



ICT Call 10, 11 INFODAY
Minsk, December, 14th 2012.

The role & organisation of ICT in



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This presentation has been prepared based on materials delivered by EC and/or Ministries and Agendas of RP





Agenda

- 1. UE Funds and their today organization,**
 - ✓ Initiatives with ICT topics
- 2. Horizon 2020**
 - ✓ basic assumptions
 - ✓ Proposed budget
 - ✓ ICT role
- 3. UE Funds and their FUTURE organization**





UE Funds and their today organization



EU Structural Funds

4,26 mld€



9,1 mld€





UE Funds and their today organization



EU Structural Funds

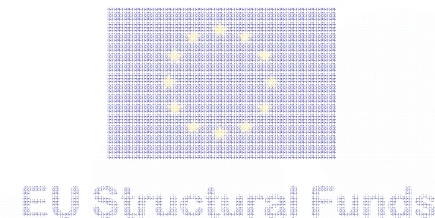


Health	6,1
Bio, Food, Agriculture	1,9
ICT	9,1
Nano Matrl Production	3,5
Energy	2,3
Environment	1,9
Transport	4,2
Soc. – Economy	0,6
Security	1,4
Space	1,4





UE Funds and their today organization



Health
Bio Food Agriculture
ICT 9,1
Nano Matrl Production 3,5
Energy 2,3
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Transport 4,2
Soc. – Economy
Security
State

Energy Effective Buildings 1
Factories of the Future 1,2
Green Cars 1 + 4 (EIB)

Future Internet PPP 0,17

Entrepreneurship & Innovation Programme (EIP) 2,17
Information Communication Technologies – Policy Support Programme (ICT PSP) 0,73
Intelligent Energy Europe Programme (IEE) 0,73





The basic assumptions:

- Commission proposal for a 80 billion € research and innovation funding programme (2014-20)
- Part of proposals for next EU budget, complementing Structural Funds, education, etc.
- A core part of Europe 2020, Innovation Union & European Research Area:
 - Responding to the economic crisis to invest in future jobs and growth
 - Addressing peoples' concerns about their livelihoods, safety and environment.
 - Strengthening the EU's global position in research, innovation and technology





What's new:

- **A single programme *bringing together three separate programmes/initiatives****
- **More innovation, *from research to retail, all forms of innovation***
- **Focus on societal challenges *facing EU society, e.g. health, clean energy and transport***
- **Simplified access, *for all companies, universities, institutes in all EU countries and beyond.***

* *The 7th research Framework Programme (FP7), innovation aspects of Competitiveness and Innovation Framework Programme (CIP), EU contribution to the European Institute of Innovation and Technology (EIT)*





Three priorities :

1. Excellent science,
2. Industrial leadership,
3. Societal challenges.





HORIZON 2020

Rationale :

Excellent science

- **World class science is the foundation of tomorrow's technologies, jobs and wellbeing**
- **Europe needs to develop, attract and retain research talent**
- **Researchers need access to the best infrastructures**





Proposed funding (million €, 2014-20):

European Research Council <i>Frontier research by the best individual teams</i>	13 268
Future and Emerging Technologies <i>Collaborative research to open new fields of innovation</i>	3 100
Marie Curie actions <i>Opportunities for training and career development</i>	5 752
Research infrastructures (including e-infrastructure) <i>Ensuring access to world-class facilities</i>	2 478





ICT in Science :

ICT 4 b€

FET Open: fostering novel ideas

- ✓ Collaborative research for embryonic, high risk visionary science and technology

FET Proactive

- ✓ Nurturing emerging themes and communities

FET 3.1 b€

FET Flagships

- ✓ Tackling grand interdisciplinary science and technology challenges

E-Infrastructures

- ✓ Integration and access to national research infrastructures; development, deployment and operation of e-Infrastructures

E-Inf 0.9 b€





Rationale :

Industrial leadership

- Europe needs **more innovative SMEs** to create growth and jobs
- **Strategic investments in key technologies** (e.g. advanced manufacturing, micro-electronics) underpin innovation across existing and emerging sectors
- Europe needs to **attract more private investment** in research and innovation





Proposed funding (million €, 2014-20):

Leadership in enabling and industrial technologies <i>(ICT, nanotechnologies, materials, biotechnology, manufacturing, space)</i>	13 781
Access to risk finance <i>Leveraging private finance and venture capital for research and innovation</i>	3 538
Innovation in SMEs <i>Fostering all forms of innovation in all types of SMEs</i>	619





ICT in Industrial Leadership (I):

ICT 8 b€

1. Components and systems

- ✓ Smart embedded components and systems, micro-nano-bio systems, organic electronics, large area integration, technologies for IoT, smart integrated systems, systems of systems and complex system engineering

2. Next generation computing

- ✓ Processor and system architecture, interconnect and data localisation technologies, cloud computing, parallel computing and simulation software

3. Future Internet

- ✓ Networks, software and services, cyber security, privacy and trust, wireless communication and all optical networks, immersive interactive multimedia and connected enterprise





ICT in Industrial Leadership (II):

ICT 8 b€

- 4. Content technologies and information management**
 - ✓ **Technologies for language, learning, interaction, digital preservation, content access and analytics; advanced data mining, machine learning, statistical analysis and visual computing**
- 5. Advanced interfaces and robots**
 - ✓ **Service robotics, cognitive systems, advanced interfaces, smart spaces and sentient machines**
- 6. Key Enabling Technologies: Micro- nano- electronics and photonics**
 - ✓ **Design, advanced processes, pilot lines for fabrication, related production technologies and demonstration actions to validate technology developments and innovative business models**





Rationale :

Societal challenges

- EU policy objectives (climate, environment, energy, transport etc) - cannot be achieved without innovation
- Breakthrough solutions come from multi-disciplinary collaborations, including social sciences & humanities
- Promising solutions need to be tested, demonstrated and scaled up





Proposed funding (million €, 2014-20):

Health, demographic change and wellbeing	8 028
Food security, sustainable agriculture, marine and maritime research & the bioeconomy	4 152
Secure, clean and efficient energy*	5 782
Smart, green and integrated transport	6 802
Climate action, resource efficiency and raw materials	3 160
Inclusive, innovative and secure societies	3 819

* Additional €1 050m for nuclear safety and security from the Euratom Treaty activities (2014-18). Does not include ITER.





ICT in Societal Challenges (I):

ICT 4 b€

- Health, demographic change & wellbeing;**
 - ✓ e-health, self management of health, improved diagnostics, improved surveillance, health data collection, active ageing, assisted living;
- Secure, clean and efficient energy;**
 - ✓ Smart cities; Energy efficient buildings; smart electricity grids; smart metering;
- Smart, green and integrated transport;**
 - ✓ Smart transport equipment, infrastructures and services; innovative transport management systems; safety aspects





ICT in Societal Challenges (II):

ICT 4 b€

- Food security, sustainable agriculture, marine and maritime research & the bioeconomy
- Climate action, resource efficiency and raw materials**
 - ✓ ICT for increased resource efficiency; earth observation and monitoring
- Inclusive, innovative and secure societies**
 - ✓ Digital inclusion; social innovation platforms; e-government services; e-skills and e-learning; e-culture; cyber security; ensuring privacy and protection of human rights on-line





FUTURE organization of EU Funds



EU Structural Funds



European Research Area

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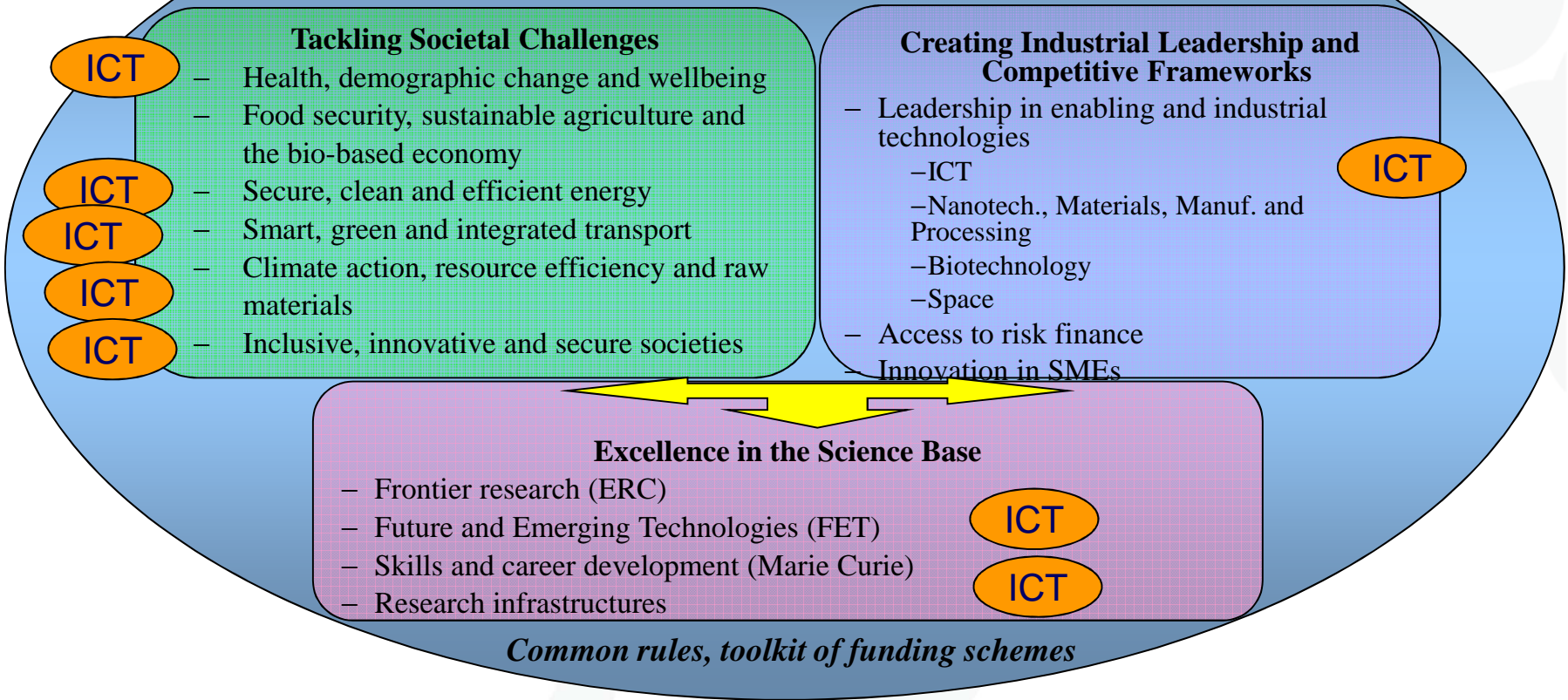
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FUTURE organization of EU Funds





HORIZON 2020

Rules for Participation: what's new? (1):

1. A SINGLE SET OF RULES

- Adapted for the whole research and innovation cycle
- Covering all research programmes and funding bodies
- Aligned to the Financial Regulation, coherent with other new EU Programmes.

2. ONE PROJECT - ONE FUNDING RATE.

- Maximum of 100% of direct costs (except for actions close to market, where a 70% maximum will apply)
- Indirect eligible costs: a flat rate of 20% of direct eligible costs

3. SIMPLE EVALUATION CRITERIA

- *Excellence – Impact - Implementation (Excellence only, for the ERC)*

4. NEW FORMS OF FUNDING aimed at innovation: pre-commercial procurement, inducement prizes, dedicated loan and equity instruments.

5. INTERNATIONAL PARTICIPATION: facilitated but better protecting EU interests.





HORIZON 2020

Rules for Participation: what's new? (2):

6. SIMPLER RULES FOR GRANTS: broader acceptance of participants accounting practices for direct costs, flat rate for indirect costs, no time-sheets for personnel working full time on a project, possibility of output-based grants.

7. FEWER, BETTER TARGETED CONTROLS AND AUDITS

- Lowest possible level of requirements for submission of audit certificates without undermining sound financial management;
- Audit strategy focused on risk and fraud prevention.

8. IMPROVED RULES ON INTELLECTUAL PROPERTY

- Balance between legal security and flexibility;
- Tailor-made IPR provisions for new forms of funding;
- A new emphasis on open access to research publications.





HORIZON 2020

Broader access:

- **For SMEs** - *dedicated SME projects to address societal challenges and enabling technologies*
- **For all regions** – *tailored support to policy learning, twinning, networking, complementing Structural Funds*
- **For international partners** – *broad access to Horizon 2020 (“mainstreaming”), strategic initiatives where there is mutual benefit*
- **For all forms of innovation** - *social innovation, services, pilots, stimulating demand through public procurement, standard setting*





Useful links



EC page:

www.ec.europa.eu/research/horizon2020

NCP Poland:

<http://www.kpk.gov.pl>





Thank you for your attention

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