



# Projects Seminar 2022

## Presentation of CHIST-ERA

March 28, Online

Contact: [chistera@anr.fr](mailto:chistera@anr.fr)





- ❑ A network (ERA-NET) of research funding organisations in Europe and beyond
  - ✓ Covering most European countries + Québec & Taiwan
  - ✓ Call consortium is a sub-set of CHIST-ERA consortium (participation on a topic by topic basis)
- ❑ Supporting long term research targeting emerging digital technologies
  - ✓ Investing in the identification and definition of promising topics
  - ✓ Supporting 2 topics per year
    - Typically 10-15 projects of approx. 0.8 - 1 M€ each, involving at least 3 countries each
  - ✓ Promoting RRI & Open Science, Widening Countries, research results exploitation
- ❑ Relying on a well-established yearly call cycle
  - ✓ One-step evaluation process
- ❑ Fostering cross-fertilisation across topics and strategic thinking through a yearly Projects Seminar
- ❑ Exploration of new funding activities: Call Open Science & Challenge Call



chist-era

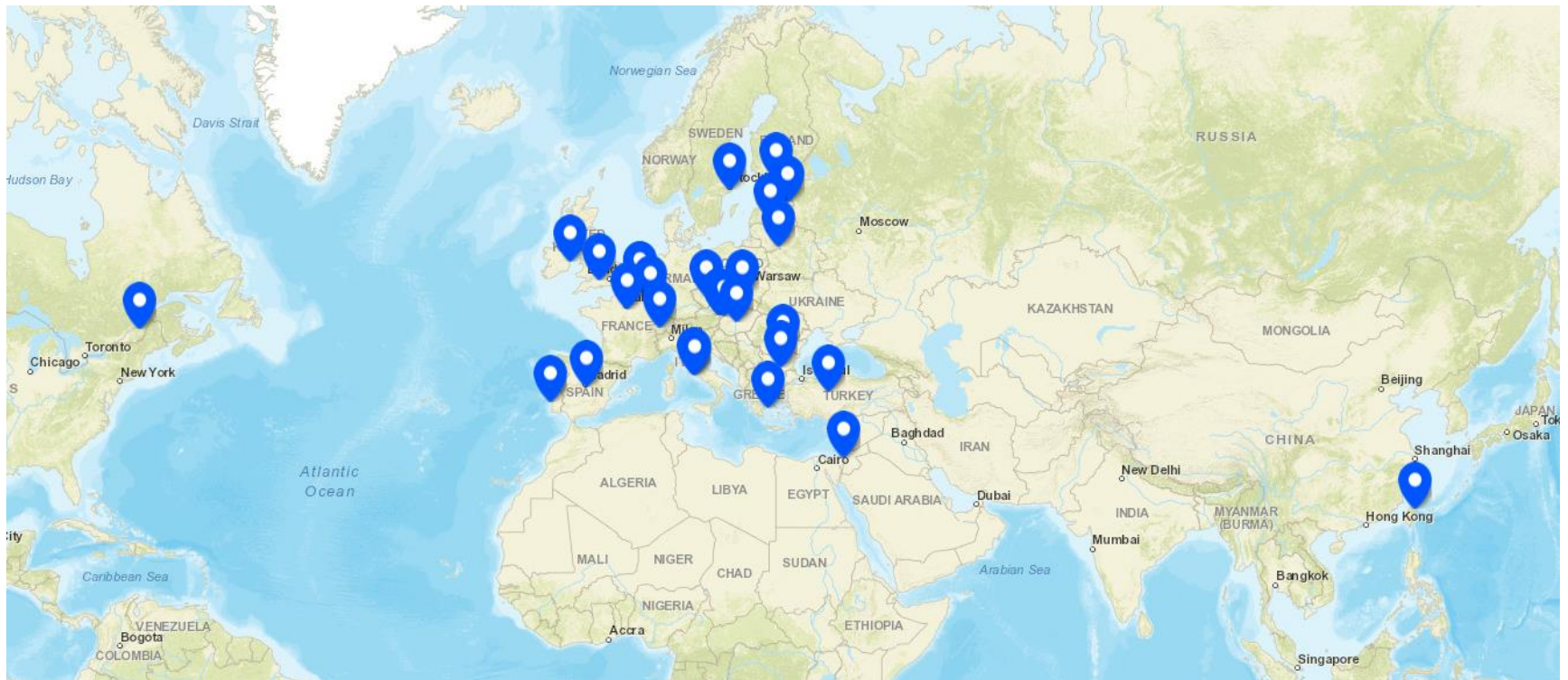
# Network of Research Funders

**CHIST-ERA 2022**

29 funders from 26 countries

**CHIST-ERA 2010**

9 funders - 9 countries

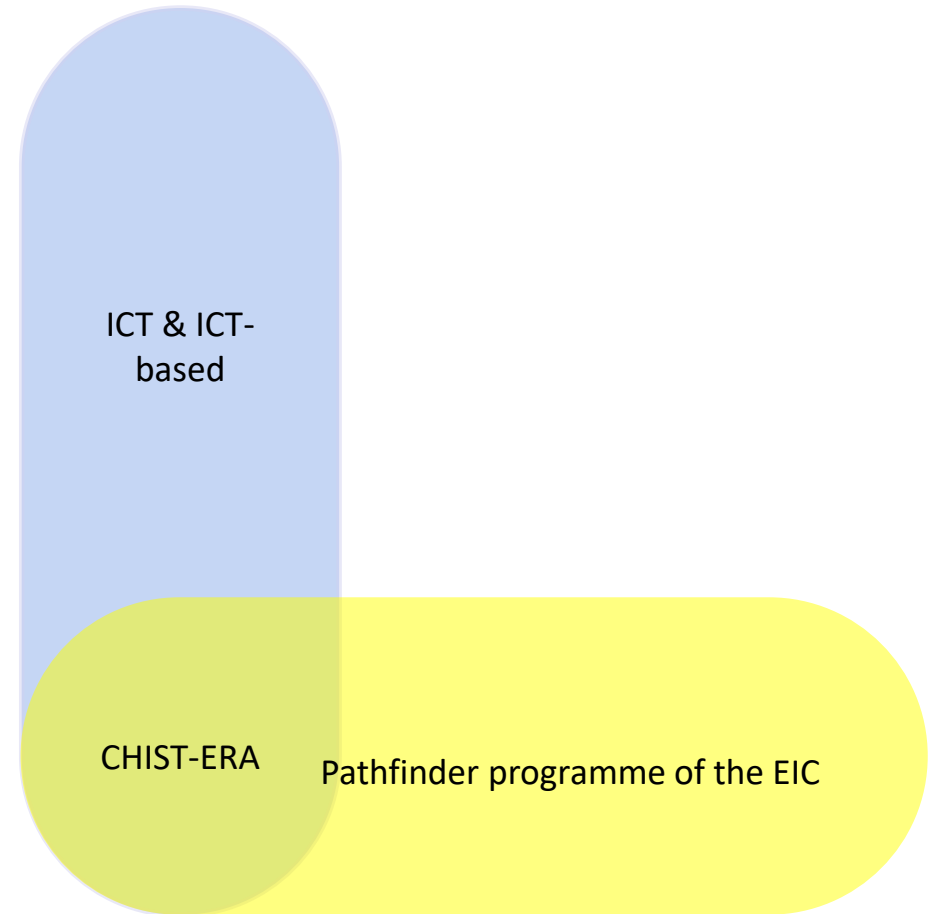




# Targeted Research

*Smarter, Safer, Leaner... ICT*

- ❑ CHIST-ERA is a project of the European Innovation Council Pathfinder programme
- ❑ Support to **basic research for future and emerging ICT** (Pathfinder-like research)
  - ✓ Long term interdisciplinary research
  - ✓ Risky with potential high impact
  - ✓ Favour novelty
- ❑ Focus on performance evaluation



# Emerging Call Topics

- ❑ With the past 12 calls, CHIST-ERA has targeted:

Quantum computing, consciousness, knowledge extraction, low-power computing, intelligent user interfaces, smart communication networks, adaptive machines, distributed computing, trustworthy cyber-physical systems, human language understanding, security and privacy in the IoT, terahertz communication, lifelong learning for intelligent systems, visual analytics, object recognition and manipulation by robots, big data and process modelling for smart industry, analog computing for artificial Intelligence and smart computing in networks, explainable artificial intelligence and ICT for environmental sustainability, brain-computer interfaces, sustainable ICT, NOEMS, Fake News

→ More info: [www.chistera.eu/past-topics](http://www.chistera.eu/past-topics)

- ❑ This year's call concerns the following topics:

1. Security and Privacy and Decentralised and Distributed Systems (SPiDDS)
2. Machine Learning-based Communication Systems, towards Wireless AI (WAI)

Participate in Call 2022 definition and join Conference  
2022 next May 24-26 in Edinburgh  
<https://www.chistera.eu/conference-2022-programme>



# Yearly Main Events

- ❑ Call topics selection workshop (among funding organisations & Scientific Advisory Board)
  - ✓ Open consultation, e.g. for the Call 2022: <https://www.chistera.eu/open-consultation-call-2022-topics>
  - ✓ Elaborate topic selection process open to new ideas
  - ✓ Selection based on well-defined criteria and thorough discussion
- ❑ Call topics definition conference (for all researchers interested in a selected topic)
  - ✓ Advertises the call
  - ✓ Contributes to call scoping
  - ✓ Networking event for the applicants
- ❑ Funded Projects Seminar (for all representatives of active projects)
  - ✓ Contributes to project follow-up
  - ✓ Networking event for projects within and across topics
  - ✓ Fosters strategic thinking



- ❑ Review of all templates of the yearly call cycle to encourage the researchers to think of the exploitation of their research results
- ❑ Research results exploitation report 2-3 years after project end
- ❑ CHIST-ERA funded projects are eligible to EIC Transition calls
  - ✓ Funding opportunity of 2.5 M€ to bring to higher TRLs research results
  - ✓ 6 'CHIST-ERA' applicants to 2021 EIC Transition call
  - ✓ 2 deadlines in 2022:
    1. May 4
    2. September 28
  - ✓ More info: [https://eic.ec.europa.eu/eic-funding-opportunities/eic-transition\\_en](https://eic.ec.europa.eu/eic-funding-opportunities/eic-transition_en)



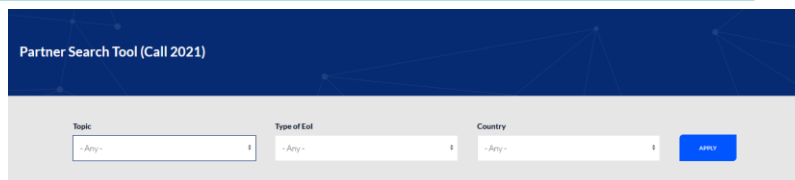
- ❑ Commitment of Open Access within calls following the principle “as open as possible, as closed as necessary”
  - ✓ Publications in Open Access (Green or Gold routes)
  - ✓ Underlying data FAIRly open in archives
- ❑ Supporting tools
  - ✓ Data Management Plan for accepted projects
  - ✓ Open Science Coordinator: New role for the projects
  - ✓ Trainings: <https://www.chistera.eu/open-science-trainings>



- ❑ Motivation: Spread excellence
  - ✓ CHIST-ERA, as a funding instrument of collaborative projects following competition, can be instrumental
    - In opening well established non-Widening Countries research networks to most talented researchers in the Widening Countries
    - Conversely, enrich the European scientific and technology landscape with varied perspectives and scientific and technology challenges to tackle
- ❑ Supporting measures
  - ✓ Selection criterion to prioritise projects with Widening Countries in case of ex aequo projects
  - ✓ Disseminate call opportunities via dedicated communication (infodays, matchmaking event...)
  - ✓ Partner Search Tool
  - ✓ Grant an additional funding when the coordinator is in the Widening Countries
- ❑ More info: <https://www.chistera.eu/widening-countries-policy>

# Applicants Supporting Tools

- ❑ Partner Search Tool
  - ✓ For instance, <https://www.chistera.eu/partner-search-tool/2021>
  - ✓ Or submit your expression of interest at <https://www.chistera.eu/expression-interest-eoi>
- ❑ Call newsletter to receive any call update at
  - ✓ For instance, <https://www.chistera.eu/chist-era-call-2021-newsletter>
- ❑ Open Science training at <https://www.chistera.eu/open-science-trainings>
- ❑ FAQ is published at call webpage
- ❑ Technical guidelines for submitting a project available at call webpage
- ❑ Info webinars
  - ✓ For instance, <https://www.chistera.eu/call-2021-info-webinars>



The Partner Search tool offers to potential applicants the opportunity to find partners, by consulting the list of Expressions of Interest (Eoi) below and/or by submitting your own Eoi. In the latter case, your Eoi will be quality checked and published online within a few days after submission. [Submit your Eoi](#)

Note that to wider participation throughout Europe, proposals are encouraged to include partners from the so-called Widening Countries participating in the call: Bulgaria, Czech Republic, Estonia, Lithuania, Luxembourg, Poland, Slovakia and Turkey.

Information: [chistera@anr.fr](mailto:chistera@anr.fr)

Partners Looking for Project	Partners Looking for Project	Partners Looking for Project	Partners Looking for Project
<p><b>Misinformation (Fake news, rumors, etc.) and hate speech detection on online social platforms - University of Tartu, Estonia (Partner for Project)</b></p> <p><i>Foundations for Misbehaviour Detection and Mitigation Strategies in Online Social Networks and Media (DSHMEM) (1314)</i></p> <p>Computational social science group</p>	<p><b>Multi-DOF Piezoelectric actuators and motors for direct mounting to printed circuit boards - Vilnius Tech</b></p> <p><i>Nano-Opto-Electro-Mechanical Systems for ICT (NOEM4) (1313)</i></p> <p>- Piezoelectric actuators and motors for high precision motion and with several degrees of freedom.</p>	<p><b>NOEMS for ICT. INSITU Engineering s.L. (SME). Nano devices for positioning and tracking in indoor/outdoor environments.</b></p> <p><i>Nano-Opto-Electro-Mechanical Systems for ICT (NOEM4) (1313)</i></p> <p>ICT (IMU-GNSS, UWB), Geoinformation, Trackline devices.</p>	<p><b>Brain representations and incentives of sending fake news</b></p> <p><i>Foundations for Misbehaviour Detection and Mitigation Strategies in Online Social Networks and Media (DSHMEM) (1314)</i></p> <p>Brain representations of fake news using neuroimaging (model-based fMRI) in humans. Behavioral economics approach to identify...</p>

## Augmented project factsheet on CHIST-ERA website

- ✓ Main results, key exploitable results, publications in open access
- ✓ Via project coordinator account and Toolbox

## Project videos

- Slovak Academy of Sciences - Slovakia
- Mat-obaly s.r.o. - Slovakia

### Main results

The SOON project investigates the impact of the use of autonomous social age means that cyber-physical entities will act autonomously in order to optimize a Currently, in Industry 4.0, smart entities do exist. However, intelligence is local the same shop-floor. Our motivation comes from the observation that, if we and people, all these entities have to be connected and follow a shared, easy to In this project, we propose a holistic multi-agent paradigm that encompasses r teach to and to learn from software agents, via deep learning and data mining a data produced by sensors (vibration, temperature, etc.), automation and inform system), and humans in real-time.

The first year of the SOON project has been dedicated to the definition of the ; partners in the project, we have identified the most relevant scenarios and use be addressed with the proposed solution. The most relevant scenarios focus or defined and an ontology describing the different entities has been realized. In a Reinforcement Learning (RL) has been realized and its optimization and evalua (see for instance the figure below) with different kinds of industrial machines. T possible failures and the limitation of resources.

### Key exploitable results

The overall objective of this project is to demonstrate the added value of using project is at a first stage, nevertheless we expect that the final results could ha European industry. The main goal of the project is to propose smart solutions t

## Publications in Open Access

[DisCERN: Discovering Counterfactual Explanations using Relevance Features from Artificial Intelligence \(ICTAI\)](#)

Wiratunga, N., Wijekoon, A., Nkisi-Orji, I., Martin, K., Palihawadana, C., & Corsar, D.

[DisCERN: Discovering Counterfactual Explanations using Relevance Features from International Conference on Tools with Artificial Intelligence \(ICTAI\)](#)

Nirmalie Wiratunga AND Anjana Wijekoon AND Ikechukwu Nkisi-Orji AND Kyle Martin AND C

[A Systematic Review on Model-agnostic XAI Libraries \(ICCBW Workshops 2021\)](#)

Jesus M. Darias, Belén Díaz-Agudo, Juan A. Recio-García

[DisCERN: Discovering Counterfactual Explanations using Relevance Features from International Conference on Tools with Artificial Intelligence \(ICTAI\)](#)

Nirmalie Wiratunga RGU ; Anjana Wijekoon ; Ikechukwu Nkisi-Orji ; Kyle Martin ; Chamath Palih

[Counterfactual Explanations for Student Outcome Prediction with Moodle Footprint United Kingdom\)](#)

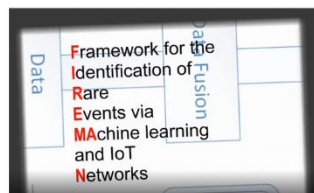
Anjana Wijekoon, Nirmalie Wiratunga, Ikechukwu Nkisi-Orji, Kyle Martin, Chamath Palihawada

[Deliverables Milestone 0 \(restricted access\)](#)

Belen Diaz-Agudo; Nirmalie Wiratunga; Anne Liret; Derek Bridge;

[A Case-Based Approach for the Selection of Explanation Algorithms in Image Classification \(IC3X 2021\)](#)

novarced, Mauricio Gabriel Orozco-del-Castillo, Est



### FIREMAN

Posted on Mon, 04/12/2021 - 11:07

Framework for the Identification of Rare Events via Machine Learning and IoT Networks

>>>FIREMAN Video<<<

Project Summary: FIREMAN

Call topic: Big data and process modelling for smart industry (BDSI)

### iSee

Posted on Mon, 04/12/2021 - 11:26

Intelligent Sharing of Explanation Experience by users for users

>>>iSee Video<<<

Project Summary: iSee

Call topic: Explainable Machine Learning-based Artificial Intelligence (XAI)

### IVAN

Posted on Mon, 04/12/2021 - 11:21

Interactive and Visual Analysis of Networks

>>>IVAN Video<<<

Project Summary: IVAN

Call topic: Visual Analytics for Decision-Making under Uncertainty (VADMU)



# Call Open & Re-usable Research Data & Software

- ❑ Accelerate the transformation of S/T landscape driven by Open Access to Research Data and Software policy orientations, by:
  - ✓ Involving the researchers
  - ✓ Boosting transnational collaboration:
    - Among funders: Platform to exchange on funding priorities
    - Among project applicants
  - ✓ Being complementary to national/regional and EU calls
- ❑ Three proposed priorities:
  1. Create, enrich or prepare 'reference data sets'
  2. 'Editorialization' of data
  3. Processes and tools to archive, describe and reference software source code
- ❑ Projects targeted: At least 3 partners from 3 countries, 250 to 500 K€ per project
- ❑ Tentative date of call launch: Mid-2022
- ❑ More info: <https://www.chistera.eu/call-open-science-2022-draft-topic-keywords>



Thank you!

