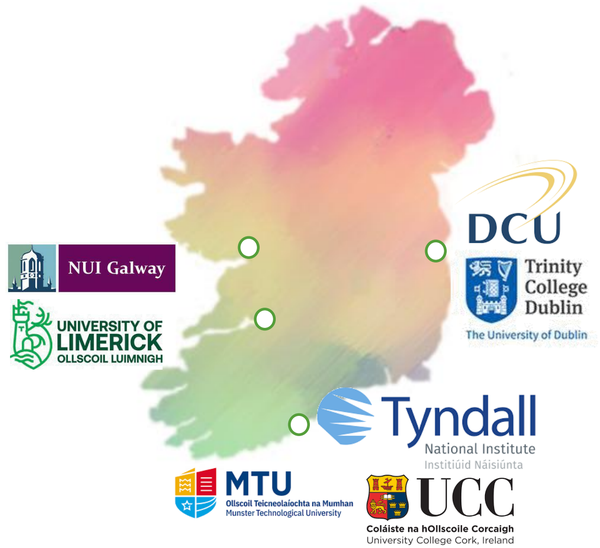

Sparkle*
@ IPIC
BRINGING PHOTONICS TO LIFE
Training Europe's future photonics research leaders
MSCA COFUND
sfi Science Foundation Ireland

IPIC – the SFI Centre for Photonics

Hosted at Tyndall National Institute (the home of Ireland's silicon CMOS and III-V semiconductor fab) and 5 partner RPOs



- Around 220 photonics based researchers
- 30 PhD level trainees and above pa - over 60% depart to industry
- Secure €2M industry and €4M EU funding pa
- Technology deployed in comms, medical device and other sectors

Funding and planning secured for new building

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Proposal inputs

The How?

The What?

How will the award be delivered?

Unusually this represents the bulk of the proposal text

- The COFUND programme has a very high level of structure, processes and regulation, however fortunately for you, that's where the MSCA team here can provide a handbook, advice and guidance – **Use it!**

  Dissemination of an Open call

  Comprehensive Information Pack

  Comprehensive Selection Process

  Evaluation Criteria

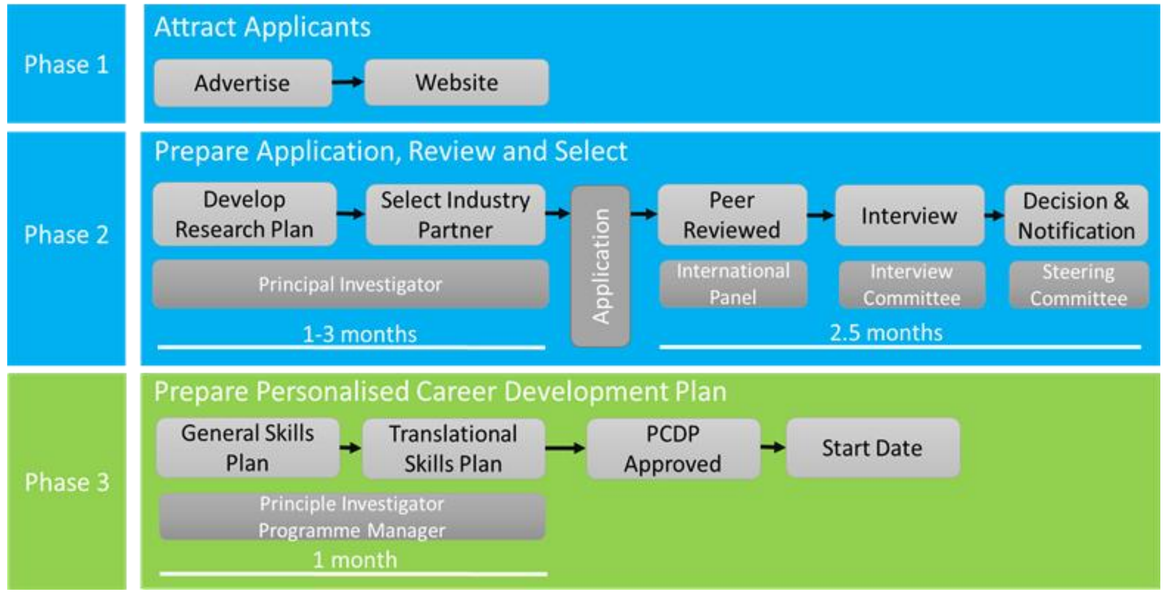
  International Peer Review (Written)

  Training programmes

  Interview Committee

  Steering Committee

  Letters of Commitment (Sparkle – 26 from industry)



- MSCA Team will share best practise, which you can incorporate into your objectives and proposal and should push the proposal above the scoring threshold.

What will the award deliver?

- The minor part of the proposal, but also the exciting and differentiating part, however opportunity to convey this is limited there is no research programme to be explained.
- Why are you pursuing the award?
- Why should your proposal be funded?
- What will the benefits be?
- Will you create an inclusive high quality training experience?
- Will the fellows have opportunities to progress their careers post their fellowships?

Why Sparkle?

Deliver Research Excellence and Train Experienced Gender Diverse Researchers for Industry

1. **Strengthen and raise the excellence and impact of Europe's photonics research and manufacturing activities**, and ensure that Europe continues to compete with the US and China
2. **Address** the expanding **skills shortage** in the field of photonics across Europe, specifically at experienced researcher level.
3. Drive the advancement of the Athena Swan Charter…..promoting gender representation and equality in STEM, and **increase the female participation levels in IPIC and the academic and industry partners**.
4. Provide an **opportunity for industry to shape the training programme** and ensure that fellows develop an expanded industry-relevant skillset and are fully suitable to future research leadership roles.
5. **Support Ireland and Europe's growing photonics SME companies** by providing them with highly skilled trainees.
6. **Support Cork's development as a high tech region**, building on the existing substantial manufacturing bases of world leaders such as Apple, DellEMC, J&J and Stryker, to grow R&D activities locally.
7. **Expand Ireland and Europe's research and innovation capacity and outputs**, ensuring that they remain among the leading global destination for attracting young high skilled researchers.

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Why Sparkle?

For the fellows

1. An **advanced training programme in a cutting-edge research environment**.
2. **Expanded set of translational skills**, including prototype development and fabrication, manufacturing, problem solving, commercialisation, etc.
3. Enhanced innovative and **entrepreneurial awareness** skills through training.
4. A career-oriented **6 month industry placement** with either a global leader or rapidly growing SME, in one of many sectors.
5. Integration into a **network** inclusive of Europe's academic and industrial leaders that will boost their future career opportunities in many disciplines and sectors.
6. Participation in IPIC's comprehensive and diverse **Education and Public Engagement** (EPE) programme, to develop and apply dissemination skills with different audiences from students to the general public.

The What - *Training Europe's future photonics leaders*

- Sparkle is a Marie-Curie Actions 2 year post-doctoral fellowship programme
- 27 Fellowships over 6 calls

"Overall, the Sparkle program is a great opportunity for early stage researchers to reflect on career perspectives and research directions. This is achieved, firstly, during the application process, secondly, through the multiple training proposed within Sparkle and at Institution partners (in my case Tyndall/UCC)"

Dr Pierre-Marie Coulon

Project Title: AlGaN thermal etching for advanced UV light emitting device architectures

IPIC Partner Host Institute: Tyndall National Institute

An **advanced training** programme in a cutting-edge research environment.

Autumn School, PCDP, Specialised courses

Expanded translational skillset

Communication and dissemination, leadership, project and time management, EPE training

Enhanced **innovative and entrepreneurial awareness** skills through training on subjects such as market awareness, technology transfer, entrepreneurship, commercialisation and industry engagement.

A career-oriented 6 month **industry secondment** placement

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Cost/Benefit Analysis

- High overhead burden in the establishment of documentation, structures, and recruitment and selection steps – Dedicated Project Manager critical (50% FTE?)
- All fellows will need to relocate to Ireland (Sparkle recruitment was perfectly aligned with the COVID pandemic!)
- Complex budget – two funding sources and complex MSCA budget structure
- Fellows may be spread across many RPOs
- Don’t have direct control over the research projects

- Higher visibility and attractiveness to potential hires
- Cohort learning experience (how to maximise this?)
- Fellows progressing to advance their careers in Ireland
- Expanded resources with experienced researchers
- Increased benefit/value to industry partners

Bring these out in your proposal – letters from industry critical, including what they say

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Its never too early to start

– some elements are outside of your control, e.g. industry letters of support

Happy trainees who are progressing to meet their career ambitions!

Summary

1. Include the best practise – the basics
2. Articulate the benefits, try to bring excitement, passion and commitment into the proposal
3. Consider how the secondments will work
4. Good imagery always helps
5. Start drafting as soon as possible