Take your research career to the next level with EURAXESS
Unique pan-European initiative delivering information and support services to researchers regardless of their career stage.

Backed 100% by the European Union and its Member States. Supporting researcher mobility and career development, while enhancing scientific collaboration between Europe and the world.
MSCA IF is:

- A research-stay programme that enables international mobility
- Through synergy of a researcher, a host institution and a research project
- That participates to researchers’ training and advancement in their careers
- And contributes to science and society
The Do’s and don’ts of MSCA IF proposals

### IF - Marie Skłodowska-Curie Individual Fellowships

<table>
<thead>
<tr>
<th>What</th>
<th>Why</th>
<th>How</th>
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<tbody>
<tr>
<td>Quality and credibility of the research/innovation project; level of novelty, appropriate consideration of inter/multidisciplinary and gender aspects</td>
<td>Enhancing the future career prospects of the researcher after the fellowship</td>
<td>Coherence and effectiveness of the work plan, including the appropriateness of the allocation of tasks and resources</td>
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<tr>
<td>Quality and appropriateness of the training and of the two way transfer of knowledge between the researcher and the host</td>
<td>Quality of the proposed measures to exploit and disseminate the project results</td>
<td>Appropriateness of the management structure and procedures, including risk management</td>
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<tr>
<td>Quality of the supervision and of the integration in the team/institution</td>
<td>Quality of the proposed measures to communicate the project activities to different target audiences</td>
<td>Appropriateness of the institutional environment (infrastructure)</td>
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<tr>
<td>Potential of the researcher to reach or re-enforce professional maturity/independence during the fellowship</td>
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Now, 90% of you will focus 80% of your initial energy on this part that counts for 50% of the total proposal.

Is that a smart strategy?
CONTACT YOUR HOST INSTITUTE/PROFESSOR AS EARLY AS POSSIBLE!

- **11 April 2019**: Calls for Proposals open
- **11 Sept 2019**: Calls for Proposals close
- **Oct-Nov 2019**: Evaluation
- **Feb 2020**: First info to Applicants
- **March 2020**: First possible start date
- **Sept 2021**: Last possible start date
The Do’s!

FOLLOW THE GUIDELINES!!!!

→ guide for applicants:

→ Template:
The don't's

NOT ADDRESSING A POINT IN THE GUIDELINES HURTS YOUR CHANCES A LOT!

DO NOT EXPECT REVIEWERS TO BE EXPERTS IN YOUR DOMAIN AT ALL!

DON’T GIVE TOO MUCH DETAIL IF YOU DON’T HAVE A WELL-THOUGHT, CONCRETE PLAN!

➡️ Net4Mobility guidelines to MSCA IF
Teun-Teun Kim || 김튼튼
Research Professor, Center for Integrated Nanostructure Physics, Institute for Basic Science
MSCA IF recipient, University of Birmingham, UK
The MSCA IF abstract
The abstract: a ‘commercial’ for your work

BUT abstract ≠ tweet!

Needs to provide concrete overview of the whole proposal, not just vaguely point to potential results.
1. **Hook:** orientate the reader about the overall issue addressed in the article.

2. **Objective:** indicate the main aim or purpose of the study.

3. **State-of-the-art:** explain the academic and/or practical importance of the study.

4. **Method:** describe the methodology used in the study.

5. **Results:** summarise main findings of the study.

6. **Consequences:** state the contribution made by the study in filling gaps in the literature.

7. **Impact:** highlight the practical or general implications of the findings.
The MSCA IF abstract

- Be concise
- Provide enough technical/research information to help REA officers and evaluators understand the scope of your proposal
- Reflect the whole proposal including:
  - Overall research theme
  - Research objectives
  - Training objectives
  - Potential Impact, including career paths for the ESRs
The MSCA IF abstract

- **Write** the **abstract** and choose the **keywords last**!
- The **abstract** and **keywords** are **used to select** the evaluators
- The abstract can be **max. 2000 characters** including spaces
- It should **NOT** be the **usual scientific abstract**
- It should **sell your project by grabbing** the evaluator’s attention
- It should be **understandable** to the **generalist**
1-2 sentences that put your project into context

"In the EU, 25,000 people die each year as a result of infection by multidrug resistant bacteria, at an estimated cost to healthcare systems of €1.5 billion per year."

Your objective

"This project aims to understand the role of a newly discovered bacterial cell messenger, a-b-c, in conferring drug resistance in bacteria."

Background information on the state of the art

Specific aims and details of your project plan

"The XYZ project aims to: 1) understand the role of a-b-c as a cell messenger, and 2) assess a-b-c as an antibiotic target. The role of a-b-c will be studied in a strain of the human pathogen S. resistus. RNA sequencing and proteomics will be used to identify the cellular responses to different a-b-c levels..."
The anisotropic nature of thermal transport in flowing polymers plays an important role in the processing and the final properties of polymeric materials. Experimental techniques such as Forced Rayleigh Scattering (FRS) and Infrared Thermography (IRT) have allowed for the measurement of the components of the thermal conductivity tensor in polymer systems under several types of deformation. These studies have tested existence of an apparent universal relationship between the thermal conductivity and stress tensors, known as the stress-thermal rule. The anisotropy in thermal properties is commonly attributed to the molecular orientation induced by flow. However, theoretical and computational work in this field is very limited, and the understanding of the mechanisms connecting micro-structural orientation and macroscopic physical properties is relatively poor. We aim to extend current molecular dynamics and coarse grained models calculations to systems in which comparison with experimental results is possible. Additionally, we intend to implement the stress-thermal rule in numerical calculations using finite elements methods to study the effect of the anisotropy in thermal conductivity in real flows. These calculations are relevant not only for the optimization of fabrication processes, but also in assessing the performance of polymer-comprised materials during use.

At a more fundamental level, if we are able to understand how micro-structure couples with the exhibited macroscopic properties, we can tune these materials to become better thermal conductors or insulators as needed. As a result, the technological solutions derived from this project will benefit the European plastics industry, which in 2012 accounted for about 1.4 million jobs and contributed to the high living standards and the welfare of the European citizens.
In 2014, **EU PLASTICS INDUSTRY** accounted for **1.4MM** jobs and contributed to high living standards of the EU citizens by enabling new and more affordable technologies. Most of the **PROCESSING of POLYMERIC MATERIALS** occurs under **NON-ISOTHERMAL** flow conditions. As a result, the **COST/ENERGY REQUIRED to manufacture, recycle and dispose polymers is STRONGLY Affected** by the thermo-physical properties linkage to state variables such as temperature and stress. Experiments show that flowing polymers exhibit **ANISOTROPIC THERMAL CONDUCTIVITY (ATC)** (i.e. direction dependent). This phenomenon has been **previously NEGLECTED** in both the simulation of INDUSTRIALLY relevant flows and the development of a molecularly-based THEORY for thermal transport in polymers.

This research targets **THIS GAP IN KNOWLEDGE** by: 1) **EXTENDING** molecular-based modelling techniques to include ATC; 2) **TRANSFERRING** the physical insights to macroscopic network models (MNMs) by averaging the important physical processes; 3) **VERIFYING** the MNM predictions by comparison to experimental data; 4) **IMPLEMENTING** a robust MNM for ATC in finite element methods (FEM) to simulate prototype flows. This study will **COMBINE the ER EXPERIENCE** investigating THERMO-PHYSICAL properties of polymers with the expertise of the HI supervisor in the development MNMs and their APPLICATION to FEM. In addition, a **SECONDMENT** at an expert group in molecular simulation will provide the KNOWLEDGE needed to **CONNECT the MICROSTRUCTURE** to the MNM.

This **INTERDISCIPLINARY project will BENEFIT INDUSTRY** through the **OPTIMIZATION of FABRICATION** processes and the assessment of the mechanical and thermal PERFORMANCE OF PLASTICS during use. At a more fundamental level, understanding how micro-structure couples with the macroscopic properties will allow us to **TUNE POLYMERS** to become **BETTER THERMAL CONDUCTORS** or **INSULATORS**. The materials derived from these outcomes will directly **IMPACT SOCIETY** through more **ADVANCED AND AFFORDABLE** devices and products.
Abstract 2

Aging is a primary health concern for all European countries and the entire world. Healthy adults experience memory declines that affect daily functioning, yet their ability to process emotion is well-preserved. The benefit of utilizing older adults spared emotional abilities to help mitigate memory declines has not been previously explored and will have substantial implications for daily life. The current project has two main goals. First, we will employ cutting-edge functional imaging technology to investigate age-related neural interactions between emotion and memory. To this end, electroencephalography (EEG) will record electrical brain activity non-invasively while participants perform an innovative memory task with an emotional component. Second, we will implement an innovative memory training programme to test brain plasticity, with a focus on transferring these benefits to daily life. It will enhance the importance of age-related preserved emotions to improve memory deficits. EEG activity will be recorded before and after training to examine the neural changes as a result of training. Besides the extensive research experience of the applicant in fundamental research of aging, the novel approach will be to conduct this project by synergizing key aspects of fundamental and applied sciences, emphasizing transfer of knowledge and collaboration with industry. There is a clear benefit of the mobility for both the applicant and the host, ensuring high quality results and dissemination. In this regard, the host will ensure the acquisition of new technical, management, tutorial and transferable skills. The applicant will also benefit from a multidisciplinary environment enhancing international collaboration that will surely contribute to diversify her career. Finally, via a specialized Career Development Plan, the host will provide the ideal training and validation environment, through which the applicant will reach unprecedented levels of professional maturity.
Aging is a primary health concern for all European countries and the entire world. Healthy adults experience memory declines that affect daily functioning, yet their ability to process emotion is well-preserved. The benefit of utilizing older adults to help mitigate memory declines has not been explored and will have substantial implications for daily life. The current project has two main goals. First, we will employ cutting-edge functional imaging technology to investigate age-related neural interactions between emotion and memory. To this end, electroencephalography (EEG) will record electrical brain activity non-invasively while participants perform an innovative memory task with an emotional component. Second, we will implement an innovative memory training programme to test brain plasticity, with a focus on transferring these benefits to daily life. It will enhance the importance of age-related preserved emotions to improve memory. EEG activity will be recorded before and after training to examine the neural changes as a result of training.

Objectives and methodology are clearly specified. There is a gap and the project will advance in the research field - scientific impact and innovation! The society will see the benefits (societal impact). Transfer of knowledge. Indicators: it is measurable. Career impacts and host institution expertise + network impacts. The researcher brings expertise to the project but will also learn from it. Importance and relevance of the subject.
Now write your own! (20’)

- [15’] Think about your current work (or a virtual one) and draft an abstract (<100 words) keeping in mind all the aspects

- [5’] Feedback from trainers & showing a few examples to all participants!
The MSCA IF dissemination/communication plans (Impact)
## MSCA IF: Dissemination vs. Communication

<table>
<thead>
<tr>
<th>Dissemination (section 2.2)</th>
<th>Communication (section 2.3)</th>
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<tbody>
<tr>
<td><strong>About results only</strong></td>
<td>About the <strong>project</strong> and <strong>results</strong></td>
</tr>
<tr>
<td><strong>Audiences that may use the results</strong> in their own work e.g. peers (scientific or the project's own community), industry and other commercial actors, professional organisations, policymakers</td>
<td><strong>Multiple audiences</strong> beyond the project's own community (include the media and the public)</td>
</tr>
<tr>
<td><strong>Enable use and uptake of results</strong></td>
<td><strong>Inform</strong> and <strong>reach out to society</strong>, show the benefits of research</td>
</tr>
<tr>
<td>Grant Agreement art. <strong>29</strong></td>
<td>Grant Agreement art. <strong>38.1</strong></td>
</tr>
<tr>
<td>When results are available</td>
<td>Starts at the outset of the project</td>
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</table>
Communication Vs. Dissemination

What are the audiences we are addressing our messages to:

- Scientific Community
- Stakeholders
- Policy makers
- Final Users
- Industry...

- General Public / Society
Communication (section 2.3)

• **Communication** is an address from the researcher to the general public.
• By Communication means **articles in newspapers** or **generalist** magazines, **TV** or Radio. **Social media** is essential when communicating.
• Successful communication requires **clear language**, an **attractive** scientific **theme** where interesting results are highlighted to **attract the attention** of both the general public and the media.


https://projectmosul.org/

https://www.youtube.com/watch?v=znMRm8FHa7A
Outreach (section 2.3)

- Outreach activities are developed to **attract a broad audience** on a specific topic primarily to the general public.

- The objective is to explain the **benefits of research** to a broad **public** (mainly citizens who pay our research with their taxes).

- Outreach activities can be developed in various ways; **presentations in schools, workshops, talks**, visits to laboratories, etc..

- The outreach implies **interaction** between the researcher and the recipient, there is a relationship between both and the communication that is maintained is "back and forth"
Here’s a very good (but not perfect) example

⇒ anonymous proposal
Let’s practice! (1) how many points for this?

4,5/5

Strengths

- The foreseen training and research would give the researcher independence and professional maturity. The acquisition of unique skills would increase employability and enhance research and interaction with other colleagues and stakeholders (tourism, consumers, SMEs, new technologies).

- Many of the skills that the researcher has cultivated in the proposed action are directly transferable skills of great use in management and would bring future employment opportunities in the non-academic sector.

- The opportunity to work on the project and properly included in the Gantt chart.

- The proposal considers the adaptation of the action activities to different target audiences, including highly effective actions in newspapers, website, webinars, among others, or the use of Social Networks (Twitter, Facebook, Researchgate and LinkedIn). The frequency and nature of communication activities as included in the Gantt Chart are highly effective.

Weaknesses

- The proposal does not sufficiently specify the measures to be taken for the future commercial exploitation of the results of the action.
Let’s practice! (2) where do these go?

- **Use of social media** (facebook, twitter...)
- **An article in a newspaper or on TV or radio**
- **Visit to schools where you will promote your research/project to students**
- **Brokerage event with an industry interested in your results**
- **Brochures about your project**
- **Key international conference of your sector**
- **Journal Publication**
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<th>Communication /Outreach</th>
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Let’s practice! (2) where do these go?

**Dissemination/Exploitation**
- Brokerage event with an industry interested in your results
- Journal Publication
- Key international conference of your sector

**Communication/Outreach**
- An article in a newspaper or on TV or radio
- Use of social media (facebook, twitter...)
- Brochures about your project
- Visit to schools where you will promote your research/project to students
Thank you for participating, see you next time!

Thank you for your attention!

Contact: japan@euraxess.net

Web: japan.euraxess.org