



Robotics in Horizon 2020

Shared resources and assessment

R&I actions: roadmap based research

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Overview

- **ICT 23**
 - **Objective a. Research & Innovation Actions**
 - **RTD to advance abilities and key technologies**
 - **Systems development processes**
 - ***Shared resources and assessment***

[Common budget for ICT 23.a]

- **Call 1 – closing 23/04/2014**

Call text

*One goal will be to define **common hardware and software platforms** (e.g.: real world test-beds, software libraries and simulators) taking advantage of existing initiatives and facilities.*

*This will require: (a) mechanisms for **sharing**; (b) harmonisation of system design **practice**; (c) the definition of **standards**; and (d) high quality **validation, maintenance and documentation**.*

*- Furthermore, activities will be supported by a **benchmarking initiative** to provide means for **technology assessment and transfer**, performance **evaluation** as well as of paving the way to **certification** of new robotics systems.*

Aims

SUPPORT AND DEMONSTRATE EUROPEAN EXCELLENCE IN ROBOTICS

- *To develop hardware test bed facilities, plus software resources, available to all*
- *To provide engineering support for testing demonstrators, their performance and robustness*
- *To develop, gather and validate robotics metrics and benchmarks*

Tips (1)

- ***One large project*** is encouraged [R&I]
- *Show added value and interest for the research community (industrial and academic)*
- *Showcase for potential users*
- *Development of infrastructure*
- *Open Source*
- *Standardisation and certification*

Tips (2)

- ***Benchmarking and Performance Evaluation***
 - *Survey of initiatives*
 - *Networking*
 - *Involvement of all stakeholders (academics, industries, end-users)*
 - *Definition of metrics at sub systems and system level*
 - *Data sets of benchmarks and common platforms*
 - *Software libraries*
 - *Standardisation and Certification*

Tips (3)

- *Cooperation with existing EU-funded initiatives:*

- ***European Robotics Competitions***

*RoCKIn : testbeds – innovation –
RoCKIn@work RoCKIn@home*

Eurathlon : search and rescue activities

- ***EU funded projects***

All of them: benchmarking activities

ECHORD – ECHORD ++

EuRoc