



**TURKEY_{in}
HORIZON 2020**
COOPERATION AND INNOVATION COMPETITIVENESS

TURKEY IN HORIZON 2020
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finanse edilmektedir

H2020 General Training

Excellent Science










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COOPERATION AND INNOVATION COMPETITIVENESS

Activities under this Pillar aim to reinforce and extend the excellence of the Union's science base and to consolidate the European Research Area in order to make the Union's research and innovation system more competitive on a global scale.

The Excellent Science pillar has main four specific objectives:



European Research Council (ERC)

Future and emerging technologies

Marie Skłodowska-Curie Actions

Research infrastructure (including e-infrastructures)



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European Research Council

Established by the European Commission



The ERC supports frontier research, cross disciplinary proposals and pioneering ideas in new and emerging fields which introduce unconventional and innovative approaches.

The ERC's mission is to encourage the highest quality research in Europe through competitive funding and to support investigator-driven frontier research across all fields of research, on the basis of scientific excellence.



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ERC Grants

ERC Starting Grant for young, early-career top researchers (2-7 years after PhD) -up to 1.5 million euro for a period of 5 years.

ERC Consolidator Grant for already independent excellent researchers 7-12 years after PhD) -up to 2 million euro for a period of 5 years.

ERC Advanced Grant for senior research leaders with significant research achievements in the last 10 years -up to 2.5 million euro for a period of 5 years.

ERC Proof of Concept Grants for ERC grant holders who want to check the market and/or innovation potential of research results from ERC-projects -up to 150,000 euro for a period of 12 months.



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Future and emerging technologies

FET actions are expected to initiate radically new lines of technology through unexplored collaborations between advanced multidisciplinary science and cutting-edge engineering.

FET Open funds projects on new ideas for radically new future technologies

FET Proactive seeking to establish a critical mass of EU researchers in a number of promising exploratory research topics.

FET Flagships are 1-billion, 10-years initiatives where hundreds of excellent European researchers unite forces, like understanding the Human Brain or developing the new materials of the future, such as Graphene.



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Research infrastructure (e-infrastructures)

Three types of activities:

1. Development of new world-class research infrastructures. Support will be provided for the implementation and operation of the research infrastructures listed on the ESFRI Roadmap.
2. Optimising the use of the national facilities by integrating them into networks and opening their doors to all European researchers. This is a continuity of the so-called Integrating Activities under FP7.
3. Support further deployment and development of ICT based e-infrastructures which are essential to enable access to distant resources, remote collaboration, and massive data processing in all scientific fields.



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Marie Skłodowska-Curie Actions

- The Marie Skłodowska-Curie actions (MSCA) provide grants for all stages of researchers' careers - be they doctoral candidates or highly experienced researchers - and encourage transnational, intersectoral and interdisciplinary mobility.
- The MSCA enable research-focused organisations (universities, research centres, and companies) to host talented foreign researchers and to create strategic partnerships with leading institutions worldwide.



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Marie Skłodowska-Curie Actions (MSCA)

• Main objective

- Ensure the optimum development and dynamic use of Europe's **intellectual capital** in order to generate new skills and innovation

• Rationale

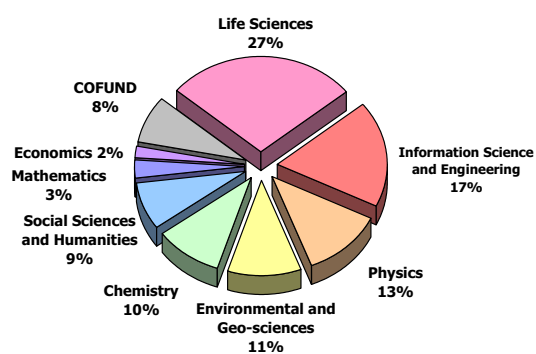
- Encourage new, creative types of **training**
- Identify **excellent talents** in research and innovation in **international competition**
- Make **best researchers** in Europe and the world work together across countries, sectors and disciplines
- Create a whole **new mind-set** in Europe, crucial for **entrepreneurship** and **innovation**



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MSCA

Bottom-up approach










Budget distribution by scientific panel in FP7

- 60 000 **researchers** financed since the creation of the Marie Curie Actions
- More than 10 000 **PhD** supported in FP7
- Marie Curie researchers coming from all over the world (around 130 **nationalities**)
- Marie Curie host organisations in more than 80 **countries**
- 46% of researchers coming to EU from industrialised countries **stay in Europe** after the end of their IIF fellowship
- 38% **women** participation in FP7 MCA, close to the 40% target



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MSCA	
Action 1 ITN Early-stage Researchers	Innovative Training Networks Support for doctoral and early-stage training European Training Networks, European Industrial Doctorates, European Joint Doctorates
Action 2 IF Experienced Researchers	Individual Fellowships Support for experienced researchers for international and inter-sector mobility: European Fellowships and Global Fellowships Dedicated support for career restart and reintegration
Action 3 RISE Exchange of Staff	Research and Innovation Staff Exchange International and inter-sector cooperation through the exchange of staff
Action 4 COFUND	Co-funding of regional, national and international programme Doctoral programme & Fellowship programmes
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MSCA	
	<p>Early-Stage Researchers (ESR) shall, at the time of recruitment by the host organisation, be in the first four years (full-time equivalent research experience) of their research careers and have not been awarded a doctoral degree.</p> <p>Experienced Researcher (ER) shall, at the deadline for the submission of proposals, be in possession of a doctoral degree or have at least four years of full-time equivalent research experience.</p>
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Innovative Training Networks - ITN

- To train a new generation of creative, entrepreneurial and innovative early-stage researchers able to face current and future challenges ...
- To raise excellence and structure research and doctoral training, extending the traditional academic research training setting, and equipping researchers with the right combination of research-related and transferable competences.



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Individual Fellowship - IF

Individual Fellowships (IF): enhancing the creative and innovative potential of Experienced Researchers who wish to diversify their individual competence in terms of skill acquisition through advanced training, international and intersectoral mobility.

IF provide opportunities to acquire and transfer new knowledge and to work on research in a European context (EU Member States and Associated Countries) or outside Europe.

Support is foreseen for individual, trans-national fellowships awarded to the best or most promising researchers for employment in EU MS or AC, based on an application made jointly by the researcher and host organisation in the academic or non-academic sectors.



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Research and Innovation Staff Exchange - RISE

The RISE scheme will promote international and inter-sector collaboration through research and innovation staff exchanges, and sharing of knowledge and ideas from research to market (and vice-versa) for the advancement of science and the development of innovation.

Eligible staff seconded under RISE are ESR and ER



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Research and Innovation Staff Exchange - RISE

At least three independent participants established in three different countries and must respect one of the following two conditions:

- two organisations are located in two different MS/AC and one organisation is located in a TC, independently from the sector they belong to,
- Or
- if all three independent organisations are from MS/AC, at least one organisation should be from the academic sector and one from the non-academic sector.



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RISE Example

"ETexWeld: Welding of E-Textiles for Interactive Clothing"

(1/1/15 - 1/1/19, Funding 913,500 Euro)

Coordinator: ISTANBUL TEKNİK UNIVERSİTESİ



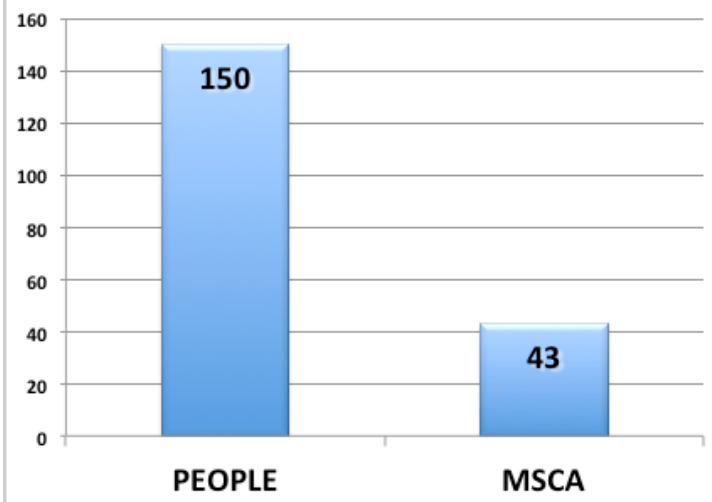
"This project will not only help to develop future generations of entrepreneurial researchers more capable of contributing effectively to the knowledge-based e-textile research area, within and between public and private sectors, but also add to the intersectoral and trans-national employability of these researchers as well as to the attraction of young people to a research career on textile/electronics areas. "

ECOLE NATIONALE SUPERIEURE DES ARTS ET INDUSTRIES TEXTILES; FR
 TECHNOLOGIES FOTONIKON KAI HLEKTRONIKON SYSTHMATVN AE; EL
 KIVANC KIMYA SANAYII VE TICARET ANONIM SİRKETİ; TR
 Technological Educational Institute of Piraeus; EL
 INLAS INTELEKTUALNA LASTNINA IN SVETOVANJE DOO; SI



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Turkish participation in PEOPLE/MSCA



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