MSCA Staff Exchanges 2022 Research and Innovation Projects with Europe

October, 20th 2022

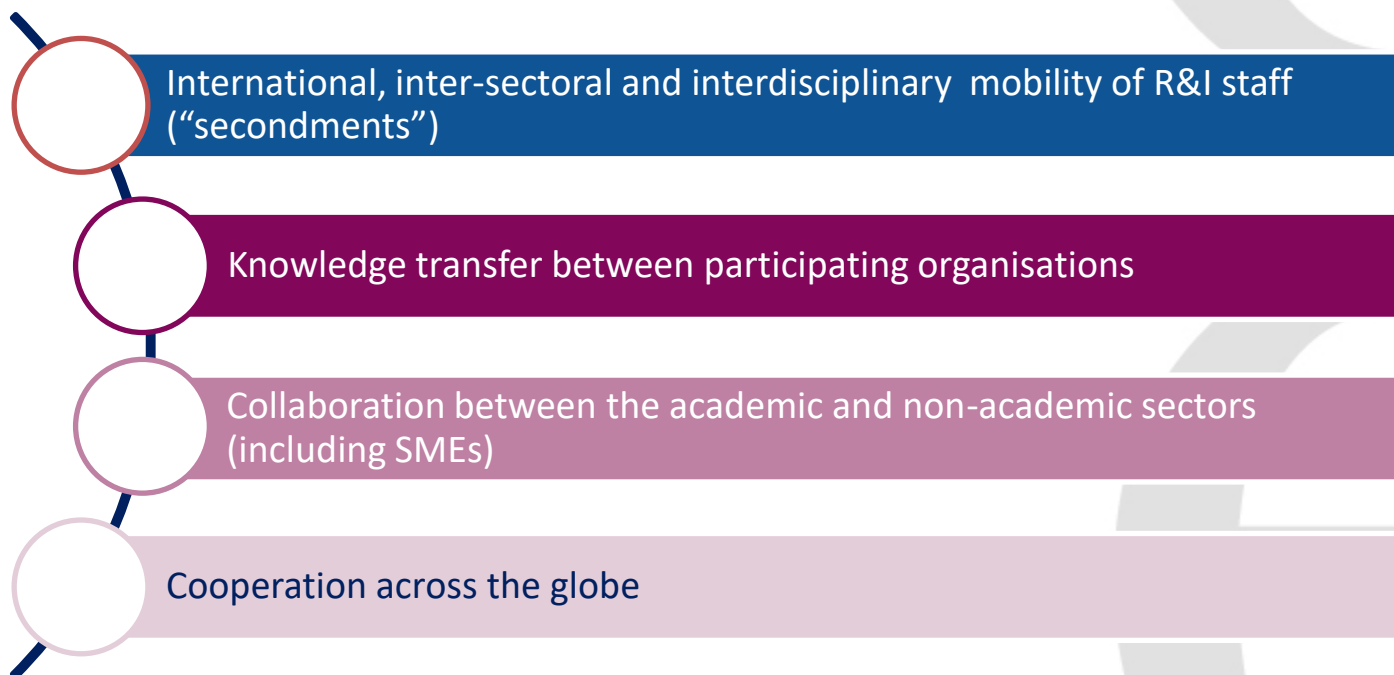**Cristina Gómez, Delegate and Spanish National Contact Point**

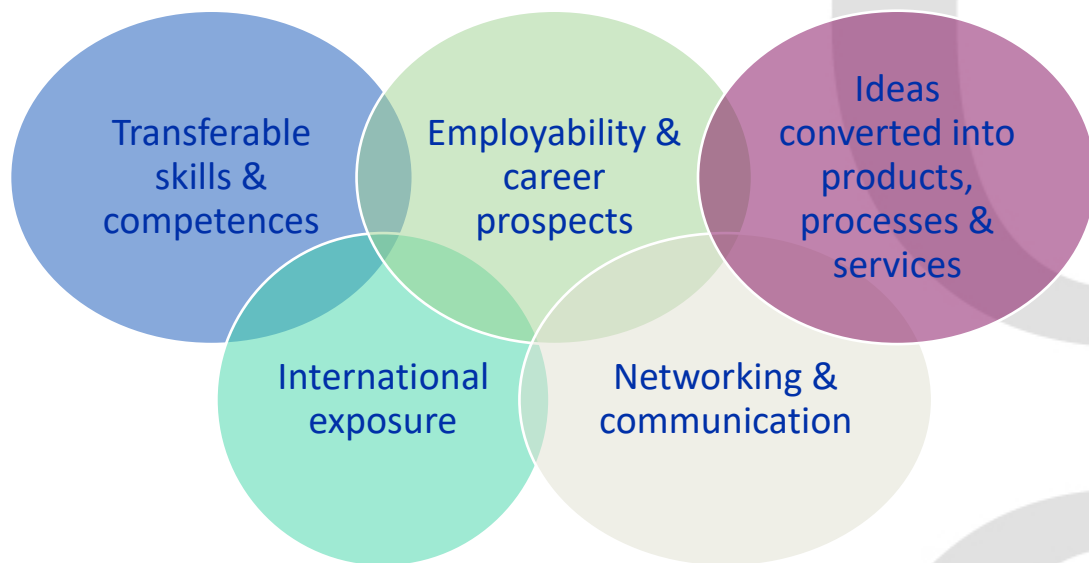# Objectives and general rules

MSCA Staff Exchanges: objectives

Collaborative R & I project implemented through secondments

Instrument to help building new and existing networks and collaborations
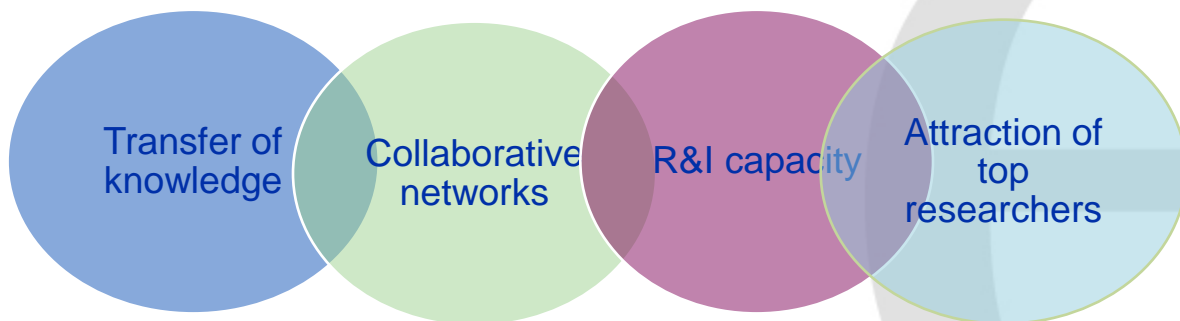
International, inter-sectoral and interdisciplinary mobility of R&I staff ("secondments")

Knowledge transfer between participating organisations

Collaboration between the academic and non-academic sectors (including SMEs)

Cooperation across the globe

MSCA Staff Exchanges: benefits

Staff members participating

- Transferable skills & competences
- Employability & career prospects
- Ideas converted into products, processes & services
- International exposure
- Networking & communication

Organisations

- Transfer of knowledge
- Collaborative networks
- R&I capacity
- Attraction of top researchers

MSCA Staff Exchanges: application of consortia

min. **3 legal entities in 3 different countries**
2 of which in a different EU Member State or HE Associated Country
If organisations from the **same sector**, there must be at least 1
organisation from a non-associated Third Country

Project duration: 4 years with a max. total of 360 PM secondments

EU COUNTRIES

- Member States (MS) including their outermost regions
- The Overseas Countries and Territories (OCTs) linked to the MS.

NON-EU COUNTRIES

- Countries associated to Horizon Europe (AC)
- Low and middle income countries: See HE Programme Guide.
- Other countries when announced in the call or exceptionally if their participation is essential

SPECIFIC CASES

- Affiliated entities established in countries eligible for funding.
- EU bodies
- International organisations (IO):
  - International European research organisations are eligible for funding.
  - **Other IO are not eligible (only exceptionally if participation is essential)**

List of Participating Countries in Horizon Europe

MSCA Staff Exchanges: eligible participants

BENEFICIARIES

- Located in a EU member State or Associated Country
- Can send staff on secondments
- Can host seconded staff
- Can provide training opportunities

ACADEMIC SECTOR

- Public or private higher education establishments awarding academic degrees,
- Public or private non-profit research organisations
- International European Research Organisations (IERO)

ASSOCIATED PARTNERS

- Located in Third Countries (TC)
- Can host seconded staff
- Can provide training opportunities
- Can sent staff on secondments (funding depends on eligibility rules)

NON-ACADEMIC SECTOR

Any socio-economic actor not included in the academic sector and fulfilling the requirements of the Horizon Europe (HE) Rules for Participation: SME, NGO, hospitals, public administration …

- No typical consortium size
- Range from 3 – 20 organisations
- Depends on the need of the project

- Sector is determined by EC when the institution registers
- Please check with the institution in advance to ensure which sector it belongs to.

GOBIERNO DE ESPAÑA — MINISTERIO DE CIENCIA E INNOVACIÓN

FECYT INNOVACIÓN

MSCA RISE (2020) [ESPERANTO](#)

Esperanto
Exchanges for SPEech
ReseArch aNd TechnOlogies
Horizon 2020 project

Project Information

ESPERANTO
Grant agreement ID: 101007666

DOI
10.3030/101007666 ☑

Start date
1 January 2021

End date
31 December 2025

Funded under
EXCELLENT SCIENCE - Marie Skłodowska-Curie Actions

Total cost
€ 1 191 400

EU contribution
€ 1 191 400

Coordinated by
UNIVERSITE DU MANS
🇫🇷 France

ESPERANTO is a collaborative research program based on a partnership between 15 academic and 4 non-academic partners, having complementary expertise and resources. The Esperanto project involves academic institutions leading the field of speech processing on 4 continents for decades and covering a large range of speech processing applications.

AI for advanced speech processing

Speech processing technologies are key for a range of business applications. The EU-funded ESPERANTO project holds that the next generation of AI algorithms used in speech processing should be more accessible. For instance, they should integrate human involvement in the loop and be decipherable to allow sensitive applications and preserve personal data. ESPERANTO envisages spreading these technologies to European SMEs, and expanding and securing their implementation for forensic, health and education purposes. The project will support the development of open-source tools, produce seminars on different speech processing themes to support new speech-AI students, researchers and engineers, and assist in the collection and sharing of linguistic and speech resources.

ENG panel

MSCA RISE (2020) ESPERANTO

BENEFICIARIES (10)

|	
🏢	**LABORATOIRE NATIONAL DE METROLOGIE ET D'ESSAIS** 🇫🇷 France
🏢	**VYSOKE UCENI TECHNICKE V BRNE** 🇨🇿 Czechia
🏢	**UNIVERSIDAD DE ZARAGOZA** 🇪🇸 Spain
🏢	**UNIVERSITE GRENOBLE ALPES** 🇫🇷 France
🏢	**AVIGNON UNIVERSITE** 🇫🇷 France
🏢	**THE UNIVERSITY OF SHEFFIELD** 🇬🇧 United Kingdom
🏢	**GROUPE ALLO MEDIA** 🇫🇷 France
🏢	**ELYADATA** 🇹🇳 Tunisia — Non-academic
🏢	**OMILIA MONOPROSOPI ETAIREIA PERIORISMENIS EFTHYNIS PAROXIS PLIROFORIKON, TILEPIKOINONIAKON KAI FONITIKON YPIRESION KAI SYSTIMATON** 🇬🇷 Greece
🏢	**PHONEXIA SRO** 🇨🇿 Czechia

ASSOCIATED PARTNERS (8)

🏢 PARTNER ℹ️	**UNIVERSITE DE YAOUNDE I** 🇨🇲 Cameroon — Academic
🏢 PARTNER ℹ️	**CONSEJO NACIONAL DE INVESTIGACIONES CIENTIFICAS Y TECNICAS (CONICET)** 🇦🇷 Argentina
🏢 PARTNER ℹ️	**UNIVERSIDAD DE CHILE** 🇨🇱 Chile
🏢 PARTNER ℹ️	**CENTRO DE APLICACIONES TECNOLOGICAS DE AVANZADA** 🇨🇺 Cuba
🏢 PARTNER ℹ️	Universiti Malaysia Sarawak 🇲🇾 Malaysia
🏢 PARTNER ℹ️	**UNIVERSITI SAINS MALAYSIA*** 🇲🇾 Malaysia
🏢 PARTNER ℹ️	**JOHNS HOPKINS UNIVERSITY** 🇺🇸 United States
🏢 PARTNER ℹ️	**MILA INSTITUT QUEBECOIS D INTELLIGENCE ARTIFICIELLE** 🇨🇦 Canada

MSCA Staff Exchanges: ESPERANTO EXAMPLE

WP3: Human Assisted Learning

Recent developments in machine learning enable automatic systems to learn and generalize from large quantities of data and have brought outstanding improvements in many speech related tasks. Those systems are however far from replacing human expertise for several reasons.

- First, automatic systems learn according to a given cost function (Loss) that might not entirely reflect the complexity of the task or lack the deployment context of the system.
- Second, deep learning systems learn their knowledge on large quantities of data and thus miss granularity to process outliers which might be very valuable from the human point of view. By interacting with the systems, a human operator can indicate specific areas of interest in the data for the system to learn from but current systems have difficulties to balance the knowledge learnt on the large quantity of training data with a few examples highlighted by the human expert.
- Third, incoming data distribution evolves across time and automatic systems need to adjust to new events and might need guidance from the human expert in order to learn the appropriate behavior regarding the new events.

This work package aims at developing automatic systems integrating human assisted learning. Those systems should be able to merge heterogeneous information coming from the processed data and from a human operator.

WP4: Explainability

Explainability and interpretability of intelligent systems is currently in the spotlight with a number of research programs worldwide. The wide deployment of speech technologies and the growing expectations from the general public create a need for explainability of intelligent speech processing systems. Explaining decisions made by AI systems is crucial for trust and social acceptance of these systems.

Speech is a complex signal conveying numerous information about the message but also various characteristics of the speaker: identity, age, accent, language. Automatic speech processing is thus used for many applications including health, forensics or education. In those domains, the role of automatic systems is not to make decisions but to provide relevant information to the human experts in order to motivate their decisions. Outputs of the automatic systems are used by domain experts who don't have expert knowledge in machine learning but still need to analyze this information. AI systems have to return a good prediction jointly with an appropriate representation of domain relevant features and biases when interacting with experts .

Explainability usually tries to understand the internal mechanisms of machines or deep learning systems and explain them in human terms. Meanwhile interpretability tends to present the mechanics in understandable terms without necessarily knowing why they occur. In both cases, the characterization of the information to be fed into the system and returned by the system is a real challenge.

This work package will address three tasks that will lead to better and more explainable systems.

- First partner experts in the different tasks will contribute to the characterization of what explainability is when considering speech processing.
- The criteria listed and described in this first task will then be used to explain behavior of existing automatic systems in different tasks (a posteriori explainability) in order to benefit speech technology users in a short term.
- Eventually, a third task will focus on developing systems that are initially designed to maximize explainability by taking into account the needs of human users.

WP5: Evaluating intelligent systems

Speech processing classic tasks like speech recognition, speaker recognition, speaker diarization, speech understanding or speech translation all have standard and widely used evaluation metrics and protocols that have been developed and discussed within the community for years. Those metrics and protocols allow the evaluation of technologies but are not sufficient to evaluate automatic systems including more functionalities or interaction capacities.

In industry, today's systems are automatic pipelines integrating several technological bricks to achieve a service; for instance, speaker diarization, language identification, automatic speech recognition and spoken language understanding are used in many call centers to analyze customers satisfaction. Researchers currently focus on systems integrating basic speech processing tasks together with human assisted learning or explainability. Evaluation of such composed systems is not satisfactory when relying only on basic metrics. The analysis of more complex tasks and pipelines requires new metrics, protocols and scenarios that will enable meaningful analyses of systems by disentangling the many factors involved in complex tasks.

This work package aims at deriving and generalizing evaluation processes in order to catalyze the development of intelligent systems by the community. This WP led by LNE will benefit from the expertise of the National Institute of Standards and Technology (NIST - USA) in order to open perspectives for international standard development.

MSCA Staff Exchanges: ESPERANTO EXAMPLE

2022 JHU Summer School on Human Language Technology

15 secondments to JHU

From June 13, 2022 to August 7, 2022

The first group of ESPERANTO team to JSalt has arrived at JHU, Baltimore, and started to follow the intensive two-week summer school of the Center for Language and Speech Processing (program details can be found here).

This group is mainly composed by Early Stage Researchers from Le Mans Université, Universidad de Zaragoza, Brno University of Technology, Avignon Université, Université Grenoble Alpes and the University of Sheffield, joined by Experienced Researchers from France (LMU), Czech Republic (PHONEXIA) and Spain (UNIZAR)...

MSCA Staff Exchanges: Who can be seconded?

Participating staff

Staff involved in R & I: researchers, administrative staff, technical staff

Researchers at **any career stage**: from doctoral to postdoctoral level

Actively engaged in R& I activities for at least **1 month prior** to the secondment

MSCA Staff Exchanges: The secondments

Secondments

Each staff member seconded from **1 to 12 months** (Split stays are possible):
3 months at Beneficiary 3
2 months at Associated Partner 4
1 month at Beneficiary 1
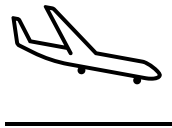
Full time dedication to the action while on secondment

After the secondment, staff should return to the sending organisation

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MSCA Staff Exchanges: Eligible secondments

"HOSTING"
(receiving seconded staff members)

	Academic organisation in MS/AC (1)	Non-academic organisation in MS/AC (2)	Associated Partners eligible for funding	Associated Partners non-eligible for funding
Academic organisation in MS/AC (1)	1/3	✓	✓	✓
Non-academic organisation in MS/AC (2)	✓	1/3	✓	✓
Associated Partners* eligible for funding	✓	✓	✗	✗
Associated Partners non-eligible for funding	✗	✗	✗	✗

"SENDING"
(sending staff members from organization)

1/3 This symbol refers to same sector secondments up to 1/3 of the total implemented secondments funded by the EU as long as they are demonstrated to be interdisciplinary.

* Associated Partners eligible for funding (see List of Participating Countries in Horizon Europe)

» Exchanges within the same country are not eligible.

Exchanges between Associated Partners based in TC are not eligible.

MSCA RISE (2020) [ESPERANTO](#)

BENEFICIARIES (10)

🏢	LABORATOIRE NATIONAL DE METROLOGIE ET D'ESSAIS 🇫🇷 France
🏢	VYSOKE UCENI TECHNICKE V BRNE 🇨🇿 Czechia
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🏢	PHONEXIA SRO 🇨🇿 Czechia

All ✔

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🏢 PARTNER ℹ	MILA INSTITUT QUEBECOIS D INTELLIGENCE ARTIFICIELLE 🇨🇦 Canada

MSCA RISE (2020) ESPERANTO

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AVIGNON UNIVERSITE
France

THE UNIVERSITY OF SHEFFIELD
United Kingdom

GROUPE ALLO MEDIA
France

ELYADATA
Tunisia
Non-academic

OMILIA MONOPROSOPI ETAIREIA PERIORISMENIS
EFTHYNIS PAROXIS PLIROFORIKON,
TILEPIKOINONIAKON KAI FONITIKON YPIRESION KAI
SYSTIMATON
Greece

PHONEXIA SRO
Czechia

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Cameroon
PARTNER
Academic

CONSEJO NACIONAL DE INVESTIGACIONES
CIENTIFICAS Y TECNICAS (CONICET)
Argentina
PARTNER

UNIVERSIDAD DE CHILE
Chile
PARTNER

CENTRO DE APLICACIONES TECNOLOGICAS DE
AVANZADA
Cuba
PARTNER

Universiti Malaysia Sarawak
Malaysia
PARTNER

UNIVERSITI SAINS MALAYSIA*
Malaysia
PARTNER

JOHNS HOPKINS UNIVERSITY
United States
PARTNER

MILA INSTITUT QUEBECOIS D INTELLIGENCE
ARTIFICIELLE
Canada
PARTNER

MSCA RISE (2020) ESPERANTO

BENEFICIARIES (10)

LABORATOIRE NATIONAL DE METROLOGIE ET D'ESSAIS
🇫🇷 France

VYSOKE UCENI TECHNICKE V BRNE
Czechia

UNIVERSIDAD DE ZARAGOZA — Academic
🇪🇸 Spain

UNIVERSITE GRENOBLE ALPES — Academic
🇫🇷 France

AVIGNON UNIVERSITE
🇫🇷 France

THE UNIVERSITY OF SHEFFIELD — Academic
🇬🇧 United Kingdom

GROUPE ALLO MEDIA — Non-academic
🇫🇷 France

ELYADATA — Non-academic
🇹🇳 Tunisia

OMILIA MONOPROSOPI ETAIREIA PERIORISMENIS EFTHYNIS PAROXIS PLIROFORIKON, TILEPIKOINONIAKON KAI FONITIKON YPIRESION KAI SYSTIMATON
🇬🇷 Greece

PHONEXIA SRO
Czechia

- Intersectorial secondments always eligible

- Same sector if interdisciplinary: max. 1/3 total secondments

MSCA Staff Exchanges: Interdisciplinary secondments

≤ **1/3** of the total secondments funded by the EU, if considered *Interdisciplinary*

Interdisciplinary secondments integrate aspects from two or more different scientific disciplines.

Important: **scientific panels + descriptors/first level MSCA keywords** from proposal form part A (see REA Website)
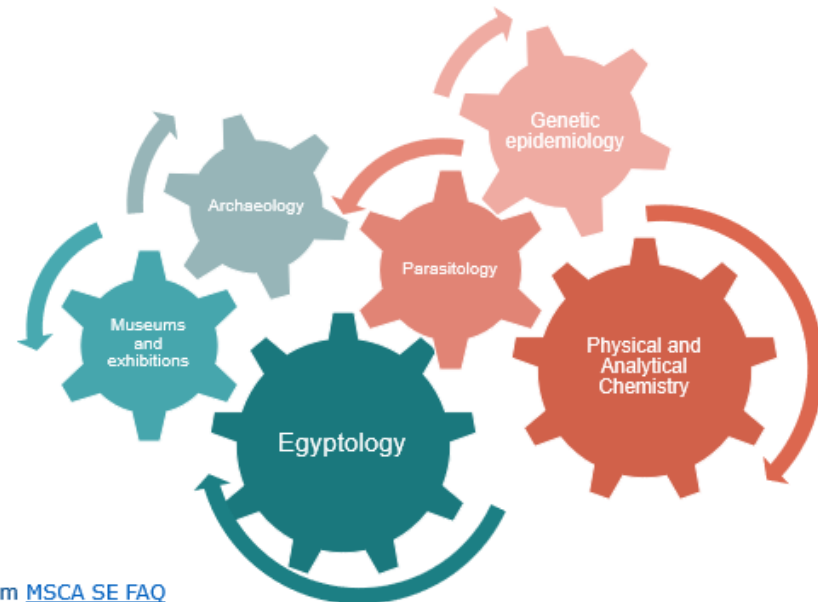
Examples taken from MSCA SE FAQ

MSCA Staff Exchanges: funding

Staff member unit costs

- Covers the costs of going on secondment, such as travel and subsistence

Staff member
unit costs
€ 2300

Research,
training, networking
€ 1300

Management
and indirect costs
€ 1000

Unit cost
per Person Month
€ 4600

1 unit
=
1 month of
eligible staff

Research, training and networking costs

- Cover the research, training and networking costs incurred during the secondment
- Can be transferred to the secondment host (amount and arrangements to be agreed by sending and hosting organisations)

Management and Indirect costs

- Covers the costs incurred by the organisation
- Can be transferred to the secondment host (amount and arrangements to be agreed by sending and hosting organisations)
- Can be used toward network wide activities

➢ Employers must continue to pay staff member's salary during their secondment.

➢ Research, training and networking costs and Management and Indirect costs Can be transferred to the secondment host

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Project to be submitted and evaluation criteria

MSCA Staff Exchanges: proposal documents

Part A
(structured data)

(to be filled online) contains administrative information about the applicant organisations

Part B1 and B2
(description of action)

(to be downloaded from the Portal) contains the technical description of the project
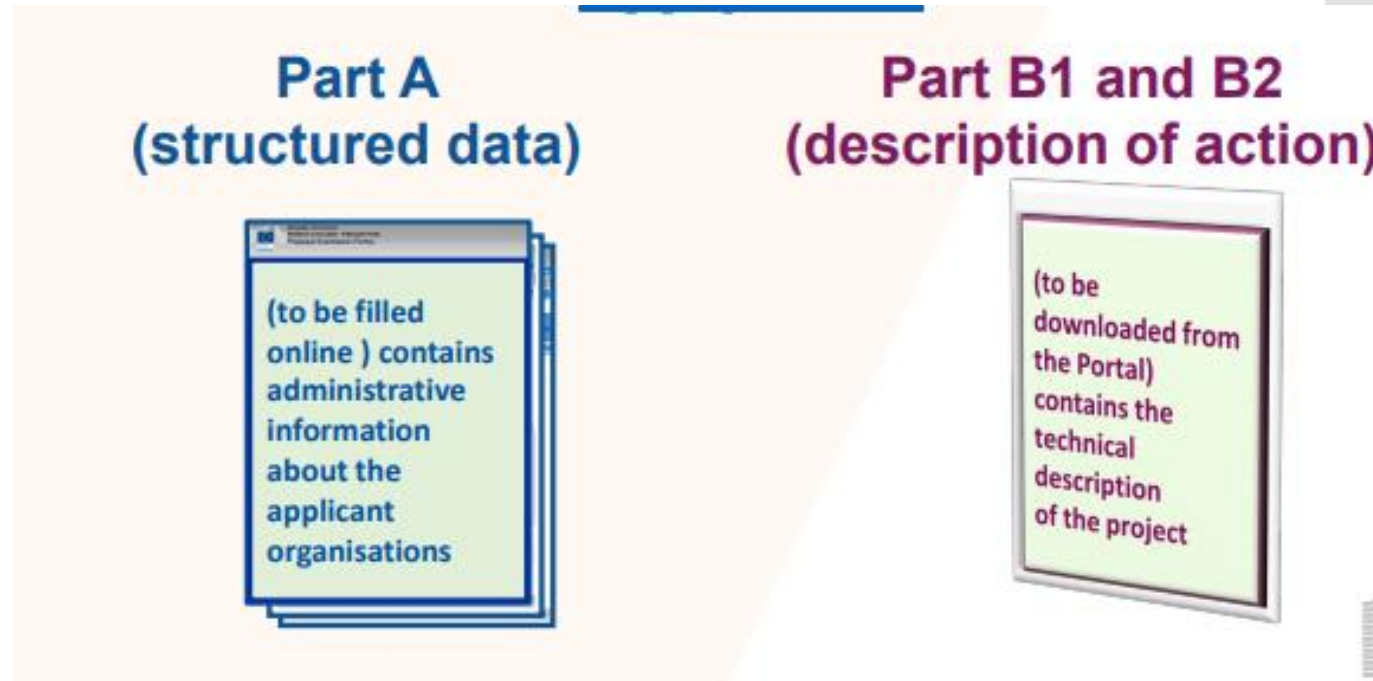
Part B1: 30 pages to convince the evaluators you have the best proposal!

CHE Chemistry	SOC Social Sciences and Humanities	ECO Economic Sciences	ENG Information Science and Engineering	ENV Environmental and Geosciences	LIF Life Sciences	MAT Mathematics	PHY Physics

MSCA Staff Exchanges: letters of Commitment

Part B2, section 5

✓ Compulsory for Associated Partners

✓ Must show the active participation in the action

✓ Ensure their signature with time

5.1. Template of Commitment letter for associated partners

- On headed paper of the associated partner organisation
- Beyond any additional information that the associated partner wishes to indicate in its letter of institutional commitment, the following text should appear in _all its parts and with no modifications_:

I undersigned[16] _____, in my quality of Legal Authorized Representative of[17] _____, commit to set up all necessary provisions to send/host the secondments contributing to the development and implementation of the proposal number _____ - acronym _____ submitted within the call **HORIZON-MSCA-2022-SE-01** should the proposal be funded.

We will contribute to the [_explanation of the activities performed by the associated partner organisations in order to ensure a successful implementation of the project_].

I am aware of and agree with the principle that the setting up of such provisions is a precondition for the proposal to be funded.

[_Free field for any additional information that the participating organisation wishes to indicate_]

We are pleased to provide any additional information on our commitment towards the project upon your request or the request of the European Commission.

Name, date, signature

not to complete

MSCA Staff Exchanges: evaluation criteria

| Excellence	Impact	Quality and efficiency of the implementation
Quality and pertinence of the project's **research and innovation objectives** (and the extent to which they are ambitious, and go beyond the state of the art)	Developing new and lasting **research collaborations**, achieving **transfer of knowledge** between participating organisations and contributing to improving **research and innovation potential** at the European and global level	Quality and effectiveness of the **work plan**, assessment of **risks**, and appropriateness of the effort assigned to work packages
Soundness of the **proposed methodology** (including interdisciplinary approaches, consideration of the gender dimension and other diversity aspects if relevant for the research project, and the quality and appropriateness of open science practices)	Credibility of the measures to enhance the **career perspectives** of staff members and contribution to their **skills development**	Quality, capacity and role of each participant, including **hosting arrangements** and extent to which the consortium as a whole brings together the necessary expertise
Quality of the proposed **interaction between the participating organisations** in light of the research and innovation objectives	Suitability and quality of the measures to **maximise expected outcomes and impacts**, as set out in the dissemination and exploitation plan, including communication activities	
	The magnitude and importance of the project's contribution to the expected **scientific, societal and economic impacts**	
50%	30%	20%

MSCA Staff Exchanges: excellent projects

- How is this scientific project /objectives innovative?
- What makes this consortium unique?
- What methodology will be used?
- How do interactions between participants ocur?

Open Innovation, Open Science, Open to the World

Understanding gender dimension in MSCA Projects
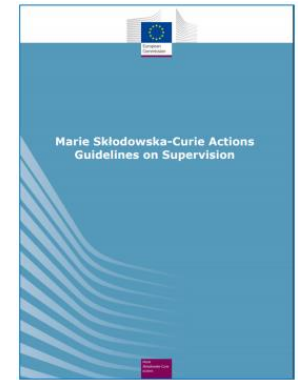
Guidelines for supervision

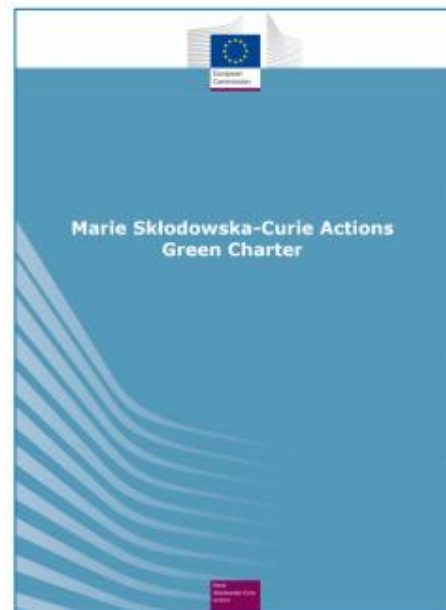# MSCA Staff Exchange: projects with impact

Professional career development and long-lasting collaboration

Maximise effects and outcomes: measures and activities

Expected impacts: societal, scientific, economic

Marie Skłodowska-Curie Actions
Green Charter

Green MSCA Charter

MSCA Staff Exchange: implementation of the projects

- Identification and description of Work Packages (WP) and tasks (scientific and non-scientific)

- Monitoring and follow-up mechanisms (deliverables, milestones, Gantt Chart)

- Specify management and scientific risks: how to confront them?

- Show the institutions who participate are the adecuate ones (infrastructures, experience)

MSCA SE: proposal writing advices

- Read all call documentation and the evaluation criteria
- Closely follow the call requirements
- Be in line with the action's objectives and expected outcomes
- Describe the benefits of cooperation and how they can go beyond this project
- Make it easy for the evaluators to find the information
- Use clear and concise language
- Include diagrams, images, tables if appropriate
- Research previous and current projects
- Find colleagues to proof read drafts with the evaluation criteria
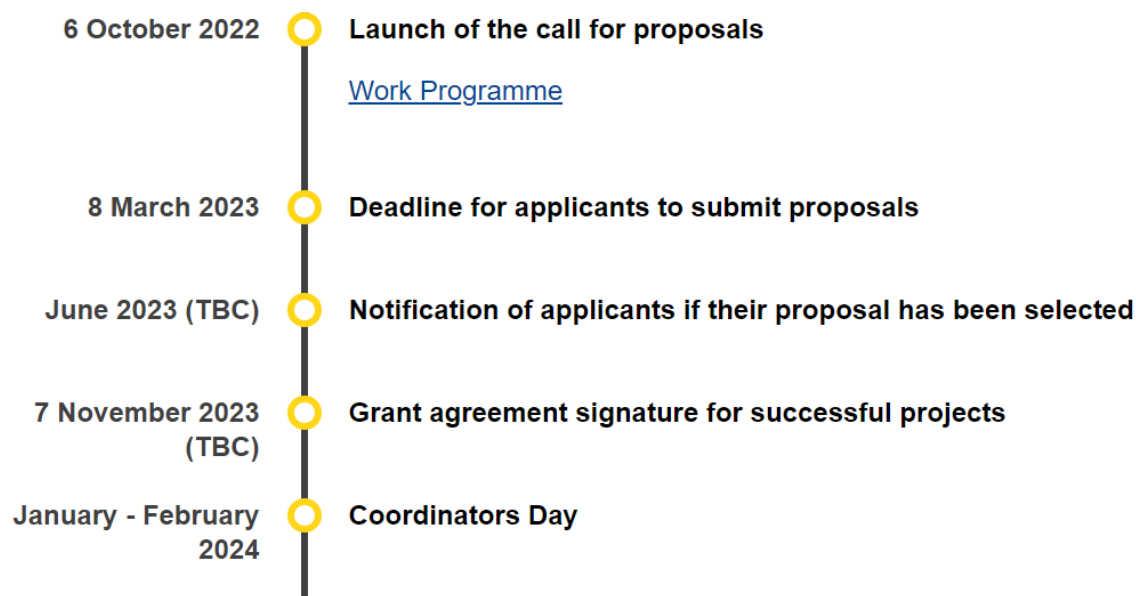- Consider any relevant EU policy documents

UK Research Office Brussels

Call opening, deadline, statistics and support material

MSCA Staff Exchanges 2022: Timing

Call ID	Opens	Closes	Budget
TMA-MSCA-SE-2022	06/10/2022	08/03/2023	77,5 M€

|	
6 October 2022	**Launch of the call for proposals** Work Programme
8 March 2023	**Deadline for applicants to submit proposals**
June 2023 (TBC)	**Notification of applicants if their proposal has been selected**
7 November 2023 (TBC)	**Grant agreement signature for successful projects**
January - February 2024	**Coordinators Day**

More information
Research Executive Agency (REA)

MSCA Staff Exchanges 2021: some statistics

77 proposals invited to GAP (67 Main list and 10 Reserve list)
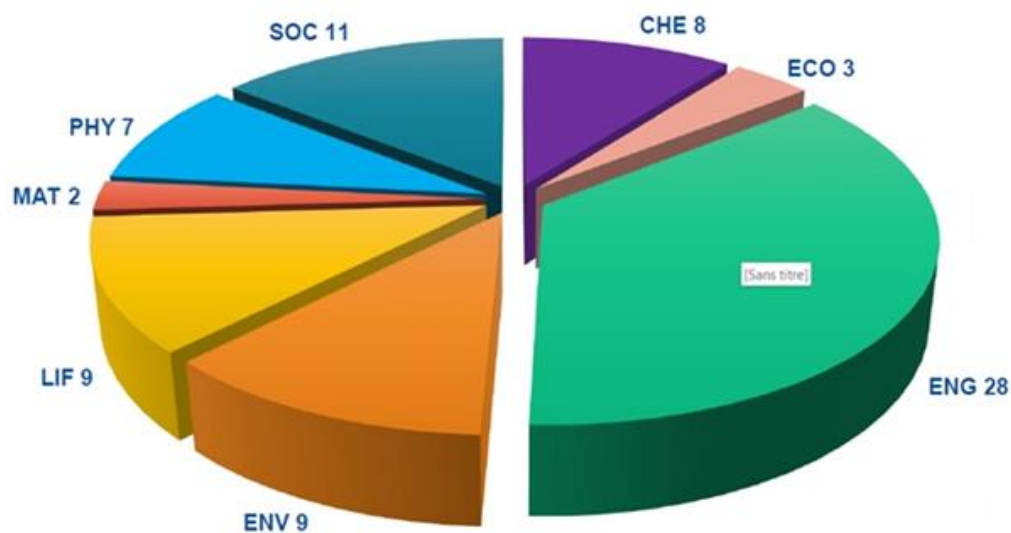
PANEL	PROPOSALS	
CHE	8	10,4%
ECO	3	3,9%
ENG	28	36,3%
ENV	9	11,7%
LIF	9*	11,7%
MAT	2	2,6%
PHY	7	9,1%
SOC	11	14,3%
	77	100,0%

*one proposal withdrawn

Official Call information

[Portal Funding and Tenders Opportunities](#)

[MSCA SE 2022 Call](#)

KEEP CALM AND READ THE GUIDE FOR APPLICANTS

MSA Staff Exchanges: Reference documents
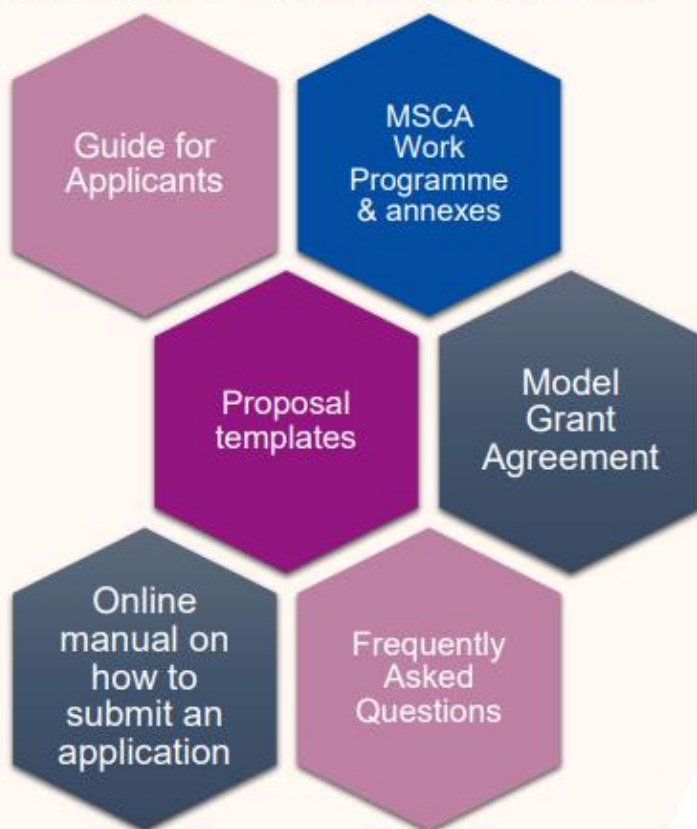
[MSCA-NET](#) Project

- Project funded by the EC that aims at improving National Contact Points capacities and training to better support MSCA applicants

- Informative sessions for all calls

- Guiding materials to support MSCA proposals preparation

MSCA matchmaking platform

Open until 5th May 2023

https://msca.b2match.io/

You can participate as:

✓ **Future Fellow** - find European institutions and supervisors for your proposal. Connect with companies and non-academic organisations for placements and secondments.

✓ **Supervisor** - find candidates and book meetings to discuss project ideas.

✓ **Institution** - find partners to discuss Doctoral Network Proposals, Staff Exchanges project Ideas, and more. Build a competitive consortium.

✓ **Company** - find partners and fellows to prepare competitive proposals, offer non-academic placement

Nothing in life is to be feared, it is only to be understood. Now is the time to understand more, so that we may fear less

Thank you!

Cristina Gómez
Spanish MSCA NCP
Cristina.gomez@fecyt.es