



Early Stage Researcher (PhD candidate) – Marie Skłodowska-Curie Action Industry 4.0 as an enabler of innovation ecosystem emergence

Position Details

Position Title:	ESR #11 - Industry 4.0 as an enabler of innovation ecosystem emergence
Project:	European Training Network for Industry Digital Transformation across Innovation Ecosystems – EINST4INE (funded by the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 956745).
Field of Expertise:	Technology Management, Engineering, Innovation Management
Faculty / Research Group:	Institute of Entrepreneurship and Innovation Science, University of Stuttgart
Employment type:	Full-time, fixed-term (36 months)
Gross annual salary:	From 37,200.00 euros – additional family allowance based on personal circumstances may apply
Starting date:	1 st September 2021
Location:	Stuttgart (Germany)

- Full-time, 36-months fixed-term contract based at the University of Stuttgart but may be required to work remotely
- International mobility: various short and long-term travel foreseen, including industry and academic secondments
- Open to any nationality (requires a work permit for Germany)
- Research activities focusing on industry 4.0 technologies and innovation ecosystems
- Enrolment as a PhD candidate
- Opportunities to conduct innovative research activities in collaboration with high level academic and industrial partners
- Competitive remuneration and excellent working conditions

About us

The University of Stuttgart (<https://www.uni-stuttgart.de/en/>) is one of the leading technically oriented universities in Germany with global significance. With external funding of close to 233 million euro in the year 2019 alone, the University of Stuttgart is among Germany's most successful universities at raising external funds – a top ranking it has maintained for many years already.

It sees itself as a centre of university-based, non-university, and industrial research. Furthermore, it takes a role as a guarantor of research-based teaching, focused on quality and holism. The university promotes the transfer of knowledge and technologies to society in all their profile- and competence areas as well as their emerging fields. The „Stuttgarter Weg“



(Stuttgart Way) means an interdisciplinary integration of engineering, natural sciences, humanities, and social sciences based on the fundamentals of cutting-edge research at a disciplinary level. Our vision is “Intelligent systems for a sustainable society”.

The Institute of Entrepreneurship and Innovation Science (<https://www.eni.uni-stuttgart.de/en/institute/>) is directed by Alexander Brem, Endowed Chaired Professor of Entrepreneurship in Technology and Digitalization, funded through the Daimler Fund of the Stifterverband.

The institute fosters entrepreneurship in theory and practice with an interdisciplinary approach linking emerging technologies, innovation, and science with a sustainability mindset. It is interdisciplinary by nature, with a strong embedding in the regional innovation ecosystem. This includes the interdisciplinary connection between technology, science and management and the cooperation with internal and external partners, e.g., ARENA2036, STARTUP-AUTOBAHN, Cyber Valley, TTI GmbH, other universities & institutes.

Activities of the institute are focused on representing entrepreneurship in research and teaching across all faculties of the University of Stuttgart. The goal is to establish a start-up culture at the university fostering entrepreneurial capabilities at all levels.

The research focus of the institute is on technological innovation and entrepreneurship with a special focus on digitalization aspects. Research topics are e.g., digital and science-based entrepreneurship, regional innovation ecosystems, business model innovation, or science and technology commercialization.

About the position

The PhD position is part of the Marie Skłodowska-Curie Action “European Training Network for Industry Digital Transformation across Innovation Ecosystems” (EINST4INE), coordinated by RMIT Europe. EINST4INE project aims to develop new concepts, approaches and methods in the area of digital transformation and brings together a unique group of world-leading experts in the areas of Open Innovation, Industry 4.0, digital transformation and innovation ecosystems. EINST4INE six academic beneficiaries will recruit altogether 15 Early Stage Researchers (ESRs) working in the domain of industrial digital transformation who will meet regularly via a coordinated exchange programme organised across the international network, comprising secondments, visits, training events, workshops, and summer schools. The successful candidate will be based at the University of Stuttgart (Stuttgart, Germany) and enrolled in a PhD programme in this institution. For more information about EINST4INE project, visit our website: <https://www.einst4ine.eu/>

PhD Project Description

Title: Industry 4.0 as an enabler of innovation ecosystem emergence

Description: The digital technologies behind Industry 4.0 enable new actors, new structures, and dynamics in the innovation ecosystems of industrial players. This project combines a



technology-based perspective on the generative potential of digital technologies (including new machine-to-machine possibilities) with the innovation ecosystems perspective.

The project aims to combine different possible sources and types of data to explore and model the emergence of new ecosystems and the transformation of existing innovation ecosystems. The methods and theoretical perspectives will be determined with the PhD student, but is anticipated to be possible to use advanced data analysis methods (including ML/AI). The ambition is to explore a combination of methods that help to understand the why's, how's, and to what extent are the technologies behind Industry 4.0 transforming what we know about innovation ecosystems emergence and evolution.

The project includes secondments, travel to doctoral schools and conferences.

Research field(s)

Emerging technologies, Digital Transformation, New Entrants, Technology Entrepreneurship and Commercialization, Innovation Ecosystem, Industry Emergence

Supervisors

EINST4INE research programs involve comprehensive, independent research under the supervision of an expert supervising team. For the current position, these are:

- Prof. Dr. Alexander Brem, main supervisor
- Dr. Ferran Giones

Candidate Profile

Background

The ideal candidate should have a good background or interest in digital technologies, digital transformation, Industry 4.0, technology innovation, technology entrepreneurship.

Qualifications

Candidates should have a master's degree (including research methods training) in one of the following disciplines or a related field: engineering, computer science, technology management, business management, economics.

Eligibility and Key Selection Criteria

To be eligible, you need to be an "Early Stage Researcher", simultaneously fulfil the following criteria at the time of recruitment:

- **Mobility:** candidates must not have resided or carried out their main activity (work, studies, etc...) in Germany for more than 12 months in the 3 years immediately prior to recruitment under the EINST4INE project (i.e. from August 2018).
- **Qualification:** candidates must hold a degree that formally entitles them to embark on a doctorate, either in the country in which the degree was obtained or in the country in which the research training is provided (typically a master's degree – MSc).





- Research experience: at the date of recruitment, candidates must be in the first four years of their research career, after the master's degree was awarded.
- Candidates must be proficient in English (level C1 expected).

Key Selection Criteria

1. Interest in conducting high impact academic research
2. Interest in engaging with industrial partners in research and dissemination activities
3. Writing and data analysis skills to generate and share research insights.
4. Knowledge on data analysis methods and tools (Nvivo, MaxQda, STATA, Python, or R).
5. Academic or industrial experience working with digital technologies (IoT, Blockchain, AR/VR, others).

The positions adhere to the European policy of balanced ethnicity, age and gender. Both men and women are encouraged to apply.

Working Conditions

We offer a 36-months full-time work contract, expected to start on 1st September 2021. The position will be based in Stuttgart (Germany) and international travels are foreseen.

The remuneration, in line with the European Commission rules for Marie Skłodowska-Curie grant holders, will consist of a salary augmented by a mobility allowance, resulting in a minimum gross monthly salary of 3,100 euros, with possibility to be raised depending on the candidate's family status at the time of recruitment.

Further benefits

The ESRs will be involved in a Marie Skłodowska-Curie network with excellent opportunities for scientific and personal development. These include:

- Regularly adapted personal career development plans.
- Funding for short stays at top-class research groups.
- Regular training events and meetings across Europe.

Application

Applicants will be selected on their potential for scientific excellence and adaptability to work in a multicultural environment. Recruitment will be a transparent, open and equal process following the guidelines of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers. Carefully read the guidelines before applying. NB: the recruitment and interview process for this position is specific to EINST4INE project. Still, applicants should make sure they comply with the recruiting institution conditions.

The application must be submitted online, together with the following supporting documents (in English):





- A detailed Curriculum Vitae (2-pages max);
- A letter of motivation (1,000 words max);
- A brief, non-binding, research proposal for the ESR project, addressing the state of the art, the objectives, the methodology (3,000 words max);
- A copy of your official academic degree(s) and the corresponding transcripts – if original language is not English or German, an official translation will have to be included;
- A proof of English proficiency (level C1 expected).

The data of the applicant will be collected for the sole purpose of the selection procedure, such as described in Grant Agreement No. 956745 - Horizon 2020 EINST4INE. The candidate may refer to RMIT EU (coordinator) in order to exercise her/his rights under art. 15 – 22 Reg. (EU) 2016/679.

