

Economic Impact of Free Software on the European ICT sector

Karsten Gerloff
gerloff@merit.unu.edu

United Nations University/MERIT
Maastricht

Outline

- Free Software market position
- Economic value, skills, jobs
- Innovation, R&D, growth
- Europe: policy scenarios
- What to do

Free Software market position

- Free Software has a big share of many software domains
- web servers (70%: apache)
- mail servers (about 50%: sendmail, exim, postfix)
- scripting languages (perl, php)
- emerging applications (e.g. application servers: Plone/Zope)

Free Software economy: value

- Existing Free Software code – recreating it as proprietary software would cost:
 - Euro 12 billion (substitution cost, till 2005)
 - 163 thousand person-years
 - Euro 100 billion (till 2010)
- Doubling in size every 18-24 months
- Actual investment by firms in code development: at least Euro 1.2 billion

Free Software economy

- Free Software-related services could reach a 32% share of all IT services by 2010
- Free Software-related share of economy could reach 4% of European GDP by 2010 (IT-related share of GDP is about 13% by 2010)

Free Software economy: jobs

- Only 7% of programmers in the US work on off-the-shelf proprietary software
- 30% work in sectors producing mainly custom software / integration / support
- Almost 60% work in the “user sector” - finance, government, manufacturing, retail, etc

Free Software economy: jobs

- 16% of software spending in the US is on packaged proprietary software (19% in EU)
- >50% is in-house software development (30% in EU)
- Rest is custom software

Free Software economy: jobs

- *Today's* economics of software: most people (and firms) who write software do *not* make money by selling software, but by selling their time!
- This is the economics of Free Software, not the economics of proprietary packaged software

Free Software economy: skills

- Job postings: 70:30 ratio of proprietary software skills to Free Software software skills (overlapping)
- Free Software developer community is for most participants a place to “learn and develop new skills”
- These skills are not just technical, they are often better learnt than in formal courses, and lead to jobs

Free Software economy: skills

- Proven Free Software development can compensate for the lack of a formal degree/certificate
- Employers agree with developers on these findings

Free Software economy: growth

- Free Software potentially saves industry over 36% in software R&D investment
- Increased profits, or investment more usefully spent on further innovation

Free Software economy: investment

- Free Software represents about 20% of total software investment in Europe and the US (notional value of investment)
- Increasing Free Software share of investment from 20% to 40% in EU would lead to 0.1% higher GDP growth (excluding ICT industry benefits)

Recap

- Free Software market position
- Economic value, skills, jobs
- Innovation, R&D, growth
- Europe: policy scenarios

Free Software economy: policy scenarios

- **CLOSED:** existing proprietary business models are entrenched through legal and technical regulation;
- **GENERIC:** current mixed policies lead to a gradual growth of Free Software while many of the opportunities it presents are missed;
- **VOLUNTARY:** recognise and utilise the potential of Free Software and similar collaborative models of creativity to harness the full power of active citizens in the information society.

Going voluntary

- open standards!
- truly competitive innovation incentives & public procurement
- avoid life-long lock-in: teach skills, not applications
- encourage partnerships between Free Software communities, SMEs and large firms
- equitable tax treatment for Free Software
- unbundling between hard- and software

And what can I do right now?

- Make yourself heard in the European Community for Software & Services
- give your input to a White Paper (policy position) of the European Commission
- participate in the ECSS consultation process:

www.eu-ecss.eu

And what else?

- spread the results
- tell others about this study
- pick up the phone when we call
- support organisations that promote Free Software
 - e.g. FSFE

Thank you.

Press release, executive summary, full report via:

www.flossimpact.eu

Karsten Gerloff
gerloff@merit.unu.edu