

*Open research and development infrastructures
supporting industrial development in Finland*

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SmartPilots Interregional Seminar on Support Mechanisms for
International Collaboration with Shared Pilot Facilities

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Research infrastructures and development platforms (jointly referred here as “platforms”) include a broad range of different entities administered and developed by various actors. The focus of the study is on Finnish **publicly owned and administered** platforms which are **open for businesses** and clearly **offer services for companies**, are substantial in terms of the extent of their operations and **significant for research**.



Research organisations have over 500 research infrastructures (2013)



Universities of applied sciences have over 200 RDI environments (2016)



Tens of platforms just in Helsinki metropolitan area, a large number of platforms exist

Finnish study on the open research and development infrastructures

- **Key Questions:**

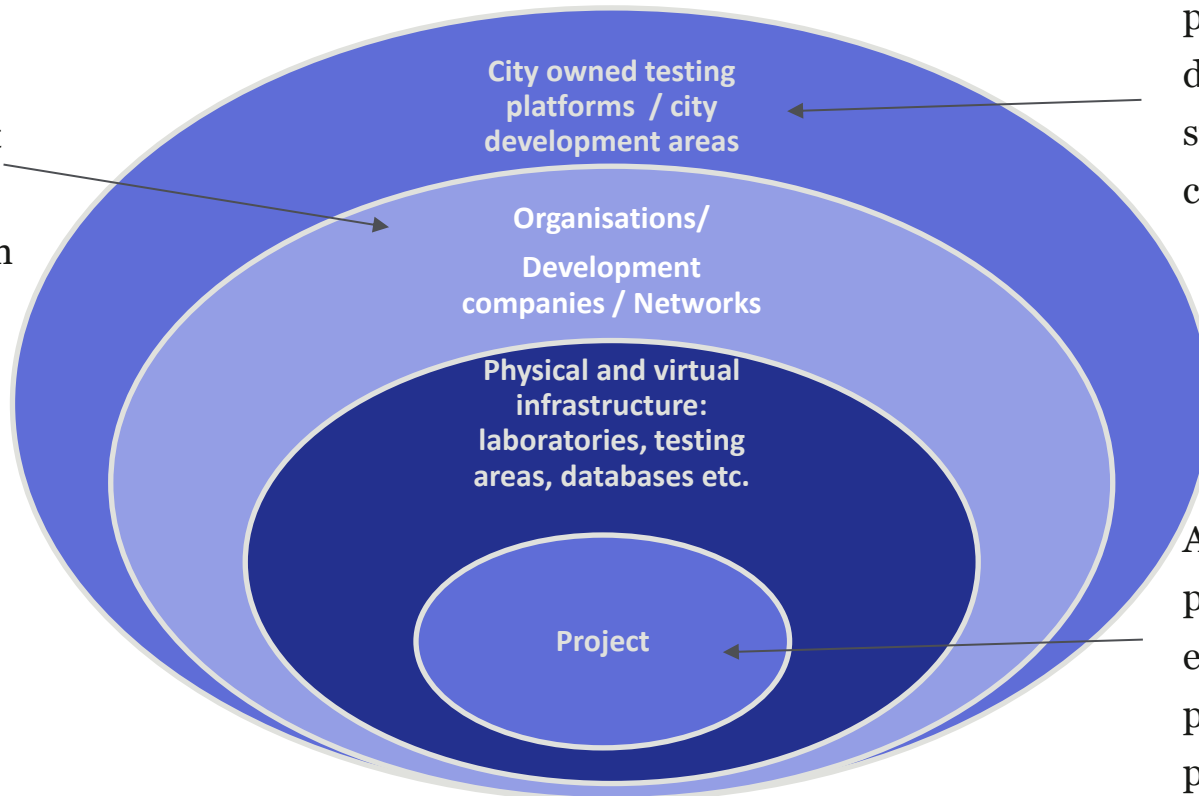
- **How companies use the platforms?**
- **What are the needs of companies?**
- **What are the best practices for the use?**
- **What hinders the use?**
- **Who invests in the development of the platforms?**

- Study was commissioned by The Finnish Ministry of Economic Affairs and Employment and the Finnish Funding Agency for Innovation – Tekes.
- Done by Gaia Consulting between August 2016 – January 2017.
- Final report (with an English summary):
https://www.tekes.fi/globalassets/julkaisut/julkiset_tutkimusinfrastruktuurit_336_2017.pdf

Study identified about 250 relevant platforms of which 51 were described in more detail

- Open, public, clear service offering to companies, significant in size and clear research importance

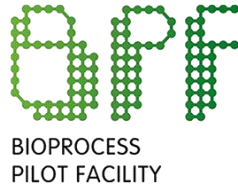
A variety of organisations that manage the platforms and often are platforms themselves – channels for providing services.



A lot of interesting platforms under development, the study was not comprehensive

A lot of interesting projects that may evolve towards permanent platforms

Study included also in-depth case studies of some platforms in Finland and international examples



**Bioruukki tekee
biotalousdesta totta!**



VEBIC

Vaasa Energy Business
Innovation Centre



**FIKSU
KALASATAMA**

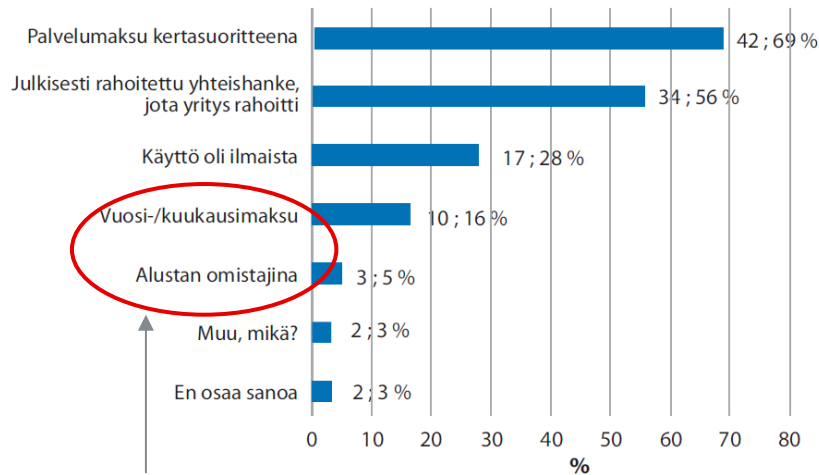
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Platforms are mainly used by big companies and the main way for use are joint projects with researchers – most often Tekes funded

- The current use of the platforms and the needs for future were identified in a survey (103 company respondents)

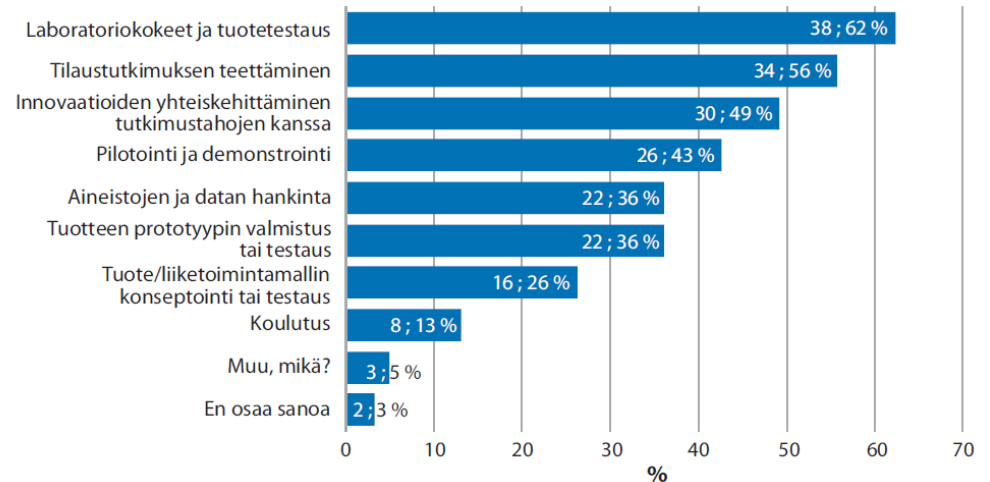
How have you paid of the use of the platform?

Miten yrityksesi on maksanut alustan käytön? (voit valita useita)



How have you used the platforms?

Miten yrityksesi on käyttänyt alustoja? (voit valita useita)



Most often the payment was done by task / project, very few had continuous "membership" or ownership

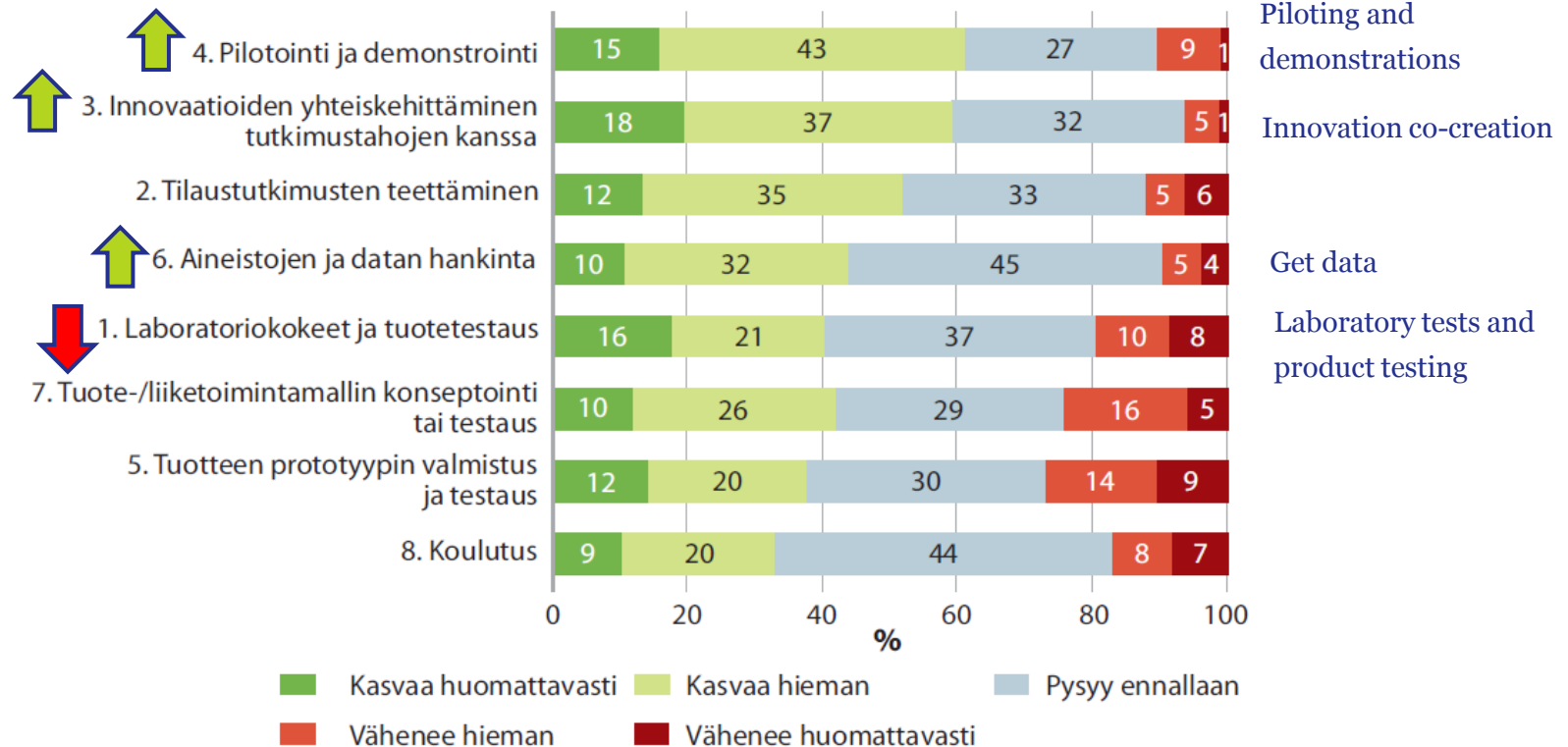
The volume of services and the number of users vary greatly between the platforms

- Most of the platforms do not systematically track the number of industry clients.
- The majority of platforms in Finland are small and restricted in terms of content and serve mostly regional businesses.
- The number of yearly company clients for the platforms covered in the case studies ranged from a few to over a hundred.
 - **Bioruukki** has had 2013 – 2015 in total about 140 company clients, 190 projects and from 14 countries. Yearly estimate of the turnover of the services to companies is about 5 milj.€.
 - **VEBIC** has over 30 partners in the platforms of which around 10 are companies.
 - **Smart Kalasatama** development has involved about 150 organisations and formal cooperation agreements have been done with 30 companies.

In the future the companies expect to have more long term partnerships and different co-creation models

Assess the future needs for the following uses

Arvioi yrityksesi tarvetta tulevaisuudessa seuraaville käytöille



(growing strongly, growing somewhat, staying the same, reducing somewhat, reducing a lot)

Areas for improvement





Quality of
services to meet
company needs

What do companies appreciate?

- **The platforms' services need to be developed in a customer-oriented manner together with companies.** This is particularly important if the platform aims to attract SMEs.
- Transparency, service availability and access to open data
- Multidisciplinary offerings and combinations of academic and applied research, which build on competitiveness outside of Finland
- Involving the client companies' end customers, providing opportunities for testing and real collaborative development between researchers, companies, and their end customers
- High competence, sufficient and available human resources, flexibility of operations
- A platform's sales activities with clear responsibilities, contact persons, and overall sales competence with an understanding of companies' needs
- Lean administration: joint vision and lean agreements, facilities for joint development, easy-to-use web-based access to availability and reservation of facilities



International
competitiveness is
a must

Platforms in Finland need to work hard and even harder than platforms in some other countries

- The volume of international company clients and international competitiveness of Finnish platforms is modest. But here exists good potential to improve and excellence always attracts – companies work with the best ones.
- International visibility and attractiveness require strong communication and interaction with relevant companies. Investments are required in marketing and communication.
- The platforms need innovation and marketing professionals who are in charge of developing a message that attracts companies and have close contacts, the work with companies is left too much for researchers who do not have time and competence.
- Developing regional, national and international networks is a must for the platforms to create a strong brand and to increase their critical size.

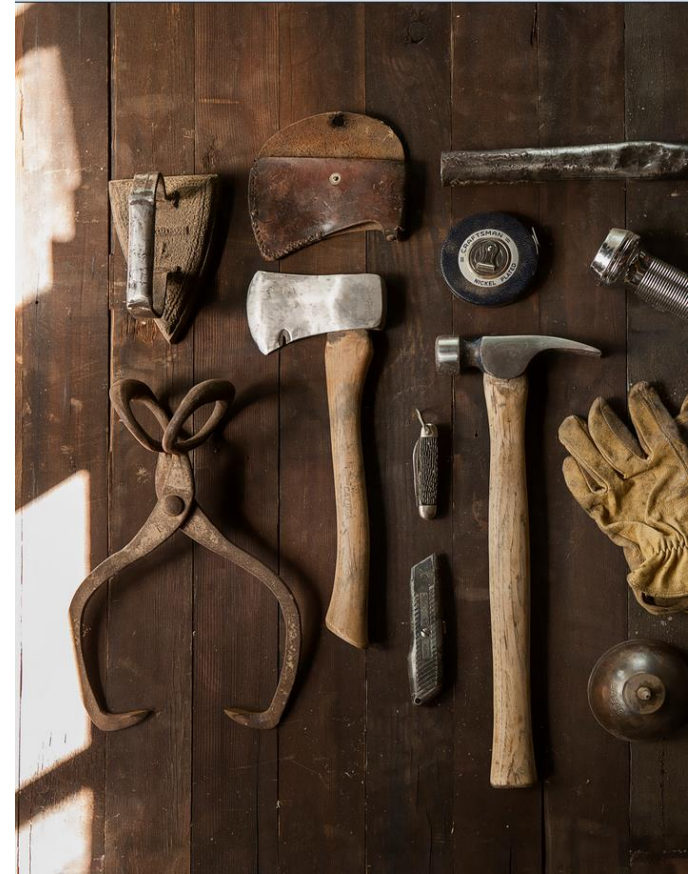


There needs to be long term investment strategy to develop platforms

- Some strong European platforms can cover their operational expenses with company co-operation, but all platforms are dependent on the public funding to make long term development investments.
- Investments are needed not only for the physical & technical infrastructures, but also for developing service models, marketing and client interaction.
- In Finland challenges are the dependence on the project based funding, decreasing trend of big companies' investments on RDI and reduced public funding to big companies' RDI - where to get funding for development of the platforms?

Summary

- Finland has a lot of R&D infrastructures, high level competence and industry use, but the platforms are on average small and their international competitiveness is weak.
- Open innovation and co-creation models of co-operation between researchers and industry is strengthening and this requires the platforms to renew their ways of working with companies.
- International competition is hard – only best will survive
- There is increasing number of cities' development and testing platforms where the close collaboration between cities, research organisations and companies is a must to make them competitive.
- Platforms, their owners and their networks have to make the strategic decisions on whether they want to strengthen the joint use and collaboration with companies, then invest in this and work hard.



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