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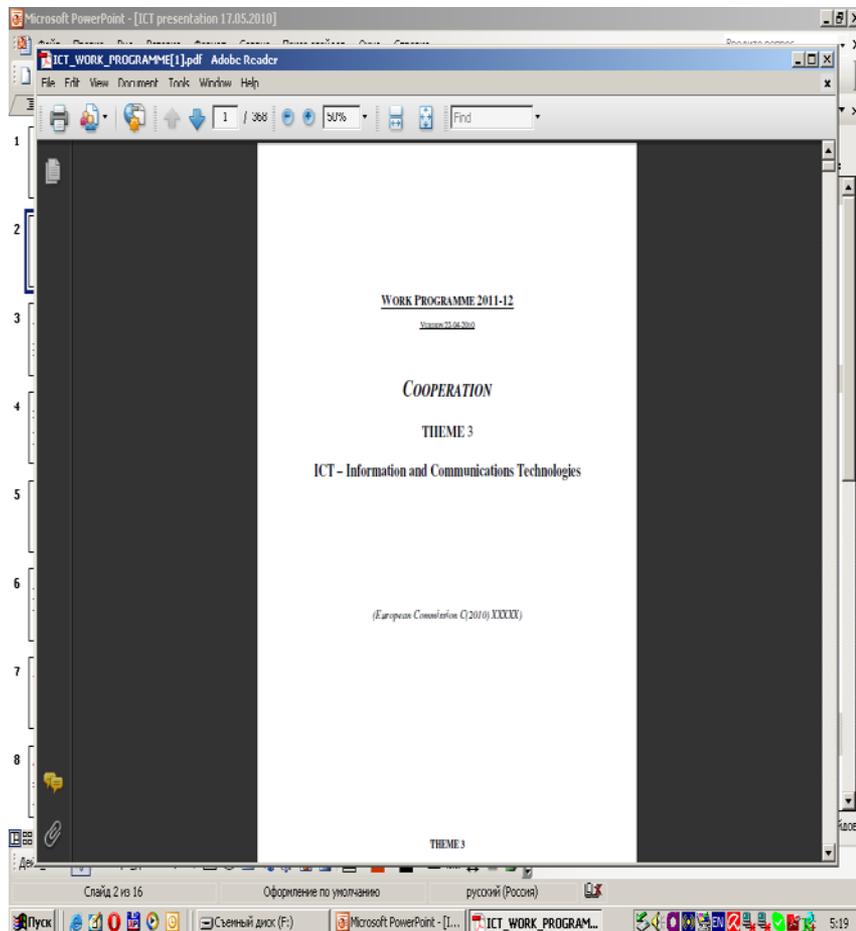


The 7th Framework Programme: content and current opportunities for cooperation in the field of Technologies for Nanoelectronics and Photonics

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ICT Thematic Workshop
17-18 May 2010 Minsk

ICT priorities for 2011-12 preliminary defined



The 7th Call for proposals will be launched on 28 September 2010 with the budget 783,5 mln Eur. Deadline – 18 January 2011.

The prospective of 2013+ has to be considered

Funding schemes

- Collaborative projects
 - **Small or medium-scale focused research actions (STREP)**, 1-4 mln. Eur (av. 2 mln), 6-15 partners, 1,5-3 years
 - **Large-scale integrating projects (IP)**, 4-25 mln Eur (av. 10 mln), 10-20 partners, 3-5 years
- Networks of Excellence (NoE)
- Coordination and Support Actions (CSA)
- Combination of Collaborative projects and Coordination and Support Actions

Levels of openness

- General opening (3 EU MS/AS min)
- **Targeted opening = Projects with recommended participation of the targeted countries or regions (3 EU MS/AS min)**
- **Specific International Cooperation Actions = SICAs (2 EU MS/AS + 2 ICPC)**
- Coordinated calls

Key principles of WP2011-12

- To support competitiveness of industry in Europe,
- To ensure leveraging by the EU budget of private spending,
- To increase synergies between private and public sectors across Europe.

Strategy (1)

1. Focus on a limited set of challenges to be continued
 - Limited number of challenges and objectives;
 - Mid-to-long term goals which require trans-national collaboration;
 - Each challenge is addressed through a limited number of objectives while the each objective specifies the set of outcomes targeted by the research work and their expected impact

Strategy (2)

2. A commitment to reinforce Europe's presence in the basic ICT technologies and infrastructures

Challenge 1 – Pervasive and Trusted Network and Service Infrastructures

Challenge 2 – Cognitive Systems and Robotics

Challenge 3 - Alternative paths to components and systems

focuses on further miniaturisation and increased performance in electronic and photonic components, in micro/nanosystems integrating functionalities like sensing, actuating, communicating, in alternative routes to new components and systems such as organic electronics and in multicore computing systems, embedded systems, monitoring and control, and cooperating complex systems.

Challenge 4 – Technologies for Digital Content and Languages

Strategy (3)

3. A reinforced ICT contribution to major socio-economic challenges

Challenge 5 – ICT for Health, Ageing Well, Inclusion and Governance

Challenge 6 – ICT for a Low-Carbon Economy

Challenge 7 – ICT for the Enterprise and Manufacturing – Factories of the Future PPP

Challenge 8 – ICT for learning and access to cultural resources

4. A strengthened support to Future and Emerging Technologies (FET)

Strategy (4)

5. A reinforced and focused support to international cooperation

Main objectives:

- To jointly respond to major global technological challenges by developing interoperable solutions and standards,
- To jointly develop ICT solutions to major global societal challenges,
- To improve scientific and technological cooperation for mutual benefit.

“International cooperation becomes a must to address the global challenges and to build win-win partnerships with well-targeted countries for technology, economic and social developments”.



Public-Private Partnerships in WP2011-12

- Future Internet
- Cross-thematic PPPs
 - Green cars
 - Energy-efficient buildings
 - Factories of the Future

Challenge 3 - Alternative paths to components and systems

The size of the photonics market in 2008 was 270 B€ with an EU share of the supply of 20%. European strengths are in the segments of communications, measurement and security, laser manufacturing, medical, photovoltaics, and lighting, with market shares of up to 45%.

Europe's share of the world supply of μ electronic components is 12-15%. Europe's strength though is in vertical component markets (automotive, telecom) with 40% of market share.

The aim of the Challenge is to reinforce the innovative capacity of Europe's industry in the field and enable it to seize the new opportunities.

More specifically, Challenge 3 focuses on:

The deep miniaturization, energy efficiency, performance increase and manufacturability of nano-electronic devices using alternative solutions to the traditional miniaturisation path, for information and communication systems and other applications in 2020 and beyond;

The further development of core and disruptive photonic technologies (Lasers, waveguides, photodetectors, amplifiers, LEDs, optical fibers, etc), fundamental and strategic applications such as medicine, biology, communication, lighting, sensing and measurement, and manufacturing.

Challenge 3 in ICT Call 7

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Call title: ICT call 7

- Call identifier: FP7-ICT-2011-7
- Date of publication⁵⁸: 28 September 2010
- Deadline⁵⁹: 18 January 2011, at 17:00.00 Brussels local time
- Indicative budget^{60, 61}: EUR 783.5 million
See indicative budget breakdown in section 7 of the ICT work programme.
- Topics called:

| Challenge | Objectives | Funding schemes |
|---|---|-----------------------------|
| Challenge 1: Pervasive and Trusted Network and Service Infrastructures | ICT 2011.1.3 Internet-connected Objects | IP/STREP, CSA |
| | ICT 2011.1.5 Networked Media and Search Systems | IP, STREP, CSA |
| | ICT 2011.1.6 Future Internet Research and Experimentation (FIRE) (a),(d) | IP, NoE |
| Challenge 2: Cognitive systems and robotics | ICT 2011.2.1 Cognitive Systems and Robotics (a), (d) | IP/STREP, CSA |
| Challenge 3: Alternative Paths to Components and Systems | ICT 2011.3.2 Smart components and smart systems integration (a), (c) | IP/STREP, CSA |
| | ICT 2011.3.3 New paradigms for embedded systems, monitoring and control towards complex systems engineering | IP/STREP, CSA |
| | ICT 2011.3.4 Computing Systems | STREP, NoE, CSA |
| | ICT 2011.3.5 Core and disruptive photonic technologies (b), (e) | STREP, CSA |
| Challenge 4: Technologies for Digital Content and Languages | ICT 2011.3.6 Flexible, Organic and Large Area Electronics and Photonics | IP/STREP, ERA-NET Plus, CSA |
| | ICT 2011.4.2 Language Technologies | IP/STREP, CSA |

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Challenge 3 in ICT Call 8

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Call title: ICT call 8

- Call identifier: FP7-ICT-2011-8
- Date of publication⁶³: 26 July 2011
- Deadline⁶⁴: 17 January 2012, at 17:00.00 Brussels local time
- Indicative budget^{65, 66}: EUR 780,5 million
See indicative budget breakdown in section 7 of the ICT work programme.
- Topics called:

| Challenge | Objectives | Funding schemes |
|---|---|------------------------------|
| Challenge 1: Pervasive and Trusted Network and Service Infrastructures | ICT 2011.1.1 Future Networks | IP/STREP, NOE, CSA |
| | ICT 2011.1.2 Cloud Computing, Internet of Services and Advanced Software Engineering | IP/STREP, CSA |
| | ICT 2011.1.4 Trustworthy ICT | IP/STREP, NoE, CSA |
| | ICT 2011.1.6 Future Internet Research and Experimentation (FIRE) (b), (c), (e) | IP, NOE |
| Challenge 3: Alternative Paths to Components and Systems | ICT 2011.3.1 Very advanced nanoelectronic components: design, engineering, technology and manufacturability | IP/STREP, CSA |
| | ICT 2011.3.2 Smart components and smart systems integration (b) | IP/STREP |
| | ICT 2011.3.5 Core and disruptive photonic | IP, STREP, ERA-NET Plus, CP- |

⁶² See http://ftp.cordis.europa.eu/pub/fp7/docs/fp7-ga-clauses-v6_en.pdf; http://ec.europa.eu/research/science-society/open_access; http://ec.europa.eu/research/science-society/scientific_information/.

⁶³ The Director-General responsible for the call may publish it up to one month prior to or after the envisaged date of publication

⁶⁴ The Director-General responsible may delay this deadline by up to two months

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Budget distribution, WP2011-12 (1)

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Введите вопрос

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Чтение

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| | WP 11-12 (including PPPs) | WP 09-10 | Change |
|---|---------------------------------|-------------|--------------|
| 1. Networking, computing and service infrastructure | 625 | 540 | 15,7% |
| 1.1 Future Networks | 160 | 190 | -15,8% |
| 1.2 Software, services and cloud computing technologies | 70 | 110 | -36,4% |
| 1.3 Networking architecture for IoT | 30 | 20 | 50,0% |
| 1.4 Trustworthy ICT | 80 | 90 | -11,1% |
| 1.5 Networked Media and Search Systems | 70 | 80 | -12,5% |
| 1.6 Future Internet Experimental Facility | 45 | 50 | -10,0% |
| PPP Future Internet | 170 | 0 | NA |
| 2. Cognitive Systems and Robotics | 155 | 153 | 1,3% |
| 2.1 Cognitive Systems and Robotics | 155 | 153 | 1,3% |
| 3. Alternative paths to components and systems | 400 | 375 | 6,7% |
| 3.1 Nanoelectronics components | 60 | 60 | 0% |
| 3.2 Integration of smart components and systems | 80 | 80 | 0,0% |
| 3.3 Embedded systems and cooperative monitoring and control | 50 | 60 | -16,67% |
| 3.4 Computing systems | 45 | 25 | 80,0% |
| 3.5 Core and disruptive photonics | 115 | 90 | 27,8% |
| 3.6 Organic electronics and photonics | 50 | 60 | -16,7% |
| 4. Technologies for Digital Content and Languages | 165 | 126 | 31% |
| 4.1 SME Initiative | 35 | | NA |
| 4.2 Language Technologies | 50 | 26 | 92,35% |
| 4.3 Digital preservation | 30 | 30 | 0,0% |
| 4.4 Information Management | 50 | 70 | -28,6% |
| 5. Towards sustainable and personalised healthcare | 256 | 234 | 9,4% |
| 5.1 Personal Health Systems | 60 | 63 | -4% |
| 5.2 ICT for Patient Safety | 33 | 30 | +10% |

Total budget for WP2011-12 is 2407 Bln Eur (1954 Bln for WP09-10)

Growth - 23,81%

Budget distribution, WP2011-12 (2)

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| | | | |
|---|----------------------|------------------------|----------------------|
| 6. ICT for a low carbon economy | 280 | 189⁺ | 48,15% |
| 6.1 Smart energy grids | 30 | 20 | 50% |
| 6.2 ICT systems for Energy Efficiency | 35 | 10 | 250% |
| 6.3 ICT for water management | 15 | 0 | NA |
| PPP ICT for energy-efficient buildings and spaces of public use | 50 | 25 | 100,0% |
| 6.4 Mobility and freight transport | 50 | 53 | -5% |
| 6.5 Cooperative systems | 40 | 37 | 8% |
| PPP ICT for the Fully Electric Vehicle | 60 | 20 | 200,0% |
| 7. ICT for the enterprise and manufacturing | 140 | 52 | 169,0% |
| PPP ICT for agile manufacturing and customisation | 40 | 35 | 14,3% |
| PPP Manufacturing solutions for ICT products | 20 | 0 | NA |
| PPP Virtual factories and enterprises | 45 | 17 | 165% |
| PPP Design & product life cycle management | 35 | 0 | NA |
| 8. ICT for learning and access to cultural resources | 100 | 88 | 13,6% |
| 8.1 Technology-Enhanced Learning | 60 | 49 | 22,4% |
| 8.2 ICT for access to cultural resources | 40 | 39 | 2,56% |
| Future and Emerging Technologies** | 260 | 171 | 52% |
| FET-Open | TBC | 61 | NA |
| FET-Proactive | TBC | 110 | NA |
| Horizontal Actions and special initiatives | 26 | 26 | 0% |
| 9.1 International Cooperation | 15 | 12 | 25,0% |
| 9.2 NCP | 3 | | NA |
| 9.3 General Accompanying Measures (PCP,...) | 8 | 14 | -42,86% |
| Total | 2407 | 1954 | 23,81% |

Рисование Автофигуры

Стр. 2 Разд 1 2/2 На 13,4см Ст 26 Кол 1 ЗАП ИСПР ВДЛ ЗАМ английский

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Targeted opening in WP2011-12 (1)

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Исправления в измененном документе Показать

| ICT topic | Instrument | Type of activity | Industrialised countries | BRIC | Devel. country, NMPC |
|---|------------|--|---|--------------------------|----------------------|
| Future Internet | R&D, CSA | Common/ harmonised standards | US, Japan | | - |
| FIRE + Living Labs | R&D, CSA | Project twinning, joint test facilities | - | Brazil | |
| Search Engine | R&D, CSA | Common/ harmonised standards | Japan | - | - |
| RFID, beyond RFID | R&D, CSA | Common/ harmonised standards | US, Japan, South Korea | China, India | - |
| Green Cloud Computing | CSA | Benchmarking, validation | Japan | - | - |
| Access to Cultural Heritage | CSA | Raising awareness on standards, competences, tools | - | Russia | - |
| Language technologies | CSA | Working groups, consultations, surveys | - | - | Arabic countries |
| Nano-, molecular electronics | R&D, CSA | Research, joint road mapping | US, Canada, Australia, Japan, Singapore | Russia, Brazil | - |
| Quantum info. processing and communications | R&D, CSA | Research, joint road mapping | US, Canada, Australia, Japan, Singapore | Russia | - |
| Complex Systems Research | R&D, CSA | Research, joint road mapping | - | China, India | - |
| Neuro-engineering | R&D, CSA | Research, joint road mapping | US | - | - |
| Trust and security | R&D, CSA | Common RTD priorities, project twinning, joint test facilities | US, Japan, Australia, S. Korea, Canada | Brazil, India, S. Africa | - |
| Micro, nano electronics, and microsystems | R&D, CSA | RTD, dissemination, road mapping | US, Japan, Taiwan | Russia, Brazil | - |
| Embedded Systems and Control | R&D, CSA | RTD, dissemination, road mapping | US, Australia, Canada | Russia, Brazil, India | - |

Рисование Автофигуры

Стр. 28 Разд 5 28/28 На 14,4см Ст 25 Кол 1 ЗАП ИСПР ВДЛ ЗАМ английский

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EU-Russia Coordinated Call (1)

Call title: ICT – EU Russia Coordinated Call

Call identifier: FP7-ICT-2011-EU-Russia

Date of publication: 30 July, 2010.¹³⁴

Deadline: 14 September, 2010 at 17.00.00 (Brussels local time)¹³⁵ and for the coordinated projects funded by the Ministry of Education and Science of Russia on 8 September, 2010 at 1X.00.00 (Moscow local time) according to the respective requirements of the EC and the Ministry of Education and Science of Russia.

Indicative budget¹³⁶: EUR 4 million¹³⁷. A budget of app. EUR 2 million for the call is expected from the Ministry of Education and Science of Russia.

All budgetary figures given in this work programme are indicative. The final budget awarded to this call, following the evaluation of proposals, may vary by up to 10% of the total value of the call.

See indicative budget breakdown in section 7 of the ICT work programme.

Topics called:

| Topic called | Topics | Funding Scheme |
|--|--|--|
| Objective ICT-2009.10.2 EU-Russia Research and | (a) Programming Models and Runtime Support | Small or medium scale focused research projects (CTP...) |

¹³⁴ The Director-General responsible for the call may publish it up to one month prior to or after the envisaged date of publication.

¹³⁵ At the time of publication of the call, the Director-General responsible may delay this deadline by up to two months.

¹³⁶ A reserve list will be constituted if there are a sufficient number of good quality proposals. It will be used if extra budget becomes available.

¹³⁷ Under the condition that the preliminary draft budget for 2011 is adopted without modification by the budgetary authority

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EU-Russia Coordinated Call (2)

(b) Performance Analysis Tools for High-Performance Computing

(c) Optimisation, Scalability and Porting of Codes

Eligibility conditions:

The eligibility criteria are set out in Annex 2 of this work programme, and in the guide for applicants. Please note that the completeness criterion also includes that part B of the proposal shall be readable, accessible and printable.

Only information provided in part A of the proposal will be used to determine whether the proposal is eligible with respect to budget thresholds and/or minimum number of eligible participants.

The minimum number of participating legal entities required for this call is summarised in the table below¹³⁸:

| Funding scheme | Minimum conditions |
|----------------------------------|--|
| Collaborative Projects STREPs | At least 3 independent legal entities, each of which is established in a MS or AC, and no two of which are established in the same MS or AC. |

Additional eligibility criterion:

Proposals which do not include coordination with a Russian project will be considered ineligible. Therefore, the EC project proposals must include detailed explanations about the coordinated Russian proposal submitted in parallel to the Ministry of Education and Science of Russia. Proposals will only be evaluated on the condition that the proposal related to their coordinated Russian project has also been presented for funding to the Ministry of Education and Science of Russia.

In addition, for each Small or medium scale focused research project, the project duration shall not exceed 24 months and the maximum EC funding requested must not exceed EUR 1.500.000.

Evaluation procedure:

SICA for EECA in the ICT Call 9

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| | Communities, Identifying new research topics for FET Proactive initiatives and Fostering Networking of National and Regional Research Programmes (a), (b), (c), (d) | |
| Challenge 10: International Cooperation | ICT 2011.10.3 International Partnership building and support to dialogues (b) | STREP/SICA |

- Eligibility conditions:

The general eligibility criteria are set out in Annex 2 of this work programme, and in the guide for applicants. Please note that the completeness criterion also includes that part B of the proposal shall be readable, accessible and printable.

Only information provided in part A of the proposal will be used to determine whether the proposal is eligible with respect to budget thresholds and/or minimum number of eligible participants.

The minimum number of participating entities required, for all funding schemes, is set out in the Rules for Participation: For Collaborative projects, the minimum condition shall be the participation of 3 independent legal entities, each of which is established in a Member State or Associated Country and no two of which are established in the same Member State or Associated Country. .
- Evaluation procedure:
 - A one-stage submission procedure will be followed.
 - The evaluation criteria and sub-criteria (including weights and thresholds), together with the eligibility, selection and award criteria, for the different funding schemes are set out in Annex 2 to the Cooperation work programme.

Proposal submission must be made by the European Commission's Electronic Proposal Submission Service (EPSS) on or before the published deadline. Applicants must ensure that proposals conform to the page limits and layout given in the Guide for Applicants, and in the proposal part B template available through the EPSS.
- Particular requirements for prioritisation of proposals with the same score:

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THANK YOU FOR ATTENTION

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