



EMPLOYMENT OFFER

## FRISSBE ERA Chair holder

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## **1 ABOUT SLOVENIAN NATIONAL BUILDING AND CIVIL ENGINEERING INSTITUTE**

Slovenian National Building and Civil Engineering Institute, ZAG ([www.zag.si/en](http://www.zag.si/en)), is the leading Slovenian Institute in the field of building and civil engineering research. Through high-quality work it successfully promotes the progress-orientated Slovenian basic and applied science and technical expertise on a global scale. ZAG's headquarters are located in Ljubljana.

The organization is widely recognized both in Slovenia and in other countries by means of its expertise, top-class equipment and multi-disciplinary work, including life cycle analyses of different construction materials and other pressing research topics.

ZAG is involved in the international co-operation in science and technology with institutions from the EU, the USA and other partnering countries. Over the last 10 years ZAG has participated in more than 80 projects funded by the EU (4th - 7th FP, H2020) and is currently coordinating two H2020 project and eight other international projects. Its research and testing sector is divided into four departments: Materials, Building Physics, Structures, and Geotechnics and Infrastructure, it also has its own Department for Metrology. In the field of tasks deriving from the CPR (the Construction Products Regulation) it has two independent services: the Certification Service and the Service for Technical Assessments.

Our main activities include:

- basic and applied research in the field of building materials and structures,
- development of new methods of testing and measurement,
- certification and attestation of conformity of products, materials and executed works,
- training of research and technical staff in particular technical fields,
- participation in the preparation of technical codes and standards.

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## **2 POSITION OFFERED: ERA Chair holder; Head of newly established independent unit at ZAG**

The position offered is for full time employment in duration of the ERA Chair FRISSBE project (until December 2026) with the intention of offering prolongation in case of mutual satisfaction. Expected employment date is in September 2021.

During the FRISSBE project ERA Chair holder will gather a team of 11 researchers (2 senior researchers, 3 post-doc students and 6 PhD students) and will decide on research topics.

Predefined areas of research are:

- numerical methods in fire (multiscale modelling, combustion process modelling, coupled thermal stress analysis),
- hybrid and advanced experimental methods in fire (numerical/experimental coupling, methods for toxicity and ecotoxicity, façade fire),
- emissions, toxicity and ecotoxicity in fire (linking bench-top methods to real scale fires, identifying composition of combustion effluents, biomass burning),
- fire research and structures (timber, geopolymers and composite structural elements in fire, pyrophoric carbonization of structural elements),
- fire research on materials (biobased composites, advanced thermal insulations, geopolymers).

The ERA Chair holder will be expected to conduct experimental, theoretical and/or numerical research in any area of fire safety. Particular emphasis will be given to areas that could have a positive impact in the evolution of fire safety engineering for Slovenia. These areas could include, but are not limited, to material flammability, performance of building systems, fire protection systems and the holistic assessment of infrastructure fire safety.

The new unit will have access to brand new research equipment for fire testing purchased in combination of EU structural, national and own funds, which will be operational early in 2022. This equipment consists of furnaces for testing of fire resistance of various planar and 3D large samples as well as test rig for façade testing, open calorimeter, room corner test and full range of reaction to fire testing equipment, including equipment for chemical analysis of fire effluents. FRISSBE unit will have access also to other state-of-the art research facilities at ZAG, a list is available [here](#).

FRISSBE team will have allocated funds for meeting attendance and travelling.

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Working place is Logatec, small town 35 kilometres south west from Slovenia's capital Ljubljana. ZAG will have two units in Logatec, both placed in new building.

### 3 EXPECTATIONS

ERA Chair holder applicants have to **fulfil the following conditions:**

- meet the criteria of a level R3 (Established Researcher) or R4 (Leading Researcher) Research profile according to the descriptors of the European Framework for Research Careers (<https://euraxess.ec.europa.eu/europe/career-development/training-researchers/research-profiles-descriptors>),
- have more than 5 years of experiences in the FRISSBE project technical content (fire related research as described above),
- proof of being in leadership positions (leading a project, leading group of researchers, organizing a conference, leading a WP in international project etc.)
- proof of having published papers in SCI journals (at least 40 publications in recent 10 years and h-index minimum 10);
- proof of mentoring of PhD students or post-doc students;
- proof of leading national and/or international projects and/or research groups;
- proof of having done at least 3 months research work at foreign university or research institute after gaining PhD;
- have excellent written and spoken English;
- have special social skills: leading of small groups, teamwork, ability to motivate co-workers, good communication skills.

### 4 RIGHTS AND DUTIES

ERA Chair Holder will have the following rights and duties:

- planning, organizing and managing of the ERA Chair unit (strategy and direction);
  - selection of human resource (HRM – human resource management) with the support of the HR expert;
  - career planning for the whole team with the support of the HR expert;
  - management of the research projects;
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- applying for research projects on national and international level;
  - preparation of scientific papers;
  - preparation of research programme for PhD and research projects;
  - coordination with other research teams within the organization, the FRISSBE interactive ecosystem, and wider on national and international level;
  - ensuring financial stability during and after the end of this project – sustaining the ERA Chair at ZAG;
  - supervision of the FRISSBE team;
  - cooperation with national authorities and decision makers;
  - IP management together with IP and technology transfer expert;
  - co-deciding about infrastructure and research equipment investments on the institutional level.

Research activities should correlate or give added value to current ZAG research activities, ZAG's research programmes (Core Research Group P2-0273 Building structures and materials and Infrastructure group I0-0032 Testing of materials and structures) and will provide on a yearly basis at least 120 k€ for financing of ZAG's part of joint research topics between ERA Chair and the researchers involved. Participation of ERA Chair holder at University of Primorska curriculum will be arranged in case of interest of the ERA Chair holder.

## **5 REMUNERATION PACKAGE**

ZAG is offering attractive remuneration package to the ERA Chair holder. In total, the monthly gross salary of the ERA Chair holder offered will be 3.800 EUR and it can be raised up to 4.500 EUR, depending on the level of expertise of the ERA Chair holder. Health and dental insurance, social charges and pension contribution as well as taxes are included.

In addition, ZAG will provide initial accommodation of the ERA Chair holder in the company's dwelling (which is intended for visiting scientists) for up to first 6 months.

ZAG can provide administrative support concerning housing, spouse's employment, legal/immigration issues, kindergarten/schooling.

## 6 SHORTLY ABOUT THE FRISSBE PROJECT

The FRISSBE project will implement new practices at the Slovenian National Building and Civil Engineering Institute, ZAG, by attracting and maintaining high quality human resources under the direction of the ERA Chair holder. The project will lead to lasting, sustainable structural changes to achieve excellence at ZAG and spread excellence in the region. Designed structural changes aim to achieve excellence in the field of fire-safe sustainable built environments, modify ZAG's research and innovation landscape, intensify strong cooperation with industry and result in enhanced competitiveness in attaining projects. Changes will be tested in a new autonomous unit, the FRISSBE ERA Chair, and transferable to ZAG as a whole. Structural and dissemination measures are balanced with testing and improving the concept. Structural measures involve improving the workflow, focusing on project preparation and quality management, building a network with stakeholders, and intensifying cooperation with industry. The concept will be tested on a few levels: testing the research enhancement process, building capacity in applying for competitive funds, and building sustainable relationships with industry. Dissemination activities focusing on two-way cooperation with identified stakeholders will enhance ZAGs network and positively contribute to its attractiveness. FRISSBE will have regional impacts in terms of research, education, and engineering. The team will build a strong interactive ecosystem with the InnoRenew CoE and the University of Primorska, as well as other supporters of the project. Added value of the project is amplifying the capacities of the Fire laboratory co-financed with ERDF funds, ensuring conditions to foster excellent research. The project will yield completed at least 3 PhD studies and 6 postdoctoral researches. The long-term sustainability of the ERA Chair will be achieved by combining national and EU research and innovation funding with industry funded research and development.

The main objective of the FRISSBE project is to establish an ERA Chair for fire-safe sustainable built environments at ZAG, where cutting edge research infrastructure for fire testing is being established. The combination of the new research infrastructure and the ERA Chair will create the appropriate conditions for high-quality outstanding researchers and research managers to move and engage with the beneficiary, aiming to achieve excellence in the scientific field of fire-safe sustainable built environments and modify their research and innovation landscape. With adequate institutional support, outstanding researcher, the ERA chair holder will have a decisive and positive impact on the culture and performance of the beneficiary, which will result in:

1. wide-ranging advancement in the scientific excellence of the beneficiary in the addressed scientific field and in general,

2. creation of an internationally recognised autonomous unit at the beneficiary,
3. making the beneficiary an attractive institution for foreign researchers,
4. capacity building of the beneficiary in the area of competitive funding, project management, utilisation of infrastructure, and scientific performance,
5. creation of a sustainable interactive inter-institutional ecosystem, consisting of the FRISSBE ERA Chair and partnering with the InnoRenew CoE and University of Primorska (UP) in Koper, Slovenia that will enable transfer of new knowledge to students, their early engagement in research activities of the ERA Chair team, and creation of partnerships with students' future employers, and
6. increase the innovation activities of the beneficiary in collaboration with regional and international industrial stakeholders.

## 7 APPLICATION

Job offer for the ERA Chair holder position will be **open March 1<sup>st</sup> 2021 – April 30<sup>th</sup> 2021**.

Applications should contain (in the same order):

1. Cover letter;
2. CV;
3. Copy of a document which shows the candidate to hold the required qualification;
4. All requested proofs of fulfilling our expectations:
5. research record,
6. experiences in research funding activities,
7. list of publications;
8. Motivation letter (2 pages maximum) that describes the vision of the applicant on how to successfully lead ERA Chair unit and to cooperate with other units and researchers at ZAG in order to achieve FRISSBE's objectives;
9. A vision (1 page maximum) on how to gather competitive research funding for the respective research field;

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10. Other materials considered relevant by the candidate (e.g. recommendation letters).

Applications should be in English and sent to the following e-mail address: [kadri@zag.si](mailto:kadri@zag.si)

Additional information is available here: [www.frissbe.eu](http://www.frissbe.eu) and [frissbe@zag.si](mailto:frissbe@zag.si)

Selection will be done in two rounds; the first one will take place in May and the second in June 2021.

ZAG is committed to employment equality, in particular, as set in the national legislation and the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers. We welcome applications from all qualified candidates, who fulfil the requirements specified in the announcement.