Projects Seminar 2022

Presentation of CHIST-ERA

March 28, Online

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CHIST-ERA Overview

- 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
Network of Research Funders

**CHIST-ERA 2010**

9 funders - 9 countries

**CHIST-ERA 2022**

29 funders from 26 countries
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

- This year’s call concerns the following topics:
  1. Security and Privacy and Decentralised and Distributed Systems (SPiDDS)

Participate in Call 2022 definition and join Conference 2022 next May 24-26 in Edinburgh
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](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

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
Involvement of Widening Countries

- **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](https://www.chistera.eu/widening-countries-policy)
Applicants Supporting Tools

- **Partner Search Tool**
  - For instance, [https://www.chistera.eu/partner-search-tool/2021](https://www.chistera.eu/partner-search-tool/2021)
  - Or submit your expression of interest at [https://www.chistera.eu/expression-interest-eoi](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](https://www.chistera.eu/chist-era-call-2021-newsletter)

- **Open Science training at** [https://www.chistera.eu/open-science-trainings](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](https://www.chistera.eu/call-2021-info-webinars)
Visibility of Funded Projects

- Augmented project factsheet on CHIST-ERA website
  - Main results, key exploitable results, publications in open access
  - Via project coordinator account and Toolbox

- Project videos

Main results

The SOON project investigates the impact of the use of autonomous social software and physical entities that will act autonomously in order to optimize a. Currently, in industry 4.0, smart entities do exist. However, intelligence is local to the same shop-floor. Our motivation comes from the observation that, if we view and people, all these entities have to be connected and follow a shared, easy-to-work criteria. In this project, we propose a holistic, multi-agent paradigm that encompasses interaction and learning from software agents, via deep learning and data mining, a data produced by sensors (vibration, temperature, etc.), automation and information systems, 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 cases addressed with the proposed solution. The most relevant scenarios focus on the design and definition of the different entities that have been realiments. A Reinforcement Learning (RL) has been realized and its optimization and evaluation (see for instance the figure below) with different kinds of environments, and possible failure and the limitations 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 have European impact. The main goal of the project is to develop solutions that are customizable and adaptable to different environments.
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

Thank you!