CHIST-ERA Call 2020

Information Webinar #1

January 11, Online

Contact: chistera@anr.fr

Co-funded by
the European Union

Outline

- CHIST-ERA in brief
- Research targeted, topics description
- Evaluation and selection process
- Open Access policy
- Widening Countries policy
- Application procedure and recommendations

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CHIST-ERA in Brief

CHIST-ERA Overview

- A network (ERA-NET) of research funding organisations in Europe and beyond
  - ✓ Covering most European countries + Québec
  - ✓ 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 Open Science, Widening Countries, Ethics
- Relying on a well-established yearly call cycle
  - ✓ One-step high quality evaluation process
- Fostering cross-fertilisation across topics and strategic thinking through a yearly Funded Projects Seminar
- Diversification of funding activities: Call Open Science & Challenge Call

Network of Research Funders

Steady growth

CHIST-ERA 2010

9 funders - 9 countries

CHIST-ERA 2021

28 funders from 25 countries

Call Topics

- With the past 10 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

→ *More info: www.chistera.eu/past-topics*

- This year's call concerns the following topics:
  1. Advanced Brain-Computer Interfaces for Novel Interactions (BCI)
  2. Towards Sustainable ICT (S-ICT)

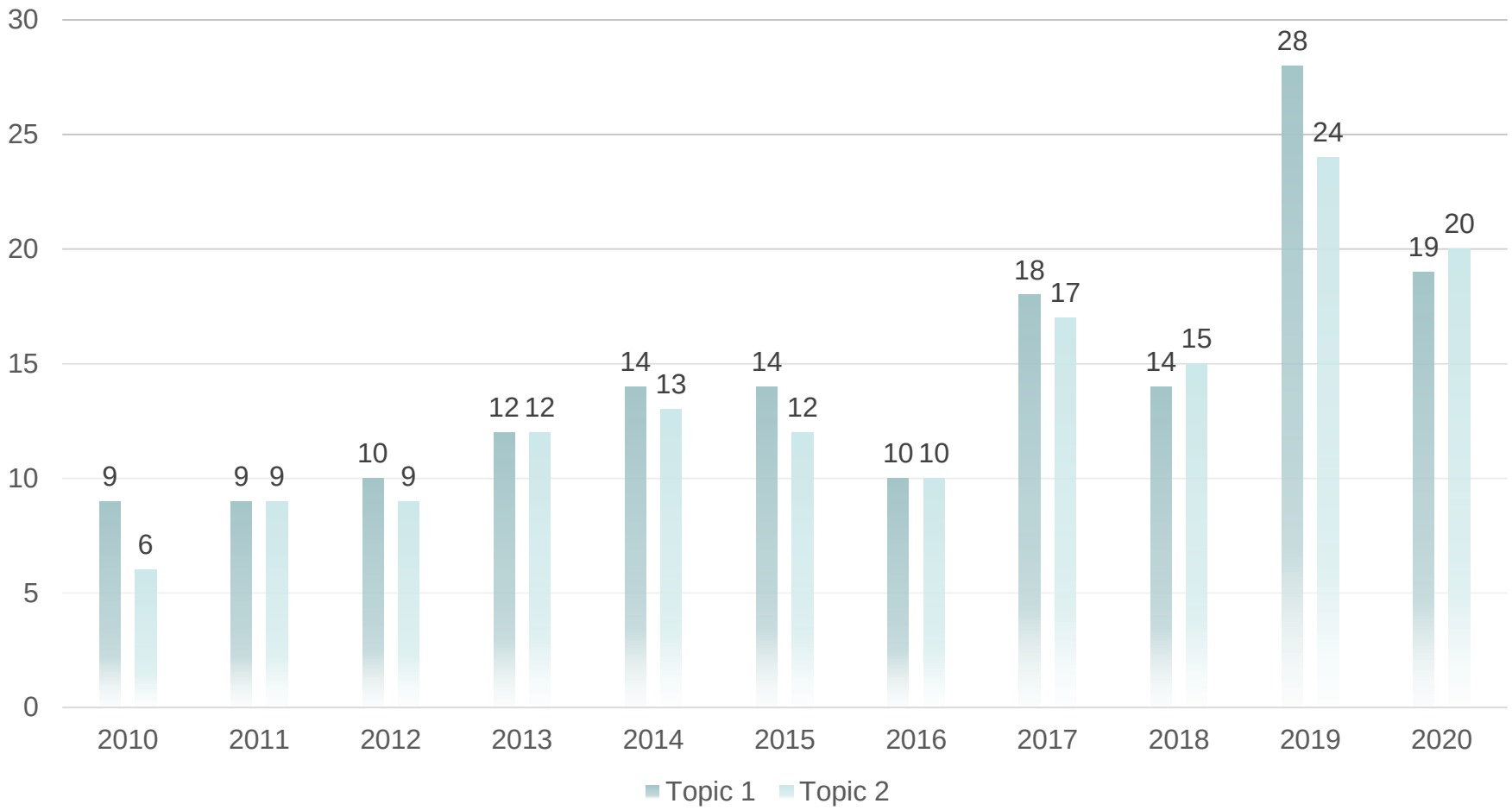
Yearly Main Events

- Call topics selection workshop (among funding organisations & scientific advisory board)
  - ✓ 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

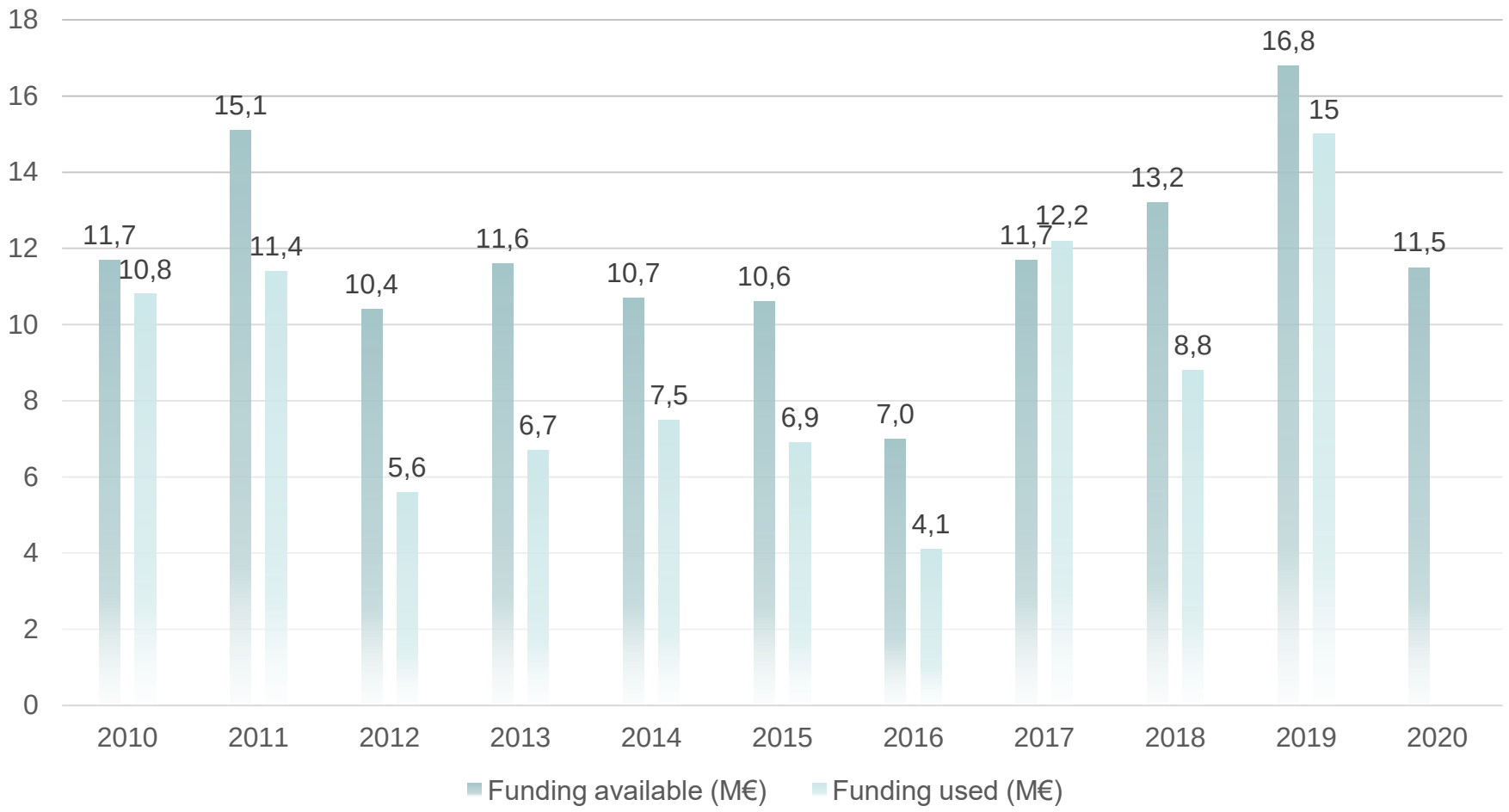
Fostering Strategic Thinking and Topic Maturation

- Relying on the Funded Projects Seminar
  - ✓ Put the items below on the agenda of the thematic parallel sessions and ask to cover them in the presentation in plenary session
- Connection with H2020 and development of strategic research agendas
  - ✓ Discuss the relevant parts of H2020 for the topic, whether they fulfil the needs, and potential evolutions
- Technology Transfer
  - ✓ Discuss and present the potential achievements and needs in connecting to users and/or industry
- Impact analysis
  - ✓ Offer to attend editions of the Seminar beyond project end

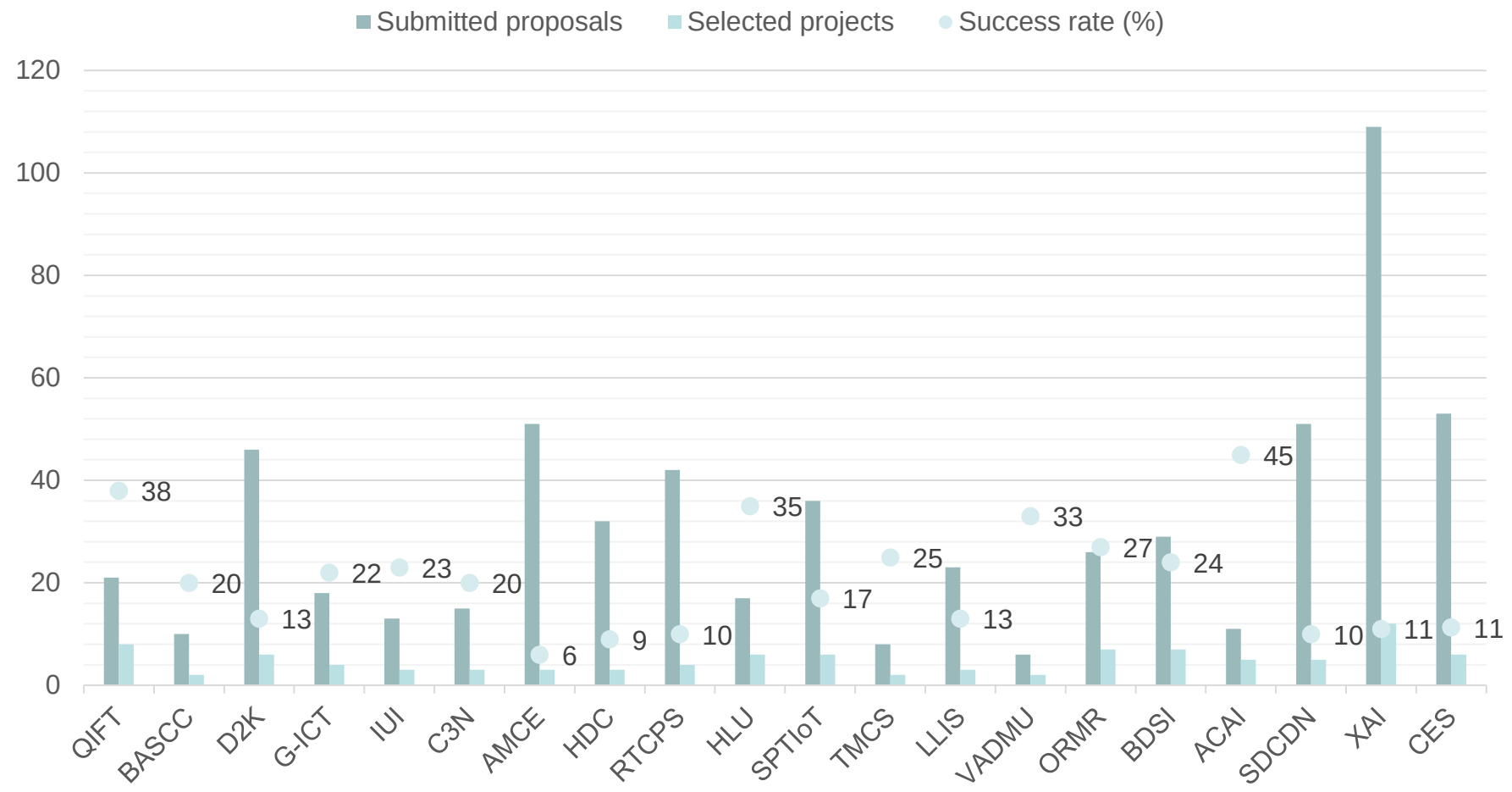
Funder Participation in Calls



Budget in Calls



Call Success Rate



Success rate (average): 16%

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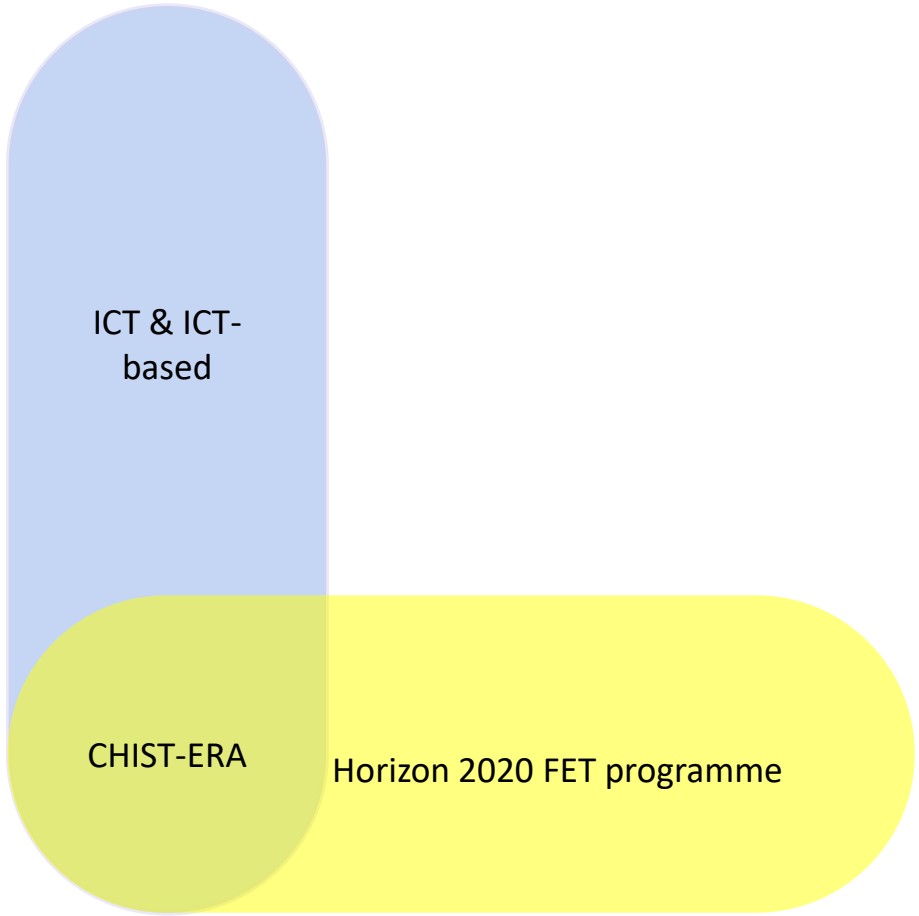
Research Targeted, Topics Description

Targeted Research

Smarter, Safer, Leaner… ICT

- CHIST-ERA is the ERA-NET of the FET Proactive programme
- Support to basic research for future and emerging ICT (FET-like research)
  - ✓ Long term interdisciplinary research
  - ✓ Risky with potential high impact
  - ✓ Favour novelty



Advanced Brain-Computer Interfaces for Novel Interactions (1/2)

Target Outcomes

- Focus on user experience: In order to push BCIs out of the laboratory, the experience of the user needs to be met. Co-creating with end-users could increase intuitiveness, user training and comfort
- Low power wearables: Increasing complexity means increased power consumption. This trade off needs to be carefully managed with efficiency and sustainability considered
- Better signal processing; improving the signal to noise ratio. Ensuring only relevant and reliable signals are captured. These signals should be clear and easily discernible from noise. Weak signal quality can be countered with better signal processing, especially where non-invasive modalities are used
- Acquisition of large datasets: In order to use Artificial Intelligence to develop better algorithms

Applicants should also consider the following:

- Patient/public citizen engagement in order to improve the acceptability of BCIs
- Interdisciplinary approach, i.e. involving clinicians in clinical relevant BCI development, or working with digital signal processing engineers to improve the robustness of signals

Advanced Brain-Computer Interfaces for Novel Interactions (2/2)

Expected Impacts

- New BCI paradigms that allow for ambitiously novel, intuitive, real or virtual interactions; Modelling of inter/intra-variability of subject response to BCI; Improved acceptability of BCIs alongside efficiency; Multi modal methodologies for augmented accuracy and usability
- Openly shared data, in particular large datasets, in order to unify/standardise protocols and help build momentum beyond the project consortia. Promoted reusability of datasets and addressed privacy issues
- Participation throughout Europe by involving partners from the Widening Countries
- Reinforced innovation capacity across Europe by involvement of key actors, for example young researchers, high-tech SMEs or first-time participants

Towards Sustainable ICT

Target Outcomes

- ❑ Reduction of e-waste through the use of organic materials and moving away from rare earth metals
- ❑ Wireless power management and optimising wireless networks
- ❑ Improved the efficiency of mmWave technologies
- ❑ Improvements to the modelling of power consumption with links to AI
- ❑ Recyclable components, modular devices and extended lifetimes – designed for disassembly and repairability
- ❑ Consideration of both energy and natural resources consumption

Towards Sustainable ICT

Expected Impact

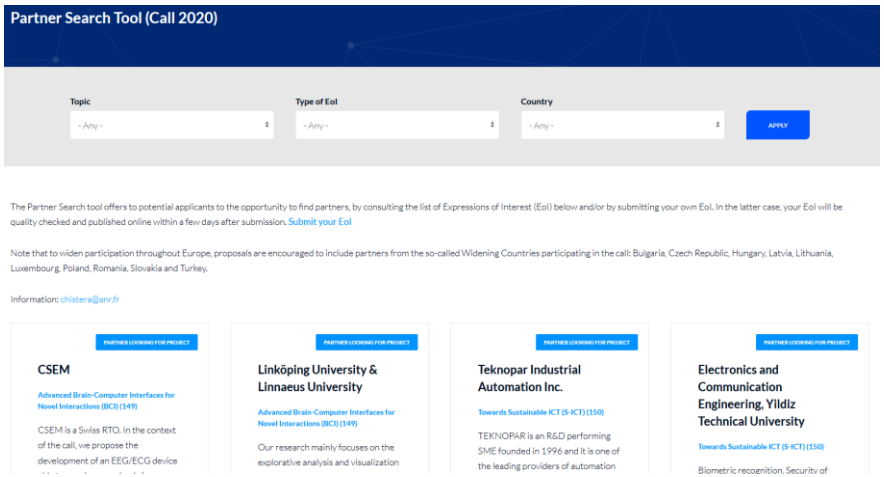
- Novel sustainable device manufacturing paradigms; Power consumption not only related to devices but their manufacturing, data traffic and power used to dispose of the device; Increased computing power without increased power consumption
- R&I stakeholders and end users awareness of the ICT footprint (energy, resources, carbon, e-waste) to foster sustainable ICT; Influence and unified policies on sustainable ICT
- Cross traditional boundaries between disciplines in order to strengthen the community involved in tackling these new challenges. A broad range of disciplines needed to cover the breadth of this topic should be considered and could include expertise and skills in ICT, material, energy, behaviour modelling, sustainability policies, among others
- Widened participation throughout Europe by involving partners from the Widening Countries
- Reinforced innovation capacity across Europe by involvement of key actors, for example young researchers, high-tech SMEs or first-time participants

Requirements from the Consortia

- Formation of consortia
  - ✓ At least 3 partners from 3 countries participating in the call topic
    - Industrial partners eligible for some funders (see call text for details)
  - ✓ Research should be focused on a clearly defined goal, i.e. typically not more than 6 partners is recommended
  - ✓ Consortia should be balanced:
    - Not more than 60% of the total requested funding may be requested by partners from one country
- Additional partners
  - ✓ Research groups from countries whose funding organisations are not in the call may join a project consortium as long as they are able to secure their own funding
  - ✓ These groups/institutions do not count for the 3-3 rule
  - ✓ The coordinator must request funding

Supporting Tools

- Partner Search Tool
  - ✓ Find partners at https://www.chistera.eu/partner-search-tool/2020
  - ✓ Or submit your expression of interest at https://www.chistera.eu/expression-interest-eoi
- Subscribe to the Call 2020 newsletter to receive any call update at
  - ✓ https://www.chistera.eu/chist-era-call-2020-newsletter
- Open Science training at https://www.chistera.eu/open-science-trainings
- Based on today's webinar a FAQ will be published at call webpage
- Technical guidelines for submitting a project available at call webpage by end of January
- A second webinar is planned on February 22 for last-minute questions
  - ✓ Registration: https://www.chistera.eu/call-2020-webinar-2-22022021



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Evaluation and Selection Process

WHO will Evaluate your Proposal?

- ***Evaluation panel*** – consists of sufficient number of high-level experts from different fields within the call topic
  - ✓ Some of them with specific knowledge on Open Science and on technology transfer
- Composition of the evaluation panel is prepared by the Call Secretariat and approved by CHIST-ERA funders in the call
  - ✓ Scientists participating in the proposals *cannot* be members of the evaluation panel or evaluate proposals as external reviewers
- Each proposal will be evaluated by 3 panel members
  - ✓ *External reviewers* – at least 2 for each proposal
- Evaluation panel is established for each topic → 2 separate panels evaluate proposals → Thus 2 ranking lists are elaborated
- The list of the panel members will be made public on CHIST-ERA website after the funding recommendation is issued

HOW will your Proposal be Evaluated?

Evaluation criteria **– for full description see Call 2020 Announcement**

- **Relevance to the Topic** (threshold: 4/5, weight: 1)
- **Scientific and Technological Quality** (threshold: 3.5/5, weight: 2)
- **Impact** (threshold: 3.5/5, weight: 2)
- **Implementation** (threshold: 3/5, weight: 1)

HOW will your Proposal be Evaluated?

Evaluation scores

0 **The proposal fails** to address the criterion or cannot be assessed due to missing or incomplete information (unless the result of an 'obvious clerical error').

1 **Poor.** The criterion is inadequately addressed, or there are serious inherent weaknesses.

2 **Fair.** The proposal broadly addresses the criterion; but there are significant weaknesses.

3 **Good.** The proposal addresses the criterion well, but with a number of shortcomings.

4 **Very good.** The proposal addresses the criterion very well, but with a small number of shortcomings.

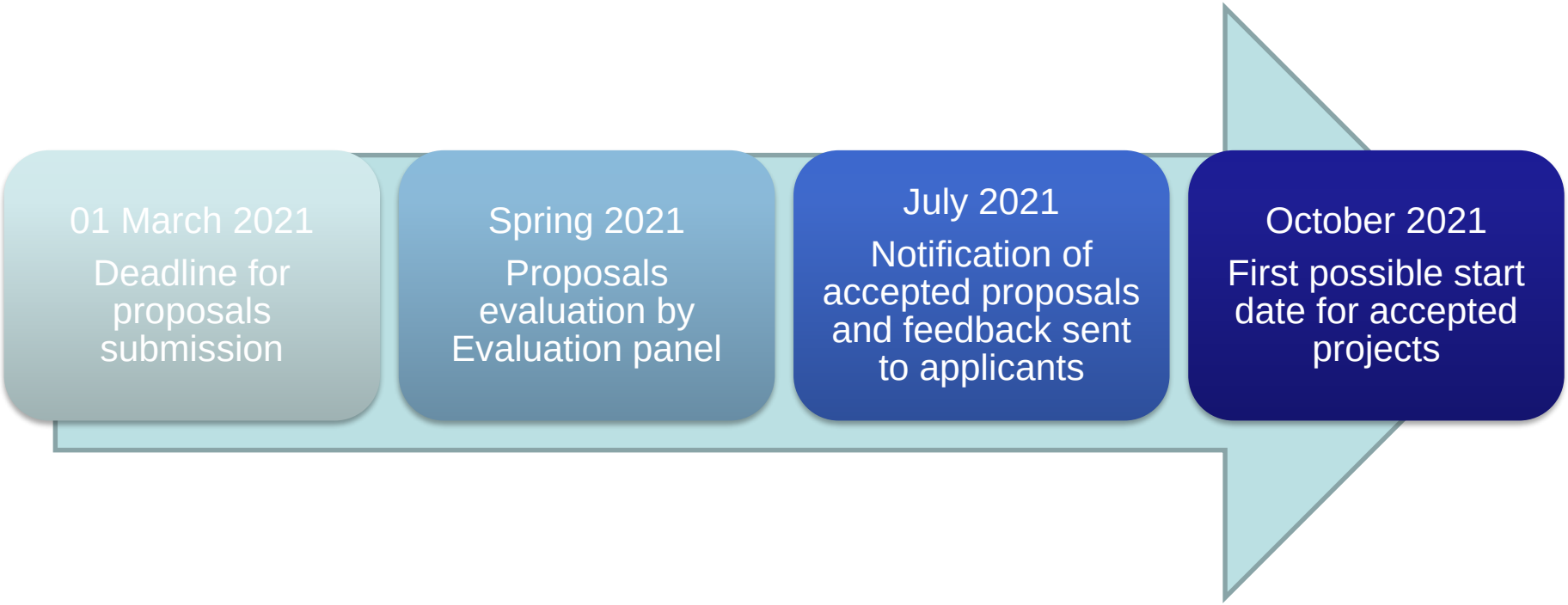
5 **Excellent.** The proposal successfully addresses all relevant aspects of the criterion; any shortcomings are minor.

Selection of Proposals

- On the basis of the ranking of the full proposals and of available funding, the Call Steering Committee prepares a list of projects recommended for funding to the national/regional funding organisations
- Call Steering Committee (CSC) follows the ranking list and makes efforts to fund as many projects as possible
  - ✓ If not all ex-aequo projects can be funded, the following options are considered
    - Budget of the respective funder(s) can be increased
    - Budget cut in requested funding (manageable up to 10%)
- If the budget is unsufficient to fund all *ex aequo* projects among rank N, CSC will select projects using the following criteria:
  - ✓ The output of the call, i.e. the overall funding, should be maximised (e.g. by prioritising the projects with high presence of under-represented countries and vice-versa)
  - ✓ If possible each funding organisation funds at least one project
  - ✓ Projects involving partners from **Widening Countries** are prioritised

WHEN will your Proposal be Evaluated?

Tentative timeline



WHICH Feedback will you Receive?

- Notification of selection decision
  - ✓ Proposal below quality threshold, or
  - ✓ Proposal above quality threshold but not selected due to lack of funding, or
  - ✓ Proposal selected
- Review feedback
  - ✓ A consensus report summarising the panel's view on the proposal and funding recommendation to CHIST-ERA is sent to the project coordinator
    - Subsequently report is distributed to all partners by project coordinator
- List of selected projects is published on CHIST-ERA webpage
- If the proposal is selected for funding, contractual negotiation phase is launched with respective funding organisations involved in the project

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Open Science Policy

Pioneering Opportunities for Excellent Multilateral Research

CHIST-ERA Open Science Policy

- Why Open Science?
- General Status
- Current Opportunities in Call 2020
- Complementary Developments and Measures

Why Open Access?

- Scientific transparency
- Reproducibility
- Visibility and democratisation of research
- Triplicating payment of the same research
  - ✓ Researchers
  - ✓ Publications
  - ✓ Access to publications/data

General Status

- Clear strategic positions in Europe in favour of Open Science
  - ✓ Plan S (signed by many stakeholders)
  - ✓ Open Science policies in many funding organisations
    - Requirements of Open Access to publications have become a standard
    - Open Access to research data is more heterogeneous
- Researchers have been doing Open Science for decades
  - ✓ Publications on open archives
  - ✓ Sharing data on open access repositories

Open Science Opportunities in Call 2020

- Good practices of the research community supported
  - ✓ Commitment of Open Access within Call 2020
    - Publications in Open Access (Green or Gold routes)
    - Underlying data FAIRly open* in archives
    - **No embargo**
  - ✓ Data Management Plan (DMP) for accepted projects
    - **Within 3 months** of project start
    - Update on a yearly basis
    - Sharing data on FAIR-enabling data repositories

- Open Science Coordinator: New role for projects
  - ✓ Planning of Open Science (activities, costs)
  - ✓ Monitoring throughout the project lifetime

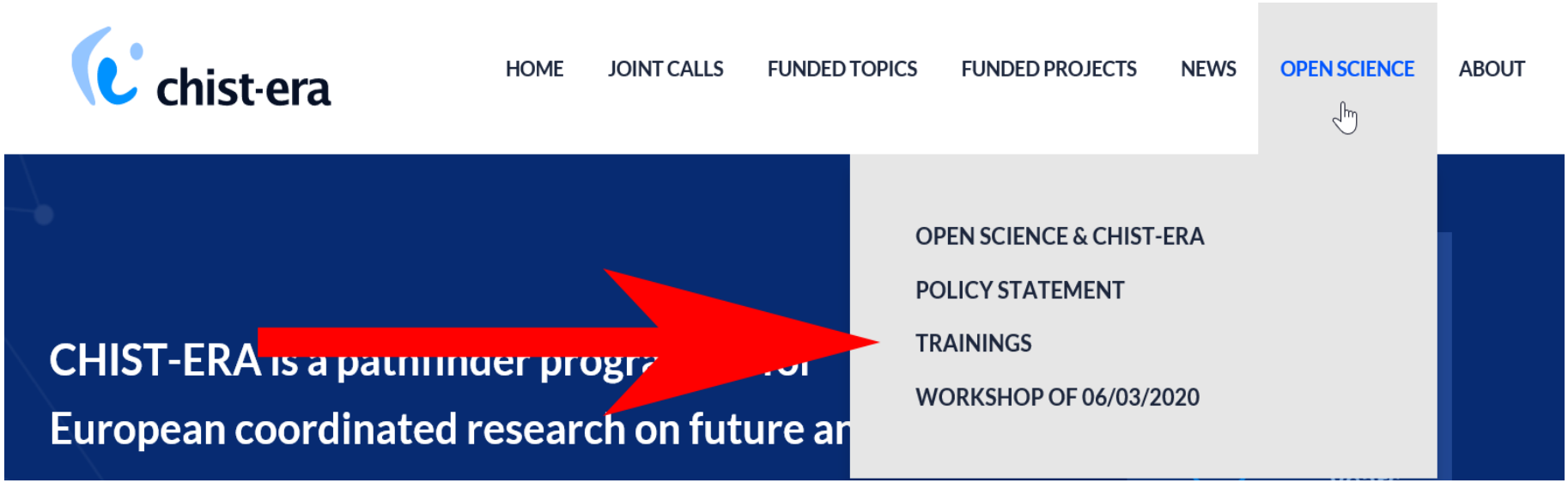
** Following the principle "as open as possible, as closed as necessary"*

Complementary Developments

- Appreciation of Open Science practices within the project evaluation (mainly *Impact* criterion)
- Reinforcement of DORA declaration principles
- See call documents for more details

Support Measures

- Webinar on Open Science (*OpenAIRE, December 2020)*



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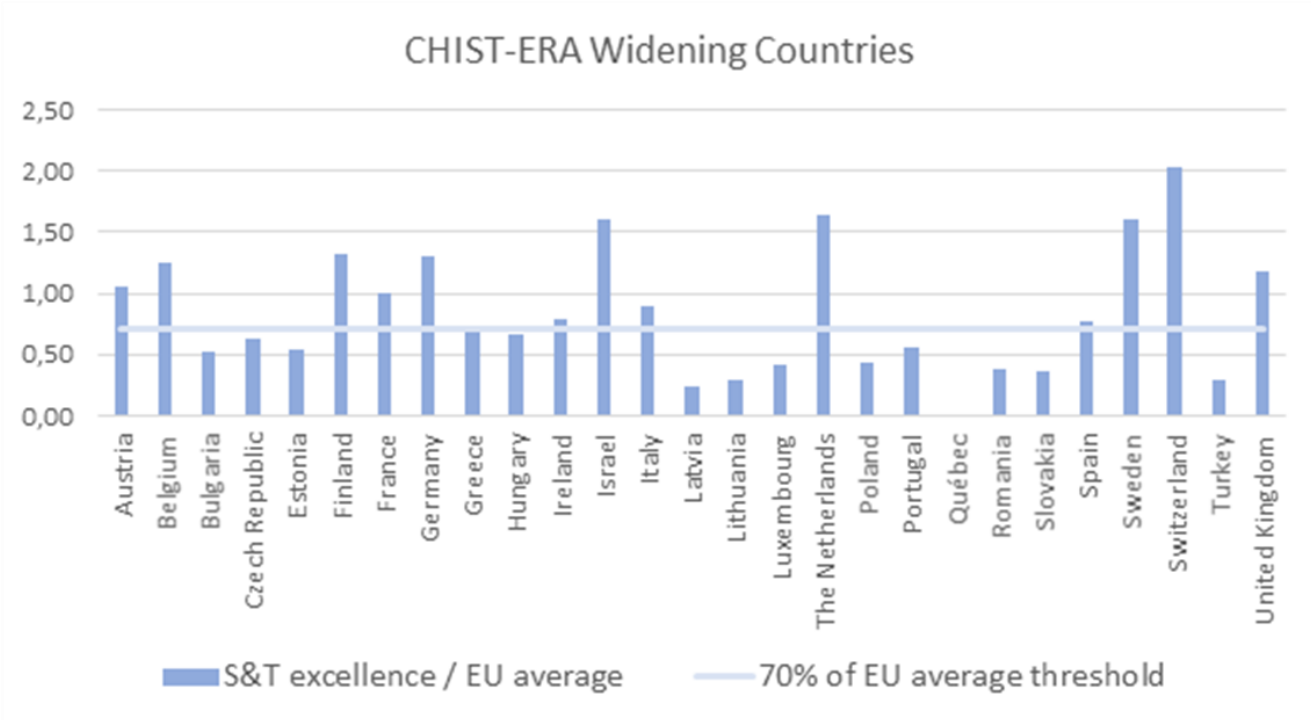
Widening Countries Policy

Definition

- Widening Countries: List of low performing countries in R&I established by the EC
  - ✓ To capture the notion of S&T excellence at the national level a composite indicator was designed early in the 2010s along four variables
  - ✓ I.e. the numbers of:
    - Highly cited publications
    - High quality patent applications
    - World class universities and research institutes
    - High prestige research grants
  - ✓ A country falls into the so-called Widening Countries group when its score is below 70% of the European Union average

CHIST-ERA Widening Countries



- Widening Countries in Call 2020: Bulgaria, Czech Republic, Hungary, Latvia, Lithuania, Luxembourg, Poland, Romania, Slovakia and Turkey

Motivation

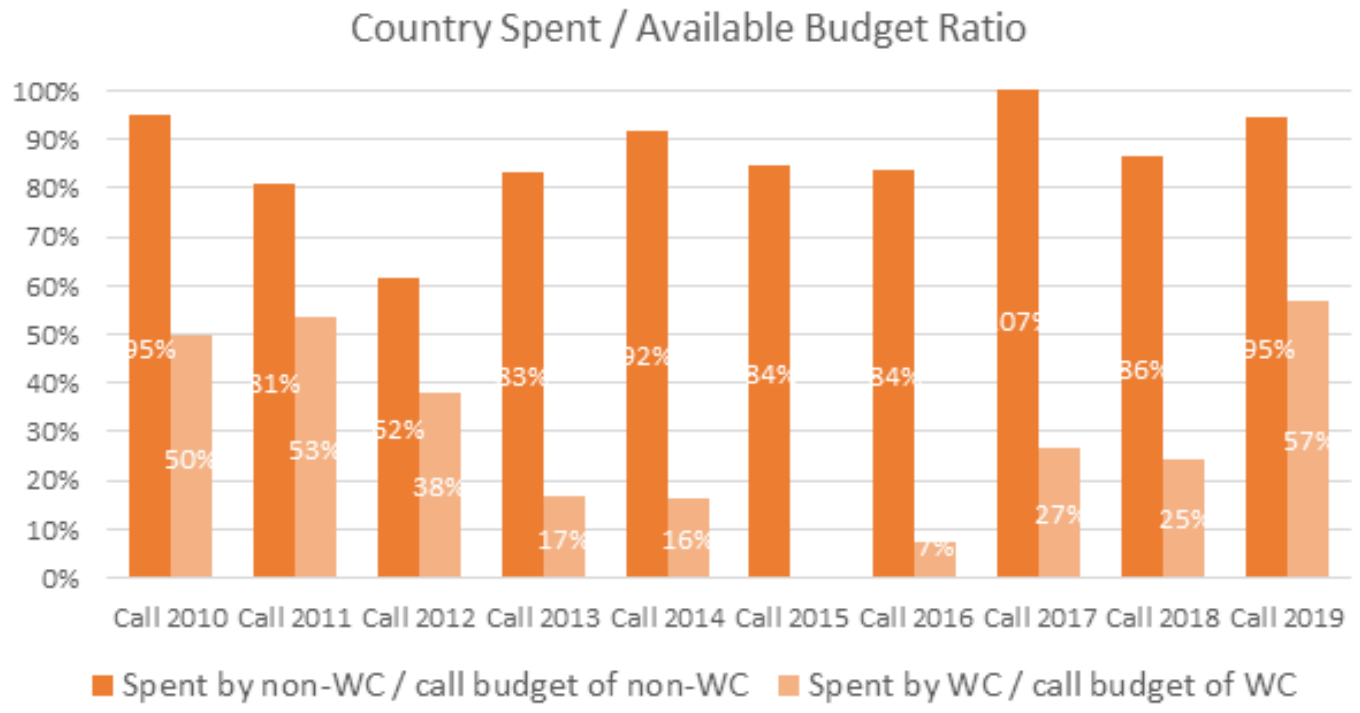
- Spread excellence
  - ✓ CHIST-ERA, as a funding instrument of collaborative projects following competition, can be instrumental
    - In opening well established non-Widening Countries research networks to most talented researchers in the Widening Countries
    - Conversely, broader engagement of the Widening Countries research communities has the capacity to enrich the European scientific and technology landscape with varied perspectives and scientific and technology challenges to tackle

Measures towards Researchers

- Add a call selection criterion that prioritises projects with Widening Countries in case of ex aequo projects
  - ✓ Objective: To create a strong incentive reflecting the strategic focus of CHIST-ERA towards participation of the Widening Countries
- Disseminate call opportunities via dedicated communication (infodays, matchmaking event…)
  - ✓ Objective: To make well known the policy orientation of CHIST-ERA
- Develop a Partner Search Tool
  - ✓ Objective: To help opening non-Widening Countries research networks to researchers in the Widening Countries
- Grant an additional funding when the coordinator is in the Widening Countries
  - ✓ Objective: To help homogeneise the distribution of the coordinators across CHIST-ERA countries

Funding Opportunity

- It is noticed that the ratio budget spent/available budget is lower for the funders in Widening Countries



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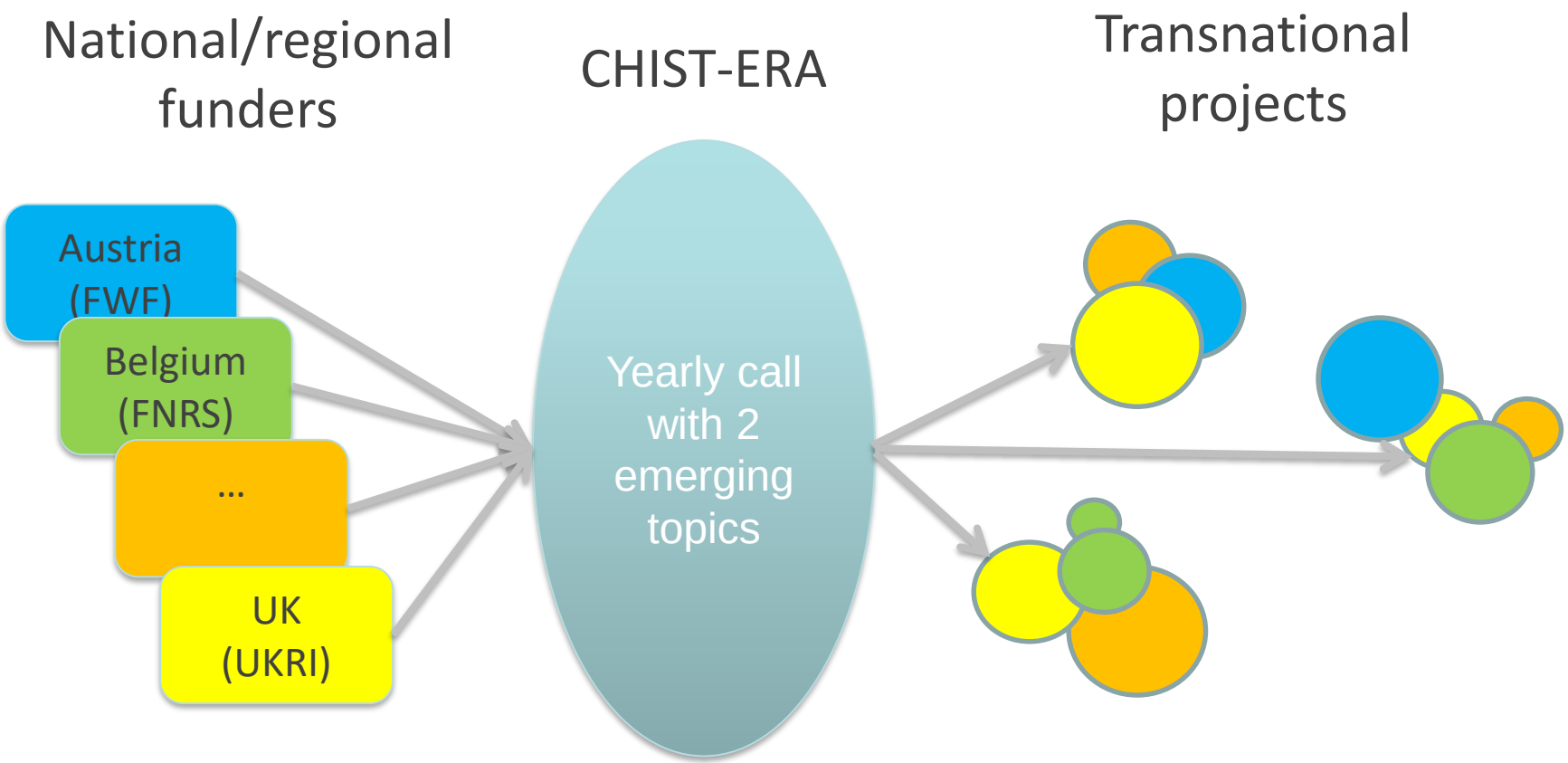
Application Procedure & Recommendations

Joint Funding Instrument (1/2)

- **European level**
  - ✓ Formation of collaborative projects
  - ✓ Submission of proposals
  - ✓ Evaluation and ranking
  - ✓ Funding recommendation
  - ✓ Contact point: CHIST-ERA Call Secretariat
- **National/Regional level**
  - ✓ One National/Regional Contact Point for the funding organisation
  - ✓ For some countries, a separate application to the respective funding organisation by a project partner from that country is needed
  - ✓ Formal implementation, grant agreement

Joint Funding Instrument (2/2)

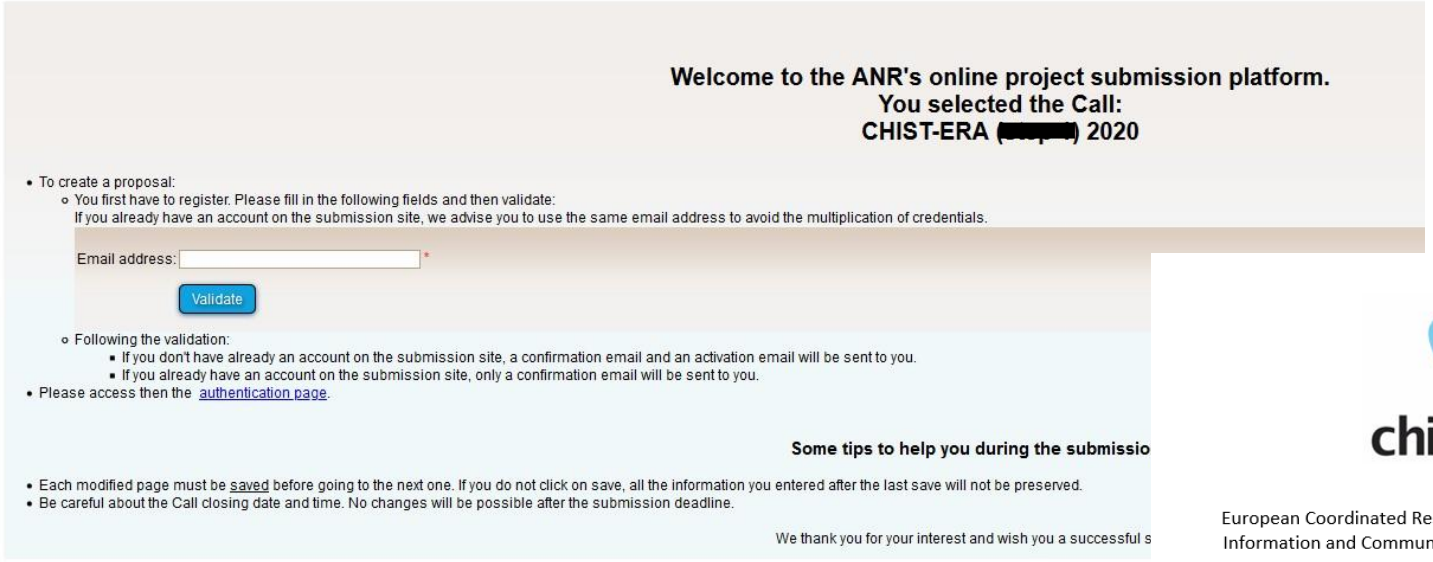
- No funding across borders
  - ✓ Each project partner is funded separately by the respective funding organisation (no common pot)



Application Procedure (1/2)

- One-step submission procedure
  - ✓ Proposal: approx. 25-35 pages
- Each consortium specifies one coordinator
  - ✓ Single point of contact for the call secretariat
  - ✓ The coordinator must be based in a country participating in the call
- For each project partner, one PI is the point of contact at the national/regional level
- Prior to submission, each PI has to consult with her/his funding organisation regarding eligibility issues:
  - ✓ Eligibility of the institution (university, academic institutions, industry,…)
  - ✓ Position of the PI (e.g. permanent staff,…)
  - ✓ Eligible costs
- The proposal is submitted through the ANR online submission platform
- Some funding organisations require additional national/regional forms

Application Procedure (2/2)



Welcome to the ANR's online project submission platform.
You selected the Call:
CHIST-ERA ([redacted]) 2020

- To create a proposal:
  - You first have to register. Please fill in the following fields and then validate:
    If you already have an account on the submission site, we advise you to use the same email address to avoid the multiplication of credentials.

Email address: *

Validate

  - Following the validation:
    - If you don't have already an account on the submission site, a confirmation email and an activation email will be sent to you.
    - If you already have an account on the submission site, only a confirmation email will be sent to you.
- Please access then the authentication page.

Some tips to help you during the submissio

- Each modified page must be saved before going to the next one. If you do not click on save, all the information you entered after the last save will not be preserved.
- Be careful about the Call closing date and time. No changes will be possible after the submission deadline.

We thank you for your interest and wish you a successful s

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European Coordinated Research on Long-term Challenges in Information and Communication Sciences and Technologies ERA-NET

www.chistera.eu

Call 2020
ELECTRONIC SUBMISSION SYSTEM

GUIDELINES FOR APPLICANTS

Joint Call Secretariat:
Anna Ardizzoni
anna.ardizzoni@anr.fr
+33 1 78 09 80 84

Recommendations (1/2)

- CHIST-ERA is not ERC: Collaboration, science and technology are essential ingredients
- Novelty and interdisciplinarity are important
  - ✓ Incremental refinements rarely make it, high-risk does
  - ✓ Collaboration driven by joint questions, goals and mutual learning
- A long term vision is essential but also a plausible idea on how to get there
- Strong encouragement to involve Widening Countries in the call
- Improve your project by integrating appropriate open access measures
- Consider altogether the Call Announcement, the evaluation criteria and the proposal template

Recommendations (2/2)

- Make sure that your partners have checked their eligibility with the respective funding organisations
- Take into consideration national/regional budget constraints. Projects are expected to be at maximum in the range of 0.8 – 1 M€
- Do not hesitate to contact the CHIST-ERA call secretariat and your national/regional contact points
- Get used to the electronic submission system sufficiently in advance to prevent any technical risk

Your Contacts

- Call 2020 information
  - ✓ Anna Ardizzoni (ANR – France) - chistera@anr.fr
- All Call 2020 contacts
  - ✓ www.chistera.eu/call-2020-announcement
- Call 2020 newsletter

- Website
- Newsletter
- Twitter
- LinkedIn

Country	Funding organisation	Participation per call topic		Contact point
		BCI	S-ICT	
Belgium	F.R.S.-FNRS	Yes	Yes	Florence.Quist@frs-fnrs.be
Belgium	FWO	Yes	Yes	eranet@fwo.be
Bulgaria	BNSF	Yes	Yes	Aleksandrova@mon.bg
Czech Republic	TACR	Yes	Yes	Michaela.Kriklanova@tacr.cz
Finland	AKA	Yes	Yes	Katrine.Mahlamaki@aka.fi
France	ANR	Yes	Yes	Anna.Ardizzoni@anr.fr
Hungary	NKFIH	Yes	Yes	Edina.Nemeth@nkfih.gov.hu
Ireland	IRC	Yes	Yes	RSweeney@research.ie
Israel	InnovationAuth	Yes	Yes	Rachel.L@iserd.org.il
Latvia	VIAA	Yes	Yes	Maija.Bundule@viaa.gov.lv
Lithuania	LMT	Yes	Yes	Laura.Kostelnickiene@lmt.lt
Luxembourg	FNR	Yes	Yes	Helena.Burg@fnr.lu
Poland	NCN	Yes	Yes	Alicja.Dylag@ncn.gov.pl
Québec (Canada)	FRQNT	Yes	Yes	Laurence.MartinGosselin@frq.gouv.qc.ca
Romania	UEFISCDI	Yes	Yes	Cristina.Cotet@uefiscdi.ro
Slovakia	SAS	Yes	Yes	Panisova@up.upsav.sk
Spain	AEI	Yes	Yes	era-ict@aei.gob.es
Switzerland	SNSF	Yes	Yes	chistera@snf.ch
Turkey	TÜBITAK	Yes	Yes	Utku.Cetin@tubitak.gov.tr
United Kingdom	UKRI	No	Yes	Maryam.Crabbe-Mann@epsrc.ukri.org

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Thank you!

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