
FP7 Training



Prof. Dr. Dana Petcu

Head of Computer Science Department,
West University of Timisoara, Romania
Romanian expert at FP7-ICTC

Content

- Trainer experience in FP6/FP7
- Be informed
 - FP7 Organization
 - FP7-ICT Workprogramme
- Project proposal
 - Responding to a call for proposals
 - Proposal idea
 - Partnership
 - Proposal writing
 - Evaluation
 - Project execution
- Benefits for FP7 participants

Trainer experience

- Decision maker:
 - member in the FP7-ICT Programme Committee
 - Evaluator:
 - over 15 participations to proposal evaluations in FP6/FP7
 - 4 participation for intermediate evaluations of on-going prj.
 - Project proposer:
 - Participation in over 50 proposals, from 2003
 - Main writer of 11 proposals, from which 7 funded
 - Project executor:
 - Participation in 5 FP6, 10 FP7
 - Main contractor/coordinator: 4
 - Funds contracted/unit: 200 kE/2004 to 2200 kE/2011
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FP7 Organization

EC key funding instruments to R&D

FP: Research Framework Programme funding research

CIP: Competitiveness and Innovation Framework Programme funding innovation

SF: Structural Funds and Cohesion Fund funding the Cohesion policy.

http://cordis.europa.eu/eu-funding-guide/checklist_en.html

Others: ESF - COST

FP7 Organization (until the end of 2013)



http://cordis.europa.eu/fp7/home_en.html

FP7 Cooperation

- 64% of FP7 budget
- Supporting cooperation
 - between universities, industry, research centres & public authorities throughout the EU & beyond
- Sub-divided into 10 distinct themes
 - including ICT
- Schemes
 - Collaborative research (main !)
 - Coordination between national research progs (ERA-NET)
 - Joint Technology Platforms (JTI)
 - European Technology Platforms (ETP)

FP7 Ideas

- for 'frontier research' executed by individual teams
 - 'investigator-driven', or 'bottom-up'
 - reinforce excellence, dynamism & creativity in EU research
- ERC: European Research Council
- Funding
 - Top research leaders for Europe
 - Grants for starting and advanced researchers

FP7 People (‘Marie Curie actions’)

- address researchers at all stages of their careers
 - strengthen the human potential in research & technology in EU
 - stimulate people to enter into the profession of researcher
 - encouraging researchers to stay in EU, attracting to EU researchers
- Schemes
 - Initial training of researchers (ITN)
 - Life-long training
 - Intra-European Fellowships for Career Development (IEF)
 - European Reintegration Grants (ERG)
 - International Reintegration Grants (IRG)
 - Co-funding of Regional, National, and International Programmes (COFUND)
 - Industry-academia pathways and partnerships (IAPP)
 - International dimension
 - International Outgoing Fellowships for Career Development (IOF)
 - International Incoming Fellowships (IIF)
 - International Research Staff Exchange Scheme (IRSES)
 - 'Specific actions: Researchers' Night - NIGHT

FP7-Capacities

- Enhance R&D capacities throughout EU & ensure their optimal use
 - Areas:
 - Research infrastructures
 - e-Infrastructures, Integrating activities, construction of new infrastructures, NCP cooperation, policy development
 - Research for the benefit of SMEs
 - Regions of knowledge and support for regional research-driven clusters
 - Develop and Implementing research agendas, mentoring of regions, initiatives to improve integration, dissemination
 - Research potential of Convergence Regions
 - secondments, equipments, workshop, evaluation facilities
 - Science in society
 - science education, science events targeting public, ethics, role of women, science prizes, NCP cooperation
 - Support to the coherent development of research policies
 - Monitoring (ERAWATCH) and coordination of research policies (OMC-NET)
 - International cooperation (ERA-NET)
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FP7-ICT work-programme

Part of FP7 Cooperation

FP7-ICT WP

- ICT - the largest research theme in the Cooperation programme!
- Based on two years workprogrammes
 - Current WP:
ftp://ftp.cordis.europa.eu/pub/fp7/ict/docs/ict-wp-2011-12_en.pdf
- Based on Calls for proposals
 - Next calls: Call 8, Call 9, PPP, FET

Funding schemes

- CP – collaborative projects
 - IP – large-scale integrating projects
 - STREP – small or medium scale focused research activities
- NoE – Network of Excellence
- CSA – Coordination and support actions
 - SA – Support actions
 - CA – Coordination or networking actions

Calls

	Budget	GC, EEB, FoF PPP 2011	Future Internet PPP 2011	EU- Russia coord. Call	EU- Brazil coord. Call	FET Flags. Initiat.	Call 7	SME Initiat.	Call 8	GC, EEB, FoF PPP 2012	Call 9	Future Internet PPP 2012	FET Open
Date of publication		20/7/10	20/7/10	20/7/10	28/9/10	20/7/10	28/9/10	1/2/11	26/7/11	30/7/11	18/1/12	18/5/12	20/7/10
Call deadline		2/12/10	2/12/10	14/9/10	18/1/11	2/12/10	18/1/11	28/4/11 (short) 28/9/11 (full)	17/1/12	2/12/11	17/4/12	29/10/12	Cont. to 31/12/12
1. Pervasive and Trusted Network and Service Infrastructure	625												
1.1 Future Networks	160								160				
1.2 Cloud Computing, Internet of Services and Advanced Software Engineering	70								70				
1.3 Internet-connected Objects	30						30						
1.4 Trustworthy ICT	80								80				
1.5 Networked Media & Search Systems	70						70						
1.6 Future Internet Research and Experimentation (FIRE)	45						20		25				
1.7 PPP FI: Technology foundation - Future Internet Core Platform	41		41										
1.8 PPP FI: Use Case scenarios and early trials	107.5		40									67.5	
1.9 PPP FI: Capacity Building and Infrastructure Support	15.5		3									12.5	
1.10 PPP FI: Programme Facilitation and Support	6		6										
2. Cognitive Systems and Robotics	155												
2.1 Cognitive Systems and Robotics	155						73				82		
3. Alternative Paths to Components and Systems	402												
3.1 Very advanced nanoelectronic components: design, engineering, technology and manufacturability	60								60				

Calls

3.2 Smart components and smart systems integration	80					41		39				
3.3 New paradigms for embedded systems, monitoring and control towards complex systems engineering	50					50						
3.4 Computing Systems	45					45						
3.5 Core and disruptive photonic technologies	117					25		92				
3.6 Flexible, Organic and Large Area Electronics and Photonics	50					50						
4. Technologies for Digital Content and Languages	165											
4.1 SME initiative on Digital Content and Languages	35						35					
4.2 Language Technologies	50					50						
4.3 Digital Preservation	30									30		
4.4 Intelligent Information Management	50							50				
5. ICT for Health, Ageing Well, Inclusion and Governance	260											
5.1 Personal Health Systems	60					60						
5.2 Virtual Physiological Human	68					1.5				66.5		
5.3 Patient Guidance Services (PGS), safety and healthcare record information reuse	35					35						
5.4 ICT for Ageing and Wellbeing	37					37						
5.5 ICT for smart and personalised inclusion	35					35						
5.6 ICT Solutions for governance and policy modelling	25					25						
6. ICT for a Low Carbon Economy	280											
6.1 Smart energy grids	30							30				
6.2 ICT systems for Energy Efficiency	35					35						
6.3 ICT for efficient water resources management	15							15				
6.4 PPP EEB: ICT for energy-efficient buildings and spaces of public use	20	20										
6.5: PPP EEB: ICT for energy-positive neighbourhoods	30								30			
6.6 Low-carbon multi-modal mobility and freight transport	50					50						
6.7 Cooperative systems for energy efficient and sustainable mobility	40							40				
6.8 PPP GC: ICT for fully electric vehicles	60	30							30			
7. ICT for the Enterprise and Manufacturing	140											
7.1 PPP FoF: Smart factories: energy-aware, agile manufacturing and customisation	40								40			
7.2 PPP FoF: Manufacturing Solutions for new ICT products	20								20			
7.3 PPP FoF: Virtual factories and enterprises	45	45										
7.4 PPP FoF: Digital factories: Manufacturing design and product lifecycle management	35	35										
8. ICT for Learning and Access to Cultural Resources	100											

Calls

8.1 Technology-Enhanced Learning	60									60				
8.2 ICT for access to cultural resources	40										40			
9. Future and Emerging Technologies	261													
FET-Open	93													
9.1 Challenging current Thinking	75													75
9.2 High-Tech Research Intensive SMEs in FET research	9													9
9.3 FET Young Explorers	6													6
9.4 International cooperation on FET research	3													3
FET-Proactive	168													
9.5 FET Flagship Initiative Preparatory Actions	10						10							
9.6 FET Proactive: Unconventional Computation (UCOMP)	15										15			
9.7 FET Proactive: Dynamics of Multi-Level Complex Systems	23										23			
9.8 FET Proactive: Minimising Energy Consumption of Computing to the Limit (MINECC)	15										15			
9.9 FET Proactive: Quantum ICT (QICT) including ERA-NET-Plus	22											22		
9.10 FET Proactive: Fundamentals of Collective Adaptive Systems (FOCAS)	23											23		
9.11 FET Proactive: Neuro-Bio-Inspired Systems (NBIS)	23											23		
9.12 Coordinating Communities, Identifying new research topics for FET Proactive initiatives and Fostering Networking of National and Regional Research Programmes	8.5							3			3	2.5		
9.13 Exa-scale computing, software and simulation	25							25						
9.14 Science of Global Systems	3.5										3.5			
10. International Cooperation	15													
10.1 EU-Brazil Research and Development Cooperation	5						5							
10.2 EU-Russia Research and Development Cooperation	4				4									
10.3 International Partnership building and support to dialogues	6							4				2		
11. Horizontal Actions	19													
11.1 Pre-Commercial Procurement Actions	5										5			
11.2 National Contact Points	4							4						
11.3 Strengthening Cooperation in ICT R&D in an Enlarged Europe	10							10						
Total	2422	130	90	4	5	10	778.5	35	785.5	120	291	80	93	

Objectives

Objective ICT-2011.1.2 Cloud Computing, Internet of Services and Advanced Software Engineering

The objective focuses on technologies specific to the networked, distributed dimension of software and access to services and data. It will support long-term research on new principles, methods, tools and techniques enabling software developers in the EU to easily create interoperable services based on open standards, with sufficient flexibility and at a reasonable cost.

Funding schemes

a), b), c): IP, STREP; d): CSA

Indicative budget distribution¹¹

- IP/STREP:
EUR 68.5 million of which a minimum of 30% allocated to IPs and 50% to STREPs
- CSA: EUR 1.5 million

Calls

FP7-ICT-2011-8

Objective 1.2

Target outcomes

a) **Cloud Computing**

- Intelligent and autonomic management of cloud resources, ensuring agile elastic scalability. Scalable data management strategies, addressing the issues of heterogeneity, consistency, availability, privacy and supporting security.
- Technologies for infrastructure virtualisation, cross platforms execution as needed for service composition across multiple, heterogeneous environments, autonomous management of hardware and software resources.
- Interoperability amongst different clouds, portability, protection of data in cloud environments, control of data distribution and latency.
- Seamless support of mobile, context-aware applications.
- Energy efficiency and sustainability for software and services on the cloud.
- Architectures and technologies supporting integration of computing and networking environments; implications of Cloud Computing paradigm on networks
- Open Source implementations of a software stack for Clouds

b) **Internet of Services**

- Service engineering principles, methods and tools supporting development for the Internet of Services, including languages and tools to model parallelism.
- Services enabled by technologies for seamless integration of real and virtual worlds, through the convergence with Internet of Things and Internet of Contents.
- Massive scalability, self-management, verification, validation and fault localisation for software-based services.
- Methods and tools to manage life cycle of secure and resilient Internet-scale applications from requirements to run-time and their adaptive evolution over time.

Objective 1.2

c) **Advanced software engineering**

- Advanced engineering for software, architectures and front ends spanning across all abstraction levels.
- Quality measure and assurance techniques which adapt to changing requirements and contexts, to flexibly deal with the complexity and openness of the Future Internet.
- Management of non-functional requirements typical of Internet-scale applications, like concurrency levels which will be orders of magnitude larger than in today's applications, huge data stores and guaranteed performance over time.
- Tools and methods for community-based and open source software development, composition and life cycle management.

d) **Coordination and support actions**

- Support for standardization and collaboration in software and services technologies.
- Support for the uptake of open source development models in Europe and beyond.
- Collaboration with Japanese entities on: cloud computing, particularly on common standards for data portability and on interoperability; services having more efficient energy usage.

Objective 1.2

Expected impact

- Emergence of European interoperable clouds contributing to an internal market of services in the EU whilst providing very significant business opportunities to SME's; improved trust in cloud-based applications and storage for citizens and business.
- Availability of platforms for easy and controlled development and deployment of value-added services through innovative service front-ends.
- Lower barriers for service providers and users to develop, select, combine and use value-added services through significant advances in cloud computing technologies and standardised and open interfaces.
- Efficient implementation of mainstream software applications on massively parallel architectures.
- Easier evolution of legacy software over time, thanks to innovative methods and tools managing the complete lifecycle of software from requirements to run-time.
- Fast innovation cycles in service industry, e.g. through the use of Open Source development model.
- A strengthened industry in Europe for software-based services offering a large choice of services satisfying key societal and economical needs, with reinforced capabilities to engineer and produce software solutions and on-line services.

Responding to a call for proposals

Proposal idea

Partnership

Proposal writing

Useful links

- Calls:
 - <http://ec.europa.eu/research/participants/portal/page/home>
 - Submission:
 - <https://www.epss-fp7.org/epss/>
 - Search for partners/Ideal-IST:
 - <http://www.ideal-ist.eu/>
 - InfoDays/Obj.1.2:
 - http://ec.europa.eu/information_society/events/ssai/infoday2011/index_en.htm
 - Site of the unit which presents the EC projects/Obj1.2
 - <http://cordis.europa.eu/fp7/ict/ssai/>
 - Become evaluator:
 - <https://cordis.europa.eu/emmfp7/index.cfm>
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Project idea

- **Comply**
 - Follows the call text?
- **Innovate**
 - What is new relative to the state-of-the-art?
 - What is new relative to the current projects?
- **Implement**
 - European dimension is needed?
 - Implementation request multiple competences?
 - Can take-ups happen?

Official steps

Be informed:

1. Identification of research areas in the ICT workprogramme
2. Confirm that the funding mechanisms available are appropriate

Find partners:

3. Identify other organizations complementary in terms of skills
4. Build a quality international consortium

Write proposal:

5. Familiarise with specific guidance documentation and templates
6. Draft a comprehensive proposal document

Finalize the proposal:

7. Submit the proposal to the European Commission in line with the deadline

Recommended initial steps

- Cook the idea in a 'circle of trust' of few partners
- Put on paper the idea (2-5 pages)
- Identify the competences that are missing
- Search for partners matching the competences

Search for partners

Options:

- former good-working partners
- known team, from community
- use search engines (e.g. Ideal-IST)
- participate to brokerage events (e.g. InfoDays / EC)

Watch:

- mix of different types of organisations (e.g. academic, user organisations, industrial companies, SMEs, etc.)
- preferable with experience in FP6/FP7

Avoid:

- Overlap of competences
 - Invitation based only on friendship
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Before developing the proposal text

- Check the idea compliance with the Call
 - InfoDays of the EC Unit that coordinates the Obj
 - Pre-checks by the project officers from EC
- Find good example of DoW (description of work)
 - previous projects or search to the current projects

How to write the proposal

- Establish the MAIN writer
- Start from a short text describing the idea
- Do a sketch of a Gantt diagram of the work to do
- Split the work to the partners
 - BUT approved by the MAIN writer
 - INTEGRATE the contributions
- IF a partner in writing is not performing do not keep it as partner
- Evaluate the necessary effort to implement expressed in PMs
- Establish the coordinator according to the contributions and project management experience (not necessary the main writer)

Section 1: S&T

- Measurable objectives
- Motivation and state of the art (SOTA)
- Clear description of the advance of the SOTA
- General description of the approach
- Expose work division in tasks, grouped in workpackages
- Description at task level of work to do as well as the contribution of each partner
- Outputs of the work in form of deliverables
- Checkpoints (milestones) of the project

Section 2: Implementation

- Management structures
 - Procedures for collaborations, knowledge sharing
 - Partner
 - Competences, Key persons
 - RTD experience, Collaborative project experience
 - Commitment to do which tasks
 - Complementarity & synergies between partners
 - Costs
 - Explain direct costs for PMs, materials & equipments, software, travels
-

Section 3: Impact

- How the achievements will be take?
 - By stakeholders
 - By industry
 - By community
 - By society
 - How this will be achieved?
 - Dissemination plan
 - Exploitation plan
 - Partner plan
 - Consortium plan
 - IPRs management
-

Administrative part

- Title and acronym
- Abstract (A1 form)
- Partners coordinates and contacts (A2 form)
- Financial requirements (A3)

Note:

the participant as institution

should be registered earlier (PIC number)

EPSS submission system

- On-line A forms
 - Upload Part B - project proposal
 - The main writer or a representative
 - register the proposal
 - send the access codes to the partners
 - the partners fill the A forms
 - the writer uploads versions of the proposals
 - Checks are performed by the system vs. the no. of requested documents
 - Submission of different versions is recommended
 - The last version before the deadline is taken into account
-

What happens after the proposal
is submitted?

Phase 1: Evaluation process

- Initial evaluation
 - 3-5 evaluators, different backgrounds (academia, industry, researchers, managers etc)
 - Remotely by each evaluator
 - Evaluation form (ESR) are collected by the EC unit
 - Second phase
 - The evaluators meet in Brussels to discuss the proposal
 - They arrive to a consensus about the proposal grades
 - Third phase
 - A full panel of evaluators calibrate the evaluations of all proposals
 - Rank them according to the grades and topic coverages
 - Fourth phase
 - Approvals of the classification and funding by various foras
 - Recommendation: Register to be an evaluator!
-

Evaluation reports: ESR for FP7-ICT

- Grades – usually from 1 to 5:
 - 5 – excellent, 4 – very good, 3 – good, 2 – insufficient, 1 – not compliant with requests
 - No. grades - usually there are four grades:
 - Section 1 – S&T
 - Section 2 – Implementation
 - Section 3 – Impact
 - General grade : sum of the aboves
 - Thresholds:
 - General threshold: e.g. 10 from 15
 - Section threshold: e.g. 3 from 5
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Categories of evaluation result

- Failed to pass multiple threshold
- Failed to pass one threshold
- Passed the evaluation but insufficient funds
- Reserve list
- Invited to negotiations

Phase 2: Negotiations

- Changes in the DoW according to specific requirements according to the eval report (ESR)
- Correct the errors in the project proposal
- Upload the documents in the NEF system
- Meeting(s) of project representatives with the assigned project officer
- Iteration of the process until agreement is reach

Phase 3: Contracting phase

- Obtain approvals for funding from different fora
- Sign the Contract with EC
- Establish a Consortium Agreement

Phase 4: Project execution

- Follow the DoW
- Share knowledge, documents, software, infos
- Face-to-face and virtual meetings between teams in hierarchical levels
- Often meetings of the local teams
- Split clearly the work and responsibilities
- Register time spent & costs for the project tasks

Benefits for FP7 participants

Enjoy the participation at a FP7 project

- Exploit the EU dimension
 - Build something impossible to be done at one partner/national level
 - Raise the visibility of the local team according the achievements of the project team
 - Raise the local knowledge in a systematic approach
 - Learn from the other partners
 - Different culture experiences
 - Assimilate shared knowledge
 - Build strong human relationships
-