Project funded at the 1st ACT call, 2016
Decision for funding taken in April 2017

The projects last for 3 years

8 projects as follows……

Projects funded by ACT, 2017-2020

Project	Activities	ACT, M €	Norway	Netherlands	UK	Germany	Romania	Switzerland	Spain	Turkey
ALIGN	Chain integration, clusters	14,5	x	X	x	X	X			
ELEGANCY	Chain integration, hydrogen	8,9	X	x	x	X		x		
PRE-ACT	CO2 storage, pressure handling	4,5	X	x	x	X				
ACORN	Full chain CCS / infrastructure	2,0	x	x	X					
DETECT	CO2 storage, risk assessment	2,0		X	X	X				
ECOBASE	CO2-EOR SouthEast Europe	1,2	X	x			x			x
GASTECH	Gas switching technology	1,7	X	x			x	x	x	x
3D-CAPS	3D printed sorbents	1,5	X	X			x			

- Total budget for 8 projects: € 50 M
- ACT supporting: € 36 M

more info at www.act-ccs.eu

Research results will be used to draw up blueprints to deliver CCUS in the industrial clusters in UK, NL, Norway and Romania

- Optimising and reducing the costs of CO2 capture technology
- Planning large-scale CO2 transport
- Providing sufficient and safe offshore CO2 storage

- Developing the use of CO2 in energy storage and conversion
- Understanding and supporting social acceptance of CCUS
- Operating budget is 23 M€, whereof 14 M€ from ACT.

ELEGANCY

Primary objective:
Fast-track the decarbonization of Europe's energy system by exploiting the synergies between two key low-carbon technologies: **CCS and H2**

with the following benefits

- the decarbonization of heating and transport based on an existing fuel and infrastructure
- a commercial model for industrial CCS
- the opportunity to broaden public awareness of CCS

- Total budget 15.6 M€, of which 8,9M€ from ACT

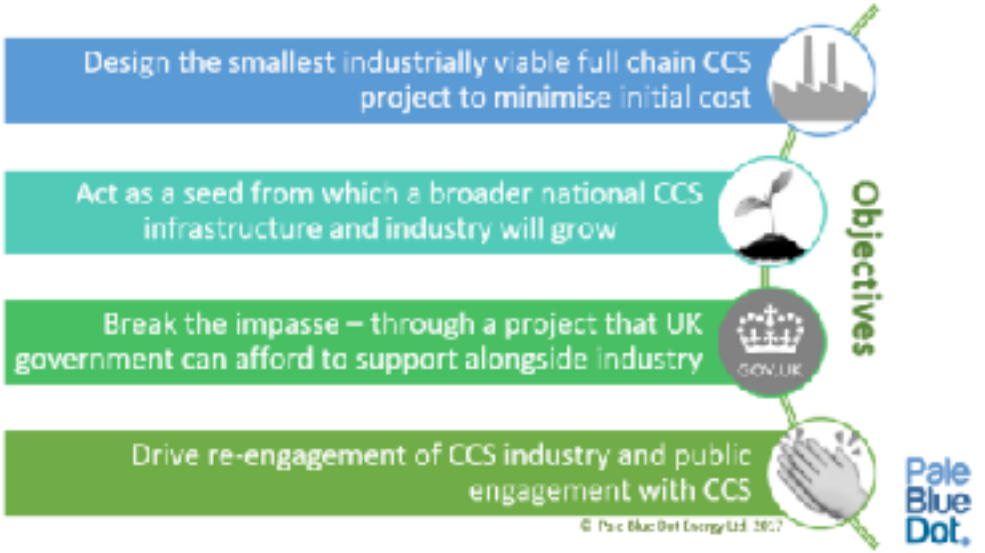
Pre-ACT

Objectives:

- Equip operators and regulators with **pressure-driven decision support protocols (Pre-ACT Protocols)** that enable them to establish a safe and efficient monitoring system and to assess quantitatively site conformance
- Pressure management crucial when addressing the main storage challenges: capacity, confidence and costs

Co-funded by the European Commission within the Horizon 2020

ACORN



- Will use the unique combination of legacy circumstances in North East Scotland to engineer a minimum viable full chain carbon capture, transport and offshore storage project to initiate CCS in the UK.

- The ACORN infrastructure project "CO_2 Sapling" has been adopted by the EU as a Project of Common Interest (PCI).

DETECT

INTEGRATED GEOLOGICAL CO_2 LEAKAGE RISK ASSESSMENT

Aims to significantly improve the ability to evaluate risks of leakage across faulted and fractured caprocks, so as to better inform operators, regulators and other stakeholders in their risk mitigation strategies.

Monitoring well at the Quest CO_2 Storage site.

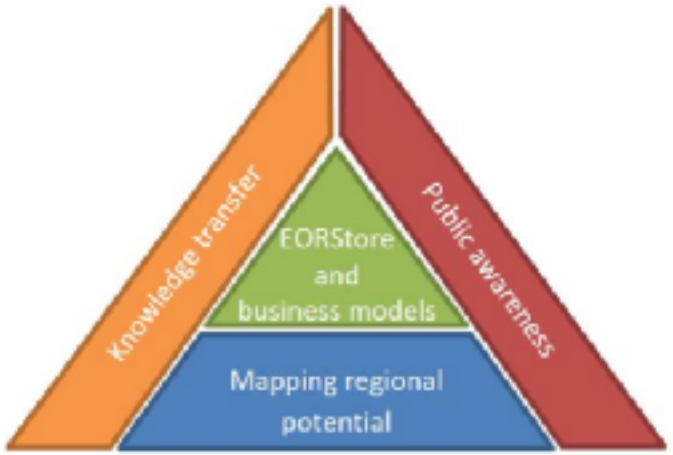
Co-funded by the European Commission within the Horizon 2020

ECOBASE
Enhanced oil recovery with storage

- Develop revenue streams and business models for CO2-EOR in South-Eastern Europe (SEE) supporting large scale CCUS deployment.

- The project is carried out locally in SEE countries: **Turkey**, **Romania** and **Greece** with support from, the Netherlands (TNO) and Norway (IRIS).

- The project will access the whole revenue stream and focus on optimization of the CO2-EOR combined with permanent storage (EORStore) as an undividable process.



Synergies with:
- ALIGN-CCUS project:
  - Public awareness study to expand the cover
  - Storage readiness level methodology
- With ENOS / CO2GeoNet:
  - Public awareness study to expand the coverage

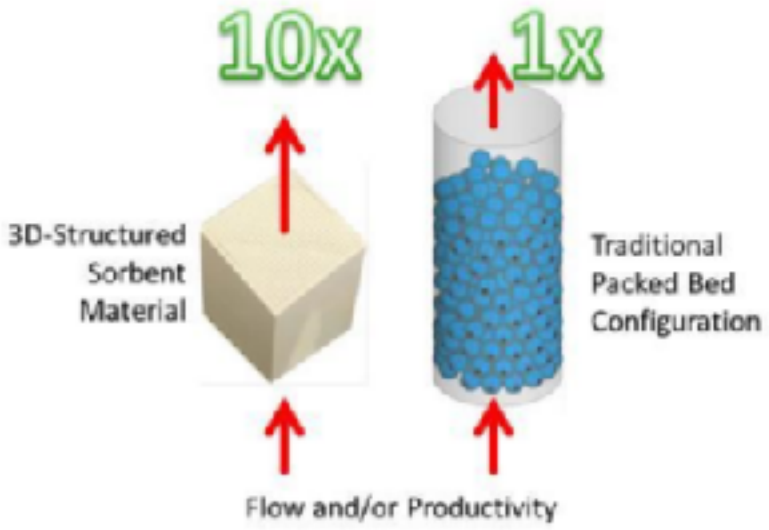
GASTECH

Scope: To accelerate the development of gas switching technologies by technology scale-up through:

- Lab-scale demonstration (TRL 4) of gas switching reactor concepts
- Large-scale technology implementation studies to evaluate the techno-economic feasibility of process concepts incorporating gas switching reactors.
- Business case development will accelerate the development of gas switching technologies by developing a business case for further technology scale-up.

Cost reduction by increased productivity and more compact operation

Headline results



- Overall objective:
  - Productivity (kg CO_2/m^3hr) increase by a factor 10 of sorbent based capture technologies
- Means:
  - Additive manufacturing, 3D-printing
- Materials:
  - Hydrotalcite
  - Amine Functionalised Silica

Co-funded by the European Commission within the Horizon 2020