

International nanomaterials for biomedicine projects reaching success with support of EU Research and Innovation Staff Exchange (RISE) programme

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What is MSCA and what is RISE?

The Marie Skłodowska-Curie Actions (MSCA) are part of Horizon 2020 (H2020), the European Union's Framework Programme for Research and Innovation (2014-2020).

The **MSCA** support researchers in all scientific domains, promote collaboration between the academic, scientific and business communities, boost the careers of scientists at all stages and develop excellent doctoral training in Europe and beyond through international and intersectoral mobility.

The current budget (2014-2020) under Horizon 2020 is 6.2 billion euro and represents around 8% of the overall H2020 budget. Since 1994, the programme has trained around 130,000 researchers — including 35,000 doctoral candidates — throughout their career [1].

RISE stands for “Research and Innovation Staff Exchange” and it is part of the Horizon 2020 family of **MSCA**. The budget for the next call (opening Dec 5th, 2019) is set for 80 million Euro.

What does RISE offer?

RISE funds short-term international and inter-sectoral exchanges of staff members involved in research and innovation to develop sustainable collaborative projects between different organisations. It helps people develop their knowledge, skills and careers and ensure the transfer of knowledge.

RISE enables staff mobility and also contributes in a flexible way to research and administrative costs. The administration is quite simple for our coordinators as the programme works by “unit costs” (Figure 1).

Who applies?

International networks of research organisations from the academic and non-academic sectors. A RISE consortium consists of at least three independent participants in three different countries

(two must be EU Member States or Associated Countries).

Who is funded?

Researchers, technical administrative and managerial staff of the participating organisations, of any nationality and at all career levels.

What type of research project proposals?

The work can be basic research and/or applied research leading to publications, patents, software tools, training materials, prototypes ready for market, etc....

Exchanges (secondments) are open to all countries and nationalities. Within Europe, the special feature of RISE is that exchanges eligible for funding need to be between academia and industry.

Proposal applications are made within one of eight specific panels (i.e. Physics, Mathematics, Life Science, Engineering, Chemistry, and Economic and Social Sciences).

Within the research projects proposals the applicants also show how their work will meet the more general objectives of MSCA and RISE [1]

Which types of organisations?

All organisations involved in research and innovation activities, academic and non-academic (e.g. SMEs, NGOs, museums, hospitals, etc.), are potential participants.

RISE funds exchanges of research staff between academic and non-academic organisations (inter-sectoral secondments) and between EU Member States / Associated Countries and other organisations located in the rest of the world (international secondments). The projects are normally lasting 4 years with a maximum number of exchanges of ~540 person months (~2.5 million EUR).

Examples of Success Stories in field of nanomaterials and biomedicine?

Three recently funded MSCA-RISE projects [2-4] will be highlighted in the presentation. The projects are in under the “Physics” panel and focus on nanomaterial applications in biomedicine (dental implants and cancer detection and therapies). The consortia consist of ~33 organisations from Austria Czech Republic, Estonia, France Italy, Latvia, Lithuania, Poland, Spain, Portugal, United Kingdom, Argentina, Chile, Belarus, Brazil, Ukraine, United States. One third of these organisations are SMEs.

The science is exciting! From the perspective of the Marie Skłodowska-Curie programme what is also important about these projects is the difference they make to the career development of the researchers involved and the special collaborations between

industry and academia, within Europe and across the globe.

These projects are a proof of concept that innovation comes from mobilizing scientists between countries, between sectors, and between the fields of physics, chemistry, biology, and medicine.

How to apply?

Submit your application in response to a call for proposals through the Funding & Tenders Portal – where you will find the Work Programme and the Guide for Applicants. Designated National Contact Points are there to support you to make a successful application [6]

Discussion for NanoBio&Med participants

In this presentation, Dr. Ozin-Hofsaess – MSCA RISE Research Programme Administrator/ Panel Coordinator for Physics and Mathematics projects - will share her experience working with these scientists to reach their goals and the aims of the MSCA RISE programme.

She will inform and inspire the audience how they can make a strong application in the next and last RISE call - *opening Dec 5th and close date April 28th, 2020* - of the programme as part of the Horizon 2020 framework programme of the European Commission.

Also the other MSCA opportunities for funding (Figure 2). A preview of what is in store for RISE in the next framework programme, Horizon Europe, will also be presented.

References

- [1] EU Publications MSCA - Driving innovation, supporting researchers' mobility and cultivating excellence in doctoral and postdoctoral training : facts & figures <https://publications.europa.eu/fr/publication-detail/-/publication/73494930-d865-11e9-9c4e-01aa75ed71a1/language-en>
- [2] Project 778157 CanBioSe <https://cordis.europa.eu/project/rcn/213008/factsheet/en>
- [3] Project 777926 Nanosurf <https://cordis.europa.eu/project/rcn/212981/factsheet/en>
- [4] Project 734801 MAGNAMED, <https://cordis.europa.eu/project/rcn/207067/factsheet/en>
- [5] Funding and Tenders Portal <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/home>
- [6] National contact points <https://www.net4mobilityplus.eu/msca-ncp/>

Figures



Figure 1. Summary of budget for MSCA RISE projects. For each month that the researcher staff is mobilized they received funds for travel/accommodations, research, training, and networking and also management overheads.

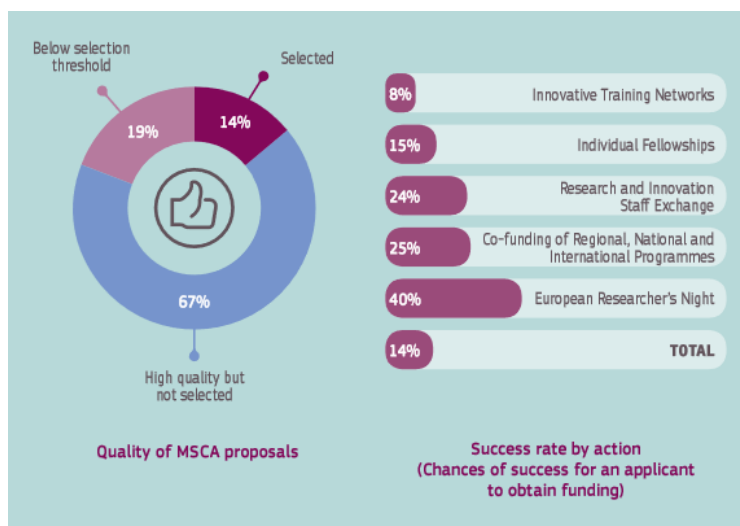


Figure 2. The MSCA are highly relevant and attractive, as shown by a growing number of high-quality proposals. However, many cannot be funded due to a lack of funding; proposals submitted under Co-funding of Regional, National and International Programmes; Research and Innovation Staff Exchange and European Researcher's Night are most likely to be funded, whilst there is a high demand for Individual Fellowships and Innovative Training Networks [1].