



## The ATTRACT initiative

[www.attract-eu.org](http://www.attract-eu.org)



Jan Visser  
Slides courtesy of Markus Nordberg

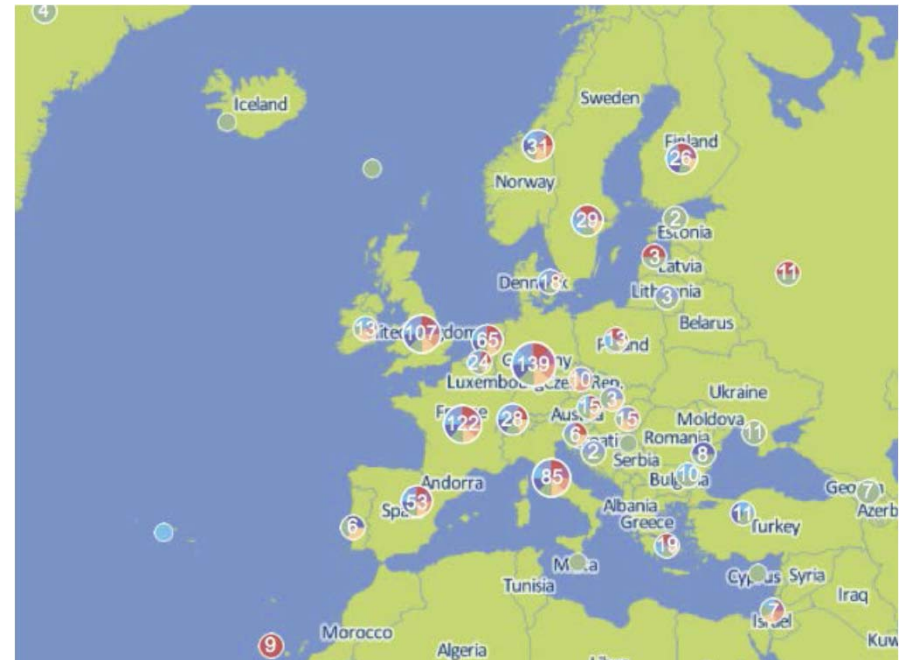
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# ATTRACT:

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Coordinating and better capitalizing on resources and *know-how* in the European Research Area

- European Research Infrastructures (RIs) or Research Infrastructures in Europe?
- A great asset for Europe.
- Key question: Is it used optimally?

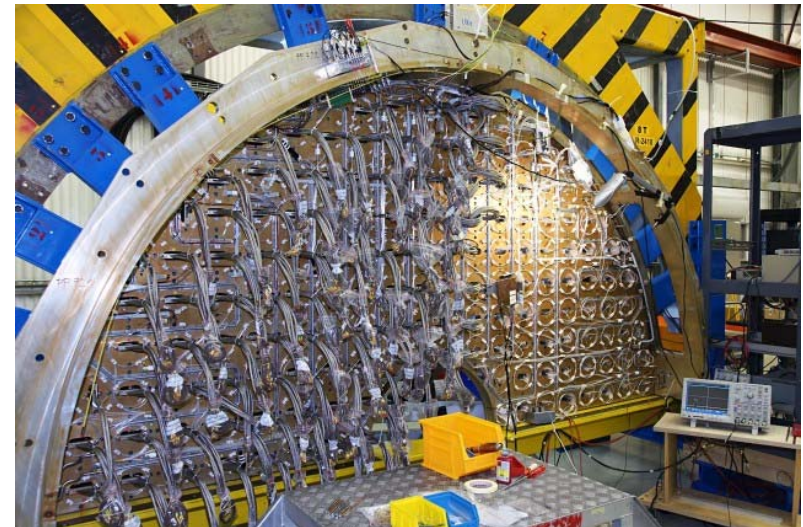


# ATTRACT:

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## Fundamental science creates value and impact

- ATTRACT focus: next generation scientific instrumentation in detection & imaging.
- Creating industrial/market opportunities through co-innovation and innovation experts.
- Because developing cutting-edge scientific instrumentation within a co-innovation ecosystem approach generates new industrial and societal value (applications, products, business, markets, etc)



# ATTRACT:

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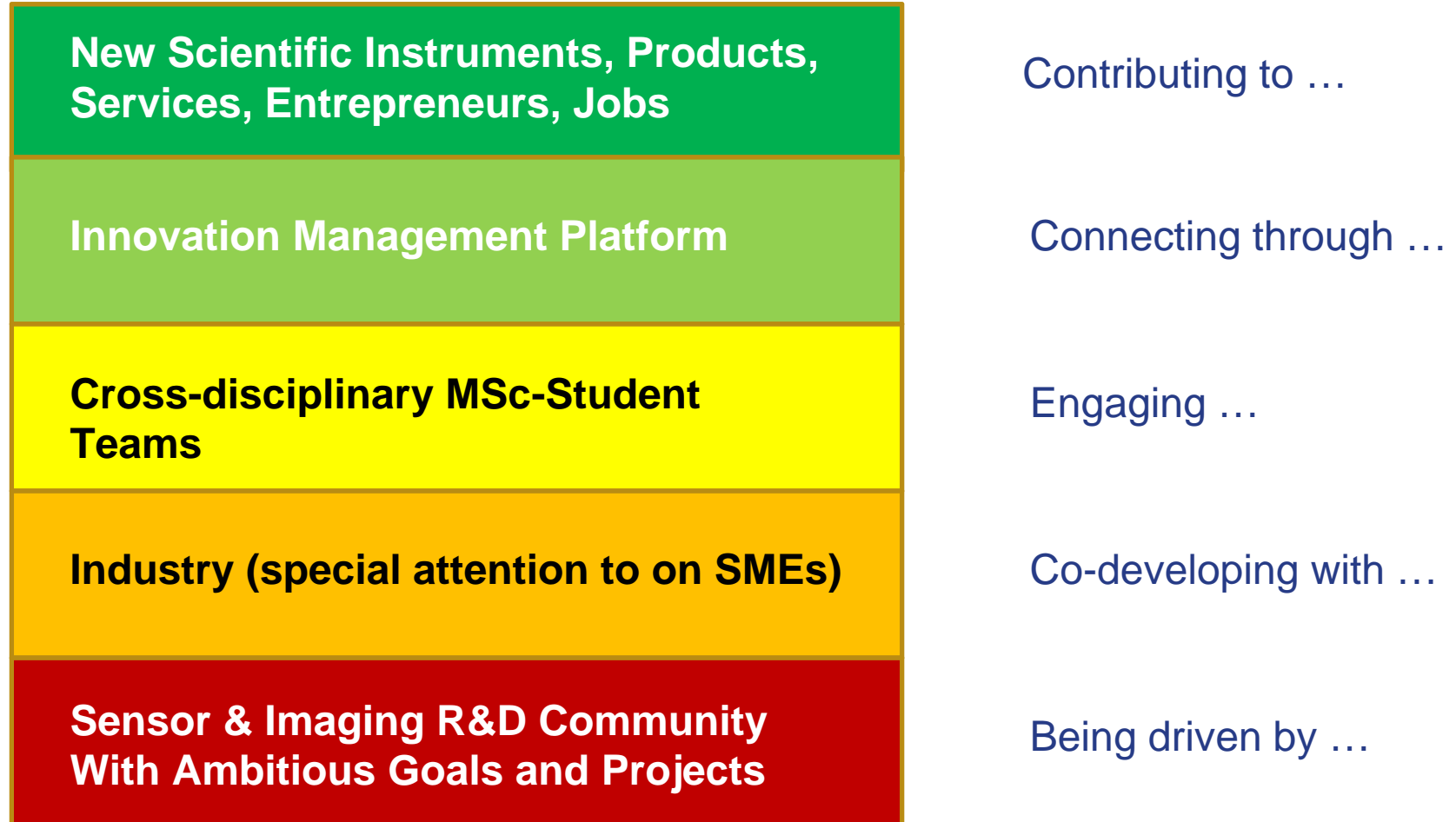
## Aligning with EU Research Infrastructures policy

- H2020 aims to foster the innovation potential of research infrastructures.
- This innovation potential should be realised in collaboration with industry and especially SMEs.
- ATTRACT proposes a new paradigm for collaboration between industry and RIs: co-innovation.



# ATTRACT is about need to create an ecosystem

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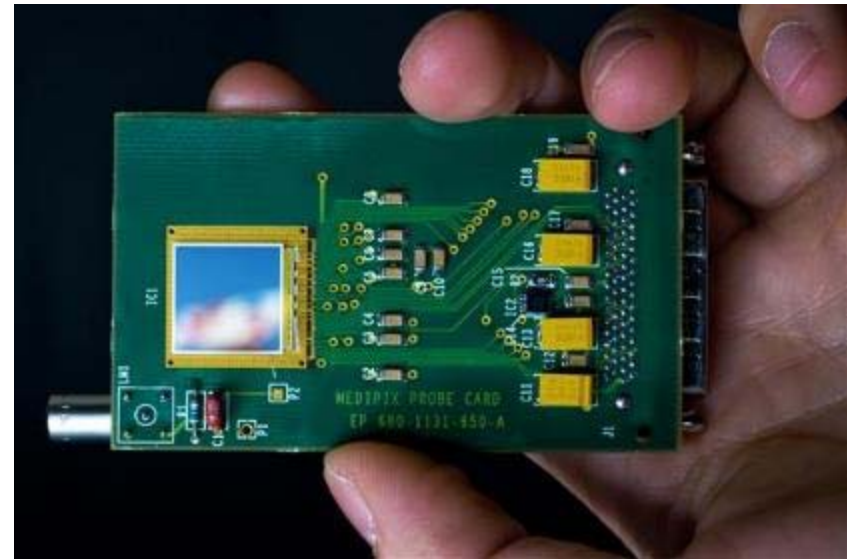


# ATTRACT:

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## Focus on detection and imaging technologies

- European RIs and associated R&D communities harbour an enormous and underexploited *know-how* on detection and imaging technologies.
- Detection and Imaging technologies are and will be at the core of future industrial developments applications and business.
- Detection and imaging technologies allow for the emergence of fast innovators especially SMEs.



# ATTRACT:

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## 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.





# ATTRACT:

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## Fostering entrepreneurship

- ATTRACT is not an initiative with an exclusive focus on technology development.
- ATTRACT aims to create new paradigms for innovation with the contribution of innovation experts.
- Business Schools, Innovation hubs and entrepreneurship experts are key and together with RIs and industry on the driving seat from start.





# ATTRACT:

## An instrument for the young talent

- ATTRACT aims to create a new pathway to favour innovation linked to entrepreneurship and “out of the box” thinking.
- This philosophy will be specially oriented to young talent in Europe.
- CERN (IdeaSquare), Aalto (Design Factory) among many other ATTRACT supporters already have dedicated pilot experiences.



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# ATTRACT:

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## A pan-European proposition

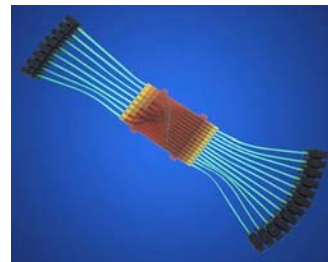
- ATTRACT is an open and inclusive initiative: its success depends on this.
- Industry (Large Companies and SMEs, European RIs, National RIs, Academic Organizations, Industrial R&D centres, etc are the pillars of this initiative.



# Examples of Projects for ATTRACT?

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- 3D detectors for photon and electron identification ( $\ll 1$  ps, 1 micron spatial resolution)
- Fast ( $< 1$  ps, 100Mcounts/s) preamplifiers and TDC electronics, with potential for medical imaging
- New Additive Manufacturing tools for integrated manufacturing of detector support structures, with potential for compact (customized) electronic systems for eg. avionics



# “Mini-ATTRACT” Phases 1 and 2

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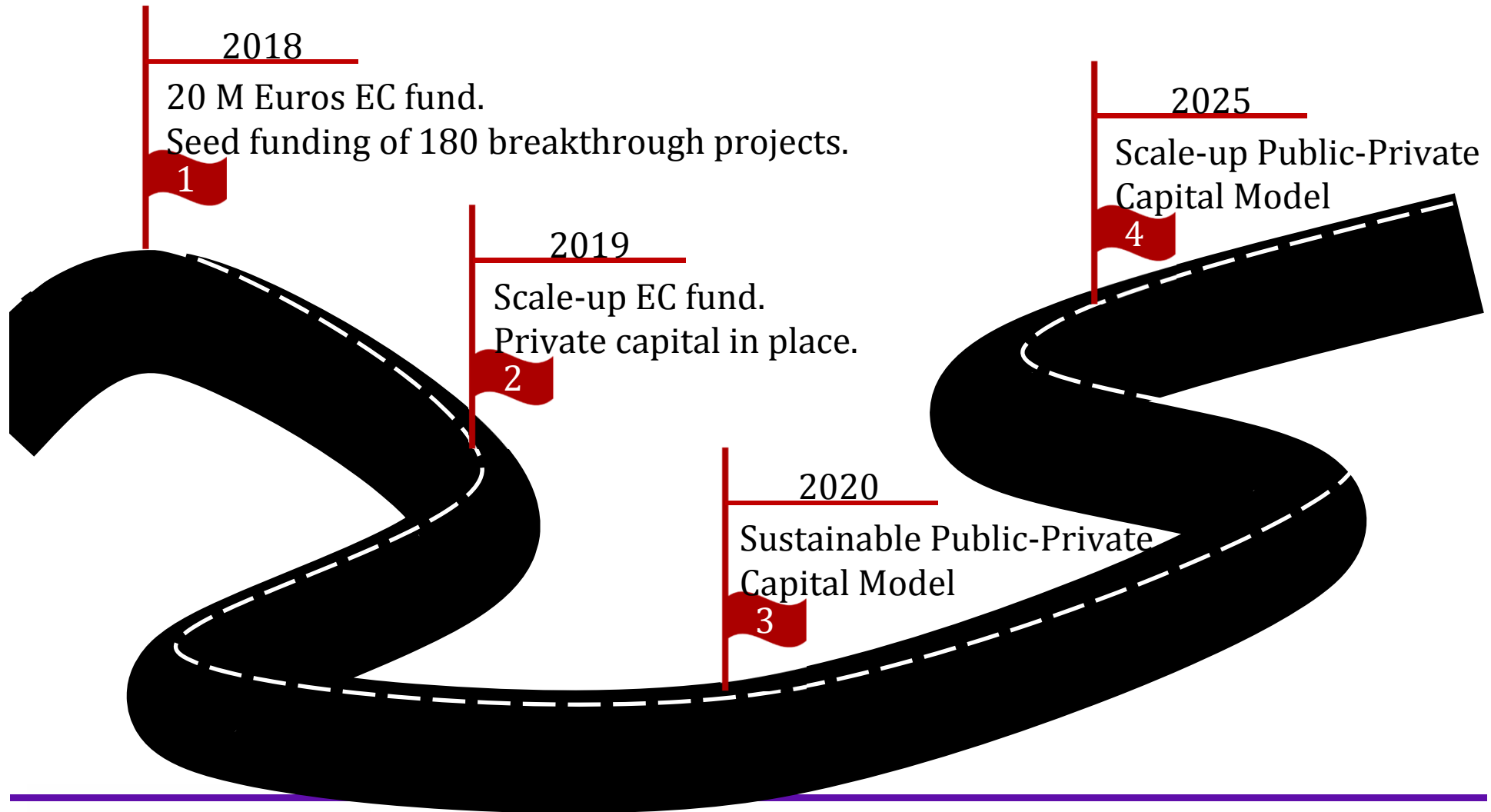
## Phase 1

- A wide scope of technologies with breakthrough potential (TRL 2 to 4)  
Plant the “Flowers” → 100 k€ projects for one year.
- Selection process based on excellence, scientific merit, industrial scalability and social added value.

## Phase 2

- Scalability of Phase-1 technologies towards industrial deployment (TRL 5 to 9). Fund 10% of Phase-1 projects.
- → 1M€ per year for 4 – 5 years.
- Establishment of a self-sustained initiative (“Maxi” ATTRACT).
- Preparing to repeat the “Flowers” in parallel.

# Path Ahead for ATTRACT



# Symposium: Trends, Wishes and Dreams

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- A first dedicated Symposium was organized June 30 - July 1st in Barcelona to collect first ideas to show EC what Mini-ATTRACT could fund in 2017
- A second Symposium is organized November 4&5 in Strasbourg to collect more ideas and create even more cross-fertilization between communities.
- <https://indico.cern.ch/event/542659/>
- Short, 10 minute pitches of raw ideas in sensors, FE/BE, data acquisition and processing&computing, software, integration & engineering
- Dead-line for abstracts is October 15

# “Mini-ATTRACT” Phases 1 and 2

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## **Funding not secured yet!**

How can we realise this?

- Read the ATTRACT white paper and provide comments that would make this proposition even stronger!

[www.attract-eu.org](http://www.attract-eu.org)

- Submit abstract for Strasbourg before 15 October
- Support our efforts in voicing your interest to our government and the European Commission

Comments and question to me at [jan.visser@nikhef.nl](mailto:jan.visser@nikhef.nl)



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# Thank you for your attention

ATTRACT website:  
<http://www.attract-eu.org/>

