



Robotics in Horizon 2020: Rules for participation

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Outline

- **Who can participate? Eligibility Criteria?**
- **Types of action**
- **Definitions/Funding rates/size/Cascading**
- **Submission – Proposal content - Evaluation - tips**
- **Impact**

Rules for participation: who?

→ Countries Eligible for funding (see Annex A):

- **Member States**

- **Countries Associated to H2020**

- Iceland, Norway, Albania, Bosnia and Herzegovina, The former Yugoslav Republic of Macedonia, Montenegro, Serbia, Turkey, Israel, Moldova

- **Note: Switzerland is not associated to LEIT (this part of H2020)**

- **Developing countries**

→ Others: participants cover their own costs.

- **Exceptions:**

- bilateral agreement

- participation **essential** → ASSESSED AT EVALUATION STAGE

Horizon 2020

Types of action

- **Research and Innovation Actions (RIA)**
- **Innovation Actions (IA)**
- **Pre-commercial Procurement (PcP)**
- **Coordination and Support Actions (CSA)**

Horizon 2020 – Eligibility Criteria

Type of ACTION	Eligibility Criteria:
RIA & IA	<ul style="list-style-type: none">- At least 3 Independent legal entities- From 3 different Member States (MS)/Associated Countries(AC)
PcP	Idem RIA + minimum 2 independent public procurers from 2 different MA/AC
CSA	CSA: at least 1 legal entities established in a MS/AC



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DEFINITIONS OF ACTIONS

Horizon 2020 – Types of action

- **Research and Innovation Actions (RIA)**
 - Actions primarily consisting of activities aiming to establish **new knowledge** and/or to explore the **feasibility** of a new or improved technology, product, process, service or solution.
 - May include basic and applied research, technology development and integration, testing and validation on a small-scale prototype in a laboratory environment



RIA

TYPE	2016	2017
RIA	<ul style="list-style-type: none"> ▪ OPEN ▪ Step change in prioritised techno 	<ul style="list-style-type: none"> ▪ OPEN ▪ Step change in prioritised techno
RIA	<ul style="list-style-type: none"> ▪ Dependability ▪ Social Interaction Ability ▪ Cognitive Ability 	<ul style="list-style-type: none"> ▪ Advanced perception ▪ Decisional autonomy ▪ Increasing dependability ▪ Self-verifying & Self-correcting systems
RIA	<ul style="list-style-type: none"> ▪ Multiple-actor systems 	<ul style="list-style-type: none"> ▪ SME-based research ▪ Benchmarking

Horizon 2020 – Types of action

- **Innovation Actions (IA)**

- Actions primarily consisting of activities directly aiming at producing plans and arrangements or designs for new, altered or improved **products, processes or services.**
- May include **prototyping, testing, demonstrating, piloting**, large scale product validation and market replication
- May include **limited research** and development activities



IA / PcP / CSA

TYPE	2016	2017
IA	<ul style="list-style-type: none"> ▪ OPEN: end users driven 	<ul style="list-style-type: none"> ▪ OPEN: end users driven
IA	<ul style="list-style-type: none"> ▪ System Development technology ▪ Pilot installations - robot testing 	<ul style="list-style-type: none"> ▪ Shared facilities for safety certification
PcP		<ul style="list-style-type: none"> ▪ Smart city
CSA		<ul style="list-style-type: none"> ▪ Non-technical barriers to robotics take-up ▪ Standard & Regulation ▪ Community support and outreach ▪ Competitions

Horizon 2020 – funding rates

- Research and Innovation Actions (RIA)
 - **up to 100%**
- Innovation Actions (IA)
 - **up to 70%**
 - **up to 100% (non-profit entities)**
- **Indirect Costs: 25%** of eligible direct costs less subcontracting

Horizon 2020 – Size of projects

- Expressed in terms of indicative budget (requested funding)
- Specified for each sub-topic



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H2020 ICT-25-2016-2017

Advanced robot capabilities research and take-up
2016: Call closes: 12/04/2016

RIA – 2016 - 15M€

a. Open, generic technical advances: all topics and disciplines
Cross-cutting domains
Project size: **2-4M€**

b. Step changes in capabilities: systems development, HRI, mechatronics, perception, navigation and cognition
Project size: **2-4M€**

IA – 2016 - 15M€

c. End user-driven application development
Areas with high market potential
>TRL5*
non-tech output: operating parameters & reduce commercial risks
Project size: **2-4M€**

*Technology readiness level 5: validated in a relevant environment

d. End user-driven innovation actions v. market entry barrier
Technical capability / system ability gap
Project size: **2-4M€**

!!! Identify center of gravity (RIA: a. or b. / IA c. or d.)



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H2020 ICT-26-2016

System abilities, development and pilot installations
2016: Call closes: 12/04/2016

RIA – 2016 - €24M€

a. Prioritised Abilities:
Dependability
Social interaction
Cognitive

Project size: **2-4M€**

b. Multiple-actor systems – end user driven
robustness, different environments, autonomy, service level gains

Project size: **2-7M€**

IA – 2016 - €18m

c. System development technology
Tool chains and building block appli.

Project size: **5-8M€**

Min 50%: Financial Support to Third Parties
(50-250k€ each)

d. Pilot installations for robot testing
End-user driven / real world conditions / shared facility + support

Project size: **7-10M€**

Min 60%: Financial Support to Third Parties
(50-150k€ each)



H2020 ICT-26-2016

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Actions involving 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.*



Actions involving 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.*



PROPOSAL: Submission, Content and Evaluation

Horizon 2020 – Proposal Submission

- **Admissibility Conditions (Annex B):**

- Submitted via the portal -
<http://ec.europa.eu/research/participants/portal/>

- BEFORE DEADLINE:

12-04-2016 17:00:00 (Brussels local time)

TIP: don't wait the last minute – already prepare draft in the system – PUSH SUBMIT BUTTON

- Readable/Printable

- COMPLETE:

- Operational capacity
- Draft plan for exploitation and dissemination of the results

Horizon 2020 – Proposal Submission

- Part A of the proposal, administrative part + Budget
- Self-check of **SME status** & financial viability: do it carefully as might be very **critical** at a later stage
- **Page limit** for technical content in Part B (excluding partner descriptions)
 - **70 pages** (IA/RIAs)
 - Pages exceeding the limit will be ignored



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European Commission - Research - Participants
Proposal Submission Forms

Proposal ID: [] Acronym: [] Short name: []

2 - Administrative data of participating organisations

PIC: [] Legal name: []

Short name: *UMG-GOE*

Address of the organisation

Street: []
Town: []
Postcode: []
Country: []
Webpage: []

Legal Status of your organisation

Research and Innovation legal statuses

Public bodyyes Legal personyes
Non-profityes
International organisationunknown
International organisation of European interestunknown
Secondary or Higher education establishmentyes
Research organisationyes

Enterprise Data

SME self-declared status unknown
SME self-assessment unknown
SME validation sme unknown

Based on the above details of the Beneficiary Registry the organisation is not an SME (small- and medium-sized enterprise) for the call.

SME status Admin Form:

SME self-declared status unknown
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Horizon 2020 – EVALUATION

■ *Selection Criteria*

- *Coordinator – financial capacity -> self-assessment tool*
- *Operational Capacity (competence/experience)*

■ *Evaluation criteria*

- *3 criteria: **Excellence, Impact, Implementation***
 - **NOT ORTHOGONAL!!!**
- *Innovation aspect more strongly incorporated*
- *0-5 points, threshold 3 pts for individual criteria*
- *Overall threshold 10 points*
- *For Innovation Actions, weighting of **Impact 1.5***

vs Evaluation Criterion (RIA/IA)

1. Excellence (! Relevant to the call)

- 1.1 Objectives
- 1.2 Relation to the work programme
- 1.3 Concept and approach
- 1.4 Ambition

Excellence

Clarity and pertinence of the objectives

Soundness of the concept, and credibility of the proposed methodology;

Extent that the proposed work is beyond the state of the art, and demonstrates innovation potential

Appropriate consideration of interdisciplinary approaches and, where relevant, use of stakeholder knowledge.

PROPOSAL

EVALUATION

vs Evaluation Criterion (RIA/IA)

2. Impact

- **2.1 Expected impacts (incl. list in the workprogramme)**
- **2.2 Measures to maximise impact**
 - a) Dissemination and exploitation of results
 - b) Communication activities

Impact

- The expected impacts listed in the **work programme** under the relevant topic (*! Not all have to be addressed by each proposal*)
- Enhance innovation capacity, create new market opportunities, strengthen competitiveness and growth of companies
- Address issues related to climate change or the environment, or bring other important benefits for society;
- Quality of the proposed measures to:
 - **Exploit** and **disseminate** the project results (including management of IPR), and to manage research data where relevant.
 - **Communicate** the project activities to different target audiences

PROPOSAL

EVALUATION

vs Evaluation Criterion (RIA/IA)

3. Implementation

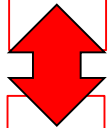
- 3.1 Work plan – Work packages, deliverables and milestones
- 3.2 Management structure and procedures
- 3.3 Consortium as a whole
- 3.4 Resources to be committed

Implementation

- Quality and effectiveness of the **work plan**, including extent to which the **resources** assigned to work packages are in line with their objectives and deliverables
- Appropriateness of the **management structures and procedures**, including risk and innovation management
- **Complementarity** of the participants and extent to which the consortium as whole brings together the necessary **expertise**
- Appropriateness of the allocation of tasks, ensuring that all participants have a valid **role** and adequate resources in the project to fulfil that role.

PROPOSAL

EVALUATION



Section 4: Members of the consortium

Section is not covered by the page limit.

Information used to judge the operational capacity.

- **4.1. Participants (applicants)**
- **4.2. Third parties involved in the project (including use of third party resources)**

Section 5: Ethics

Ethics Review

- *Goal: check:*
 - *compliance with ethical rules and std (National, EU, Intl)*
 - *authorizations and ethics approvals*
 - *proportionality of the research methods*
 - *applicants' awareness of the ethical aspects and social impact*

Horizon 2020 – Proposal content

few tips for proposers

- *No negotiation → proposal = final project work plan, not a sales brochure*
- *The maturity, specificity and completeness of the work plan will be taken into account at the evaluation stage → weaknesses will be penalised*
- *Specific well-defined and challenging yet realistic objectives and how they will be reached*
- *Great idea not enough → credible work plan essential*

Myths

- *You need a partner from East West North South*
- *You need SME -> good but no artificial addition*
- *You need a consulting company -> only if more (cost) efficient*
- *You cannot have a partner with more than 30% of the budget*
- *A follow-up project gives you advantage -> must differentiate*
- *Declaring a re-submission is a bad thing -> freshly evaluated*



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IMPACT

Expected impact → check AGAINST WP TEXT

- *No single proposal is expected to address the whole list*
- *Check whether the proposal is **concrete and specific** about what the project results would **achieve** in the areas described in the Work Programme (section "Expected Impact"), during the project lifetime and beyond*
- *Which concrete actions will be carried out **during** the project to **achieve such impact**?*
- *Do the proposers stress their (**competitive**) **positioning** / technical advantage in possible future markets or applications?*
- *Assess the **need for industry participation** and provide evidence of their **commitment***

Exploitation plan - Crucial

- *Concrete exploitation strategy:*
 - *well **thought-out** and properly **resourced***
 - *involvement of people with the right **expertise** (for technology transfer, patents etc.) is highly encouraged where appropriate*
 - *projects closer to innovation: describe the **path towards exploitation** (at **partner level** & **project level**).*
 - *Also projects with a **more scientific** approach have to make clear what the **eventual exploitation** outcomes and **impact** will be.*

Measures to maximise impact – exploitation of results

- *Exploitation mechanisms – for example:*
 - *Potential **exploitable results***
 - *Target **users***
 - ***Mechanism** planned **DURING** the project for attracting them*
 - *Credible **business case***
 - *Analysis of current **market***
 - *Management of the **IPR***
 - *Analysis of existing **patents** – plans for patenting*

Role of industries and end users

- *Industry has a far **greater role** to play in 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 projects is **welcome, as appropriate**. In some projects, such as "**User driven IA**" and "**Pilot installation**", it is a **must**.*

Dissemination/exploitation

- *If industrial dimensions -> not necessary to make all deliverables public. In that case, **justify** why and describe the plans to protect and exploit such results.*
- *H2020 rules on IPR assure that "Ownership of background is not affected by participation in a H2020 project", and "Results are owned by the beneficiary that generates them. "*
- **BUT DISSEMINATION -> DEMONSTRATE IMPACT OF THE FUNDING**

Measures to maximise impact – dissemination of results

- *Concrete dissemination plan, scientific and non-scientific, with a coherent **vision**, not just a 'shopping list'*
- *Targeting **all types of** media channels and audiences (website, press releases, publications, exhibits at fairs, social media), **as relevant***

Last but not least

Nothing artificial:

- *Number of partners, geographic coverage, budget, types of partners (SMEs,...)*

→ ANY CHOICE DICTATED BY THE PROJECT NEEDS

Extremely competitive

→ BE OUTSTANDING!



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THANK YOU!