Text to be published for ACT2 projects on our web 23 October 2019

New ACT2 projects selected for funding

In June 2018, a second ACT call was launched inviting proposals addressing R&I targets in the CCUS field as outlined in:

- The SET Plan implementation on CCS and CCU, Action 9
- The Mission Innovation Research priorities

Following a rigorous two stage evaluation process, twelve (12) projects were selected by an independent international panel.

The new ACT2 projects cover a wide range of the CCUS area;

- 6 CO₂ capture
- 3 storage and monitoring
- 1 storage and wells
- 1 storage combined with CO2 use
- 1 mineralisation

All projects will address outreach, knowledge sharing, and social aspects in addition to their wide technical focus.

The total budget of the 12 projects is €43.6M of which €31.5 M is funded by the ACT consortium; private financing amounts to €1,5M with the remaining coming from matched funding from the projects themselves.

All ACT countries/partners are represented within these projects. Germany, The Netherlands, Norway, UK and USA participate in 6-10 of the projects. France, Greece, Romania, Spain, Switzerland and Turkey participate in 1-4 projects. There are partners from 3-7 countries in each project. Two of the projects (SENSE and SUCCEED) also have partners from countries outside ACT: Australia, Iceland, Italy and Japan.

All the new projects are due to commence this autumn and present their goals and plans in the <u>ACT knowledge sharing workshop</u> in Athens on 6-7 November.

With two successful calls and several projects already delivering interesting results, the ACT consortium has established itself as a new multinational funding scheme for research and innovation dedicated to CCUS. ACT envisages to launch additional calls and expand its network.

The table below shows the projects acronym, their primary activity, the request for funding from ACT and the country partners involved in ACT2. The green marks indicate the lead country for the specific projects.

Projects	Activities	ACT, M€	France (ADEME)	Germany (PtJ)	Greece (GSRT)	Netherlands (RVO)	Norway (RCN and Gassnova)	Romania (UEFISCDI)	Spain (AEI)	Switzerland (DETEC)	Turkey (TUBITAK)	UK (BEIS)	USA (DoE)
AC2COM	Oxyfuel technology in cement production	3,0	х	х	х		х			х			
АСТОМ	Offshore monitoring	1,5				x	x					x	x
ANICA	Carbonate looping process in cement industry	2,4		х	х							х	
DIGIMON	Digital monitoring of CO2 storage projects	5,0		х	x	х	х	х				х	x
FUNMIN	CO2 mineralisation into anhydrous MgCO3	0,7	х						х			х	
LAUNCH	CO2 capture in various industries	5,1		Х		Х	X					х	x
MemCCSea	Membrane systems for CO2 capture and storage at sea	1,7		Х	х		X						x
NEWEST-CCS	Negative emissions in the waste to energy sector	2,2		Х		Х	Х					х	
PRISMA	Sorbent materials for energy efficient carbon capture	2,1					Х			Х		х	x
REX-CO2	Reusing existing wells for CO2 storage	2,5	х			Х	Х	Х				х	x
SENSE	CO2 storage sites - ground surface monitoring	2,7	х	Х			х		х			х	x
SUCCEED	CO2 storage coupled with geothermal energy deployment	2,5				x					х	х	
		31,5											

Brief descriptions of the new ACT projects are listed below

AC2OCEM

AC2OCem will conduct pilot-scale experiments and analytical studies to advance key components of oxyfuel cement plants with the aim of reducing the time to market of the oxyfuel technology in the cement sector.

ACTOM

The ACTOM project will work to advance offshore monitoring of stored CO₂ by building a unique webbased toolkit designed to optimize monitoring programs for offshore geological storage sites.

ANICA

The ANICA project will develop a novel indirectly heated carbonate looping (IHCaL) process for lowering the energy penalty and CO_2 avoidance costs for CO_2 capture from lime and cement plants.

DIGIMON

The DigiMon project aims to develop and demonstrate an affordable, flexible, and intelligent digital monitoring early-warning system, for monitoring any CO2 storage reservoir and subsurface barrier system receiving captured CO₂.

FUNMIN

The FUNMIN project aims to optimise the process of CO2 mineralisation into Magnesite (MgCO3) by combining simulation and experimental techniques to identify the key factors for catalysing the formation of MgCO3 under mild, non-hazardous, and non-toxic conditions.

LAUNCH

The LAUNCH project will accelerate CO2 capture technologies by establishing a faster and more cost effective method to predict and control the degradation of next generation solvents.

MemCCSea

The MemCCSea project will work to develop hyper compact membrane systems for cost-effective and flexible operation of post-combustion CO2 capture in maritime applications such as on floating vessels used by the offshore oil and gas industry.

NEWEST-CCS

The NEWEST-CCUS project aims to accelerate the deployment of CCS in the European Waste to Energy (WtE) sector and develop guidelines for the selection of robust, fuel flexible technologies resistant to Municipal Solid Waste (MSW) impurities. The project will also and assess the size of the WtE CCS market to create regional roadmaps.

PrISMa

The PrISMa project aims to integrate molecular science and process engineering to develop a technology platform that allows for customized carbon capture solutions to optimal separation for a range of different CO2 sources and CO2 use/destination options.

REX-CO2

The REX-CO2 project will develop a procedure and tools for evaluating the re-use potential of existing hydrocarbon wells for CO_2 storage to help stakeholders make informed decisions on the potential of certain wells or fields for CO_2 storage.

SENSE

The SENSE project will utilise new technologies and optimized data processing to develop reliable and cost-efficient monitoring programs based on ground movement detection combined with geomechanical modelling and inversion techniques.

SUCCEED

The SUCCEED project will research and demonstrate at pilot scale the feasibility of utilising produced CO_2 for re-injection in a geothermal field to maintain and enhance reservoir pressure and improve performance, while also storing the produced CO_2 that would typically be vent to the atmosphere under standard geothermal operations.