HOW TO BUILD AN INNOVATION ECOSYSTEM?

SOME LESSONS FROM FINLAND

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Finland is a country that successfully transformed itself from a resource-based economy into one based on innovation and knowledge in a relatively short time.

“Finland as a Knowledge Economy 2.0 – Lessons on Policies and Governance” – report is not written as a blueprint for replication but rather as a “cookbook” for innovation practitioners describing how policies such as education and innovation are designed, implemented, and evaluated to support the development of Knowledge Economy in one country.

The report highlights the importance of policy governance when responding to challenges of globalization and points to benefits of investing in education at all levels, adopting an innovation systems approach, creating a shared national vision as well as coordination and management mechanisms to achieve it.
1. INDUSTRIAL TRANSFORMATION
TRANSFORMATION OF FINLAND

• Finland in the 1960s
  • among middle-income countries
  • competitive factors raw materials and cheap labor force
  • low value-added of industrial production
  • low productivity
  • high dependence in exports on pulp and paper industry
  • small share of academically educated of the population
  • low R&D intensity

  “Finland lagging behind”

• Finland 40 years later
  • among high-income countries
  • competitive factors knowledge and innovation
  • high value-added of industrial production
  • high productivity
  • diversified industrial base (incl. services)
  • high share of academically educated of the population
  • high R&D intensity

  “Finland among forerunners”
EXTRAORDINARY GROWTH –
AND DEEP RECESSIONS

Figure O.3 GDP Growth (Expenditure Approach) in Finland and OECD Europe, 1971–2011

“From the mid-1990s onward, Finland enjoyed extraordinary growth. The ICT sector, with Nokia as its flagship, was at the center of this development.”

“The 1990s marked the turning point in the economy’s shift from an investment-driven to a more innovation-driven economy.”

Source: OECD data (stats.oecd.org).
GDP PER CAPITA AT CURRENT PRICES

Source: World Bank
During the last few years, the Finnish ICT sector has transformed from manufacturing products to producing services and software. The traditional manufacturing industries, especially machinery and equipment, have undergone a similar transformation, and many leading enterprises focus on both services and tangible products.

Source: Pajarinen, Rouvinen, and Ylä-Anttila 2012.
SIGNIFICANT ROLE OF R&D INVESTMENTS

“During the recession in the 1990s, public investments were targeted to the ICT sector, as mobile communications were among the few sectors growing at the time. [...] Later on, these decisions proved to be instrumental in enabling growth of the ICT sector.”

Source: Statistics Finland data (https://www.tilastokeskus.fi/).

a. Estimated.
## PHASES OF DEVELOPMENT

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2. POLICY LESSONS
PUBLIC SECTOR AS A CATALYST TO INNOVATION?

Public sector’s role in:

A) Culture & attitude to innovation
B) Framework conditions
C) Specific policies & measures
A) Culture and attitude to innovation

- Education, knowledge and innovation high on values & political agenda?
- Are these considered important objectives to pursue regardless of political coalition?
- Joint vision, engagement and political leadership?
- Recognition of private sector’s importance & role? Encouragement of entrepreneurship?
- Trust across public & private sectors – mutual commitment?
- Tradition to hear and listen? Ability to reach a consensus?
- Ability to work together (co-development, PPP in practice)?
- Ability to deliver the promise?
PUBLIC SECTOR’S ROLE – FINNISH LESSONS

B) Framework conditions

• Education structures and the volume, quality and focus of education?

• Level, quality and relevance of public research institutions?

• Advanced IT infrastructures & services?

• Availability of public funding for collaborative RDI?

• Well-functioning financial market (debt funding + equity)?

• Predictable and fair tax system. Incentives for innovation, investment and recruitment of skilled labour?

• Up-to-date IPR laws and their enforcement. Strong rule-of-law?

• Fair competition laws & government regulation?

• Little interference by state owned enterprises?

• Open (non-protective) standardisation?
PUBLIC SECTOR’S ROLE – FINNISH LESSONS

C) Specific policies & measures

- Cross-ministerial RDI policy planning and monitoring (RIC) – with industry!
- Innovation within the innovation system (Sitra)
- Joint strategy-setting (Tekes + Industry)
- Advanced & elaborated innovation support measures (Tekes, Academy, Sitra)
- Combination of strategic instruments (SHOKS, programmes) and open, bottom-up instruments
- Focus on competitive, collaborative RDI funding -> relevance & quality!
- Significant structural revisions in innovation system (universities, public research, etc) -> adapting to economic changes
- Active and comprehensive monitoring and impact assessment of all RDI measures and policies -> value for money!
CONCLUSIONS

- Finland has invested substantial time and funds in building its education system, which is the base of its knowledge economy.

- The Finnish approach to governing the knowledge economy emphasizes the importance of having a shared vision of the future and a collaborative policy-planning process, as well as stakeholder engagement in all parts of the process.

- Looking ahead (forward planning, impact assessment) and adjusting policies, governance, and instruments accordingly—even if sometimes during a crisis—is integral to societal evolution and economic growth.

- The scarcity of available resources further highlights the importance governance models that enable cross-fertilization, horizontal collaboration and policy coordination.

- The transitions in the Finnish system have been led largely by private sector needs, in close collaboration and partnership with the government.

- The government has played an active role as a coordinator and facilitator while giving significant independence to the implementing agencies and regional or provincial organizations to deliver the strategies.
THANK YOU

further information

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