

Accelerating CCS Technologies

ACT Call text

Published 7 June 2016

Project no:

691712

Project title:

ACT – Accelerating CCS
Technologies

Instrument:

ERA-NET Cofund Actions

Project start date:

1 February 2016



Co-funded by the
European Commission
within the Horizon 2020
programme

ERA-Net Cofund ACT

Nine European countries are joining forces and making funds available for research and innovation actions related to CO₂ Capture and Storage (CCS). The initiative is called ACT – Accelerating CCS Technologies.

The ambition of ACT is to facilitate the emergence of CCS via transnational funding aimed at accelerating and maturing CCS technology application through targeted innovation and research activities.

The following countries participate in ACT: Norway (coordinator), Germany, Greece, the Netherlands, Romania, Spain, Switzerland, Turkey and the United Kingdom.

The national funding agencies participating in ACT are supported by funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691712.

Further information can be found on the ACT web-site:

www.act-ccs.eu

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Introduction

This document describes the objectives, scope, and topics of the call, rules for participation and procedures from proposal to implementation of the projects. Further information on ACT can be found on the ACT website: <http://www.act-ccs.eu>

ACT is complementary to calls for proposals issued by the EC under its current and subsequent Horizon 2020 Work Programme, or other available instruments, including the national research programmes planned by the countries involved in ACT.

The ACT call is a two-stage process. Stage 1 asks for pre-proposals, and Stage 2 asks for full project proposals.

**The call for pre-proposals is open until 7 September 2016
(13:00 CEST).**

In September 2016 applicants will be invited to enter the second stage of the procedure:

**the call for full proposals will close on 16 January 2017
(13:00 CET).**

National Funding Agencies, Amounts

The budget that is available for this Call from each funding agency is shown in Table 1, a total of ≈€28.9 million. In addition, the European Commission contributes with up to ≈€12.3 million to the call. This funding from the Commission is also distributed by the national funding agencies. The source of the funding is not communicated to the applicants. National regulations will apply for each country participating in the call. The total budget for funding of projects is close to €41.2 million.

Table 1. National funding agencies and rounded budget

Participating country	Funding organisation	Available budget (€ million)
Germany	Forschungszentrum Jülich GmbH, Projektträger Jülich (FZJ/PtJ)	6
Greece	Centre for Research and Technology Hellas (CERTH)	0
The Netherlands	Rijksdienst voor Ondernemend Nederland (RVO)	4
Norway	The Research Council of Norway (RCN) and Gassnova SF (GN)	6
Romania	Executive Agency for Higher Education, Research and Innovation Funding (UEFISCDI)	1
Spain	Spanish Ministry of Economy and Competitiveness (MINECO)	0.3
Switzerland	Swiss Federal Department for the Environment, Transport, Energy and Communications (DETEC)	4
Turkey	The Scientific and Technological Research Council of Turkey (TUBITAK)	2
United Kingdom	Department of Energy and Climate Change (DECC) (£4 million)	5.5
Contribution from the European Commission that will be distributed among the countries is up to: <i>(Switzerland is not eligible for contributions from the European Commission.)</i>		12.3
Sum		41.2*

* All numbers are rounded to the next 0.1 million, therefore the figures appear to add up to 41.1 million.

Scope

The intention of ACT is to facilitate the emergence of CCS. ACT aims at accelerating and maturing CCS technology through financing targeted innovation and research activities.

Wide deployment of CCS in Europe requires two conditions to be fulfilled:

1. Bold political decisions are needed to establish a business case for CCS, for example by putting a sensible, but sufficiently high price on CO₂ emissions. The distortion of price signals in markets whose products are associated with CO₂ emissions could be removed in this way.
2. More effective CCS technologies must be developed and demonstrated to facilitate their incorporation into the energy and industrial sectors - and to allow these sectors to benefit commercially from their deployment.

ACT will address the technological challenges as pinpointed in point 2 above and also finance social and economic research that is directly related to the ACT main aim and that is implemented together with, and related to technical research in a project supported by ACT.

Objective of the ACT joint call

The objective of ACT's joint call is fully in line with the objective of ACT. Successful projects should facilitate the emergence of CCS in the energy and industrial sectors in Europe. The ACT ambition of accelerating the time to market for CCS technology will require industrial involvement in research and innovation activities. Project proposals should therefore aim at a high share of funding from industrial partners, as far as this is possible and sensible.

Project proposals are required to address public awareness and environmental aspects, the latter for example through lifecycle analyses.

The call includes specific targets for Technology Readiness Level (TRL), but these targets are not connected with specific technological performance criteria. Figure 1 shows how CCS technologies should preferably be brought to a level of demonstration in a relevant environment (TRL 6), such as a large scale demonstration plant or pilot plant. However, building demonstration plants or pilots is very expensive and beyond the scope and budget of this call.

Therefore, project proposals can also focus on bringing upcoming technologies to a level of validation in a relevant environment, especially if no suitable demonstration or pilot plants are available as illustrated in Figure 1. Projects should, whenever possible, intend to collaborate with existing and future pilots and/or demonstration plants.

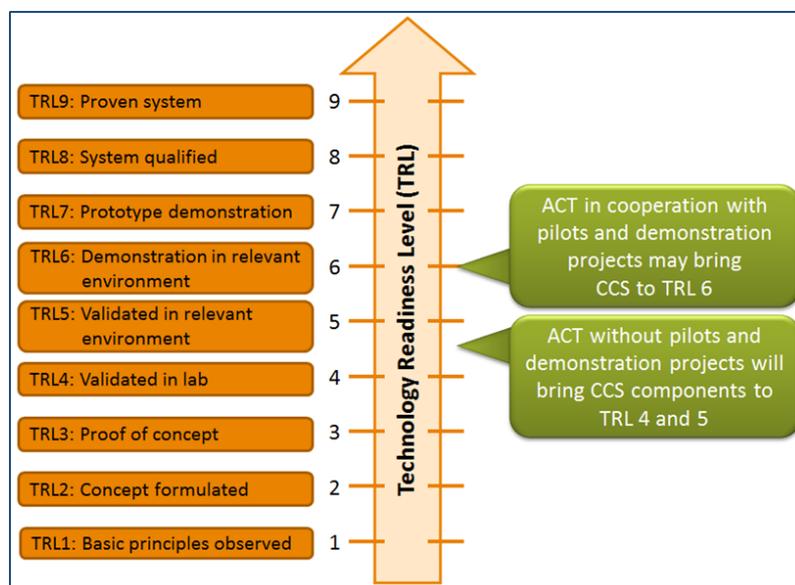


Figure 1: TRL and ACT targets

The available budget of €41.2 million will be split into two separate areas, preferably in the following manner:

- Type A: approx. 80 % of the budget will be available for large transnational projects.
- Type B: approx. 20 % of the budget will be available for smaller transnational research and innovation projects with a maximum of €3 million per project.

The ACT consortium will open up for a rearrangement of this splitting if necessary in order to fund as many high quality projects as possible.

The thematic areas and distribution of indicative available funding for large projects (Type A) and smaller projects (Type B) is given in Table 2. ACT aims at funding up to five large RD&D and innovation projects and a similar number of smaller projects.

Table 2. Thematic areas for the ACT call, indicative splitting of the budget and type of projects

Thematic areas	Aim	Maximum funding per project (€ million)
Chain integration	Addressing RD&D gaps in the full CCS chain, including CO ₂ capture, transport, storage, piloting components and full chain elements, and incorporating related case studies for social acceptance.	up to 20
Capture	Capture techniques emphasizing efficiency, competitive cost and flexible operations including carbon negative solutions like Bio-CCS and other technologies. Advanced technologies aiming at a higher operational flexibility and energy efficient capture.	up to 10
Transport	Transport options aimed at early operations of European CCS projects, reducing uncertainties in the design and operation of CO ₂ transport for ship and/or pipeline options are included.	up to 10
Storage	Measurement, monitoring and verification (MMV) at relevant storage sites and the surrounding geosphere emphasizing tools and methodology for a safe and cost effective CO ₂ storage in general and an increasing storage efficiency in principle.	up to 10
Utilisation	CO ₂ utilisation including prospective revenue streams and related business models as a vehicle to make CO ₂ capture and storage viable. CCU which can substantiate comparable storage efficiency to that of geological storage and leads to reduction of the CO ₂ environmental footprint.	up to 10
TYPE A: Indicative budget in total for up to 5 large projects:		33
TYPE B: Indicative budget in total for up to 5 small projects (each < €3 million):		8.2

For large projects (Type A) the chain integration is of highest relevance, but the call also opens for projects addressing only CO₂ capture, transport, storage or utilisation.

The call opens up for projects addressing technology that is considered to be mature enough for large scale demonstration before 2025.

Technologies likely to be ready for demonstration plants in the 2025 - 2035 timeframe are only admissible in this call for small projects (Type B). This is because of the long-time perspective for commercialisation, but also because these technologies are expected to be prioritized in future calls under Horizon 2020.

Project proposals must illustrate how their projects may help accelerate the time to market of affordable, cost-effective, low environmental impact and resource-efficient CCS technology.

Access to top class research infrastructure is key for reaching ACT objectives. Project proposals should, if relevant, seek to maximise synergies with existing infrastructures, such as for example ECCSEL¹, TCM² or CIUDEN/Hontomin³.

Projects should have a significant bearing in accelerating CCS technology either for the energy sector, or for application in energy intensive industries, or for both.

Projects that exploit the potential of carbon negative solutions with CCS are within the scope of this call for proposals.

Rules for Participation

Some requirements are common for all applicants and funding agencies. In addition to these *general requirements* there are *specific national funding agency rules* (see Annex 1).

The term “proposal” is used both for the pre-proposal in the first stage of the evaluation procedure and the full proposal in the second stage.

Types of research, development and innovation activities

ACT will preferably see large innovative projects connecting to already existing pilots/demo sites, but also welcomes smaller research projects. New pilot and demo facilities should have potential for upscaling to industrial size either in a demo phase or early commercial phase. The combination of different types of research (ranging from basic to applied research) within one project (differentiation should be described in the relevant work packages) is favoured and possible as long as the involved funding agencies' eligibility rules are fulfilled.

Who can participate and apply?

Each project proposal must be submitted by a project consortium consisting of at least three eligible applicants from at least two participating countries eligible for co-funding from the European Commission. Each project consortium must have the interest and competence to undertake research and development within the specified themes.

Main Applicant's role

The Main Applicant will be responsible for running and managing the project. They will be the contact point with ACT on behalf of the whole consortium and be responsible for the administrative management of the complete project, should it be awarded funding. In addition the Main Applicant is responsible for leading the project activities at his/her own organisation. The Main Applicant must be eligible for funding from the funding agency in one of the ACT-consortium countries participating

¹ Nine countries have CCS Research Infrastructure in the ECCSEL project. Details available at www.eccsel.org

² Technology Centre Mongstad, www.tcmda.com

³ The CO₂ storage pilot activities at Hontomin, <http://www.ciuden.es/index.php/en/tecnologias/instalaciones/pdt-hontomin>

with money to this call. The specific eligibility rules of the respective funding agency apply for the Main Applicant.

Co-Applicant's role

Each Co-Applicant is responsible for leading the project activities at their own organisation. There may be more than one Co-Applicant from any one country. If there is more than one Co-Applicant from a country, one of them needs to be identified as the national consortium leader. The Co-Applicant must be affiliated with an organisation situated in one of the countries participating with money in this call. The specific eligibility rules of the respective funding agency apply for the Co-Applicant.

Co-operation Partners

Partners from countries not participating in this call, or partners that are not eligible for funding from participating agencies, may be included in the projects as Co-operation Partners. Co-operation Partners can be included in the consortium if (a) they finance their activity from other sources than ACT and (b) the consortium in general fulfils the requirements on the number of applicants from participating countries. Project consortia involving Co-operation Partners must ensure that project results will be relevant for participating countries.

Eligibility requirements and recommendations

The call secretariat will verify the eligibility of the proposals according to the transnational eligibility criteria below. The participating funding agencies will verify the suitability for national funding according to their respective eligibility criteria.

All pre-proposals (stage 1, see template Annex 2) and full proposals (stage 2, see template Annex 3) to the ACT call shall be submitted via the electronic application system of the Research Council of Norway, accessible via the web pages of ACT.

Compliance with EU rules and guidelines for state aid is crucial. Each of the ACT funding organisations shall ensure that their funding of the respective national part of an ACT project is in accordance with state aid regulations.

For clarity, only consortia invited to the second stage are allowed to submit a full proposal.

If either the Main Applicant or the pre-proposal does not meet the eligibility requirements, the pre-proposal will not be admitted to the evaluation procedure. In case a single Co-Applicant is not eligible, the pre-proposal may still be eligible without this partner if and when the eligibility criteria are met by the pre-proposal. In both cases, this will be communicated to the Main Applicant.

If a pre-proposal is eligible, this does not mean that it will be awarded funding, but only that the pre-proposal consortium will be admitted to the second stage evaluation procedure. At stage 2 full proposals will be rejected if one of the applicants or co-operation partners is not eligible.

Project consortium

The added value resulting from transnational cooperation must be addressed in the proposal. There is no limit to the total number of partners who may be involved in each project. However, the ACT Call Secretariat expects proposals for large projects submitted by consortia comprising

applicants from approximately 3-5 partners. No partner may represent more than 70 % of the activity (in terms of person months) in the project.

- Consortia may consist of partners from research organisations, companies, industry organisations, local/regional governments and NGOs
- Consortia may consist of partners across several positions and disciplines within research and development systems (i.e. basic research, applied research, innovation, business etc.)
- In the case of the large projects the consortia are required to prove the interest for an active involvement in the project by industry partner(s).
- A Letter of Intent is requested for all partners regardless of the eligibility of the partner. Such a letter must contain an explicit declaration about any financial or in-kind contribution agreed upon and the role of the partner. In-kind is regarded as contributions with person hours/- months and materials (use of software or access to facilities).
- Having partners not eligible for funding (in addition to the ones being eligible) is possible, but these must express their interest in the full proposal via a Letter of Intent.

Please also see Annex 1 for the specific Funding Agencies' rules regarding eligible applicants.

On the ACT website www.act-ccs.eu a matchmaking section is provided in order to support consortium building. Applicants looking for project partners can find potential partners listed in this section. If they wish to be listed themselves, they should contact their national contact person.

Project duration

Projects may be funded for a maximum of 3 years, and must start around July 2017. The exact starting date may depend on the budget allocation (rules) of specific funding agencies. The end date of a project should be harmonised for all applicants in the same consortium. Funded projects must be finalised within 3 years, and no later than July 2020. There will be no possibility for extension of the project period.

In the proposal a justification of the requested budget will be required. The estimated budget must be given in **Euros only**. All costs must be eligible according to the funding agencies' rules available (see Annex 1). In case of doubt, applicants should consult their respective funding agencies which can advise on funding rules.

The proposal must include tables showing cost and financing of the project broken down by work packages and partners.

Funding agencies' rules and eligibility criteria

In addition to the general rules and procedures laid down in this document, there are specific funding agencies' rules to be followed by the applicants, e.g. funding agencies' eligibility criteria for certain organisations, co-funding requirements, national evaluation rules, maximum funding per partner or per project, etc. It is strongly recommended that these are checked with the contact person at the respective funding agency (see „Annex 1: *Specific Funding Agencies' Rules*” for the indicated national contact persons at the participating funding agencies) before submitting a proposal.

Please note the requirements regarding the types of activities the different funding agencies are able to support.

Please note that both transnational and funding agencies' eligibility criteria must be positively met.

Language

Proposals must be prepared in English. Proposals written in other languages will not be accepted.

Instructions regarding the form and structure of the pre-proposal and full proposal

The electronic submission system requires that a standard form is filled out with key data for the proposal. In addition, a single document is to be submitted as a PDF (Portable Document Format).

Submission

Submission of a pre-proposal must be done by means of the Research Council of Norway's electronic submission system **before the deadline of 7 September 2016 13:00 CEST**.

Submission of a full proposal must be done by means of the Research Council of Norway's electronic submission system **before the deadline of 16 January 2017 13:00 CET**.

Project proposals must be submitted by choosing the **ACT call** at this web site:
<http://www.forskningsradet.no/en/Funding/CLIMIT/1220788300457>

An **online help document for submission** is provided via The Research Council of Norway system. Details are available at http://www.forskningsradet.no/en/Application_form/1138882213237

Regarding additional national requirements for the submission of documents at the national level you are advised to carefully check „Annex 1: *Specific Funding Agencies' Rules*”.

The pre-proposal/full proposal will only be accepted if signed Letters of Intent (LoI) from **all Co-Applicants / Co-operation Partners are included as appendixes to the proposal**. Therefore it is **within the Main Applicant's duties to ensure all partner's LoI are signed in due time**. It is not possible to resubmit the pre-proposal/full proposal or parts of it or to revise the pre-proposal/full proposal after the submission deadline. Resubmitting the proposal before the submission deadline is possible.

By transmitting your pre-proposal/full proposal, you agree that it is forwarded to your responsible funding agency as well as to all other participating funding agencies involved in ACT. For full proposals you also agree that the proposal is forwarded to independent evaluators.

If, after reading the instructions in this Call text and information at the ACT-web-site you still have technical questions about the use of the system, please contact the Call Secretariat at the Research Council of Norway.

Evaluation

Evaluation procedure

Within the framework of ACT a **two-stage procedure** will be adopted. In the first stage, consortia are invited to submit pre-proposals.

Stage 1:

The pre-proposals will be assessed regarding the potential of the project, focusing on the innovative idea of the project, how the project fits with the objectives of the call, the composition of the consortia, the potential impact of the project, available funding, and the relevance to the respective national program objectives. After the submission of the pre-proposals, a selection of pre-proposals will be

made. The successful consortia will then be invited to elaborate their ideas to full proposals. Unsuccessful consortia will be provided with an overall assessment of the quality of their pre-proposals.

The evaluation in stage 1 will be performed by the ACT-consortium based on an eligibility check and the criteria marked * in Table 3.

Stage 2:

Eligible full proposals will be evaluated in an open competition in which an independent international Expert Panel will rank proposals according to the programme's evaluation criteria stated below. The Panel will consist of recognised experts in the field of CCS, academics as well as practitioners and innovators, who can assess the scientific as well as the innovative and practical values of the submitted projects. The Panel will be appointed by the participating ACT organisations. Applicants will have no possibility for rebuttal to the Panel's evaluation.

Based on the ranking by the Expert Panel, and taking into account the available (national) budgets, the participating national funding agencies of ACT will take funding decisions.

A written statement on the evaluation of each full proposal will be sent by the Call Secretariat to the Main Applicants. The Call Secretariat will inform the Main Applicants of projects that have been recommended for funding. The national funding agencies will inform the applicants in their countries of what further action needs to be taken at this stage.

Note: Each project recommended for funding is required to have a signed consortium agreement between all partners prior to the start of the project, at least addressing the following topics:

- Internal organisation and management of the consortium
- Intellectual Property arrangements
- Settlement of internal disputes

Evaluation criteria

Proposals will be evaluated according to the following criteria (Table 3) with ranking lists produced for both the large and the small project categories.

Table 3. Evaluation criteria for ACT

(all criteria will apply for stage 2 and only those marked * will apply for stage 1)

Excellence	5 points
<ul style="list-style-type: none">▪ In accordance with the objectives of the call text *▪ Clarity and relevance of the project's objectives *▪ Credibility of the proposed technology/concept – including trans-disciplinary considerations, where relevant*▪ Credibility of the proposed project approach▪ Ambition and innovation potential - e.g. beyond the current state of the art.*▪ Added value of European trans-national co-operation within CCS▪ Scientific merit	
Impact (potential impact of the results of the R&I project)	5 points
<ul style="list-style-type: none">• Expected contribution to the facilitation of the emergence of CCS (e.g. through cost reduction, involvement of relevant industrial partners, opening niche markets, surmounting major barriers)*• Project's ability to strengthen the competitiveness and growth of European companies• Strength of the proposed research data management, exploitation and dissemination plans (including IPR management, where relevant)• Impact on any other environmental or socially important impacts, such as public acceptance.• Industrial relevance*	
Quality and efficiency of the implementation of the R&I project	5 points
<ul style="list-style-type: none">▪ Coherence and expected effectiveness of the project plan, including the appropriateness of task, use of methods, resource allocation and timing▪ Budget allocation*▪ Strength of management structures and governance procedures, including risk management▪ Capability of the Main Applicant (and partners) to deliver the project and to commercialize the technology further - including e.g. suitability of expertise, complementarity, balance of contributions*	

Gender equality

There shall be no discrimination due to gender in the processing of applications and the implementation of the project. Under equal evaluation scores, availability of budget will be the first selection criterion, but as a second selection criterion, ACT will give preference to projects with gender balance.

Scoring and thresholds

Experts will evaluate on the basis of the criteria 'excellence', 'impact' and 'quality and efficiency of the implementation'. The criteria will be weighted equally. Evaluation scores will be awarded for each criterion, and not for the different aspects listed in the above table. For full proposals, each criterion will be scored by the Expert Panel, using the following scale:

- 0) Unacceptable,
- 1) Weak,
- 2) Average,
- 3) Good,
- 4) Very good,
- 5) Excellent.

Half marks cannot be used. The threshold for individual criteria will be 3. The overall threshold, applying to the sum of the three individual scores, will be 10.

Time Schedule

7 September 2016	Deadline Submission of pre-proposals
September 2016	Eligibility check
September 2016	Meeting to assess pre-proposals
September 2016	Invite applicants to submit full proposals
16 January 2017	Deadline Submission of full proposals
January 2017	Eligibility check
March 2017	Meeting of Expert Panel to assess full proposals
April 2017	Funding recommendation and announcement of results to Main Applicants
~ July 2017	National funding decisions and contracts completed. Start of projects

Documentation and forms

All documents are published on the ACT website: www.act-ccs.eu/calls/

Project monitoring and reporting

Project monitoring and reporting will be in accordance with the respective funding agency's rules. In addition to the respective funding agency's requirements, the consortia (by the Main Applicant) are requested to deliver progress and financial reports (in English) to the ACT Call Secretariat, on an annual basis, including a description of their transnational cooperation and a publishable summary of the project status. A reporting template will be provided on the programme website.

Furthermore, one project observer from one of the participating funding organisations will be assigned to each of the funded projects to monitor the progress in transnational cooperation on behalf of the participating funding organisations and to provide a communication link between the project, the Call Secretariat and the European Commission.

The consortia should also take into consideration in planning and budgeting that project reporting (oral or poster) is also expected at the annual ACT knowledge sharing workshops.

Contacts and Further Information

General information on the joint call

Updated information on this joint call and all relevant documents/templates are published on www.act-ccs.eu.

If you have questions on the general call process and proposal submission, please contact the ACT Call Secretariat at:

The Research Council of Norway	For scientific issues:	For application and submission issues:
Drammensveien 288	Aage Stangeland	Siri Kinge Ovstein
Postbox 564	Phone: +47 22 03 73 70	Phone: +47 22 03 75 28
N-1327 Lysaker	Mobile: +47 95 82 29 03	Mobile: +47 924 14 649
E-mail:	E-mail: ast@rcn.no	E-mail: sov@rcn.no

ACT–Coordinator:

Ragnhild Rønneberg, The Research Council of Norway (RCN), Phone: + 47 91 55 86 62, E-Mail: rr@rcn.no

Contact points of participating funding agencies

For questions regarding specific funding agencies' rules and additional forms please check "Annex 1: Specific funding agencies' rules" first.

Additional information can be obtained by contacting the indicated national contact persons at the participating funding agencies.

Table 4. National contact persons

Contact persons	Organisation	Name	e-mail	phone
Germany	PTJ	Wolfgang Körner	w.koerner@fz-juelich.de	+49 2461 61 6507
		Heiko Gerhauser	h.gerhauser@fz-juelich.de	+49 2461 61 96830
		Annette Weiß	a.weiss@fz-juelich.de	+49 2461 61 9025
Greece	CERTH	Nikolaos Koukouzas	koukouzas@certh.gr	+30 211 1069502
		Alexandros Tasianas	tasianas@certh.gr	+30 211 1069526
The Netherlands	RVO	Gerdi Breembroek	gerdi.breembroek@rvo.nl	+ 00 31 652564480
Norway	RCN	Aage Stangeland	ast@forskningsradet.no	+47 95 82 29 03
	RCN	Siri Kinge Ovsten	sov@forskningsradet.no	+47 92 41 46 49
	Gassnova	Hans Jörg Fell	hjfg@gassnova.no	+47 95 93 15 71
	Gassnova	Niels Peter Christensen	npc@gassnova.no	+47 90 10 39 83
Romania	UEFISCDI	Nicoleta Dumitrache	nicoleta.dumitrache@uefiscdi.ro	+40 21 302 38 86
Spain	MINERCO	Severino Falcon Morales	severino.falcon@mineco.es	+34 91 603 79 59
		Alberto Abánades	abanades@etsii.upm.es	+34 91 603 79 90
Switzerland	DETEC	Gunter Siddiqi	gunter.siddiqi@bfe.admin.ch	+41 58 462 5324
Turkey	TUBITAK	Ufuk Atay	ufuk.atay@tubitak.gov.tr	+90 (312) 468 5300-2805
		Salih Hacialioğlu	salih.hacialioglu@tubitak.gov.tr	+90 (312) 468 5300-1157
United Kingdom	DECC	Brian Allison	brian.allison@decc.gsi.gov.uk	+44 300 06 85358

Type of applicants

Main Applicant: The Main Applicant submits the joint transnational proposal. The Main Applicant must be affiliated with an organisation situated in one of the ACT-consortium countries participating with money to this call. The Main Applicant must also meet national eligibility criteria.

Co-Applicant: A Co-Applicant is a partner in a transnational proposal that must be affiliated with an organisation situated in one of the countries participating with money in this call. A Co-Applicant must also meet national eligibility criteria.

Co-operation Partners: A co-operation Partner is a partner in transnational proposal that participates without receiving funding from one of the ACT-consortium countries.

Annex 1: Specific Funding Agencies' Rules

Germany

Country/Region	Germany
Funding organisation	PtJ, Projektträger Jülich
National contact person	Dr. Wolfgang Körner E-mail: w.koerner@fz-juelich.de Tel.: +49 (0)2461 61 6507 Website: www.ptj.de
National funding commitment, and share of EU top-up	€6 million in national funding, and €3 million in top up financing from the European Commission
Maximum funding per awarded project	Only limited by available funding commitment from Germany
Anticipated number of large projects with German partners	~2
Anticipated number of small projects with German partners	~3
Eligibility of a partner as a beneficiary institution	The organisations which are eligible for funding as well as the eligibility criteria for cooperation are listed in the national guidelines available via https://www.ptj.de/kraftwerkstechnik Additionally, note that new CO ₂ geological storage projects within Germany are not eligible in this call. Research and development on geological storage must be at existing sites in Germany or take place outside of Germany.
Eligibility of costs	For detailed information visit: https://www.ptj.de
Submission of the proposal at the national level	German partners must submit their national partner application in German via easy-Online (https://foerderportal.bund.de/easyonline/) into the national electronic submission system. This applies to both the pre-proposal (=“Skizze”) and the full proposal. The same deadlines apply for the national level submission as for the European level submission.
Submission of financial and progress reports at the national level	Yes, scientific and financial reporting according to national criteria.
Information available at	https://www.ptj.de/kraftwerkstechnik https://www.cooretec.de/era-net-cofund-act
Other	We highly recommend contacting the NCP during the preparation of the project.

The Netherlands

Country/Region	The Netherlands
Funding organisation	Ministerie van Economische Zaken Acting through: Rijksdienst voor Ondernemend Nederland (RVO)
National contact person	Gerdi Breembroek, RVO Tel: +31 88 602 2315 E-mail: Gerdi.breembroek@rvo.nl Website: http://www.rvo.nl/onderwerpen/duurzaam-ondernemen/energie-en-milieu-innovaties/carbon-capture-en-storage
Funding commitment, and share of EU top-up	€ 4.000.000 national funding, and ≈ € 2.000.000 EC top-up funding
Anticipated number of projects with Dutch partners	No limitations
Maximum funding per awarded project	<p>Maximum funding per project is limited by the NL funding commitment, no other limits</p> <p>Maximum percentages of support for R&D using the definitions laid down in the General Block Exemption Regulation (GBER):</p> <ul style="list-style-type: none"> - Research by Research and knowledge-dissemination organisations: up to a maximum of 80% - Industrial research: up to a maximum of 50% - Experimental development: up to a maximum of 25% <p>On top of the above percentages for Industrial research and Experimental development, the following applies:</p> <ul style="list-style-type: none"> - The aid intensity increase for small (+20 percent points) or medium (+10 percent points) enterprises, (Article 25, under 6, under a, of the GBER). - An aid intensity increase with another 10%, in case of effective collaboration between an undertaking and one or more research and knowledge-dissemination organisations, under the conditions mentioned in Article 25, under 6, under b i), second bullet, of the GBER, <p>In case a project includes investments in demonstration plants, Article 36 of the GBER is applicable. The aid intensity in that case is 40% of the eligible cost. The aid intensity increases for small (+20 percent points) or medium (+10 percent points) enterprises.</p> <p>These conditions are comparable to the “TSE Hernieuwbare Energie” subsidy scheme.</p>
Eligibility of a partner as a beneficiary institution	Definitions according to the guidelines laid down in the General Block Exemption Regulation (GBER) on research, development and innovation. All organisations are eligible except provinces, communities and other public bodies.
Eligibility of cost	Project cost according to the guidelines laid down in GBER ; including personnel cost, cost of instruments and equipment, cost of buildings and land, cost for contractual research, knowledge and patents from outside sources, additional operating expenses, directly related to the project.

<p>Submission of the proposal at the national level</p>	<p>Subsidies will be granted using the general guidelines laid down in the Kaderbesluit Nationale EZ subsidies and the Regeling Nationale EZ subsidies. Consult the national contact person in case of queries.</p> <p>National submission, after ACT evaluation. A national application form and budget specification form need to be completed for the national part of the project.</p> <p>Submission to RVO, directed to “EnergieInnovatie” E-innovatie@rvo.nl, with “ERANET Cofund ACT” in the title.</p>
<p>Submission of financial and progress reports at the national level</p>	<p>Yes, progress and financial reporting.</p>
<p>Information available at</p>	<p>http://www.rvo.nl/onderwerpen/duurzaam-ondernemen/energie-en-milieu-innovaties/carbon-capture-en-storage</p>
<p>Other</p>	<p>Strong industrial participation is highly recommended. Dutch partners in ACT-projects need to share progress and results in Dutch CCS network through CATO. Confidentiality of information will be respected.</p>

Norway

Country/Region	Norway
Funding organisation	The Research Council of Norway (RCN)
National contact person	Dr. Aage Stangeland Tel: +47 95 82 29 03 E-mail: ast@forskningsradet.no Website: www.rcn.no
Funding commitment, and share of EU top-up	€6 million in national funding, and €3 million in top up financing from the European Commission
Anticipated number of projects with Norwegian partners	Up to 5
Maximum funding per awarded project	Only limited by available funding commitment from Norway (equal to €6 million plus top up funding from EC)
Eligibility of a partner as a beneficiary institution	Eligibility criteria for Norwegian partners are given at http://www.forskningsradet.no/servlet/Satellite?c=Page&cid=1184159007037&pagename=ForskningsradetEngelsk%2FHovedsidema
Eligibility of costs	For detailed information visit: http://www.forskningsradet.no/en/Project_budgets/1254007196371 Furthermore State Aid Guidelines must be followed: http://www.forskningsradet.no/en/State_aid_rules/1253979455092 For projects in the category Industrial Research: Companies can ask for up to 65% public funding and Institutions/Universities can ask for up to 100% funding rate. The applicants has to specify their type of project as whole and on WP-level
Submission of the proposal at the national level	No. But the project proposal from the whole consortia must have a separate appendix with total budget for Norwegian partners broken down on cost and financing for all Norwegian partners.
Submission of financial and progress reports at the national level	Yes, scientific and financial reporting according to national criteria. The budget monitoring of Norwegian partners in ACT-projects will be based on Norwegian Kroner (NOK).
Information available at	http://www.forskningsradet.no/en/Project_reporting/1138882213699
Other	We highly recommend contacting the NCP during the preparation of the project.

Norwegian partners in an ACT project will face the same conditions as in the CLIMIT programme (www.climit.no) and all budgeting for Norwegian partners will have to comply with requirements in the CLIMIT programme.

Where the funding is awarded to an "undertaking" (i.e. an actor that carries out an economic activity consisting of offering products or services on a given market) the funding will be considered to be state aid, and state aid regulations have to be followed.

Please note that the Norwegian part of project proposals should have as high industrial involvement as possible.

Romania

Country/Region	Romania
Funding organisation	UEFISCDI, Executive Agency for Higher Education, Research, Development and Innovation Funding
National contact person	Nicoleta Dumitrache E-mail: nicoleta.dumitrache@uefiscdi.ro Tel.: +40.21.302.38.86 Website: www.uefiscdi.gov.ro
National funding commitment, and share of EU top-up	€1 million in national funding, and €0.5 million in top up financing from the European Commission
Maximum funding per awarded project	€0.25 million (if the project is coordinated by a Romanian institution) €0.20 million (if the Romanian institution (s) is (are) partner(s))
Anticipated number of large projects with Romanian partners	~2
Anticipated number of small projects with Romanian partners	~3
Eligibility of a partner as a beneficiary institution	The organisations which are eligible for funding as well as the eligibility criteria for cooperation are listed in the national guidelines available via http://uefiscdi.gov.ro/userfiles/file/PNCDI%20III/P3_cOOPERARE%20INTERNATIONALA/ERA%20NET_ERA%20NET%20COFUND/PI%20ERA-NET%202015_consultare.pdf
Eligibility of costs	For detailed information visit: http://uefiscdi.gov.ro/userfiles/file/PNCDI%20III/P3_cOOPERARE%20INTERNATIONALA/ERA%20NET_ERA%20NET%20COFUND/PI%20ERA-NET%202015_consultare.pdf
Submission of the proposal at the national level	No. But the project proposal from the whole consortia must have a separate appendix with total budget for Romanian partners broken down on cost and financing for all Romanian partners. State aid guidelines must be addressed along standard guidelines for ordinary project proposals to the UEFISCDI.
Submission of financial and progress reports at the national level	Yes, scientific and financial reporting according to national criteria.
Information available at:	http://uefiscdi.gov.ro/articole/4348/Apel-in-pregatire-ACT-2016.html
Other	We highly recommend contacting the NCP during the preparation of the project.

Spain

Country/Region	Spain
Funding organisation	Ministerio de Economía y Competitividad
National contact person	Severino Falcón Tel: +34 91 603 79 59 E-mail: severino.falcon@mineco.es Alberto Abanades (Scientific issues) E-mail : era-energia@mineco.es Website: www.mineco.es
Funding commitment, and share of EU top-up	€0.45 million including EU top-up.
Anticipated number of projects with Spanish partners	3 – 4
Maximum funding per awarded project	<p>The following funding limits are considered eligibility criteria. Proposals not respecting these limits could be declared non eligible.</p> <ul style="list-style-type: none"> • Maximum per legal entity and proposal eligible for MINECO should not exceed €35.000 per year. If two or more legal entities participate in the same proposal the MINECO part should not exceed €45.000 per year. • For entities carrying out experimental work, maximum per legal entity and per proposal eligible for MINECO should not exceed €48.000 per year. If two or more legal entities participate in the same proposal the MINECO part should not exceed €58.000 per year. • If the transnational proposal is led by a PI eligible for MINECO a maximum of €8.000 per year in addition. <p>Centres formed by different Spanish legal entities will be considered as a unique entity, and thus the maximum funding should not exceed the limits per proposal established above (for example mixed centres). The final funding will take into account the transnational evaluation of the collaborative proposal, the scientific quality of the Spanish group, the added value of the international collaboration, the participation of the industrial sector, and the financial resources available.</p>
Eligibility of a partner as a beneficiary institution	Non-profit research organizations according to the APCIN call Final rules on eligibility will be described at the APCIN2017 call, to be published here .
Eligibility of costs	<ul style="list-style-type: none"> - Personnel costs for temporary contracts (fellowships are not eligible). - Current costs, small scientific equipment, disposable materials, travelling expenses and other costs that can be justified as necessary to carry out the proposed activities. - <u>Indirect costs (overheads) or clinical assays (proofs of concept, proofs of principle) are not eligible for funding in the APCIN call.</u>

Submission of the proposal at the national level	<p>Yes. Programa Estatal de Investigación, Desarrollo e Innovación Orientada a los Retos de la Sociedad, Plan Estatal de Investigación Científica Técnica y de Innovación 2013-2016. The instrument for funding the Spanish groups will be the Spanish Call on International Joint Programming Actions (Acciones de Programación Conjunta Internacional), which will be launched in 2017 (APCIN 2017). Only as a reference, the beneficiaries are advised to read the call APCIN 2015.</p>
Submission of financial and progress reports at the national level	<p>Yes, scientific and financial reporting according to APCIN.</p>
Information available at	<p>www.mineco.es</p>
Other	<p>Additional eligibility criteria <u>Mandatory:</u> Spanish Principal investigators must be eligible according to the APCIN 2017 call and must have experience as investigators in projects funded by the Plan Nacional I+D+I 2008-2011, the Plan Estatal I+D+I 2013-2016, ERC Grants, or European Framework Programmes.</p> <p><u>Not allowed:</u></p> <ul style="list-style-type: none"> • <u>Principal Investigators</u> are not allowed to apply for funding in more than one proposal of the ACT call. • <u>Principal investigators</u> are not allowed to apply for funding in more than one proposal in APCIN 2017 call. This must be taken into account when participating in different ERA-Nets or other international initiatives. • Important note: Principal investigators granted in the APCIN 2016 call are not allowed to apply neither in APCIN 2017 nor in the transnational ACT call. <p>MINECO will avoid double funding (overlapping with other EU or National funding), and will not grant projects or parts of projects already funded.</p> <p>Mandatory acknowledgement Any publication or dissemination activity resulting from the granted projects must acknowledge MINECO funding even after the end of the project: "Project (reference nº XX) funded by MINECO through APCIN 201X".</p>

Switzerland

Country/Region	Switzerland
Funding organisation	Swiss Federal Office of Energy
National contact person	<p>For technical issues: Gunter Siddiqi, Tel: +41 58 462 5324 gunter.siddiqi@bfe.admin.ch (preferred)</p> <p>For administrative issues: Yasmine Calisesi, Tel: +41 58 462 53 21 yasmine.calisesi@bfe.admin.ch (preferred)</p> <p>http://www.bfe.admin.ch/cleantech/ (German and French only) Program name and link; Pilot-, Demonstration- and Lighthouse Program http://www.bfe.admin.ch/cleantech/ (German and French only). Type of research funded: Pilot (TRL 4-7) and demonstration (TRL 7-9)</p>
Funding commitment, and share of EU top-up	Maximum €4 million (Switzerland, being a partially associated member to the Horizon 2020 programme, will not receive cofunding from the European Commission)
Anticipated number of projects with Swiss partners	Not specified.
Maximum funding per awarded project	All projects selected are subject to the limitation imposed by the maximum funding commitment.
Eligibility of a partner as a beneficiary institution	No restrictions (any third party to the Swiss Confederation).
Eligibility of costs	Funding of Swiss participants is limited to 40 % (in exceptional cases 60 %) of the eligible project costs. Eligible projects costs cover only the additional project costs that cannot be amortized over the expected lifetime of the developed installation or solution. Additional projects costs are the additional project costs compared to the costs of implementing an equivalent, conventional technology or solution.
Submission of the proposal at the national level	<p>Yes.</p> <p>Full application, according to the application procedure given by www.bfe.admin.ch/cleantech/05765/index.html?dossier_id=05798</p> <p>Admission criteria include:</p> <ol style="list-style-type: none"> 1. Project topic contributes to increasing energy efficiency or use of renewable energy; 2. High application and success potential; 3. Project topic in line with the Swiss energy policy; 4. Gathered results are publically accessible and disseminated among interested circles. <p>More criteria might be added depending on the topic/adjudication mode.</p> <p>Expected deliverables of pilot- and demonstration programme projects include:</p> <ol style="list-style-type: none"> 1. Proof of concept of facilities, systems and proposed solutions, 2. Intermediate and final reports of individual projects providing details on technical feasibility, 3. Operational achievements and project economics (particularly related to innovative energy technologies and installations) and 4. Demonstrated knowledge transfer to target community providing details on individual measures that have been implemented. <p>SFOE does not claim any IPR. It is explicitly allowed to protect intellectual property as far as this does not block the dissemination of the results.</p>

Submission of financial and progress reports at the national level	Yes, scientific and financial reporting according to program rules.
Information available at	http://www.bfe.admin.ch/cleantech/ (German and French only)

Turkey

Country/Region	Turkey
Funding organisation	TUBITAK
National contact person	Dr. Mehmet Ufuk Atay E-mail: ufuk.atay@tubitak.gov.tr Tel.: +903124685300/2805 Website: www.tubitak.gov.tr
National funding commitment, and share of EU top-up	€2 million in national funding, and 1 million euro in top up financing from the European Commission
Maximum funding per awarded project	~ €0.33 million + overhead costs + other costs
Eligibility of a partner as a beneficiary institution and eligibility of costs	The organisations which are eligible for funding as well as the eligibility criteria for cooperation are listed in the national guidelines available via http://tubitak.gov.tr/en/funds/academy/national-support-programmes/content-1001-scientific-and-technological-research-projects-funding-program
Submission of the proposal at the national level	Yes. Successful proposals in the full proposal stage must resubmit their national partner application via online into the national electronic submission system.
Submission of financial and progress reports at the national level	Yes, scientific and financial reporting according to national criteria.
Information available at	http://tubitak.gov.tr/tr/destekler/akademik/uluslararasi-destek-programlari/icerik-era-net
Other	We highly recommend contacting the NCP during the preparation of the project.

United Kingdom

Country/Region	United Kingdom (UK)
Funding organisation	The Department of Energy and Climate Change (DECC)
National contact person	Mr. Brian Allison Tel: +44 300 06 85358 E-mail: brian.allison@decc.gsi.gov.uk Website: www.gov.uk/decc
Funding commitment, and share of EU top-up	£4 million (currently ≈ €5.2 million) in national funding, and ≈ €2.6 million in top up financing from the European Commission
Anticipated number of projects with UK participation	Up to 5
Maximum funding per awarded project	Only limited by available funding commitment from United Kingdom (equal to ≈ €5.2 million plus top up funding from European Commission)
Eligibility of a partner as a beneficiary institution	See information below (under the table)
Eligibility of costs	See information below (under the table)
Submission of the proposal at the national level	Yes in draft format prior to submission date. The project proposal from the whole consortia must have a separate appendix with total budget for United Kingdom partners broken down on cost and financing for all United Kingdom partners. State aid guidelines must be addressed along standard guidelines for ordinary project proposals to DECC.
Submission of financial and progress reports at the national level	Yes, scientific and financial reporting according to national criteria.
Information available at	
Other	We highly recommend contacting DECC during the preparation of the project.

UK: Eligible Organisations

All UK participants in a single project must be separate legal entities. UK companies must:

- have been trading for at least 12 months before the closing date for applications
- be VAT registered
- be registered at Companies House

Companies need to provide the following with the stage 1 application:

- evidence they have the resources and finances to undertake the project at proposal stage a copy of annual accounts for the last two years.

Companies with fewer than 5 Full Time staff cannot lead a project, unless agreed prior to application.

UK: Funding criteria

Grants will be provided under Article 25 of the EU State Aid General Block Exemption Regulation - **Aid for research and development projects** under the definition for **experimental development** (or industrial research if appropriate).

Funding thresholds for experimental development projects are:

- 40 % for large companies
- 50 % for medium-sized companies
- 60 % for small companies

This includes 15 % for collaboration across different Member States

Applicants must be able to provide evidence of private funding to cover the balance of the eligible project costs. Applicants should consult the Block Exemption guidance for eligible costs; Claims under the UK grant must be for project costs incurred in the UK.

UK: Sub-contracting

Unless agreed otherwise:

- Subcontracting is to be capped at a maximum of 20 % of the UK budget;
- All UK grant costs, including sub-contracts, should be incurred within the UK;
- Project management costs cannot be sub-contracted.

Annex 2: Template for pre-proposal

Concise description of the project (2 - 6 pages for points 1 to 4 below)

Please give an overview of the project, including:

- a)** Objectives and targets (against defined technology and market development needs)
- b)** Key activities (work programme, work packages and work distribution among partners, i.e. key activities and leading roles / major contributions of partners)
- c)** Expected results (innovation or innovation potential, contribution to achieving the ACT objective of accelerating and maturing CCS technology, etc.)
- d)** Added value through transnational cooperation for the whole project

Please also provide a full project title and an acronym.

1. Objectives and challenges

[your pre-proposal text]

2. Short description of your project including key activities

[your pre-proposal text]

3. Expected results

[your pre-proposal text]

4. Relevance to ACT and trans-national added value

[your pre-proposal text]

5. Approximate projected costs in EUR

[table giving total costs and requested funding for each partner and the consortium as a whole, maximum one page , detailing also any other requested funding for the same work]

- Please use attached table in Annex 4

6. Short description of partners involved

[maximum half a page per partner]

7. Letters of Intent from each partner

[maximum one page per partner]

Annex 3: Template for full proposal

- 1. Publishable summary of the project (max. 1 page)**
- 2. Scientific, technological and commercial objectives and challenge (max. 2 pages)**

Give evidence relating to the scientific, technological and commercial objectives and challenges of the project, outlining:

- *Overall aims and objectives of the projects,*
- *Key targets to be achieved in the project*
- *Technology Readiness Levels including a short justification*
- *Scientific, technical and commercial challenges*

- 3. Technical and scientific description of the project (max. 20 pages, large projects may use up to 45 pages)**

Describe:

- *State-of-the-art*
- *Innovation of your approach*
- *Technical milestones and expected results*
- *Methodologies and technologies utilised to obtain goals*
- *Recent research relevant to the project undertaken by the consortium partners*
- *Clear definition of the national subprojects*

- 4. Outline of Work Plan (max. 10 pages, large projects may use up to 20 pages)**

Please outline the following clearly:

- *Project structure*
- *Individual work package description with person-months per work package and partner*
- *Milestones, deliverables and time schedule, including Gantt chart*
- *Role of each partner; relevant expertise, resources, manpower, costs*
- *Monitoring and management of the project*

- 5. Relevance to ACT objective of accelerating and maturing CCS technology and transnational added value (max. 2 pages)**

Please outline:

- *Relevance of the project to the ACT objective of accelerating and maturing CCS technology*
- *Scientific/technical/industrial/commercial expertise of the consortium partners which is relevant for the success of the project*
- *Value of national subprojects*
- *Added value of transnational cooperation*

6. Risks and mitigation measures (max. 2 pages)

Please outline for your project the most relevant risks (technical, economical, commercial, organizational and political), their severity, and preventive and mitigation measures.

7. Status of Consortium Agreement (max. ½ page)

Give a brief outline of the consortium agreement. Include whether the Consortium Agreement is at the initial or final draft stage or is in the process of being signed. Give an indication as to the expected date of agreement signature.

8. Further information

a) Experience of participants (max. 2 pages per partner)

Brief additional profile information (CVs, relevant professional experience etc.) of all partners (Principal investigators) together with lists of up to 5 recent publications, description of companies or institutions.

b) Main facilities, equipment (max. ½ page)

If applicable, a description of significant facilities and large-scale equipment available to the consortium that is necessary to fulfil the aims of the project

c) Table regarding project cost and requested funding

This table should give total costs and requested funding for each partner and the consortium as a whole. Any non-personnel line item of more than €50.000 requires an explanation. Also, additional (expected) sources of funding should be specified.

Please use the table in Annex 4. for budgeting

d) Other further information (max. 2 pages)

Additional information relating to the project to be added here e.g. technical drawings, diagrams, charts etc.

e) Letters of Intent (LoI) from each partner

Should express the partner's role and contribution in-cash and in-kind in the project.

Annex 4: Table for budgeting

Each table must be filled out for the consortium as a whole.

Table 1, Table 2, and Table 3 must also be filled out for each partner in the consortium.

Table 1. Cost (all figures in euro*)

	2017	2018	2019	2020	Sum
Personnel and indirect cost					0
Operating cost					0
Equipment					0
Other cost (must be specified)					0
Total sum	0	0	0	0	0

Table 2. Work packages (all figures in euro*)

Work packages, Total Costs	WP1	WP2	WP3	Etc	Sum
Partner 1					0
Partner 2					0
Partner 3					0
Etc.					0
Etc.					
Total sum	0	0	0	0	0

Table 3. Financing (all figures in euro*)

	2017	2018	2019	2020	Sum
Own financing					0
ACT financing					0
Other public financing					0
Other private financing					0
Total sum	0	0	0	0	0

Table 4. Cost code on project basis only, not for each partner (all figures in euro*)

	2017	2018	2019	2020	Sum
Private sector					0
Institute					0
Universities					0
Other sector					0
Total sum	0	0	0	0	0

* For those countries having another currency than Euros the financial monitoring of the ACT-projects will be based on the actual exchange rate at the time when the application is submitted.