

# What is the impact in R&D&I in EU?

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OECD, Paris, June 14th 2017

There are three generic routes\* for science to make an **impact** in society in large:

1. Dissemination of research results
2. Cooperation and collaboration in doing things and carrying out research
3. Competent people move around

*\*International Evaluation of the State of Science and Research in Finland, 2016, Academy of Finland*



**How do we increase  
the impact of public  
R&D&I funding?**

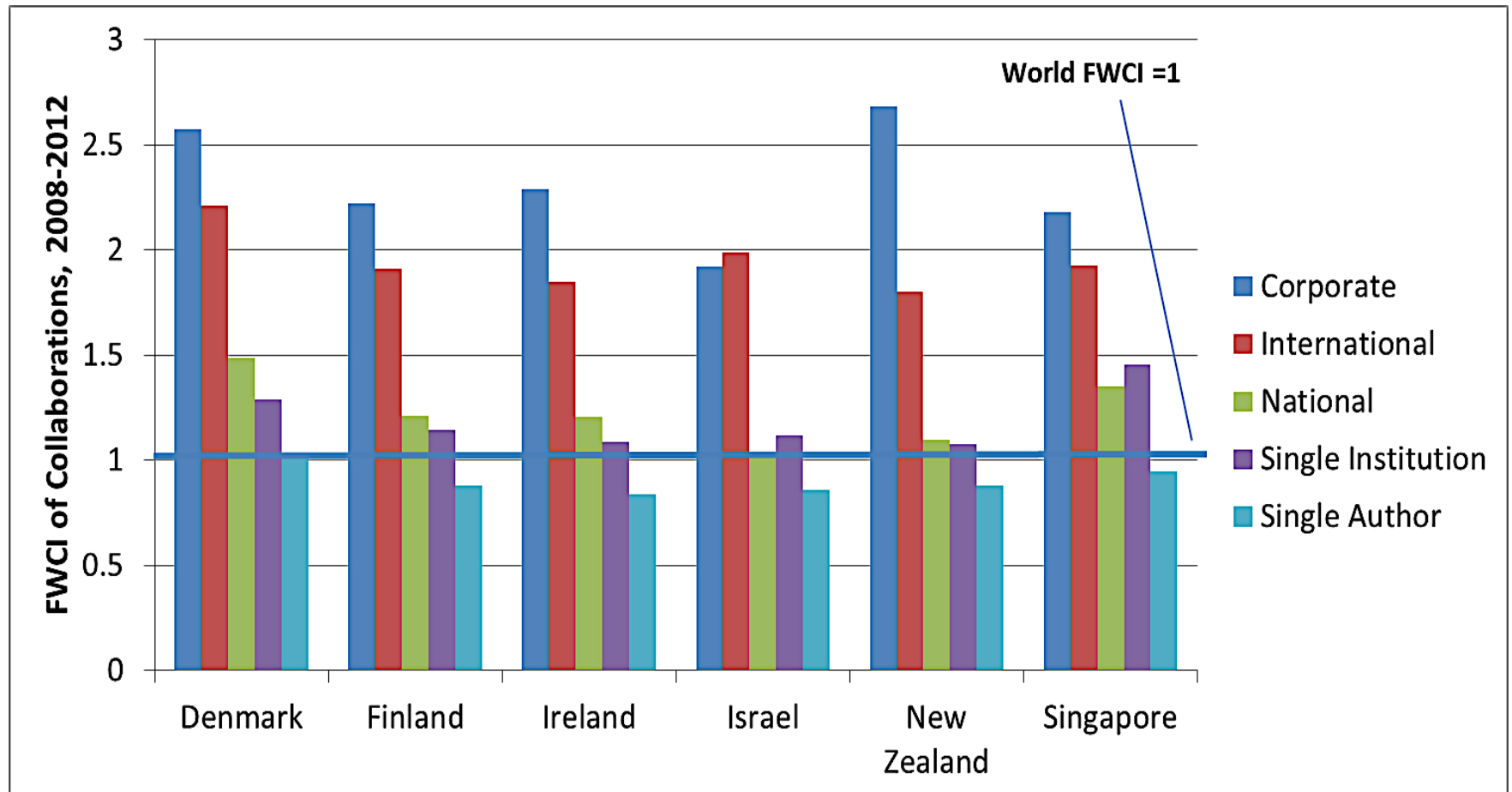
- Collaboration of seven advanced economies of similar scale population: Ireland, New Zealand, Finland, Israel, Denmark, Singapore, later joined by Switzerland
- *“Broadening the Scope of Impact: Defining, assessing and measuring impact of major public research programmes, with lessons from 6 small advanced economies” (2015)*

## Provocation:

Do you want to have bad quality research and non-science?

-

Let's fund single beneficiaries, stand-alone academics, and free-thinkers with no-one pressing towards high performance.

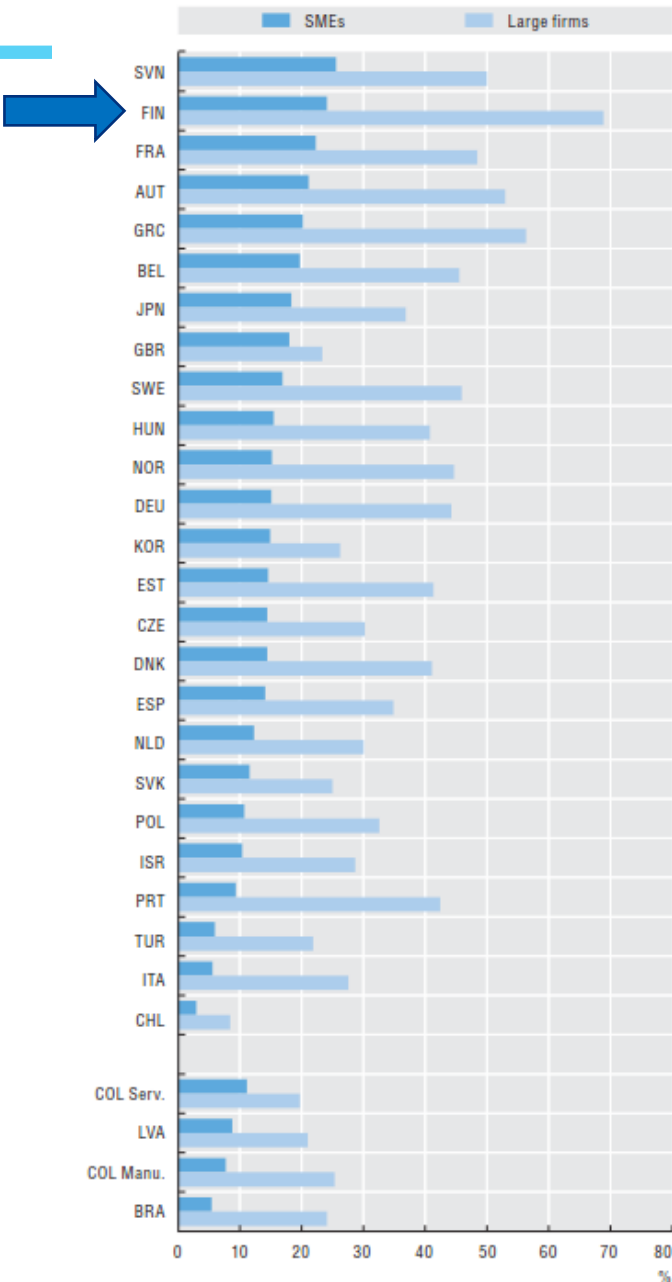


Graph source: Prof. Mark Ferguson, President, Science Foundation Ireland:  
'Small Advanced Economies Initiative' using the Elsevier SciVal Scopus database of published papers.

Heterogenous consortia are needed to maximize the impact of the R&D investments – Finland used to be the leader in integrating large firms exactly during the years when Finland invested most in EU in collaborative industry-academia cooperation (PPP). (Source: OECD statistics)

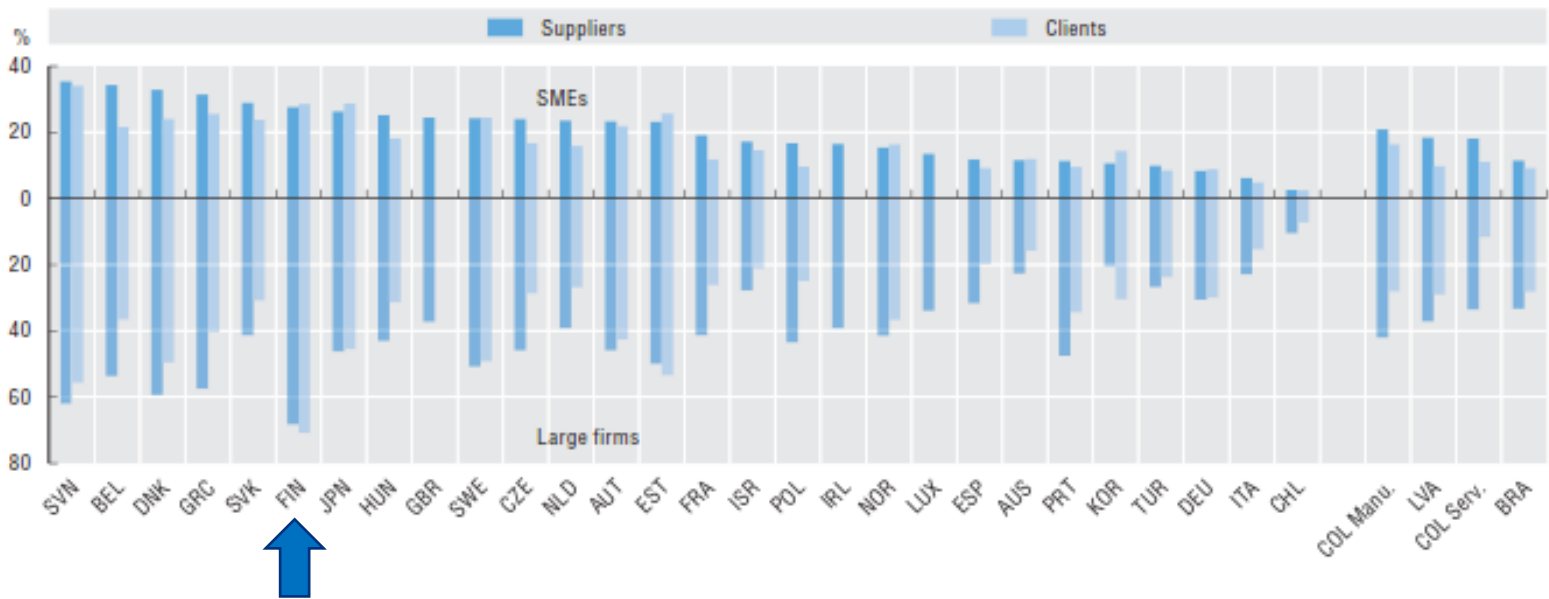
Firms collaborating on innovation with higher education or research institutions, by firm size, 2010-12

As a percentage of product and/or process-innovating firms in each size category



Firms collaborating on innovation with suppliers and clients, by firm size, 2010-12

As a percentage of product and/or process-innovating firms in each size category



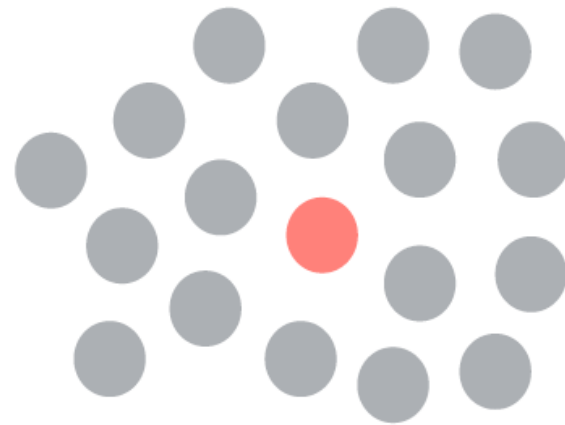
## Operating models in research



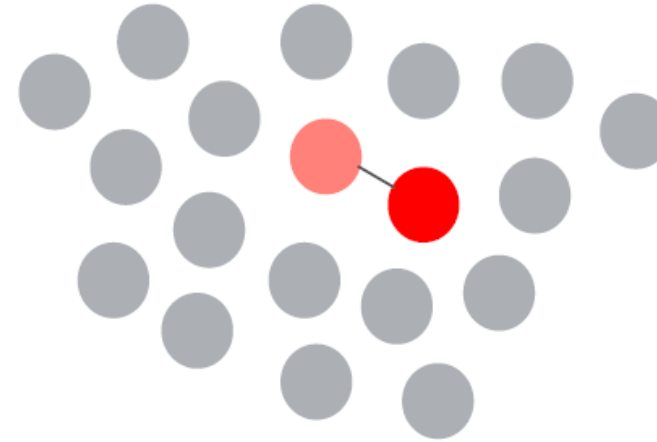
Research benefits

The value of DIMECC innovation platform:

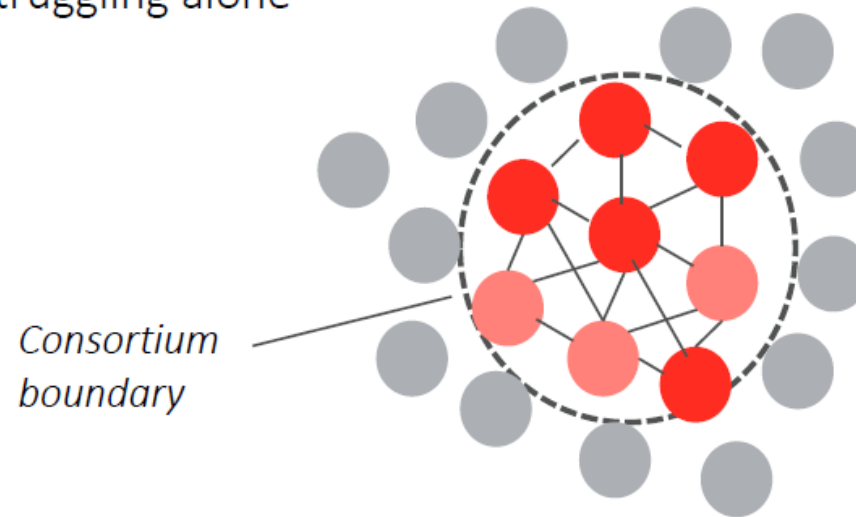
- It is not connected to any specific project, time, or theme.
- It evolves according to the needs of participants and creates consortiums on a continuous basis.
- It supports participants independently from public funding decisions and policies.



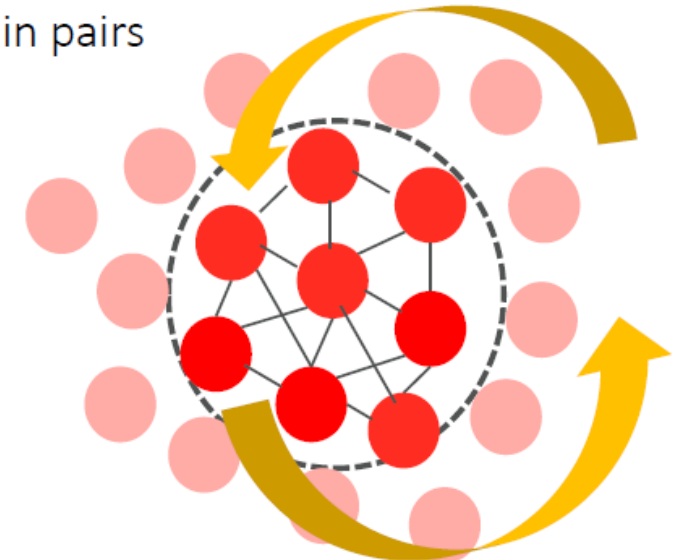
Struggling alone



Working in pairs



Co-creation in consortium



DIMECC: Co-creation + information sharing

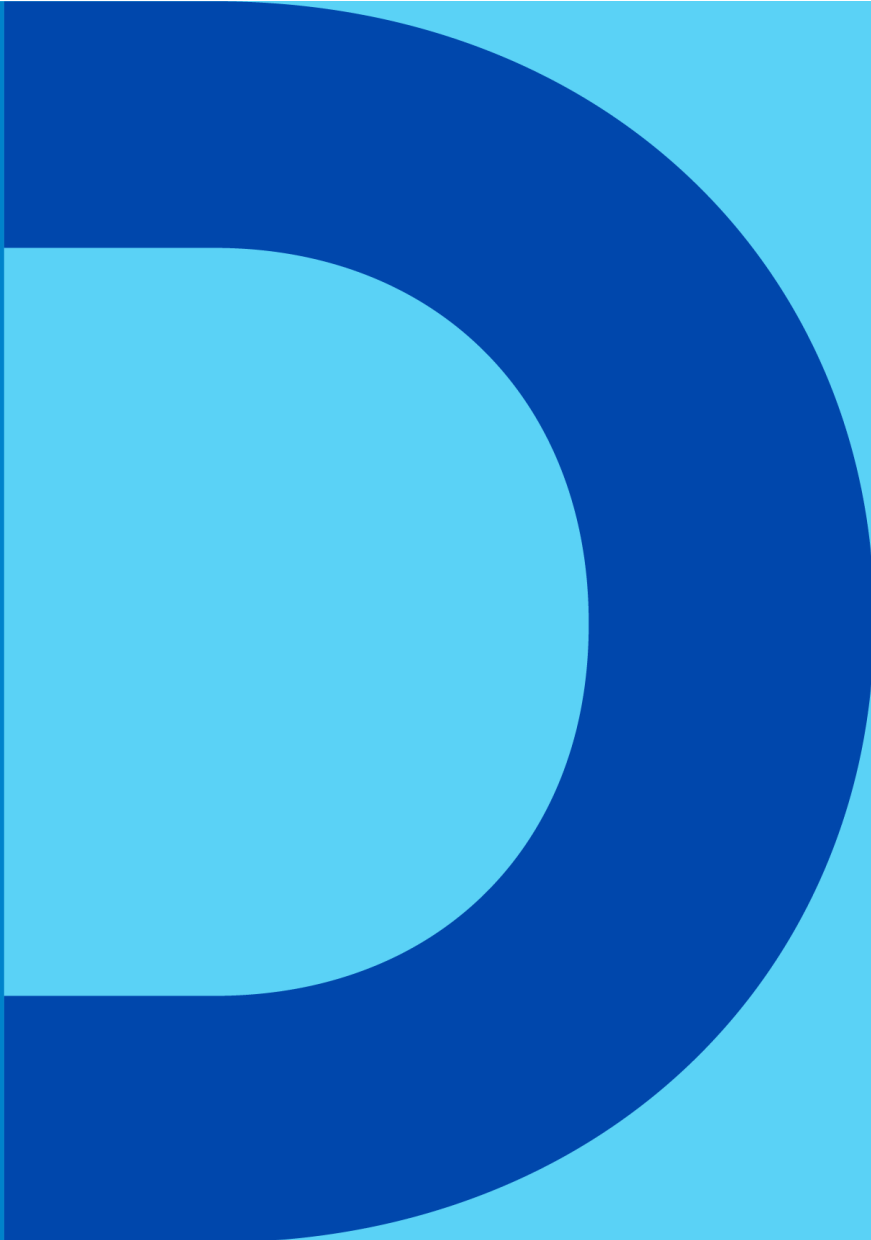
# Ecosystem for Autonomous Ships

*Finland aims to operate world's first autonomous ship system in 2025*



Image © Rolls-Royce



A large, stylized letter 'D' composed of two concentric semi-circles. The inner semi-circle is light blue, and the outer ring is a darker blue. It is positioned on the left side of the slide, partially overlapping the header area.

**DIMECC (PPP) –  
The most effective  
innovation in EU**



## **Vision:**

DIMECC is the leading co-creation platform for digital transformations.

Where Leaders and Winners Meet - DIMECC

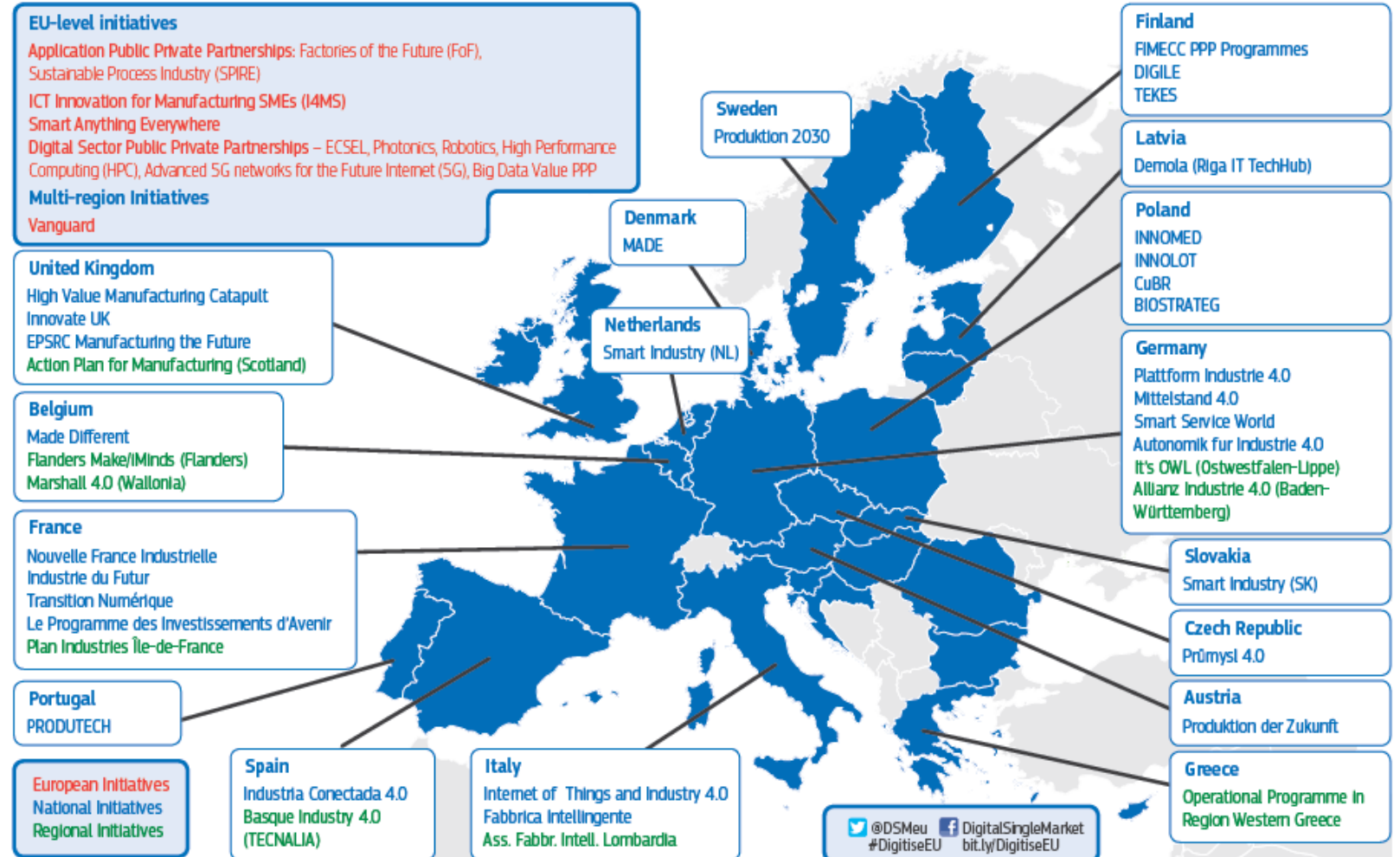
## DIMECC in numbers

- Measured business potential of 5.3B€ (2017)
- 400+ customers
- 2000+ R&D&I professionals
- 3000+ publications
- 10+ co-creation facilitators
- 10+ program managers
- 69 shareholders organizations
- 200M€+ new program volume ready to be launched

In EU, the digitalization of manufacturing industry is carried out through PPP structures and innovation ecosystems

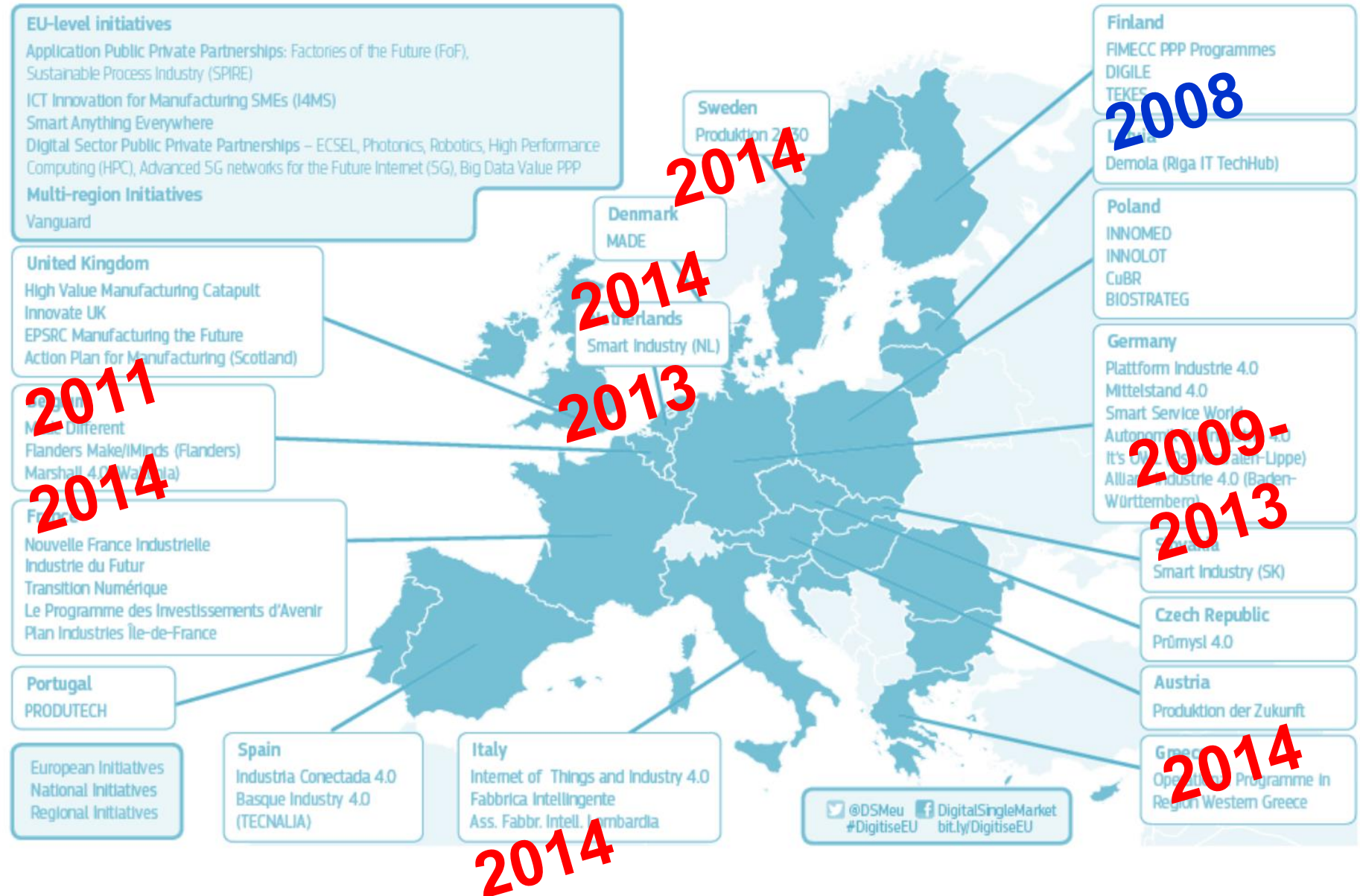


## Overview of European Initiatives on Digitising Industry



DIMECC is the  
"mother" of  
these PPP  
structures!

EU has "copied"  
DIMECC  
operational  
model to almost  
all countries.





*"[Numbers and figures] equal with the story according to which DIMECC has significant positive impact among it's customers and in mechanical engineering industry in large."*

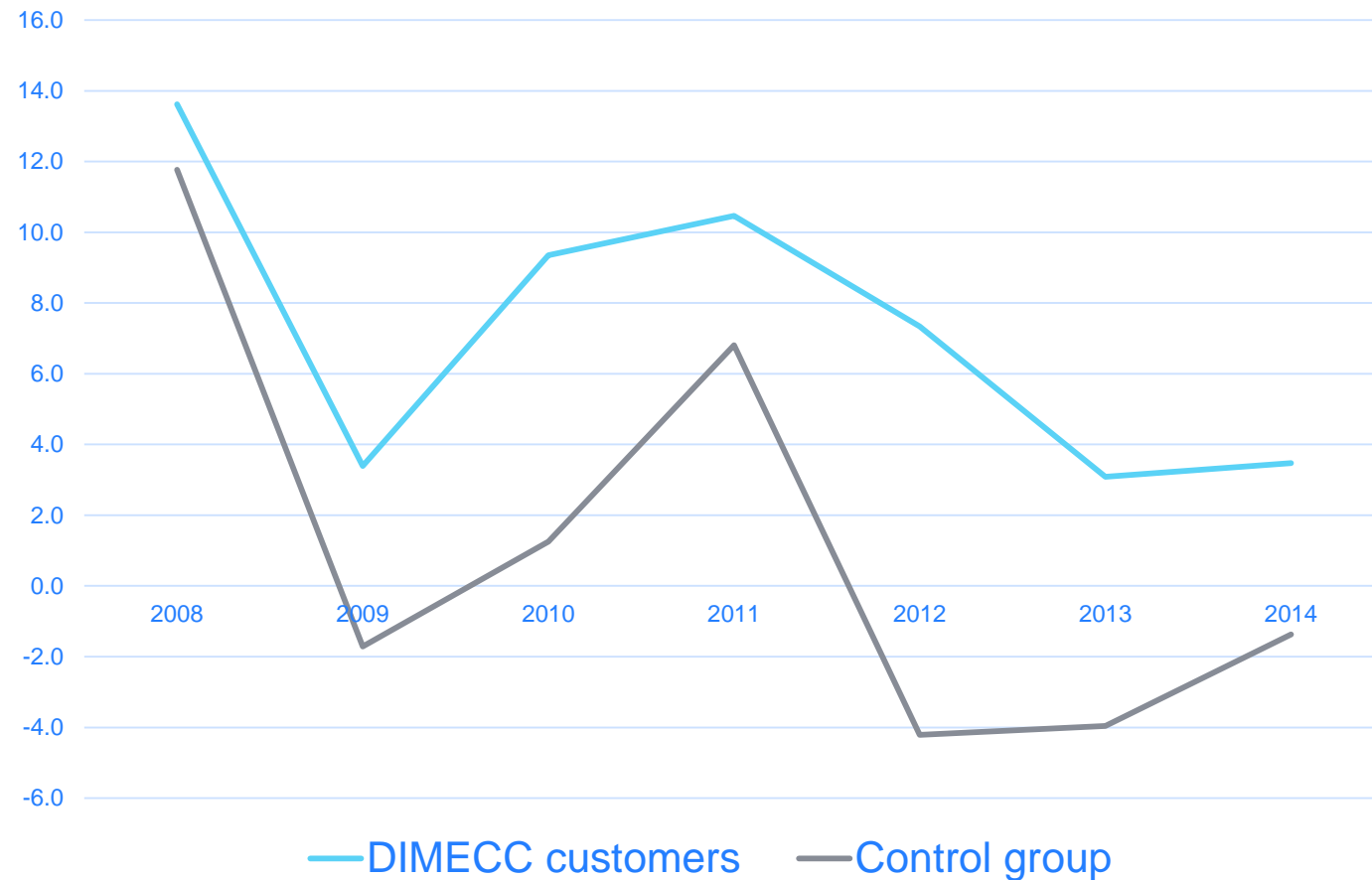
Dr. Petri Rouvinen, CEO, ETLA-Tieto Oy

Change from 2009 to 2014	DIMECC's customers	Comparison group (Technology industries, TOL classification)
Turnover	28 %	-10 %
Operating profit	1823 %	negative → positive
Value added	14 %	-9 %
Value added/personnel costs	7 %	-2 %
ROE-%	2 %	negative → negative
Turnover/Company	16 %	-7 %

*(Source: Statistics Finland 2016)*

# DIMECC Impact: DIMECC customers significantly outperform the others

## Return on Equity, %



(Source: Statistics Finland 2016)



## Co-creation services:

1. MPD™
2. PoDoCo™
3. Demobooster™
4. NSF Centers (2)
5. Innovation Camp
6. EIT Raw Materials KIC
7. China-Finland ICT Alliance
8. Smart Tampere Industry leadership
9. Advanced Manufacturing in USA Growth Program

**MPIDEA**  
100 000

Read more



**MANUFACTURING  
PERFORMANCE  
DAYS**

Tampere, Finland | May 29-31, 2017

## Towards Outcome Economy

Manufacturing Performance Days 2017 (MPD 2017) is an international top level B2B summit which will be organized for the sixth time on May 29-31, 2017 in Finland at Tampere Hall, number one Congress Centre in Finland.



*Suomi  
Finland*  
**100**

[www.mpdays.com](http://www.mpdays.com)

A large, stylized letter 'D' graphic. The left vertical bar of the 'D' is a solid dark blue rectangle. The right curved part of the 'D' is a thick dark blue arc. The interior of the 'D' is a light blue color, matching the background.

**Where the leaders  
and winners meet -  
DIMECC**