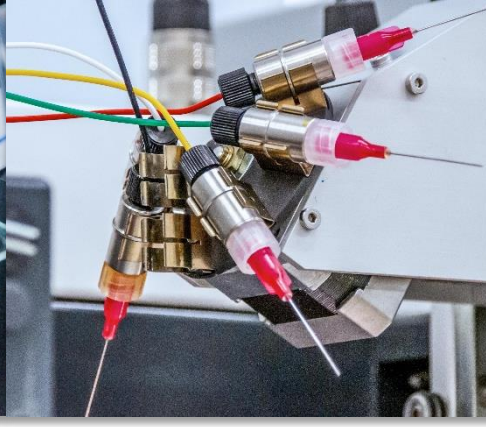

Early Stage Researcher / PhD Position at the InnovationLab GmbH (iL) as part of

Hybrid and ORgAnic ThermoElectric Systems

"HORATES"

The European Marie Skłodowska-Curie Innovative Training Network HORATES brings together 8 academic institutions, including universities and research centers, and 5 companies, from 6 EU countries. The network is supported by 5 more partners, including 2 companies. The mission of the HORATES network is to use the large expertise on all aspects of **hybrid and organic thermoelectrics** that is available in the EU for (a) the strategic training of excellent young researchers in an emerging, interdisciplinary field and (b) the rational development of prototype energy harvesters, inspired by actual market demand.

This will happen by giving 15 Early Stage Researchers (ESRs) exposure to a wide spectrum of expertise. In HORATES, we fuse the synthetic organic expertise with the expertise in processing and characterization to provide stable, high-performance materials and recipes for upscaling and device fabrication. Constant interaction at all stages with theory and multiscale modelling will guide the process. Crucial for the success of the Programme is a multidisciplinary and inter-sectorial network, which will allow the ESR to genuinely discover and/or feed her/his attitude while having an impact on a relevant scientific and technological field. HORATES also has the mission of disseminating its scientific and technological achievements to a broad audience (scientific community, stakeholders, general public etc.).

The HORATES network is composed by: Ruprecht-Karls-Universität Heidelberg (DE), Fondazione Istituto Italiano di Tecnologia (IT), Chalmers Tekniska Högskola AB (SE), Agencia Estatal Consejo Superior de Investigationes Cientificas (ES), Linköpings Universitet (SE), Rijksuniversiteit Groningen (NL), Technische Universität Chemnitz (DE), Centre National de la Recherche Scientifique (FR), University of Strasbourg (FR), Eurecat Centre Tecnològic (ES), Innovation Lab (DE) and Hot Disk AB (SE).

During the programme, exchange between private sector and academia is promoted by at least one secondment per ESR with the industrial partners and beneficiaries.

We are looking for 15 Early Stage Researchers (ESRs) to be appointed at the host organisations within HORATES.

InnovationLab (iL) offers 1 Fellowship on "Design, fabrication and characterization of OTEGs fabricated by scalable printing techniques". The ESR will be primarily operating at the **InnovationLab GmbH in Heidelberg, Germany,** in the R&D division led by Prof. Dr. Wolfgang Kowalsky. The ESR will develop reliable processing and designs of thermoelectric materials and modules using scalable printing techniques to target high throughput manufacturing of TEGs and T-sensors with outstanding performance. In particular, s/he will be in charge of

i) formulating functional inks for scalable deposition techniques (e.g. screen printing or ink-jet)
ii) designing simple organic / hybrid T-sensors and TEGs and mini-modules thereof for the manufacturing using scalable functional print
iii) performing initial and upscaled printing tests of the designed devices and modules
iv) performing print analysis, performance characterizations and durability studies
v) developing applications and demonstrators utilizing the previously fabricated print products.

INNOVATION LAB
thinking works

Printing the Future

Our shareholders are

BASF We create chemistry · HEIDELBERG · SAP · KIT · UNIVERSITÄT HEIDELBERG ZUKUNFT SEIT 1386

Contact
Dr. Christian Melzer
christian.melzer@innovationlab.de

About InnovationLab:

InnovationLab, located in Heidelberg, Germany, is the expert for printed and organic electronics with the focus on flexible printed sensors providing tailored print solutions for R&D challenges. iL's expertise relies on a solid understanding of materials, processes and printing technologies which are essential for the development of flexible and hybrid electronic systems. iL offers services in the field of research & development, pilot and upscaled production, thus bridging the value chain from the first idea to the final product. Industrial and academic partners constitute the successful R&D network of iL.

Start date: between 1st of March and 1st of September 2021

Duration of contract: Full-time contract for 36 months

Salary: The Marie Skłodowska-Curie programme offers highly competitive and attractive salaries. Gross and net amounts are subject to country-specific deductions as well as individual factors such as family allowance.

Requirements:

- University degree in Physics, Physical Chemistry or Material Science or related Engineering disciplines.
- The applicant cannot hold a PhD degree obtained before the enrolling in the HORATES programme.
- Fluency in spoken and written English.

Eligibility:

- The applicant shall, at the time of recruitment, be in the first four years of his/her research career and have not been awarded a doctoral degree (this time is measured from the date of award/diploma of the most recent taught degree).
- The applicant must not have resided or carried out his/her main activity (work, studies, etc.) in the country of the host institute for more than 12 months in the 3 years immediately prior to the recruitment. *Compulsory national service, short stays such as holidays, and time spent as part of a procedure for obtaining refugee status under the Geneva Convention are not taken into account.*
- The applicant can be of any nationality.

Contact for further information: Dr. Christian Melzer (christian.melzer@innovationlab.de)

Deadline for application: 17.01.2021

Application procedure:

The selection process will rely on the evaluation of the written application and, if appropriate, a job interview. Please submit your application electronically including all documents as one PDF.

Documents required for application:

- Curriculum Vitae (tabular)
- Copy of the latest degree/qualification
- Motivation letter (max. one page)
- Two letters of recommendation with contact data

MSC Grant Agreement No: 955837

See the job offer on the European Commission EURAXESS portal:

https://euraxess.ec.europa.eu/jobs/582558

Our shareholders are

BASF HEIDELBERG SAP KIT UNIVERSITÄT HEIDELBERG

Printing the Future

Contact
Dr. Christian Melzer
christian.melzer@innovationlab.de