NATIONAL CONTACT POINTS

Austria (FFG) • Ana Almansa • ana.almansa@ffg.at

Austria (FWF) • Christian Maszl-Kantner • christian.maszl-kantner@fwf.ac.at

Belgium (FNRS) • Florence Quist • florence.quist@frs-fnrs.be

Belgium (FWO) • Toon Monbaliu • eranet@fwo.be

Bulgaria (BNSF) • Milena Alexandrova • aleksandrova@mon.bg

Czech Republic • Michaela Křiklánová • michaela.kriklanova@tacr.cz

Estonia (ETAg) • Aare Ignat • aare.ignat@etag.ee

Finland (AKA) • Jukka Tanskanen • jukka.tanskanen@aka.fi

France (ANR) • Anna Ardizzoni • anna.ardizzoni@anr.fr

Greece (GRST) • Marios Koniaris • m.koniaris@gsrt.gr

Hungary (NKFIH) • Edina Nemeth • edina.nemeth@nkfih.gov.hu

Ireland (IRC) • Rose Sweeney • rsweeney@research.ie

Israel (InnovationAuth) • Nir Shaked • nir.s@iserd.org.il

Italy (INFN) • Alessia D'Orazio • alessia.dorazio@bo.infn.it

Italy (MIUR) • Giorgio Carpino • giorgio.carpino@miur.it

Latvia (VIAA) • Maija Bundule • maija.bundule@viaa.gov.lv

Lithuania (LMT) • Laura Kostelnickienė • laura.kostelnickiene@lmt.lt

Poland (NCN) • Anna Wieczorek • anna.wieczorek@ncn.gov.pl

Portugal (FCT) • Nuno Moreira • nuno.moreira@fct.pt

Québec (FRQNT) • Laurence Martin Gosselin • laurence.martingosselin@frq.gouv.qc.ca

Romania (UEFISCDI) • Domnica Cotet • domnica.cotet@uefiscdi.ro

Slovakia (SAS) • Zuzana Panisová • panisova@up.upsav.sk

Spain (AEI) • Watse Castelein • era-ict@aei.gob.es

Sweden (VR) • Camilla Grunditz • camilla.grunditz@vr.se

Switzerland (SNSF) • Ahmad Zein Assi • chistera@snf.ch

Turkey (TUBITAK) • Serkan Üçer • ncpfet@tubitak.gov.tr

United Kingdom (EPSRC) • Maryam Crabbe-Mann • maryam.crabbe-mann@epsrc.ac.uk

Call Information

Anna Ardizzoni (ANR)

anna.ardizzoni@anr.fr • www.chistera.eu

CHIST-ERA CONSORTIUM

The CHIST-ERA consortium has created a common funding instrument to support European research projects that engage in long-term research in the area of ICT and ICT-based sciences. Through this instrument, the national/regional funding organisations of CHIST-ERA support and join the Horizon 2020 Future and Emerging Technologies (FET) agenda. By launching joint European calls, they can support more diverse research communities, who are able to tackle the most challenging and novel research topics.
Each year, CHIST-ERA launches a call for research projects in two new topics of emergent scientific importance.

Funding Organisations in the Call 2019

CHIST-ERA is supported by the EU Horizon 2020 FET programme

chist-era

European coordinated research on long-term ICT and ICT-based scientific challenges

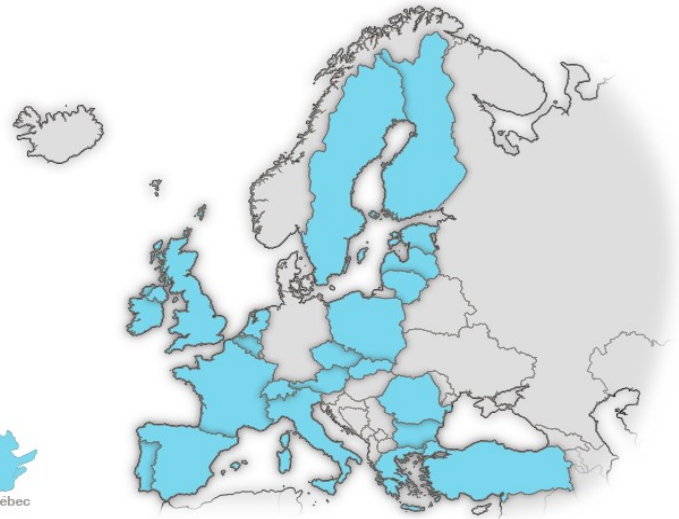
Call 2019

Explainable Machine Learning-based Artificial Intelligence

and

Novel Computational Approaches for Environmental Sustainability

Deadline: 14th February 2020



www.chistera.eu

chist-era

CALL 2019 TOPICS

Explainable Machine Learning-based Artificial Intelligence (XAI)

Explanation of decisions made by AI systems is seen as important for the trust and social acceptance of AI. It is likely in the future that there will be a 'right to an explanation' for decisions that affect an individual. The objective of research on this topic is to make machine learning-based AI explainable. To do this effectively, it is expected that explanation will need to be designed and integrated into AI systems from the outset, including the data collection and training of algorithms that are the basis of machine learning-based AI. Along with the technical challenges, it is important to consider that explanation is required at different levels for different stakeholders with different levels of technical knowledge, and in different application domains. It is also important to measure the effectiveness of the explanation at the human and the technical levels, for example by evaluating how transparency, trust and usability are enhanced.

Target Outcomes: i) Integration of explainability into new and existing AI systems (incl.: Explainability for identification and elimination of biases in data collection; Explainability in the training of machine learning algorithms; Development of algorithms and user interfaces for explainability); ii) Integration of social and ethical aspects of explainability into AI systems including: User requirements, bias, objectivity and trust; iii) Developing a means to measure the effectiveness of explainable systems for different stakeholders (objective benchmarks and evaluation strategies for research in this domain).

Novel Computational Approaches for Environmental Sustainability (CES)

With the challenge of environmental changes being highlighted, it is important that scientists are able to understand and model the environment so they can understand and predict upcoming changes. As environmental models become more complex and more adaptable in real time, it is necessary to change the way we work with these models, to be more integrative, more reactive and reduce the amount of computational power being used. This will improve the computational models that we have and allow better predictions on the future of our planet.

Better data —> Better model —> Better prediction —> Better decision/action

Target Outcomes: Improvements to computational systems so that data be collected and modelled (in real time and at different levels of complexity and granularity); Integration of models to improve overall knowledge of an area or system; Displaying the outputs of a model in a way that different stakeholders are able to understand and make decisions from them; Modelling of uncertainty in a way that is easy to understand

*CHIST-ERA projects should be of a **FET-like** nature and contribute to the development of the European research and innovation capacity in the technology domain of the call topics. They should explore collaborative advanced interdisciplinary science and/or cutting-edge engineering with the potential to initiate or foster new lines of technology and help Europe grasp leadership early on in promising future ICT and ICT-based areas with potential for significant impact in the long term.*
***Open access** to publications and research data, is a key asset to leverage on research funding. Applicants are encouraged to consider approaches promoting open access starting from the project preparation stage.*
*To widen participation throughout Europe, applicants are encouraged to include partners from the **Widening Countries** in the call: Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Portugal, Romania, Slovakia and Turkey.*

SELECTION PROCEDURE

This call follows a two-stage submission and evaluation procedure.
At both stages of the application, the coordinator prepares a joint proposal for the consortium, using the template available on the CHIST-ERA website. The forms are submitted using the electronic submission system on the

Consortium Eligibility

Projects have a duration of either 24 or 36 months.

The following criteria must be met:

- The consortium is **international**: It must have a minimum of three partners and partners must be located in at least three distinct countries.
- The consortium is **balanced**: At most 60% of the total funding may be requested by partners from one country. At most 40% of the total requested funding may be requested by a single partner.

The consortium needs to be **focused**, that is, the proposed research must have a clearly defined goal. Consortia should therefore normally contain between three and six partners.

Research groups who are not eligible to receive funding from any organisation participating in the concerned topic may be part of a consortium if they are able to secure their own funding. Third-party funding is not considered for the criteria above. The consortium coordinator must be supported by a funding organisation participating in the topic.

Evaluation and Funding Decision

The proposals are evaluated by an international panel according to the following criteria: **Relevance to the Topic**, **S/T Quality**, **Impact** and **Implementation**.

Based on the ranking and of available funding, CHIST-ERA proposes a list of projects to be funded. The final decision remains with the funding organisations.