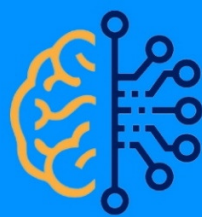


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Smart Manufacturing

A World
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Science
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Ireland **sfi**
For what's next



SMART4.0

Smart Manufacturing Advanced Research Training for Industry

**TRANS-
FORMING
INDUSTRY**

RESEARCH

To develop future smart manufacturing technologies

PROMOTE TALENT

Positive perception of manufacturing in Ireland

COMMUNITY OF PRACTICE

To embrace the 4th Industrial revolution together

SMART 4.0 – Guide for Applicants

Please ensure that you read this document **CAREFULLY AND THOROUGHLY** prior to proposal submission.

Important Dates

Call 3 - Open	01-February-2021, 00h00 Irish Standard Time
Call 3 - Closes	30-April-2021, 17h00 Irish Standard Time
ESR ¹ phase completion date – Call 3	August-2021
Call 3 Fellowship – commencement date	November-2021

NOTE: THESE DATES ARE INDICATIVE AND ARE SUBJECT TO CHANGE

The project leading to this application has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 847577



SMART4.0

Smart Manufacturing Advanced Research Training for Industry

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Smart Manufacturing

¹ ESR: Evaluation, Selection, Recruitment

GUIDE FOR APPLICANTS – SMART 4.0

Contents

1. Introduction – SMART 4.0	4
2. About CONFIRM Centre for Smart Manufacturing.....	5
3. MSCA COFUND & SMART 4.0	7
3.1. SMART 4.0 Fellowship - the offering.....	7
3.2. Industrial Secondment	9
3.3. Financial Considerations.....	10
3.4. Mobility with MSCA - Living & Working in Ireland.....	11
Employment conditions	11
Social security coverage & social benefits	12
3.4.1. Non-EU/EEA Researcher – Visa Information	12
4. SMART 4.0 Call Schedule & Application Timeline	13
5. Eligibility Criteria	13
5.1. Prospective Fellows.....	13
5.2. SMART 4.0 - Equal Opportunities	14
5.3. Proposal Eligibility.....	16
5.3.1. Proposal Evaluation Criteria	16
5.3.2. Ethical Requirements of Proposed Research.....	18
Proposal related ethical concerns	18
Programme related ethical concerns.....	19
6. Application Process – SMART 4.0	19
6.1. Overview – Programme Governance	19
6.2. Proposal Guidance & Submission	20
6.2.1. Further Guidance and Terms.....	22
6.2.2. ESR process – higher-resolution view	23
Eligibility check	23
Phase 1 - Peer review and ethics screening.....	23
Phase 2 – Remote Interview	24
Funding decision (including Ethics review for successful applicants).....	24
Redress procedure.....	25
6.3. Reference guide - common definitions	25
Appendix – Navigating the SMART 4.0 online submission system	27
Appendix Ii – SMART 4.0 Submission General Information	28
Appendix Iii – SMART 4.0 Submission Part A	29
Appendix Iiii – SMART 4.0 Submission Part B	30
Appendix Iiv – SMART 4.0 Submission Part C	30

Revision History

Version 1.0	01-October-2019: Call 1 Open date (document release date)
Version 1.1	07-Oct-2019: Update to Appendix I: online submission system guidance
Version 1.2	30-Jun-2020: Call 2 dates updated; Figure 1 image updated; §3.3 text revised; §6.2 and Appendix liii, liv : documentation reordered
Version 1.3	07-Jan-2021: Call 3 date updates (§4, §6.2)

1. Introduction – SMART 4.0

The manufacturing sector is of crucial importance to the Irish economy. It is the 2nd largest employer in Ireland, representing 11% of the total workforce in direct manufacturing employment and 22% when indirect employment is taken into account. Manufacturing accounts for €112 billion in exports per year, €3.4 billion of investment in the economy and forms 24% of total economic output. The Europe 2020 strategy puts manufacturing at the heart of its growth strategy; not only in terms of direct targets surrounding growth and jobs, but also with respect to indirect societal sustainability/climate targets, where European manufacturing is seen as an enabler. Key areas of manufacturing strength for Ireland are far-reaching - Medical Technologies, ICT, Pharma/Biopharma, and Food, to name a few.

Manufacturing is evolving at an unprecedented rate. The emergence of smart manufacturing, including initiatives such as Industry 4.0 and digital manufacturing, is leading to a transformational change in all aspects of the supply chain, and will change how companies structure their manufacturing operations, and how they cooperate with suppliers and customers. Adopting the smart manufacturing transformation is critical for the long-term competitiveness of Irish and European industry.

Given this evolution, the main objective of the **Marie Skłodowska-Curie Action (MSCA)** cofund SMART 4.0 Fellowship with CONFIRM Centre is to deliver the next generation Smart Manufacturing leaders with strong “systems-level thinking” and interdisciplinary skills, to help drive Industry 4.0 forward for Europe and to deliver the greatest impact potential for advancement. To achieve this, CONFIRM Centre will establish and deliver, via the SMART 4.0 programme, world-class training and research opportunities to postdoctoral Fellows in order to increase Europe’s critical mass in this field.

The SMART 4.0 programme will offer 16 Fellowships for incoming mobility of Experienced Researchers (ER), each 24 months in duration. SMART will adhere to the MSCA cofund principle of ‘individually-driven mobility’ meaning that Fellows will have full freedom to choose their research topic, host institution and supervisor (all within the extensive reach of and with due regard to the end-use applications in CONFIRM Centre’s Hub research and industry targeted spoke themes - Smart Products, Smart Machines, Smart Production Systems and Smart Supply Chains; see **Figure 1**). To foster the Fellows’ career development, they will be offered excellent industrially relevant and transferable skills training, attendances at Spring/Summer schools, a 3-month industry secondment and a keynote speech at CONFIRM Centre’s annual conference. Prospective Fellows will be embedded in an international, interdisciplinary and Intersectoral environment, and will be well poised to capitalize on CONFIRM Centre’s excellent industry and research architecture. Inter-sectoral supervisory teams will provide supervision at all stages.

SMART 4.0 will publish 2 open calls for proposals, which will be widely disseminated to the relevant target groups (see §5.1). The evaluation and selection process will be based on international peer review, and will be open, transparent, merit-based and equitable. A first phase will consist of remote review of written applications, whilst a second phase will consist of interviews (see §5.3). Those successful in this process, will receive an offer of a Fellowship as a **SMART 4.0 Marie Skłodowska-Curie Fellow** with CONFIRM Centre for Smart Manufacture.

SMART 4.0 projects must be implemented at one of the 6 academic partner institutions of CONFIRM Centre participating in SMART 4.0: University of Limerick (**UL** – Coordinating Partner), Tyndall National Institute (**TNI**), University College Cork (**UCC**), Cork Institute of Technology (**CIT**), National University of Ireland Galway (**NUIG**) and Athlone Institute of Technology (**AIT**). Each Fellowship application must

include a 3-month secondment to a non-academic partner; SMART 4.0 Programme Management and CONFIRM Centre's Operations Team will assist the applicant identify a suitable academic/non-academic host(s).

The employment opportunities for the SMART 4.0 researchers are excellent. The manufacturing sector is the 2nd largest employer in Ireland and the 2nd largest of the EU-28. The Europe 2020 strategy puts manufacturing at the heart of its growth strategy for economic growth and jobs, but also as an enabler for societal sustainability and climate targets - smart manufacturing is critical for the long-term contribution to these objectives. These developments result in a clear demand for smart manufacturing leaders with strong "systems thinking" interdisciplinary skills, as provided by SMART 4.0.

2. About CONFIRM Centre for Smart Manufacturing

Funded in 2017 by Science Foundation Ireland (SFI), CONFIRM Centre for SMART Manufacturing is a world-class research centre for Smart Manufacturing that aims to fundamentally transform the Irish manufacturing industry to a smart manufacturing ecosystem to ensure its future competitiveness and sustainability. CONFIRM Centre, headquartered at UL, brings together several Irish academic and research institutions: UL, TNI, UCC, CIT, NUIG, AIT, LIT and NUIM. In the SMART 4.0 Fellowship programme, the first six aforementioned institutions will host Fellows, with LIT and NUIM providing input to the training of the Fellows. In addition, CONFIRM Centre's affiliation include 100+ industry partners and international collaborators, bringing together a multidisciplinary pool of excellent researchers and innovators, each with distinctive but complementary skills. CONFIRM Centre will implement international, interdisciplinary and intersectoral training for researchers, focusing on smart manufacturing. Rather than concentrating on disparate challenges, CONFIRM Centre's system-level approach offers the greatest potential for significant advances and impact across multiple manufacturing sectors. Researchers from our industry partners complement these skills with globally-recognised records of accomplishment in manufacturing across a range of sectors.

CONFIRM Centre is designed around a HUB and SPOKE research model – see **Figure 1**. The HUB research programme, wherein SMART 4.0 will reside, consists of 3 interrelated areas of smart manufacturing. The HUB is aimed at low TRL² bottom-up research in smart manufacturing, where new ideas will be nurtured to become the next generation of industrially impactful technologies in the medium term. The HUB research feeds industry-targeted SPOKE projects, which are co-funded and co-led with our industry-academia network, and where the research from the HUB will find its applications. At the interface of the HUB and SPOKE research programme is our test-bed hub where the research ideas are demonstrated to industry. SMART 4.0 is perfectly placed to contribute to the HUB research programme, as it will be a bottom-up programme where international talent will create the next wave of manufacturing technologies to a point where they can be demonstrated, direct to industry. Intersectoral secondment of the Fellows allow academic work generated in the HUB to transfer to SPOKE research, and its end-use applications.

² Technology Readiness Level

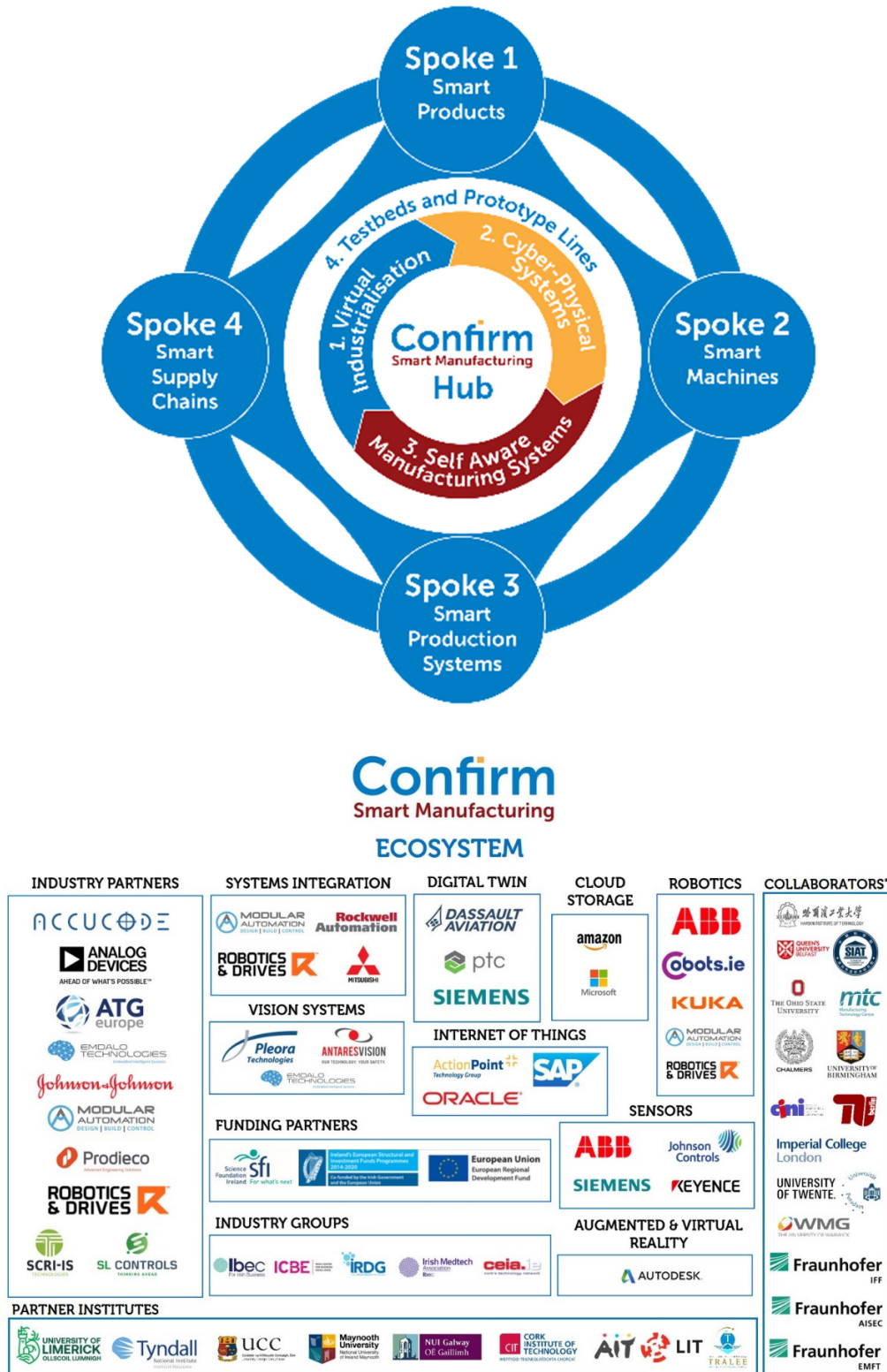


Figure 1: CONFIRM Centre HUB Research focuses on: **Hub 1** - Virtual Industrialisation; **Hub 2** - Cyber- Physical Manufacturing Systems (CPM); **Hub 3** - Self-Aware Manufacturing Systems - all to be leveraged by dedicated Testbeds & Prototype Lines in **Hub 4**

3. MSCA COFUND & SMART 4.0

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. This MSCA COFUND funding mechanism through CONFIRM Centre, enables excellent research and the provision of attractive working conditions by offering high quality professional opportunities to researchers of any age, nationality or discipline. The MSCA have a **bottom-up approach**, i.e. research fields are chosen freely by the applicants.



The goal of the CONFIRM Centre SMART 4.0 programme is to enhance the creative and innovative potential of experienced researchers wishing to diversify their individual skills arsenal and key competencies through advanced training, and international and intersectoral mobility. As such, SMART 4.0 Fellowship will provide opportunities to acquire and transfer new knowledge and to work on research and innovation in the Republic of Ireland (ROI). The scheme particularly supports the return and (re)integration of European researchers from outside Europe, those who have previously worked in ROI, as well as researchers displaced by conflict outside the EU and Horizon 2020 Associated Countries (see §5.2). In addition, it also promotes the career restart of individual researchers who show great potential.

The principles of the **European Charter for Researchers**³ and **Code of Conduct for the Recruitment of Researchers**⁴ (C&C) promoting open recruitment and attractive working and employment conditions are a cornerstone of the MSCA COFUND and will be implemented through CONFIRM Centre.

3.1. SMART 4.0 Fellowship - the offering

Successful creation of Industry 4.0 technologies will require talent with skills at the interfaces of Mechanical, Electrical, ICT, and Mobile Communications fields and those that can be applied in key enabling technologies of autonomous robotics, simulation, cyber-physical systems, IIOT, cyber-security, cloud computing, augmented reality, and big data. SMART 4.0 will help CONFIRM Centre to reach one of its high-level impact objectives: **to deliver the next generation of Smart Manufacturing leaders.**

Once a Fellowship offer is extended and awarded to a successful applicant, the nominated supervisor (as per the proposal) will become the *de facto* academic supervisor. There are 6 academic institutions from which an applicant may choose a supervisor (see §6.2, **Figure 7**). Each applicant will also have one co-supervisor from the non-academic secondment during their Fellowship, chosen freely by the applicant with support from the main supervisor. The main supervisor and co-supervisor form the **supervisory team**. Meetings between the Fellow and his/her supervisory team will take place regularly: monthly with the full supervisory team and at least fortnightly with the academic supervisor(s). Each Fellow will also be assigned an **Academic Mentor**, who will be a senior CONFIRM Centre researcher, with no direct involvement in the Fellow's project. The Fellow and mentor will meet every 3 months (more if requested).

³ <https://euraxess.ec.europa.eu/jobs/charter/european-charter>

⁴ <https://euraxess.ec.europa.eu/jobs/charter/code>

by either mentor or Fellow) to discuss the integration of the Fellow in the research team and their professional and personal well-being.

Supervisors will commit to supporting Fellows in their career development in the widest possible sense, based on the plans described in the **Career Development Plan (CPD)**. The supervisory team must ensure that Fellows (at a minimum): **(1)** have access to necessary facilities and required infrastructure, **(2)** that Fellows attend relevant conferences, and **(3)** that Fellows are introduced to their professional networks. They are required to actively support the career development of the Fellows, by discussing career objectives with them and training trajectories (including scientific and transferable skill training) to achieve these objectives.



Figure 2: Example offerings and available support structure for SMART 4.0 Fellows.

As per **Figure 2**, each Fellow must conduct skills analyses, and then design a personal CDP in Month 1, together with his/her supervisors. The overarching objective of the CDP is to support the Fellows during their Fellowships with their project, and to identify priority areas for training from a (career) development standpoint. The CDP includes a detailed tailor-made plan of research and training activities, to equip MSCA Fellows with skills and experience to meet their career goals and address contemporary skill gaps. For quality, it will be reviewed on a 6-monthly basis with the supervisory team, with updates to be sent annually to HR of the host institution.

To enable all Fellows to gain the expertise and skills needed to become a smart manufacturing leader, a Fellow-specific, targeted training programme will be developed for the 16 Fellows. The programme is informed by academic and non-academic needs and aims to accelerate the Fellows' research career with employment options in academia and in industry.

A high-level overview of the SMART 4.0 training programme will include:

- i. An Individualised 24-month research training project, developed by the Fellow with input from the academic and industry supervisors
- ii. Attendances at CONFIRM Centre and affiliates' Spring and Summer schools; a keynote speech at CONFIRM Centre's annual conference
- iii. A compulsory industrial secondment (see §3.2):
 - a. All Fellows will undertake a **3-month secondment** in a non-academic organisation, which will ensure that employment conditions during the secondment are in line with the C&C
 - b. The secondment to a non-academic partner will provide the Fellows with experience of working in a non-academic setting. They will get insight in topics such as **entrepreneurship, commercialisation of research result** and **patenting**, and they will learn from the co-supervisors who have excellent expertise in the topics of Smart Products, Smart Machines, Smart Production Systems and Smart Supply Chains
 - c. Through the secondments and the spring and summer schools, Fellows **will learn how industry 'works'**, about **entrepreneurship** and **commercialisation** of research outcomes. Exposure to industry not only gives the Fellows insight in how industry works, it is also **an opportunity to engage with industry** and potentially secure a position after the Fellowship
- iv. Scientific training options
- v. Transferable skills training, including optional teaching experience (up to 6 hours per week)

3.2. Industrial Secondment

Through the SMART 4.0 programme with CONFIRM Center, Fellows will avail of key partnerships between academia and industry with a view to strengthening and raising the excellence and impact of European advanced Smart Manufacturing research. The secondment to a non-academic partner will provide the Fellows with experience of working in a non-academic setting. Fellows will gain insight into topics such as **entrepreneurship, commercialisation** of research result and **patenting**, and they will learn from the co-supervisors who have excellent expertise in the topics of Smart Products, Smart Machines, Smart Production Systems and Smart Supply Chains. Exposure to industry not only gives the Fellows insight in how industry works, it is also an opportunity to engage with industry and potentially secure a position after the Fellowship.

Each Fellow will avail of a (minimum) 3-month secondment in the non-academic sector, which may be broken down into a maximum of 3 x 1-month secondment, depending on the project TRL (e.g. low TRL work may require shorter duration secondment due in nature to its inherently higher risk). The secondment aims to immerse the Fellow in a non-academic setting with the view to learn to understand the practices and needs of the non-academic sector.

The secondment has dual importance – **(i)** many Fellows may in fact transition to industry post-placement and **(ii)** researchers staying in academia will gain skills to work on the interface of academia and industry. During the secondment, the Fellows will be exposed to the manufacturing landscape and will be able to enhance their industrial experience. Industry co-supervisors will guide the Fellows in working in an industry setting. Career development opportunities will also be provided through **'Meet the Industry'** brokerage events where Fellows can engage with members of partner companies during networking and workshop activities with the goal to facilitating new ideas, collaborations, and developing a mindset and skills for innovation and entrepreneurship.

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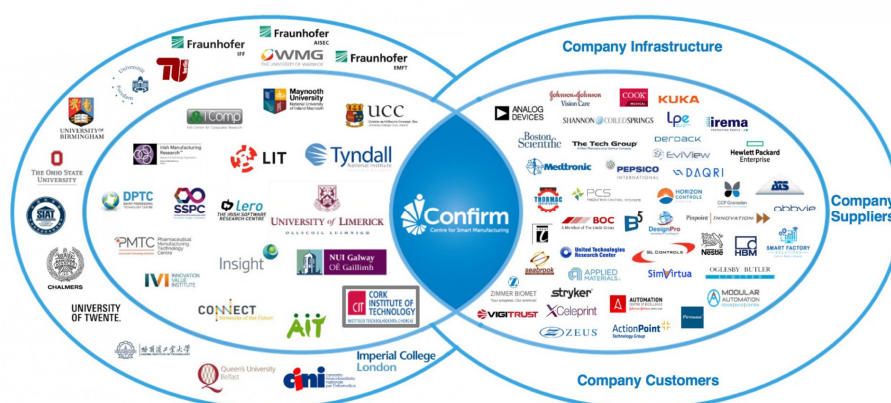


Figure 3: Graphical view of CONFIRM Centre's academic and industrial infrastructure.

Table 1: For our industrial partners, the following table outlines some of the potential benefits of secondment placement under the auspices of the SMART 4.0 programme.

'Promote talent, engage public' SHOWCASE INTERNAL CAPABILITIES	'Foster research' CONTRIBUTE TO FOCUSED ACADEMIC OUTPUTS FOR THE BETTERMENT OF THEIR BUSINESS	'4.0 Community of Practice' ENHANCED VISIBILITY TO BUSINESS/CAPABILITIES AMONG CONFIRM CENTRE'S COMMUNITY OF PRACTICE
<i>Provide expert insight into topics such as entrepreneurship, commercialisation of research result, patenting, and product development processes</i>	<i>The opportunity to feed into tailor-made training to develop Fellows with skills and experience to become Smart Mfg. leaders of tomorrow</i>	<i>Directly contribute to the appointment of SMART 4.0 Fellows</i>
<i>Access to state-of-the-art research environments and as a vehicle to showcase industry (e.g. tools, products, processes, facilities)</i>	<i>Support in the development of skills that will be directly transferable to industry</i>	<i>Provide opportunities to learn from intersectoral professionals who have excellent expertise in a broad range of topics, including Smart Products, Smart Machines, Smart Production Systems and Smart Supply Chains</i>
<i>The opportunity to inspire and coach the best emergent talent</i>	<i>Exposure to industry not only gives the Fellows insight in how industry works, it is also an opportunity to engage with industry and potentially secure a position post-Fellowship</i>	<i>Opportunity for industry to shape training components, to ensure Fellows graduate with industry-relevant skills to fill the growing needs of the manufacturing sector</i>

3.3. Financial Considerations

The SMART 4.0 Fellows will receive the **gross** salaries detailed in **Table 2**. Please note that salaries received by the Fellow will be liable for **employer** and **employee** taxes and/or other deductions. For example, in line with Irish taxation law (as of 2020), 11.05% of the total amount of living allowance, mobility allowance and family allowance (if applicable) will be withheld for Employer Pay Related Social Insurance (**PRSI**). Furthermore, the **employer's** contribution to pension will be 20%, which is deducted from the living allowance only.

Table 2: SMART 4.0 Fellow (pre deduction) award values - per researcher, per month.

COST CATEGORY	GROSS AWARD TOTAL (€) PER MONTH
Living Allowance	5,256
Mobility Allowance	600
Family Allowance (if applicable)	250

Information on Irish taxation can be found on the website of the Office of Revenue Commissioners (revenue.ie). Contributions towards the cost of conducting the research (e.g. consumables, travel) and training/development activities directly related to the funded research project will be provided by the SMART 4.0 programme and not borne by the applicant.

3.4. Mobility with MSCA - Living & Working in Ireland

Employment conditions

Following approval of the final funding decision (see §6.2), all successful applicants will receive a letter with a Fellowship offer from UL. The Fellow will have a maximum of **6 working days** to accept or deny the offer; a contract of employment for the duration of the Fellowship will originate from the host institution nominated in the applicant's submitted proposal. Once the offer is accepted, UL will sign an Inter-Institutional Agreement (IIA) with the relevant CONFIRM Centre academic partner, and the HR office of that academic partner will issue an employment contract to the successful candidate. UL will be the Paymaster for all employment contracts, but the Fellows will be employed by their academic host organisations under the same employment conditions as other externally funded researchers employed at that university. Applicants wishing to know the terms and conditions associated with their employment contract should contact the Human Resource department of their host university.

In line with the C&C and with relevant Irish law, Fellows will be offered an employment contract with social security coverage: sickness, parental, unemployment and invalidity benefits, pension rights and benefits for accidents at work and occupational diseases for the duration of the Fellowship. The contract will remain in place during secondment, thus Irish law will apply for the duration of the Fellowship.

Relevant laws in relation to SMART 4.0 Fellow appointments are the 'Terms of Employment (Information) Acts' 1994 - 2014. Following these Acts, the employment contract will provide information on a series of topics of employment conditions, statutory working practices and social security topics coverage and benefits. In addition, the employment contract will include the secondment host name and address, payments to the researcher and IPR arrangements between host(s) and Fellow. Personal data in employment contracts will be subject to the General Data Protection Regulation (GDPR) 2018.

A key part of the SMART 4.0 research project management process will be the assessment of IP at the project level by the Fellow to consider the potential for patenting and/or licensing. Due care will be taken to ensure IP leaking does not happen before appropriate consideration has been given to protecting it. The Supervisory Team, supported by CONFIRM's Business Development Management and the SMART 4.0 steering committee (see §6.1) will, from the very outset, distil an awareness of the importance of IP protection. With regards to implementation, CONFIRM will make sure that the Fellow is involved in every step of the IP process, in order to provide hands-on learning opportunities. All Fellows must follow training on IP management, commercialisation and entrepreneurship. They must list any innovative

research outputs in their reports and explain the action they have taken for protection and/or commercialisation.

As per Art. 26.1 of the SMART 4.0 grant agreement, the host institution to whom the Fellow is employed, owns the results it generates. 'Results' means any (tangible or intangible) output of the research project, such as data, knowledge or information — whatever its form or nature, whether it can be protected or not — that is generated, as well as any rights attached to it, including intellectual property rights.

Social security coverage & social benefits

Through the provision of employment contracts, the Fellows' rights are agreed under the Protection of Employees (Fixed Term Work) Act (2003). Fellows have equal rights as other employees, such as entitlement to annual leave, maternity leave, and payslips. After the employer has paid pension contribution for the 24 months of the Fellowship, the Fellows are entitled to receive a pension from the Irish host organisation upon retirement. This pension is transferable when the Fellow moves to another public body in Ireland or to the civil service. The Maternity Protection Acts (1994 and 2004) ensures that employees, regardless of how long they have been working for the organisation, are entitled to 26 weeks' maternity leave together with 16 weeks' additional unpaid maternity leave, which begins immediately after the end of maternity leave. The Adoptive Leave Act (1995), amended by the Adoptive Leave Act (2005), entitles the mother to avail of adoptive leave from employment with paid benefit of 24 weeks, and to 16 weeks additional unpaid adoptive leave, except in the case where a male is the sole adopter. The Paternity Leave and Benefit Act (2016) provides for statutory paternity leave of 2 weeks following birth or adoption of a child. The Health Act (2004, revised 2013) arranges direct coverage for public health care for all Fellows. Fellows may opt for additional private health insurance through one of the Irish private health insurance companies.

3.4.1. Non-EU/EEA Researcher – Visa Information

As a SMART 4.0 Fellow, you will be able to avail of a range of services offered by the **EURAXESS** office in Ireland. EURAXESS provide free advice to researchers and their families coming to work/study in Ireland. Such information includes – accommodation, banking, Day Care, schooling & family related issues, entry conditions/visas, health insurance, medical care, transport and travel, 'Life in Ireland', etc., are available.

Non-EU/EEA nationals require permission to work and/or study in Ireland. Non-EU researchers applying for research positions in accredited research organisations can use a fast-track work permit scheme. This allows the host research organisation to employ the researcher without the need for a work permit. EURAXESS operates the Irish Hosting Agreement Scheme, which is a visa scheme designed for non-EU/EEA researchers wishing to work in Ireland. Under the scheme, visas are issued rapidly and traditional work permits are not required. For more details, applicants are encouraged to consult the EURAXESS Ireland website for guidance (www.euraxess.ie).

4. SMART 4.0 Call Schedule & Application Timeline

Under the SMART 4.0 programme, 16 Fellowships will be offered following 2 calls for proposals; n = 9 in Call 1 and n = 7 in Call 2.

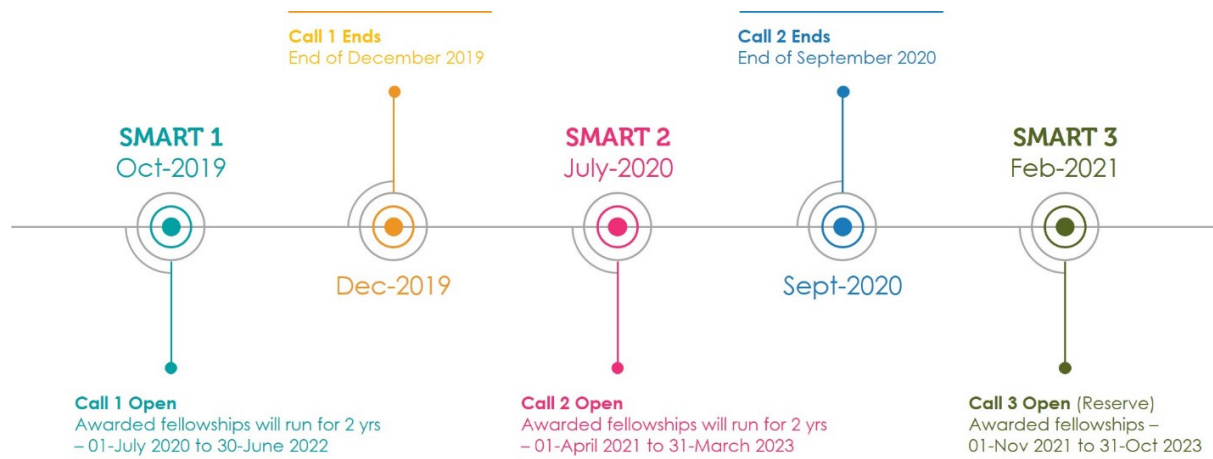


Figure 4: Indicative timeline for call for the SMART 4.0 Fellowship programme. **Note:** the above dates are subject to change.

Call 1 will be published on 01-October-2019 and will remain open for 3 months (deadline: 23h59 (IST), 31-December-2019). The evaluation and selection process will last 4 months, end-to-end. SMART 4.0 programme management aims to inform applicants of the ESR process evaluation outcome at different stages in the process (see §6.2.1), with successful applicants receiving a Fellowship offer for Call 1 in April 2020 (indicative date only). Applicants have **1 week** to accept or reject the Fellowship offer. Call 1 Fellows are expected to be *in situ* in their respective hosting organisations from **July-2020**; Call 1 Fellowships will then conclude in **June-2022**.

As for Call 1, **Call 2** will be published on 01-July-2020 and will remain open for 3 months (deadline: 30-September-2020). The ESR process will be the same as for Call 1; Call 2 Fellows are expected to be *in situ* in their respective hosting organisations from **April-2021**; Call 2 Fellowships will then conclude in **March-2023**. A reserve **3rd** call will be issued in the unlikely event that the 16 fellowships have not been offered by **January-2021**. The ESR process will be the same as for the previous 2 calls; Call 3 Fellows are expected to be *in situ* in their respective hosting organisations from **November-2021**, concluding **October-2023**.

5. Eligibility Criteria

5.1. Prospective Fellows

Prospective Fellows may be of any nationality and there are no age restrictions. Applicants must come directly from outside of the Republic of Ireland to meet mobility requirements, as required by H2020 rules. At the close of each call deadline, the applicant must meet the requirements of an MSCA 'experienced researcher':

- An experienced researcher is one who is in possession of a doctoral degree or with at least four years of full-time equivalent research experience at the time of the SMART 4.0 call deadline

SMART 4.0 – Guide for Applicants

As per **Table 3**, there are three application categories: standard incoming mobility (general applications), career restart, and reintegration. A relaxed mobility requirement applies to applicants who fall under the career restart and reintegration categories. When calculating mobility timeframes, time spent as part of a procedure for obtaining refugee status (under the 1951 Geneva Convention and the 1967 Protocol), compulsory national service and/or short stays such as holidays should not be taken into account. Short stays are characterised by the type of activity rather than by a specific number of days. A period can only be considered as a short stay if the researcher did not reside or did not have their main activity (work, studies, etc.) in the Republic of Ireland during that period (such as holidays).

IMPORTANT NOTE: Whilst a relaxed mobility rule applies for candidates who fall under the career restart/reintegration category (time-related only), all applications, irrespective of category, **will be assessed under the same selection process.**

Table 3: Mobility Fellowship eligibility criteria; for a list of definitions please see §6.3.
RoI = Republic of Ireland.

Fellowship Status	Additional Eligibility Considerations	Mobility Requirement - Applicants may not have resided or carried out their main activity (work, studies, etc.) in the RoI ..
Standard Incoming Mobility	N/A	.. for >12 months in the 3 years immediately before the call deadline
Career Restart	The applicant must not have been active in research for a continuous period of 12 months within the 18 months immediately before the call deadline (Deadlines: Call 1: 31-Dec-2019; Call 2: 30-Sept-2020)	.. for >3 years in the 5 years immediately before the call deadline
Reintegration	The applicant must be a national or long-term resident of an EU member state or associated country , and must move or have moved from a third country directly to the RoI	

In order to be considered within the “career restart” category, the applicant must have undertaken a career break in research – i.e. they must not have been active in research for at least 12 months immediately prior to the call deadline. To be considered within the “reintegration” category, the applicant must be a national or long-term resident of EU Member States or Associated Countries⁵, who wishes to return and reintegrate in a longer-term research position in Europe; the applicant must move directly to RoI. Long-term residents are defined as researchers who spent a period of full-time research activity of at least five consecutive years (without breaks in research) in one or more Member States or Associated Countries.

5.2. SMART 4.0 - Equal Opportunities

SMART 4.0 is committed to tackle gender inequalities within the smart manufacturing field, paying specific attention to attracting female researchers, and to provide them dedicated support during the Fellowship (see §5.2). As mentioned in §5.3.1, the SMART 4.0 selection procedure will be open, transparent, merit-based, impartial and equitable.

⁵ https://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/3cpart/h2020-hi-list-ac_en.pdf



All SMART 4.0 Fellows, in addition to all those individuals (supervisors, peer reviewers, etc.) active in the evaluation process and in the management of SMART 4.0 will receive training in gender equality issues as part of the Athena SWAN initiative, run by the Equality Challenge Unit (ECU) at UL.

SMART 4.0 will implement an equal opportunities policy: equality of treatment during the evaluation and selection process and equality of support during their Fellowships to the successful researchers. The formal employers of the Fellows will be one of the 6 academic partner organisations (UL, TNI, UCC, CIT, NUIG and/or AIT), who all have Equal Opportunities Policies in place, committing them to equality of opportunity for all staff and students irrespective of gender, civil status, family status, sexual orientation, religious belief, age, disability, nationality or ethnic or national origin, or membership of the travelling community. The universities have and will continue to develop policies, procedures and practices that comply with the Universities Act 1997, Equality Employment Acts 1998 and 2004 and the Equal Status Act 2000. All 6 academic partners in SMART 4.0 have staff dedicated to ensuring the implementation of their equal policies.

All 6 academic host organisations have signed the Athena SWAN Charter. The Athena SWAN Charter was established in 2005 to encourage and recognise commitment to advancing the careers of women in science, technology, engineering, maths and medicine (STEMM) employment in higher education and research. Currently, four Irish universities have Bronze institutional awards, including SMART 4.0 partners UL, UCC (extended to TNI) and NUIG. Bronze medals are awarded for the universities' efforts to provide a structured framework to ensure female representation at all decision-making levels, to support the progression of female students into academia and in their careers.

Through CONFIRM Centre's planned Athena SWAN accreditation in November 2019, a structured framework to support the career progression of female Fellows will be put in place. As per the SMART 4.0 offering (see §3.1), a **Gender Mentoring Programme** for female researchers and their mentors in SMART 4.0 will be established (male Fellows may attend if capacity allows). In the programme, the mentor-mentee couples will learn how to make mentoring effective and successful. These successful mentoring relationships will then provide a solid basis for supporting the career development of female Fellows in SMART 4.0.

CONFIRM Centre wishes to ensure that the SMART 4.0 programme is open to researchers who had a career break for professional or personal reasons and wish to resume research in Ireland (Career Restart Fellowships). Career Restart Fellows will be eligible for the relaxed mobility rule (see **Table 3**). Applicants are strongly encouraged to describe any research career gaps and/or unconventional career paths, both for professional and personal reasons. The SMART 4.0 ESR process' design will ensure submissions are judged on merit both qualitatively and quantitatively, considering the whole range of experience of applicants and not just their publications list.

CONFIRM Centre wishes to ensure that researchers who are refugees can apply and will put in place extra support for these researchers during the application phase and during the implementation of the projects. As discussed in §5.1, the time spent to apply for refugee status in Ireland will **not** count as time resident in Ireland. For note, UL and UCC (extended to TNI) are designated Universities of Sanctuary in recognition of their initiatives welcoming asylum seekers and refugees into its university community. SMART 4.0 also

wishes to ensure that researchers with special needs have equal opportunities to apply and to implement their project.

5.3. Proposal Eligibility

The proposal must describe a 24-month project, to be implemented at one of the 6 academic partner institutions in SMART 4.0, including a 3-month secondment to a non-academic partner. As per the ‘individually-driven research’ principle, the applicants have free choice of topics, provided that it falls within the wide research area of smart manufacturing. This consists of, but is not limited to: autonomous/collaborative robotics, simulation, cyber-physical systems, IIOT, cyber-security, cloud computing, augmented reality, and big data. Proposals must adhere to the SMART 4.0 Ethical Issues Policy (see §5.3.2).

Applicants may submit only **one proposal** per call; if unsuccessful, resubmission to any subsequent calls is very much encouraged. All applications must be in **English** and must be prepared by the applicant with support and guidance from the proposed academic supervisor(s). All applications must be made through the dedicated SMART 4.0 online proposal submission system, on or before the deadline. Exceptions may be made for applicants with refugee status on a case-by-case basis (see §5.2).

5.3.1. Proposal Evaluation Criteria

Supported by their supervisor, applicants are invited to submit proposals on a topic of their interest and choice, which **(a)** deepens and widens their research skills and **(b)** helps drive CONFIRM Centre’s trinity vision of:

- i. Research to develop future smart manufacturing technologies*
- ii. Talent & engaged public to change perception of manufacturing in Ireland, and*
- iii. Community of practice, to embrace the 4th Industrial revolution*

Applicants must have the skills to implement the project (credibility of the project), yet the projects must take their skills further (enhancing research and innovation related skills) in order to enhance career prospects.

The SMART 4.0 programme selection procedure will be open, transparent, merit-based, impartial and equitable (OTM-R approach). The SMART 4.0 proposal evaluation criteria are outlined in **Table 4**. All peer reviewers and all interviewers will be trained on how to apply the evaluation criteria to the proposal. The peer reviewers will be instructed to evaluate the proposal based on its written content; they should not make assumptions about the applicant and his/her project. Peer reviewers and interviewers should consider the applicant’s research experience when assessing his/her suitability for a Fellowship. They will also be instructed to consider any career breaks or any repatriation issues that may arise from time to time for refugee researchers that may affect, for example, his/her publication list.

Remote expert reviewers are asked to give a score between 0 and 5 for each evaluation criterion (see **Table 5**). This score must be given for the full evaluation criterion; the sub-criteria are there to help the reviewers decide for a score. The score may be given up to one decimal.

Table 4: SMART 4.0 evaluation criteria: Excellence, Impact, Implementation – Remote Peer Review and Interview Phase. Criterion weighting and priority in the event of ex aequo is shown.

PROPOSAL EVALUATION CRITERIA					
EXCELLENCE		IMPACT		IMPLEMENTATION	
50%	1	30%	2	20%	3
REMOTE EXPERT REVIEW PHASE CRITERIA					
Quality and credibility of the research /innovation project; level of novelty, appropriate consideration of inter/multidisciplinary and gender aspects, methodology. Alignment of the project with CONFIRM Centre vision		Enhancing research- and innovation-related skills, to realise the potential of individuals and to provide excellent career perspectives		Coherence and effectiveness of the work plan, including appropriateness of the allocation of tasks and resources. The feasibility of the project	
Quality and appropriateness of the training and of the two-way transfer of knowledge between the researcher and the host		Quality of the proposed measures to exploit and disseminate the project results		Appropriateness of the management structure and procedures, including risk management	
Quality of the supervision at academic main host and at non-academic secondment host		Quality of the proposed measures to communicate the project activities to different target audiences		Quality and suitability of the secondment hosts	
Excellence of the applicant (research experience and results). Potential of the researcher to reach or reinforce a position of professional maturity and independence during and after the fellowship					
INTERVIEW PHASE CRITERIA (PLUS REMOTE EXPERT REVIEW PHASE CRITERIA IN BOLD)					
		Fit to CONFIRM Centre’s community of practice		Fit between applicant and CONFIRM Centre ecosystem and applicant’s motivation	
WEIGHTING		PRIORITY IN CASE OF EX AEQUO			

Table 5: SMART 4.0 proposal evaluation criteria scores – Remote Peer Review and Interview Phase.

SCORE	DESCRIPTION
0	Proposal fails to address the criterion or cannot be assessed owing to missing or incomplete information.
1	Poor. The criterion is inadequately addressed, or there are serious inherent weaknesses.
2	Fair. Proposal broadly addresses the criterion, but there are significant weaknesses.
3	Good. Proposal addresses the criterion well, but a number of shortcomings are present.
4	Very Good. Proposal addresses the criterion well, but a small number of shortcomings are present.
5	Excellent. Proposal successfully addresses all relevant aspects of the criterion. Any shortcomings are minor.

During a consensus meeting, the remote expert reviewers will seek to reach a consensus score for the remote expert review phase for each proposal. After the interview, the interview panel will also seek to reach consensus score for each proposal (again, between 0 - 5). The summation of both scores and when multiplied by 10 will reach a score between 0 - 100. As per **Table 4**, the three evaluation criteria have different weightings, and will be calculate for both the remote review phase and for the interview phase. The remote review score counts for 70%, the interview score counts for 30%. In addition, to ensure quality, a minimum score 70% must be obtained for both scores (thus 49/70 and 21/30 respectively) in order to be deemed appointable as a SMART 4.0 Fellow. Post-interview, if two (or more) proposals have the exact same score, a prioritisation will be applied using *ex aequo* ordering, to select the proposal(s) that will be funded.

5.3.2. Ethical Requirements of Proposed Research

Proposal related ethical concerns

SMART 4.0 will respect fundamental ethics principles, including those reflected in the Charter of Fundamental Rights of the European Union (2000/C 364/01) and the relevant ethics rules of H2020. Applicants submitting research proposals for funding for Marie Skłodowska-Curie actions in Horizon 2020 should demonstrate proactively in their proposal that they are aware of, and will comply with, ethical principles and applicable laws. As per §6.2.1, an Ethical Self-Assessment is required, which is composed of the completion of an ethical issues table review and an ethical declaration. Applicants will have to provide additional information on how they intend to address the potential ethics issues as required by the Horizon 2020 Guidance on Ethics Self-Assessment⁶ (Version 6.1 or later) as part of their submission.

As part of the proposal submission process, an ethical issues procedure is in place to ensure that fellowships raising ethics issues will be evaluated and monitored in line with the relevant ethics procedures. The Ethical Review will be performed on successful proposals with identified ethical issues (identified by either the applicant themselves and/or the independent reviewers) by the Research Ethics Committee (REC) from the UL Faculty of Science and Engineering. This Ethical Committee will consider whether ethical issues in the applicant's project are adequately addressed.

In line with the H2020 ethics procedures, the following fields of research are not eligible for funding under Horizon 2020 and cannot therefore be considered:

- *Research activities directed at human cloning for reproductive purposes*
- *Research activity intended to modify the genetic makeup of human beings that could make such changes heritable (apart from research relating to cancer treatment of the gonads, which may be financed)*
- *Research activities intended to create human embryos solely for the purposes of research or stem cell procurement, including the technique of somatic cell nuclear transfer research that leads to the destruction of human embryos*

In the case where no ethics issues have arisen, the application will proceed as normal. In the case where ethical issues have been identified the formal feedback will be taken on board and a further application to the ethics committee will be required. If Ethical approval has not been achieved following resubmission then the application will be deemed ineligible.

⁶ https://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/ethics/h2020_hi_ethics-self-assess_en.pdf

Programme related ethical concerns

Ethical issues on a programme management level relate to the processing of personal data. CONFIRM Centre confirms its compliance with the General Data Protection Regulation (GDPR), which came into force across the EU on 25th May 2018. The Data Protection Act 2018 changes the previous data protection framework, which was established under the Data Protection Acts 1988 and 2003. The GDPR applies to the processing of personal data by controllers and processors in the EU.

Due to the nature of the programme, SMART 4.0 involves the compilation and processing of personal data. During the application process, applicants will be asked for personal information (e.g. name, contact details, CV). The programme management of SMART 4.0 does not engage in or require the processing of: special categories of personal data; profiling, systematic monitoring of individuals or processing of large scale of special categories of data; intrusive methods of data processing; processing of genetic, biometric or health data or further processing of previously collected personal data. Applications must be made through the dedicated online, secure SMART 4.0 proposal submission programme (smart.confirm.ie); data will then be stored on a secure, encrypted web server, with access only via password. For further details, please refer to the SMART 4.0 Privacy Policy.

6. Application Process – SMART 4.0

6.1. Overview – Programme Governance

SMART 4.0 will be managed by the CONFIRM Centre Director and Coordinator, Prof. Conor McCarthy and by Programme Manager, Dr. Susan Daly, both headquartered at UL who form the SMART 4.0 management team. They will be assisted by the CONFIRM Centre Operations Team, by the SMART 4.0 Education & Training Board and receive input from the SMART 4.0 Steering Committee; see **Figure 5**.

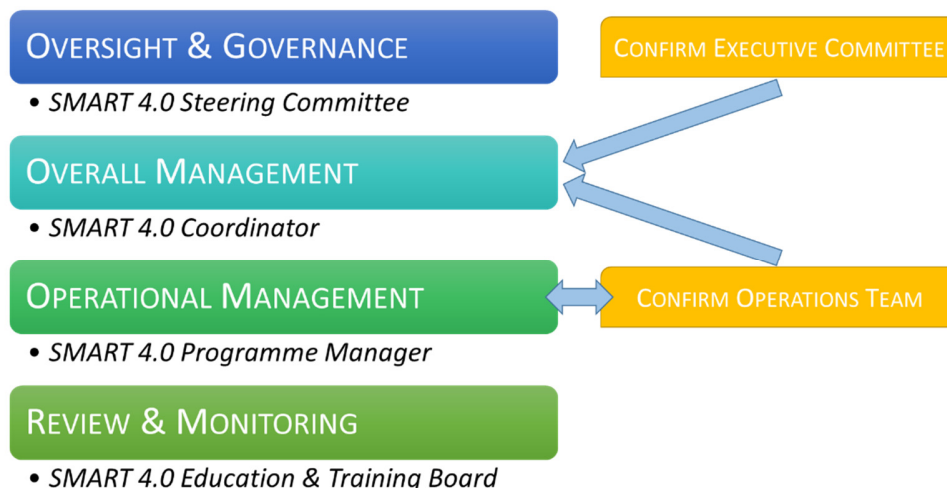


Figure 5: SMART 4.0 management and governance structure.

The SMART 4.0 Steering Committee will be composed of a rotating membership of industry partners and a cohort of academic supervisors. The chair of the steering committee, CONFIRM Centre Business Development Manager Patrick Reidy, will remain in place for the duration of SMART 4.0. The steering

committee is responsible for oversight and governance of the programme and will provide advice to the SMART 4.0 management team. It will provide an independent expert view of the innovative potential of the fellows' research and it shall provide advice on aspects of policy, strategy, and sustainability of SMART 4.0. The chair of the steering committee will monitor the evaluation and selection procedure.

6.2. Proposal Guidance & Submission

In the spirit of MSCA actions as outlined in §1, applicants are invited to submit proposals using an individually driven, bottom-up approach. However, in the first instance, (once deemed eligible – see §5.1 and workflow, **Figure 6**) the applicant must register their interest to partake in the SMART 4.0 programme via the online portal (smart.confirm.ie). It is vital from the perspectives of CONFIRM Centre suitability and investigator compatibility that the applicant clearly outlines their areas of expertise and proposed research area(s) of their proposal (see **[1]**, **Figure 6**, **Figure 7** and §2 for further info on the HUBS and SPOKES model of CONFIRM Centre). Once assessed by the SMART 4.0 programme manager for suitability, the prospective Fellows will then be given access to the submission portion of the online system (see **[2]**, **Figure 6**). All required templates required for upload for the final submission (see §6.2) will then be accessible.

As per point **[3]**, please use the quick reference guide (see **Figure 7**) for high-level guidance on CONFIRM Centre's RPO⁷ areas of expertise; once relevant RPO(s) have been identified, those investigators can be searched for in the dedicated 'People' section of the CONFIRM Centre website (confirm.ie) it is **mandatory** for applicants to contact their proposed supervisor and to obtain their guidance during the proposal preparation stage. The applicant is encouraged to work closely with these parties in preparing the proposal (see **[4]**, **Figure 6**). If unsure who to approach and for guidance on suitable secondment partners, please contact the SMART 4.0 team for support (smart_confirm@ul.ie).

Please note that as both CONFIRM Centre and SMART 4.0 is committed to providing the best supervisory experience for its Fellows, it will adhere to a 'Capacity to Supervise' rule at both a supervisor and institution level to ensure high quality supervision and research environments. Resultantly, prospective Fellows are advised to engage with their preferred academic choice early to prevent disappointment and ensure adequate time for proposal preparation. All applicants **must have their main supervisor's support prior to submission**; academic co-supervision is allowable under the 'Capacity to Supervise' rule.

Applications must be submitted through the SMART 4.0 online submission system⁸. For Call 3, the fully completed proposal must be received on or before the call deadline (**17h00 (IST), 30th April 2021 – see §4 for call indicative call timeframes**). It is the responsibility of the applicant to ensure that all online forms and uploaded documents are correct and complete, or else the submission will be deemed ineligible. Please note that the online submission system will **not** allow submission of partially completed proposals (see **[5]**, **Figure 6**). Additionally, only **one application per applicant** may be submitted per call (resubmissions from unsuccessful applicants are encouraged). The proposals must adhere to the ethical standards applicable to MSCA (see §5.3.2). Additionally, applicants will be required to complete an Ethics Questionnaire to capture any potential ethical issues.

⁷ RPO = research performing organisation; for SMART 4.0 these are **UL, UCC, CIT, TNI, NUIG and AIT**

⁸ Except in cases where an applicant satisfies the 'Researchers at Risk' criteria; see §5.2

Smart Manufacturing Advanced Research Training for Industry 4.0 – SMART 4.0

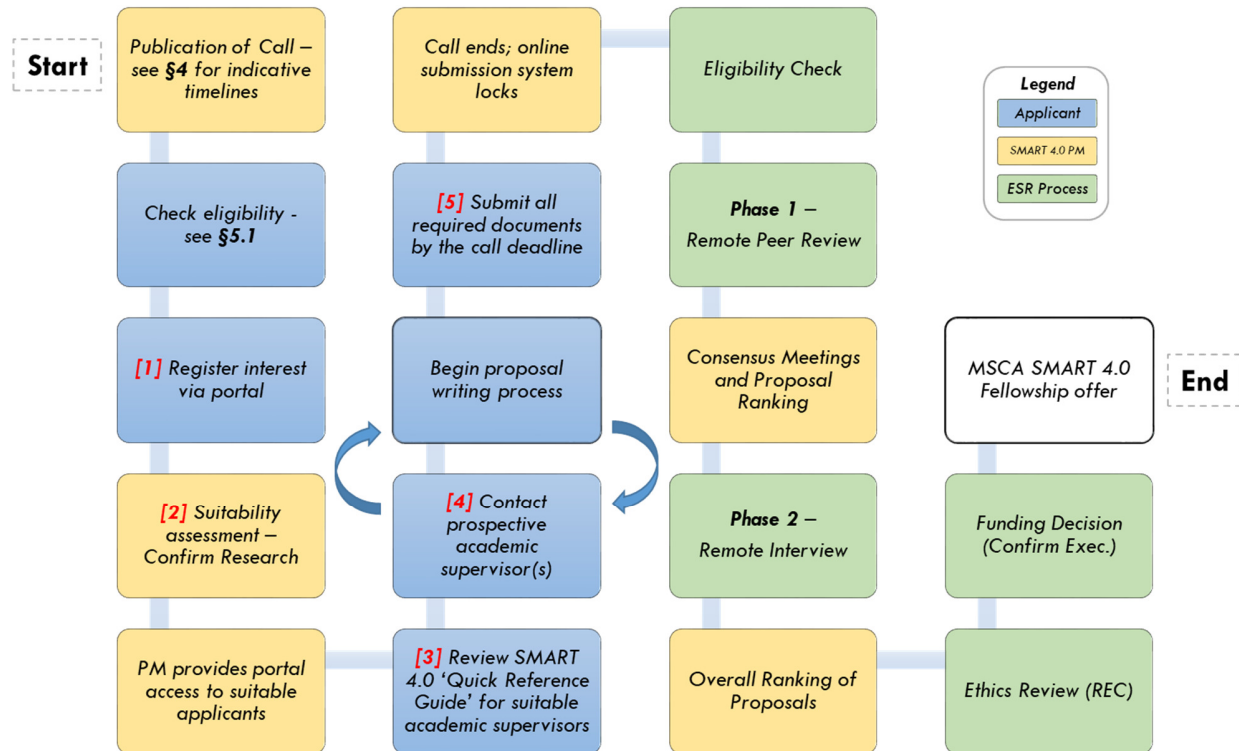


Figure 6: E2E guidance of the SMART 4.0 ESR proposal submission process from registration to fellowship offer. Note the iterative process of proposal preparation between the applicant and the proposed academic supervisors. Accountability for each stage of the process is colour-coded as per the legend

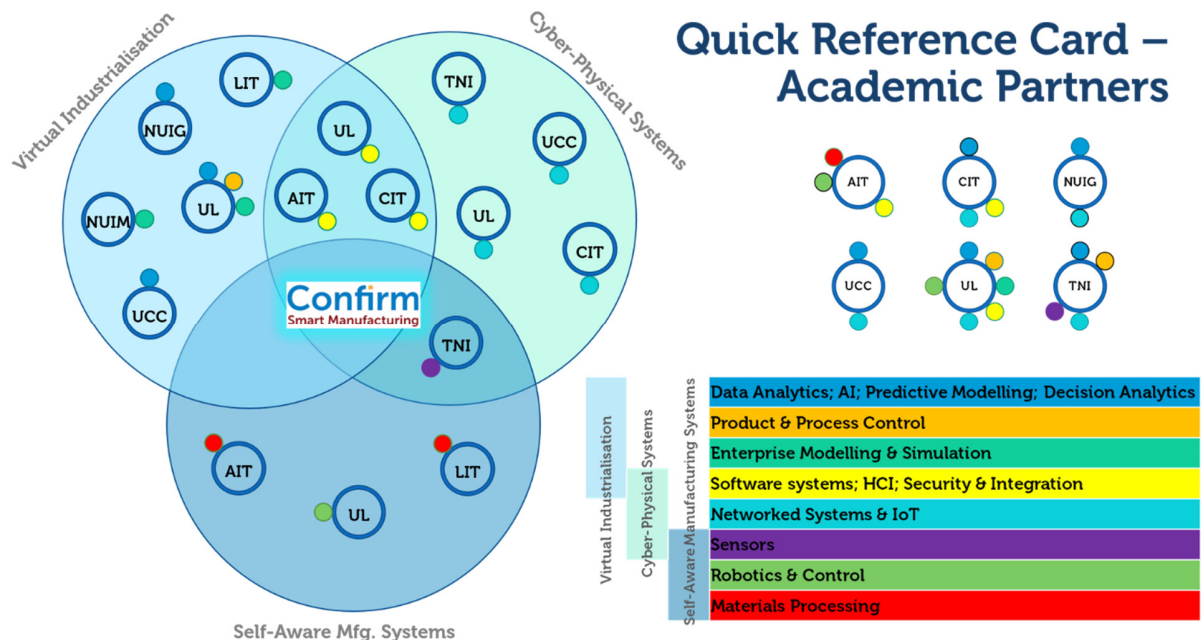


Figure 7: Quick reference card of CONFIRM Centre-affiliated RPOs and their key areas of interest and research competency.

SMART 4.0 – Guide for Applicants

A complete SMART 4.0 proposal submission is comprised of the following documentation, broken down into Part:

- A. APPLICANT INFORMATION:
 - i. General Applicant Information
 - ii. CV template
 - iii. References x2 (only)
- B. PROPOSAL:
 - i. Proposed Supervisory Team
 - ii. Core proposal
- C. ADMINISTRATIVE FORMS:
 - i. Motivation Statement
 - ii. Ethics Self-Assessment

All proposals must use the templates and online forms via the SMART 4.0 website. Other proposal formats or incomplete applications will **not** be accepted. Please see **§Appendix I – Navigating the SMART 4.0 online submission** system, for further guidance with respect to proposal preparation and documentation submission.

SMART 4.0 STRONGLY ADVISES ALL APPLICANTS TO SUBMIT AT LEAST 24 HOURS PRIOR TO CALL DEADLINE

6.2.1. Further Guidance and Terms

- The first part of the process requires registering interest (as per **Figure 6, [1]**); this is to ensure that the area of expertise and proposed fellowship path align with the fundamental themes of the CONFIRM Centre
- It is mandatory for the prospective Fellows to contact their proposed supervisor and to obtain their guidance during the proposal preparation stage. If you are unsure of which supervisor to contact (as per **Figure 7**) and for guidance on prospective industrial secondment partners, please defer to the SMART 4.0 team for support (smart_confirm@ul.ie)
- The main academic supervisor must be an investigator based at one (or more) of the 6 RPOs affiliated with CONFIRM Centre
- All supervisors must align with the principles of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers
- The host organisations for secondments must be involved in activities relevant to the proposed research, and with the capacity and infrastructure to train the researcher and support the research work. The secondment should significantly add to the impact of the Fellowship
- Short visits to international collaborators will also be encouraged if they fit with the developmental needs of the Fellow and/or research project. Short visits will be distinguished from "secondments" since they have a different nature and pursue different objectives. Any work done will be supervised directly by the Fellow's supervisor
- The proposal must be in English and contain all requested documentation
- Applications must be submitted through the dedicated SMART 4.0 website, except in cases where an applicant satisfies the 'Researchers at Risk' criteria

- The proposal must be received on or before the call deadline (**Call 3**: 30th April 2021, 17.00 IST)
- Only one application per applicant may be submitted per call (resubmissions for subsequent calls from unsuccessful applicants are encouraged)
- The proposals must adhere to the ethical standards applicable to MSCA. Researchers will be required to complete an Ethics Questionnaire to capture any potential ethics issue
- The proposal must address one or more of the CONFIRM Centre themes:
 - *Data Analytics; AI; Predictive Modelling; Decision Analytics*
 - *Product & Process Control*
 - *Enterprise Modelling & Simulation*
 - *Software systems; HCI; Security & Integration*
 - *Networked Systems & IoT*
 - *Sensors*
 - *Robotics & Control*
 - *Materials Processing*
- Additional guidance may be found in the dedicated **FAQ** document for applicants on the SMART 4.0 website (smart.confirm.ie)

6.2.2. ESR process – higher-resolution view

Eligibility check

All applicants will receive an acknowledgement of receipt of proposal submission. All submitted proposals will be checked for eligibility; those deemed ineligible will be notified via email. All eligible proposals will proceed to the next stage.

Phase 1 - Peer review and ethics screening

The expert reviewers who compose CONFIRM Centre's database are those experts who are in possession of a high-level and caliber of peer-reviewed publications, research funding, and applied for and obtained patents. Such reviewers will also have relevant knowledge in non-scientific areas that are relevant for the SMART 4.0 proposals, such as project management, innovation, exploitation, dissemination and communication. Using keywords indicated by the applicant and the abstract of the proposal, the expert reviewers will be allocated based on the match between the scientific expertise of the reviewer(s) and the topic of the proposal. All persons involved in the evaluation and selection process must also declare there is no conflict of interest. Insofar as possible, one reviewer from the non-academic sector and at least one member of either gender will be assigned to each Peer Review Panel.

Each eligible proposal will be matched with 3 remote expert peer reviewers who form the peer review panel for each application. Each reviewer will evaluate the proposal according to the evaluation criteria as discussed in §5.3.1. A score is given for each of the three evaluation criteria and an Evaluation Summary Report to be submitted. Consensus meetings will be called in the event of scoring disagreements.

SMART 4.0 – Guide for Applicants

All proposals where the applicant flagged ethical issues, as well as all proposals where ethical issues were flagged by the individual peer reviewers will be identified for review by the Research Ethics Committee in a subsequent stage only if the application is successful.

A provisional ranking list of all eligible proposals, in descending order of scores (see **Table 5**) will be prepared. The programme manager will inform all applicants of the results of the remote peer review and will (if applicable) notify the applicant of an ethical review to approve any ethical issues raised, before a final offer can be issued. All applicants receive notification of the Phase 1 outcome, in addition to a letter stating whether they are invited for the next stage.

Phase 2 – Remote Interview

The SMART 4.0 programme manager will organise an interview by a panel consisting of 3 persons. The interviews will take place via teleconferencing, Skype or similar.

IT IS THE CANDIDATES RESPONSIBILITY TO ENSURE THAT THE NECESSARY WEB/VIDEO CONFERENCE FACILITIES ARE AVAILABLE TO PARTICIPATE IN THE REMOTE INTERVIEW SESSION.

Each interview will last approx. 40 minutes with an additional 10 minutes for a presentation. The 3 panel members must endeavour to reach consensus on the interview score, which will be based on the evaluation criteria listed in **Table 4**. An HR representative will attend the interview and write the Interview Report, that indicates the score as well as strengths and weaknesses of the applicant and/or the proposal.

Funding decision (including Ethics review for successful applicants)

Once Phase 1 and Phase 2 are completed, the SMART 4.0 Programme Manager will prepare an ordered final ranking list, based on the outcomes of the independent peer review and the interview; those successful candidates via their ranking will be offered a fellowship and will be informed of such via email. The CONFIRM Centre Executive Committee will formalise this approval.

If the successful applicant or any of the individual peer reviewers have raised ethical issues during evaluation, the proposal will be sent to Research Ethical Committee to consider whether ethical issues in the applicant's project are adequately addressed and will provide a short statement to that effect. Proposals that are eligible will receive ethical clearance. Proposals with pending ethical issues will receive temporary ethical clearance to allow 2 further weeks to clear any outstanding issues. Proposals declared ineligible on ethical grounds will be excluded from further evaluation.

Two proposals per call will be placed on a reserve list - applicants will be informed via email. Finally, all other applicants will be informed that they will not be offered a Fellowship. All applicants will receive the full ESR report with the scores for all elements of the evaluation process (peer review and interview) and a narrative with strengths and weaknesses. This may help the applicants to improve their proposal for the second (and third) call (resubmissions are encouraged), or indeed for other funding schemes they may apply for.

Redress procedure

Applicants may commence the Redress procedure with regard to procedural issues or eligibility issues, not concerning perceived unjust scientific judgement of the peer review panel and/or interview panel. Applicants may start a Redress procedure after each ESR phase but must do so within 30 days of receiving feedback for their application. The request should be formalized via letter (max. 2 x A4 pages) and should be addressed to the SMART 4.0 Programme Manager, who will then forward the request to the Redress Committee. The Redress Committee will be composed of the SMART 4.0 Coordinator, the CONFIRM Centre Executive Committee who have the legal remit to oversee all research integrity issues, plus one external member with a background in research integrity. The Redress Committee will then convene to discuss the request within 2 weeks upon receipt. If the proposal is in the same scoring range as other proposals from that call which progressed phase, a new peer review/interview session will be arranged.

If the application should end up in the funding range, the applicant will be offered a Fellowship. If the application ends up in the non-funding range, the applicant will be informed thereof. If the request for redress is not accepted, the applicant will be informed thereof. Responses of the Redress Committee will be given in writing (letter sent by email) within 2 weeks of the meeting - decisions are binding.

6.3. Reference guide - common definitions

- **Associated Country** is a third country which is party to an international agreement with the Union, as identified in Article 7 of Regulation (EU) No 1290/2013
- **Non-associated Third Countries** are countries which are neither EU Member States, nor associated to Horizon 2020
- **‘Active in research’ means being employed or holding a scholarship in research.** Parental leaves and unpaid leaves of absence will not be counted as periods of active engagement in research, even if a formal employment relationship exists during these periods. Publication activities or mere association to a university (i.e. any other link to the university that is not considered as an employment contract or a Fellowship agreement) are also not taken into account
- **‘Family’** is defined as persons linked to the researcher (i) by marriage, or (ii) a relationship with equivalent status to a marriage recognised by the legislation of the country or region where this relationship was formalised; or (iii) as dependent children who are actually being maintained by the researcher. Therefore, a husband with no children still constitutes a ‘family’ in this case. Family status of a researcher will be determined at the time of application and will not be revised during the lifetime of the fellowship. SFI may request official documentation to support family allowance claims (self-statements are not be considered as legitimate proof).
- **Full-Time Equivalent Research Experience** is measured from the date when a researcher obtained the degree entitling him/her to embark on a doctorate (either in the country in which the degree was obtained or in the country in which the researcher is recruited), even if a doctorate was never started or envisaged
- **Long-term residence** means a period of legal and continuous residence within one or more EU Member States or Horizon 2020 Associated Countries of at least 5 consecutive years. Periods of

SMART 4.0 – Guide for Applicants

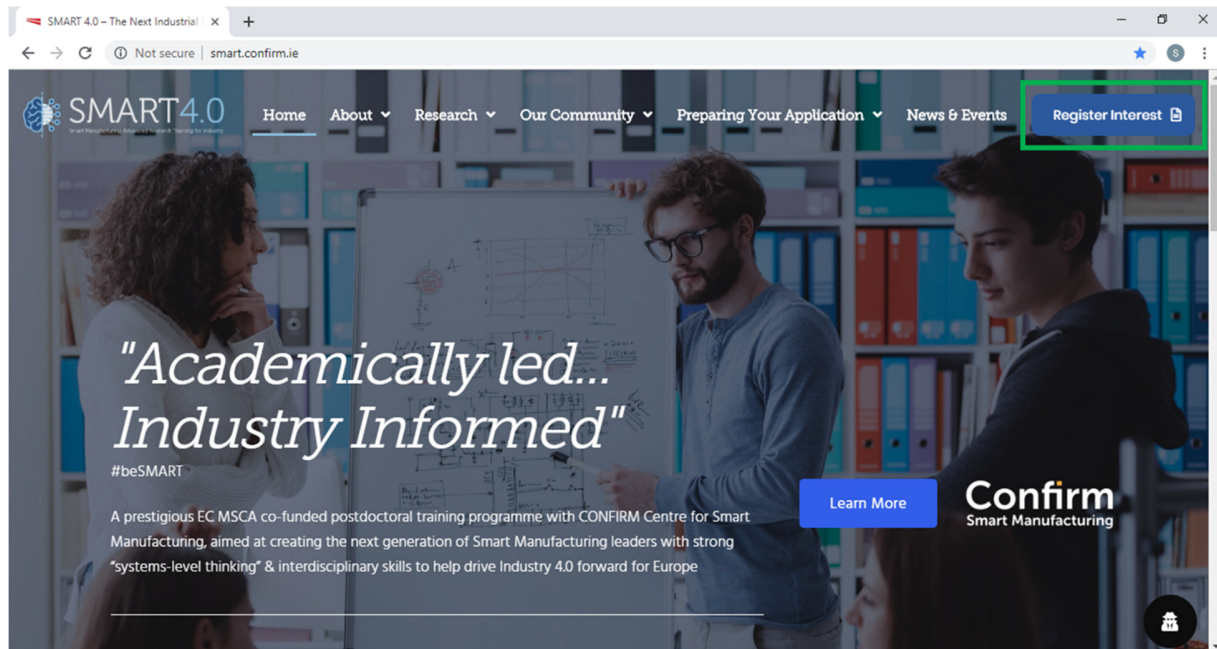
absence from the territory of the Member State or Horizon 2020 Associated Country shall be taken into account for the calculation of this period where they are shorter than 6 consecutive months and do not exceed in total ten months within this period of five years

- For further definitions, please defer to the **europa.eu** website⁹

⁹ <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/support/glossary>

Appendix I – Navigating the SMART 4.0 online submission system

As per **Figure 6**, the first step for applicants is to register interest **[1]**. Please select the link (in green) as shown in the image below and complete the online form.



Register Interest

SMART 4.0

ABOUT US GUIDE FOR APPLICANTS

First Name
Please enter your first name

Last Name
Please enter your surname

Email
Please enter a valid email address for future correspondences

Application Type
Please refer to the 'Guide for Applicants', §5.1 for guidance

Select One

Areas of Expertise/Interest
(select all that apply)

☐ Data Analytics; AI; Predictive Modelling; Decision Analytics ☐ Product & Process Control

☐ Enterprise Modelling & Simulation ☐ Software systems; HCI; Security & Integration

☐ Networked Systems & IoT ☐ Sensors ☐ Robotics & Control ☐ Materials Processing

ORCID
If applicable, please enter your ORCID

Researcher - Deep Dive
Please provide further details regarding ... (max 250 words).
Previous research experience/qualifications · Research areas of focus/interest · Number of publications/patents, current h-index · Previous awards (academic, funding) · Previous industry experience

I have read and understood the privacy policy

☐ I agree

[Privacy Policy](#)

Submit Form

Once a suitability assessment is complete **[2]**, access will be granted to the online submission system via email and a dedicated password. **Access to the online submission system is only granted once the applicant has registered interest.**

SMART 4.0 – Guide for Applicants

All templates will be provided within the online submission system. Please save down the templates and personalize them for traceability, e.g. change 'Motivation Statement – Template.docx' to 'Motivation Statement – **Your Name.docx**'. Once all forms are submitted as per point [5] in **Figure 6**, an email will be sent to notify the applicant their submission was received successfully. For further guidance on the required documentation, please see the subsequent Appendices.

Appendix II – SMART 4.0 Submission General Information

SMART4.0
Smart Manufacturing Advanced Research Training for Industry

Home About Research Our Community Preparing Your Application News & Events Register Interest

Protected: Post-Doctoral Fellowships Application

Documentation Required - Templates

CLOSING DATE: 31/12/19

Applicants must submit the following documentation – please refer to 'Guide for Applicants – SMART 4.0' for guidance

Apply for this position

Applicant Full Name *

Email *

Phone *

Applicant Profile Photo

Choose File No file chosen
Allowed Type(s): .jpg, .png

Proposed project title and acronym (if applicable) *

Appendix Iii – SMART 4.0 Submission **Part A**

Part A – Applicant Information

1 General Applicant Information

Download Template here.

Download

2 CV Template

Download Template here.

Download

3 References

Please upload 2 supporting references ONLY.

Part A1 - General Applicant Information *

Choose File No file chosen

Part A2 - CV Template *

Choose File No file chosen

Part A3: Referee 1 - Name:

Referee 1 - Organisation: *

Referee 1 - Email: *

Referee 1 - Phone number: *

Referee 1 - Explain their relationship to you *

Referee 1 - Upload reference *

Choose File No file chosen

Referee 2 - Name: *

Referee 2 - Organisation: *

Referee 2 - Email: *

Referee 2 - Phone number: *

Referee 2 - Explain their relationship to you *

Referee 2 - Upload reference *

Choose File No file chosen

SMART 4.0 – Guide for Applicants

Appendix Iiii – SMART 4.0 Submission Part B

Part B – Proposal

1 Proposed Supervisory Team

Download Template here.

Download

2 Core proposal

Download Template here.

Download

Part B1 - Proposed Supervisory Team *

Choose File No file chosen

Proposal Abstract: Short summary (max. 2,000 characters, with spaces) *

Keywords (e.g. Robotics, IoT, Sensors, VR, etc.) *

Part B2 - Core Proposal *

Choose File No file chosen

Appendix Iiv – SMART 4.0 Submission Part C

Part C – Administrative Forms

1 Motivation Statement

Download Template here.

Download

2 Ethics Self-Assessment

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Part C1 - Motivation Statement *

Choose File No file chosen

Part C2 - Ethics Self-Assessment *

Choose File No file chosen

In the event of an ethical concern, please upload the relevant ethical information as per the directions in the 'Ethics Self-Assessment' form

Choose File No file chosen

In the event of no ethical concerns, please select "No" *

☐ No

☐ As part of GDPR compliance, click to agree to the terms of our privacy policy *

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