>	
<b>3.1</b>	<b>Novel sources of biomass and bioproducts</b>		
3.1-01	Improved water stress tolerance of crop plants	CP	9
3.1-02	Multipurpose crops for industrial bioproducts and biomass	CP	2 x 6
	3.1-03: EU – China Partnering Initiative on fibre crops – Mandatory China	CSA	1
<b>3.2</b>	<b>Marine and fresh-water biotechnology (blue biotechnology)</b>		
3.2-01	Innovative marine biodiscovery pipelines for novel industrial products	CP	Several projects, 23 total
3.2-02	Improved cultivation efficiency of marine microorganisms	CP	9
<b>3.3</b>	<b>Industrial biotechnology: novel high added-value bio-products and bio-processes</b>		
3.3-01	Overcoming hurdles for innovation in industrial biotechnology in Europe	CSA	2
3.3-02	Support to standardisation for bio-based products	CP	3
3.3-03	Mastering integration and intensification of bioprocesses	CP	2 x 6
<b>3.4</b>	<b>Biorefinery</b>		
3.4-01	Conversion of bio-waste in developing countries – SICA (African ACP, Mediterranean Partner Countries)	CP	3
3.4-02	Biotechnology for novel biopolymers	CP	Several projects, 22 total
<b>3.5</b>	<b>Environmental biotechnology</b>		
3.5-01	Innovative biotechnologies for tackling oil spill disasters (The Ocean of Tomorrow")	CP	9
3.5-02	Biotechnological solutions for the degradation of synthetic polymeric materials (The Ocean of Tomorrow")	CP	3
3.5-03	Biotechnological waste water treatments and reuse in agronomical systems	CP	6
3.5-04	Verification of GMO risk assessment elements and review and communication of evidence collected on the biosafety of GMO	CP	6

## Thema 3

# Information- and Communication Technologies (ICT)

Het totale call-budget bedraagt 1,3 miljard euro waarvan 120 miljoen voor de PPP's.

Topic	Omschrijving	Type project	Budget (miljoen euro)	Sluiting
<b>1</b>	<b>Pervasive and Trusted Network and Service Infrastructures</b>			
<b>1.1</b>	<b>Future Networks</b>		<b>160</b>	<b>17-01-2012</b>
	a) Wireless and mobile broadband systems	IP/STREP	152	
	b) High capacity end-to-end infrastructure technologies	IP/STREP		
	c) Novel Internet architectures, management and operation frameworks	IP/STREP		
	d) Flexible, resilient, broadband and integrated satellite communication	IP/STREP		
	e) Coordination and Support Actions and Networks of Excellence	CSA, NoE	8	
<b>1.2</b>	<b>Cloud Computing, Internet of Services and Advanced Software Engineering</b>		<b>70</b>	<b>17-01-2012</b>
	a) Cloud Computing	IP/STREP	68.5	
	b) Internet of Services	IP/STREP		
	c) Advanced software engineering	IP/STREP		
	d) Coordination and support actions	CSA	1.5	
<b>1.4</b>	<b>Trustworthy ICT</b>		<b>80</b>	<b>17-01-2012</b>
	a) Heterogeneous networked, service and computing environments	IP/STREP	70	
	b) Trust, eidentity and Privacy management infrastructures	IP/STREP		
	c) Data policy, governance and socio-economic ecosystems	IP/STREP		
	d) Networking and Coordination activities	CSA NoE	10	
<b>1.6</b>	<b>Future Internet Research and Experimentation (FIRE)</b>		<b>25</b>	<b>17-01-2012</b>
	b) FIRE Federation	IP	8	
	c) FIRE Experimentation	STREP	15	
	e) Coordination and Support Actions	CSA	2	
<b>2</b>	<b>Cognitive Systems and Robotics</b>			
<b>2.1</b>	<b>Cognitive Systems and Robotics</b>		<b>82</b>	<b>17-04-2012</b>
	b) Cognition and control in complex systems	IP/STREP	80	
	c) Gearing up and accelerating cross-fertilisation between academic and industrial robotics research	IP		
	e) Speeding up progress towards smarter robots through targeted competitions	CSA	2	

<b>3</b>	<b>Alternative Paths to Components and Systems</b>			
<b>3.1</b>	<b>Very advanced nanoelectronic components: design, engineering, technology and manufacturability</b>		<b>60</b>	<b>17-01-2012</b>
	a) Beyond CMOS technology	STREP	55	
	b) Circuit-technology solutions	IP/STREP		
	c) Nano-manufacturing and Joint Equipment Assessment	IP/STREP		
	d) Coordination and Support Actions	CSA	5	
<b>3.2</b>	<b>Smart components and smart systems integration</b>		<b>39</b>	<b>17-01-2012</b>
	Micro-Nano Bio Systems (MNBS)	IP/STREP	39	
<b>3.5</b>	<b>Core and disruptive photonic technologies</b>		<b>91</b>	<b>17-01-2012</b>
	a) Core photonic technologies	IP/STREP	79	
	c) ERANET-Plus action	ERANET	10	
	d) Development of innovative solutions through Pre-Commercial Procurement (PCP) action	CP-CSA	3	
<b>4</b>	<b>Technologies for Digital Content and Languages</b>			
<b>4.3</b>	<b>Digital Preservation</b>		<b>30</b>	<b>17-04-2012</b>
	a) More reliable and secure preservation technologies and methods	STREP	23	
	b) Technologies and systems for intelligent management of preservation	IP		
	c) Interdisciplinary research networks	NoE	7	
	d) Promotion schemes for the uptake of digital preservation research outcomes	CSA		
<b>4.4</b>	<b>Intelligent Information Management</b>		<b>50</b>	<b>17-01-2012</b>
	a) Reactive algorithms, infrastructures and methodologies	STREP	43	
	b) Intelligent integrated systems	IP/STREP		
	c) Framework and tools for benchmarking and exploring information management diversity	STREP		
	d) Targeted competition framework speeding up progress towards large scale information management systems of global relevance	CSA	7	
	e) Community building networks	CSA		
<b>5</b>	<b>ICT for Health, Ageing Well, Inclusion and Governance</b>			
<b>5.2</b>	<b>Virtual Physiological Human</b>		<b>66.5</b>	<b>17-04-2012</b>
	a) Patient-specific predictive computer-based models and simulation of major diseases integrating medical, biological and environmental data	IP/STREP	58	
	b) Development of ICT tools, services and infrastructure to obtain more elaborate and reusable multi-scale models	IP/STREP		
	d) Early demonstrators and proof of concept of digital representations of health status	STREP	8.5	
<b>5.7</b>	<b>Support to the early implementation of the Joint Programming Initiative (JPI) 'More Years – Better Lives – the Challenges and Opportunities of Demographic Change'</b>	<b>CSA</b>	<b>1.5</b>	<b>17-01-2012</b>
<b>6</b>	<b>ICT for a low carbon economy</b>			
<b>6.1</b>	<b>Smart energy grids</b>	<b>STREP CSA</b>	<b>30</b>	<b>17-01-2012</b>
<b>6.3</b>	<b>ICT for efficient water resources management</b>	<b>STREP</b>	<b>15</b>	<b>17-01-2012</b>
<b>6.5</b>	<b>ICT for energy-positive neighbourhoods (EeB PPP)</b>	<b>STREP</b>	<b>30</b>	<b>01-12-2011</b>

<b>6.8</b>	<b>ICT for fully electric vehicles (GC PPP)</b>		<b>30</b>	<b>01-12-2011</b>
	e) Electric Drive and Electronic Components	STREP	29	
	f) Integration of the FEV in the cooperative transport infrastructure	STREP		
	g) Functional Safety and Durability of the FEV	STREP		
	h) Coordination and Support Action "FEV made in Europe"	CSA	1	
<b>7</b>	<b>ICT for the Enterprise and Manufacturing</b>			
<b>7.1</b>	<b>Smart factories: energy-aware, agile manufacturing and customisation (FoF PPP)</b>		<b>40</b>	<b>01-12-2011</b>
	a) Demonstration and benchmarking of novel process automation and control	IP	40	
	b) Large-scale validation of advanced industrial robotics systems	STREP		
	c) Applications based on factory-wide networks of intelligent sensors and new metrology tools and methods	IP		
	d) Lasers and laser systems for manufacturing and materials processing	STREP		
<b>7.2</b>	<b>Manufacturing Solutions for new ICT products (FoF PPP)</b>	<b>IP</b>	<b>20</b>	<b>01-12-2011</b>
<b>8</b>	<b>ICT for Learning and Access to Cultural Resources</b>			
<b>8.1</b>	<b>Technology-Enhanced Learning</b>		<b>60</b>	<b>17-01-2012</b>
	a) Technology Enhanced Learning systems endowed with the capabilities of human tutors	STREP		
	b) Educational technologies for science, technology and maths	IP/STREP NoE		
	c) Advanced solutions for fast and flexible deployment of learning opportunities at the workplace (targeting, in particular, SMEs)	IP		
	d) Computational tools fostering creativity in learning processes	STREP		
	e) Exploratory activities	CSA		
<b>8.2</b>	<b>ICT for access to cultural resources</b>		<b>40</b>	<b>17-04-2012</b>
	a) Technologies for creating personalised and engaging digital cultural experiences	IP/STREP	35	
	b) Open and extendable platforms for building services that support use of cultural resources for research and education	IP		
	c) Improved and affordable technologies for the digitisation of specialised forms of cultural resources, including tools for virtual reconstructions	STREP		
	d) Awareness raising of research results	CSA	5	
<b>9</b>	<b>Future and Emerging Technologies</b>			
	<i>FET Open (vrije onderwerpkeuze)</i>			
9.1	Challenging current Thinking	STREP CSA	75	Continu
9.2	High-Tech Research Intensive SMEs in FET research	STREP	9	Continu
9.3	FET Young Explorers	STREP	6	Continu
9.4	International cooperation on FET research	IP/STREP	3	Continu
	<i>FET Proactive</i>			
9.6	Unconventional Computation	STREP	15	17-01-2012
9.7	Dynamics of Multi-Level Complex Systems	IP/STREP CSA	23	17-01-2012
9.8	Minimising Energy Consumption of Computing to the Limit	STREP	15	17-01-2012
9.9	Quantum ICT including ERA-NET-Plus	IP/STREP ERA-NET	22	17-04-2012
9.10	Fundamentals of Collective Adaptive Systems	IP/STREP	23	17-04-2012

9.11	Neuro-Bio-Inspired Systems	IP/STREP CSA	23	17-04-2012
9.12	Coordinating Communities, Identifying new research topics for FET Proactive initiatives and Fostering Networking of National and Regional Research Programmes	CSA	3 2,5	17-01-2012 17-04-2012
9.14	Science of Global Systems	STREP	3,5	17-01-2012

## 10 International Cooperation

10.3	<b>International Partnership building and support to dialogues</b>		<b>2</b>	<b>17-04-2012</b>
	b) Enable Partnership building in low and middle income countries	STREP/ SICA	2	

## 11 Horizontal Actions

11.1	<b>Pre-Commercial Procurement Actions</b>	CSA CP-CSA	<b>5</b>	<b>17-01-2012</b>
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## Thema 4

# Nanosciences, Nanotechnologies, Materials and New Production Technologies (NMP)

Het totale call-budget bedraagt 488 miljoen euro waarvan 190 miljoen voor de PPP's (onderdeel 5).

Topic	Omschrijving	Type project	Budget (miljoen euro)	Sluiting
<b>1</b>	<b>Nanosciences and Nanotechnologies</b>			
<b>1.1</b>	<b>Maximising the contribution of Nanotechnology to sustainable development</b>			
1.1-1	Rational design of nano-catalysts for sustainable energy production based on fundamental understanding	SMALL		08-11-2011
<b>1.2</b>	<b>Nanotechnology for benefiting environment, energy and health</b>			
1.2-1	Nanotechnology solutions for in-situ soil and groundwater remediation	LARGE		08-11-2011
1.2-2	Development and phase-I clinical trials of novel therapeutic nanotechnology-enabled systems for the diagnosis and treatment of atherosclerosis	LARGE		08-11-2011
1.2-3	ERA-NET on Nanomedicine	ERA-NET	1,5	
<b>1.3</b>	<b>Ensuring the safety of Nanotechnology</b>			
1.3-1	Systematic investigations of the mechanisms and effects of engineered nanomaterial interactions with living systems and/or the environment	LARGE		08-11-2011
1.3-2	Modelling toxicity behaviour of engineered nanoparticles	SMALL		08-11-2011
1.3-3	Regulatory testing of nanomaterials	LARGE		08-11-2011
<b>1.4</b>	<b>Cross-cutting and enabling R&amp;D</b>			
1.4-1	Pilot lines for precision synthesis of nanomaterials	LARGE		08-11-2011
1.4-2	Hierarchical assembly of nano-scale building blocks	SMALL		08-11-2011
1.4-3	Nanoscale mechanical metrology for industrial processes and products	SME		08-11-2011
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		24-01-2012
1.4-5	Improving education in nanotechnologies to match the skill needs of EU industry and society	CSA		24-01-2012
<b>2</b>	<b>Materials</b>			
<b>2.1</b>	<b>Enabling Research and Development</b>			
2.1-1	Joining dissimilar materials (excluding applications specific only to healthcare)	SMALL		08-11-2011
2.1-2	Fine chemicals from CO <sub>2</sub>	SMALL		08-11-2011
2.1-3	Self-healing materials for prolonged lifetime	SMALL		08-11-2011
<b>2.2</b>	<b>Innovative materials for advanced applications</b>			
2.2-1	Biomaterials for improved performance of medical implants			

2.2-2	Materials for data storage	SMALL	08-11-2011
2.2-3	Advanced materials for high-temperature power generation	SMALL	08-11-2011
2.2-4	Cost-effective materials for larger blades for off-shore wind energy applications	SMALL	08-11-2011
2.2-5	Halogen-free flame retardant materials	SME	08-11-2011
2.2-6	Photocatalytic materials for depollution	SICA	08-11-2011

### 2.3 Structuring actions

2.3-1	Networking of ETPs and main materials collective stakeholders in materials science and engineering	CSA	24-01-2012
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## 3 New production

3.0-1	Highly efficient chemical syntheses using alternative energy forms	SMALL	08-11-2011
3.0-2	Total Safety Management for industrial organisations	SMALL	08-11-2011

## 4 Integration of technologies for industrial applications

4.0-1	Novel materials and design-based solutions for the creative industry	SME	08-11-2011
4.0-2	Support for standardisation needs	CSA	24-01-2012
4.0-3	Innovation in the forest-based sector for increasing resource efficiency and tackling climate change with competitive customer solutions	ERA-NET 8	
4.0-4	Organisation of events related to the Presidencies of the European Union	CSA	24-01-2012

### 4.1 Raw materials

4.1-1	New environmentally friendly approaches in minerals processing	LARGE	08-11-2011
4.1-2	Innovative recycling technologies of key metals in high-tech applications	SME	08-11-2011
4.1-3	Development of advanced magnetic materials without, or with reduced use of, critical raw materials	SMALL	08-11-2011
4.1-4	Substitution of critical raw materials: networking, specifying R&D needs and priorities	CSA	24-01-2012

## 5 Recovery Package: Public-Private Partnership (PPP) topics within NMP

190

### 5.1 Factories of the Future (FoF)

100

FoF-1	Adaptive production systems and measurement and control equipment for optimal energy consumption and near-to-zero emissions in manufacturing processes	Large	01-12-2011
FoF-2	Methodologies and tools for the sustainable, predictive maintenance of production equipment	SME	01-12-2011
FoF-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	01-12-2011
FoF-4	High-performance manufacturing technologies in terms of efficiency (volumes, speed, process capability etc), robustness and accuracy	Demo	01-12-2011
FoF-5	High precision production technologies for high quality 3D micro-parts	Small - Medium	01-12-2011
FoF-6	Knowledge-based tools and approaches for process planning and integrated process simulation at factory level	Small - Medium	01-12-2011
FoF-7	Innovative technologies for casting, material removing and forming processes	Demo	01-12-2011

### 5.2 Energy-efficient Buildings (EeB)

70

EeB-1	Interaction and integration between buildings, grids, heating and cooling networks, and energy storage and energy generation	Large	01-12-2011
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	systems			
EeB-2	Systemic Approach for retrofitting existing buildings, including envelope upgrading, high performance lighting systems, energy-efficient HVAC systems and renewable energy generation systems	Large		01-12-2011
EeB-3	Development and validation of new 'processes and business models' for the next generation of performance based energy-efficient buildings integrating new services	SME		01-12-2011
EeB-4	Nanotechnology based approaches to increase the performance of HVAC systems	Small - Medium		01-12-2011
EeB-5	Novel materials for smart windows conceived as affordable multifunctional systems offering enhanced energy control	Small - Medium		01-12-2011
EeB-6	Methodologies for Knowledge transfer within the value chain and particularly to SMEs	CSA		01-12-2011
<b>5.3</b>	<b>Green Cars (GC)</b>		<b>20</b>	
GC-1	Innovative automotive electrochemical storage applications based on nanotechnology	Small - Medium	10	01-12-2011
GC-2	Innovative advanced lightweight materials for the next generation of environmentally-friendly electric vehicles – topic implemented jointly by NMP, Transport and Environment Themes	Large	10 + 15	01-12-2011

## Thema 5

# Energy

Het totale call-budget bedraagt 314 miljoen euro waarvan 35 miljoen voor de PPP Energy Efficient Buildings.

Topic	Omschrijving	Type project	Aantal projecten	Sluiting
<b>2</b>	<b>Renewable Electricity Generation</b>			
<b>2.1</b>	<b>Photovoltaics</b>			
2.1-1	Reliable, cost-effective, highly performing PV systems	CP	Max. 2	25-10-2011
2.1-2	Demonstration of smart multifunctional PV modules	CP	Max. 2	08-03-2012
<b>2.2</b>	<b>Biomass</b>			
	-			
<b>2.3</b>	<b>Wind</b>			
2.3-1	Innovative wind conversion systems (10-20MW) for offshore applications	CP	Max. 2	25-10-2011
2.3-2	Demonstration of innovative designs to reduce fatigue loads and improve reliability of multi-MW turbines	CP	Max. 2	08-03-2012
<b>2.4</b>	<b>Geothermal energy</b>			
	-			
<b>2.5</b>	<b>Concentrated solar power</b>			
2.5-1	Research, development and testing of solar dish systems	CP	Max. 2	25-10-2011
2.5-2	Hybridisation of CSP with other energy sources	CP	Max. 2	25-10-2011
<b>2.6</b>	<b>Ocean</b>			
2.6-1	Demonstration of first ocean energy farms	CP	Max. 2	08-03-2012
<b>2.7</b>	<b>Hydro</b>			
	-			
<b>2.8</b>	<b>Integrated solutions large buildings/CONCERTO</b>			
	-			
<b>2.9</b>	<b>Cross-cutting issues</b>			
2.9-1	Power generation in the low temperature range	CP	Max. 2	25-10-2011
<b>3</b>	<b>Renewable Fuel Production</b>			
<b>3.1</b>	<b>1st generation biofuels from biomass</b>			
	-			
<b>3.2</b>	<b>2nd generation biofuels from biomass</b>			
3.2-1	Biofuels from microalgae or macroalgae	CP	Max. 2	25-10-2011
3.2-2	Development and testing of advanced sustainable bio-based fuels for air transport	CP	Max. 1	25-10-2011
3.2-3	Pre-commercial industrial scale demonstration plant on lignocellulosic ethanol	CP	Max. 2	08-03-2012
<b>3.3</b>	<b>Biorefinery</b>			
	-			
<b>3.4</b>	<b>Biofuels from energy crops</b>			

3.5	<b>Alternative routes to ren. fuel production</b>				
	-				
3.6	<b>Biofuel use in transport</b>				
	-				
3.7	<b>Cross-cutting issues</b>				
KBBE.2012 1.2-01	Development of new or improved logistics for lignocellulosic biomass harvesting, storage and transport	CP-SME	Max. 3	15-11-2011	
4	<b>Renewables for heating and cooling</b>				
4.1	<b>Low/medium temperature solar thermal energy</b>				
4.1-1	Research and development for medium temperature range solar collectors (100° - 250°C)	CP	Max. 2	25-10-2011	
4.2	<b>Biomass</b>				
	-				
4.3	<b>Geothermal energy</b>				
	-				
4.4	<b>Integrated solutions large buildings/CONCERTO</b>				
	-				
4.5	<b>Cross-cutting issues</b>				
	-				
5	<b>CO<sub>2</sub> Capture and Storage Technologies (CCS) for Zero Emission Power generation</b>				
5.1	<b>CO<sub>2</sub> Capture</b>				
5.2	<b>CO<sub>2</sub> Storage</b>				
5.2-1	Sizeable pilot tests for CO <sub>2</sub> geological storage	CP	Max. 2	25-10-2011	
5.2-2	Impact of the quality of CO <sub>2</sub> transport and storage behaviour	CP	Niet gedef.	25-10-2011	
6	<b>Clean Coal technologies</b>				
6.1	<b>Conversion technologies for ZEP generation</b>				
	-				
6.2	<b>Coal-based poly-generation</b>				
	-				
5&6	<b>Cross-cutting CCS and Clean Coal</b>				
5&6.1	<b>Power generation technologies</b>				
5&6.1-1	Pilot plant-scale demonstration of advanced post-combustion CO <sub>2</sub> capture processes with a view to integration in fossil fuel power plants	CP	Niet gedef.	08-03-2012	
5&6.1-2	Pilot plant-scale demonstration and integration of emerging and new combusting technologies	CP	Niet gedef.	08-03-2012	
5&6.2	<b>Cross-cutting and regulatory issues</b>				
5&6.2-2	Support to the coordination of stakeholders' activities in the field of Zero Emission Energy Production	CSA	Max. 1	25-10-2011	

<b>7</b>	<b>Smart Energy Networks</b>				
<b>7.1</b>	<b>Inter-active distribution networks</b>				
7.1-1	Integration of variable distributed resources in distribution networks	CP	Niet gedef.	25-10-2011	
7.1-2	Enhancing electricity networks through use of distributed intelligence	CP	Niet gedef.	25-10-2011	
7.1-3	Empowering smart customers to participate in active demand and electricity supply system efficiency	CP	Niet gedef.	25-10-2011	
<b>7.2</b>	<b>Pan-European energy networks</b>				
7.2-1	Planning for European Electricity Highways to ensure the reliable delivery of renewable electricity and market integration	CP	Niet gedef.	25-10-2011	
<b>7.3</b>	<b>Cross-cutting issues and technologies</b>				
7.3-1	Networking of national R&D and demonstration projects on smart metering infrastructure and data processing	CSA	Niet gedef.	25-10-2011	
7.3-2	Facilitating the deployment of safe stationary batteries	CP	Niet gedef.	25-10-2011	
7.3-3	Support to the coordination of stakeholders' activities in the field of Smart Grids	CSA	Max. 1	25-10-2011	
<b>8</b>	<b>Energy Efficiency and Savings</b>				
<b>8.1</b>	<b>Efficient energy use in the manufacturing and building industry</b>				
8.1-1	Next generation heat pump technologies	CP	Max. 2	25-10-2011	
<b>8.2</b>	<b>High efficiency poly-generation</b>				
	-				
<b>8.3</b>	<b>Ecobuildings</b>				
	-				
<b>8.4</b>	<b>Concerto</b>				
	-				
<b>8.5</b>	<b>Civitas</b>				
	-				
<b>8.6</b>	<b>Socio-economic research and innovation</b>				
	-				
<b>8.7</b>	<b>Thematic promotion and dissemination EE &amp; Savings</b>				
	-				
<b>8.8</b>	<b>Smart Cities and Communities</b>				
8.8-1	Strategic sustainable planning and screening of city plans - Smart Cities and Communities Incubator	CSA	Niet gedef.	01-12-2011	
8.8-2	Large scale systems for urban area heating and/or cooling supply	CP	Niet gedef.	01-12-2011	
8.8-3	Demonstration of Zero Carbon Building Renovation for cities and districts	CP	Niet gedef.	01-12-2011	
<b>9</b>	<b>Knowledge for energy policy making</b>				
<b>9.1</b>	<b>Knowledge tools for energy policy making</b>				
	-				
<b>9.2</b>	<b>Scientific support to policy</b>				
	-				
<b>10</b>	<b>Horizontal programme actions</b>				
<b>10.1</b>	<b>ERA-NET PLUS on Bioenergy</b>				

10.1-1	ERA-NET Plus - Bioenergy Demonstrations of the European Industrial Bioenergy Initiative	CSA	Niet gedef.	28-02-2012
10.1-2	ERA-NET on Solar Electricity: Implementation of the Solar Energy Industry Initiative	CSA	Max. 1	28-02-2012
<b>10.2</b>	<b>Future Emerging Technologies</b>			
10.2-1	Future Emerging Technologies	CP	Niet gedef.	25-10-2011

## Thema 6

# Environment

Het totale call-budget bedraagt 265 miljoen euro waarvan 10 miljoen voor de PPP's.

Topic	Omschrijving	Type project	Budget (miljoen euro)	Sluiting
<b>1</b>	<b>Coping with climate change</b>		<b>55</b>	<b>20-10-2011</b>
1-1	Seasonal-to-decadal climate predictions towards climate services	CP	Max. 9 per proj.	
1-2	Development of advanced techno-economic modelling tools for assessing costs and impacts of mitigation policies	CP	Max. 6 per proj.	
1-3	Strategies, costs and impacts of adaptation to climate change-two-stage	CP	Max. 6 per proj.	
1-4	Exploiting the full potential of economic instruments to achieve the EU's key greenhouse gas emissions reduction targets for 2020 and 2050	CP	Max. 3 per proj.	
1-5	Explore opportunities, risks, feasibility and policy implications associated with key geo-engineering options	CSA	Max. 1	
<b>2</b>	<b>Sustainable use and management of land and seas</b>		<b>45</b>	<b>20-10-2011</b>
2-1	Exploration of the operational potential of the concepts of ecosystem services and natural capital to systematically inform sustainable land, water and urban management	CP	Max. 9 per proj.	
2-2	Assessing global biological resources: the European contribution to the Global Earth Observation Biodiversity Observation Network (GEO BON)	CP	Max. 9	
2-3	Innovative tools for understanding and integrated assessment of Good Environmental Status (GES) of marine waters ("The Ocean for Tomorrow")	CP	Max. 9	
2-4	Management and potential impacts of litter in the marine and coastal environment ("The Ocean for Tomorrow")	CP	Max. 3	
2-5	Improve scientific knowledge base to support the implementation of the Marine Strategy Framework Directive ("The Ocean for Tomorrow")	CSA	Max. 1	
2-6	Development of advanced technologies and tools for mapping, diagnosing, excavating, and securing underwater and coastal archaeological sites	CP-SME	Max. 3 per proj.	
<b>3</b>	<b>Improving resource efficiency</b>		<b>62</b>	<b>20-10-2011</b>
3-1	Innovative resource efficient technologies, processes and services	CP-SME	Niet gedef.	
3-2	Policy options for a resource efficient economy	CP	Max. 3 per proj.	
3-3	Development of resource efficiency indicators	CP	Max. 3 per proj.	
3-4	Support for standardisation needs in the field of environment	CSA	Max. 1	

<b>4</b>	<b>Protecting citizens from environmental hazards</b>		<b>42</b>	<b>20-10-2011</b>
4-1	Improving the resilience of society to catastrophic natural hazards through new risk-management partnerships	CP	Max. 6 per proj.	
4-2	Long-term monitoring experiment in geologically active regions of Europe prone to natural hazards: the Supersite concept	CP	Max. 6 Per proj.	
4-3	Integrating environmental and health data to advance knowledge of the role of environment in human health and well-being in support of a European exposome initiative	CP	Max. 9 per proj.	
<b>5</b>	<b>Mobilising environmental knowledge for policy, industry and society</b>		<b>41</b>	<b>20-10-2011</b>
5-1	Developing community-based environmental monitoring and information systems using innovative and novel earth observation applications	CP-SME	Max. 9 per proj.	
5-2	Demonstration and exploitation of most promising prototypes and tools derived from European research activities	CP-SME	Max. 3 per proj.	
5-3	Exploring opportunities for open access to primary environmental data	CSA	Max. 1	
5-4	Integrated assessment of air pollution supporting the revision of EU air quality legislation	CSA	Max. 1	
<b>6</b>	<b>Horizontal and cross-thematic activities</b>		<b>20</b>	
6-1	EU-India cooperation in water technology: research and innovation <i>Energy Efficient Buildings Initiative (PPP)</i>	CP-SME	Max. 3 per proj.	20-10-2011
6-2	Concepts and solutions for improving energy efficiency of historic buildings, in particular at urban district scale <i>European Green Cars Initiative (PPP)</i>	CP-SME	Max. 5	01-12-2011
6-3	Innovative advanced lightweight materials for the next generation of environmentally-friendly electric vehicles (joint topic of NMP, Environment and Transport)	CP	5 + 20	01-12-2011

## Thema 7

# Transport

Het call-budget bedraagt 308 miljoen euro inclusief de PPP Green Cars.

### Aeronautics and air transport (AAT)

Topic	Omschrijving	Type project	Budget (miljoen euro)	Sluiting
<b>1</b>	<b>The Greening Of Air Transport</b>			
<b>1.1</b>	<b>Green Aircraft</b>			
1.1-1	Flight physics	CP-FP of CSA-CA	Max. 5 per proj.	1-12-2011
1.1-2	Aerostructures	CP-FP of CSA-CA	Max. 5 per proj.	1-12-2011
1.1-3	Propulsion	CP-FP of CSA-CA	Max. 5 per proj.	1-12-2011
1.1-4	Systems and equipment	CP-FP of CSA-CA	Max. 5 per proj.	1-12-2011
1.1-5	Avionics	CP-FP of CSA-CA	Max. 5 per proj.	1-12-2011
ENERGY 3.2-2	Development and testing of advanced sustainable bio-based fuels for air transport	CP		25-10-2011
<b>1.2</b>	<b>Ecological Production And Maintenance</b>			
1.2-1	Production	CP-FP of CSA-CA	Max. 5 per proj.	1-12-2011
1.2-2	Maintenance and disposal	CP-FP of CSA-CA	Max. 5 per proj.	1-12-2011
<b>1.3</b>	<b>Green Air Transport Operations</b>			
1.3-1	Flight and Air Traffic Management	CP-FP of CSA-CA	Max. 5 per proj.	1-12-2011
1.3-2	Airports	CP-FP of CSA-CA	Max. 5 per proj.	1-12-2011
	<b>Level 2</b>			
1.4-2	Demonstration of breakthrough sub-systems enabling high overall pressure ratio engines.	CP-IP	Min. 5	1-12-2011
<b>2</b>	<b>Increasing Time Efficiency</b>			<b>01-12-2011</b>
<b>2.2</b>	<b>Time Efficient Air Transport Operations</b>			
2.2-2	Airports	CP-FP of CSA-CA	Max. 5 per proj.	
2.2-3	Enhancing cooperation with Japan in the field of aeronautical communications	CP-FP	Max. 1,4	
<b>3</b>	<b>Ensuring Customer Satisfaction And Safety</b>			<b>01-12-2011</b>
<b>3.1</b>	<b>Passenger Friendly Cabin</b>			
3.1-2	Noise and vibration	CP-FP of CSA-CA	Max. 5 per proj.	

3.1-3	Systems and equipment	CP-FP of CSA-CA	Max. 5 per proj.
<b>3.3</b>	<b>Aircraft Safety</b>		
3.3-1	Aerostructures	CP-FP of CSA-CA	Max. 5 per proj.
3.3-2	Systems and equipment	CP-FP of CSA-CA	Max. 5 per proj.
3.3-4	Human factors	CP-FP of CSA-CA	Max. 5 per proj.
3.3-5	Propulsion: tolerance to particle ingestion	CP-FP of CSA-CA	Max. 5 per proj.
3.3-6	Enhancing cooperation with Japan in the field of anti-icing system.	CP-FP	Max. 1,4
3.3-7	Innovative approach to helicopter safety	CP-FP of CSA-CA	Max. 5 per proj.
<b>3.4</b>	<b>Operational Safety</b>		
3.4-1	Design systems and tools	CP-FP of CSA-CA	Max. 5 per proj.
3.4-2	Maintenance	CP-FP of CSA-CA	Max. 5 per proj.
3.4-4	Airports	CP-FP of CSA-CA	Max. 5 per proj.
3.4-5	Human factors	CP-FP of CSA-CA	Max. 5 per proj.
	<b>Level 2</b>		
3.5-1	Integrated approach to safe flights under icing conditions.	CP-IP	Min. 5
3.5-2	Integrated approach and demonstration of safe operations under crew peak workload / reduced crew configuration.	CP-IP	Min. 5

## **4 Improving Cost Efficiency** **01-12-2011**

### **4.1 Aircraft Development Cost**

4.1-1	Design systems and tools	CP-FP of CSA-CA	Max. 5 per proj.
4.1-2	Aerostructures	CP-FP of CSA-CA	Max. 5 per proj.
4.1-3	Systems and equipment	CP-FP of CSA-CA	Max. 5 per proj.
4.1-4	Avionics	CP-FP of CSA-CA	Max. 5 per proj.
4.1-5	Production	CP-FP of CSA-CA	Max. 5 per proj.
4.1-6	Enhancing cooperation with Japan in the field of surface heat exchanger for aero-engines.	CP-FP	Max. 1,4
4.1-7	Enhancing cooperation with Japan in the field of engine ceramic bearings.	CP-FP	Max. 1,4

### **4.2 Aircraft Operational Cost**

4.2-1	Flight Physics	CP-FP of CSA-CA	Max. 5 per proj.
4.2-2	Aerostructures	CP-FP of CSA-CA	Max. 5 per proj.
4.2-4	Systems	CP-FP of CSA-CA	Max. 5 per proj.
4.2-6	Maintenance and repair	CP-FP of CSA-CA	Max. 5 per proj.

### **4.3 Air Transport System Operational Cost**

4.3-1	Design systems and tools	CP-FP of CSA-CA	Max. 5 per proj.
4.3-4	Human factors	CP-FP of CSA-CA	Max. 5 per proj.

### **Level 2**

4.4-1	Integrated approach and demonstration to lean manufacturing of	CP-IP	Min. 5
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metal, composite and hybrid aircraft / engine structures.

<b>5</b>	<b>Protection Of Aircraft And Passengers</b>			
<b>5.1</b>	<b>Aircraft Security</b>			
5.1-1	Aerostructures	CP-FP of CSA-CA	Max. 5 per proj.	1-12-2011
<b>6</b>	<b>Pioneering The Air Transport Of The Future</b>			
<b>6.1</b>	<b>Breakthrough And Emerging Technologies</b>			
6.1-5	Enhancing cooperation with Japan in the field of high speed aircraft.	CP-FP	Max. 1,4	1-12-2011
<b>6.2</b>	<b>Step Changes In Air Transportation</b>			
6.2-4	Building agility and resilience of the ATM system beyond SESAR	CP-FP	Max. 5 per proj.	1-12-2011
<b>6.3</b>	<b>Promising Pioneering Ideas In Air Transport</b>			
6.3-1	Breakthrough and emerging technologies	CP-FP	Max. 0,6 per proj.	15-10-2011
6.3-2	Radical new concepts for air transport	CP-FP	Max. 0,6 per proj.	15-10-2011
<b>Cross-Cutting Activities</b>				<b>01-12-2011</b>
7-1	European Air Transport System scenario elaboration and trend assessment capability.	CSA-SA	Max. 0,6	
7-8	Attracting young Europeans to future careers in the field of aeronautics.	CSA-SA	Max. 0,6	
7-9	Supporting organisation of conferences and events of special relevance to Aeronautics and Air Transport research.	CSA-SA	Max. 0,6 per proj.	
7-25	Assessment of the potential insertion of unmanned aerial system in the air transport system.	CSA-SA	Max. 0,6	
7-26	Efficient airports for Europe.	CSA-SA	Max. 0,6	
7-27	Airport centred co-modality and intermodality.	CSA-SA	Max. 0,6	
7-28	Facilitating access to aircraft for disabled people.	CSA-SA	Max. 0,6	

## Sustainable surface transport (SST)

Topic	Omschrijving	Type project	Budget (miljoen euro)	Sluiting
<b>1</b>	<b>The Greening Of Surface Transport</b>			<b>01-12-2011</b>
<b>1.1</b>	<b>The Greening Of Products And Operations</b>			
1.1-1	Assessment and mitigation of noise impacts of the maritime transport on the marine environment (coordinated topic within the framework of the 'Ocean of Tomorrow')	CP-FP	Max. 3 per proj.	
1.1-2	Support to the development of joint programming in marine and maritime research to address cross-cutting sea-related challenges (Support Action within the framework of the 'Ocean of Tomorrow').	CSA-SA	Max. 2	
1.1-3	Management of energy in railway systems	CP-IP	Min. 3 per proj.	

<b>2</b>	<b>Encouraging Modal Shift And Decongesting Transport Corridors</b>		<b>01-12-2011</b>
<b>2.2</b>	<b>Maritime And Inland Waterways Transport</b>		
2.2-1	Innovative fleet for efficient logistics chain	CP-FP	Max. 3 per proj.
2.2-2	Towards an implementation of the NAIADES Action Areas	CSA-CA	Max. 2 per proj.
<b>2.4</b>	<b>Quality Of Rail Service</b>		
2.4-1	Planning rail towards 2050	CP-FP	Max. 3 per proj.
2.4-2	The role of rail in the European transport system in response to major disruptions	CP-FP	Max. 3 per proj.
2.4-3	Efficient rolling stock and train operations for competitive rail freight services	CP-FP	Max. 3 per proj.
<b>2.5</b>	<b>Interoperability And Safety</b>		
2.5-1	Rail system interoperability (regulatory and non-legislative interoperability based on technological innovations)	CP-FP	Max. 3 per proj.
2.5-2	Europe to Asia: rail research collaboration	CSA-CA	
<b>3</b>	<b>Ensuring Sustainable Urban Mobility</b>		<b>01-12-2011</b>
<b>3.1</b>	<b>New Transport And Mobility Concepts</b>		
3.1-1	Research actions regarding the accessibility of transport systems	CP-FP	Max. 3 per proj.
3.1-2	Innovative design and operation of new or upgraded efficient urban transport interchanges	CP-FP	Max. 3 per proj.
3.1-3	Take-up of transport innovation in urban and regional transport	CSA-CA	
3.1-4	Automated urban vehicles	CP-IP	Min. 3 per proj.
<b>3.2</b>	<b>High Quality Public Transport</b>		
3.2-1	Coordinating innovation for efficient bus systems in the urban environment	CSA-CA	
<b>4</b>	<b>Improving Safety And Security</b>		<b>01-12-2011</b>
<b>4.1</b>	<b>Integrated Safety And Security For Surface Transport Systems</b>		
4.1-1	Human element factors in shipping safety	CP-FP	Max. 3 per proj.
4.1-2	Safety of ships in Arctic conditions	CSA-CA	
4.1-3	Large scale naturalistic driving observations for safe and sustainable transport	CP-IP	Min. 3 per proj.
4.1-4	Impacts of Intelligent Transport Systems on vulnerable road users	CP	Max. 3 per proj.
<b>4.2</b>	<b>Policy Support</b>		
4.2-1	Priorities for road safety research in Europe	CP-FP	Max. 3 per proj.
<b>5</b>	<b>Strengthening Competitiveness</b>		<b>01-12-2011</b>
<b>5.2</b>	<b>Competitive Surface Transport Products And Services</b>		
5.2-1	Tools and conditions for attractive, efficient and competitive single wagonload traffic and its interaction with road and intermodal transports	CP-FP	Max. 3 per proj.
5.2-2	Next generation tools for optimised infrastructure asset management	CP-FP	Max. 3 per proj.
5.2-3	Innovative structural and outfitting materials for ships including inland ships	CP-FP	Max. 3 per proj.
5.2-4	Innovation and standardisation in the field of signalling to	CP-IP	Min. 3

5.2-5	accelerate a European Train Control System rollout E-guided vessels: the 'autonomous' ship	CP-FP	per proj. Max. 3 per proj.
5.2-6	E-Maritime in support of compliance management	CP	Max. 3 per proj.

<b>The 'European Green Cars Initiative'</b>			<b>01-12-2011</b>
<b>7.1</b>	<b>Development Of Electric Vehicles For Road Transport</b>		
GC.1-1	Innovative automotive electrochemical storage applications based on nanotechnology (joint topic of NMP, Environment and Transport)	CP-FP (small – medium)	10 + 15
GC.1-2	Smart infrastructures and innovative services for electric vehicles in the urban grid and road environment	CP-FP	Max. 3 per proj.
GC.1-3	European strategy for rare materials and their possible substitution	CSA-SA	
GC.1-4	Modelling and testing for improved safety of alternatively-powered vehicles	CP-FP	Max. 3 per proj.
GC.1-5	Integration and optimisation of range extenders on Electric Vehicles	CP-FP	Max. 3 per proj.
GC.1-6	Advanced energy simulation and testing for Fully Electric Vehicles (FEV)	CP-FP	Max. 3 per proj.
GC.1-7	Demonstration of Urban freight Electric Vehicles for clean city logistics.	CP	Max. 8
<b>7.2</b>	<b>Research For Heavy Duty Vehicles For Medium And Long Distance Road Transport</b>		
GC.2-1	Extreme low rolling resistance tyres	CP-FP	Max. 3 per proj.
GC.2-2	Complete vehicle energy management	CP-IP	Min. 3 per proj.
GC.2-3	Demonstration of heavy duty vehicles running with liquefied methane	CP	Max. 8
<b>7.3</b>	<b>Logistics And Co-Modality</b>		
GC.3-1	Towards sustainable interconnected logistics - development of standardised and modular solutions for freight transport vehicles, loading units and transshipment equipment	CP-FP	Max. 3 per proj.
GC.3-2	Improve capturing and sharing of transport data in support of innovative freight transport schemes	CP-FP	Max. 3 per proj.
GC.3-3	Platform for continuous intermodal freight transport strategic research and innovation	CSA-CA	
GC.3-4	Green hubs enabling co-modal network design	CP-FP	Max. 3 per proj.

## Horizontal activities (TPT)

Topic	Omschrijving	Type project	Budget (miljoen euro)	Sluiting
<b>1</b>	<b>Socio-Economic Research And Technology Foresight</b>			<b>01-12-2011</b>
1-1	Forum to help implement the future orientation of the overall transport system as defined by the White Paper	CSA-SA	Max. 1,5	
1-2	Transport infrastructure impact on international competitiveness of Europe.	CSA-SA	Max. 1,5 per proj.	
1-3	Prospects for transport evolution: challenges for the competitiveness of the European transport sector in the long term.	CSA-SA	Max. 1,5 per proj.	

<b>2</b>	<b>Integration Of Transport Modes And Cross-Cutting Research</b>		<b>01-12-2011</b>
2-1	Strategic high-level transport model	CSA-SA	Max. 3
2-2	Reduction of the vulnerability of the European Transport System to extreme weather events and natural disasters	CSA-SA	Max. 1,5 per proj.
<b>3</b>	<b>Strengthening Of The European Research Area, Encouraging Participation And Fostering Innovation</b>		<b>01-12-2011</b>
3-1	Fostering innovation for trans-national cooperation in European transport research and promoting active participation of stakeholders in European research calls and projects.	CSA-CA	Max. 1,5 per proj.
3-2	Bringing innovative products and services to the market: analysis of pathways and best conditions for innovation	CSA-SA	Max. 4 per proj.

## Thema 8

# Socio-Economic Sciences and Humanities (SSH)

Het call-budget bedraagt 89 miljoen euro.

Topic	Omschrijving	Type project	Budget (miljoen euro)	Sluiting
<b>1</b>	<b>Growth, employment and competitiveness in a knowledge society - the European case</b>			<b>02-02-2012</b>
<b>1.1</b>	<b>Changing role of knowledge throughout the economy</b>			
1.1-1	Challenge: Education systems in the 21st century	Large	6,5	
1.1-2	Unveiling creativity for innovation in Europe	Small - medium	2,5	
1.1-3	Smart specialisation for regional innovation	Small - medium	2,5	
<b>1.2</b>	<b>Structural changes in the European knowledge economy and society</b>			
1.2-1	Coordinating research agendas on economic policy, prioritisation and coordination in Europe	CSA	1,5	
1.2-2	Mobilising institutional reforms in research and innovation systems for better scientific, innovation and economic performances in Europe	CSA	1,5	
<b>1.3</b>	<b>Strengthening policy coherence and coordination in Europe</b>			
1.3-1	The future of macro-economic and monetary integration in Europe	Small - medium	2,5	
1.3-2	Innovative policies for employment and labour markets	Small - medium	2,5	
<b>2</b>	<b>Combining economic, social and environmental objectives in a European perspective: Paths towards sustainable development</b>			<b>02-02-2012</b>
<b>2.1</b>	<b>Socio-economic development trajectories</b>			
2.1-1	Social innovation against inequalities	Small - medium	2,5	
2.1-2	Social innovation for vulnerable populations	SICA	1	
<b>2.2</b>	<b>Regional, territorial and social cohesion</b>			
2.2-1	Challenge: Governance of cohesion and diversity in urban contexts	Large	6,5	
2.2-2	European energy security, including its economic dimension	Small - medium	2,5	
2.2-3	New types of offence in a globalised world: the case of environmental crime	Small - medium	2,5	
2.2-4	Climate change uncertainties: policymaking for the Pacific front	CSA	1,5	
<b>3</b>	<b>Major trends in society and their implications</b>			<b>02-02-2012</b>
<b>3.1</b>	<b>Demographic changes</b>			
3.1-1	Challenge: Making longevity an asset for economic and social development	Large	6,5	
<b>3.2</b>	<b>Societal trends and lifestyles</b>			
3.2-1	Challenge: Families in transitions	Large	6,5	
3.2-2	Understanding disabilities in evolving societies	Small - medium	2,5	

3.2-3	Social innovation in the public sector	Small - medium	2,5	
3.2-4	Drug demand and supply reduction	ERA-NET	2	28-02-2012
3.3	<b>Cultural interactions in an international perspective</b>			
	-			

#### **4 Europe in the world 02-02-2012**

<b>4.1</b>	<b>Interactions and interdependences between world regions and their implications</b>			
4.1-1	Towards an Atlantic Area?	SICA	2,5	
4.1-2	National and regional integration in South East Asia	SICA	2,5	
<b>4.2</b>	<b>Conflicts, peace and human rights</b>			
4.2-1	Challenge: Human rights in EU external relations and internal policies	Large	6,5	
<b>4.3</b>	<b>Europe's changing role in the world</b>			
4.3-1	Social changes and political transformations in the Arab world	SICA	2,5	

#### **5 The Citizen in the European Union 02-02-2012**

<b>5.1</b>	<b>Participation and citizenship in Europe</b>			
5.1-1	Challenge: Exercising EU citizenship: removing barriers	Large	6,5	
5.1-2	Dealing with diversity and cohesion: the case of the Roma in the European Union	Small - medium	2,5	
<b>5.2</b>	<b>Diversities and commonalities in Europe</b>			
5.2-1	Enlargement and the integration capacity of the EU: past experience and future prospects	Small - medium	2,5	

#### **6 Socio-economic and scientific indicators 02-02-2012**

6.1	<b>How indicators are used in policy</b>			
	-			
<b>6.2</b>	<b>Developing better indicators for policy</b>			
6.2-1	Mapping data opportunities for economic and social research and policy	CSA	1,5	
6.3	<b>Provision of underlying official statistics</b>			
	-			
6.4	<b>Use of indicators and related approaches for the evaluation of research policies and programmes</b>			
	-			

#### **7 Foresight activities 02-02-2012**

<b>7.1</b>	<b>Wide socio-economic foresight on key challenges</b>			
7.1-1	Forward-looking tools and methods for answering major societal challenges	Small - medium	2,5	
7.2	<b>Focused thematic foresight</b>			
	-			
7.3	<b>The Future Dynamics of Key S&amp;T Actors in Europe</b>			
	-			
7.4	<b>Blue Sky Research on Emerging Issues Affecting European S&amp;T</b>			
	-			
7.5	<b>Mutual Learning and Cooperation</b>			
	-			

**8****Horizontal actions****02-02-2012**

8.8-1	The future of Social Sciences and Humanities in the context of the European Research Area	Small - medium	2,5
8.8-2	Mobilising the network of National Contact Points in Social Sciences and the Humanities	CSA	1

## Thema 9

# Space

Het call-budget bedraagt 84 miljoen euro.

Topic	Omschrijving	Type project	Budget (miljoen euro)	Sluiting
<b>1</b>	<b>Space-based applications at the service of European Society</b>			<b>23-11-2011</b>
<b>1.1</b>	<b>(Pre-)operational validation of GMES services and products</b>	<b>Small - medium</b>		
1.1-01	Testing and validating the intelligence-driven and high timecritical scenarios of the CONOPS	Small - medium	Max. 4 per proj.	
1.1-02	Testing and validating the low time-critical components of the CONOPS	Small - medium	Max. 2 per proj.	
1.1-03	GMES Security – Support to EU External Actions	Small - medium	Max. 4 per proj.	
1.1-04	Support to emergency response management	Small - medium	Max. 2 per proj.	
1.1-05	Preparing take-up of GMES Sentinel data	Small - medium	Max. 2 per proj.	
<b>1.2</b>	<b>Integration of satellite communication and satellite navigation solutions with space-based observing systems</b>			
	-			
<b>1.3</b>	<b>Support to the coordinated provision of observation data</b>			
1.3-01	Research and development for In-situ component	Small - medium	Max. 2 per proj.	
1.3-02	GMES Climate Change – Coordination of Earth observation data validation for re-analysis	CSA-CA	Max. 2 per proj.	
1.3-03	GMES Climate Change – Data archiving and exchange	Small - medium	Max. 2 per proj.	
1.3-04	Consolidation of user requirements for GMES	CSA	Max. 2 per proj.	
<b>1.4</b>	<b>Development of earth observation satellites</b>			
	-			
<b>1.5</b>	<b>Continuity of GMES services in the areas of Marine and Atmosphere</b>			
	-			
<b>2</b>	<b>Strengthening the foundations of Space science and technology</b>			<b>23-11-2011</b>
<b>2.1</b>	<b>Research to support space science and exploration</b>			
2.1-01	Exploitation of space science and exploration data	Small - medium	Max. 2 per proj.	
<b>2.2</b>	<b>Research to support space transportation and key technologies</b>			
2.2-01	Key technologies enabling observations in and from space	Small - medium	Max. 2 per proj.	
2.2-02	Key technologies for in-space activities	Small - medium	Max. 2 per proj.	
<b>2.3</b>	<b>Research into reducing the vulnerability of space assets</b>			
	-			

<b>3</b>	<b>Cross-cutting activities</b>		<b>23-11-2011</b>
<b>3.1</b>	<b>SME specific research</b>		
3.1-01	Bringing terrestrial SME research into the space domain	Small - medium	Max. 1,5 per proj.
<b>3.2</b>	<b>International cooperation</b>		
	-		
<b>3.3</b>	<b>Dissemination: Transnational and international cooperation among NCPs</b>		
	-		
<b>3.5</b>	<b>Studies and events in support of European Space Policy</b>		
3.5-01	Studies and events in support of European Space Policy	CSA	Max. 0,5 per proj.
3.5-02	Research agenda definitions and research activity road-maps for a European Research framework programme (workshop activities)	CSA-CA	Max. 0,5 per proj.
3.5-03	New emerging research needs - reduction of vulnerability of space infrastructure	CSA-CA	Max. 0,5 per proj.

## Thema 10

# Security

Het call-budget bedraagt 241,7 miljoen euro.

Topic	Omschrijving	Type project	Budget (miljoen euro)	Sluiting
<b>1</b>	<b>Increasing the Security of the Citizens</b>			<b>23-11-2011</b>
1.1	Organised crime			
	-			
1.2	Intelligence against terrorism			
	-			
<b>1.3</b>	<b>Explosives</b>			
1.3-1	Less than Lethal Handling of PBIEDs	CP-FP		
1.3-2	Home made explosives (HMEs) and recipes characterisation	CP-FP		
1.4	Ordinary Crime and Forensic			
	-			
<b>1.5</b>	<b>CBRN Protection</b>			
1.5-1	CBRNE Demo Phase II	CP-IP		
1.5-2	Improving drinking water security management and mitigation in large municipalities against major deliberate, accidental or natural CBRN-related contaminations	CP-FP		
1.5-3	Identification and development of low-risk alternatives to high-risk chemicals	CP-FP or CSA		
1.5-4	Securing the food chains from primary production and animal feeds to consumer ready food against deliberate, accidental or natural CBRN contamination	CP-FP		
<b>1.6</b>	<b>Information gathering</b>			
1.6-1	Digital, miniaturised operational tool for investigation	CP-FP		
<b>2</b>	<b>Increasing the Security of Infrastructures and utilities</b>			<b>23-11-2011</b>
<b>2.1</b>	<b>Design, planning of buildings and urban areas</b>			
2.1-1	Resilience of large scale urban built infrastructure	CP-FP		
2.1-2	Criticality analysis of critical infrastructure including concepts for forgery proof and efficient facility access systems	CP-FP		
<b>2.2</b>	<b>Energy, Transport, communication grids</b>			
2.2-1	Identification of measures to counter illegal export of metal-bearing waste	CSA		
2.2-2	Air traffic Management/Control threat assessment model	CP-IP		
2.2-3	Improving security in air cargo transport	CP-IP		
2.2-4	A common EU aviation security requirement to reduce costs and facilitate passenger flows	CSA		
<b>2.3</b>	<b>Surveillance</b>			
2.3-1	Early warning security systems: physical protection of critical buildings	CP-FP		
<b>2.4</b>	<b>Supply chain</b>			
2.4-1	Pre-normative technology development for improved and more efficient security of the supply chain	CSA		
<b>2.5</b>	<b>Cyber crime</b>			

2.5-1	Convergence of physical and cyber security	CP-FP
2.5-2	Cyber resilience – Secure cloud computing for critical infrastructure	CP-FP

<b>3</b>	<b>Intelligent surveillance and enhancing border security</b>	<b>23-11-2011</b>
<b>3.1</b>	<b>Sea borders</b>	
3.1-1	Increasing trustworthiness of vessel reporting systems	CP-FP
3.1-2	Pre-Operational Validation (POV) at EU level of common application of Surveillance tools	CSA and CP-FP
<b>3.2</b>	<b>Land borders</b>	
-	-	
<b>3.3</b>	<b>Air borders</b>	
-	-	
<b>3.4</b>	<b>Border checks</b>	
3.4-1	Research on "automated" comparison of x-ray images for cargo scanning with reference material (use of historic images in an automated environment) to identify irregularities	CP-FP
3.4-2	Research and validation for sub-surface fingerprint live scanners	CP-FP
3.4-3	Tools and processes for assessing the impact of policies/actions on border control	CSA
3.4-4	Innovative, costefficient and reliable technology to detect humans hidden in vehicles/closed compartments	CP-FP
3.4-5	Further research, development and pilot implementation of Terahertz passive detection techniques (T-Ray)	CP-FP
3.4-6	Enhancing the workflow and functionalities of Automated Border Control (ABC) gates	CP-IP
<b>3.5</b>	<b>Border intelligent surveillance</b>	
3.5-1	Development of airborne sensors and data link	CP-IP
<b>4</b>	<b>Restoring security and safety in case of crisis</b>	<b>23-11-2011</b>
<b>4.1</b>	<b>Preparedness, prevention, mitigation and planning</b>	
4.1-1	Preparedness for and management of large scale fires	CP-IP
4.1-2	Psycho social support in Crisis Management	CP-FP
<b>4.2</b>	<b>Response</b>	
4.2-1	Positioning and timing tools to guarantee security assets trace & tracking together with worker safety in a secure environment	CP-FP
4.2-2	Situational awareness guidance and evacuation systems for large crowds, including crowds unpredictable behaviour	CP-IP
4.2-3	Post crisis lesson learned exercise	CSA
<b>4.3</b>	<b>Recovery</b>	
4.3-1	Next generation damage and post-crisis needs assessment tool for reconstruction and recovery planning	CP-FP
<b>4.4</b>	<b>CBRN response</b>	
4.4-1	Development of mobile laboratories, structures and functions to support rapid assessment of CBRN events with a cross-border or international impact	CSA
4.4-2	Means of decontamination of large groups, urban/wide areas and large, complex and/or sensitive object	CP-FP
4.4-3	Tools for detection, traceability, triage and individual monitoring of victims after a mass contamination	CP-IP
<b>5</b>	<b>Improving security systems integration, interconnectivity and interoperability</b>	<b>23-11-2011</b>
<b>5.1</b>	<b>Information Management</b>	

-		
<b>5.2</b>	<b>Secure Communications</b>	
5.2-1	Preparation of the next generation of PPDR communication network	CP-FP
<b>5.3</b>	<b>Interoperability</b>	
5.3-1	Embedded protection of security systems and anti-tampering technologies	CP-FP
5.3-2	Establishment of a first responders platform for interoperability	CSA
5.3-3	Establishment of a interoperability platform/centre for testing and validating security innovations	NoE
5.3-4	Global solution for interoperability between first responder communication systems	CP-IP
<b>5.4</b>	<b>Standardisation</b>	
-		

<b>6</b>	<b>Security and society</b>	<b>23-11-2011</b>
<b>6.1</b>	<b>Citizens, media and security</b>	
6.1-1	Methodologies to assess the effectiveness of measures addressing violent radicalisation	CP-FP or CSA
6.1-2	Tools and methodologies, definitions and strategies for privacy by design for surveillance technologies, including ICT systems	CP-FP or CSA
6.1-3	Use of new communication/social media in crisis situations	CP-FP or CSA
<b>6.2</b>	<b>Organisational structure and cultures of public users</b>	
-		
<b>6.3</b>	<b>Foresight, scenarios and security as an evolving concept</b>	
6.3-1	Developing an efficient and effective environmental scanning system as part of the early warning system for the detection of emerging organised crime threats	CP-FP
	6.3-2 Criteria for assessing and mainstreaming societal impacts of security research activities	CSA
<b>6.4</b>	<b>Security economics</b>	
6.4-1	Fight against corruption	CSA
<b>6.5</b>	<b>Ethics and justice</b>	
6.5-1	Legitimacy and effectiveness of legal measures against security threats	CSA

<b>7</b>	<b>Security research coordination and structuring</b>	<b>23-11-2011</b>
<b>7.1</b>	<b>ERA-Net</b>	
-		
<b>7.2</b>	<b>Small and Medium Enterprises</b>	
7.2-1	Open topic for Small and Medium Enterprises: "Advancing contemporary laboratory forensic methods and equipment"	CP-FP
<b>7.3</b>	<b>Studies</b>	
-		
<b>7.4</b>	<b>Other coordination</b>	
7.4-1	Coordination of national research programmes in the area of security research	CSA
7.4-2	Networking of researchers for a high level multi-organisational and cross-border collaboration	NoE
<b>7.5</b>	<b>End users</b>	
-		
<b>7.6</b>	<b>Training</b>	
-		

# PPP Factories of the Future

Het call-budget bedraagt 160 miljoen euro.

Topic	Omschrijving	Type project	Budget (miljoen euro)	deadline
<b>Thema ICT</b>				
<b>FoF.ICT.7.1</b>	<b>Smart factories: energy-aware, agile manufacturing and customisation</b>		<b>40</b>	<b>01-12-2011</b>
	a) Demonstration and benchmarking of novel process automation and control	IP	40	
	b) Large-scale validation of advanced industrial robotics systems	STREP		
	c) Applications based on factory-wide networks of intelligent sensors and new metrology tools and methods	IP		
	d) Lasers and laser systems for manufacturing and materials processing	STREP		
<b>FoF.ICT.7.2</b>	<b>Manufacturing Solutions for new ICT products</b>	<b>IP</b>	<b>20</b>	<b>01-12-2011</b>
<b>Thema NMP</b>				
<b>NMP 5.1</b>	<b>Factories of the Future (FoF)</b>		<b>100</b>	<b>01-12-2011</b>
FoF.NMP-1	Adaptive production systems and measurement and control equipment for optimal energy consumption and near-to-zero emissions in manufacturing processes	Large		
FoF.NMP-2	Methodologies and tools for the sustainable, predictive maintenance of production equipment	SME		
FoF.NMP-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-4	High-performance manufacturing technologies in terms of efficiency (volumes, speed, process capability etc), robustness and accuracy	Demo		
FoF.NMP-5	High precision production technologies for high quality 3D micro-parts	Small - Medium		
FoF.NMP-6	Knowledge-based tools and approaches for process planning and integrated process simulation at factory level	Small - Medium		
FoF.NMP-7	Innovative technologies for casting, material removing and forming processes	Demo		

Thema's NMP, ICT, Energy en Environment  
**PPP Energy Efficient Buildings**

Het call-budget bedraagt 140 miljoen euro.

Topic	Omschrijving	Type project	Budget (miljoen euro)	deadline
<b>Thema ICT</b>				
EeB.ICT.6.5	ICT for energy-positive neighbourhoods	STREP	30	01-12-2011
<b>Thema NMP</b>				
<b>5.2</b>	<b>Energy-efficient Buildings (EeB)</b>		<b>70</b>	<b>01-12-2011</b>
EeB.NMP-1	Interaction and integration between buildings, grids, heating and cooling networks, and energy storage and energy generation systems	Large		
EeB.NMP-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-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-4	Nanotechnology based approaches to increase the performance of HVAC systems	Small - Medium		
EeB.NMP-5	Novel materials for smart windows conceived as affordable multifunctional systems offering enhanced energy control	Small - Medium		
EeB.NMP-6	Methodologies for Knowledge transfer within the value chain and particularly to SMEs	CSA		
<b>Thema Energy</b>				
EeB.Energy.8.8-3	Demonstration of Zero Carbon Building Renovation for cities and districts	CP	35	01-12-2011
<b>Thema Environment</b>				
EeB.ENV.6.6-2	Concepts and solutions for improving energy efficiency of historic buildings, in particular at urban district scale	CP-SME	5	01-12-2011

# Thema's Transport, NMP, ICT en Environment

## PPP Green Cars

Het totale call-budget bedraagt 118 miljoen euro.

Topic	Omschrijving	Type project	Budget (miljoen euro)	deadline
<b>Thema ICT</b>				
<b>GC.ICT.6.8</b>	<b>ICT for fully electric vehicles</b>		<b>30</b>	<b>01-12-2011</b>
	e) Electric Drive and Electronic Components	STREP	29	
	f) Integration of the FEV in the cooperative transport infrastructure	STREP		
	g) Functional Safety and Durability of the FEV	STREP		
	h) Coordination and Support Action "FEV made in Europe"	CSA	1	
<b>Thema NMP</b>				
<b>5.3</b>	<b>Green Cars (GC)</b>			<b>01-12-2011</b>
GC.NMP-1	Innovative automotive electrochemical storage applications based on nanotechnology	Small - Medium	10	
<b>Thema Transport</b>			<b>53</b>	<b>01-12-2011</b>
<b>7.1</b>	<b>Development Of Electric Vehicles For Road Transport</b>			
GC.SST.1-2	Smart infrastructures and innovative services for electric vehicles in the urban grid and road environment	CP-FP	Max. 3 per proj.	
GC.SST.1-3	European strategy for rare materials and their possible substitution	CSA-SA		
GC.SST.1-4	Modelling and testing for improved safety of alternatively-powered vehicles	CP-FP	Max. 3 per proj.	
GC.SST.1-5	Integration and optimisation of range extenders on Electric Vehicles	CP-FP	Max. 3 per proj.	
GC.SST.1-6	Advanced energy simulation and testing for Fully Electric Vehicles (FEV)	CP-FP	Max. 3 per proj.	
GC.SST.1-7	Demonstration of Urban freight Electric Vehicles for clean city logistics.	CP	Max. 8	
<b>7.2</b>	<b>Research For Heavy Duty Vehicles For Medium And Long Distance Road Transport</b>			
GC.SST.2-1	Extreme low rolling resistance tyres	CP-FP	Max. 3 per proj.	
GC.SST.2-2	Complete vehicle energy management	CP-IP	Min. 3 per proj.	
GC.SST.2-3	Demonstration of heavy duty vehicles running with liquefied methane	CP	Max. 8	
<b>7.3</b>	<b>Logistics And Co-Modality</b>			
GC.SST.3-1	Towards sustainable interconnected logistics - development of standardised and modular solutions for freight transport vehicles, loading units and transshipment equipment	CP-FP	Max. 3 per proj.	
GC.SST.3-2	Improve capturing and sharing of transport data in support of innovative freight transport schemes	CP-FP	Max. 3 per proj.	
GC.SST.3-3	Platform for continuous intermodal freight transport strategic research and innovation	CSA-CA		

GC.SST.3-4      Green hubs enabling co-modal network design      CP-FP      Max. 3 per proj.

**Thema's NMP, Environment en Transport**

**Materials for Green Cars**

GC.NMP-2      Innovative advanced lightweight materials for the next generation      CP-Large      25      01-12-2011  
GC.ENV.6.6-3      of environmentally-friendly electric vehicles  
GC.SST.1-1      (joint topic of NMP, Environment and Transport)

