Seed Programme Guidelines

This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement #101016888. This result only reflects the author's view and the EU is not responsible for any use that may be made of the information it contains.

SMART-ER Institutions

- University of Twente (UT)
- Aalborg University (AAU)
- Dublin City University (DCU)
- Kaunas University of Technology (KTU)
- Linköping University (LiU)
- Tampere University (TAU)
- Hamburg University of Technology (TUHH)
- Universidade de Aveiro (UAVR)
- Universitat Autonoma de Barcelona (UAB)
- University of Stavanger (UiS)
- Università degli Studi di Trento (UNITN)
- Institut National des Sciences Appliquées (INSA)

Table of Contents

List of tables

Symbols, abbreviations and acronyms

AAU	Aalborg University
CR	Consensus Report
D	Deliverable
DC	Dublin City University
EC	European Commission
ECIU	European Consortium of Innovative Universities
ECIU University	EU-funded initiative of the alliance of 12 universities in the ECIU
IER	Individual Evaluation Report
INSA	Institut National des Sciences Appliquées
IPR	Intellectual Property Rights
KTU	Kaunas University of Technology
LiU	Linköping University
M	Month
MS	Milestone
SPA	Strategic Pilot Action
SDG	Sustainable Development Goal
TAU	Tampere University
TUHH	Hamburg University of Technology
UAB	Universitat Autonoma de Barcelona
UAVR	Universidade de Aveiro
UiS	University of Stavanger
UNITN	Università degli Studi di Trento
UT	University of Twente
VRI	Virtual Research Institute
WP	Work Package

1 SMART-ER Seed Programme

ECIU University Research Institute for Smart European Regions (SMART-ER) aims at implementing strategies for capacity building among the 12 ECIU University member institutions (University of Twente, Aalborg University, Dublin City University, Kaunas University of Technology, Linköping University, Tampere University, Hamburg University of Technology, Universidade de Aveiro, Universitat Autonoma de Barcelona, University of Stavanger, Università degli Studi di Trento, Institut National des Sciences Appliquées).

Highly qualified human resources are fundamental to the development of a knowledge-based society and of an innovative Europe. Emphasizing mobility, blended mobility and training is one of the crucial strategies of the Virtual Research Institute (VRI) SMART-ER. Meeting grand societal challenges requires creative, entrepreneurial, and innovative researchers able to face current and future challenges and to convert knowledge and ideas into products and services for economic and social benefit. An innovative programme aimed at promoting international, interdisciplinary and intersectoral collaboration combined with training programmes for upskilling doctoral students and researchers including options for further development in non-academic settings will be fundamental to strengthen human capital.

The SMART-ER Seed Programme, in conjunction with the SMART-ER Academy and several other initiatives developed within ECIU promoting Citizen Science and Public Engagement, supports research career development and the implementation of a shared research and innovation (R&I) agenda[1] through the training, mobility and engagement in international, cross-disciplinary and intersectoral collaboration of ECIU University doctoral students and researchers focused on the UN Sustainable Development Goal 11 (SDG) - Make cities and human settlements inclusive, safe, resilient and sustainable.

In the scope of the SDG 11, the SMART-ER Co-Created R&I Agenda[2] identifies four research areas of particular importance - **resilient communities, mobility and transportation, circular economy and energy and sustainability**, following the ECIU aims for a joint long-term research strategy on smart regions.[3]

By implementing this programme the SMART-ER expects to:

- Contribute to UN SDG11 through the implementation of research and innovation projects, focusing on four research areas: **resilient communities, mobility and transportation, circular economy and energy and sustainability**
- Increase a set of skills, both research-related and transferable ones, leading to improved employability and career prospects both in and outside ECIU University
- Boost R&I capacity among participating organisations and increase higher impact R&I output contributing to Europe's competitiveness and growth
- Enhance cooperation and transfer of knowledge within members of the ECIU University and its stakeholders
- Improve the quality and the internationalisation of training programmes and supervision arrangements through the implementation of new joint supervision agreements and involvement in the challenges defined under the ECIU University
- Create new networks, international research groups and enhance the quality of existing ones, strengthening international and intersectoral collaboration
- Increase internationalisation of participating organisations
- Increase international, interdisciplinary and intersectoral mobility of ECIU University doctoral students and researchers

[1] Deliverable 1.2 – SMART-ER Co-Created R&I Agenda
[2] Deliverable 1.2 – SMART-ER Co-Created R&I Agenda
[3] ECIU long term joint research strategy - https://media.dcu.ie/media/ECIUsummary/

- Increase societal and economic relevance of ECIU.

To achieve the above-mentioned objectives three different type of **Strategic Pilot Actions (SPA)** with specific objectives shall be implemented as described within the following sub-topics.

1.1 SPA1 - Promote joint supervision: co-tutelle of doctoral students and industrial doctorates

Objective: This action aims to promote an increasing new generation of creative, entrepreneurial and innovative ECIU early-stage researchers, able to face current and future societal challenges.

Scope: The SMART-ER supports the **initiation, preparation and establishment of joint supervision agreements**, namely **co-tutelle of doctoral students** and **joint supervision under industrial doctorates** involving different ECIU institutions and aiming to contribute to UN SDG11, within the research areas of **resilient communities, mobility and transportation, circular economy and energy and sustainability.**

The research gaps identified in the scope of the SMART-ER co-created R&I agenda [4] for each of the four research areas may be consulted by the applicants as inspirational research topics for the proposals to be submitted (appendix 1). Nevertheless, there is no impediment to address any other topic(s) within the above mentioned four research areas.

Each action will have a clearly identified work plan to undertake all the necessary measures to establish a co-tutelle agreement or an industrial doctorate agreement with the objective of promoting future international and intersectoral collaboration, sharing of knowledge and networking activities.

Whenever possible, the agreements to be established under this call should improve future training of doctoral students on transferable skills available under SMART-ER Academy programme (https://www.eciu.org/smart-er-for-researchers#smart-er-academy).

The SMART-ER will support either the strengthening of existing collaborations or the establishment of new contacts and collaborations, by means of short visits, *in loco* or virtual meetings or any other relevant activities until the establishment of the agreements.

The agreement resulting from the action must include the work plan for the entire duration or the remaining part of doctoral studies to be carry out after the signature of the agreement.

The joint supervision of the doctoral student enrolled or to be enrolled in an industrial doctorate must be ensured by at least two supervisors from different institutions of the ECIU University and one supervisor from the non-academic sector.

To facilitate the partner's search between institutions, a list of potential supervisors per research area, interested in engaging in co-tutelle or industrial doctorate agreements, is available in the appendix 2. The collaborations are not limited to this list, by any means, which may be updated during the call.

[4] Deliverable 1.2 – SMART-ER Co-Created R&I Agenda

Conditions of the calls

Opening date(s), deadline(s) (appendix 3):

Call 1

Opening: 15/01/2022

Closure: 18/03/2022; 11:59 p.m. (CET)

Call 2

Opening: 01/05/2022

Closure: 01/07/2022; 11:59 p.m. (CET)

Indicative timetable for completion of the evaluation process and communication of final results:

Maximum 2 months from the final date for submission

Eligibility and admissibility conditions:

Co-tutelle agreements for joint supervision of doctoral students: at least two academic institutions of the ECIU University.

Industrial doctorates agreements: at least two academic institutions of the ECIU University and one non-academic institution located in one of the countries of the academic institutions.

Only SMART-ER institutions are eligible to coordinate a proposal and eligible for funding.

Academic institutions outside ECIU consortium are not eligible.

The home institution of the doctoral student has the role of coordinator of the action.

The Main Supervisor must be affiliated to the coordinator institution and have a doctoral degree.

Applications are made jointly by the doctoral student and the supervisors and are submitted by the doctoral student or the supervisor from the home institution.

A doctoral student cannot be involved in more than one proposal in the same call and in more than one agreement.

Doctoral students in the last year of the doctoral studies are not eligible to submit a proposal.

Duration and start date of the action

The duration of the action is expected to be between 8 and 12 months and will start in the first working day immediately after the communication of the funding decision to the applicants.

Eligible costs:

The following type of costs is eligible under this type of action:

- Travel & subsistence costs of doctoral students and supervisors from the involved institutions

Non- eligible costs:

All type of costs that are not identified as eligible costs.

Maximum grant per action:

The maximum grant per action is 5.000€.

Funding scheme:

The funding scheme applicable to the action is the lump sum.

Additional information regarding funding procedures is available in section 7.

Proposal submission:

Proposals must be submitted by the doctoral student or by the supervisor of the coordinator institution, using the application form available at **https://www.eciu.org/for-researchers/funds/co-tutelle-of-phd-students-and-industrial-doctorates** before the call deadline.

The proposal, in pdf format, must be sent by e-mail to smarter_seed@ua.pt.

1.2 SPA2 - Blended mobility to create networks

Objective: This call promotes inter-institutional collaboration through blended exchanging of research and innovation SMART-ER staff to create new networks or leverage existing networks aimed at contributing to UN SDG 11.

Scope: The network involves researchers from the different SMART-ER academic institutions.

Support is provided for the development of networks on the basis of a joint research and innovation plan, including, but not limited to, the **submission of future collaborative proposals to other European funding programmes** with the objective of providing answers to city regions challenges. This is aimed at knowledge sharing via blended mobility, based on short secondments of research and innovation staff combined with activities taking place synchronously with peers in a virtual environment, or any other which better suits the purposes of the collaboration.

This action should motivate the exploitation of complementary competences of the participating researchers, as well as other synergies, internal or external training in **transferable skills** (including SMART-ER Academy (https://www.eciu.org/smart-er-for-researchers#smart-er-academy), enable networking activities to facilitate **sharing of knowledge and collaborative research activities**, promote and increase the concept of **citizen science** in research and innovation activities, develop communication and dissemination events and activities aiming to reinforce the recognition and **impact of the ECIU University** among its communities and different stakeholders.

This action adopts a bottom-up approach designed in the scope of the four research areas: **resilient communities, mobility and transportation, circular economy and energy and sustainability**.

The research gaps identified in the scope of the SMART-ER co-created R&I agenda[5] for each of the four research areas may be consulted by the applicants as inspirational research topics for the proposals to be submitted (appendix 1). Nevertheless, there is no impediment to address any other topic(s) within the above mentioned four research areas.

The participation of **non-academic stakeholders** is highly encouraged.

Networks may integrate researchers from **all career stages**.

Conditions of the calls

Opening date(s), deadline(s) (appendix 3):

Call 1

Opening: 15/01/2022

Closure: 18/03/2022; 11:59 p.m. (CET)

Call 2

Opening: 01/05/2022

Closure: 01/07/2022; 11:59 p.m. (CET)

Indicative timetable for completion of the evaluation process and communication of final results:

Maximum 2 months from the final date for submission

Eligibility and admissibility conditions:

Each proposal must involve researchers affiliated to a minimum of four (4) SMART-ER institutions.

Only SMART-ER institutions are eligible to coordinate a proposal and eligible for funding.

The Principal Investigator must be affiliated to the coordinator institution and have a doctoral degree.

Academic institutions outside ECIU consortium are not eligible.

Duration and start of the action

The maximum duration of the action is 12 months and will start in the first working day immediately after the communication of the funding decision to the applicants.

Eligible costs:

The following type of costs is eligible under this type of action:

- Travel & subsistence costs

[5] Deliverable 1.2 – SMART-ER Co-Created R&I Agenda

- Consumables up to 10% of the total budget
- Training courses fees
- Conference fees
- Events organization (goods & services)

Non-eligible costs:

All type of costs that are not identified as eligible costs.

Maximum grant per action:

The maximum grant per action is 25.000€.

Funding scheme:

The funding scheme applicable to the action is the lump sum.

Additional information regarding funding procedures is available in section 7.

Proposal submission:

Proposals must be submitted by the coordinator, using the application form available at **https://www.eciu.org/for-researchers/funds/blended-mobility-to-create-networks** before the call deadline.

The proposal, in pdf format, must be sent by e-mail to smarter_seed@ua.pt.

1.3 SPA3 - SMART-ER Seed Projects

Objective: This call promotes high-quality research outputs within SMART-ER through the funding of inter-institutional and intersectoral research and innovation seed projects directly linked to the SDG11 challenges defined under ECIU University.

Scope: The seed project involves researchers from the different SMART-ER academic institutions and, where applicable, other relevant stakeholders outside academia.

Support is provided for the development of research and innovation activities aimed at resolving the **challenges defined under ECIU University**: https://challenges.eciu.org/ or **any other challenge identified by any citizen, group of citizens or external entity of any region of the SMART-ER academic institutions**, contributing to **SDG 11** and to the implementation of the **challenge-based research strategy** in ECIU University by "doing research with partners in society, using the grand challenges they face in reality as point of departure, with the objective of arriving at solutions to these challenges"[6].

This call should motivate the exploitation of complementary competences of the participating researchers and of other relevant stakeholders outside academia, necessary to answer to the SDG11 challenges defined under

[6] Erasmus+ project – Deliverable 2.5 - Challenge-Based Research in ECIU University - Towards a sustainable joint strategy.

ECIU University, or others identified in the proposals, through the design and implementation of collaborative research and innovation activities.

The participation of **non-academic stakeholders** is highly encouraged.

The consortium may integrate researchers from **all career stages**.

Conditions of the calls

Opening date(s), deadline(s) (appendix 3):

Call 1

Opening: 15/01/2022

Closure: 18/03/2022, 11:59 p.m. (CET)

Call 2

Opening: 01/05/2021

Closure: 01/07/2022; 11:59 p.m. (CET)

Indicative timetable for completion of the evaluation process and communication of final results:

Maximum 2 months from the final date for submission

Eligibility and admissibility conditions:

Each proposal must involve researchers affiliated to a minimum of three (3) SMART-ER institutions.

Only SMART-ER institutions are eligible to coordinate a proposal and eligible for funding.

The Principal Investigator must be affiliated to the coordinator institution and have a doctoral degree.

Academic institutions outside ECIU consortium are not eligible.

Duration and start of the action

The action should have a duration of 6 to 12 months and will start in the first working day immediately after the communication of the funding decision to the applicants.

Eligible costs:

The following type of costs is eligible under this type of action:

- Travel & subsistence costs
- Consumables
- Small equipment (max. 10% of the total budget)

- Events organization
- Conference fees
- Open science related costs
- Other goods and services

Non- eligible costs:

All type of costs that are not identified as eligible costs.

Maximum grant per action:

The maximum grant per action is 50.000€.

Additional information regarding funding procedures is available in section 7.

Funding scheme:

The funding scheme applicable to the action is the lump sum.

Proposal submission:

Proposals must be submitted by the coordinator, using the application form available at **https://www.eciu.org/for-researchers/funds/smart-er-seed-projects** before the call deadline.

The proposal, in pdf format, must be sent by e-mail to smarter_seed@ua.pt.

2 The application process

2.1 Proposal preparation

Proposal language

All proposals will have to be prepared and submitted in the English language. Proposals prepared in another language will not be taken into consideration.

Proposal contents

Any proposal should at least contain the following information:

Administrative Data:

- Basic contact data of the project partners and Principal Investigator / Main Supervisor
- Full title of the proposal
- Acronym of the proposal
- Identification/description of the challenge (where applicable)

- Summary
- Targeted research area
- Project duration

Description of the proposal

The proposal template provides an elaborate overview of sections that need to be present in the proposal for it to be considered. The following sections as described in the proposal templates will serve as the primary evaluation criteria:

SPA 1:

1) Excellence (max. 1 Pages)
2) Impact (max. 1 Pages)
3) Implementation (max. 1 Pages)
4) Budget estimation (max. 1/2 page)
5) Researchers profiles (max. 1 page per institution)
6) Annexes (letter of commitment per institution)

SPA 2 & SPA3

7) Excellence (max. 2 Pages)
8) Impact (max. 2 Pages)
9) Implementation (max. 2 Pages)
10) Budget estimation (max. 1 page)
11) Researchers profiles (max. 1 page per institution)
12) Annexes (letter of commitment per institution)

2.2 Proposal submission

The proposal template per each SPA are available at https://www.eciu.org/smart-er-for-researchers#research-funding for download (appendix 4).

Eligible proposals are to be submitted via e-mail, in pdf format, to smarter_seed@ua.pt.

Shortly after proposal submission, an acknowledgment of receipt will be sent to the applicant's email address. This acknowledgment of receipt does not imply that the proposal has been accepted as eligible for evaluation. During the course of the project, an online survey for pilot assessment purposes may be conducted among all applicants.

3 Total budget

The total amount shall be distributed between the approved proposals and the evaluation process, by supporting the expert's activities.

The budget approved per type of action and activity is presented in the sub-section 3.1.

If the budget allocated to any of the actions or activities exceeds the requirements of all proposals positively evaluated in one call and estimated evaluation reports, the excess budget will be reallocated to other calls and or activities with the approval of the Leader of WP3 of the SMART-ER project. Equally, if the allocated funding to a call is insufficient to fund the highest ranked proposals, the necessary budget will be transferred from other call(s), in order to ensure that the highest ranked proposals can be funded, if the necessary funds are available.

3.1 Budget distribution

The total budget allocated to the SMART-ER Seed Programme shall be distributed according to the table 1.

Table 1: Budget distribution per type of action and calls

Type of action	Call 1 (EUR)		Call 2 (EUR)	
	Proposals funding	Evaluation process	Proposals funding	Evaluation process
Promote joint supervision: co-tutelle of doctoral and industrial doctorates	10 000	1 500	15 000	1 500
Blended mobility to create networks	50 000	1 500	50 000	1 500
SMART-ER Seed Projects	150 000	1 500	100 000	1 500

4 Evaluation process

Proposals will be evaluated by experts, on the basis of the award criteria 'excellence' 'impact' and 'implementation'.

The aspects to be considered in each case depend on the type of action.

Evaluation scores will be awarded for each of the criterion. Each criterion will be scored from 1 to 5. Scores with a resolution of one decimal place may be awarded.

If necessary, the panel will determine a priority order for proposals which have been awarded the same score within a ranked list. When the total scores are equal, priority will be based on the criteria detailed in the tables below.

4.1 Award criteria, scores and weighting

Table 2: Award criteria, scores and weighting of the SPA1

Promote joint supervision: co-tutelle of doctoral students and industrial doctorates		
Excellence	**Impact**	**Implementation**
Quality of the plan (including related inter/multidisciplinary, intersectoral and, where appropriate IPR aspects) **Quality of the supervision** (including expertise and previous experience of the supervisors)	Expected impact in the **career prospects** of the doctoral student and contribution to her/his **skills** development	**Appropriateness of the procedures**, including risk management Appropriateness and complementarity of the **host conditions**
30%	**40%**	**30%**
Weighting		
2	**1**	**3**
Priority in case of *ex aequo*		
In case of ex *aequo* for individual criteria, gender dimension shall be considered. Priority shall be given to the proposals involving female doctoral students		

Table 3: Award criteria, scores and weighting of the SPA2

Blended mobility to create networks		
Excellence	**Impact**	**Implementation**
Quality and credibility of the proposed work plan; including inter/multidisciplinary, intersectoral engagement of citizens, civil society and end users, gender and ethics aspects **Quality and appropriateness of knowledge sharing** among the participating organisations, including applicable IPR aspects	**Developing new and lasting research collaborations** between participating organisations and contribution to improving research and innovation potential at ECIU University Quality of the proposed measures to **disseminate and communicate** the results of the action and to promote the recognition and impact of the ECIU University	**Appropriateness of the management procedures**, including risk management **Appropriateness of the institutional environment** (hosting arrangements, infrastructure)

30%	**40%**	**30%**
Weighting		
The proposals with the highest number of ECIU Institutions involved shall have priority in case of *ex aequo* In case of *ex aequo* for the number of institutions involved, gender dimension shall be considered. Priority shall be given to the proposals with the highest number of female research staff		

Table 4: Award criteria, scores and weighting of the SPA3

SMART-ER Seed Projects		
Excellence	**Impact**	**Implementation**
Quality of the proposed research and innovation plan **Clarity and pertinence of the objectives** Appropriate consideration of interdisciplinary approaches, **use of stakeholder knowledge and, where applicable, engagement of citizens, civil society and end users, IPR and ethics issues and gender dimension** in research and innovation content	The extent to which the outputs of the project would contribute to each of the expected impacts of the challenge and beyond Quality of the proposed measures to **disseminate and communicate** the results of the action	Quality and **effectiveness of the workplan,** including extent to which it is in line with their objectives Consideration of potential risks and quality of contingency plans Complementarity of the participants
30%	**40%**	**30%**
Weighting		
The proposals with the higher number of ECIU Institutions involved shall have priority in case of *ex aequo* In case of *ex aequo* for the number of institutions involved, gender dimension shall be considered. Priority shall be given to the proposals with the highest number of female research staff		

4.2 Evaluation procedures

Proposals will be evaluated by one of the four evaluation panels: one per each research area.

Each panel is composed of three (3) experts from different SMART-ER institutions. Each panel shall be composed by one Coordinator and two other experts of the research area (appendix 5).

A reserve list of experts will be constituted in order to solve any difficulties resulting from conflict of interests by the panel members (appendix 5).

If necessary, the panel members may request the intervention of external experts pertaining to the reserve list during the evaluation process.

A general consultation to all ECIU institutions took place and the panels composition is based on the indications sent by institutions.

Efforts must be made to guarantee the gender balance in the different panels.

All panel members should be affiliated to different ECIU institutions.

Each panel establishes a ranked list based on the final score at or above 12.

Proposals will not be evaluated anonymously.

Proposals may be evaluated remotely.

Scores:

Experts score each award criterion on a scale from 1 to 5:

1 – Poor. The criterion is inadequately addressed or there are serious inherent weaknesses.

2 – Fair. The proposal broadly addresses the criterion, but there are significant weaknesses.

3 – Good. The proposal addresses the criterion well, but a number of shortcomings are present.

4 – Very good. The proposal addresses the criterion very well, but a small number of shortcomings are present.

5 – Excellent. The proposal successfully addresses all relevant aspects of the criterion. Any shortcomings are minor.

4.3 Evaluation process and timeline

The evaluation process is composed by the following stages:

Phase 1: Eligibility check

Basic eligibility evaluation according to the eligibility criteria stated in sections 1 and 2 will be conducted by UAVR, as leader of the task 3.3, within 3 working days after deadline.

The UAVR will inform the candidates if the proposals were considered eligible or non-eligible and will give the latter 10 working days for preliminary hearing.

The UAVR will reply the candidates in 5 working days.

Phase 2: Individual review process

The UAVR will ensure that panel members are independent from the research groups in which the research teams are involved. If the proposal integrates a team(s) affiliated to the same institution(s) of one or more of the panel members, a declaration of conflict of interests will be requested to those panel members (appendix 6).

Each proposal will be reviewed by 3 independent experts.

Experts work individually. Each expert gives a score for each criterion, with explanatory comments, and prepares an individual evaluation report (appendix 7).

Each expert will rank the application by a score from 1 to 5 for each criterion (see section 4.2), administered in an Individual Evaluation Report (IER). The final score for each criterion, by applying weightings, and for the whole application will be calculated as the sum of the individual assessments provided by the Evaluators. The default threshold for individual criteria (Excellence, Impact and Implementation) is 3. The default overall threshold (the weighted sum of the three individual scores) is 12.

Phase 3: Consensus group

All IER will be combined and discussed at a consensus meeting where all reviewers will be present to agree on a common position, including comments and scores.

The outcome of the evaluation will be a ranked list of all proposals, combined of lists presented by each of the four evaluation panels, based on the scores obtained by each proposal and the final discussions of the reviewers at the consensus meeting.

If the panel considers it necessary it may be requested the intervention of external experts pertaining to the reserve list mentioned in section 4.2.

After reception of the proposals, the experts will have 10 working days to send the IER and the Consensus Report (CR) (appendix 8) to UAVR, by email to smarter_seed@ua.pt.

Phase 4: Ranking and communication of results

The highest-ranked proposals per type of action are selected based on their ranking up to the limit of the budget availability as defined in the section 3.

The UAVR will communicate the results of the evaluation process to all candidates within 5 working days after reception of the CR as well as the SMART-ER Administrative Project Manager, at University of Twente, in order to proceed with total approved funding transfers to beneficiaries' institutions as established in section 7.

If an applicant believes that the selection procedure includes any procedural irregularity, factual error, manifest error of assessment or misuse of powers, a complaint may be submitted, following the deadlines and procedures stated in the communication of the results.

In case of a re-evaluation, it will be done on the application as initially submitted and no additional information will be admissible. The re-evaluation will be limited to the criteria affected.

5 Support to applicants

For further assistance, information and questions regarding the different calls, applicants may contact the Support Team of UAVR, through the email smarter_seed@ua.pt.

6 Project management and communication rules

All the approved proposals must be implemented in accordance with the workplans, the SMART-ER Seed Programme regulations and applicable rules in each institution.

The Principal Investigator must submit a final technical report within 30 days after the end of the action (appendix 9).

The technical reports will be submitted by email, in pdf format, to the Support Team of UAVR, through the email smarter_seed@ua.pt.

The final results will be presented by the research teams during the joint events to be organized in the end of the SMART-ER project with this purpose.

All results and dissemination materials must acknowledge the funding received by SMART-ER:

"This project has received funding from the SMART-ER project, funded by the European Union's Horizon 2020 research and innovation programme under Grant Agreement #101016888."

The partner institutions must — for a period of five years after the end of the SMART-ER project at 31/01/2023 — keep adequate records and other supporting documentation to prove the proper implementation of the actions.

The partner institutions do not need to keep record about the costs actually incurred for implementing the action.

7 Funding procedures

The SMART-ER Coordinator Institution will transfer the funds to all beneficiaries' institutions, according to the received information from UAVR related with the proposals recommended for funding and the financial compensation for evaluators located at the institution.

The funds mentioned above will be transferred twice a year, in May and in September, in the total approved amount per institution in each call.

Each institution transfers the funds to each of the panel members involved in the evaluation process, according to its internal normal practices.

Each institution must make the funds available to its researchers since the starting date of each action.

Each researcher and research team use the funds in accordance with the SMART-ER regulations and applicable national and local practices and legislation.

All supporting documents must be kept by five years after the end of the SMART-ER project.

8 Data Protection Policy

The submission of the proposals under the different calls requires the provision of personal data by the experts and applicants, namely the name, title, affiliation, gender, career stage, contacts and research identifier.

The personal data provided by the applicants will be kept on file by the Research Support Office of the University of Aveiro, headquartered at Campus de Santiago, 3810-193 Aveiro, Portugal, the responsible for processing it. This data collection aims at support the evaluation process, financial and management procedures of the funded projects and the impact assessment of the implementation of the SMART-ER Seed Programme due in the scope of the H2020 funding of the SMART-ER project. The conclusion of these activities will imply the transfer of the collected data to the SMART-ER institutions involved in each of the activities and proposals and, upon request, to the European Commission.

The operations for processing the personal data previously indicated are based on the pre-contractual relationship established, supported by GDPR, which consists of managing the received proposals, managing the evaluation process of the eligible proposals by the experts panels, contact the researchers and host institutions about the results, inform the management structure of the SMART-ER regarding funded projects and beneficiary institutions to support the transfer of the due funding amounts and to collect the necessary data to assess the impact of the programme and report to the European Commission.

The data provided for the purposes indicated above will be kept for five years after the end of the SMART-ER project.

By means of a written communication to be sent to the UAVR address indicated in the second paragraph above, unless any of the restrictions provided for in the applicable legislation apply, the researcher and subject

data may exercise the rights of access to his/her personal data, as well as its rectification. Any request to erasure or limit the data processing in any stage of the process will be subject to a careful analyses and may imply to immediate closure of the process and or the reimbursement of received funds.

For any additional information, clarification or request regarding the above paragraphs contact the Research Support Office of the University of Aveiro through the email account research@ua.pt.

The UAVR has a Data Protection Officer (DPO), who ensures compliance of the treatment of personal data with current legislation, and can be contacted at the following e mail address: epd@ua.pt .

9 Bibliography

ECIU University 2030 - https://www.eciu.org/news/eciu-university-2030-connects-u-for-life

Deliverable 1.2 – SMART-ER Co-Created R&I Agenda

ECIU long term joint research strategy - https://media.dcu.ie/media/ECIUsummary/

Erasmus+ project – Deliverable 2.5 - Challenge-Based Research in ECIU University - Towards a sustainable joint strategy.

The SMART-ER project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement # 101016888. This result only reflects the author's view and the EU is not responsible for any use that may be made of the information it contains.

10 Appendix 1

1. **Research gaps under resilient communities' research area**

2. **Research gaps under mobility and transportation research area.**

3. Research gaps under energy and sustainability research area.

ENERGY SUSTAINABILITY

-Climate-resilient energy sector

-Encouragement to the producers to decrease the virgin raw materials consumption

-Renewable sources of energy & integration of renewables in the energy system

-Decarbonization of the power sector toward net-zero emission by 2020

-Whole life cycle analysis.

-The role of civil society and social movements in energy transitions

-Social sustainability in the logistic sector and resource depletion for manufacturing processes

-Citizen engagement targeting bringing the public on as a champion of research in this area to help "motivate" political policy

-Embodied energy of products

-Smart design of optimal and reliable energy systems

-Reliability and Safety Study of Energy Systems

-international provision chains for renewable energies

-Energy storage

-transformative innovation perspectives

-Resilient any-scenario communication networks

4. Research gaps under circular economy research area.

CIRCULAR ECONOMY

-Reuse (and recycling) of challenging waste fractions, such as multimaterials/composites and critical materials in European context

-Development of biological, thermal, physical and chemical technologies for resource recovery.

-Investigate the impact of consumer behavioral change on the environmental, economic, and social aspects of a product's life-cycle.

-Circular oriented innovation

-Disassembling of product at end of life for component reusage

-Development of products for circular economy

-Effects of legislation and business models on circular economy solutions and the drivers and barriers regarding legislation at national and EU level.

-Materials, such as Polymers, Construction materials and critical raw materials

-Acceptance of different solutions, e.g. markets for nutrient products recovered from waste streams.

-Execution and implementation of circular economy principles within organization

-Recovery of resources, e.g. nutrients, metals, carbon and/or energy, from industrial, municipal and agricultural waste streams.

-how to integrate CE-thinking into the development work (for example C2C innovation and stage gate innovation work)

-Circular construction

-Sustainable exploitation of mineral raw materials (no more mining wastes; integral use of low-grades)

-Food waste recycling and food waste valorization

11 Appendix 2

List of supervisors interested in SPA1

Institution	Name of the potential supervisor	Research area	Keywords	Available to prepare co-tutelle or industrial doctorates agreements
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Manuel Morales	Circular economy	Industrial symbiosis 5.0 to implement Circular Economy principles in the building ecosystem	Co-tutelle
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Lina Dagilienė	Circular economy	Digitally enabled circular business models	Co-tutelle
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Žaneta Stasiškienė	Circular economy	Sustainability, circular economy; Smart cities, environmental engineering	Both types of agreements
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Jolita Ostrauskaitė	Circular economy	Bio-based polymers; renewable materials and polymers; polymers from renewable resources	Both types of agreements
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Ramunė Rutkaitė	Circular economy	Development and application of sustainable materials	Both types of agreements
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Linas Kliučininkas	Circular economy	Development of biological, thermal, physical and chemical technologies for resource recovery.	Both types of agreements
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Petras Rimantas Venskutonis	Circular economy	Biorefining of agricultural and food raw materials, processed by-products and waste into high value functional ingredients and materials	Both types of agreements
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Audrius Pukalskas	Circular economy	Biorefining of agricultural and food raw materials, processed by-products and waste into high value functional ingredients and materials	Both types of agreements
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Vaida Kitrytė	Circular economy	Biorefining of agricultural and food raw materials, processed by-products and waste into high value functional ingredients and materials	Both types of agreements
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Michail Syrpas	Circular economy	Biorefining of agricultural and food raw materials, processed by-products and waste into high value functional ingredients and materials	Both types of agreements
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Loreta Bašinskienė	Circular economy	Processing of food by - products	Both types of agreements
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Rasa Šlinkšienė	Circular economy	Recycling and use of industrial waste for fertilizer production technologies	Both types of agreements
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Dainius Martuzevičius	Energy and sustainability	Air pollution, Air quality, aerosols, pollution abatement technology	Both types of agreements
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Morteza Ghobakhloo	Energy and sustainability	Industry 4.0 implications for sustainable development; Corporate Industry 4.0 Roadmaps	Co-tutelle
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Brigita Abakevičienė	Energy and sustainability	Nanomaterials for fuel cells and energy	Both types of agreements
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Sigitas Tamulevičius	Energy and sustainability	Materials and structures for energy applications	Both types of agreements
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Lina Šeduikytė	Energy and sustainability	Sustainable development, energy efficiency of buildings	Co-tutelle

KAUNO TECHNOLOGIJOS UNIVERSITETAS	Robertas Alzbutas	Energy and sustainability	Safe, resilient, sustainable, critical infrastructures, minimization of technology risk	Both types of agreements
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Mayur Pal	Energy and sustainability	CCUS, Hydrogen, Under Ground Gas Storage, Energy Efficiency, Geo-Thermal Energy, and Data Analytics	Both types of agreements
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Violeta Kaunelienė	Energy and sustainability	Air pollution, Air quality, aerosols, pollution abatement technology	Both types of agreements
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Alessandro Stefanini	Resilient communities	Decision Support Systems Based on Artificial Intelligence; Social Physics and IoT for investigating human factors inside business organizations	Co-tutelle
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Vaidas Petrulis	Resilient communities	History and theory of architecture, Modernism, Cultural heritage, UNESCO World Heritage	Co-tutelle
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Eglė Butkevičienė	Resilient communities	Community research, social capital, social innovation, citizen science, civic participation	Both types of agreements
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Aistė Balžekienė	Resilient communities	Risk governance, environmental attitudes, disaster resilient communities, social impacts of technologies, energy shift	Both types of agreements
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Audronė Telešienė	Resilient communities	Climate change attitudes, behaviours and communication; environmental attitudes and behaviours; environmental citizenship; education for sustainable development; sustainable development; risk communication; vulnerability and resilience	Both types of agreements
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Loreta Huber	Resilient communities	Media accessibility	Both types of agreements
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Ramunė Kasperė	Resilient communities	Societal impact of technologies, humanities for resilience, language for resilience, refugee education, language education	Both types of agreements
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Kęstutis Zaleckis	Resilient communities	Sustainable urbanism, space syntax, GIS, digital city, urban genotypes	Co-tutelle
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Jūratė Kamičaitytė	Resilient communities	Landscape architecture, sustainable environment, architecture and urbanism	Co-tutelle
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Irina Klizienė	Resilient communities	Healthy Community, disability in people who perform sedentary work	Both types of agreements
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Jolita Horbačauskienė	Resilient communities	Higher education, English as Medium of Instruction, Foreign Language Learning/Teaching in Engineering Studies, Innovative Methods	Co-tutelle
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Peiman Alipour Sarvari	Transportation and mobility	Data driven supply chain and logistics management; System design and analytical analysis	Both types of agreements
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Tomas Skersys	Transportation and mobility	Ontologies and solutions for the Semantic Web; Natural language processing and document classification; Machine learning and application of artificial intelligence solutions; Data mining, business intelligence, big data analysis; Modelling of business processes, business vocabularies, and business rules	Both types of agreements
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Rytis Maskeliūnas	Transportation and mobility	Application of virtual and augmented reality for medical purposes; Virtual and augmented reality applications for education; Analysis and classification of human physiological signals; Detection of the human skeleton and model using depth cameras; Tracking a person and his movements using depth cameras and VR technology	Both types of agreements
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Audrius Lopata	Transportation and mobility	User needs analysis and requirements of systems modelling; Conceptual modelling and databases; Computer-aided software engineering (CASE) technologies; Model-driven development, model-to-model transformations; Information systems project management; Distributed ledger architectures and smart contracts	Both types of agreements
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Tomas Blažauskas	Transportation and mobility	Application of virtual and augmented reality for medical purposes; Virtual and augmented reality applications for education; Analysis and classification of human physiological signals; Detection of the human skeleton and model using depth cameras;	Both types of agreements

			Tracking a person and his movements using depth cameras and VR technology	
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Vacius Jusas	Transportation and mobility	Architectural design of software systems; Automated testing of user interfaces; Testing methods using OCL constraints; Symbolic testing methods	Both types of agreements
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Agnius Liutkevičius	Transportation and mobility	Real-time systems; Internet of Things (IoT) and services; Smart homes; Smart home services; Multiagent systems; Soft computing, fuzzy and verbal logic and decision support systems; Digital signal processing; IPTV and e-content; Systems integration solutions; Human-computer interaction; Cognitive systems; Explainable artificial intelligence	Both types of agreements
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Egidijus Kazanavičius	Transportation and mobility	Real-time systems; Internet of Things (IoT) and services; Smart homes; Smart home services; Multiagent systems; Soft computing, fuzzy and verbal logic and decision support systems; Digital signal processing; IPTV and e-content; Systems integration solutions; Human-computer interaction; Cognitive systems; Explainable artificial intelligence	Both types of agreements
KAUNO TECHNOLOGIJOS UNIVERSITETAS	Armantas Ostreika	Transportation and mobility	Design and implementation of heuristic and metaheuristic optimization algorithms; Hybridized, evolutionary-population-based heuristic algorithms; Hierarchicity-based (self-similar) heuristic algorithms; Nature-inspired heuristic algorithms; Machine-learning based algorithms	Both types of agreements
TAMPEREEN KORKEAKOULUSAATIO SR	Johanna Kujala	Circular economy	(i) corporate responsibility and business ethics, (ii) stakeholder theory and engagement, and (iii) circular economy and sustainable value-creation	Both types of agreements
TAMPEREEN KORKEAKOULUSAATIO SR	Satu Huuhka	Circular economy	renovation and circular economy in the field of architecture.	Both types of agreements
TAMPEREEN KORKEAKOULUSAATIO SR	Outi Sievi-Korte	Energy and sustainability	Software engineering	Both types of agreements
TAMPEREEN KORKEAKOULUSAATIO SR	Turo-Kimmo Lehtonen	Resilient communities	economic, sociology; waste and society; social theory; science and technology studies	Both types of agreements
TAMPEREEN KORKEAKOULUSAATIO SR	Steve Ohern	Transportation and mobility	Mobility and sustainable transformation	Both types of agreements
TAMPEREEN KORKEAKOULUSAATIO SR	Ari Visa	Transportation and mobility	Computing sciences	Both types of agreements
UNIVERSIDADE DE AVEIRO	Gil Alberto Batista Gonçalves	Circular economy	recycled polymers, nanocomposites, envioremental remediation, biomedical	Both types of agreements
UNIVERSIDADE DE AVEIRO	Victor Fernando Santos Neto	Circular economy	Additive manufacturing; eco-design; industry 4.0; product development; plastics recycling & processing.	Both types of agreements
UNIVERSIDADE DE AVEIRO	Gabriela Vincze	Circular economy	mechanical technology, metallic materials	Co-tutelle
UNIVERSIDADE DE AVEIRO	Álvaro José Barbosa de Sousa	Circular economy	Circular Economy, sustainability, design thinking, branding, strategy	Both types of agreements
UNIVERSIDADE DE AVEIRO	Catarina Franco Lélis da Cruz	Circular economy	Brand Design, Sustainable Branding, User Experience, Co-creation	Both types of agreements
UNIVERSIDADE DE AVEIRO	Maria de Fátima Teixeira Pombo	circular economy	Cultural heritage, Design Thinking, Ecosystemic spaces, Natural materials; resilience	Both types of agreements
UNIVERSIDADE DE AVEIRO	Nelson Troca Zagalo	Circular economy	Engagement, Narratives, Games, Creativity, Interactivity	Both types of agreements
UNIVERSIDADE DE AVEIRO	João Carlos de Oliveira Matias	Circular economy	Life Cycle Costs; simbyosis; waste management and Economic_finantial performance	Both types of agreements

UNIVERSIDADE DE AVEIRO	Victor Sousa Ferreira	Circular economy	Waste valorization; reversible solutions;	Both types of agreements
UNIVERSIDADE DE AVEIRO	Margarida João Fernandes de Pinho Lopes	Circular economy	Waste valorization; geotechnics; geosynthetics	Both types of agreements
UNIVERSIDADE DE AVEIRO	João Tedim	Circular economy	Corrosion protection; smart coatings; functional nanoadditives	Both types of agreements
UNIVERSIDADE DE AVEIRO	Idalina Gonçalves	Circular economy	Agrifood by-products; Bioplastics; Food packaging; Biomedical devices; Additive manufacturing	Both types of agreements
UNIVERSIDADE DE AVEIRO	Cláudia Nunes	Circular economy	biomaterials; sustainability; biomedical sensors; tissue regeneration	Co-tutelle
UNIVERSIDADE DE AVEIRO	Sandra Filipe	Circular economy	consumer behavior, sustainability, corporate social responsability, societal marketing	Both types of agreements
UNIVERSIDADE DE AVEIRO	Agostinho Agra	Circular economy	Optimization; Inventory management; Remanufacturing; Supply chain	Both types of agreements
UNIVERSIDADE DE AVEIRO	Ana Marta Gonçalves	Circular economy	green packaging; sustainable consumption; marine biotechnology; natural films; novel food and pharmaceutical products	Both types of agreements
UNIVERSIDADE DE AVEIRO	Isabel Lopes	Circular economy	Ecological risk assessment; assess biodiversity loss; reduce environmental pollution; safe-by-design chemicals	Co-tutelle
UNIVERSIDADE DE AVEIRO	Fernando Rocha	Circular economy	Green Mining; Urban Mining; Critical raw Materials	Both types of agreements
UNIVERSIDADE DE AVEIRO	Eduardo Silva	Circular economy	Green Mining; Urban Mining; Medical Geology	Both types of agreements
UNIVERSIDADE DE AVEIRO	Slavka Andrejkovicová	Circular economy	Critical raw materials; New Geomaterials; Geopolymers	Co-tutelle
UNIVERSIDADE DE AVEIRO	Carla Candeias	Circular economy	Green Mining; Urban Mining; Medical Geology	Co-tutelle
UNIVERSIDADE DE AVEIRO	Nuno Durães	Circular economy	Green Mining; Urban Mining; Medical Geology	Co-tutelle
UNIVERSIDADE DE AVEIRO	Catarina Almeida	Circular economy	inflammation, innate immunity, immunomodulation	Both types of agreements
UNIVERSIDADE DE AVEIRO	Carlos Manuel Silva	Circular economy	Biorefinery; Separation processes; chemical reaction engineering; process integration; modeling	Both types of agreements
UNIVERSIDADE DE AVEIRO	Paula Sofia Gil Neto Quinteiro	Circular economy	life cycle assessment; carbon footprint; water footprint; life cycle sustainability assessment; water-energy-food nexus	Both types of agreements
UNIVERSIDADE DE AVEIRO	Helena Nadais	Circular Economy	barriers to circular economy, implementation of circular economy, indicators for circular economy	Both types of agreements
UNIVERSIDADE DE AVEIRO	Luís António da Cruz Tarelho	Circular economy	Biochar, biomass residues and subproducts, soil ammendmnets, carbon sequestration, fertilizers, adsorbents, bio-oils, fertilisers, pesticides	Both types of agreements
UNIVERSIDADE DE AVEIRO	Teresa Fidélis	Circular economy	Water circularity and land-use planning	Co-tutelle
UNIVERSIDADE DE AVEIRO	Manuel A. Coimbra	Circular economy;	Food development and qualification; carbohydrates and dietary fibre; circular economy; valuation of byproducts; food technology	Both types of agreements

UNIVERSIDADE DE AVEIRO	Carla Vilela	Circular economy;	Biopolymers, renewable resources, composites, food packaging, water remediation	Both types of agreements
UNIVERSIDADE DE AVEIRO	Maria do Rosario Gonçalves dos Reis Marques Domingues	Circular economy;	Lipids ,Biorefinary, Algae, , Seaweeds, Aquaculture	Both types of agreements
UNIVERSIDADE DE AVEIRO	Felisa Rey	Circular economy;	Lipidomics; Marine invertebrates; Macroalgae; Mass spectrometry; Mixotrophy	Both types of agreements
UNIVERSIDADE DE AVEIRO	Sónia Patrícia Marques Ventura	Circular economy;	Biorefinery, downstream processes, alternative solvents, marine biomass, residues valorization	Both types of agreements
UNIVERSIDADE DE AVEIRO	Elisabete Verde Martins Coelho	Circular economy;	byproducts; polysaccharides; food chemistry; food ingredients; valorisation	Both types of agreements
UNIVERSIDADE DE AVEIRO	Carmen Sofia da Rocha Freire	Circular economy;	Biobased materials, Biocomposites, Biomass valorization, (Nano)cellulose, Natural polymers	Both types of agreements
UNIVERSIDADE DE AVEIRO	Sílvia Maria da Rocha Simões Carriço	Circular economy;	Natural Products; Food Innovation; Aroma Chemistry; Bioactive compounds; Metabolomics	Both types of agreements
UNIVERSIDADE DE AVEIRO	Helena Passos	Circular economy;	green chemistry; metal recycling, alternative solvents, hydrometalurgy	Both types of agreements
UNIVERSIDADE DE AVEIRO	Cláudia Pereira Passos	Circular economy;Energy and sustainability;	Green technologies, drug delivery, polysaccharides, by-products, up-scaling	Both types of agreements
UNIVERSIDADE DE AVEIRO	Ildefonso Marín Montesinos	Circular economy;Energy and sustainability;	Material characterization, Nuclear Magnetic Resonance, porous materials, CO2 capture, biomolecules	Both types of agreements
UNIVERSIDADE DE AVEIRO	Andreia F. Sousa	Circular economy;Energy and sustainability;	Biobased polymers; Chemical Recycling; Polymers' synthesis and characterisation; Biodegradable polymers; FDCA-based polymers	Both types of agreements
UNIVERSIDADE DE AVEIRO	Armando Jorge Domingues Silvestre	Circular economy;Energy and sustainability;	biobased (nano)cellulose composites, biobased polymers, Sustainable extraction processes, deep eutectic solvents, bioactive compounds	Both types of agreements
UNIVERSIDADE DE AVEIRO	Carmen Freire	Circular economy;Energy and sustainability;	biobased nanocomposite materials	Co-tutelle
UNIVERSIDADE DE AVEIRO	Margarida Coelho	Energy and sustainability	Life cycle assessment; Sustainable Energy Systems	Co-tutelle
UNIVERSIDADE DE AVEIRO	Nelson Martins	Energy and sustainability	Energy eficiency, Energy in Buildings, Sustainable Buildings	Both types of agreements
UNIVERSIDADE DE AVEIRO	Francisco P. Brito	Energy and sustainability	Waste Heat Recovery, Thermoelectrics, Heat transfer, high efficiency engines	Both types of agreements
UNIVERSIDADE DE AVEIRO	Cecília Margarita Rendeiro do Carmo	Energy and sustainability	sustainability reporting; corporate social responsibility (CSR) reporting; environmental, social and governance (ESG) reporting	Both types of agreements
UNIVERSIDADE DE AVEIRO	João Carlos de Oliveira Matias	Energy and sustainability	Energy 4.0; Smart Energy Management Systems; Sustainability indicators; Sustainable Energy and Economic-Financial Performance;	Both types of agreements
UNIVERSIDADE DE AVEIRO	Mara Teresa da Silva Madaleno	Energy and sustainability	Financial energy markets; Environmental Economics; Corporate Social Responsability and Circular Economy; Business Sustainability; Financial Development, Sustainability, Energy and Environmental Assets	Co-tutelle

UNIVERSIDADE DE AVEIRO	Romeu da Silva Vicente	Energy and sustainability	1.Building Physics, 2.Building simulation, Otimization algorithms; 3. Innovative materials and building components (Phase Change Material); 4. In-situ monitoring of buildings and lab testing (themal, acoustic, fire).	Both types of agreements
UNIVERSIDADE DE AVEIRO	António José Pereira de Figueiredo	Energy and sustainability	Whole Building Dynamic Simulation; Evolutionary Algorithms; Energy Efficiency; Thermal Comfort	Both types of agreements
UNIVERSIDADE DE AVEIRO	João Tedim	Energy and sustainability	OER electrocatalysts; NiFe LDH; surface pre-treatments	Both types of agreements
UNIVERSIDADE DE AVEIRO	Paula Ferreira	Energy and sustainability	Piezoelectrics, sensors, biopolymers, nanogenerators	Both types of agreements
UNIVERSIDADE DE AVEIRO	Arnaldo Silva Rodrigues de Oliveira	Energy and sustainability	Radio Access Networks, Software Defined Radio, Embedded Systems	Both types of agreements
UNIVERSIDADE DE AVEIRO	Nuno Borges Carvalho	Energy and sustainability	Wireless Power Transmission, Energy Harvesting	Both types of agreements
UNIVERSIDADE DE AVEIRO	Lúcia Pombo	Energy and sustainability	Education for Sustainability; Smart Cities; Mobile Augmented Reality Educational games; Biodiversity and nature protection	Co-tutelle
UNIVERSIDADE DE AVEIRO	Bruno Nunes	Energy and sustainability	Water Pollution; anthropogenic contamination; water treatment; xenobiotics ecotoxicity	Both types of agreements
UNIVERSIDADE DE AVEIRO	Daniela Figueiredo	Energy and sustainability	Aquatic Microbial Ecology; Cyanobacterial blooms; Science Communication; Citizen Science	Co-tutelle
UNIVERSIDADE DE AVEIRO	Cláudia Maria Batista Lopes	Energy and sustainability	Technology critical elements; Recycling; waste water treatment; nanomaterials; adsorption	Co-tutelle
UNIVERSIDADE DE AVEIRO	Ana Cristina Estrada	Energy and sustainability	Photocatalysis; semiconductors; nanomaterials; waste water treatment; nanomaterials	Both types of agreements
UNIVERSIDADE DE AVEIRO	Filipe Alexandre Almeida Paz	Energy and sustainability	Metal-Organic Frameworks; Functional Materials; X-ray diffraction; Osteoporosis; Catalysis	Co-tutelle
UNIVERSIDADE DE AVEIRO	Isabel Campos	Energy and sustainability	Eco(toxicological) impacts of wildfires; Potentially toxic elements (PTEs); Emerging contaminants (EC); Soil and water pollution; Environmental chemistry	Both types of agreements
UNIVERSIDADE DE AVEIRO	Nelson Abrantes	Energy and sustainability	sustainable agriculture; water quality; biodiversity; environmental risk assessment	Both types of agreements
UNIVERSIDADE DE AVEIRO	Paula Sofia Gil Neto Quinteiro	Energy and sustainability	life cycle assessment; carbon footprint; water footprint; life cycle sustainability assessment; water-energy-food nexus	Both types of agreements
UNIVERSIDADE DE AVEIRO	Luís António da Cruz Tarelho	Energy and sustainability	Biomass and wastes, bioenergy, biofuels, gasification (syngas), pyrolysis (bio-oils, char), combustion	Both types of agreements
UNIVERSIDADE DE AVEIRO	José Richard Baptista Gomes	Energy and sustainability;	Heterogeneous Catalysis; Reforming; Adsorption and Separation; Theoretical and Computational Chemistry; Molecular Simulation	Both types of agreements
UNIVERSIDADE DE AVEIRO	Isabel Santos Vieira	Energy and sustainability;	Sustainability; biodisel, glycerol; zeolites, silicates	Both types of agreements
UNIVERSIDADE DE AVEIRO	Vera Lúcia Marques da Silva	Energy and sustainability;Circular economy;	Natural Products, Sustainable Chemistry, Synthetic Methodologies, Ohmic Heating	Both types of agreements
UNIVERSIDADE DE AVEIRO	Regina Maria Brandão de Oliveira Duarte	Energy and sustainability;Resilient communities;	Organic aerosols; Water-soluble organic matter; Chemical composition; Health effects; Atmospheric deposition	Both types of agreements
UNIVERSIDADE DE AVEIRO	Robertt Valente	Resilient communities	Strategic decision processes; Lifelong-learning; Microcredentials; Societal challenges; UN SDE-based challenges	Both types of agreements

UNIVERSIDADE DE AVEIRO	Maria Manuel Rocha Teixeira Baptista	Resilient communities	Cultural Studies, Gender, Leisure, Race, Class	Co-tutelle
UNIVERSIDADE DE AVEIRO	Rui Pedro Figueiredo Marques	Resilient communities	Digital tranformation; Information Systems; Digital citizenship; Smart Cities; Digital civic engagement	Both types of agreements
UNIVERSIDADE DE AVEIRO	Ana Flávia Lopes Miguel	Resilient communities	Citizen science, Intangible Cultural Heritage, Digital Archives, Ethnomusicology, Music	Co-tutelle
UNIVERSIDADE DE AVEIRO	Ana Isabel Barreto Furtado Franco de Albuquerque Veloso	Resilient communities	ICT and Older Adults, Games, User/Game Experience	Co-tutelle
UNIVERSIDADE DE AVEIRO	Liliana Filipa Vale Costa	Resilient communities	Gamification, Games, User Experience, Storytelling, Digital wellbeing	Both types of agreements
UNIVERSIDADE DE AVEIRO	Luís Francisco Mendes Gabriel Pedro	Resilient communities	ICT, education, media, Digital environments	Co-tutelle
UNIVERSIDADE DE AVEIRO	Maria João Lopes Antunes	Resilient communities	Social aspects of technology, communication, digital media	Both types of agreements
UNIVERSIDADE DE AVEIRO	Óscar Emanuel Chaves Mealha	Resilient communities	Citizen-centered smart city dashboards	Co-tutelle
UNIVERSIDADE DE AVEIRO	Rui Manuel de Assunção Raposo	Resilient communities	Intangible Heritage, Collective Memory, Storytelling, Museums	Co-tutelle
UNIVERSIDADE DE AVEIRO	Carlos André Soares Couto	Resilient communities	Machine learning, Steel structures, Fire	Both types of agreements
UNIVERSIDADE DE AVEIRO	Romeu da Silva Vicente	Resilient communities	1. Risk assessment and mapping, Seismic vulnerability and risk. Machine learning; 2. Non-linear building simulation; 3. Masonry building renovation and retrofitting; 4. Non and semi-destructive in-situ testing in buildings.	Both types of agreements
UNIVERSIDADE DE AVEIRO	Hugo Rodrigues	Resilient communities	Risk analysis; Earthquake risk; Multi Hazards; Reabilitation built environement	Both types of agreements
UNIVERSIDADE DE AVEIRO	Ana Isabel Pereira Torres	Resilient communities	Regional, rural, local/urban and consumer-based behavior transitions towards a sustainable, regenerative, inclusive and just circular economy and bioeconomy; Impacts Measurement;	Both types of agreements
UNIVERSIDADE DE AVEIRO	Sandra Filipe	Resilient communities	education, consumer behavior, sustainability, societal marketing	Both types of agreements
UNIVERSIDADE DE AVEIRO	António José Ribeiro Neves	Resilient communities	Mental Health; Lifeloging; Machine Learning; Image processing; Big Data	Both types of agreements
UNIVERSIDADE DE AVEIRO	Catarina Pires da Rosa	Resilient communities	Emotion regulation, Rumination, Implicit Bias, Ideological polarization	Both types of agreements
UNIVERSIDADE DE AVEIRO	Cecília Vieira Guerra	Resilient communities	Transdisciplinary research; Sustainability of Research; Science Communication; Science Education; Digital education	Both types of agreements
UNIVERSIDADE DE AVEIRO	Margarida M. Marques	Resilient communities	Smart cities, science education, mobile learning, game-based learning	Both types of agreements
UNIVERSIDADE DE AVEIRO	Vânia Carlos	Resilient communities	Citizen Science; Active Learning; Technology-enhanced learning; Teacher Professional Development; Spatial Literacy	Co-tutelle
UNIVERSIDADE DE AVEIRO	Alexandra Isabel Sá Pinto	Resilient communities	Transdisciplinary research;	Both types of agreements

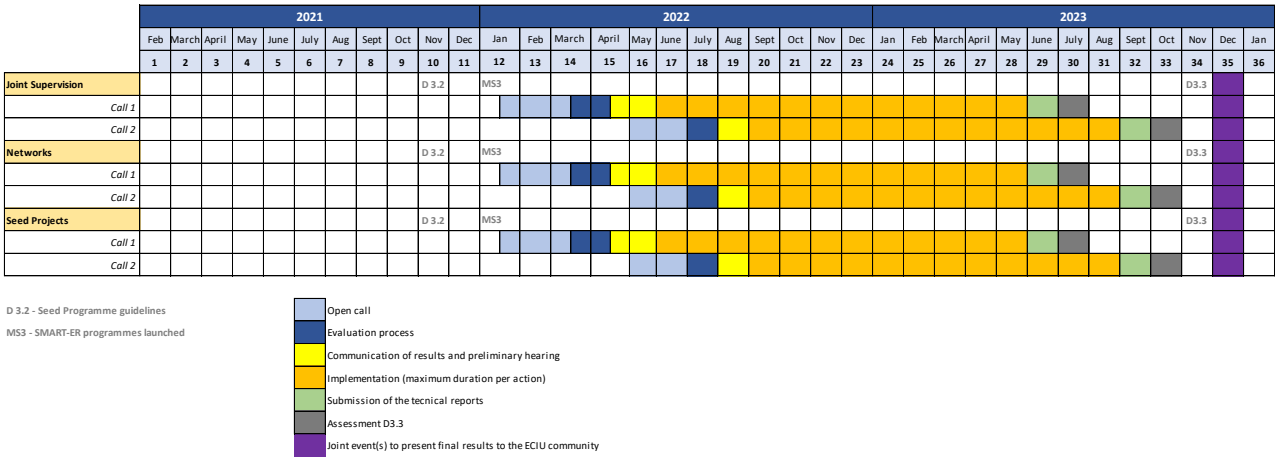
UNIVERSIDADE DE AVEIRO	Margarida Lucas	Resilient communities	Resilient teachers, initial and in-service teacher training, digital competence, digital technology, flexible modes of delivery	Co-tutelle
UNIVERSIDADE DE AVEIRO	Ana Fragata	Resilient communities	Smart cities; urban sustainability; urban geology	Co-tutelle
UNIVERSIDADE DE AVEIRO	Ana Gabriela Henriques	Resilient communities	Public health, pedagogy innovation, diagnostics and neuroscience education	Co-tutelle
UNIVERSIDADE DE AVEIRO	Margarida Fardilha	Resilient communities	pedagogical innovation; medical education; fertility education; communities of pratice	Co-tutelle
UNIVERSIDADE DE AVEIRO	Maria de Lourdes Pereira	Resilient communities	public health; hazardous chemicals,environmental degradation,multi-stakeholder platforms	Co-tutelle
UNIVERSIDADE DE AVEIRO	Odete A. B. da Cruz e Silva	Resilient communities	Public health, multi-stakeholder paltforms, pedagogic innovation, medical education, neurophathologies, diabetes education and patient engagement	Both types of agreements
UNIVERSIDADE DE AVEIRO	Vera Rodrigues	Resilient communities	CFD modelling; urban microclimate; air quality; citizens' engagement	Both types of agreements
UNIVERSIDADE DE AVEIRO	Bruna R F Oliveira	Resilient communities	Carbon fluxes; Wildfires; Ecosystem recovery; waste to resource	Both types of agreements
UNIVERSIDADE DE AVEIRO	Célia Alves	Resilient communities	Air pollution, source apportionment, mitigation measures, risk assessment, health effects	Co-tutelle
UNIVERSIDADE DE AVEIRO	Dalila Serpa	Resilient communities	widfires; climate change; environmental resources; integrated ecosystem management	Co-tutelle
UNIVERSIDADE DE AVEIRO	Sandra Rafael	Resilient communities	Nature based solutions; air quality modelling; urban mobility; climate change; cities resilience	Co-tutelle
UNIVERSIDADE DE AVEIRO	Helder Relvas	Resilient communities	air quality;health impacts; empowerment of citizens; cost-efficiency; mitigation measures;	Both types of agreements
UNIVERSIDADE DE AVEIRO	Ana Isabel Couto Neto da Silva Miranda	Resilient communities	urban air quality, climate change mitigation and adpatation, air pollution and health	Both types of agreements
UNIVERSIDADE DE AVEIRO	Jan Jacob Keizer	Resilient communities	forest ecohydrology; soil erosion (sensu latu); soil conservation; ecosystem restoration; wildfires	Both types of agreements
UNIVERSIDADE DE AVEIRO	Elisabete Figueiredo	Resilient communities	rural studies; food studies; sustainable place based initiatives	Co-tutelle
UNIVERSIDADE DE AVEIRO	Carlos Rodrigues	Resilient communities	Science, technology & innovation, territorial development, social justice.	Co-tutelle
UNIVERSIDADE DE AVEIRO	Susana Isabel Fonseca de Almeida Santos Braga	Resilient communities;	Supramolecular complexes, Biometals, Osteoporosis, Pharmaceuticals, Natural compounds	Both types of agreements
UNIVERSIDADE DE AVEIRO	Margarida Coelho	Transportation and mobility	Smart mobility; Safety; Emissions; Alternative fuels and propulsion modes	Co-tutelle
UNIVERSIDADE DE AVEIRO	Vitor Santos	Transportation and mobility	Robotics; Autonomous Driving; Advanced Perception; Sensor Fusion	Co-tutelle
UNIVERSIDADE DE AVEIRO	Sergio M. O. Tavares	Transportation and mobility	Machine Design; Structures; Digital Twins; Product Development; Advanced Materials	Both types of agreements

UNIVERSIDADE DE AVEIRO	Jorge Filipe Marto Bandeira	Transportation and mobility	Mobility as a Service (MaaS); Inteligent Transport Systems; Low carbon mobility; Externalities;	Both types of agreements
UNIVERSIDADE DE AVEIRO	Robertt Valente	Transportation and mobility	Additive manufacturing; Industrial processes; Modelling and simulation; Advanced materials	Both types of agreements
UNIVERSIDADE DE AVEIRO	Francisco P. Brito	Transportation and mobility	Waste Heat Recovery, high efficiency engines, Energy and sustainability assessment of vehicles, range extenders, vehicle hybridization	Both types of agreements
UNIVERSIDADE DE AVEIRO	Paulo Cachim	Transportation and mobility	smart concrete, sustainable concrete, sensors, modelling, timber	Co-tutelle
UNIVERSIDADE DE AVEIRO	Antonio José Ribeiro Neves	Transportation and mobility	Computer vision; autonomous robots; Machine Learning; Image processing; Sensors	Both types of agreements
UNIVERSIDADE DE AVEIRO	Arnaldo Silva Rodrigues de Oliveira	Transportation and mobility	Radio Access Networks, Software Defined Radio, Embedded Systems	Both types of agreements
UNIVERSIDADE DE AVEIRO	Nuno Borges Carvalho	Transportation and mobility	Wireless Power Transmission, Energy Harvesting; Sensor development	Both types of agreements
UNIVERSIDADE DE AVEIRO	Joaquim Miguel Gonçalves Macedo	Transportation and mobility	Traffic Engineering; Microsimulation; Urban Mobility; Soft Modes	Both types of agreements
UNIVERSIDADE DE AVEIRO	Cristina Requejo	Transportation and mobility	optimization, network design, health care routing; Routing and Scheduling	Both types of agreements
UNIVERSIDADE DE AVEIRO	Ana Isabel Couto Neto da Silva Miranda	Transportation and mobility	atmospheric emissions, air quality impact	Both types of agreements
UNIVERSIDADE DE AVEIRO	Carina Pimentel	Transportation and mobility	Urban Logistics; Sustainability; Collaboration, visibility and predictability in transportation; Transportation operations optimization and efficiency; Decision support	Both types of agreements
UNIVERSIDADE DE AVEIRO	Carla Patinha		Green Mining; Urban Mining; Medical Geology	Co-tutelle
UNIVERSIDADE DE AVEIRO	Artur M. S. Silva	Circular economy	Biorefinery; Natural Products; Extraction and Structural Characterisation of Bioactive Compounds; Sustainable Chemistry; Synthetic Methodologies	Co-tutelle
UNIVERSITETET I STAVANGER	Jayantha Prasanna Liyanage	Circular economy	Energy and Sustainability, and Transportation and Mobility	Both types of agreements
UNIVERSITETET I STAVANGER	Jan Frick	Circular economy		Both types of agreements
UNIVERSITETET I STAVANGER	Knut Erik Teigen Gilharhus	Energy and sustainability	Transport and mobility	Both types of agreements
UNIVERSITETET I STAVANGER	Professor Bettina Bluemling	Energy and sustainability		Both types of agreements

UNIVERSITETET I STAVANGER	Siddharth Sareen	Energy and sustainability	Cutting-edge research on sustainability transitions	Both types of agreements
UNIVERSITETET I STAVANGER	Barbara Maria Sageidet	Resilient communities		Both types of agreements
UNIVERSITETET I STAVANGER	Fabio Hernandez Palacio	Resilient communities		Both types of agreements
UNIVERSITETET I STAVANGER	Claudia Morsut	Resilient communities		Both types of agreements
UNIVERSITETET I STAVANGER	Ari Krisna Mawira Tarigan	Transportation and mobility		Both types of agreements
UNIVERSITETET I STAVANGER	Daniela Müller-Eie	Transportation and mobility		Both types of agreements

12 Appendix 3

Timeline agreed by the Executive Team:



13 Appendix 4

Application forms templates per SPA in attachment. Files:

SMART-ER Application form – SPA1 - joint supervision

SMART-ER Application form – SPA2 - networks

SMART-ER Application form – SPA3 - seed projects

14 Appendix 5

The lists will be constituted and published before the calls deadlines.

15 Appendix 6

Declaration of non-conflict of interests

To whom it may concern, I, ……., as member of the evaluation panel of the research area of ……, hereby declare that I am not part of any of the research groups participating in the proposal entitled ……

……., ……

The Panel Member

……

16 Appendix 7

Individual Evaluation Reports (IER) forms templates per SPA in attachment. Files:

SMART-ER IER – SPA1 - joint supervision

SMART-ER IER – SPA2 - networks

SMART-ER IER – SPA3 - seed projects

17 Appendix 8

Consensus Report (CR) forms templates per SPA in attachment. Files:

SMART-ER CR – SPA1 - joint supervision

SMART-ER CR – SPA2 - networks

SMART-ER CR – SPA3 - seed projects

18 Appendix 9

Technical report template file in attachment.