

Crowd Computing and H2020

H2020 and project types (1)

H2020 project types for researchers:

- research & innovation actions
- innovation actions
- coordination & support actions
- Marie Curie Sklodowska actions (MSCA)
- prizes
- European Research Council (ERC) starting grants
- SME instruments

H2020 and project types (2)

Horizon 2020 – Types of Action

For Researchers

| Type of Action ¹ | Code | Minimum Conditions ² | Funding Rate | Typical Duration | Average EC Contribution | Aim |
|-----------------------------------|------|---------------------------------|--|------------------|---|---|
| Research & Innovation Action | RIA | ≥ 3 legal entities from 3 MS/AC | 100% | 36-48 months | € 2.0 - 5.0M | collaborative research projects |
| Innovation Action | IA | ≥ 3 legal entities from 3 MS/AC | 70% ³ | 30-36 months | € 2.0 - 5.0M | produce plans & arrangements or designs for new, altered or improved products, processes or services |
| Coordination & Support Action | CSA | 1 legal entity | 100% | 12-30 months | € 0.5 - 2.0M | accompanying measures (standardisation, dissemination, policy dialogues etc.) no research |
| MSCA ⁴ (except Cofund) | MSCA | see separate factsheet | | | | facilitate mobility of researchers for training & career development |
| ERC Grants | ERC | 1 legal entity in MS/AC | 100% | 60 months | Starting: ≤ € 2.0M Consolidator: ≤ € 2.75M Advanced: ≤ € 3.5M | support excellent investigators and their research teams to pursue ground-breaking, high-gain/ high-risk research |
| Prizes | PRI | 1 legal entity | n/a | n/a | variable; see respective topic | - recognise past achievements - induce future activities |
| SME Instrument | SME | 1 SME in MS/AC | 3 phases: <ul style="list-style-type: none"> Phase 1: lump sum of € 50K / project Phase 2: € 1 - 2.5M / project (1-2 years) (70% of eligible costs reimbursed) Phase 3 : no funding | | | combination of demonstration activities (testing, prototyping, ...), market replication |
| Fast Track to Innovation | FTI | ≤ 5 legal entities from 5 MS/AC | 70% ³ | tbd | ≤ € 3.0M | produce plans & arrangements or designs for new, altered or improved products, processes or services |

H2020 and project types (3)

H2020 project types for funding bodies and public sector:

- MSCA co-found actions
- European Research Area (ERA) net actions
- Pro-commercial procurement actions
- Public procurement of innovative solution actions

H2020 and project types (4)

For Public Sector and other Funding Bodies, Programme Managers etc. (Cofund Actions)

| Type of Action ¹ | Funding Code | Minimum Conditions ² | Funding Rate | Typical Duration | EC Contribution | Comment |
|--|--------------|---------------------------------|--------------|--|--------------------------------|--|
| MSCA Cofund ³ | MSCA Cofund | 1 legal entity | 50% | 36-60 months | ≤ € 10.0 M | Co-funding of regional, national & international doctoral & fellowship programmes |
| ERA-NETs | ERA-NET | ≥ 2 legal entities in MS/AC | 33% | 60 months | variable, see respective topic | coordinate research efforts of participating MS/AC in the field described & implement joint transnational call for proposals with EU co-funding |
| Pre-Commercial Procurement | PCP | ≥ 3 public procurers from MS/AC | 70% | 18-48 months for 2 Phases: A) Preparation B) Execution | variable, see respective topic | enable the public sector as a technologically demanding buyer to encourage research, development and validation of breakthrough solutions in areas of public interest |
| Public Procurement of Innovative Solutions | PPI | ≥ 3 public procurers from MS/AC | 20% | 18-48 months for 2 Phases: A) Preparation B) Execution | variable, see respective topic | enable trans-national buyer groups of procurers to share the risks of acting as early adopters of innovative goods or services which are not yet available on a large-scale commercial basis |

H2020 and crowd / desktop / volunteer computing (1)

**direct references for c/d/v computing in
calls:**

Industrial leadership programme:

sub-programme: Leadership in enabling and industrial
technologies - Information and Communication Technologies

Call: ICT 10 – 2015: Collective Awareness Platforms for
Sustainability and Social Innovation

sub-programme: Leadership in enabling and industrial
technologies - Nanotechnologies, Advanced Materials,
Biotechnology and Advanced Manufacturing and Processing

Call: none

H2020 and crowd / desktop / volunteer computing (2)

**direct references for c/d/v computing in
calls:**

Excellence in science programme:

sub-programme: European research infrastructures

Call: none

sub-programme: Marie Currie Sklodowska actions

Call: none

**H2020 and crowd / desktop /
volunteer computing (3)**

**direct references for c/d/v
computing in calls:**

**S o c i e t a l c h a l l e n g e s
programme:**

**sub-programme: Health,
demographic change and well-
being**

H2020 and crowd / desktop / volunteer computing (4)

**direct references for c/d/v computing in
calls:**

Societal challenges programme:

sub-programme: Europe in a changing world – inclusive,
innovative and reflective Societies

Call: none

sub-programme: Secure societies – Protecting freedom and
security of Europe and its citizens

Call: none

Science with and for Society programme:

Call: none

H2020 and crowd / desktop / volunteer computing (5)

sub-programme: Leadership in enabling and industrial technologies - Information and Communication Technologies

Call: ICT 10 – 2015: Collective Awareness Platforms for Sustainability and Social Innovation

Proposals are expected to develop and test pilot solutions to clearly defined **sustainability challenges** by harnessing 'network effects', leveraging on innovative combinations of distributed social networks

H2020 and crowd / desktop / volunteer computing (6)

sub-programme: Innovation in small and medium - sized enterprises

Call: INNOSUP 6 - 2015: Capitalising the full potential of online collaboration for SME innovation support

Innovation support services are addressing **innovation challenges** by two interventions that are often combined: (a) the provision of networking space for personal meetings either as one - off meeting ('brokerage events') or as more stable networks ('clusters') often with a limited geographic reach; and b) the definition of 'cooperation profiles' ('technology offers', 'partner search profile' etc.) that are distributed through networks of intermediaries. To a different degree intermediaries become active in establishing the partnership ('brokerage'). Social media

**H2020 and crowd / desktop /
volunteer computing (7)
sub-programme: Smart, Green
and Integrated Transport**

**Call: MG.7.-2014 Connectivity
and information sharing for
intelligent mobility**

**The complexity of the travel
experience for individuals,
including the difficulties**

H2020 and crowd computing project options

two major options:

option 1 – creating e-infrastructure based on crowd computing

sub-programmes:

- European research infrastructures

option 2 - addressing societal challenges with particular communities involving academia, business, citizens and industry

sub-programmes:

- Health, demographic change and well-being
- Food Security, Sustainable Agriculture and Forestry, Marine, Maritime and Inland Water Research and the Bioeconomy
- Secure, Clean and Efficient Energy
- Climate Action, Environment, Resource Efficiency and Raw Materials

H2020 and crowd computing and e-infrastructure (1)

calls for proposals:

- EINFRA-5-2015 – Centres of Excellence for computing applications

Establishing a limited number of Centres of Excellence (CoE) is necessary to ensure EU competitiveness in the application of HPC for addressing scientific, industrial or societal challenges. CoEs will be user-focused, develop a culture of excellence, both scientific and industrial, placing computational science and the harnessing of 'big data' at the centre of scientific discovery and industrial competitiveness. CoEs may be 'thematic', addressing specific application domains such as medicine, life science or energy; 'transversal' on computational science (e.g. algorithms, analytics, numerical methods etc.); or 'challenge-driven', addressing societal or industrial challenges (e.g. ageing, climate change, clean transport etc.); or a combination of these types

H2020 and crowd computing and e-infrastructure (2)

calls for proposals:

- EINFRA-9-2015 – e-Infrastructures for virtual research environments (VRE)

to address this challenge by supporting capacity building in interdisciplinary research communities to empower researchers through development and deployment of service-driven digital research environments, services and tools tailored to their specific needs. These virtual research environments (VRE) should integrate resources across all layers of the e-infrastructure (networking, computing, data, software, user interfaces), should foster cross-disciplinary data interoperability and should provide functions allowing data citation and promoting data sharing and trust.

H2020 and major societal challenges

- Health, demographic change and wellbeing;
- Food security, sustainable agriculture and forestry, marine and maritime and inland water research, and the Bioeconomy;
- Secure, clean and efficient energy;
- Smart, green and integrated transport;
- Climate action, environment, resource efficiency and raw materials;
- Europe in a changing world - inclusive, innovative and reflective societies;
- Secure societies - protecting freedom and security of Europe and its citizens

Crowd computing and major societal challenges

crowd computing = large set of tools that enables idea sharing, non-hierarchical decision making and the utilization of the ability to collaborate on large, sometimes global projects

crowd computing vs application areas:

- citizen science
- enterprises
- research
- social media