

Open Standards in Sustainable Innovation Policy

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About the speaker

- PhD studies on innovation systems (UTa)
- Action research on supplier networks (VTT)
- Management team member at network security company (Secgo)
- ICT programme leader at innovation agency Hermia

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Agenda

- I. Innovation policy in transition: towards sustainable innovation
- II. Implementing sustainable innovation policy – case open source ecosystem
- III. Sustainable innovation policy and open standards

Finland - the global innovation leader?

- **European Innovation Scoreboard 2007** (INNO METRICS, UNU-MERIT, February 2008)
 - Sweden, Finland, Denmark, Germany and UK are the most innovative EU countries and ahead of the US.
- **ICT Opportunity Index** (ITU 2007)
 - Finland going down among the high average of 29 nations, now #19.
- **Some recent challenges in the Finnish innovation system**
 - Transformation of competitiveness to wealth
 - Service development
 - Utilisation of global knowledge
 - Need to focus and build on synergies
 -



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What is innovation policy?

- **Basic features**
 - Support to technology adoption
 - Resources to disseminate research results
 - Focus on SMEs
- **Recent trends**
 - Systemic approach to innovation
 - Network building
 - Regionalization / decentralization
 - Building capabilities and competences in companies

Innovation policy paradigm shift

(source dr. Antti Hautamäki, SITRA 2008, www.sustainableinnovation.fi)

Traditional innovation policy

Basic concept: national innovation system

Growth as ultimate goal

Top-down steering and regulation

Supply-driven

Closed innovation

National scale

National focus

Technology transfer

New sustainable innovation policy

Basic concept: innovation ecosystem

Well-being and sustainability as ultimate goals, growth as a mean

Enablement of spontaneous processes and trials, competition

Demand-driven, customer-oriented

Distributed collaborative innovation

Global scale

Regional innovation policy, local innovation concentrations

Collaborative development and learning



Models of distributed innovation

- **Open innovation** (Chesbrough)
- **Public innovation (commons-based peer production)** (Benker)
- **Private-collective model of innovation** (von Hippel)
- **User innovation** (von Hippel)

Case study:
Building up the Finnish
open source ecosystem



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Origins of COSS in 2003: Open source – why bother ?

- Open source represents a major disruption in software industry, characterized by
 - Adoption of community-based open innovation and development model
 - Commoditization of existing products
 - Transformation of business models
 - Open technology platforms
 - New global partnerships

Open source opportunity for the information society

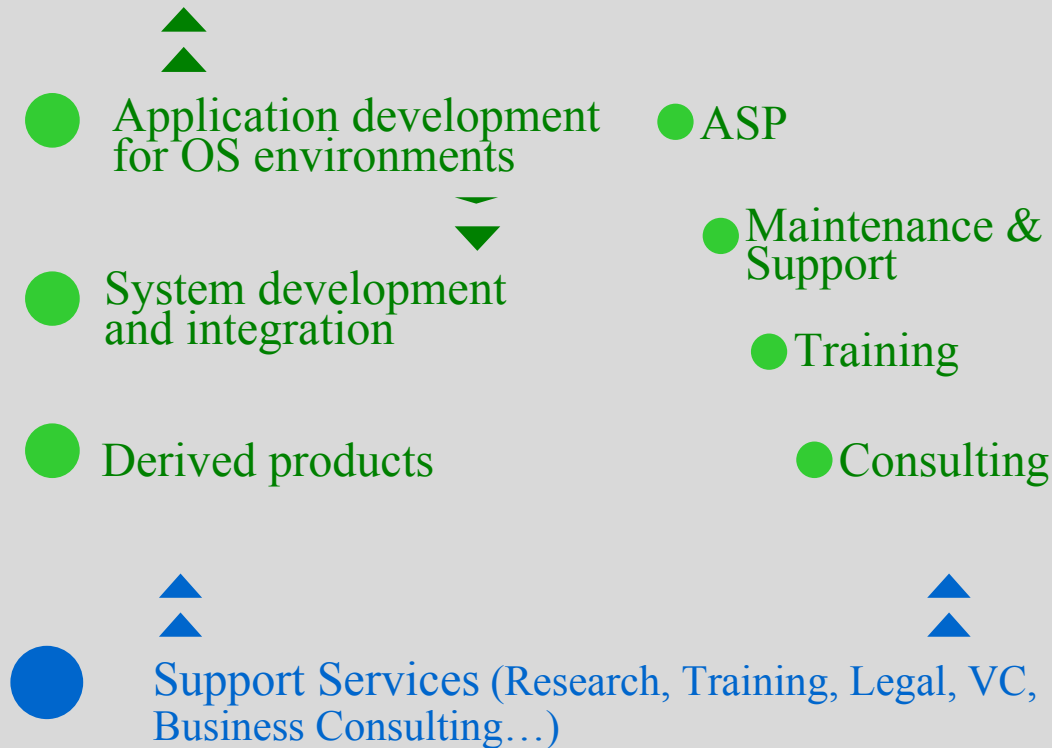
- OSS utilization enables and requires versatile **local service businesses**
 - Support, maintenance, installation, integration, training, ASP etc.
- OSS lowers the barriers of **e-adoption**
 - Low-cost access to experimentations with new technology
 - Allows better customer service with reasonable cost
- OS **communities** link local expertise with global players
 - Business potential based on reputation and participation in communities
- Emerging open technology platforms create new **business opportunities** in the global ICT market-place

A Map of the Open Source Ecosystem



Open Source Projects
and Communities

- Proprietary products for OS environments
- Software intensive systems, devices and services



Consumers

Telecom

Manufacturing

Welfare Services

Public Administration

Education

Retail

Digital Media

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COSS in action

- **Promotes** open source solutions and opportunities for different industrial sectors and user groups
- Provides **business development and competence development** services for ICT-intensive companies
- Organises interorganisational **networking** to enable new value systems to emerge
- Facilitates **collaborative projects** between business, research and public policy
- Acts as an **international contact point** to Finnish open source competence and industry



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COSS is a cluster of 120+ corporate and SME members...





COSS ..and leading universities

Helsinki University of Technology

Tampere University of Technology

Helsinki Institute for Information
Technology

University of Helsinki

University of Tampere

University of Oulu

University of Turku



TEKNILLINEN KORKEAKOULU
TEKNISKA HÖGSKOLAN
HELSINKI UNIVERSITY OF TECHNOLOGY



TAMPERE UNIVERSITY OF TECHNOLOGY



HELSINKI
INSTITUTE FOR
INFORMATION
TECHNOLOGY



HELSINGFORS UNIVERSITET



UNIVERSITY
OF TAMPERE

HSE

HELSINGIN KAUPPAKORKEAKOULU
HELSINKI SCHOOL OF ECONOMICS

UNIVERSITY
of
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...and with international collaborators

Networked European Software and Services



Free Software Foundation Europe



The Linux Foundation



Open Source Business Organisations of Europe

oboee

OPENnordic





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Focal areas of ecosystem development



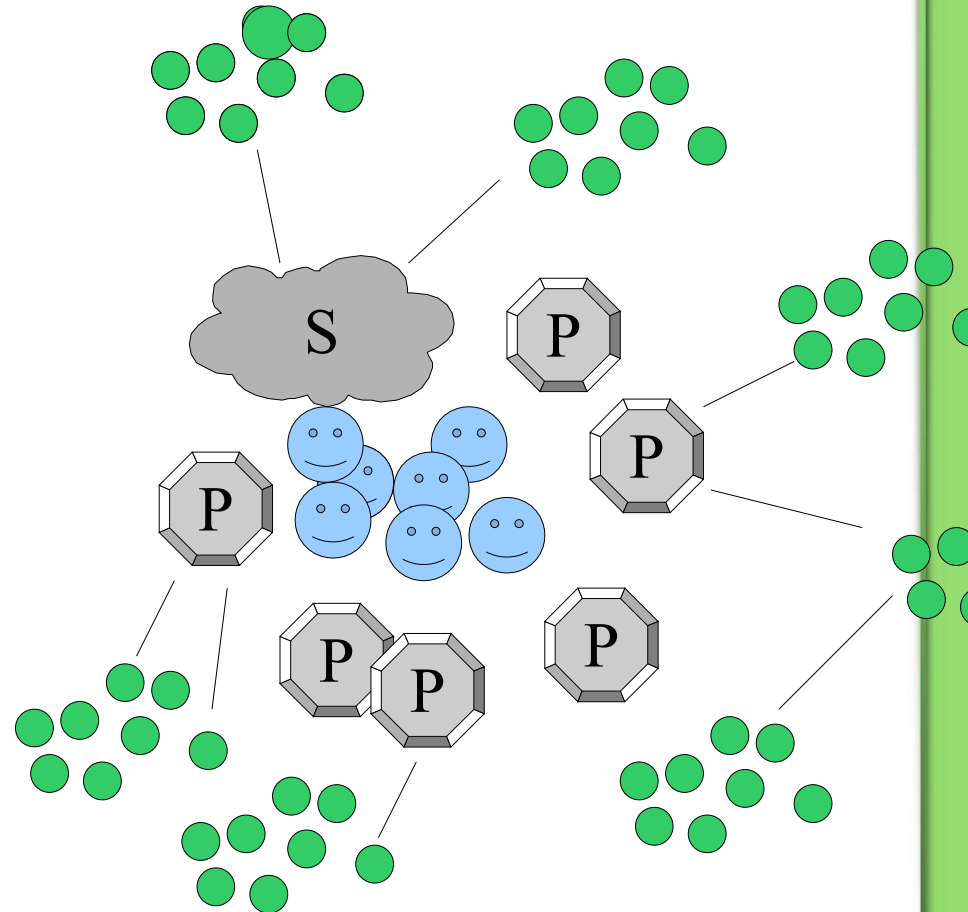
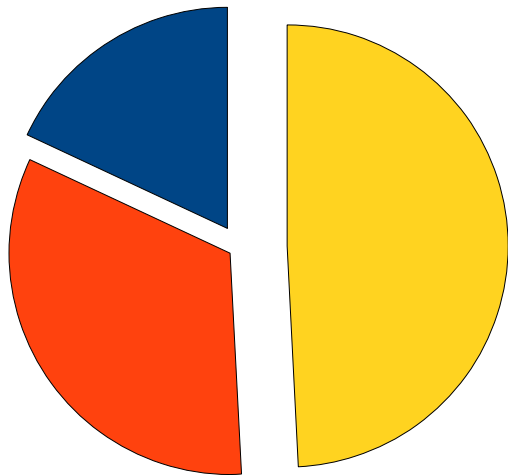


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How is it operated?

- Annual turnover \approx 600 k€
- Sources of income

■ Mem- ■ Service ■ Public
bership fees and projects
fees com- projects
 mercial
 projects





What have we achieved, so far?

- The Finnish open source business ecosystem can be identified and accessed
- The ecosystem is expanding
- Shared vision about the future in the sub-ecosystems
- Companies are better able to identify their strategies in rapidly evolving value networks
- A number of joint business and innovation projects completed and in pipeline
- There is a long term commitment of key stakeholders to invest in future collaboration

Sustainable innovation
policy is not only a vision –
what about open
standards?



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Preconditions of distributed innovation (Weber, 2004)

- Empowerment of participants to experiment; motivation and incentives
- Mutual communication
- Modularity of development; making individual contributions independent of others
- Common rules for contributions and maintenance, transparent governance.



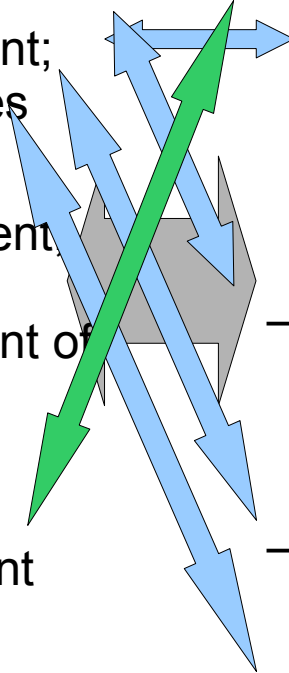
Enabling distributed innovation with open standards

- Distributed innovation preconditions

- Empowerment of participants to experiment; motivation and incentives
- Mutual communication
- Modularity of development, making individual contributions independent of others
- Common rules for contributions and maintenance, transparent governance.

- Open standards definition (IDABC)

- Approved and will be maintained by non-profit organisation...development on the basis of an open decision making process for all interested parties
- Published and made freely available. It must be possible for everyone to... use is free or for a nominal price
- Intellectual property of the standard is irrevocably made available on a royalty free basis
- No restrictions to reuse.





Summary

- Leading innovators are moving towards sustainable innovation policy
- Innovation ecosystem initiatives focusing on distributed innovation can be successfully implemented
- Open standards are fundamental for sustainable innovation policy, enabling
 - hi-speed trials
 - modularity of development
 - distribution of tasks in the community
 - freedom of involvement



Thank you!

Questions?

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