Career-FIT Career Development Fellowships in the National Technology Centre Programme

Imelda Lambkin, Enterprise Ireland

IUA, 21/03/2019



This project has received funding from the European Union's Horizon 2020 Research and innovation Programme under the Marie Skłodowska-Curie Co-funding of regional, national and international programmes Grant agreement No: 713654.



What is Career-FIT?

Postdoctoral Fellowship programme co-funded by Enterprise Ireland and the European Commission: Marie Sklodowska-Curie COFUND, 2017-2021

- > Two calls to attract experienced researchers into Ireland
- > 50 Fellowships, 36 months each
- Offers an opportunity for postdoctoral researchers to develop their careers in market-focused applied research in Ireland's Technology Centres
- > Includes an enterprise secondment (6-12 months)
- Provides Fellows with an academic mentor and company advisor throughout

Career-FIT next generation (2019-2023) approved



Why MSCA CoFund at Enterprise Ireland?

What El does...

- ➢ El drives collaboration and commercialisation of state-funded research
 - Several hundred experienced researchers on existing programmes: postdocs; locally sourced; short to 3 year contracts
- ➤ El helps companies start, innovate and scale internationally
 - > 5,000 Irish owned businesses across all sectors; development of people e.g. CEO skills; graduates
 - R&I +++; including Horizon 2020
- > El funds programmes
- Existing structures in place with host organisations (from research office relationships to financial procedures)

Why MSCA CoFund?

Academic Research

Grow role in research career development Internationalise cohort of researchers Companies

Expand El's development of people to 'R&I people'

Bring experience in advanced technologies to Irish owned firms; boost R&D

Improve MSCA participation by companies – more <u>and</u> better aligned with enterprise development goals

MSCA as a first step to build Horizon 2020 pipeline

Programmes

Leverage capability and infrastructure in a unique programme

Introduce a new source of funding into MSCA CoFund for Ireland Inc



+ Spill-over effects

Tips for success 1

- > Get the context right:
 - Nationally MSCA CoFund application as a strategic approach for Ireland Inc i.e. not competing with other applicants; work with owners of current and former CoFunds
 - ➤ Internationally review existing MSCA CoFunds for industry related activity [CORDIS Search Link]; established relationship with 1 Spanish team [TECNIOSPRING]
 - At Enterprise Ireland encouragement and engagement of Technology Centre directors (letter of support); hone while going through approval process (senior management team; Board); improved the match of 'El speak' to 'MSCA speak'
- > Get your team right:
 - Dipti Pandya, UCD and Paul O'Reilly, TU Dublin Business School
 - > Conor O'Carroll and Jennifer Brennan
 - Irish NCPs [Strengths/Weaknesses document]
- ➤ Use El Horizon 2020 coordinator financial support: LINK



Tips for success 2

- Embed programme within current operational activities and within national strategy (e.g. Smart Specialisation Strategy)
- ➢ Get feedback from fellows and host organizations involved in previous COFUND programmes run by Irish funding organizations to assist in design of programme. Show that you did this
- Make selection process transparent and ensure excellence; follow best practices of MSCA Individual Fellowships
- Design evaluation criteria to fit YOUR programme e.g. orientation to innovation as well as research
- Describe how the COFUND activity could transform the research training cultures of the involved institutions
- Demonstrate capacity of Host Organizations to deliver <u>appropriate</u> mentoring, research environment and research infrastructure
- > Show your experience of similar programmes; proposed involved staff has necessary knowledge to support applicants and manage the programme
- See Career-FIT Evaluation Summary Report comments in Appendix



Industry interactions/impact/innovation

- > EI: a national industrial development agency; full knowledge of client companies
- Technology Centres: market focused, industry collaborative research centres; public-private partnerships; address issues of value to both sides of the academic-industry link; encourage enterprises to undertake more radical kinds of innovation than normal, based on more fundamental understanding of the technologies with which they work; aim to re-focus some of the activities in the knowledge infrastructure towards inter-disciplinary problem areas of importance to industry
- > Review of Irish companies in MSCA (FP7 and H2020)
- > Secondment to enterprise: 700 enterprises affiliated to the Centres (MNCs, indigenous SMEs, and overseas enterprise partners); longer term secondments (6-12 months)
- > Evaluation criteria: specificity to innovation
- > Expert evaluators: at least one industry-based expert for every application
- > Career-FIT seeks to support an easier move between the academic and industrial sector and vice-versa, and therefore values the skills obtained in both sectors
- > Training: development of key skills in business and entrepreneurship
- Impact: intersectoral exposure; post-Fellowship opening to new career opportunities outside academic sector; El will circulate CVs to client enterprises via its network
- > Economic benefits: in addition to opening up new opportunities for researchers -
- > To increase the R&D competitiveness of Irish-based enterprises
- > Significant IP potential for Fellows, Centres and enterprises (El IP Assistance Scheme)



How to win follow-on funding

Specific Call text:

Applicants having benefited from COFUND under previous calls must explain how their proposal adds value in relation to the excellence and/or the impact award criteria, compared to their previous grant(s). As an example, added value could take the form of increased networking with organisations in less represented countries or capacity building measures there to further structure the European Research Area.

Aim: very close to original proposal i.e. to sustain the 'new brand' with 1) an evidence base for Career-FIT progress and 2) a maturing of the training and development of the researchers and programme impact aims

On the ground:

- A successful outcome in 2 Calls: it works and there is demand
- A community of Fellows: we want to build on their synergies
- Our companies are 'the right ones' [HPSUs to MNCs]
- Sectors span food to pharma to manufacturing [agri-food a bright spark]
- Our Technology Centres are attracting new members



Tips for success: follow-on projects

- > Get the context right:
 - > Nationally MSCA CoFund Managers Group, IUA; updates to national strategy
 - Internationally review existing MSCA CoFunds for industry related activity and for other trends e.g. regional projects with follow-ons [TECNIOSPRING]; e.g. research funders versus others; discussion with TECNIOSPRING on extent of development e.g. new ways of working directly with companies?
 - At Enterprise Ireland encouragement of Technology Centre directors (letter of support); sustainability of R&I core programme
- > Get your team right:
 - Paul O'Reilly, TU Dublin Business School
 - > Irish NCPs
- ➤ Use El Horizon 2020 coordinator financial support: LINK
- See Career-FIT Evaluation Summary Report comments in Appendix
- > The hosting technology centres organizations are insufficiently presented (e.g. specific competences, available facilities and contributions to implement this programme)



Appendix



2016 ESR: Excellence

Strengths:

- The programme is excellently embedded within El's current operational activities and within Ireland's Smart Specialisation Strategy.
- The excellent communication strategy took advantage of feedback from fellows and host organizations involved in previous COFUND programmes run by Irish funding organizations.
- The selection process is transparent and ensures excellent candidates are selected. It will follow the best practices of the MSCA Individual Fellowships evaluation process and abide by the European Science Foundation Peer Review Guide.
- The evaluation criteria are thorough, clearly presented and appropriate for a scheme that is oriented to innovation as well as research.
- Special attention is given in the appointment of experts enhancing the impartiality of the procedure. There will be at least one academic and one industrial evaluator as well as one female expert.
- The programme promotes individual driven mobility and applicants have full freedom to choose their topic and Technology Centre Organization in which they will undertake their fellowship.
- Intersectoral and interdisciplinary mobility are facilitated by means of exposure to multidisciplinary organizations, or by means of networks within the Technology Centres.
- The inclusion of trained personal development advisors together with mentors is positive. Monitoring of the fellows' progress using on-line log book documentation is interesting. Good procedures are in place in the case of problems or concerns with regard to the host organization.
- The programme proposes the Post Scheme Network Support that will include the Debriefing Workshop at the end of the project and help of EI to circulate the fellows CVs to potential employers. In addition the Management Office will keep contact with alumni that will be monitored after 1st and 2nd year after the completion of their project.

- The information on how the host organisation's support or involvement will be monitored is not very well developed.
- The framework for performance data gathering and review of the recruitment and selection process which appears as a task in WP1 lacks detail.
- It is not clear whether or not it will be possible to generate a "cohort effect" given the large number of very diverse institutions involved in the programme.
- It is not clear which international mobility options will be proposed over and above the mobility of the inward fellowship programme.
- Broader issues of Equal Opportunity beyond gender and atypical careers are not sufficiently considered.



2016 ESR: Impact

Strengths:

- The programme addresses the critical deficit of researchers in the EU and particularly in Ireland, it would allow not only to 50
 experienced researchers to undertake high quality market focused research but also would give the opportunity to EI
 Technology Centres to recruit high quality researchers.
- The intersectoral development would be assured by the close collaboration with enterprises and their secondment offers.
- Skills and working conditions are addressed nicely at several levels.
- The programme is researcher-centred and all possible means are put to assure a favourable environment for the development of skills and careers of researchers that want to focus on more applied science.
- The programme is implemented in line with the EU principles and regulations. The programme will apply the EU Charter for Researchers and Code of Conduct strictly. This will ensure that the Host Organizations and partner enterprises also meet the criteria.
- The public engagement strategy is systematic and efficient. The communication strategy including media engagement is appropriate.
- The proposal describes good initiatives that will promote not only the researchers' work but also the achievements of the Career-FIT fellowship programme. The programme's communication is focused not only on pre-programme advertising and recruitment, but also on post programme career enhancement and networking facilities.

- Plans for dissemination to the full range of stakeholders are not fully developed in the proposal.
- There are some issues of a lack of clarity in roles and responsibilities. For example, if no secondment is available the project will have to be approved by the Advisory Board and it is not explained how the EI or relevant Technology Centre could help in case the project presents high potential.
- Measuring and monitoring of the programme's outputs and outcomes are not systematically addressed.
- Little consideration is given to how the COFUND activity could transform the research training cultures of the involved institutions.



2016 ESR: Implementation

Strengths:

- The work plan is adequate and the proposed work packages contain a set of useful tasks that cover essential
 actions needed to deliver the
- programme.
- The budget is clearly laid out and easy to read. The requested budget is 40% of the total one, enhancing the competitiveness for employment.
- The appointment conditions of researchers in terms of salary, family and mobility allowance are attractive. In case of maternity leave the programme will maintain a full payment of the fellowship.
- The personnel and governance structure is clearly and carefully presented and appears to be sound and capable of delivering the programme.
- The advisory board and administrative resources are of excellent level.
- Each of the participating technology Centre Host Organizations demonstrated previously their capacity to deliver appropriate mentoring, research environment and research infrastructure.
- EI has experience of similar programmes and the proposed involved staff has the necessary knowledge to support applicants and manage the programme.

- It is not explained in the proposal why a delay of 5 months between 'notification of results (M8) and 'start of the fellowship' (M13) is required.
- Candidates with competing offers elsewhere may drop out. The corresponding risk is not properly addressed in the presented plan for risk management.
- Career breaks are not adequately addressed: no time flexibility is foreseen for candidates interrupting their fellowship term due to maternity leave or illness, as all fellowships are expected to be completed by month 60.
- The linkage of tasks to deliverables and the linkage of the work packages to the proposal narrative are not fully specified.



2018 ESR: Excellence

Strengths:

- A powerful, convincing and well-structured advertisement campaign, using regional, national and international channels will be put in place, including a special focus on female applicants, returnees from career breaks, researchers at risk and widening countries.
- The application process is of high quality with clear eligibility criteria and application requirements. Very detailed information will be provided to the applicants (e.g., guides, forms, templates and online tools).
- The evaluation criteria and sub criteria are clearly defined and consider scientific and non-scientific skills of the applicants. The scores, threshold weighting and priority of each criterion are very transparent.
- Equal opportunities are very well addressed with effective measures ensuring equal opportunities in terms of gender, career breaks, disabilities or researchers at risk.
- The programme offers an unconstrained bottom-up choice of topics for market-focused applied research projects and leverages very attractive research options.
- The intersectoral exposure of the researchers is very well organized and the hosting groups are composed of interdisciplinary innovation teams, thus offering very good opportunities to the fellows.
- Excellent and innovative supervision arrangements and career guidance will be put in place.
- A variety of training options on research skills will be offered mainly at the level of the fellows' host institution, and a
 convincing transferable skills' training programme will be offered.

- It is unclear how the subset of experts for the evaluation board is chosen.
- International mobility strategies are insufficiently addressed.



2018 ESR: Impact

Strengths:

- The approach to enhance the future career prospects of the fellows is clearly outlined. The
 programme will particularly give the fellows strong business foundation and develop fellows'
 capacity to work in market focused applied research roles.
- The programme is well aligned with the national Smart Specialisation Strategy activities.
- A significant contribution to enhancing the national research human resources will be achieved.
- The plan and procedures for exploitation and dissemination of results towards the scientific community and other relevant stakeholders are well established.
- IPR issues are well considered and the programme follows well the European Commission's openaccess strategy.
- The measures to communicate the results of the programme through various channels to different target audiences are very comprehensive.

Weaknesses:

 It is not sufficiently clear how the programme will contribute to the implementation of the Charter and Code principles at the host institutions.



2018 ESR: Implementation

Strengths:

- The work plan is coherent and effective, with well-structured work-packages and well-presented deliverables and milestones.
- The management of the project is sound. The financial management is credible and a plan of distribution of the EC funding among the host organisations has been designed and is appropriate.
- The risk assessment is very good and proper risk mitigation measures are set in place.
- Appointment conditions including remuneration and employment conditions are excellent. The fellow will benefit from the same working conditions and rights as Irish workers.
- The salaries offered are at the higher end of those offered at national level.
- The beneficiary shows the required organizational, administrative, technical and financial competences to run the programme. The programme will be managed by experienced staff.
- Extensive support will be provided to the fellows at the different stages of the process from application to implementation.

Weaknesses:

The hosting technology centres organizations are insufficiently presented. (e.g., specific competences, available facilities and contributions to implement this programme).



Table 1.4: Career-FIT Evaluation Criteria and Sub-Criteria				
Track Record/Research Potential of the Applicant (35 marks)	Training & Career Development Aspects & Impact of the Fellowship (25 marks)	Quality of the Research Programme (20 Marks)	Quality of the Host Organisation & Mentor(s) (20 marks)	
Research experience (based on their scientific CV and excluding any career breaks), including transnational mobility, intersectoral mobility, scientific/practical/managem ent experience.	Clarity and quality of objectives in the applicant's career development.	Research/technological quality, including any interdisciplinary and multidisciplinary aspects of the proposal.	Suitability and Quality of the Host Organisation: research reputation of the mentor (including scientific record or other); equipment and facilities; (inter) national linkages with appropriate partners.	
Research results (publications record, invited contributions, patents, teaching, etc. in relation to the level of research experience.	Impact of the proposed fellowship on the applicant's career path: potential to acquire competencies that improve the prospects of taking their skills from academia to industry, reaching and/or reinforcing a position of professional maturity, diversity and independence.	Alignment of the research with market focused applied research mission of Technology Centre.	Host expertise in developing experienced researchers in the field; capacity to provide mentoring, and their ability to facilitate the activities specified in the applicant's career development and training plan.	
Evidence of independent thinking, engaged scholarship and leadership qualities.	Potential acquisition of new scientific and transferable skills. Aspects of the proposed fellowship that allow the fellow to gain skills relevant to employment outside the traditional academic sector.	Originality (relationship to the 'state-of-the-art') and innovative nature of the project.	Ability of Host Organisation to allow full implementation of all aspects of the fellowship, such as the provision of all necessary facilities for the fellow to carry out the project.	
Match between the researcher's profile and the Host proposed project.		Suitability of the proposed methodology and approach for the project, including the clarity of short and long term scientific /technological objectives.	Ability of Host Organisation to assist the fellow in integrating in their new research environment.	

Career-FIT Evaluation Criteria – NOTE those in BOLD

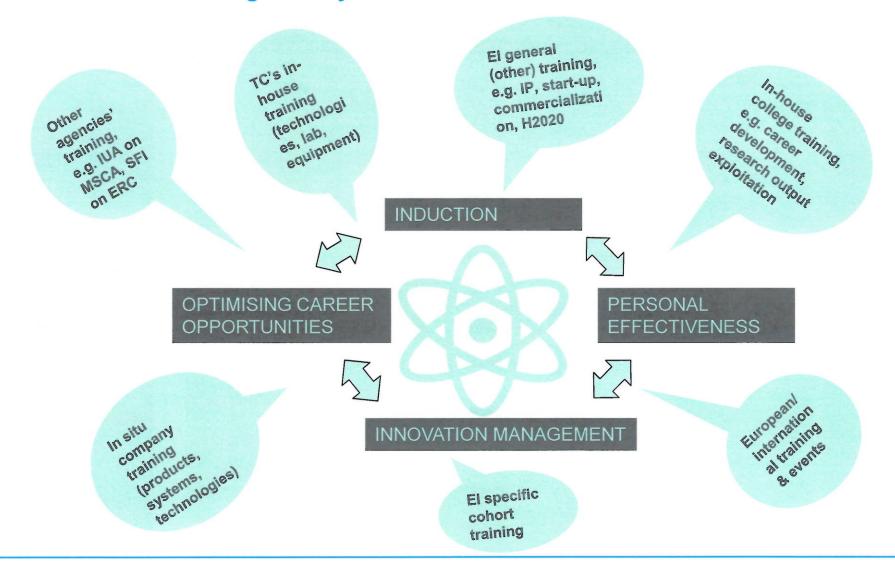


Career-FIT Training Activity: starting point

Cohort team dynamics to build peer group (within broader Technology Centre population) Career-FIT reporting requirements Personal career development planning through Career-FIT EURAXESS support for Fellows	
Communication and assertiveness skills (using industry providers) Practical media skills Using social media for career impact Effective professional networking Influencing and negotiation skills Professional conduct Self management	
Creativity Innovation strategies (idea generation, idea prioritisation and idea implementation) Market research skills Innovation in a commercial context (including market scoping) IPR management Project management for innovation R&D management	
Optimising mentor support Reflective learning for career and personal development Managing the Career-FIT contract Strategies and techniques for public engagement in STEM Career planning for research and industry (job search strategies, CV preparation, and interview coaching)	



Career-FIT Training Activity: mid-term review





Career-FIT Team: show them your capability

Relevant El Unit	No. of Staff	Contribution to Career-FIT		
	60 FTE	Extensive research, commercialisation and knowledge transfer client base, including innovation programmes in both academia and industry.		
	6 FTE (Grace Labanyi, R&I Communications Manager)	In-house Press Office with dedicated PR Officer for Research and Innovation – (i) issuing press releases on the programme and its calls; and (ii) showcasing the cohort of researchers and client companies nationally and internationally.		
	130 FTE (Evelyn Smith, Brussels)	Access to Global Irish Networks and high growth markets with location- specific access in [30 international locations, facilitating access to more than 60 countries worldwide]		
	10 FTE (Karen Harmon, R&I)	Capability and mentoring development, recruitment		
	15 FTE	EC programmes - financial management, reporting and grant administration		
	2 FTE (John Nolan, legal; Leanne Shannon, audit)	Internal legal expert - providing legal advice to the Board and the Agency; Internal auditor – ensuring El's programme of audits is completed as required by the Audit Committee		



Career-FIT Call Outcomes

Call One 2017 Outcomes:

- √ 51 applications received, 49 passed eligibility check
- √ 23 grant offers posted, 2 rejected fellowship (other offers)
- ✓ 9 female ↑ + 12 male ↑ fellows
- √ 10 European + 9 Non-European + 2 from Associated countries



Call Two 2018 Outcomes:

- √ 58 applications received, 54 passed eligibility check
- ✓ 11 female + 18 male fellows
- √ 9 European + 19 Non-European + 1 from an Associated country

