

Finnish Standardization Panel Pilot Study

Lessons Learned and a Research Agenda

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Exploring the Finnish Standardization Ecosystem

Standardization ecosystems are inseparable components of innovation ecosystems and national innovation systems. The design of standardization institutions impacts innovation incentives, appropriation of research and development investments and the rate and direction of technological progress. We evaluate the status of the Finnish standardization ecosystem and the role of standardization for Finnish companies.

RQ 1: *What are the roles and impacts of standards for stakeholders of the Finnish standardization ecosystem?*

RQ 2: *What is the status of the Finnish standardization ecosystem and standardization education in Finland?*

RQ 3: *How does the future of standardization look like from the perspective of stakeholders of the Finnish standardization ecosystem?*

Lessons Learned

Extensive stakeholder interviews (Table 1) provided diverse perspectives of which following saturated observations can be highlighted:

1. The role and impacts of standards vary across industries and the perspectives on the functioning of standardization (eco)systems vary accordingly.
2. Standardization education is not systematic in Finland indicating that standardization education could be improved to complement the learning by doing approach in organizations.
3. The role of standardization is expected to increase in the future, but geopolitical tensions cast a shadow on the functioning of the system.

Stakeholder/Actor	Number of respondents	Share
Standardization organizations	21	24.14 %
Industry associations (without official standardization duties)	5	5.75 %
Companies	30	34.48 %
of which		
Large (>250 employees)	13	
SMEs (10-250 employees)	10	
Micro (<10 employees)	7	
certification and accreditation organizations	1	
Universities and universities of applied sciences	21	24.14 %
Government	2	2.30 %
Research organizations	4	4.60 %
Civil society	0	0.00 %
Investors and financiers	0	0.00 %
Others	4	4.60 %
Total	87	100.00 %

Table 2. Respondents - Actors of the Finnish Standardization Ecosystem

Research Agenda

The economic success of small open economies such as Finland is dependent on the functioning of multilateral trade institutions including standardization systems (as well as IPR systems). Hence, it is important to investigate how stakeholders from small open economies integrate into these institutions.

This pilot study provides one benchmark for the analysis of national standardization ecosystems in other (European) small open economies. Based on the exploratory analyses, the following phenomena are interesting topics for future research:

Given the national R&D intensity target (4 % of GDP) in Finland, it is important to assess the returns on these R&D investments. *How does standardization impact the returns on R&D investments? What is the return on standardization investments (“ROSI”) and what are the costs and benefits? How could Business Finland assess the role of standards development when granting R&D subsidies to Finnish companies? How does standardization impact technological progress, scaling of businesses and productivity in Finland?*

Since standardization is one transmission mechanism of the Brussels effect (Bradford 2020), in the context of the European Single Market, it is important to analyze: *Who drive the Brussels effect (standard-makers) and who follow (standard-takers)? How are national standardization strategies and policies of the EU member states linked to the standardization strategy of the EU? How could the standardization systems and institutions at national, European and international levels be developed? What is the best way to integrate education about standardization systems to curricula of degree programs in higher education?*

Finally, the role of standardization ecosystems as components of innovation ecosystems merits further research. There is a need for an ecosystem lens on standardization. *What is a standardization ecosystem? What are the complementarities between innovation ecosystems and standardization ecosystems?*

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