



RÉPUBLIQUE
FRANÇAISE

*Liberté
Égalité
Fraternité*



Accelerate the ecological transition with ADEME

Anne VARET
Scientific Director

COMMITTED

Our « raison d'être » :

- Make our expertise available for citizens, territories and economic actors ;
- Give keys to every stakeholder to facilitate the starting to do.



ACT MORE, FASTER...

State operator under supervision:

- Of the Ministry for an Ecological Transition and Territorial Cohesion;
- Of the Ministry for the Energy Transition
- and the Ministry for Higher Education and Research.

Sectors of activity:

- Climate change;
- Air and mobilities;
- Energies;
- Sustainable production;
- Sustainable urban planning;
- Agriculture and forestry;
- Circular economy;
- Buildings;
- Behaviour change and mobilisation.

Budgets

- € 978 million in 2023
- 2,986 billion as part of France 2030

Our missions:

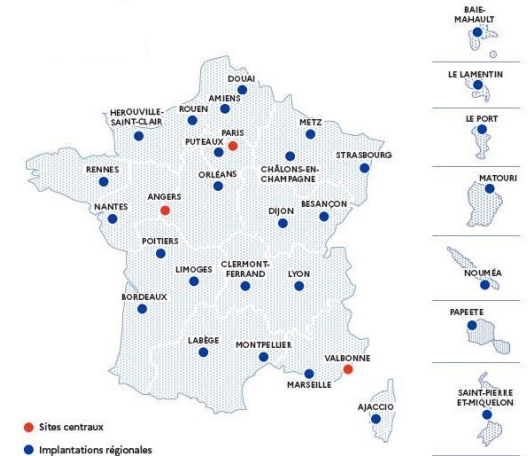
- Amplify the deployment of the ecological transition;
- Contribute to collective expertise;
- Innovate and prepare for the future.



How much, where?

- 1220 employees, including 383 in the regions;
- 3 central sites (Angers, Valbonne, Montrouge)
- 17 regional offices.

<https://agirpourlatransition.ademe.fr/>
<https://www.ademe.fr/en>



R&D at ADEME



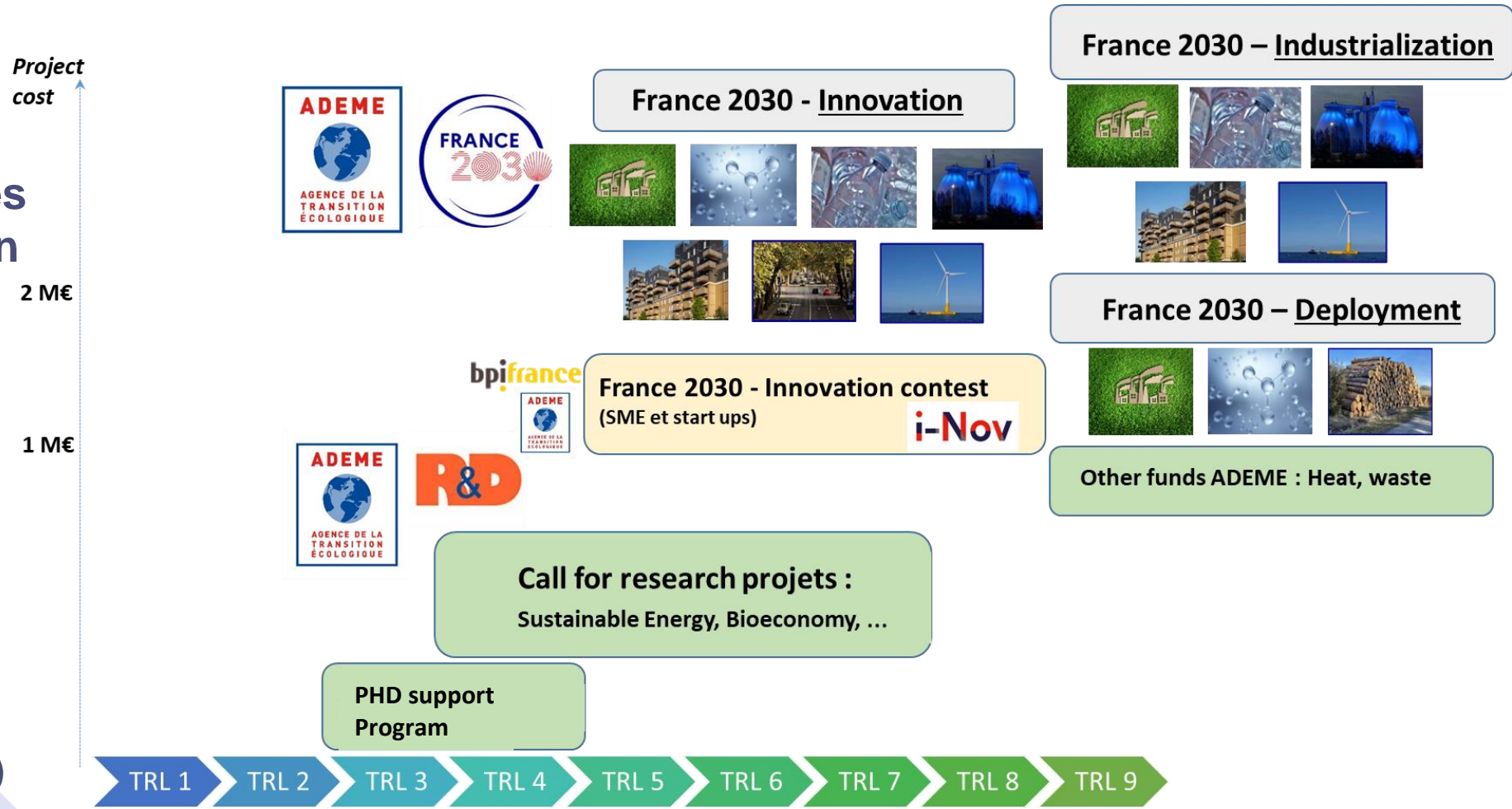
Strategy for R&D

Our objective

-> to bring out co-constructed research in response to the challenges of the ecological transition and the needs of stakeholders

How ?

-> contribute to creating spaces for exchange and cooperation between researchers and socio-economic actors (local authorities, associations, SMEs/VSEs, citizens, etc.)



A funding continuum for R&D and innovative projects

ADEME and CCUS, public support history

❖ Funding for doctoral research

- Between 2015 and 2023 : 8 theses

❖ R&D project funding (TRL 3-6) through ERANET, APRED*, APRBIP* and direct funding

- Between 2009 and 2014 : 11 CCUS projects / 3,2 M€ of financial support
- Since 2015 : 14 projects / 4,2 M€ of financial support

❖ Financing of pilots and demonstrators TRL>5-6 through PIA (Investments for the Future Programmes)

- Between 2009 and 2014 : 4 demonstrators / 44 M€ of financial support
- Since 2015 : 2 demonstrators / 11 M€ of financial support

❖ Funding for issue studies (*Ex 2023 : Assessment of geological storage potential of CO₂ in France*)

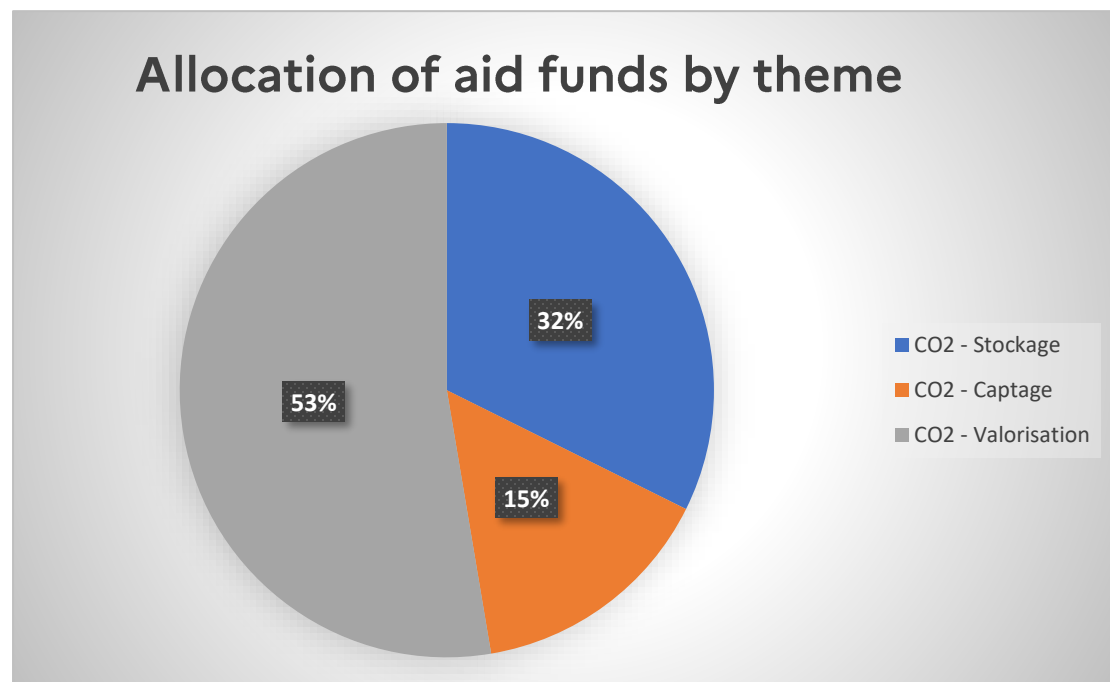
❖ Regional funding for territorial studies

ADEME and CCUS, public support history

❖ R&D project funding (TRL 3-6) through ERANET, APRED*, APRBIP* and direct funding

* APRED - Call for Sustainable Energy Research Projects

* APRBIP - Call for Bioresources, Industries, and Performance Research Projects



▪ Since 2015 : 14 projects and financial support of 4,2 M€

- 4 ERANET ACT-2 projects
- 3 ERANET ACT-3 projects
- 2 APRED projects
- 2 APRBIP projects
- 3 direct funding projects

RESEARCH THEMATIC PRIORITIES

TRP1: PRESERVATION AND RESTORATION OF HABITATS AND RESOURCES IN THE CONTEXT OF CLIMATE CHANGE

- Characterisation of habitats and resources
- Assessment and optimisation of ecosystem services
- Preservation and restoration of habitats and resources
- Competitions of uses for resources



TRP3: ECOLOGICAL TRANSITION OF ENERGY AND INDUSTRIAL SYSTEMS FOR CARBON NEUTRALITY

- Improvement of technologies and components of the energy system and industrial transformation processes
- Sectoral integration and optimisation of energy subsystems
- Integrated and optimised energy systems



TRP2: CIRCULAR ECONOMY WITH A VIEW TO RESILIENCE

- Transformation of materials/products/waste in an ecodesign logic
- Local circular economy dynamics in the regions
- Towards a circular bioeconomy



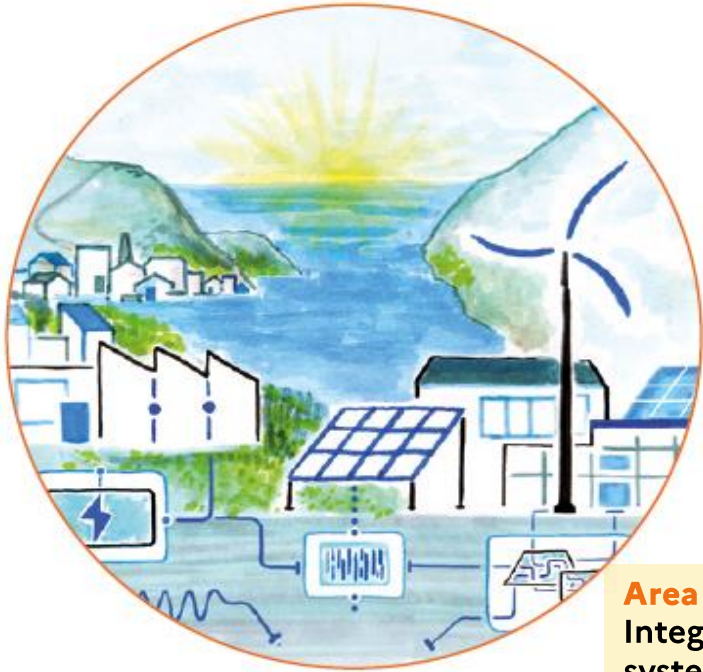
TRP4: ECOLOGICAL TRANSITION AND SOCIETY

- Behaviors, practices, uses and lifestyles conducive to ecological transition
- Ecological transition of regions and sectors
- Public policies for the ecological transition
- System modelling, assessment and decision support methodologies



CCUS and its contribution to the ecological transition of energy and industrial systems for carbon neutrality

ECOLOGICAL TRANSITION OF ENERGY AND INDUSTRIAL SYSTEMS FOR CARBON NEUTRALITY



Area 1
Improvement of technologies and components of the energy system and industrial transformation processes

Area 2
Sectoral integration and optimisation of energy subsystems: buildings/islands/ neighbourhoods, mobility and industry as active components of the energy system

Area 3
Integrated and optimised energy systems

Some Research challenges on CCUS topic

- **Technological solutions for CO₂ and recycled carbone capture, utilisation and long-term storage**
 - adaptation of capture technologies to different concentration levels of biogenic
 - scaling up of certain biomass conversion technologies
 - technical and economic feasibility of the entire BECCS system
- **Systems evaluation by using multi-criteria analyses**
 - including techno-economic assessment and carbon footprint aspects using LCA based approaches
 - requires LCA methods developments.
 - assessments of service provided, gain in emissions and constraints of these systems
 - Developpement of efficient CO₂ conversion systems at different scales to produce fuels or materials (ref. ANCRE-Position paper_Carbone-sinks)

⇒ A national Call for R&D projects on Energy System every 2 years : sustainable energy – efficient and sustainable production, management and use






PANORAMA of Call for Proposals / Funding programs




From R&D to industrialization..., from studies to deployment..., for supply and demand

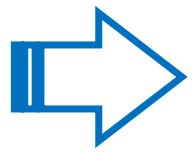
For industrial companies (seeking decarbonization solutions)

STUDIES / SUPPORT / FORMATION





CFP Low Carbon Industrial Zones (ZIBaC) **closed** 


Decision Support including  

with    **2023-2026**




DEPLOYMENT - CAPEX

   + 

Industrial Decarbonization Fund **closed**  **1,2 Md€**

CFP Zero-Fossil Industry **closed**

- ❖ Volet 1 : BCIAT
- ❖ Volet 2 : DECARB-IND
- ❖ Volet 3 : DECARB FLASH

300 M€ 

DECARB IND 23 **125 M€**

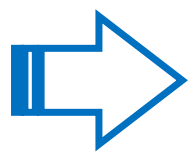
DECARB IND +


For solution-providing industries (equipment suppliers)

R&D – Innovation

CFP Theses and R&D


2 CFP Industry Innovation
 AAP IBaC PME & AAP DEMI BaC
 Proposal submission 16 oct 2023 



French CCUS strategy
CFT CCS : seismic surveys and injections test in pilot sites 
Under discussion – not validated

INDUSTRIALIZATION

New production capacities for industrial decarbonization technology solutions

 **CFP SolInBac** **closed** **→** **New CFP ?**

