

Company Participation in Open Source Software Communities: Measuring Sustainability

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OSSI: Managing Open Source Software as an Integrated Part of Business

- OSSI is developing a **framework and management tools** for controlling OSS related operations
- OSSI aims to produce instruments for handling **practical business questions:**

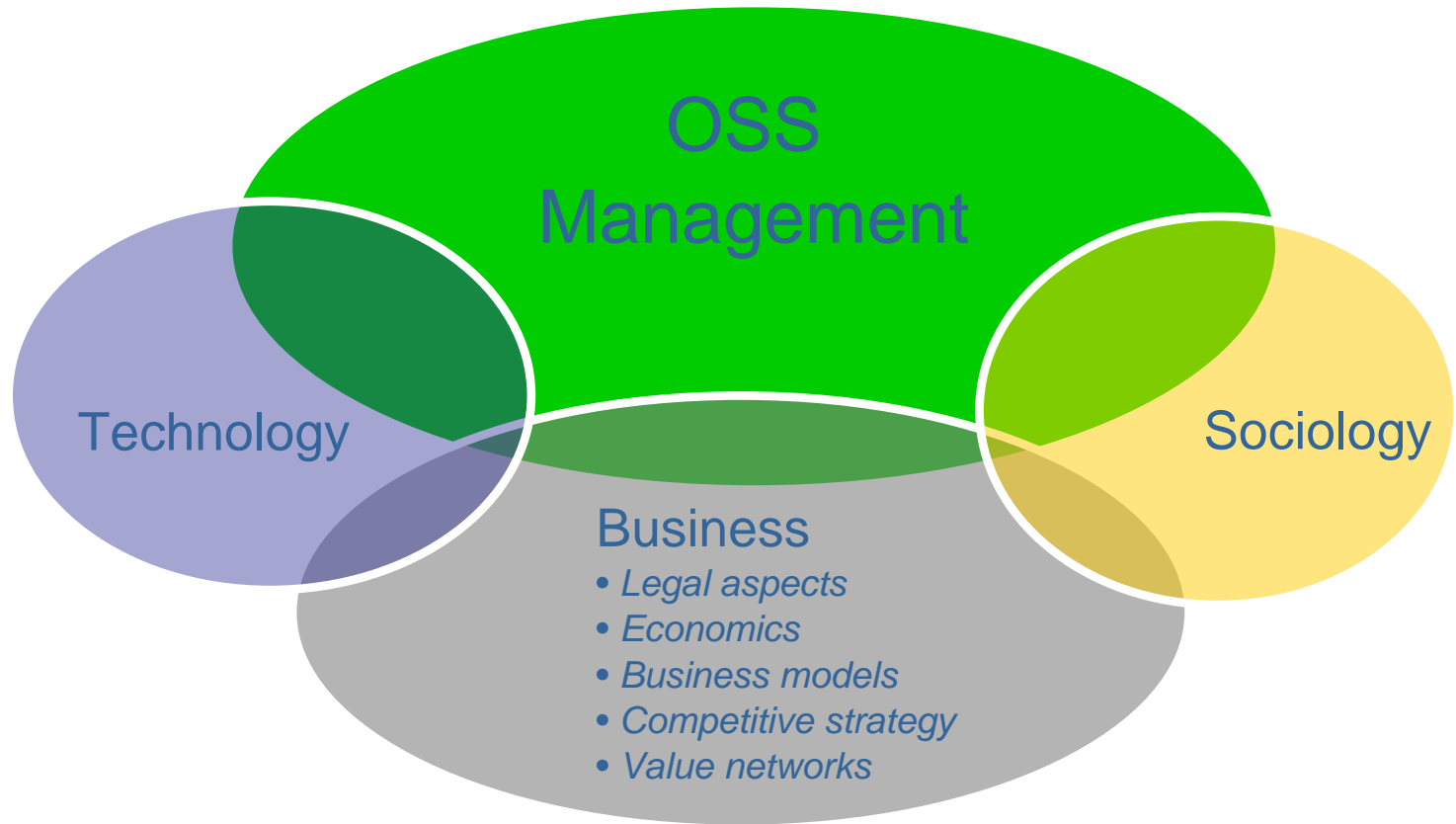
How can we utilise open source in our business?

When it is worthwhile to go or not to go into OSS-business?

What kind of management strategies work best in different levels of OSS utilisation?

- Results of OSSI will be transmitted from research into teaching – training more competent **OSS-experts for the software industry**

Multidisciplinary approach



Further information: www.coss.fi/ossi

Building a sustainability framework

- Goal
 - increased understanding of the aspects that affect open source community sustainability
 - a framework for evaluation
- Ways of company participation
- Aspects that a company should be aware of

Open Source Community Sustainability

- definitions

- Open Source Community
 - an open community that is working together to create software that is licensed following the Open Source Definition (or Free Software Definition)
 - cf. inner source, shared source
 - open source method vs. open source licensing
- Sustainability
 - what keeps the community able to function, stay lively and maintain itself over a longer period of time

Five dimensions of sustainability

- Social
- Cultural
- Legal
- Economical
- Technical

Social sustainability

- individual characteristics (skills, motivations, time)
- size, structure
- division of labour and power
- size of user and developer base
- community roles (project leader, core group, bug fixers, bug submitters), possibility of learning and advancing
- centralization/decentralization of communication/power structures
- system of decision-making and division of labour

Cultural sustainability

- understanding of common values and goals: philosophy and ideology
- hacker work ethic vs. protestant work ethic
- foundational documents that codify common practices and values (Debian Free Software Guidelines etc.)
- openness, equality

Legal sustainability

- Risk mitigation strategies, legal understanding
- Economic footprint
- Legally risky topics (p2p, encryption etc.)
- Enforcement of own rights
- License compatibility

Economical sustainability

- Dependence on financial support
- Level of operating costs (technical infrastructure)
- Effective business model of a related company

Technical sustainability

- Longevity of architectural decisions
- Adaptability
- Documentation
- How difficult it is to understand the code

Typologies

- Typologies can be built to help evaluation
- Different axes, e.g. size, maturity, decision-making structures, license, hybridity (the ratio of volunteer/paid developers)
- an example:

<i>maturity / hybridity</i>	<i>volunteer</i>	<i>mixed</i>	<i>company</i>
young	Gnash		Laika
developing	Wordpress	Mozilla	OpenSolaris, Darwin
established	GNU, Debian	Linux (kernel)	MySQL

Problems

- The model is very preliminary
- Difficulties of measuring: mostly qualitative
- How to deduce practical guidelines from the analysis?
- Does it all come back to social aspects in the end?

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