



**imec**

**WORKING TOGETHER OVER THE REGIONS**

WOLFGANG EBERLE, PH.D.

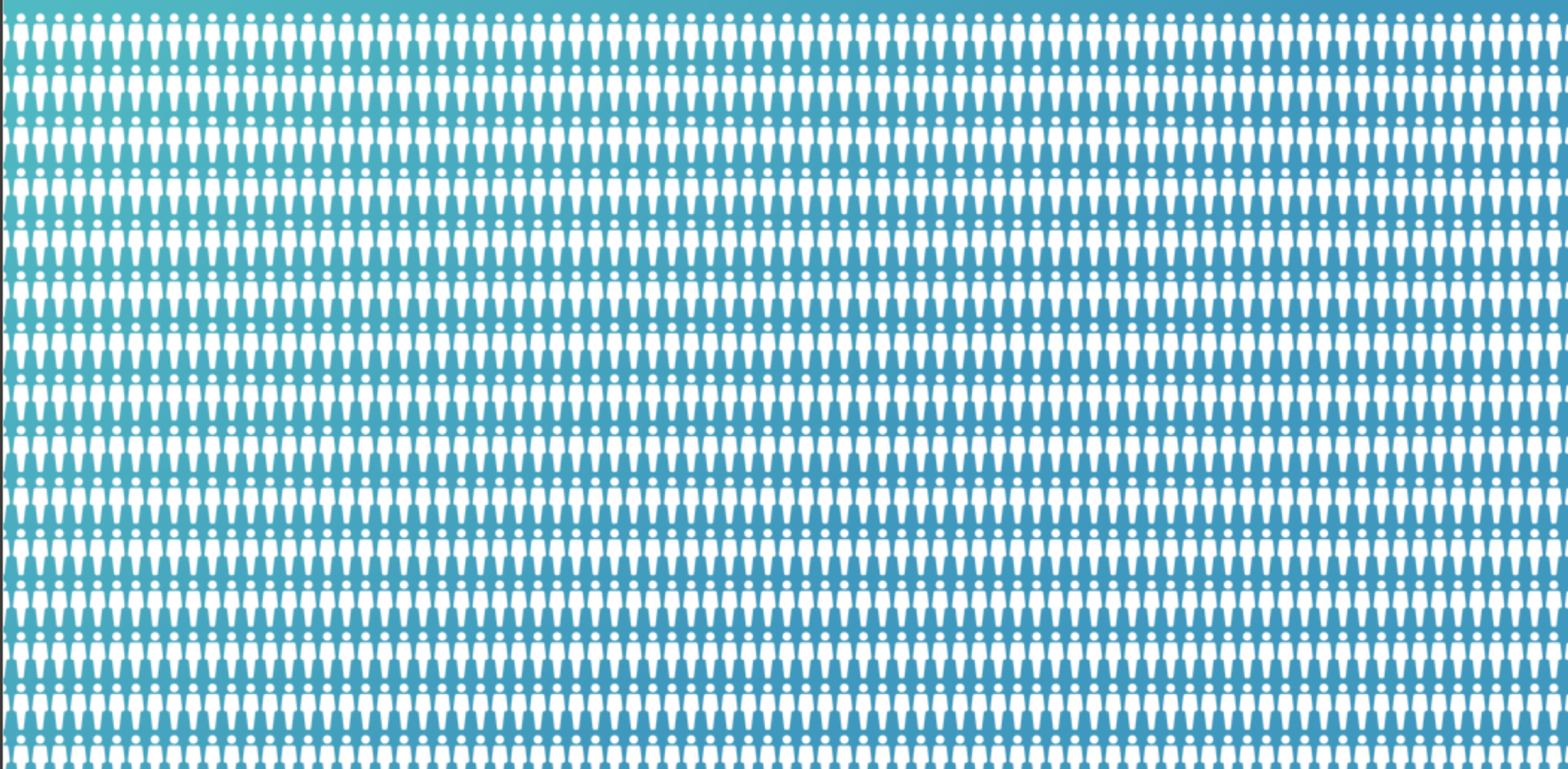
FUNDED PROGRAM MANAGER SMART HEALTH

COORDINATOR EIT HEALTH

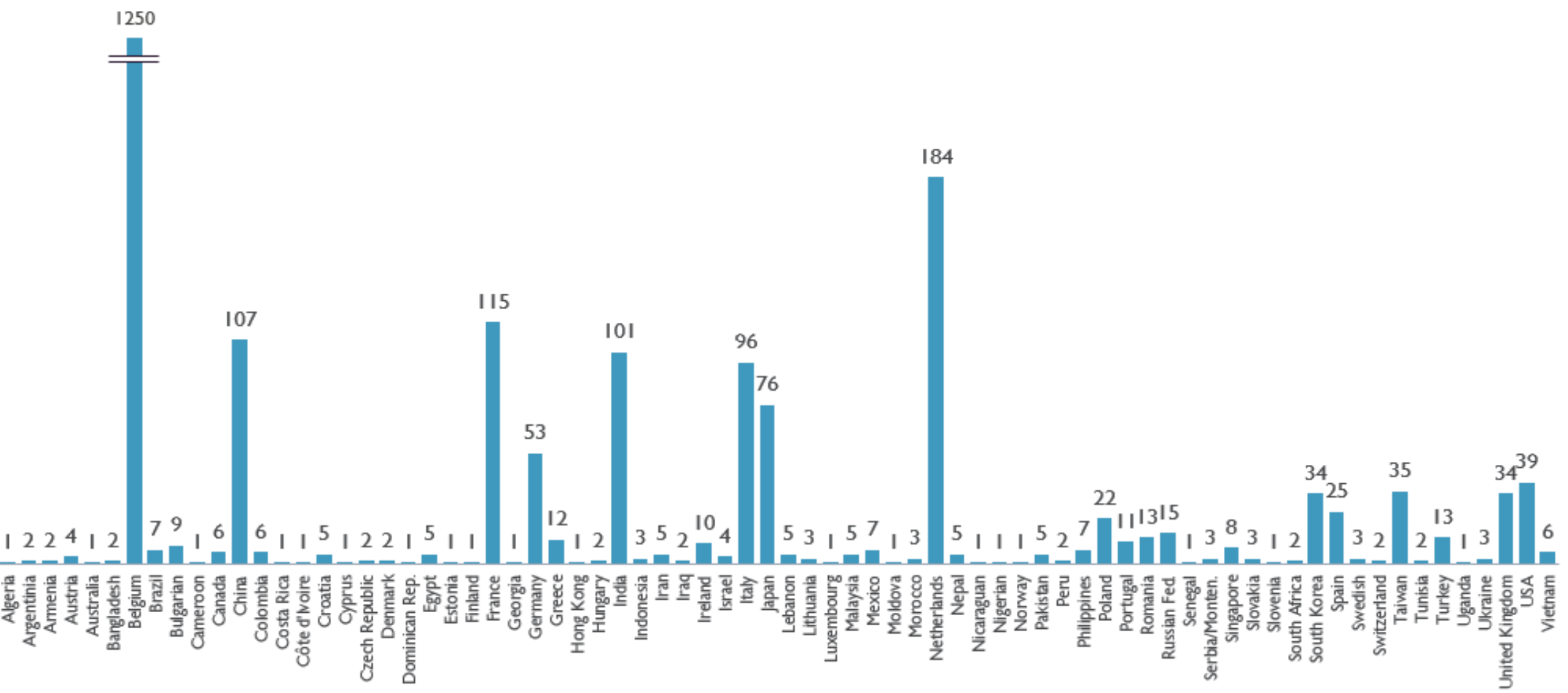
# IMEC'S MISSION

- As a world-leading R&D hub, we aspire the impossible and aim for radical innovation. We maximize societal impact by creating smart sustainable solutions that enhance life. At imec, we shape the future.
- As a trusted partner for companies, start-ups and academia we bring together brilliant minds from all over the world in a creative and stimulating environment.
- By leveraging our world-class infrastructure and local and global ecosystem of diverse expert partners across a multitude of industries, we accelerate progress towards a connected, sustainable future.

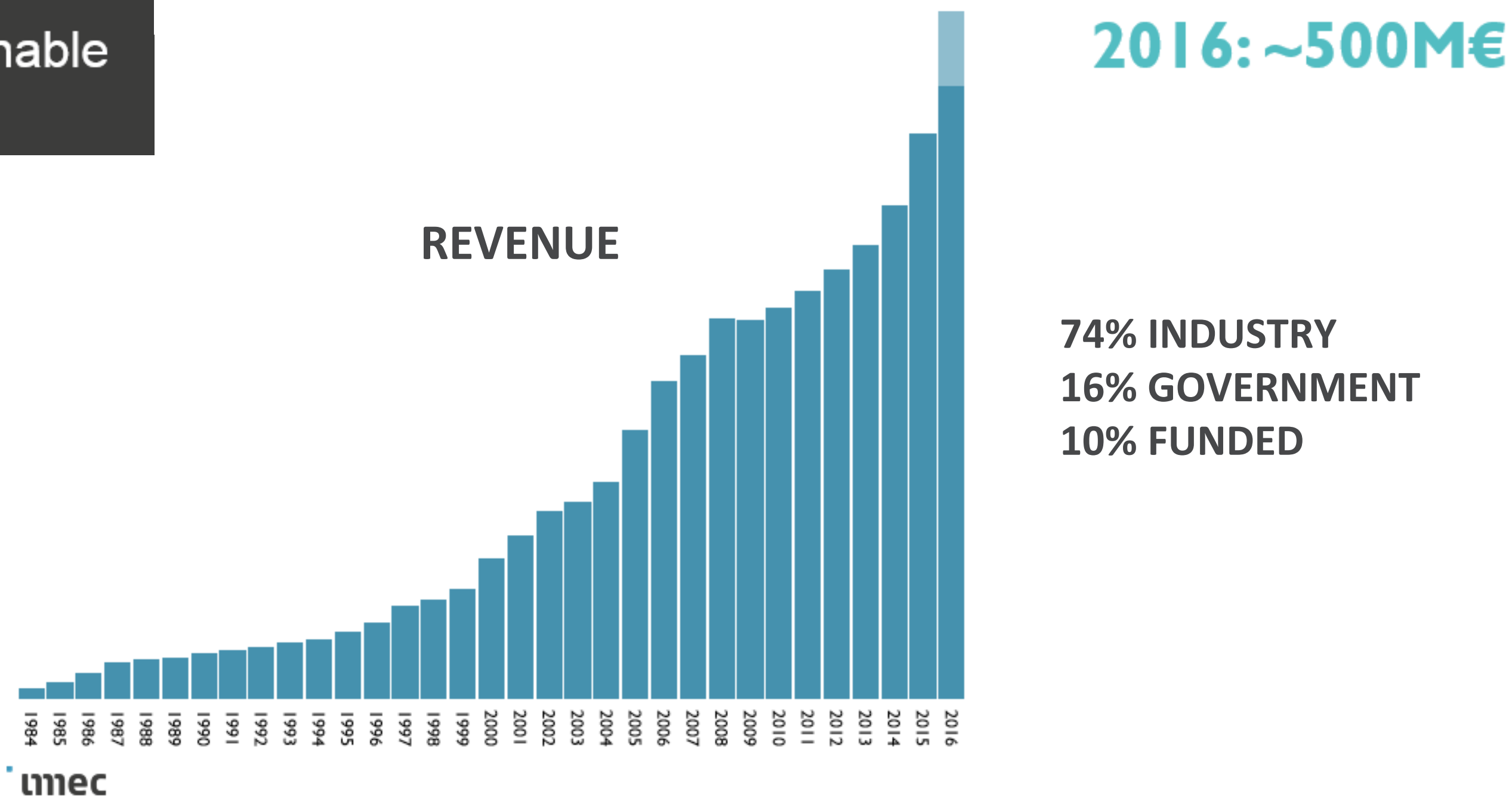
CLOSE TO 3,500 HIGHLY SKILLED RESEARCHERS



## 74 DIFFERENT NATIONALITIES



## REVENUE



# IMEC'S VISION ON REGIONAL COLLABORATION

- **the need to work jointly together at all levels, from local to European, to activate Europe's potential for innovation, competitiveness, and growth is a given:**
  - **Boosting the innovation and competitiveness potential of European regions as a basis for a sustainable growth model;**
  - **Strengthening the regional innovation systems (high quality business oriented research, development and innovation);**
  - **Facilitating synergies between EU policies and instruments supporting innovation, particularly between Horizon 2020, the Cohesion policy funds (ERDF) and the European Fund for Strategic Investments (EFSI) under the Juncker Plan.**

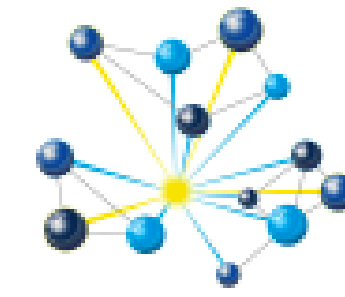


# SUCCESSFUL COLLABORATION - HOLST

- **Holst Centre was set up in 2005 by imec (Flanders, Belgium) and TNO (The Netherlands) and is supported by local, regional and national governments.**
- **Bringing together expertise of imec and TNO to move to new opportunities**
  - independent R&D center that develops technologies for wireless autonomous sensor technologies and flexible electronics, in an open innovation setting and in dedicated research trajectories.
- **Located on High Tech Campus Eindhoven, Holst Centre has over 200 employees from some 28 nations and a commitment from over 40 industrial partners.**



# NEW OPPORTUNITIES FOR REGIONAL COLLABORATION THROUGH THE VANGUARD INITIATIVE



**VANGUARD INITIATIVE**  
NEW GROWTH THROUGH SMART SPECIALISATION

- **Concept**
  - Reinforcement of regions
  - Bottom-up agenda setting
  - Collaboration across regions (European dimension)
- **History**
  - Initiated by Flanders Nov 2013
    - reinforcement of regions (innovation & industrialization drive Peeters)
    - link to advanced manufacturing
    - **DG REGIO** support
  - Collaborations across regional governments, clusters, research players until mid 2017
  - July 2017 – establishment vzw/asbl "Vanguard Initiative Asbl"
    - initially 4 players: Basque Country, Emilia-Romagna, Tampere, Flanders
    - total of 29 regions involved, 9 signed so far

# ACTIVE PILOTS IN VANGUARD INITIATIVE

- **1<sup>st</sup> generation (Summer 2014)**
  - **Efficient and sustainable manufacturing (ESM)**
  - **High performance production through 3D printing**
  - **Making EU the global leader in components for marine renewables and offshore energy applications**
- **2<sup>nd</sup> generation (June 2015)**
  - **Vanguard Initiative pilot on New nano-enabled products**
  - **Bio-economy – interregional cooperation on innovative use of non-food biomass**
- **Medtech case → ESTHER**

## AMBITION:

**PILOT PROJECTS DEVELOP CASES ALONG THESE LINES**

**STARTING POINT TRL ± 5  
FULL MARKET WITHIN 3-5 YEARS**



# VANGUARD INITIATIVE PILOT ON NEW NANO-ENABLED PRODUCTS

## IMEC LEADS CASE ON NANO-ENABLED MICROSYSTEMS FOR BIOANALYSIS

**NAME of the DEMO CASE:** NeMs4Bio (Nano-enabled Microsystems for Bioanalysis)

**NAME of the DEMO CASE Leader(s):** Flanders - imec

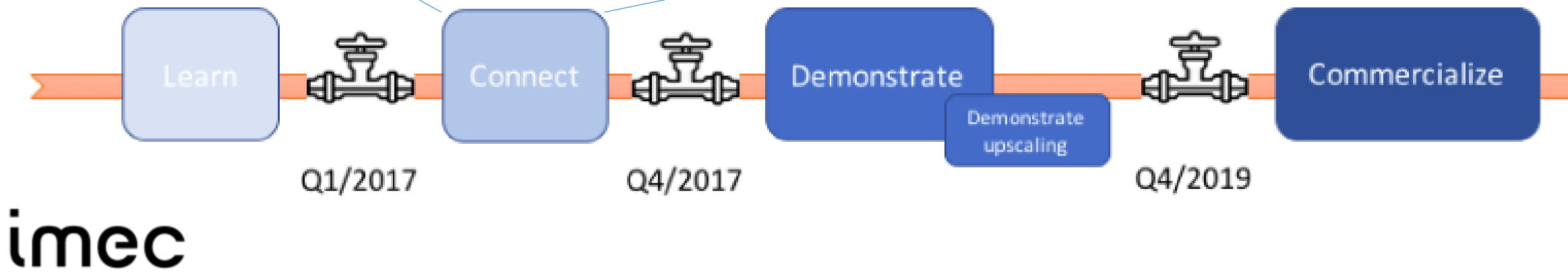
**PARTICIPATING REGIONS/ORGANISATIONS:**

Skåne, Tampere, Navarra, South Netherlands, Wallonia, Emilia-Romagna provided input.

Official participation of Catalonia and Norte would be appreciated.

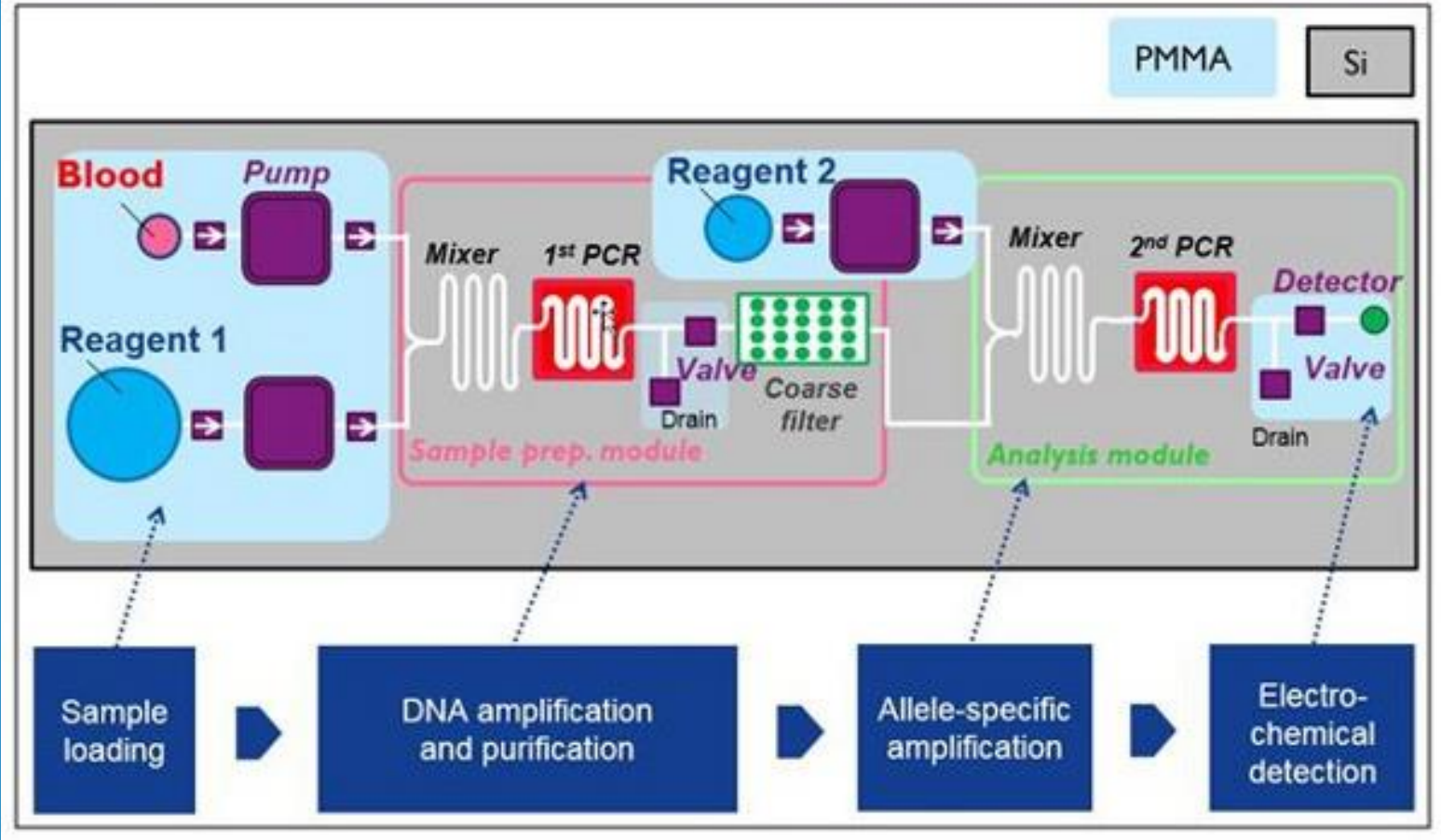
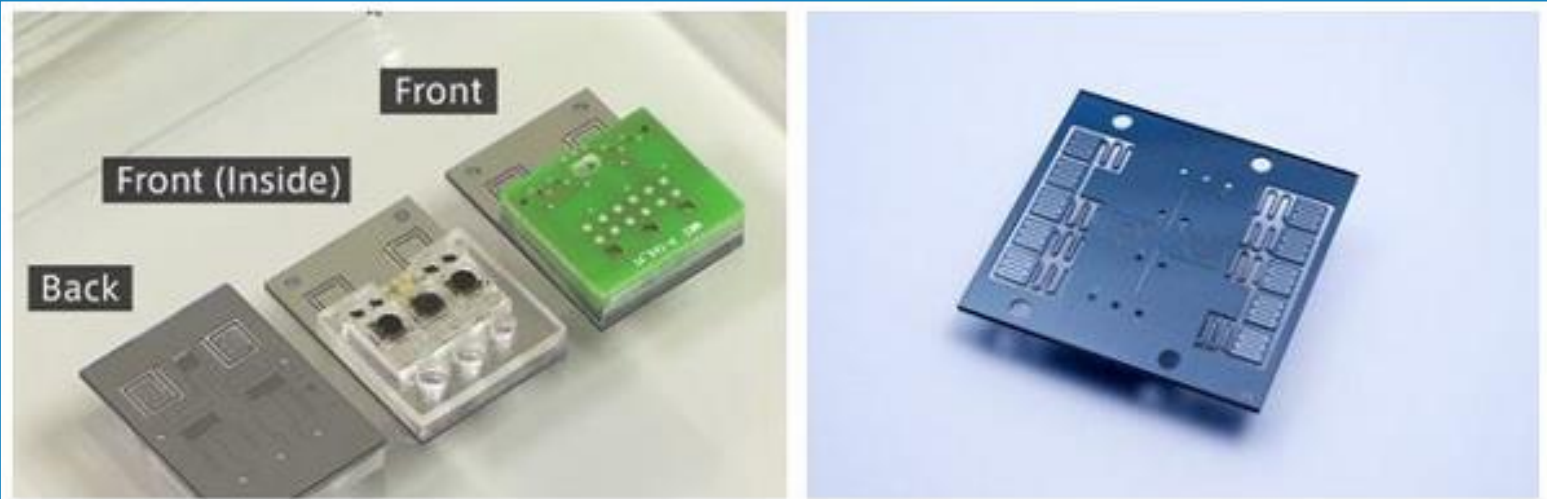
**CONTACT PERSON for the DEMO CASE:** Wolfgang Eberle (wolfgang.eberle@imec.be)

- DEFINITION LRI / INVESTMENT FOCUS
- SELECTION CORE PARTNERS DEPENDENT ON CAPABILITY & CAPACITY ALIGNMENT & REGIONAL SUPPORT



Establish a network of collaborating pilot lines and technology partners able to provide an upscalable fabrication route from specification-to-test for end customers in the NeMs4Bio domain, delivering complete Lab-on-a-Chip modules including a variety of sensing and actuating modalities, microfluidics, and complete packaging and micro-to-macro interfacing support. This requires to

1. establish a **specification-to-test work flow** across a back-bone of networked pilot lines at different partners;
2. implement a customer-friendly **one-stop-shop business model** around the networked back-bone addressing project intake to delivery;
3. **identify (3.a) networked pilot**
4. **illustrate the ver number of diag customers while m**
5. **demonstrate the module case, ensu**



# S34GROWTH INTERREG PROJECT

## POLICY & INSTRUMENT DEVELOPMENT

- Cornerstones
  - 1 Apr 2016 – 31 Mar 2020
  - 2.27 MEUR (1.87 MEUR ERDF support)
  - Partners
    - The Baltic Institute of Finland (FI)
    - Tampere
    - Bask Government (Bask Country)
    - ACCIO (Catalonia)
    - **EWI (Flanders)**
    - National Innovation Agency (PT)
    - Scottish Enterprise (UK)
    - Region Skåne (SE)
    - Brainport Development (NL)
    - Prov of Zuid Holland (NL)

### What will this project change?

- S34Growth develops and improves existing regional policy instruments in order to make interregional cooperation easier, more efficient and less bureaucratic.
- By facilitating industrial innovation-related interregional collaboration, S34Growth supports the renewal of Europe's industry and competitiveness.
- S34Growth supports interregional co-specialisation approach to smart specialisation which can be easily replicated at any domain and anywhere in Europe.



# VANGUARD INITIATIVE

## CHALLENGES IN TERMS OF FINANCING

- bottom-up initiative, no adequate funding instrument yet
- focus on large initiatives (20+ MEUR per pilot case) but no adequate financing instruments
  - EIB sees too much risk in tech pilots ("too early")
  - Interreg does not allow for large investments ("focus on operational aspects")
  - ERDF funding is not synchronized between regions
  - practical way out: cut projects in pieces and get the pieces funded through existing instruments (cluster funding, regional funding, Interreg, ERDF, H2020 innovation hubs/testbeds/pilot line/CSA calls) but has not resulted in 'new type of projects'

# CONCLUSIONS

- Regional collaboration is important
- Through the smart specialization and the vanguard initiative opportunities to work together are defined
- RTOs are involved in the proposed Pilot Actions & Projects with support through technology transfer to industry as well as in further developing the regional innovation ecosystems.
- Supporting these initiatives with an adequate financial framework is important