EU-funded research in Cognitive Systems and Robotics: From FP7 towards Horizon 2020

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CogSys 2012 – Vienna, 22 February 2012
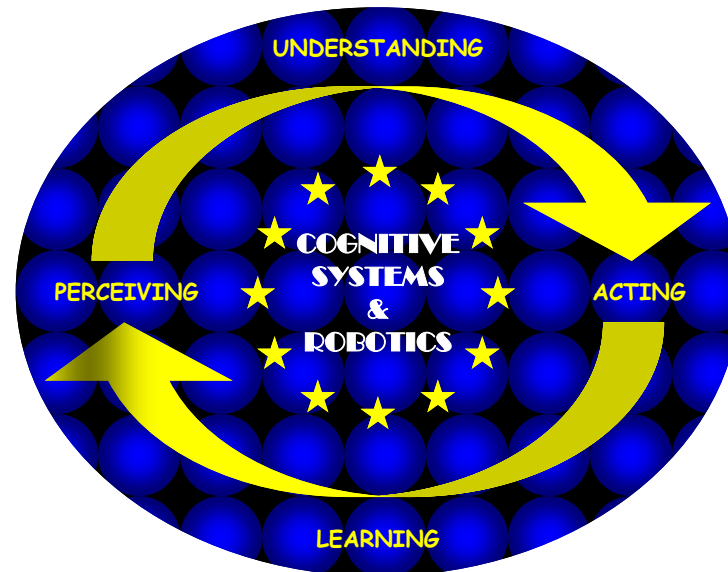
Cognitive Systems and Robotics in FP7 (2007-2012)

Work Programme	Objective	Call (Evaluation)	Budget	Projects: ACS & Robotics (total)
2007-2008	*ICT-2007.2.1 (ICT-2007.2.2): Cognitive Systems, Interaction, Robotics*	ICT Call 1 (2007)	**96 M€**	*17 (27)*
		ICT Call 3 (2008)	**97 M€**	*17 (23)*
2009-2010	*ICT-2009.2.1: Cognitive Systems and Robotics *)*	ICT Call 4 (2009)	**73 M€**	*19*
		ICT Call 6 (2010)	**80 M€**	*22*
	FOF.ICT.2010.1: Smart Factories: ICT for Agile and Environmentally Friendly Manufacturing	NMP-ICT-FoF (2010)	**35 M€**	*3 (8)*
2011-2012	*ICT-2011.2.1: Cognitive Systems and Robotics*	ICT Call 7 (2011)	**73 M€**	*16*
		ICT Call 9 (2012)	**82 M€**	*??*
	FOF.ICT.2012: Smart Factories	*NMP-ICT-FoF (2012)*	**40 M€**	*4? (TBC)*

*) No more interaction since 2009 - language-based interaction in a separate objective with its own budget

Project Portfolio

PERCEIVING
- Touching
- Seeing
- Hearing
- Advanced sensing

UNDERSTANDING
- Recognising
- Interpreting
- Adapting
- Modelling
- Cognitive architectures

APPLICATION AREAS
- Aerial
- Underwater
- Industry and manufacturing
- Professional & domestic
- Medical and rehabilitation
- Monitoring and surveillance

ACTING
- Manipulating
- Navigating
- Interacting
- Collaborating
- Monitoring

What comes next

- *FP7 ICT Call 9 immediately*
- *FP7 WP 2013 now advancing*
- *Horizon 2020 entering serious preparation phase*

Challenge 2 in FP7 – ICT Call 9

OBJECTIVE:	**2.1 Cognitive Systems and Robotics**
PUBLICATION:	**18/01/2012**
DEADLINE:	**17/04/2012**
INDICATIVE BUDGET:	**82 M€**
	IP: 40-56 M€, STREP: 24-30 M€, CA 2 M€

- *Target (b):* **Cognition and control in complex systems**

- *Target (c):* **Gearing up and accelerating cross-fertilisation between academic and industrial robotics research**

- *Target (e):* **Speeding up progress towards smarter robots through targeted competitions**

Next Year – 2013 Call 10

- *Work Programme 2013 transition to next FP (under construction)*
- *Several potential RTD challenges*
  - **Robotics**
  - **Cognitive systems**
  - **Smart Spaces**
  - **Human-machine interaction**
- *New dimensions*
  - **Innovation and take-up**
  - **Socio-economic aspects**
  - **International cooperation**

Towards Horizon 2020:
What is Horizon 2020 anyway?

"Horizon 2020" is the winner of our "You Name it" online vote to name the future EU-funding programme for research and innovation.

*The full name of the legislative proposal for the new programme will therefore be: "**Horizon 2020 - the Framework Programme for Research and Innovation**".*

http://ec.europa.eu/research/horizon2020

Horizon 2020: Increasing IMPACT

- *FROM different priorities in each programme and initiative*
  - ➢ TO common strategic priorities**, focusing on societal challenges, competitiveness and research excellence.**

- *FROM gaps between the stages (R&D, demonstration, market take up, etc)*
  - ➢ TO **coherent support for projects and organisations across the innovation cycle** from research to retail

- *FROM research results that are not used and focus on technologies*
  - ➢ TO stronger support for innovation, **including non-technological innovation and market take up**
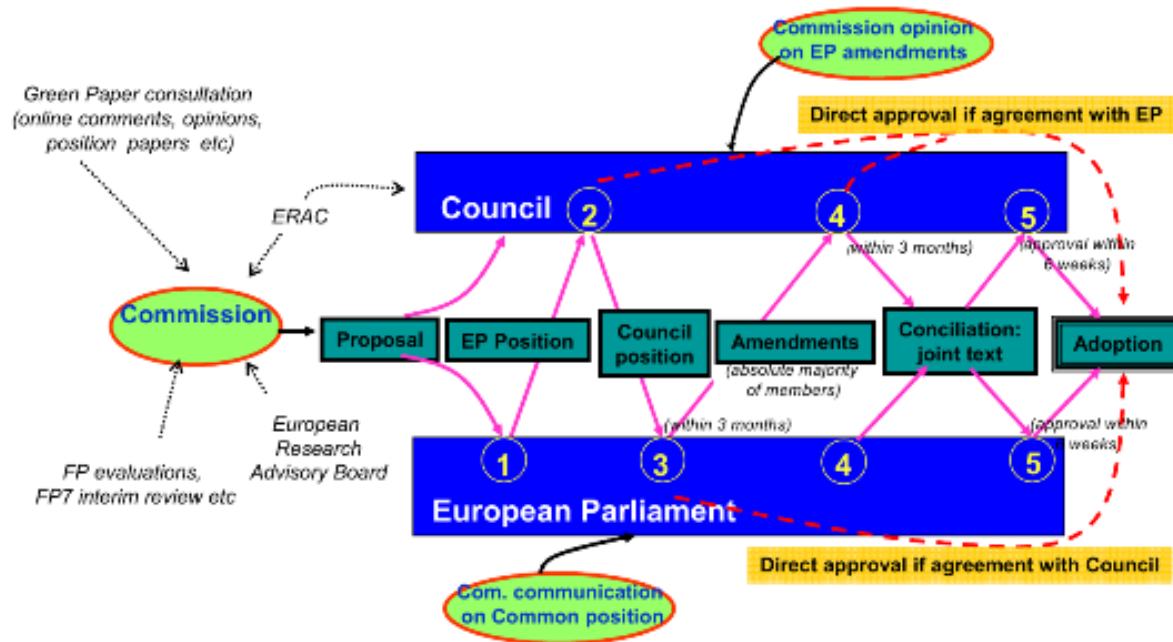
Horizon 2020: SIMPLIFICATION

- *FROM different rules in each programme and initiative*
  - ➢ TO more standardised rules **across all initiatives – which meet the different needs and with flexibility where needed (e.g. for the EIT)**
- *FROM a large variety of funding schemes within and between programmes*
  - ➢ TO a rationalised toolkit **of schemes across the Common Strategic Framework**
- *FROM multiple websites, guidance documents, applications*
  - ➢ TO common entry points**, one stop shops, common IT platforms**
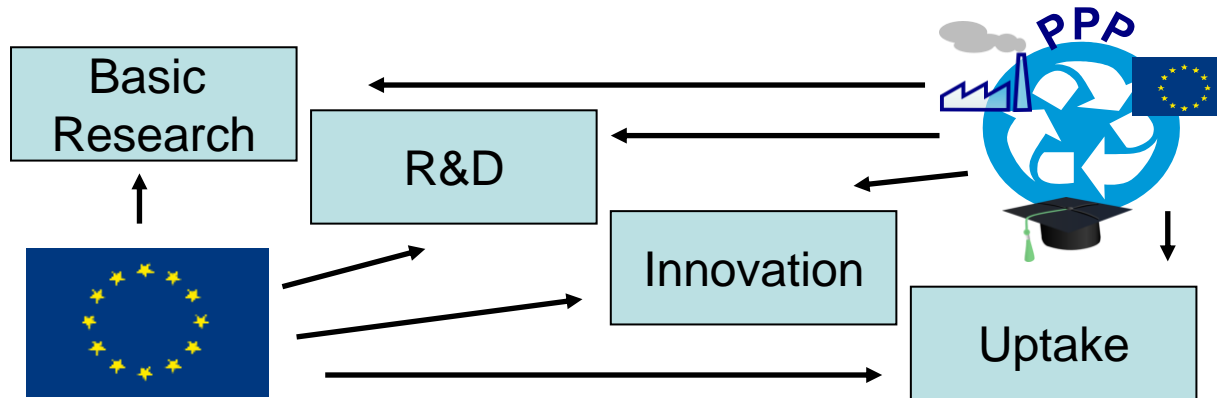
Horizon 2020: Timeline

- ***From 30/11/2011****: Parliament and Council negotiations on the basis of the Commission proposals*

- ***Ongoing****: Parliament and Council negotiations on EU budget 2014-20 (including overall budget for Horizon 2020)*

- ***Mid 2012****: Final calls under 7th Framework Programme for Research to bridge gap towards Horizon 2020*

- ***By end 2013****: Adoption of legislative acts by Parliament and Council on Horizon 2020*

- ***1/1/2014****: Horizon 2020 starts; launch of first calls*

Horizon 2020: Timeline

Horizon 2020: Possible scheme for robotics

THANK YOU!

Call info including Q&A document:
http://cordis.europa.eu/fp7/ict/cognition/calls-ict-call9_en.html

Information about existing project portfolio:
http://cordis.europa.eu/fp7/ict/cognition/projects/areas-projects_en.html

News:
http://twitter.com/RoboticsEU
http://www.facebook.com/RoboticsEU