



Accelerating development of high-performance detector and imaging technologies for science and markets

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www.attract-eu.org

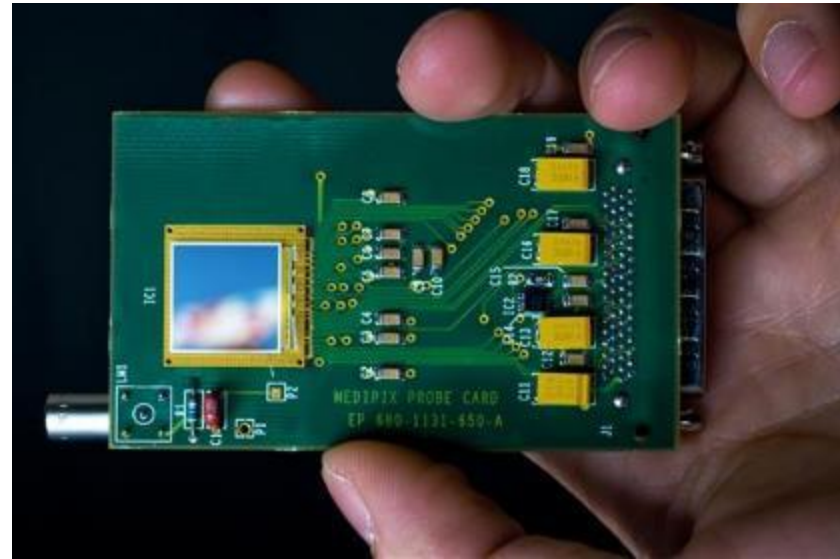
What is ATTRACT?

- ATTRACT is a new, open, pan-EU initiative to accelerate the development of high-performance detector (sensor) and imaging technologies for both scientific and industrial use.
- It involves European Research Infrastructures (ERIs), European research institutes and RTOs, small and medium enterprises (SMEs), companies, universities and business and innovation specialists.

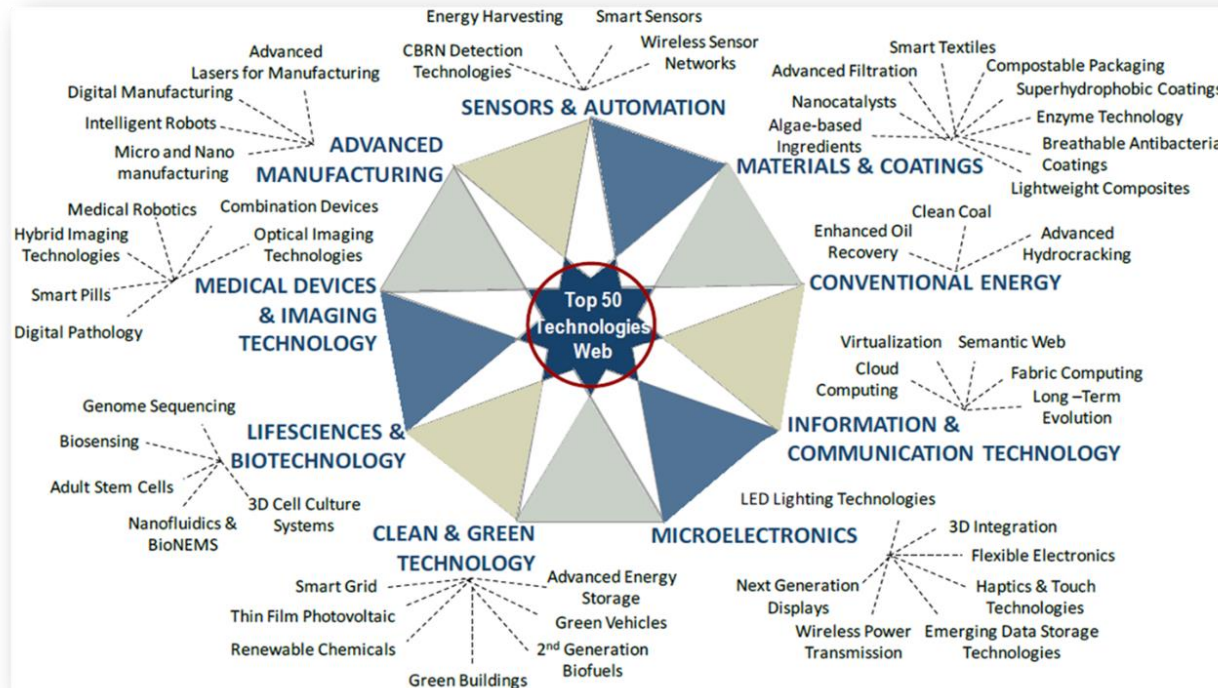
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Focus on detection and imaging technologies

- European Research Infrastructures (ERIs) - as well as the R&D communities associated to them - treasure an enormous and underexploited *know-how* on detection and imaging technologies.
- Detection and Imaging technologies are at the core of future industrial developments applications and business.
- Detection and imaging technologies allow for the emergence of fast innovators especially SMEs and Start-Ups.



Detection and Imaging Markets



- Frost & Sullivan Top 50 Technologies (TechVision 2020) estimate annual sensor & imaging market(s) at over 100 b\$.

From technology to societal value for Europe

- Detection and imaging technologies are and will be critical for the future of European competitiveness and jobs.
- Key European industrial players will depend on them to achieve a competitive advantage.
- Advances in technologies with direct social implications such as aeronautics, healthcare, automotive, urban development or energy and resource efficiency will depend strongly on them.



Why ATTRACT?

- There is a need from both ERIs and industry to make better use of the R&D platforms and co-develop path breaking innovations.
- The detector R&D community has many ideas of potential suitability of its technologies for other use, but often have limited contacts and mechanisms available to properly exploit this options space.
- Developing new technologies for both improved research capabilities and new applications could make good use of complementary, fertile R&D funding possibilities potentially offered by H2020 to further enhance R&D capacities.
- The European industry, in particular SMEs, find it difficult to tap into the necessary supporting (scientific) infrastructure offered by ERIs and associated labs to absorb and shorten time to money.
- SMEs, in turn, are often better equipped to interface towards MNEs than researchers.
- The European detector R&D community has the experience and expertise to help but there is no coordinated effort to assist them, while maintaining their primary research motivation.

How ATTRACT?

- The approach in ATTRACT is unique because:
 - It is focused, technology domain-specific but touches industries and products worth over 100b\$ per year.
 - It is a bottom-up approach, scientific instrumentation development work being used as the engine of innovation.
 - It is run as an international scientific collaboration or experiment, incorporating industry as partner.
 - It engages cross-disciplinary involvement of young innovators and entrepreneurs.

Aligning with EU Research Infrastructures policy

- H2020 aims to foster the innovation potential of research infrastructures.
- This innovation potential should be realised in collaboration with industry and especially SMEs.



ATTRACT Is About Need to Create an Ecosystem...

**New Scientific Instruments, Products,
Services, Entrepreneurs, Jobs**

Contributing to ...

Innovation Management Platform

Connecting through ...

**Cross-disciplinary MSc-Student
Teams**

Engaging ...

Industry (special attention to on SMEs)

Co-developing with ...

**Sensor & Imaging R&D Community
With Ambitious Goals and Projects**

Being driven by ...

“Mini-ATTRACT” Phases 1 and 2

Phase 1

- A wide scope of technologies with breakthrough potential (TRL 2 to 4). Plant the “Flowers”.
- Selection process based on excellence (scientific merit, industrial scalability and social added value).

Phase 2

- Scalability of Phase 1-selected technologies towards industrial deployment (TRL 5 to 9). Select and fund 10% of Phase 1 projects.
- Construction and establishment of a self-sustained initiative (“Maxi” ATTRACT).
- Preparing to repeat the “Flowers” in parallel.

Mini-ATTRACT Submission H2020 WP 16-17 Call

- Core Consortium created to administrate the ATTRACT call(s), to be launched late 2017 or early 2018, depending if/when EC awards the *INFRAINNOV-1-2017* call to ATTRACT.
- 18 ME will be redistributed in 100 kE grants, based on received and selected short, few-page proposals.
- Max 2 ME will be used for administrating the call(s).
- Proposals selected by independent scientific advisory committee (IC; coordinated by S. Bertolucci).
- Some 20 distinguished identified members, supported by reviewers selected by the members (but not made public).
- Funded projects have 12 months to develop their ideas/prototypes for the next funding stage. They will present their findings in a Big event in Brussels.
- An advisory committee has been set up to prepare the way for “Maxi” Chaired by Prof. J. Wood.

Funding “Mini-ATTRACT” Phases 1 and 2

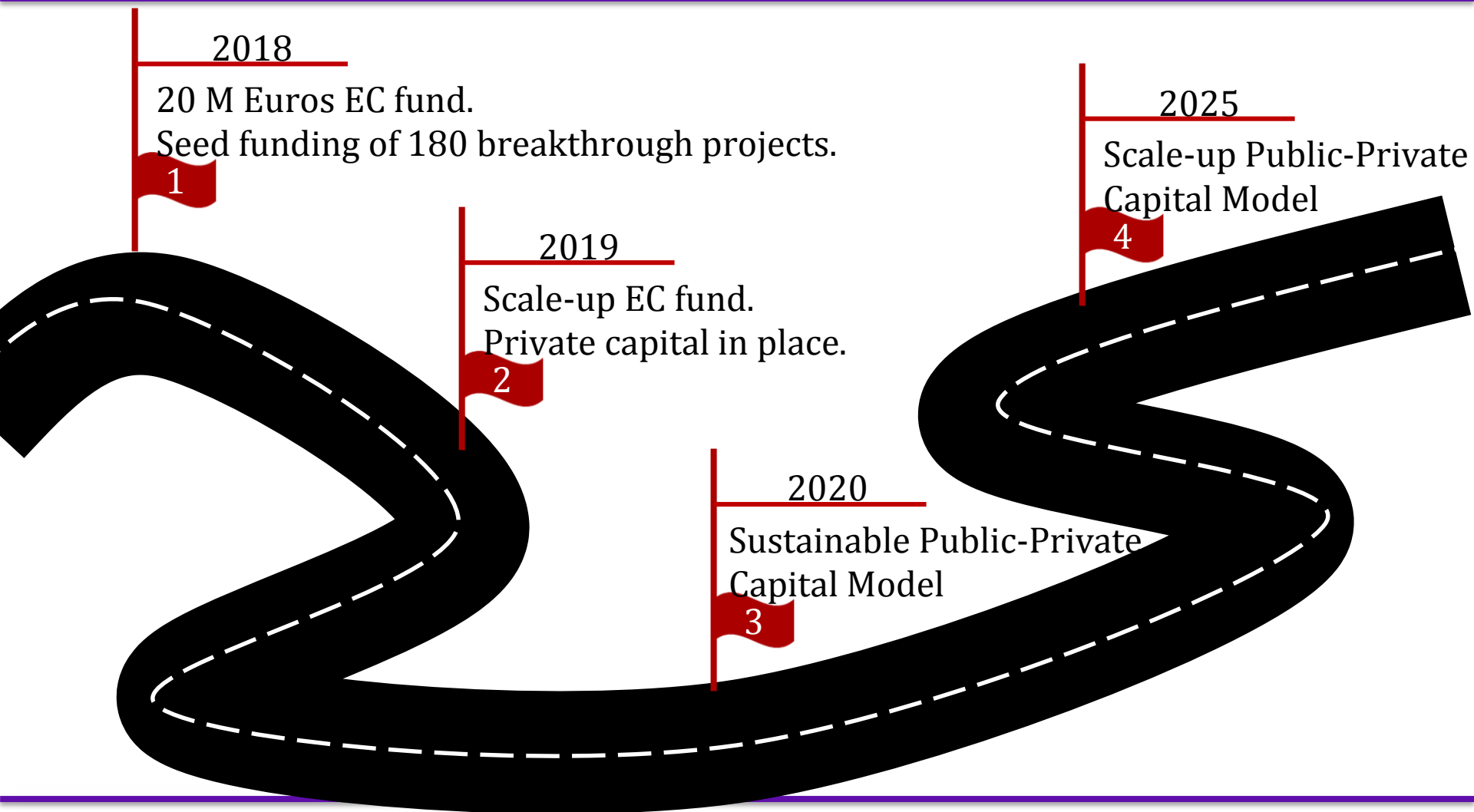
Phase 1 (2017-2018): Research and Innovation Action (20 M Euros EC funding) with autonomy to launch open calls with the following objectives:

- Identification of a wide spectrum of technology opportunities with breakthrough potential across the 28 EU Member States and Associated Countries.
- Assessment of the feasibility and scalability of the identified opportunities.
- Selection and clustering of those opportunities with potential for industrial implementation (transition towards Phase 2).

Phase 2 (2018-2019): Expected continuation call with autonomy to launch open calls with the following objectives:

- Continuation with the selected opportunities from Phase 1 towards industrial applications having societal value.
- Advancement towards a strategic model for a sustainable ATTRACT initiative.

Path Ahead for ATTRACT



Thanks