

ROUND TABLE

« HOW CAN THE PRIVATE AND PHILANTHROPIC SECTOR COMPLEMENT FUNDING STRATEGIES FROM PUBLIC FUNDING BODIES »

BLUEMED RESEARCH FUNDERS' WORKSHOP – SESSION 3
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French MED Maritime competitiveness Cluster



Maritime security
and safety



Naval & yachting



Energy marine resources &
offshore mining



Biological marine resources



Environment and
Coastal management



Ports, maritime
infrastructures and transports

- ❑ 13 years experience
- ❑ Large economical area:
6 Strategic Action's Themes
- ❑ 410 members : SMEs, large groups,
labs
- ❑ International exchanges & cooperation
- ❑ Partnership in EU projects
- ❑ 287 funded projects for 709 M€ budget
and 321 M€ public grant
⇒ Balance public/ private funding.
⇒ Development of news products and
services

R&D, products & services of « our » companies (members of our cluster)



1) R&D :

- Companies carry out R & D projects, very often in cooperation with research labs
- Public funds finance partly these R&D projects

2) Products and services :

- Companies develop products & services based on these R&D results
- And further **need financial capacity to industrialize, commercialize and « market » these products.**

Since 2013: "projects factory" => "**products / services factory**"

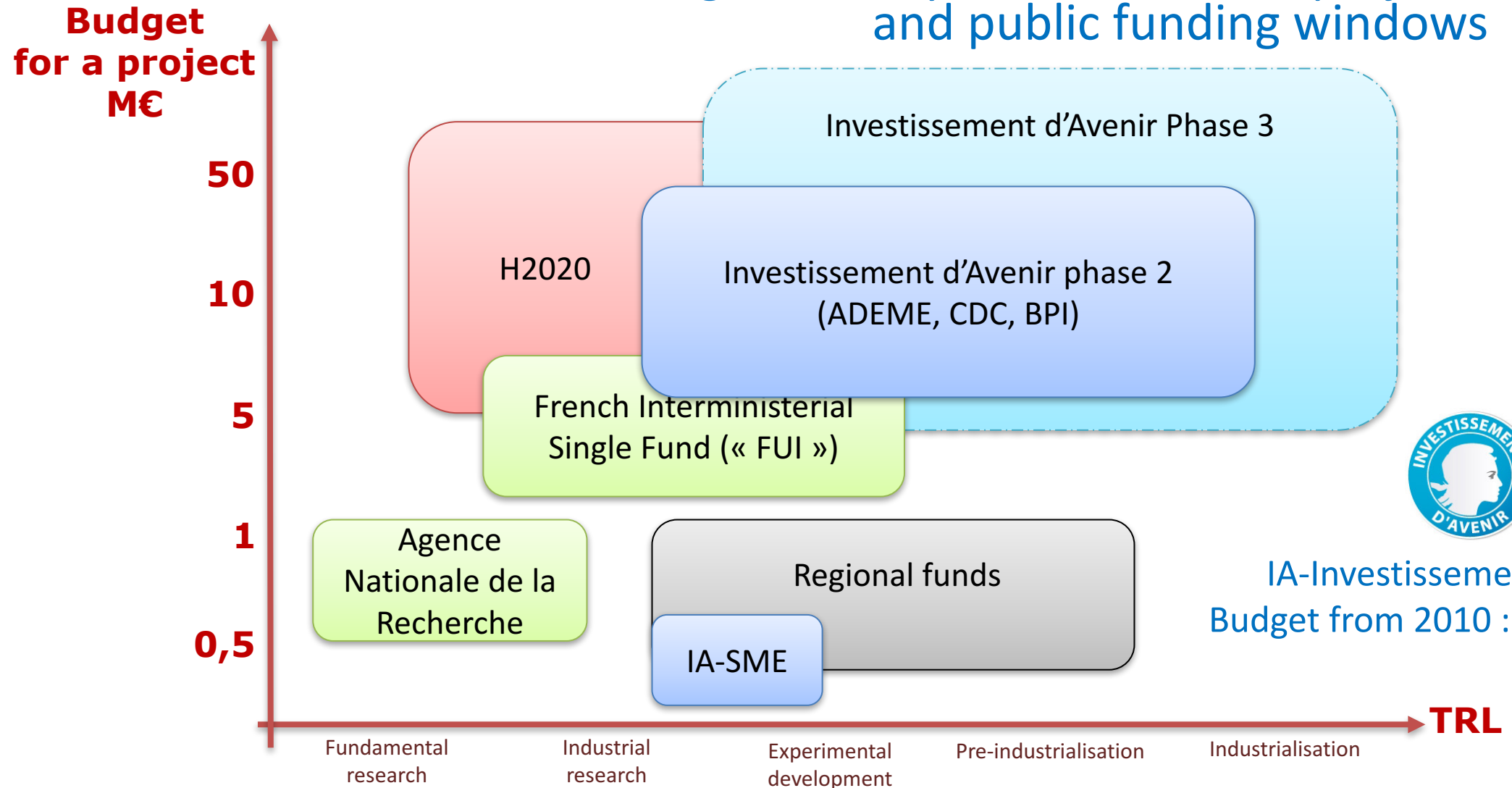
The Cluster offer companies , in particular SMEs, support in this **2nd phase of development**, in particular by helping them to **fund raise**

Financing innovative & collaborative projects

- The cluster seeks and advises companies to respond to calls for projects so that innovative projects are funded.
- In France, public funding is diverse : State, Regional Councils, EU, ...
 - National funding agencies supporting innovative projects according to the TRL: ANR, PIA, FIU....
- Public funding is done through grants or repayable advances or a mix of both.
- **Funding rates** depend on the call for projects and the type of companies: typically **25% to 50%**, rarely 80%.
- In R&D projects, SMEs are financed roughly around 50% and large groups around 25%.

=> 50 to 75% of self-financing projects or loans

In France: a large diversity of collaborative projects and public funding windows

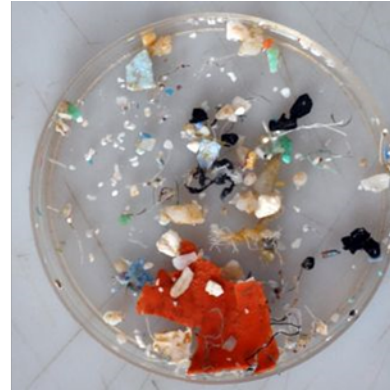


IA-Investissement d'Avenir
Budget from 2010 : 57 milliards €

Examples of R&D public funding

- Microplastic 2 Project
- SeaExplorer Project

MICROPLASTIC 2 - A typical partnership for a market & knowledge oriented innovative project (2016- undergoing)



Partners



Objective :

- Improve knowledge of origin of particule flux and interaction with marine ecosystems
- Study and experiment the treatment of microplastics in **waste water treatment plants**

Budget : 4,5 M€ [incl. Public Funding - Interministerial Single Fund : 1,5 M€]



- 1) 2007-10 Glider
700m deep, Budget
4M€, French
*Interministerial Single
Fund and PACA
Regional Council*
- 2) 2010 -2014
Industrialization
phase
- 3) 2015-2018 deep
and ultra-deep
gliders, *H2020
ATLANTOS*



- 4) 2017 SeaExplorer Satellite Data,
Budget : 350 k€, 120 k€ public fund
- 5) 2017: Licensing phase. ALSEAMAR
commercializes **30 gliders** for oceanography,
pollution oil&gas, etc.

=> First fleet of gliders in Europe

ALSEAMAR
ALCEN





Fund raising example in the diving sector industry



Dive computer for the prevention of decompression accidents



1) R&D Bubble Occurrence & Risk Attrition, Azoth + : CNRS (LMA) 2010, project budget 800 k€ for developing a new generation of "customised" dive computer for the prevention of decompression accidents

2) 2016: Fund raising for the industrialization & commercialization phase: 500k€ (Var Business Angels + PACA Invest + 2C Invest)

2 products: MyDivingCoach (professional) + O'Dive Captor (general public)

O'Dive is the individual, independent solution that leads to better self-knowledge and greater command of the practice.

- A connected acoustic ultrasonic sensor that detects microbubbles in the bloodstream after the dive
- A customized simulator that allows you to view the relative benefits of various levers and to push your practice forward
- Two individual apps to assess the quality of the diving procedures:
 - O'Dive One for Air/Nitrox dives
 - O'Dive Tek for Trimix dives



- Customized model
- Multi-users
- Suitable for all diving types and profiles
- Confidential use mode
- Bluetooth connection
- Ultrasonic measurements

USAGE PATTERN



OPERATING PRINCIPLE:

- Take two measurements after the dive
- Submit diving parameters
- Synchronize data
- View the quality of the procedures
- Improve the practice

More information on www.o-dive.com

Thank you for your attention !



Example : crowdfunding growth in CleanTech

- Crowdfunding continues to progress, whether for equity financing of companies or for projects (especially renewable energy plants).
- According to the 2017 edition of the Participatory Funding Barometer in France, conducted by the Association Financement Participatif France (FPF) and KPMG, the **environment and renewable energies** are the second largest investment area for citizens in 2017, behind real estate , with more than 50 M € invested.
- In contrast, cleantech in 2017 shunned the stock market, as in 2016.

Financing Cleantech

(data from GreenUnivers)

- The equity financing of cleantech companies remained broadly stable in 2017:
 - 112 investments => 921 M€
 - These figures include equity investments (excluding debt) realized via all sources of funding: private equity funds, business angels, industrials, crowdfunding platforms, stock market, etc.
- 3 SECTORS CAPTURE 80% OF THE FUNDS in 2017 :
 - Renewable energies : 529 M € invested (ie nearly 60% of the total of the year)
 - Energy efficiency : 138 M€
 - Ecomobility : 96 M€ invested
- Among the other activities: storage has drained 52 M€ and green chemistry 40 M€.

Critical threshold in an innovation project

Technology Readiness Levels

R&D experiment

TRL 6 = Breaking point where technology is not a matter of discussion any more

Real life implementation and commercialization
Assuring management confidence

- TRL 0: Idea.** Unproven concept, no testing has been performed.
- TRL 1: Basic research.** Principles postulated and observed but no experimental proof available.
- TRL 2: Technology formulation.** Concept and application have been formulated.
- TRL 3: Applied research.** First laboratory tests completed; proof of concept.
- TRL 4: Small scale prototype** built in a laboratory environment ("ugly" prototype).
- TRL 5: Large scale prototype** tested in intended environment.
- TRL 6: Prototype system** tested in intended environment close to expected performance.
- TRL 7: Demonstration system** operating in operational environment at pre-commercial scale.
- TRL 8: First of a kind commercial system.** Manufacturing issues solved.
- TRL 9: Full commercial application,** technology available for consumers.