

**Department of Physics and Geology**  
**University of Perugia**  
**EU calls for proposals and events – July 2016**

**CALLS**

**CALL: CALL FOR PROPOSALS FOR ERC STARTING GRANT ([LINK](#))**

**TOPIC: ERC Starting Grant ([link](#))**

ERC Starting Grants are designed to support excellent Principal Investigators at the career stage at which they are starting their own independent research team or programme. Applicant Principal Investigators must demonstrate the ground-breaking nature, ambition and feasibility of their scientific proposal.

**Deadline: 18 October 2016 - 17:00:00**

**Funding rate:** 100% of the total eligible and approved direct costs and of flat-rate financing of indirect costs on the basis of 25% of the total eligible direct costs.

★ **Specific notes:** Starting Grants may be awarded up to a maximum of EUR 1 500 000 for a period of 5 years (The maximum award is reduced pro rata temporis for projects of a shorter duration. This does not apply to ongoing projects). However, up to an additional EUR 500 000 can be requested in the proposal to cover (a) eligible "start-up" costs for Principal Investigators moving to the EU or an Associated Country from elsewhere as a consequence of receiving the ERC grant and/or (b) the purchase of major equipment and/or (c) access to large facilities. The Principal Investigators shall have been awarded their first PhD at least 2 and up to 7 years prior to 1 January 2017. The effective elapsed time since the award of the first PhD can be reduced in certain properly documented circumstances.

**CALL: FAST TRACK TO INNOVATION PILOT ([LINK](#))**

**TOPIC: Fast Track to Innovation Pilot ([link](#))**

The FTI pilot supports projects undertaking innovation from the demonstration stage through to market uptake, including stages such as piloting, test-beds, systems validation in real world/working conditions, validation of business models, pre-normative research, and standard-setting. It targets relatively mature new technologies, concepts, processes and business models that need a last development step to reach the market and achieve wider deployment. To this end, if a proposal involves technological innovation, the consortium must declare that the technology or the technologies concerned are at least at Technology Readiness Level (TRL) 6, where appropriate. Projects can be interdisciplinary.

**3<sup>rd</sup> Cut-off date:** 25 October 2016 17:00:00

**Types of action:** Innovation action (IA)

**Funding rate:** 70% (except for non-profit legal entities, where a rate of 100% applies)

**Eligibility conditions for participation:** IA: At least three legal entities. Each of the three must be established in a different EU Member State or Horizon 2020 associated country. All three legal entities must be independent of each other.

★ **Specific notes:** At least three and maximum five legal entities can participate in a project. Each of the three shall be established in a different Member State or associated country. All three legal entities shall be independent of each other. At least one of the following minimum conditions shall be met: either

- at least 60% of the overall budget of the proposal must be allocated to consortium partner(s) from industry

or

- the minimum number of industry participants must be 2 in a consortium of 3 or 4 partners, and 3 in a consortium of 5 partners.

The maximum EU contribution per project is EUR 3 million. Proposals shall relate to any field under the specific objective 'Leadership in enabling and industrial technologies' and/or to any of the specific objectives under the priority 'Societal challenges'. A proposal shall include a business plan.

**CALL: INFORMATION AND COMMUNICATION TECHNOLOGIES CALL ([LINK](#))**

**TOPIC: Customised and low energy computing (including Low power processor technologies) ([link](#))**

Information and Communication Technologies are becoming a core component of products in all market sectors. The trend towards "Smart Anything Everywhere" must be supported by innovations allowing a very significant reduction of two complementary aspects: the cost and complexity of software development for modern architectures, and the energy footprint of computation and communication. A complementary challenge comes from the hardware limitations of today's processor architectures, especially for delivering high computing performance in low power envelopes. This is a serious problem for the development of very promising application areas, e.g. at the convergence between high performance computing, big data and deep learning. To overcome these limitations, there is the need to develop a new generation of innovative, secure and reliable processors for systems based on highly parallel and heterogeneous architectures. Targeted markets are high performance computing and server workloads where energy efficiency, compact physical size and low power consumption are strong requirements.

**Planned opening date: 08 December 2016**

**Deadline: 25 April 2017 17:00:00**

**Types of action:** Research and Innovation action (RIA); Coordination and support action (CSA)

**Funding rate:** RIA: 100%; CSA: 100%

**Eligibility conditions for participation:** RIA: at least three legal entities. Each of the three must be established in a different EU Member State or Horizon 2020 associated country. All three legal entities must be independent of each other. CSA: At least one legal entity established in an EU Member State or Horizon 2020 associated country.

**CALL: INFORMATION AND COMMUNICATION TECHNOLOGIES CALL ([LINK](#))**

**TOPIC : Micro- and nanoelectronics technologies ([link](#))**

While the state-of-the-art micro/nano-electronics technologies and their manufacturing are being further advanced towards market-readiness in the context of the ECSEL Joint Undertaking, it is essential to prepare for the future of the electronics industry the next wave of industry-relevant technologies to extend the limits (technological and/or economic) mainstream technologies will be facing in the medium term. This is essential to maintain and increase Europe's longer-term capacity in the design and manufacturing of these technologies and to strengthen the competitiveness and market leadership of the many industries innovating through these technologies.

**Planned opening date: 08 December 2016**

**Deadline: 25 April 2017 17:00:00**

**Types of action:** Coordination and support action (CSA), Research and Innovation action (RIA), Innovation action (IA)

**Funding rate:** CSA: 100%; RIA: 100%; IA: 70% (except for non-profit legal entities, where a rate of 100% applies)

**Eligibility conditions for participation:** CSA: At least one legal entity established in an EU Member State or Horizon 2020 associated country. RIA: at least three legal entities. Each of the three must be established in a different EU Member State or Horizon 2020 associated country. All three legal entities must be independent of each other. IA: At least three legal entities. Each of the three must be established in a different EU Member State or Horizon 2020 associated country. All three legal entities must be independent of each other.

**CALL: COMPETITIVE LOW-CARBON ENERGY ([LINK](#))****TOPIC : New knowledge and technologies ([link](#))**

The technologies that will form the backbone of the energy system by 2030 and 2050 are still under development. Promising technologies for energy conversion are being developed at laboratory scale and need to be scaled up in order to demonstrate their potential value in our future energy system. These new technologies should provide more flexibility to the energy system and could help adapting to changing climatic conditions. New knowledge and more efficient and cost-competitive energy technologies, including their conventional and newly developed supply chains, are required for the long run. It is crucial that these new technologies show evidence of promising developments and do not represent a risk to society.

**Planned opening date: 29 July 2016**

**Deadline: 29 November 2016 17:00:00**

**2nd stage Deadline: 22 August 2017 17:00:00**

**Types of action:** Research and Innovation action (RIA)

**Funding rate:** 100%

**Eligibility conditions for participation:** RIA: at least three legal entities. Each of the three must be established in a different EU Member State or Horizon 2020 associated country. All three legal entities must be independent of each other.

**CALL: COMPETITIVE LOW-CARBON ENERGY ([LINK](#))****TOPIC : Measuring, monitoring and controlling the potential risks of subsurface operations related to CCS and unconventional hydrocarbons ([link](#))**

Geo-energy applications such as carbon capture and storage (CCS), the development of unconventional hydrocarbons (in particular shale gas) and to some extent also geothermal operations, can have an impact on the subsurface. Consequently, advanced and cost effective monitoring is vital for the sustainable management of the subsurface and its resources. Research is needed to better understand and quantify possible (natural and engineered) leakage pathways for CO<sub>2</sub> and natural gas, the rates of leakage into aquifers and escape at surface, the impacts that leakage can have on fresh groundwater resources, soil and biodiversity, and the time frame in which emissions will return to baseline values. The effective detection and quantification of leakage requires a scientifically robust method for determining natural background concentrations of CO<sub>2</sub> and natural gas in the soil and at the surface. Uniform, unbiased and independent data are needed to manage and mitigate the risks of subsurface geo-energy related operations.

**Planned opening date: 20 September 2016**

**Deadline: 05 January 2017 17:00:00**

**Types of action:** Research and Innovation action (RIA)

**Funding rate:** 100%

**Eligibility conditions for participation:** RIA: at least three legal entities. Each of the three must be established in a different EU Member State or Horizon 2020 associated country. All three legal entities must be independent of each other.

**CALL: COMPETITIVE LOW-CARBON ENERGY ([LINK](#))****TOPIC : Highly flexible and efficient fossil fuel power plants ([link](#))**

Projects should lead to innovative and cost-effective solutions to improve the ability of new and/or existing dispatchable thermal power plants to meet fast load changes, in order to better support the grid due to fluctuations in energy peak demand and power output from renewable sources, at minimal fuel consumption and emissions, while mitigating the effects of cycling operation to avoid excessive wear and service life expenditure, and not impeding the potential CO<sub>2</sub> capture readiness of the power plants.

**Planned opening date: 20 September 2016**

**Deadline: 05 January 2017 17:00:00**

**Types of action:** Research and Innovation action (RIA)

**Funding rate:** 100%

**Eligibility conditions for participation:** RIA: at least three legal entities. Each of the three must be established in a different EU Member State or Horizon 2020 associated country. All three legal entities must be independent of each other.

★ **Specific notes:** Focus on progressing solutions that already reached TRL 3 to TRL 4-6 and offer the highest potential for a deeper integration into an advanced energy system with ever higher shares of renewable energies, for both existing (retrofitting) and new thermal power plants. The Commission considers that proposals requesting a contribution from the EU in the range of EUR 3 to 6 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

## **EVENTS**

- **Horizon 2020 Information Day: Climate Action, Environment, Resource Efficiency & Raw Materials, 14/09/2016, Brussels, Belgium ([link](#))**
- **2016 Information Day on the Horizon 2020 'Smart cities and communities', 23/09/2016, Brussels, Belgium ([link](#)).**
- **2016 Information Day on the Horizon 2020 'Smart, green and integrated transport', 28/09/2016, Brussels, Belgium, ([link](#)).**
- **ICT Proposers' Day 2016, 26-27/09/2016, Bratislava, Slovakia, ([link](#))**
- **NanoInnovation 2016, Conference and Exhibition, 20-23/09/2016, Rome, Italy ([link](#)).**
- **IMI Stakeholder Forum 2016, from 28/08/2016 to 29/09/2016, Brussels, Belgium ([link](#))**