# Marie Curie Individual Fellowships

## Lessons learned from a successful application

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# Example: CAD WALK

**EUROPEAN COMMISSION**

Horizon 2020 - Research and Innovation Framework Programme

**Evaluation Summary Report**

**Call:** H2020-MSCA-IF-2016
**Funding scheme:** MSCA-IF-EF-ST
**Proposal number:** 746614
**Proposal acronym:** CAD WALK
**Duration (months):** 24
**Proposal title:** CAD WALK: Enabling Computer Aided Diagnosis of Foot Pathologies through the use of Metric Learning
**Activity:** ST-ENG

| N. | Proposer name | Country | Total Cost | % | Grant Requested | % |
|---|---|---|---|---|---|---|
| 1 | UNIVERSITEIT ANTWERPEN | BE | 160,800 | 100.00% | 160,800 | 100.00% |
| | Total: | | 160,800 | | 160,800 | |

**Abstract:**

Dynamic plantar pressure imaging (PPI) refers to the measuring, across time, of pressure fields between the foot and the ground. PPI is used, in part, to diagnose foot problems such as metatarsalgia and plantar fasciitis. Despite the widespread clinical use of PPI, its diagnostic potential has not been fully exploited. PPI creates large and dynamic datasets that cannot be easily analysed and interpreted by the human brain. As a result, PPI images are subsampled before being clinically examined, which discards potentially valuable information. The objective for this action is to improve the diagnostic value of PPI through the introduction of a computer-aided diagnosis (CAD) system called CAD WALK. Using concepts from my previous CAD research (STEAM), CAD WALK will build a statistical model of PPI images from a healthy population. To test a new patient, their PPI image will be aligned to the model and compared to that healthy population using statistical tests. Outliers from these statistical tests will then be highlighted to help guide a clinician's examination of the full PPI image. As a novel addition, metric learning will be introduced to create a statistical model that is more specific to the test subject. A key goal of this action is the deployment of CAD WALK as a supported software product. To do so, we propose a Triple 'i' (international, intersectoral, interdisciplinary) initiative that partners me with industry (rs scan®) and clinical end users (Sint Maartenskliniek, NL) to translate my CAD research into practical use. Through this process, and a secondment with industry partner rs scan®, I expect to deepen my knowledge of industrial product development (i.e. intellectual property rights, industry regulations, customer constraints) and improve my management skills. By addressing these two gaps in my career experience, I expect to move one step closer to fulfilling my ambition of leading my own research translation lab.

## Evaluation Summary Report

**Evaluation Result**

**Total score: 95.80%** (Threshold: 70/100.00)

# Goals of Marie Curie Actions

The Marie Skłodowska-Curie actions (MSCA) aim to support the career development and training of researchers in all scientific disciplines through international and intersectoral mobility.

The goal of the Individual Fellowships is to enhance the creative and innovative potential of experienced researchers, wishing to diversify their individual competence in terms of skill acquisition through advanced training, international and intersectoral mobility.

# Note: Career Development

The Marie Skłodowska-Curie actions (MSCA) aim to support the **career development** and training of researchers in all scientific disciplines through international and intersectoral mobility.

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# Career Development Plan

**Today**

- Skill Set
- Strengths
- Weaknesses
- Experience
- Network


**In 5-10 Years**

What will need to get the job you want?

Career development is important to MSCA:

- Have a idea of how you want your career to develop
- Identify a weakness in your current abilities
- Clearly show how the MSCA will address that weakness

# Where to fit this into the application

## Part B – Section 1.4

- Applicants should demonstrate how their professional experience and the proposed research will contribute to their development as independent/mature researchers, **during** the fellowship.

## Part B – Section 2.1

- Explain the expected impact of the planned research and training on the future career prospects of the experienced researcher **after** the fellowship.
- Describe the added value of the fellowship on the future career opportunities of the researcher.

# Mitigating Risk

**Since the fellowship is to address a weakness in your skill set, it is important to show that you have structured your proposed project well.**

## Part B - Section 3:

- Coherence and effectiveness of the work plan
- Appropriateness of the allocation of tasks and resources
- Appropriateness of the management structure and procedures, including risk management
- Appropriateness of the institutional environment (infrastructure)

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# Note: Diversifying Research Experience

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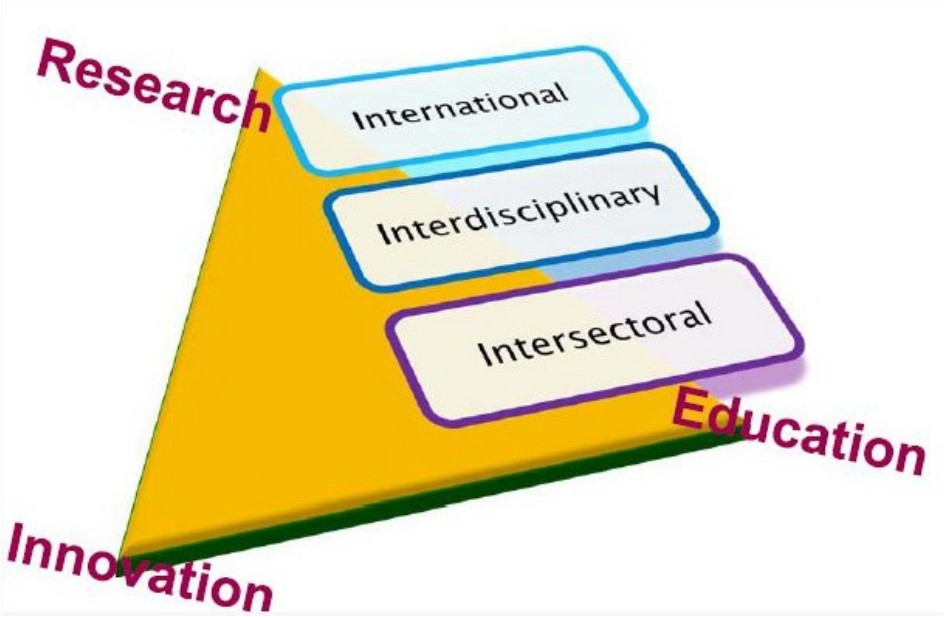
# Triple i and why it matters




## Highlight the Triple “i”:

- **Growing and diversifying of your research network**
- **Integration of you into the European research community**
- **Transfer of knowledge to and from you**

# Where does this fit in the application?

## Part B – Section 1.2:

- Quality and appropriateness of the training and of the two way transfer of knowledge between the researcher and the host

## Part B – Section 1.3:

- Quality of the supervision and of the integration in the team/institution

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# Where does the research fit in?

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**Research?**

# Note: Focus is on the researcher

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~~**Research?**~~ → **Researcher**

# Promoting Yourself

## Part B – Section 1.1:

- Show you knowledge of the field by reviewing it and citing it clearly and properly
- Show your understanding of the state of the art by proposing something novel and non-trivial
- Show that you have a plan by describing the methods and experiments that are planned for this project
- Show that you know how to evaluate your hypothesis by stating how you will do so
- **Use active language** (e.g. “I propose…”, “We will extend…”)

# Showing off your Skills

## Play an active role:

- In the community (Part B – Section 2.3):
  - University open houses
  - Science days for children
  - Social media
- In your field (Part B – Section 2.2):
  - Attend conferences
  - Posters, abstracts, papers
- **Consistency is key**
  - This also applies to the CV

# To sum up...

## Focus on what they want:

- Show how you will improve as a researcher
  - Highlight a weakness in your skill set
  - Have a plan as to how this MSCA will address that weakness
- Show how will you transfer knowledge and integrate with the European research community
  - Growing your research network and interacting with that network
- Remember, they are investing in you
  - Show off your research skills
  - Show that you are motivated by interacting with the community