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Assessment of NOVEL Approaches to Alignment

Case Study No.3 – ERA-NET Cofund EUROPEAN RESEARCH AREA FOR CLIMATE SERVICES (ERA4CS)

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ABSTRACT

This case study examines the key features, outputs and overall strengths and limitations of the **ERA-NET Cofund European Research Area for Climate Services (ERA4CS)**. The main activity within **ERA-NET Cofund actions** is the **implementation of a co-funded joint call** for proposals that leads to the funding of trans-national research and/or innovation projects. ERA4CS supports the Joint Programming Initiative Connecting Climate Change Knowledge for Europe (JPI Climate) in the implementation of a transnational joint call. **The novelty in ERA4CS is that ‘national programmes and funding’ stems from two different sources: Research Funding Organisations and Research Performing Organisations.** Together, they organise one joint call with one topic for each source and a call budget of 72 Mill EUR. ERA4CS has only officially started in January 2016. Described strengths and limitations are based on activities in the proposal phase and expected outcomes.

The case shows the following potential **strengths of this novel approach in ERA-NET Cofund actions**:

- ERA-NET Cofund actions support alignment at the level of research funding and joint research implementation
- Alignment of topics for research projects at research performers level across Europe and binding commitment of funding joint projects
- Alignment of topics for research projects at the level of research performers and research funders
- Engagement of Member States with limited competitive research funding in transnational research

However, the ERA4CS case also reveals **limitations of this novel approach in ERA-NET Cofund actions**:

- Setting up a novel approach in ERA-NET Cofund actions (combination of cash and in-kind funding) is time-consuming, but rewarding if effective alignment of research performing organisations is induced long term
- ERA-NET Cofund does not support long-term cooperation with multi-years co-funded calls, as one shot call is too administrative burden
- EC Top-up rate of 33% is not attractive enough for research performing organisations; others tools as European Joint Programme Cofunds should be investigated.

ERA4CS demonstrates the potential to contribute to an **European Research Area in Climate Services by a cooperative approach of research funders and research performers and the alignment of research funding**. ERA4CS also showed that the identification of joint interests of research performers, research funders and the respective national RTDI ministries helps to attract them for this kind of ‘experiment’.

The ERA4CS case is addressed to the following reader groups:

- **Coordinators of P2P** to assess the potential of aligning national research funding on both levels – research funders and research performers
- **Scientific Directors of research performing organisations** to learn about the opportunities to align institutional in-kind funding on transnational level and receive EC Top-up funding
- **Directors of research funding organisations** to learn how to cooperatively work with research performing organisations and align funding
- **Coordinators of national research programmes at RTDI ministries** to get aware of the potential of alignment of national research programmes in RPO and RFO
- **Policy makers at European Commission** to learn about how to support transnational alignment of research funding in the future

The case study builds on the ERA-LEARN 2020 “Definition and Typology of Alignment”¹, and relies on a review of existing literature and targeted interviews. The case is part of a series investigating NOVEL approaches towards alignment.

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¹ https://www.era-learn.eu/alignment/definition-typology/D4.1_ReportontheDefinitionandTypologyofAlignment_INRA_final_Nov2015.pdf

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1. Introduction

The European Commission (EC) supports the achievement and functioning of the European Research Area (ERA). ERA-NET Cofund actions under H2020 are designed to support public-public partnerships (P2Ps) in coordination of joint activities. The main and compulsory activity within **ERA-NET Cofund** actions is the **implementation of the co-funded joint call** for proposals that leads to the funding of trans-national research and/or innovation projects (one co-funded call per Grant Agreement). The EC tops-up the national contributions with 50% of the total national contributions, meaning that the EC provides 1 EURO on top of each 2 EURO spent by the participating national organisations to fund transnational research and innovation projects that will be selected through the joint co-funded call. This amount, the so-called EC Top-up funding is provided as a motivation for Member States **to safeguard and/or increase their national contributions to the joint co-funded call**. ERA-NET Cofund actions allow for national programme collaboration in any part of the entire research-innovation cycle.

The ERA-NET Cofund European Research Area for Climate Services (ERA4CS) supports the Joint Programming Initiative (JPI) Connecting Climate Knowledge for Europe (Climate) in the implementation of a transnational joint call. **The case study has been selected in order to explore how national research funding of research funders and institutional in-kind funding of research performers can be combined with each other at least to same extent, which can be considered as a novel approach to alignment.** The focus of the case study is on the alignment activities reached via the joint call in ERA4CS. ERA4CS also includes additional activities, which are no focus in this case study. The underlying aim of ERA4CS is a contribution to an ERA in climate services built by research funders and research performers together via their alignment of research priorities and research funding. Both type of organisations usually receive funding from national RDTI ministries and can coordinate this funding either cash (RFO Research funding organisations) or as institutional in-kind (RPO research performing organisations) on transnational level. As ERA is built by research funders and research performers together, ERA4CS organises one transnational joint call with two call topics on the basis of two different national funding sources. Using the ERA-NET Cofund actions in this way, reaches a higher level of alignment, because research funding from RFO and RPO is aligned towards one overall call topic.

Facts

Title: ERA-NET Cofund European Research Area for Climate Services (ERA4CS)²

Partners: 45 Partners from 18 countries, 15 Research Funding Organisations (RFO) and 30 Research Performing Organisations (RPO), see Annex 1

Coordination : Agence Nationale de la Recherche (ANR), FR

Partners in the call: 13 RFOs and 30 RPOs

Call Budget: 72 Mill EUR

One overall call topic 'Researching and Advancing Climate Services Development' developed in 2 sub-call topics: "Advanced co-development with users" for national cash funding (RFOs) and "Institutional integration" for in-kind support (RPOs)

EC Top-up is available for both call topics

Duration : 01/01/2016 - 31/12/2020 (5 years), call opening March 2016

ERA4CS has only started its activities in January 2016. This case study describes the preparation phase of the joint call. This includes the consortium building during the proposal phase, the development of a joint call management, the development of a suitable funding model and the establishment of an appropriate governance structure. Considering the potential of alignment of research funding available in RFOs and RPOs, other P2P networks can learn from the analysis of key activities, first outputs, strengths and limitations of ERA4CS.

2. Key features of ERA4CS

2.1 Strategy and objectives of ERA4CS

An ERA in climate research can only be built by cooperation of Research Funding Organisations (RFO) and Research Performing Organisations (RPO) according to the JPI Climate Chair. This ERA cannot be built by cooperation of national RFO only, because large parts of the national research funding goes as basic funding to RPO directly and cannot be aligned by RFO at transnational level. If Member States coordinate the research funding in RPO, they also

² <http://www.ERA4CS.eu>

contribute to build the ERA. Transnational cooperation by performers cannot only be stimulated by cash (e.g. in H2020 or transnational funding), but also needs to be addressed with strategic arguments to integrate research on the basis of projects funded by institutional in-kind.

RPOs are already interested in an exchange of know-how and may share joint research priorities (e.g. within European Energy Research Alliance³), but research collaboration is often limited due to a lack of funding opportunities.

The objective of ERA4CS is to

- establish a basis for discussion, cooperation and trust-building between both types of organisation – funders and performers
- agree on an overall research topic of joint interest (in this case “Researching and Advancing Climate Services Development”)
- organise a joint call combining national cash and in-kind funding with EC Top-up funding using an ERA-NET Cofund action

JPI Climate uses ERA4CS as an instrument to boost the engagement of EU Member States and Associated Countries, especially from New Member States by involving both the RPOs and the RFOs. Some New Member States have little cash funding available but can use institutional in-kind funding to participate in joint research in ERA4CS.

Another reason to combine national cash and in-kind funding within one ERA-NET Cofund action was the available Top-up budget. The European Commission (EC) allocated 25 Mill EUR for this ERA-NET Cofund action in the H2020 Work Programme, which could not be released by RFOs only as the national commitments of RFO were too low. The joint partnership of RFO and RPO within one ERA-NET Cofund action made it possible to match the EC Top-up with national budgets as both RFO and RPO are eligible for EC Top-Up funding. A high total amount of EC Top-Up for one ERA-NET Cofund action can certainly be a driver for a combination of cash and in-kind funding, whether it was intended or not by the EC.

ERA4CS is an experiment and touches new ground in terms of alignment of research priorities and funding of two types of organisations. It remains to be seen what final lessons learnt will be after closure of ERA4CS in five years. However, for the time being, there are already interesting insights and lessons learnt to share with other P2Ps.

2.2 Strategic Arguments for Research Performers to become partners in ERA4CS

30 research performers and 13 research funders from 18 countries are partners in ERA4CS. 58% of the national funding contribution in ERA4CS stems from RPOs, 42% from the RFOs. RPOs contribute the largest share of the national funding contribution. Being partner of an ERA-NET Cofund action is not the typical form of projects, the RPOs usually join. According to the ERA4CS coordinator, RPOs were reluctant in the beginning to become partner of an ERA-NET Cofund action. For this reason, convincing strategic arguments had to be developed.

Strategic arguments to convince RPOs to join ERA4CS

- Call topic is defined by the Scientific Directors of the RPOs to ensure that call topic is rooted in the organisations research strategies and plans for the next years
- Cooperating in ERA4CS means to align some part (not all) of the strategic research interests of the future
- Research teams of RPOs respond to the research topics defined by the board of Scientific Directors and which corresponds to the research strategy of the RPOs
- High quality of projects can be ensured, as projects will be evaluated by an independent expert panel
- EC Top-Up funding will be received for research topics that are already foreseen in the research strategies of the PROs, however the following requirements of ERA-NET Cofund actions are most likely to lead to changes in the RPOs implementation of their research strategy:
 - Projects need to be transnational (at least two independent entities from two different EU Member States or associated countries)

³ case study no 1 on novel alignment actions in ERA-LEARN 2020

- Projects need to be selected following a joint transnational call for proposals, two-step procedure
- Projects need to be evaluated in step 2, with the assistance of at least three independent experts, on the basis of excellence, impact, quality and efficiency of the implementation
- Some Member States have little cash funding available, but institutional in-kind funding via RPOs gives them the opportunity to join transnational research cooperation and receive funding from the EC

Some insights how French RPOs became partners of ERA4CS

In order to contribute to JPI Climate in a coordinated and cooperative manner, France established a so-called mirror group at national level, where French RPOs with focus on climate and environmental research became active. The discussion on the possibility of French RPOs to join an ERA-NET Cofund has started in 2014. The argument to receive EC Top-Up funding for internally funded projects when implementing them together with partners outside France did not seem to be attractive for French RPOs in the beginning. They argued that 33% reimbursement of project costs would be very little in comparison to projects funded by H2020 or national agencies with 100% reimbursement. Moreover, they were wondering how to justify the in-kind contributions to projects. For the next 6-9 months there was no change of mind in the French RPOs. Meanwhile, RPOs in United Kingdom, Italy and Germany were interested in the idea to participate in an ERA-NET Cofund action in cooperation with RFOs. A turn in the strategic argumentation finally convinced the French RPOs. Whereas the outlook to receive EC Top-Up funding was interesting, but not sufficiently attractive, the following argument was convincing: Scientific Directors define the content of the call based on the research organisations own strategy. Making the argument strategic in combination with other countries' interests in this new model, finally created a positive approach of French RPOs to join ERA4CS. One after the other RPO agreed to join ERA4CS, together French RPOs provide 6 Mill EUR institutional in-kind.

Selection and diversity of RPOs

RPOs that were interested to become partner of ERA4CS needed a mandate from their national RTDI ministries. Many of these ministries are already active in the JPI Climate Governing Board.

Diversity of RPOs is given due to the following reasons:

- Some RPOs represent more or less all research performers within one country, because there is only one central research organisation (especially in smaller countries), in other countries 4-6 different RPOs exists who work on the same research topic (e.g. national and regional organisations)
- There is a difference in size of RPOs.
- The relationship between the Scientific Directors and the researchers varies. There are large organisations (e.g. CNRS in France) with a very large number of researchers in the field of climate issues and with a relatively weak relationship to the Scientific Director; there are medium-sized RPOs with a closer relationship to the Scientific Director and there are small RPOs with a close relationship to the Scientific Director, e.g. Director is still active researcher.

2.3 Call Management and Projects types

Most RFOs are familiar with ERA-NET Cofund actions. However, the cooperation with RPOs within an ERA-NET Cofund calls for a review of call management and a common approach.

Main features of the Call Management in ERA4CS

- 1 call text, 1 overall topic 'Researching and advancing climate services development', but 2 sub-call topics: "Advanced co-development with users" for cash topic and "Institutional integration" for in-kind topic
- 2-step evaluation procedure (see Annex 2)
- Establishment of the following relevant bodies in the governance structure (for more see Annex 3)
 - Cash-Management Board (cash-MB) comprising the representatives of the RFOs to refine the cash-topic of the call and collect the national specifications
 - In-kind Management Board (in-kind MB) comprising the Scientific Directors of all RPOs to refine the in-kind-topic of the call and collect the organisation specific requirements
 - Call Secretariat as a joint body caring for overall call management

- One independent expert panel for all proposals (cash and in-kind) named by RFOs
- Different types of projects are expected (see Table 1)

Critical milestones in ERA4CS

- Agreement of all Scientific Directors of the RPOs on one call topic for the in-kind part of the call in the preparation phase of the proposal (important personal Scoping meeting of all Scientific Directors facilitated by the ERA4CS coordinator)
- Agreement of the Scientific Directors to transfer evaluation of project proposal for the in-kind topic in step 2 to an independent Expert Panel, named by RFOs
- Solving compliance issues (Scientific Directors are not allowed to participate in a proposal)
- Establish « Firewall »⁴ between the cash and in-kind topic and avoid redundancies by checking the content proposals by the Call Secretariat and the Expert Panel
- Agreement of all Scientific Directors (in-kind MB) of the RPOs on key consortia/projects in the in-kind part of the call and commitment to guaranteed funding if the projects are selected by the Expert Panel (important Screening meeting in September 2016)
- Spending the maximal national funding and release the full EC Top-up

Type of Projects in ERA4CS

Partners in ERA4CS have agreed to one overall call topic, but two sub-call topics, one for the cash part of the call and one for the in-kind part of the call. Table 1 shows the differences and similarities of projects expected for these two sub-call topics.

Table 1 Type of projects in ERA4CS

	Cash-Topic	In-kind Topic
Overall call topic	Researching and Advancing Climate Services Development	
Topics	Advanced co-development with users with 3 sub-topics	Realisation of institutional integration with 3 sub-topics
Consortium composition	open to all applicants from the countries with participating 13 RFOs	open only to applicants from the 30 mandated RPOs. This means it is not open to external applicants outside of these organisations
	Partners from at least three countries	
Proposal topics	Address either the cash OR in-kind topic	
Project size	0,5-5 Mill EUR	>1 Mill EUR
other partners/countries	Can join on own costs	Can join on own costs
Projects duration	3 years project for both topics (cash and in-kind)	
Reporting	Common reporting using common templates for scientific / technical reporting	
	Financial reporting will follow rules of research funding organisations	Financial reporting will done towards the EC, following the H2020 rules
Monitoring	Same monitoring activities are applied for both topics	
Dissemination	Participation in joint events etc.	

2.4 Funding Model and Common Pots

Funding Model

National contribution of RFOs is ~20 Mill EUR and national contribution of RPOs is ~28 Mill EUR in ERA4CS. The total national contribution to transnational projects sums up to ~48 Mill EUR and allows to release a EC Top-up of 24 Mill

⁴ To allow RPOs from the consortium to contribute to both topics, they must not be aware of the cash content before it is published and thus not create any imbalance compared to other RPOs eligible to the cash topic and not members of the consortium. The “firewall” covers a number of mechanisms enabling this separation between cash and in-kind topics, while preserving the overall coherence and impact of the action.

EUR (see Section 1 on the principle of ERA-NET Cofund actions). Therefore, the announced call budget is 72 Mill EUR. However, in order to finally contract 48 Mill EUR national budgets, higher national budgets have been reserved to have some flexibility (see paragraph below).

Figure 1 shows the allocation of the EC Top-Up funding of 24 Mill EUR to the transnational projects. Projects selected for the cash-topic are funded by the national RFO. The budget for these projects increases from originally 20 Mill EUR national budgets plus 10 Mill EUR EC Top-Up to 30 Mill EUR. The budget for in-kind projects changes from 28 Mill EUR provided by the RPO plus 14 Mill EUR EC Top-Up funding to 42 Mill EUR. This funding model is only a simplified model as it does not consider the coordination costs for the joint call⁵, the unit costs for the additional activities and the reservation of additional national budget of RFO and RPO.

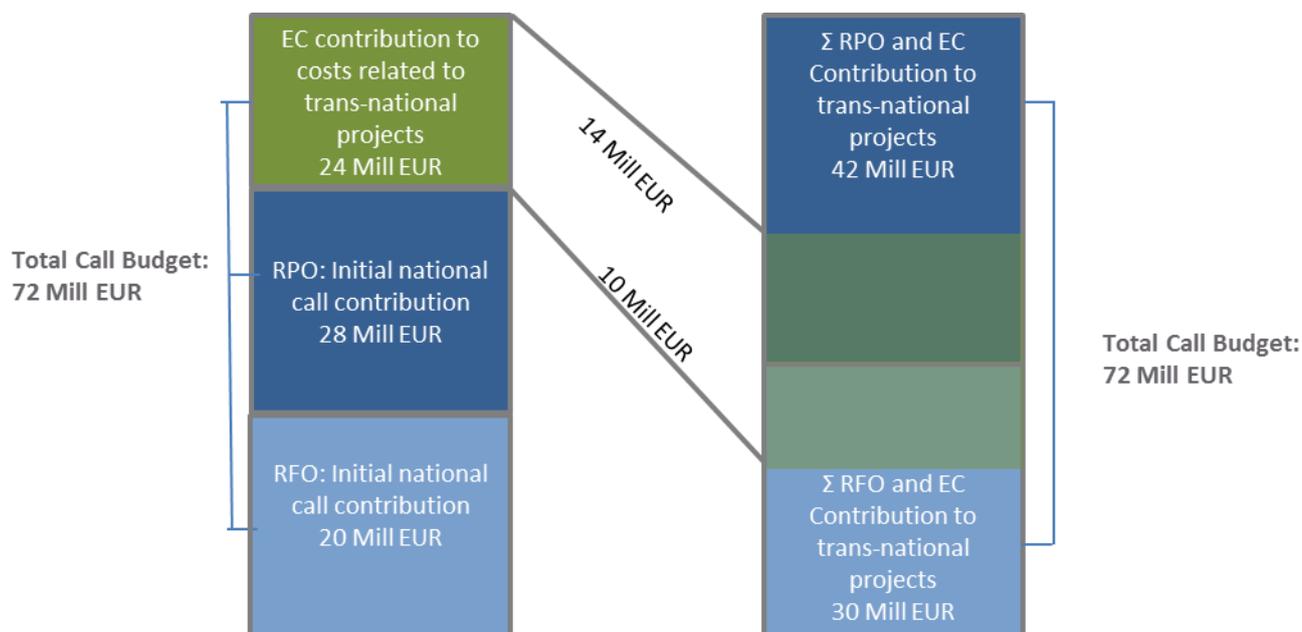


Figure 1 Simplified funding model of transnational projects within ERA4CS

Common Pots and the distribution of EC Top-up Funding

In all ERA-NET Cofund actions, the partners need to agree on a funding mode of the transnational call, meaning the way in which to fund the projects. They first must agree on the way national funding is distributed. Usually, each ERA-NET Cofund partner funds its own participants, this is called virtual common pot. Additionally, partners need to agree how to share the EC Top-Up funding. Some ERA-NET Cofunds agree to a real common pot other agree to distribute the EC Top-Up funding proportionally to the national funding (virtual common pot). The following common pot models are intended to be used in ERA4CS:

- Cash topic: Mixed mode common pot for EC Top-Up funding:
 - Real common pot for 50% of EC Top-up funding
 - Virtual common pot for 50% of EC Top-up funding based on the proportion of national cash
- In-kind topic: Virtual common pot for EC Top-up funding: 100% of Top-up funding is distributed in proportion to national in-kind

However, during the step 1 and step 2 evaluation and the final funding decisions, deviations and exceptions from the original model are common in order to fund the maximal number of projects.

One of the main features in ERA4CS is budget flexibility in order to maximise the output and impact of the entire ERA4CS. Budget flexibility is ensured by the following:

⁵ Coordination costs of 1 Mill EUR will be taken from the EC Cofunds (in total 25 Mill EUR) and will be replaced by national funding.

- Safeguard: RFO (Cash funders) have tried to align their initial commitments with their research community. If an RFO receives in step 1 more than 10 times its commitment, the RFO will strive to bring in additional funding.
- Safeguard: RFO (Cash funders) aim to limit oversubscription between step 1 and step 2 to 3 times their commitment.
- Flexibility: RFO (Cash funders) have reserved about 20% higher national budgets than needed to release the EC Top-up
- Flexibility: (for both) using no decimals in the grades for the Expert Panel
- RPO (in-kind funders) plan to invite projects to step 2 with a 50% higher budget than available, which results in 2 out of 3 projects to be funded in step 2. Their overcommitment (50%) will directly lead to the selection rate, provided there are enough proposals proposed for funding by the Expert Panel.
- Safeguard: RPO (in-kind funders) will commit to funding all proposals invited to step 2 to ensure no gap in funding the ranking list.
- EC allows a shift of EC Top-up funding between the cash and in-kind topic
- The EC Top-up funding will be divided between the cash and in-kind in the end.

3. Principal joint actions and outputs of ERA4CS with respect to alignment

The official start of ERA4CS was January 2016. Figure 2 : Alignment at different stages of the research programming cycle in ERA4CS, own compilation

illustrates the alignment outputs of ERA4CS with respect to the call according to the stages of the research programming cycle and thereby shows that ERA4CS is a well-suited action to align transnational activities on the level of research funding and implementation. ERA4CS managed to align research funding from RFO of several European Member States and additionally align research funding from several European research performers. However, there is no alignment of research funding of RFO and RPO as there are two different call topics for each organisation type. Even though, the both organisations agreed to a call management with a few common steps, most importantly the joint expert evaluation of projects.

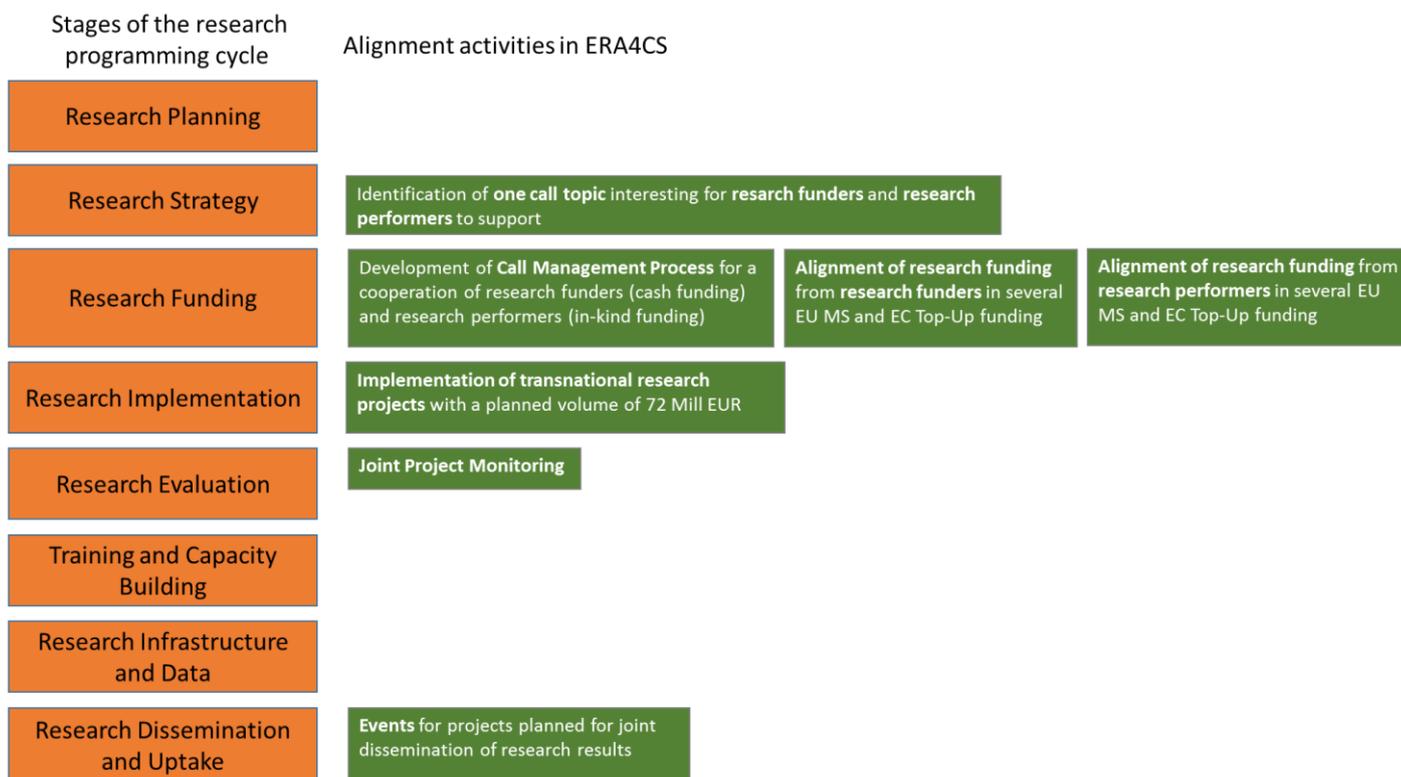


Figure 2 : Alignment at different stages of the research programming cycle in ERA4CS, own compilation

Beyond that, preliminary outputs of ERA4CS can be described as follows:

- The EC was open to support this ‘experiment’ to combine national cash and in-kind in one call, although the ERA-NET Cofund action was initially designed for a transnational call funded supported by RFOs. The EC responded to the need of the JPI Climate and supported the set-up of the proposal with expert knowledge on the understanding and use of the ERA-NET Cofund instrument.
- Establishing cooperation and agreement on one call topic between high level Scientific Directors of large European RPOs
- Establishing cooperation between Scientific Directors of RPOs and high level representatives of RFOs
- Reaching agreement of all RPOs and RFOs in ERA4CS to have one call and one overall call topic
- Development of a sophisticated call management and evaluation process with interaction and cooperation between RPOs and RFOs
- Reaching agreement between Scientific Directors of the RPOs to go through an external evaluation process for their internal projects to assure quality of projects
- Development of a funding model to combine national cash and in-kind funding with EC Cofunds

4. Overall strengths and key achievements of this instrument with respect to alignment

This part summarises the strengths and achievements of ERA4CS with respect to alignment via the joint call. However, the described strengths are based on activities in the proposal phase and expected outcomes as ERA4CS has only started in January 2016.

Support of alignment actions at the level of research funding and joint research implementation

The ERA-NET Cofund action is a tool that supports coordination of research funding and joint research implementation. Although, ERA4CS has just started and it is too early to say anything about the implementation of the joint call, it must be emphasised that it is already a success to submit a proposal as this includes relevant discussions and agreement of partners to the joint actions. The ERA4CS proposal showed that the ERA-NET Cofund action can go beyond the alignment of research funding stemming from research funding organisations, but can also be used as a tool to align institutional research funding at research performers level. This experiment shows the power of this ERA-NET Cofund action and may stimulate other research alliances active in P2P to use this tool (e.g. European Energy Research Alliances or Urban Europe Research Alliance).

Alignment of topics for research projects at research performers level across Europe and binding commitment of funding joint projects

Scientific Directors of RPOs agree on joint research topics. Assuming that commonly agreed research topics are rooted in the research strategy of the research performers, it could be argued that an ERA-NET Cofund actions enables the alignment of a little part of their research strategy and interests in the future, which is already one of the outputs. Additionally, they commit to fund joint research based on institutional in-kind contributions.

Alignment of topics for research projects at the level of research performers and research funders

The agreement of one joint overall research topic “climate service” for a joint call aligns part of the research interests in national research performers and research funders. However, the specific sub-topics are different for the cash and in-kind part of the call. If the agreed research topics are part of the organisations’ strategy, a little part of the research strategy may be aligned. In many countries research performers and research funders do not have a common strategy and approach. The two different communities hardly work together. This experiment shows that an alignment of research priorities across different type of organisations is possible and certainly contributes to build an ERA.

Engagement of Member States with limited competitive research funding in transnational research

In JPI Climate, the number of actively participating New Member States is limited. With the new model of combining national cash and in-kind funding in ERA4CS, JPI Climate attracted research organisations from Romania, Greece and the Czech Republic. Hence, pooling national resources on in-kind basis seems to be an effective way to engage New Member States to the P2P.

5. Overall limitations with this instrument with respect to alignment

This part summarises the limitations and challenges of ERA4CS with respect to alignment. However, the described limitations are based on activities in the proposal phase and expected outcomes as ERA4CS has only started in January 2016.

Setting up a novel approach in ERA-NET Cofund actions (combination of cash and in-kind funding) is time-consuming

It took about one year from the start of discussion how to combine cash and in-kind in an ERA-NET Cofund until the final proposal for an ERA-NET Cofund action was submitted. It was especially time consuming to attract and convince the RPOs to this new model. Coordinators of JPIs need to invest a lot of time for elaborating a convincing model and discussion with RPOs. Apart from that 'standard' discussions in ERA-NET Cofunds, e.g. incompatible national rules and regulations in RTDI funding, use of EC Top-up funding, additionally lead to time delays. Strong, strategic partnerships in the coordination team are needed to share the work with. The reward of this time investment should be analysed on the long term and will depend on capacity to establish a multi-years alignment strategy between RFOs, RPOs and EC with more flexible co-funding instruments.

ERA-NET Cofund is only one instrument for alignment and it is limited to coordinate of research funding and implementation

The ERA-NET Cofund can only be used to a limited extent to align research planning and strategies. Only research for specific call topics will be aligned, but it is no instrument to align substantial parts of a national research strategy. It has also only limited power to align monitoring, reporting and dissemination activities. Joint Programming Initiatives (JPI) or Article 185 are much more relevant to establish a Strategic Research & Innovation Agenda (SRIA) beyond one shot call as ERA-NET; conversely ERA-NETs should gain from such SRIA adopted by countries.

ERA-NET Cofund does not support long-term cooperation

The ERA-NET Cofund actions can be used to stimulate cooperation of research performers and/or research funders and support one joint call. It is a suitable instrument to start cooperation or support existing cooperation between research performers and/or research funders, but it is not designed to support long-term cooperation. However, if efforts to set up a cooperation among research performers and between researcher performers and research funders should pay off, an instrument supporting cooperation for multiple years would be more suitable.

EC Top-up rate of 33% is not attractive for all research performing organisations

The ERA-NET Cofund actions offers a 33% reimbursement. Together with the national budget share, participants of joint projects finally receive up to 100% reimbursement. If RPOs apply for projects, it seems more attractive to them to apply for projects funded by their national research funding organisations, than receiving 33% reimbursement on the basis of their national institutional in-kind. A higher reimbursement rate for RPOs pooling their national in-kind would certainly attract more RPO to join an ERA-NET Cofund action. However, ERA4CS also showed, that a combination of strategic interests and EC Top-Up funding is attractive for RPOs to join an ERA-NET Cofund action. It might also be relevant what type of research activities are funded. Others instruments as European Joint Programme Cofund should be also investigated to analyse pros and cons.

6. Conclusions: Key success factors of ERA4CS and transferability to other P2Ps

This part summarises the success factors in developing ERA4CS. The success factors are described in a way they can serve as lessons learnt and transferred to other P2P.

Coordinator of the ERA-NET Cofund is interested in combination of cash and in-kind funding

It needs a knowledgeable and engaged coordinator of the ERA-NET Cofund, who breaks new grounds and finds new models to set up an ERA-NET Cofund. The coordinator must have excellent access to the research funding as well as research performing organisations community and convincing arguments for both communities working together. Excellence also could be propagated on both RPOs and RFOs by using a same independent Panel of Experts.

Find the right arguments to especially convince the RPOs to join the ERA-NET Cofund

ERA4CS shows that many research performers are only willing and enthusiastic to join ERA4CS if their strategic interests are addressed. Despite a real success with 30 RPOs involved in the ERA4CS consortium, the pure stimulation with 33% EC Top-up funding was not convincing for all. The same can be observed at the RFO level in some other ERA-NET Cofunds. Lessons learnt is that arguments need to be convincing and well prepared when compiling a competitive consortium. Thinking along the level of joint interests of RFO, RPOs and national governments may help to find the right arguments. For this, long term Strategic Research & Innovation Agenda (SRIA) from JPI could really help.

High indicated EC Top-up funding triggers the combination of cash and in-kind funding in an ERA-NET Cofund

The EC indicated a Cofund of about 25 Mill EUR for ERA4CS. In order to meet the full EC Cofund a national budget twice as much as the Cofund is needed (rule: for 2 EUR national funding, 1 EUR EC funding is available). The RFO active in JPI Climate had not the potential to allocate the amount requested to a joint call. Only a joint effort of RPO (in-kind funding) and RFO (cash funding) led to the national budgets requested. The EC may or may not have intended this development, but it certainly was a driver towards this new model for ERA-NET Cofunds. In the future, it could be that less incentive are needed as the procedures have already been outlined. Again, initiation at level of a JPI, with long term background and vision, is a key for success.

Budget Flexibility

Budget flexibility in terms of (1) additional national budgets and (2) agreement to shift EC Top-up funding between the cash and in-kind topics leaves room to manoeuvre. How relevant budget flexibility will finally be and what type of flexibility is the most important, can only be answered after the final funding decision (to be expected in beginning of 2017).

Successful first meeting of the Scientific Directors of the RPO

In the proposal preparation phase was a first scoping meeting between the Scientific Directors of the RPO with the aim to agree on joint research priorities within ERA4CS. This was a critical meeting as it was not clear, whether Scientific Directors develop a cooperative approach and think alike. ERA4CS showed that engagement and commitment of high-level representatives with budget responsibility of research performers is key to a successful cooperation within ERA-NET Cofund action.

7. Outlook

The ERA-NET Cofund is one tool to support transnational research funding and joint research implementation. ERA4CS showed that it has the power to combine funding available at two different types of organisations, research funders and research performers. However, the ERA-NET Cofund is only one tool and needs to be embedded in a box of tools in order to actually work towards alignment in ERA along on the entire research programming cycle. Furthermore, it should be encapsulated within a long term vision and implementation strategy that could be provided only at level of JPI or Art. 185, binding Members States and Associated Countries.

The functionality of the ERA-NET Cofund actions has been stretched and ERA4CS clearly demonstrated that there is potential to combine cash and in-kind funding. However, it was initially designed for cash funders and is limited to one call with EC Top-up funding. The EC promotes 'European Joint Programme Cofunds (EJPs)' as an instrument initially designed for alignment of national institutional in-kind funding. EJPs have the advantage that it is designed for multiple years. However, experience in JPI Climate shows that working with two different instruments for the alignment of cash and in-kind funding is considered burdensome, therefore JPI Climate decided for a combination of both within one instrument. There is a clear call here to revise and refine existing instruments under H2020 for the next European Framework Programme (FP9) having the following needs in mind:

- The instrument should support alignment of research funding and research implementation for multiple years and should be coherent with SRIA developed between countries (i.e. Joint Programming Process of ERAC)
- Unique the instrument supports the alignment of research strategies, research funding and implementation for both programme owners and programme managers at research funding organisations

and research performing organisations at the same time (i.e. merging the best of ERA-NET Cofund and the best of European Joint Programme Cofund)

- The rates for EC Top-up funding in Cofund instruments should be re-considered: 50% EC Top-up for national institutional in-kind (RPOs) would be attractive, while 33% EC Top-up for national contribution from research funders (RFOs) is manageable
- Instrument should be suitable to support actions from research to innovation for effective implementation.

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Deygout, Chloé (2015): An example of ERA-NET Cofund planning to include institutional funds in its co-funded call ERA4CS (25-26/06/2015)

Niehoff, Jörg (2016): ERA-NET Cofund under Horizon 2020. <https://www.era-learn.eu/manuals-tools/p2p-in-h2020/practical-documentation/ERANETCofundtraining.pdf>

Consulted websites

ERA4CS website: <http://www.jpi-climate.eu/aboutERA4CS>

Governance Structure : <http://www.jpi-climate.eu/aboutERA4CS/governance>

Consortium : <http://www.jpi-climate.eu/aboutERA4CS/consortium>

CALL FOR PROPOSALS (Call Text): http://www.jpi-climate.eu/media/default.aspx/emma/org/10869130/ERA4CS_joint+call_04march.pdf

GUIDELINES FOR APPLICANTS : <http://www.jpi-climate.eu/ERA4CS.activities/jointcall/application.guidelines>

Guidelines for Applicants (cash-topic) : <http://www.jpi-climate.eu/ERA4CS.activities/jointcall/topicA/annex>

Guidelines for Applicants (in-kind topic) <http://www.jpi-climate.eu/ERA4CS.activities/jointcall/topicB/annex>

ASSESSMENT Criteria : <http://www.jpi-climate.eu/ERA4CS.activities/jointcall/assessment>

Interviews

MONFRAY, Patrick, ANR, JPI Climate Chair and ERA4CS Coordinator, interview 2016-04-28

DEYGOUT, Chloé, ANR, ERA4CS Executive Manager, interview 2016-04-28

ANNEX 1 Partners in ERA4CS

Research Performing Organisations (RPOs)

- Universitaet Graz (Uni Graz), Austria
- Institut Royal Météorologique de Belgique (RMI), Belgium
- Global Change Research Centre CAS (CzechGlobe), Czech Republic
- Alfred-Wegener-Institut Helmholtz-Zentrum für Polar- und Meeresforschung (AWI), Germany
- Helmholtz-Zentrum Geesthacht Zentrum für Material- und Küstenforschung GMBH (HZG), Germany
- Danmarks Meteorologiske Institut (DMI), Denmark
- Agencia Estatal de Meteorologia (AEMET), Spain
- Barcelona Supercomputing Center - Centro Nacional de Supercomputacion (BSC), Spain
- Agencia Estatal Consejo Superior de Investigaciones Cientificas (CSIC), Spain
- Universidad de Cantabria (UC-IHC), Spain
- Universitat Rovira i Virgili (URV-C3), Spain
- Ilmatieteen Laitos (FMI), Finland
- Suomen ympäristökeskus (SYKE), Finland
- Bureau de Recherches Géologiques et Minières (BRGM), France
- Commissariat à l’Energie Atomique et aux Energies Alternatives (CEA), France
- Centre National de la Recherche Scientifique (CNRS), France
- Institut national de l'information géographique et forestière (IGN), France
- Institut national de la recherche agronomique (INRA), France
- Météo-France (Météo-France), France
- National Center for Scientific Research "Demokritos" (NCSR), Greece
- Department of the environment, community and local government (Met Eireann), Ireland
- Fondazione Centro euro-mediterraneo sui cambiamenti climatici (CMCC), Italy
- Consiglio Nazionale delle Ricerche (CNR-DTA), Italy
- Koninklijk Nederlands Meteorologisch Instituut-KNMI (KNMI), the Netherlands
- Meteorologisk institutt (Met Norway), Norway
- Fundacao da Faculdade de Ciencias da Universidade de Lisboa (FFCUL), Portugal
- Administratia nationala de meteorologie R.A. (Meteo-Ro), Romania
- Sveriges Meteorologiska och Hydrologiska Institut (SMHI), Sweden
- The University of Reading (UREAD), United Kingdom
- Met Office (Met Office), United Kingdom

Research Funding Organisations (RFOs)

- Agence Nationale de la Recherche (ANR), France
- Bundesministerium für Wissenschaft, Forschung und Wirtschaft (BMWFV), Austria
- Service public fédéral de programmation politique scientifique (BELSPO), Belgium
- Deutsches Zentrum für Luft- und Raumfahrt EV (DLR), Germany
- Innovationsfonden (IFD), Denmark
- Ministerio de Economía y Competitividad (MINECO), Spain
- Environmental Protection Agency of Ireland (EPA), Ireland
- Nederlandse organisatie voor wetenschappelijk onderzoek (NWO), the Netherlands

- Norges forskningsrad (RCN), Norway
- Fundacao para a Ciencia e a Tecnologia (FCT), Portugal
- Executive Agency for Higher Education, Research, Development and Innovation Funding (UEFISCDI), Romania
- Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning (Formas), Sweden
- Slovak Academy of Sciences (SAS), Slovakia
- Natural Environment Research Council (NERC), United Kingdom
- Ministero dell'Istruzione, dell'Università e della Ricerca (MIUR), Italy

ANNEX 2 Call Management in ERA4CS

Table 2 Planned Call Management in ERA4CS

	Cash-Topic	In-kind Topic
Call Text and documents	Written by Cash-MB	Written by In-Kind-MB
	Interaction with Call Secretariat to avoid redundancies between the call topics	
	General documents provided by the Call Secretariat	
	Call specificities and submission guidelines (national requirements of RFO) developed by the Cash-MB	Call specificities and submission guidelines (organisation-specific requirements) developed by the In-Kind-MB
Call Opening and submission of Pre-Proposals	One joint Call text available at JPI Climate/ERA4CS website	
		Brokerage meeting for RPO
	Preparation of pre-proposals	Preparation of pre-proposals, which are close to full proposals in terms of content
	Call is open for 3.5 months	Call is open for 4.5 months
Submission at JPI Climate/ERA4CS Website		
Establishment of Expert Panel	Independent Expert Panel is established by Call Secretariat and Cash-MB	
Step 1 Evaluation	Eligibility check by Call Secretariat and Cash-MB	Eligibility check by Call Secretariat and In-Kind-MB
	Evaluation of pre-proposals and development of ranking list by independent Expert Panel	Redundancy Check by Expert Panel between cash and in-kind proposals to avoid conflict of interests
	Decision on projects to be invited for step 2 by Cash-MB	Internal evaluation of proposals and decision on key consortia to be invited for step 2 by In-Kind MB (Scientific Directors), no external experts; Decision on key consortia includes effective commitment to fund successful proposals by RPO if they are selected in step 2
Cash-Call for full proposals	Call open for 2 months	
Step 2 Evaluation	Eligibility check by Call Secretariat and Cash-MB	Eligibility check by Call Secretariat and In-Kind-MB
	<ul style="list-style-type: none"> • Evaluation by Expert Panel and ranking list (same Expert Panel for cash and in-kind projects) • Each project is evaluated by 5 experts, 3 from the Expert Panel and 2 external evaluators • Experts from scientific and stakeholder community • Evaluation time 3 months • Evaluation Criteria oriented towards H2020 evaluation criteria 	
Funding Decision	Decided by Cash-MB to maximise budget use	Decision how many projects on the ranking list can be funded limited by EC Top-up funding available or by reaching the end of the list (decisions that RPO fund selected projects is taken in Step 1); Supervised by Call Sec.

ANNEX 3 Governance structure ERA4CS

The governance structure of ERA4CS (Figure 3) corresponds to common standards. Most interesting are the governance bodies introduced to manage the cash and in-kind part of the call.

Cash Management Board (cash MB)

- The cash MB is composed of one representative from each partner organisation participating in the cash topic of the joint call.
- The cash MB is the decision-making body for the cash topic of the joint call. Members of the CMB cannot apply to the joint call.
- The cash MB will propose experts for the evaluation process of the joint call.

In-kind Management Board (in-kind MB)

- The in-kind MB is composed of one representative from each partner organisation participating in the in-kind topic of the joint call.
- The in-kind MB is the decision-making body for the in-kind topic of the joint call.
- Full members of the KMB, involved in the build-up of the topic and the eligibility process, cannot apply to the in-kind topic of the joint call. Deputy members not involved in these particular processes can still apply.
- The in-kind MB will not take part in the evaluation process of the joint call, to avoid conflicts of interest.

Call Secretariat

- The Call Secretariat, part of the Coordination Unit at ANR, is in charge of coordinating the preparation and evaluation of the joint call.

General Assembly (GA)

- The General Assembly is composed of one representative from each partner organisation participating in the ERA4CS Consortium.
- The General Assembly is the decision-making body.

Executive Board

- The Executive Board is composed of the Coordinator and the Work Package (WP) leaders.

Coordination unit

- The Coordination Unit is based at ANR and composed of the coordinator, the executive manager, the Joint Call Secretariat (JCS) and the financial & administrative officer.

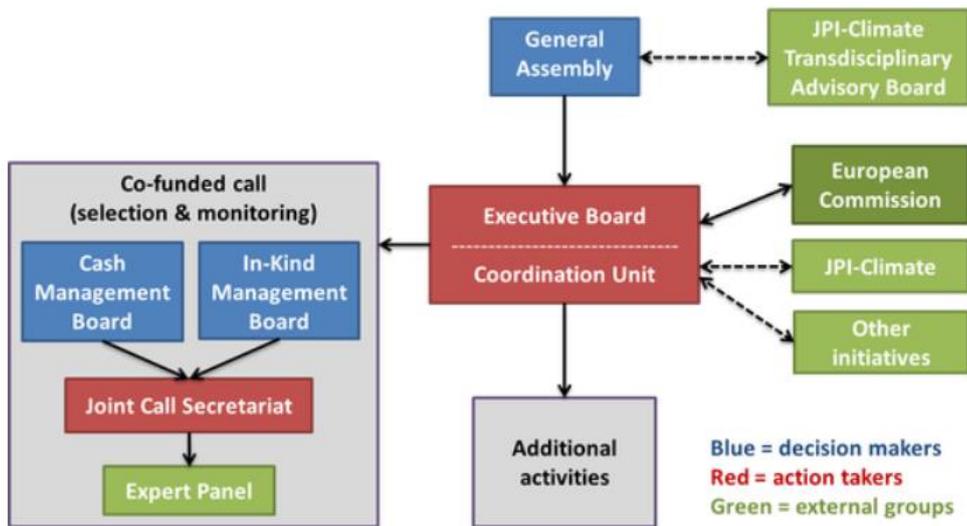


Figure 3 Governance Structure of ERA4CS, source : ERA4CS website