European Commission

Marie Skłodowska-Curie Actions:

Over 20 years of European support for researchers' work

Since 1994, the Marie Skłodowska-Curie Actions have provided grants to train excellent researchers at all stages of their careers - be they doctoral candidates or highly experienced researchers – while encouraging transnational, inter-sectoral and interdisciplinary mobility. In 1996, the programme was named after the double Nobel Prize winner Marie Skłodowska-Curie to honour and spread the values she stood for. To date, more than 120 000 researchers have participated in the programme with many more benefiting from it – among them nine Nobel laureates and an Oscar winner.

Marie Skłodowska-Curie Actions in the future

Building on the success of the programme over more than twenty years, the Marie Skłodowska-Curie Actions will continue to fund a new generation of outstanding, early-career researchers under Horizon Europe, the new European research and innovation programme for 2021-2027.

The Commission has proposed a budget of EUR 6.8 billion for Marie Skłodowska-Curie Actions under Horizon Europe which will now be the subject of negotiations with the European Parliament and Council.

Stakeholders will have an opportunity to have their say in autumn 2018 to help shape the specific Marie Skłodowska-Curie Actions funding schemes for the period 2021-2027.

WHY WERE THE MARIE SKŁODOWSKA-CURIE ACTIONS CREATED?

Research and innovation are the backbone of the economy. Scientific discoveries drive the development of new products and services, boosting economic growth and job creation. They also foster social development. The Marie Skłodowska-Curie Actions (MSCA) are part of the EU's research and innovation programme Horizon 2020. They aim to equip researchers with the necessary skills and international experience for a successful career, in both the public and the private sectors. By helping researchers go abroad during their training, and by supporting staff exchanges between institutions and industry, the Marie Skłodowska-Curie Actions contribute to strengthening Europe's research and innovation capacity.

WHO CAN PARTICIPATE?

Individuals who either want to pursue a PhD degree or already hold a PhD can apply, as well as organisations involved in research: academic institutions, international research organisations, private businesses and NGOs. The Marie Skłodowska-Curie Actions are open to excellent researchers in all disciplines, from fundamental research to market take-up and innovation services. The programme enables researchers to go to any country in the EU or among the Horizon 2020 Associated Countries, while secondments outside Europe are also encouraged.

WHAT IS THE IMPACT?

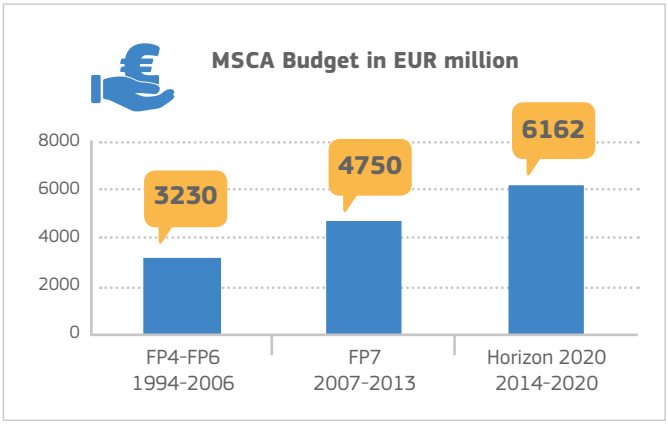
The Marie Skłodowska-Curie Actions have set the benchmark for attracting and retaining the most talented researchers. These opportunities are especially attractive because they give researchers the freedom to work in any field or indeed to combine disciplines. This means they can help meet the challenges facing society, both today and tomorrow.

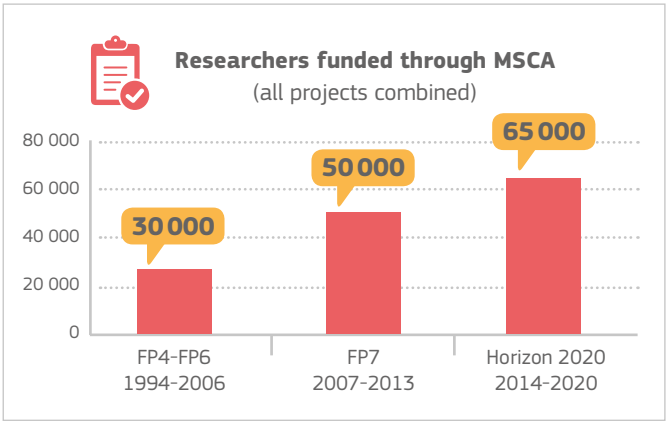
For example, Professor Stefan W. Hell, whose

multidisciplinary research earned him a Nobel Prize for Chemistry in 2014, was awarded a Marie Skłodowska-Curie Actions Individual Fellowship in 1996. He has stated that it came at 'a critical moment in my career'.

By making researchers mobile and encouraging cooperation, the Marie Skłodowska-Curie Actions help to foster knowledge transfer. Researchers gain experience in various types of organisations, which boosts their career prospects and capacity for entrepreneurship.

20 YEARS OF MARIE SKŁODOWSKA-CURIE ACTIONS IN NUMBERS: FUNDING AND PARTICIPANTS





Since 1994, the programme has supported over 110 000 researchers: 80 000 before 2014, and more than 30 000 in the years of Horizon 2020 so far.

From 2014 to 2020, with a budget of EUR 6.2 billion, the Marie Skłodowska-Curie Actions will support around 65 000 researchers including 25 000 PhD candidates.

The programme is attracting talent to Europe: since 2014, 25% of fellows have been nationals of countries outside either the EU or the 16 Associated Countries of Horizon 2020.

During the same time, over 6100 organisations from 119 countries have participated in the Marie Skłodowska-Curie Actions.

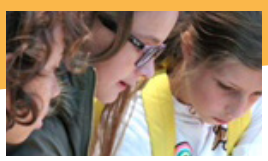
More than EUR 400 million has been awarded to organisations outside academia, for example enterprises, principally in the pharmaceutical, electronics, chemicals, and software sectors. Up to 1340 companies, including 786 SMEs, have received funding from 894 projects. The grants have enabled these firms to train researchers and to capitalise on their knowledge.

Did you know...?

A scientist and a team of software developers involved with the Marie Skłodowska-Curie Actions won an Academy Award in 2006: Dr Anil Kokaram from Trinity College in Dublin, and Dr Bill Collis, Simon Robinson, and Ben Kent from The Foundry, a London-based SME, picked up a technical Oscar for their work on visual effects software that was used in films such as *Casino Royale* and *Charlie and the Chocolate Factory*.

THE EUROPEAN RESEARCHERS' NIGHT – WHERE FUN AND SCIENCE MEET

Each year on the last Friday in September, the European Researchers' Night invites citizens to meet scientists and see their work up close. Events are organised in more than 30 countries and over 300 cities across Europe. Involving more than one million members of the public every year, the European Researchers' Night is a fun way for young people to discover science and how it affects our daily lives and to interest them in scientific careers.



**MARIE SKŁODOWSKA-CURIE ACTIONS PROMOTE EXCELLENCE –
NOBEL PRIZE WINNERS INVOLVED AS FELLOWS OR SUPERVISORS IN THE PROGRAMME:**

2013: James Rothman (Yale school of medicine) was an Marie Skłodowska-Curie Actions supervisor. He received the **Nobel Prize for medicine and physiology after discovering how cells precisely transport material.**

2014: Jean Tirole (Toulouse School of Economics) was an Marie Skłodowska-Curie Actions supervisor. He received the **Nobel Prize in Economic Sciences** for his work on examining competition, and analysing how large companies should be regulated to prevent monopoly behaviour and protect consumers.

2014: Stefan W. Hell (Max Planck Institute for Biophysical Chemistry in Göttingen and German Cancer Research Centre in Heidelberg), a German Physician who was an Marie Skłodowska-Curie Actions fellow at the University of Turku in 1996-1997 and then coordinator for three Marie Skłodowska-Curie Actions individual fellowships. He received his **Nobel Prize in Chemistry «for the development of super-resolved fluorescence microscopy»**.

2014: Edvard I. Moser and May-Britt Moser (Norwegian University of Science and Technology, Trondheim), former Marie Skłodowska-Curie Actions project coordinators. The two Norwegians received a **Nobel Prize in Medicine «for their discoveries of cells that constitute a positioning system in the brain».**

2015: Takaaki Kajita (University of Tokyo), involved in an Marie Skłodowska-Curie Actions project as a participant. The Japanese researcher has participated in several Marie Skłodowska-Curie Actions projects promoting international collaboration. He received his **Nobel Prize in Physics «for the discovery of neutrino oscillations, which shows that neutrinos have mass»**. Neutrinos are the second most abundant particle in the Universe, after photons of light.

2016: Bernard Feringa (University of Groningen), scientist in charge in a COFUND project. **Jean-Pierre Sauvage**, (Université de Strasbourg) supervised two individual fellowships. Ferringa and Sauvage received their **Nobel Prize in Chemistry along with Fraser Stoddart «for the design and synthesis of molecular machines».**

2017: The EU funded project **GraWIToN** involved 9 Marie Skłodowska-Curie Actions fellows who contributed to the preparation of the data on **gravitational waves** that led to the **Nobel Prize in Physics.**

2017: Richard Henderson (Medical Research Council) was an Marie Skłodowska-Curie Actions project coordinator. He received the **Nobel Prize in Chemistry** along with Jacques Dubochet and Joachim Frank for developing a technique called cryo-electron microscopy to improve images of biological molecules.