

Euro-CASE Innovation Platform

Results of the study “Barriers to innovation and Scale up of innovative European SMEs”



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Chairman of the Euro-CASE Innovation Platform II

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About Euro-CASE



Euro-CASE: European Council of Academies of Applied Sciences, Technologies and Engineering.

Creation: 1992.

Members: National Academies from 23 European countries

6.000 Fellows coming from academia and business – all elected by their peers.

Euro-CASE is governed by a **Board** of senior representatives from each member Academy

Executive Committee: composed of 6 members

The **Euro-CASE Secretariat** is based in Paris and is supported by Euro-CASE member Academies

About Euro-CASE



- Provide **impartial, independent and balanced advice on technology related issues** with a clear European dimension
- Contribute to accept **societal impacts of technological change**
- Attract **young Europeans** into **careers** in applied sciences and engineering to ensure **future technological progress** in Europe
- Draw on experience and best practices of National Academies
- Euro-CASE guidelines on advising policy makers and society



Euro-CASE Activities



- Relations with European Institutions AND European networks

SAPEA



- Annual Conferences

2017: Cybersecurity in Poznan (Poland)



- Euro-CASE thematic Platforms

Innovation, Engineering Education, Energy, Bio-Economy

- EU-US Frontiers of Engineering

2017: San Francisco



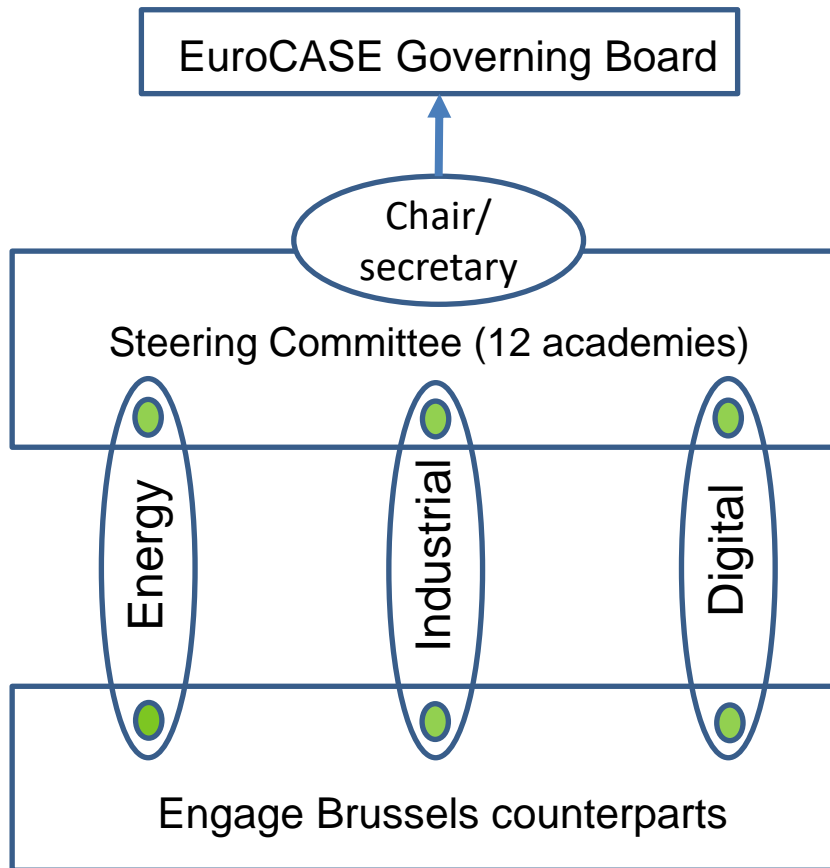
- EU Inter-Academy Cooperation

Scope of the Innovation Platform II



- **What are the barriers in the national innovation systems that inhibit the scaling-up of innovative SMEs in Europe?**
 - Assumption I: EU needs to better understand barriers for innovation in the Member States → bottom-up approach, strongly involving national academies
 - Assumption II: The barriers to innovation and scale-up vary between sectors → test general findings in sector specific deep dives
- **Create a network in Brussels to increase ownership.**
- **Achieve concrete results with value add to the individual academies, Euro-CASE and the Commission.**

Governance/approach of the platform



- > Desk research
- > Survey to all Academies
- > “Deep Dives” to test generic findings

Platform Steering Committee



Name	Surname	Position	Academy	Country
Breidne	Magnus	Vice President	Royal Swedish Academy of Engineering Sciences	Sweden
Brevard	Christian	Fellow	National Academy of Technologies of France	France
Carlstedt	Johan	Project Director Innovation for Growth	Royal Swedish Academy of Engineering Sciences	Sweden
Caristan	Yves	General Secretary	Euro-CASE/National Academy of Technologies of France	France
De Koning	Kees	Fellow	Netherlands Academy of Technology and Innovation	Netherlands
Frackowiak	Elzbieta	Fellow	Polish Academy of Sciences	Poland
Hämäläinen	Jari	Fellow	Swedish Technical Science Academy in Finland	Finland
Haugland	Anders	Fellow	Norwegian Academy of Technological Sciences	Norway
Hügli	Rolf	General Secretary	Swiss Academy of Engineering Sciences	Switzerland
Janosec	Jiri	Fellow	Engineering Academy of the Czech Republic	Czech Republic
Lackowski	Marcin	Fellow	Polish Academy of Sciences	Poland
Nilsson	Björn O.	President	Royal Swedish Academy of Engineering Sciences	Sweden
Pleško	Mark	Fellow	Slovenian Academy of Engineering	Slovenia
Ritchie	Ian	Fellow	Royal Academy of Engineering	UK
Sanjurjo Jul	José Manuel	Fellow	Royal Academy of Engineering of Spain	Spain
Sanz	Germain	Fellow	National Academy of Technologies of France	France
Stehnken	Thomas	Scientific Officer (Platform Coordinator)	National Academy of Science and Engineering	Germany
van Ee	Bertrand	President (Platform Chair)	Netherlands Academy of Technology and Innovation	Netherlands

Innovation Platform II: Work performed



- Euro-CASE Innovation Platform II started in January 2016 and completed its work in May 2017.
- Scoping exercise at first meeting yielded the research question “Barriers to innovation and scale-up of innovative SMEs in Europe”.
- The report is based on desk research and complemented with interviews and hearings with stakeholders from Brussels and a European-wide survey among Academy Fellows and contacts.
- The findings of the survey were discussed and validated in a stakeholder workshop in Brussels in December 2016. Additionally, the findings were tested through a series of deep dives (case studies) around Energy, Industrialization and Digitization.
- Key barriers were confirmed and discussed in two meetings in Madrid and London. A series of recommendations are suggested for the European Commission, the individual Member States and the Euro-CASE member Academies .

The Steering team in action



Defining the challenge for scaling up of SMEs in EU



- Advanced societies are having difficulties to make a robust policy for a complex innovation system.
- Innovation is more than just science and technology. Today social, demand-driven or sustainability innovation matter more than ever given the societal challenges we face
- All these are specific interactions in a given eco-system, with various scales of interaction: local, regional, national, European.
- The discussion about scaling up has several facets. Still unicorns and technological leading companies seem to find it easier to emerge outside of Europe.
- This has less to do with cutting-edge technological innovation (which is only one factor to achieve these goals) but apparently more with embracing change, entrepreneurial spirit, etc.
- The importance of the industrial sector cannot be overstated. Manufacturing provides about 20% of all jobs in Europe and generates an estimated turnover of about €7 000 billion in 25 industrial sectors and over 2 million companies (European Commission 2016: 13).

Barriers to Innovation and Scale up - Results of our Survey



- Apart from a lack of finance the main barriers to innovation across the EU seem to be
 - stiff regulation
 - risk aversion and
 - poor interaction between research and industry
- There seems only little room for experimentation in both the public as well as private sector with new business models, new technologies or more flexible approaches to policy.
- In many countries, there is an almost general aversion on risk, risk taking and innovativeness is also not recognized in the public sphere.
- However, even though risk aversion is real, there is also a visible change happening in the EU, several favorable start-up ecosystems have developed such as Berlin, Cambridge, Helsinki, Barcelona, and several others.
- Still Euro-CASE firmly believes that more efforts should be undertaken to create a more favorable business environment to harvest the creativity of young entrepreneurs across the EU.

Deep dives/ Case studies

Generic barrier	Energy	Industrial	Digital
Barriers to innovation			
Regulation	+	=	+
Risk aversion	=	+	+
Poor interaction between research and industry	=	-	-
European Paradox			
Publishing > business	=+	=+	-
Different worlds, silos	=	-	-
Regulatory aspects (IP regulations,	=	-	=
Factors inhibiting faster scale-up of SMEs			
Lack of venture capital	-	=	-
Market limitations	-	+	-
Lack Managerial and entrepreneurial skills	-	+	+

- There seem to be several similarities between the industrial and digital sector which points out to the growing interdependences of these two sectors.
- Interestingly companies in the digital sector don't seem to be limited to "traditional" barriers such as the fact that publishing activities are more valued than business activities in public research organizations.
- According to the assessment industry is especially hampered by market limitations in the EU.

Recommendations



- Key recommendations to the European Commission and Member States include:
 - European Commission should continue its efforts to create a true European Single Market.
 - Follow its proposal for Smart Regulation, new regulations should be viable to firm growth (SMEs tests).
 - More accurate information to SMEs where to obtain the right kind of funding.
 - Across Europe there is a growing need for more room for experimentation (“sandboxing”).
 - Public and private procurement should be geared towards innovative scale-ups.
 - Favorable ecosystems are more easily created on the regional level.
 - Increase skills across the EU, mobilizing managerial talent to work with start-up / SMEs.

- Key Recommendations to the European Academies and its Fellows:
 - Actively contribute to expanding an entrepreneurial culture in the EU member states.
 - Take part in mentoring and coaching of SMEs, promote the notion of “smart” money.
 - Fellows could engage in local discussion and enrich the local discussion with EU best practices.

Questions.



Thank you – Děkuji!



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