



# **EuRoC Info Day**

## **5 May, 2014**

### **Stuttgart, Germany**

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Unit A2 – Robotics

Directorate-General for Communication Networks, Content & Technology

European Commission

# Outline

- *Robotics in Industrial Leadership - from FP7 towards Horizon 2020*
- *Benchmarking and performance evaluation for robotics*
- *Expected impact*

***"Our focus is on  
supporting the best  
research ideas that  
provide major business  
opportunities"***

*Commissioner Geoghegan-Quinn*

*30 Nov 2011*



***"Great innovation isn't  
about keeping the  
status quo: it's about  
challenging it"***

*Vice-President Neelie Kroes*

*25 Sept 2012*









***"Europe needs... an  
integrated approach  
from research and  
innovation to market  
deployment."***

*EU Council Conclusions  
24/25 October 2013*



# Robotics in FP7

APPLICATION SCENARIOS ▶	ROBOTIC WORKERS	ROBOTIC CO-WORKERS	LOGISTICS ROBOTS	ROBOTS FOR SURVEILLANCE & INTERVENTION	ROBOTS FOR EXPLORATION & INSPECTION	EDUTAINMENT ROBOTS
SECTORS ▼						
INDUSTRIAL	<p><b>Portfolio of 120 projects, ~€500m funding</b></p>					
PROFESSIONAL SERVICE						
DOMESTIC SERVICE						
SECURITY						
SPACE						

## Cognitive Systems and Robotics in FP7 (2007–2013)

Work Programme	Objective	Call (Evaluation)	Budget	Projects: ACS & Robotics
<b>2007–2008</b>	Cognitive Systems, Interaction, Robotics	ICT Call 1 (2007)	<b>€96m</b>	17
		ICT Call 3 (2008)	<b>€97m</b>	17
<b>2009–2010</b>	Cognitive Systems and Robotics	ICT Call 4 (2009)	<b>€73m</b>	19
		ICT Call 6 (2010)	<b>€80m</b>	22
	Factories of the Future	NMP-ICT-FoF (2010)	<b>€35m</b>	3
<b>2011–2012</b>	Cognitive Systems and Robotics	ICT Call 7 (2011)	<b>€73m</b>	16
		ICT Call 9 (2012)	<b>€82m</b>	17
	Factories of the Future	NMP-ICT-FoF (2012)	<b>€40m</b>	4
<b>2013</b>	Cognitive Systems and Robotics	ICT Call 10 (2013)	<b>€90m</b>	20
	Factories of the Future	NMP-ICT-FoF (2012)	<b>€35m</b>	1

# Ongoing robotics competitions

## euRathlon

**Search & Rescue activities**

### COMPETITIONS

- Land, 23–27 September 2013
- Underwater, 2014
- Land + Underwater + Air, 2015



<http://www.eurathlon.eu/>

## RoCKiN

**Testbeds – Innovation –  
Links with RoboCup**



RoCKIn@home



RoCKIn@work

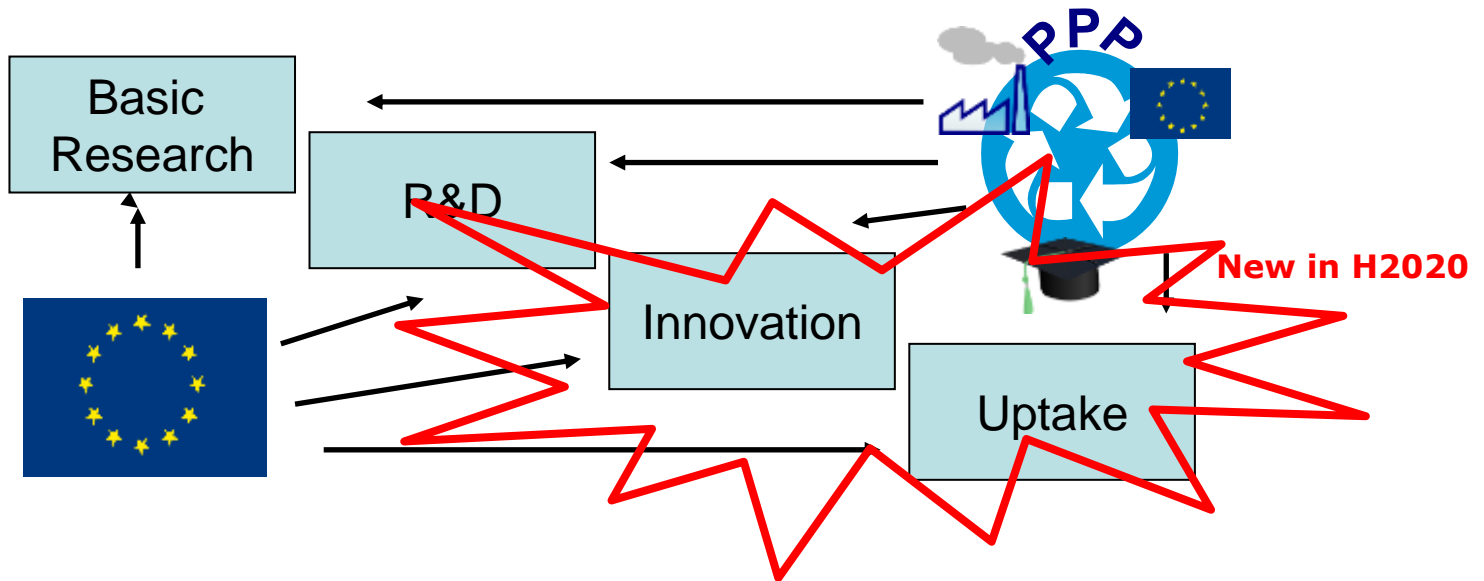
### COMPETITIONS

- European Robotics Week  
November 2015 (tbc)

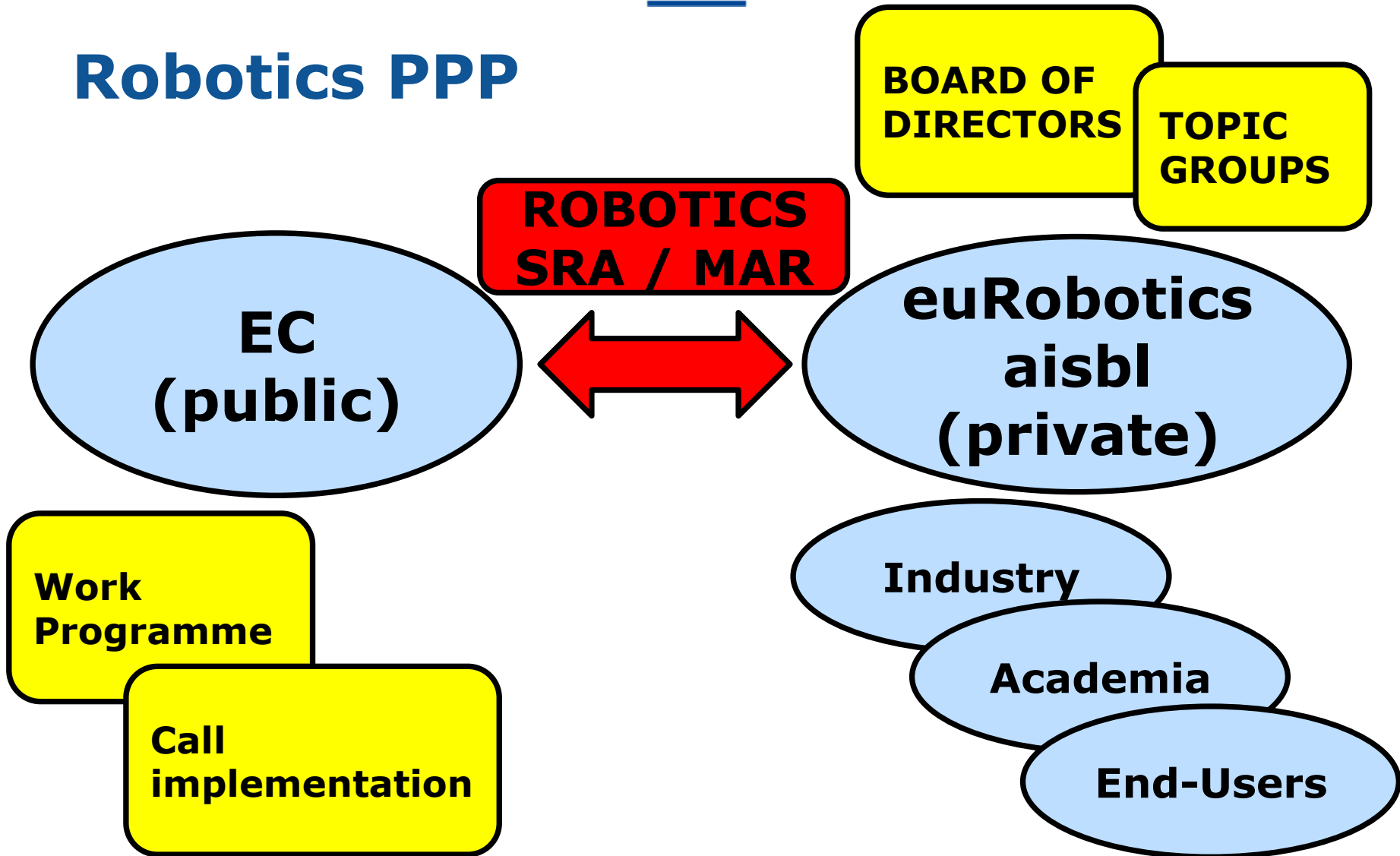
<http://rockinrobotchallenge.eu/>

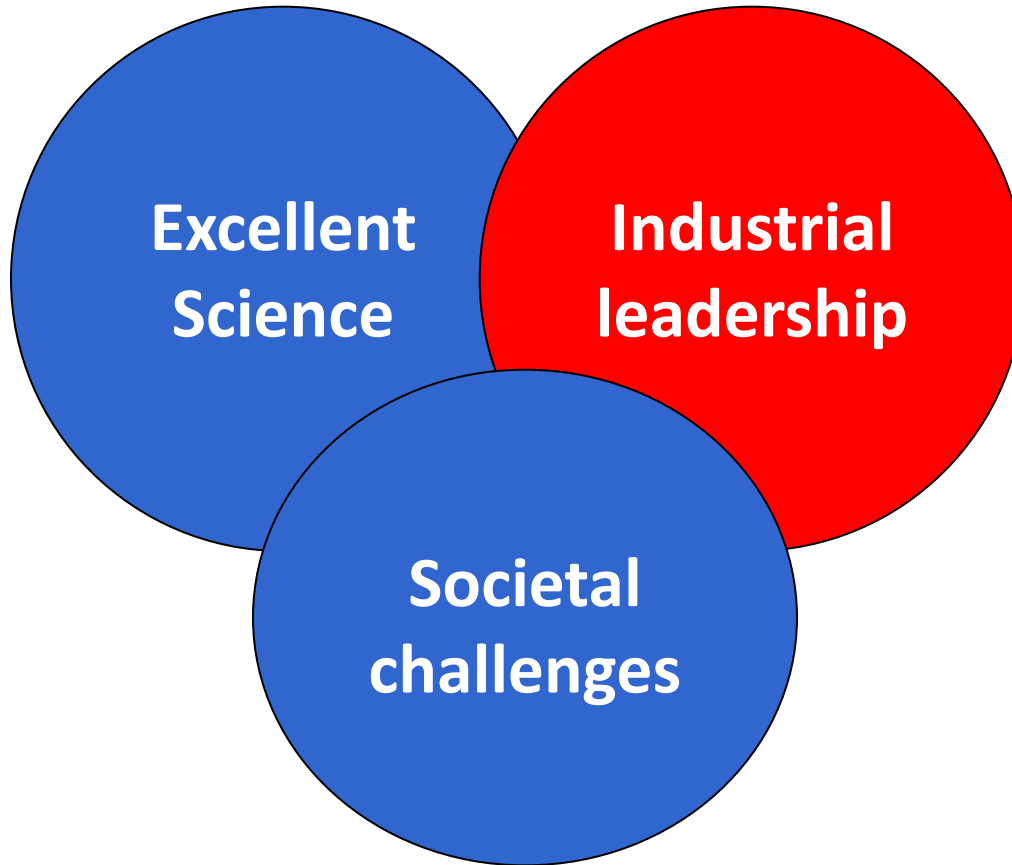


# Robotics: new in H2020



# Robotics PPP





## Role of industries and end users

- **Industry** has a far **greater role** to play in Robotics R&I than before. Involvement of industry as manufacturers, system suppliers, integrators or users is welcome, as appropriate, depending on the needs of the project and on the technology readiness level addressed.
- The involvement of end users in R&I projects is welcome. In Robotics Use Cases, which target industrial and service sectors, and Pre-commercial Procurement it is a must.



# Evaluation & Benchmarking

## GOALS:

- *To measure performance of systems*
- *To test and evaluate in a reproducible way*
- *To allow comparison of research results*

## USEFUL FOR:

- *Scientific community: to focus efforts, to exchange results, to drive research and allow tangible progress, to demonstrate excellence of European research*
- *Industrial community: to assess quality, to meet users' needs, to speed up development and testing time, to improve technology transfer, first gate to standardisation*

## Expected Impact

- Increase **Europe's market** share in industrial and domestic service robots
- Improve the **competitiveness** of Europe's manufacturing sector
- Increase **Industry-Academia cross-fertilisation**
- Deploy robotics technologies in **new application domains.**
- Improve **Technology Readiness Levels**
- Improve **performance evaluation**

## Expected Impact (cont.)

- Create and maintain **world class research** in Europe and achieve excellent standards of publications and research outputs.
- Ensure sufficient numbers of **well-trained professionals** required by the growth of the industry.
- Ensure wide use of **shared resources**.
- Competitive positioning / technical advantage in possible future markets or applications.

# Our expectations and hopes

- *To promote growth and SMEs*
  - **EuRoC ideally placed to contribute to this theme**
  - **High profile project**
- *Showcase for technology transfer*
  - **Europe has problems translating its excellence in research into real-life products and businesses**
  - **Chance for EuRoC!**
- *Outreach: Attract the attention of manufacturing sectors which do not yet consider robotics part of their manufacturing process*





## For further reference

*Robotics PPP (SRA and MAR)*

**<http://www.eu-robotics.net/ppp/>**

*H2020 Workprogramme General Annexes*

**[http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference\\_docs.html](http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference_docs.html)**

*Current project portfolio:*

**<http://cordis.europa.eu/fp7/ict/robotics>**

*Background document (Q&A)*

**[http://ec.europa.eu/information\\_society/newsroom/cf/dae/document.cfm?doc\\_id=3660](http://ec.europa.eu/information_society/newsroom/cf/dae/document.cfm?doc_id=3660)**

*Robotics in H2020 INFO DAY*

**<http://ec.europa.eu/digital-agenda/en/news/information-day-horizon-2020-call-1-and-2-objective-ict-23-and-ict-24-robotics>**