

Horizon 2020 Robotics and Autonomous Systems Work Programme 2016–2017

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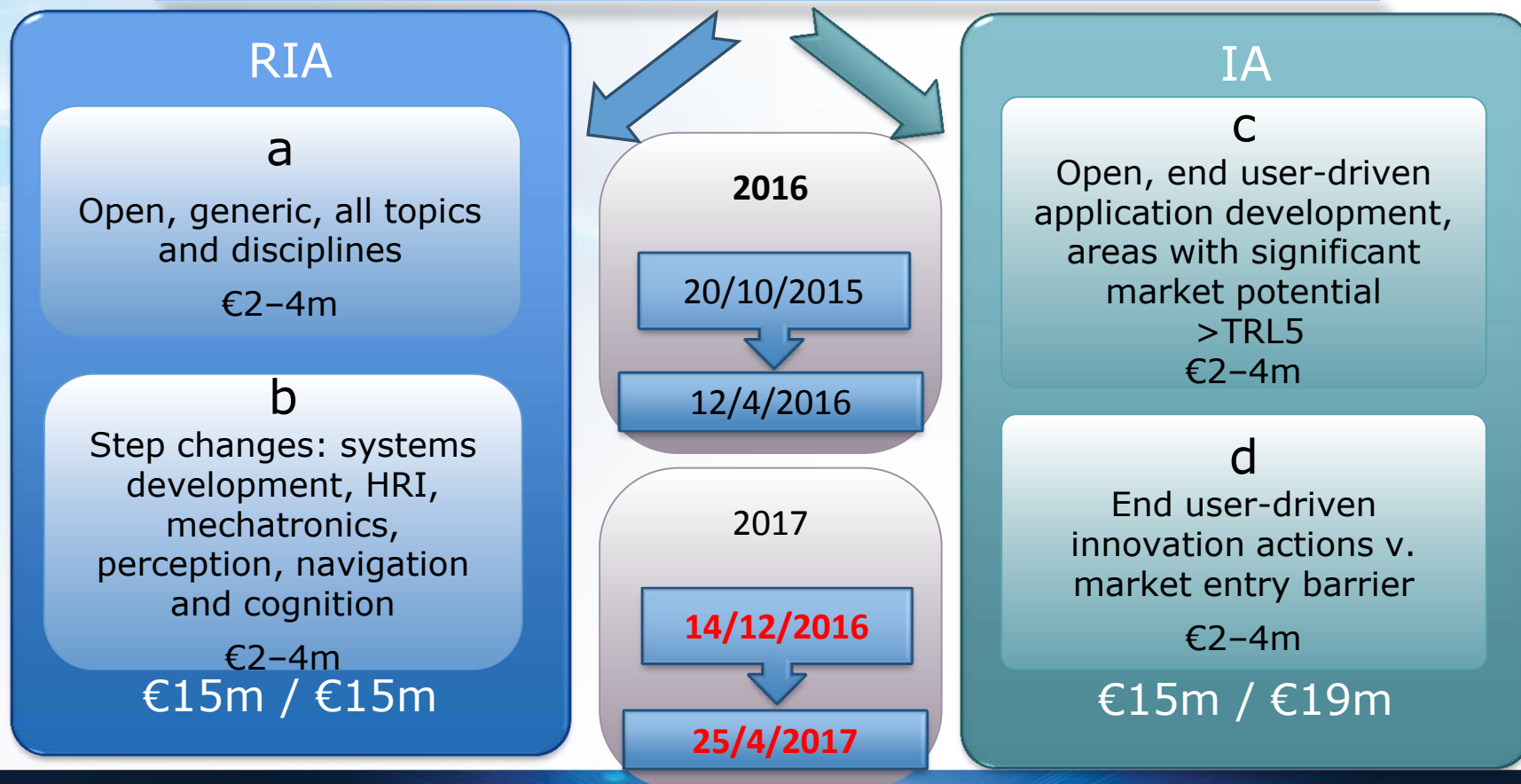
Brussels – 05 December 2016

Outline

1. Overview of the call
2. Benchmarking actions
3. Robotics competitions
4. Robotics coordination and support
5. Q&A
6. Networking

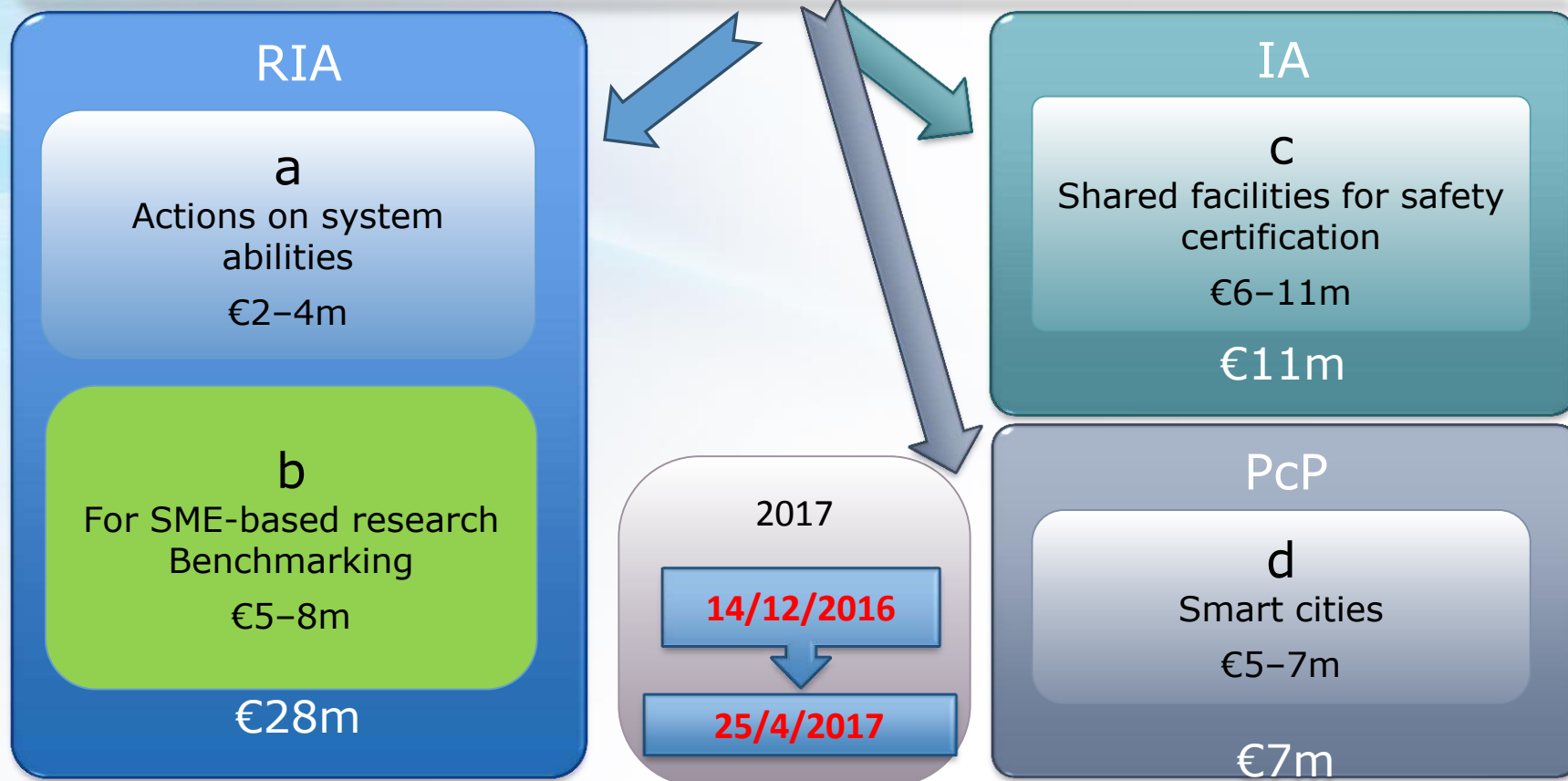
H2020 ICT-25-2016-2017

Advanced robot capabilities research and take-up



H2020 ICT-27-2017

System abilities, SME & benchmarking actions, safety certification



H2020 ICT-28-2017

Robotics competition, coordination and support

CSA

a

Non-technical barriers to robotic take-up

b

Standards and Regulation

c

Community support and outreach

d

Competitions

€2m

€3m

€5m

2017

14/12/2016

25/4/2017

Robotics WP 2016-17 – four topics

1. ICT-25-2016-2017
Advanced robot capabilities research and take-up
2. ICT-26-2016
System abilities, development and pilot installations
3. **ICT-27-2017**
System abilities, SME & benchmarking actions, safety certification
4. ICT-28-2017
Robotics competition, coordination and support

Specific challenge

Benchmarks

- **Market**-drive need
- Clear markers of **progress**
- Technology **validation**
- Multiple domains/areas of applications
- Technical comparison

ICT-27-2017.b : Research and Innovation *Actions for benchmarks*

- Development and implementation of robotics **application-relevant benchmarks and metrics** to assess progress in technologies and systems
- **Qualitative** and **quantitative** information to support the assessment and development of systems addressing step changes and ability levels
- Benchmarks and metrics which are **useful to an end user**
- Proposal size: EUR 5 to 8 million funding (indicative amounts)

ICT-27-2017.b : Research and Innovation Actions for benchmarks *Instrument*

Financial support to third parties (FSTP)

- **Minimum 60%** of the EU funding
- ~ [50k€ – 100k€] per party
- Proposals should define the selection process of additional users/suppliers

ICT-27-2017.b : Research and Innovation Actions for benchmarks *Expected impact*

- More efficient development of the robotics sector and wide **acceptance** in both academia and industry of **new benchmarking tools**
- Improved systems **characterisation** and improved means of robotics system **performance evaluation**.

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Robotics competition, coordination and support

Coordination and Support Actions (CSA)

- Actions consisting primarily of **accompanying measures** such as
 - standardisation,
 - dissemination,
 - awareness-raising and communication,
 - networking, coordination or support services,
 - policy dialogues and mutual learning exercises and studies, including design studies for new infrastructure
 - and may also include complementary activities of strategic planning, networking and coordination between programmes in different countries
- May have one or several beneficiaries

Specific challenges CSA

- Market take-up of research results
- Coordinated European efforts (standardisation – regulation)
- Developing trends and issues
- Ethical-Legal-Societal-Economical
- Dissemination
- Public perception

- **ICT-28-2017 Robotics competition, coordination and support**
 - **a. Non-technical barriers to robotics take-up**
 - Entrepreneurial skills
 - Non-technical market barriers (e.g. ethical, legal and socio-economic issues)
 - Promotion of responsible research and innovation in robotics and assessment of societal readiness in robotics
 - Skills
 - **b. Standards and regulation**
 - Coordination of standards harmonisation and regulation
 - Dialogue with regulatory bodies

- **ICT-28-2017 Robotics competition, coordination and support**

- c. **Community support and outreach**

- E.g. to improve information exchange, provide open access resources, communicate outcomes, improve public understanding of robotics

- d. **Competitions**

- Robotic competitions to speed up advance towards smarter robots

Useful resources

- **Strategic Research Agenda (SRA)**

https://eu-robotics.net/cms/upload/PPP/SRA2020_SPARC.pdf

- **Multi-Annual Roadmap (MAR):**

<http://sparc-robotics.eu/wp-content/uploads/2014/05/H2020-Robotics-Multi-Annual-Roadmap-ICT-2016.pdf>

- **Q&A document (regularly updated) on the Participant Portal**

- **Current projects portfolio**

<https://ec.europa.eu/digital-single-market/en/robotics>



Financial support to third parties (FSTP – Annex K)

Detail the objectives and the results to be obtained:

- List types of activities persons or categories of persons which may receive financial support,
- Criteria for awarding financial support
- Criteria for calculating the exact amount of the financial support
- Maximum amount to be granted to each third party and the criteria for determining it

Financial support to third parties (FSTP – Annex K)

- Must publish widely open calls
- Transparency, equal treatment, conflict of interest and confidentiality
- Call -> clear European dimension – cross border experimentation or expanding the impact of local experiments to European scale.