FINPRO

Free / Libre / Open Source Software
OSS, FOSS, FLOSS

EUROPE

Business Perspective and market observations

(Jyrki Pöysti, Finpro)

Content

- Introduction
- Who developes, uses, what, where in Europe
- User/contributor case Alcatel
- Business models for OSS developers
- User case Central Scotland Police
- OSS market - growth and limitations
- Orixo – European OSS Business model case
- Zea Partners – European OSS Business model case
- European OSS market

Introduction

Protectionist tariffs do not serve the economic interests of a nation

"a voluntary, informed transaction always benefits both parties."

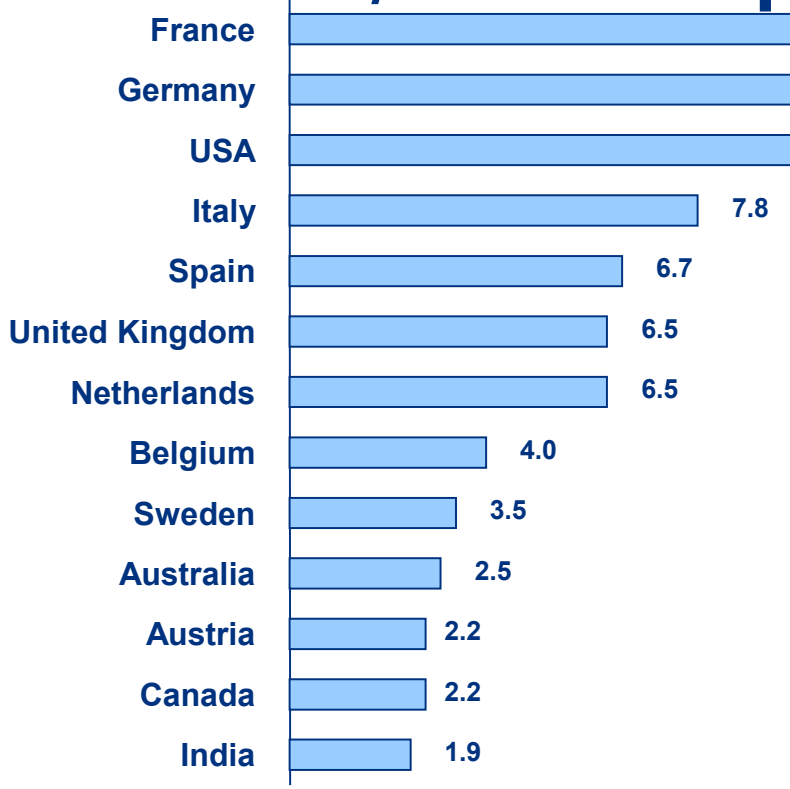
The Wealth of Nations, Adam Smith, 1776

(Replace ’nations’ with companies and ’goods’ with software)

Content

- Introduction
- Who developes, uses, what, where in Europe
- User/contributor case Alcatel
- Business models for OSS developers
- User case Central Scotland Police
- OSS market - growth and limitations
- Orixo – European OSS Business model case
- Zea Partners – European OSS Business model case
- European OSS market

Nationality and Geographical Distribution of OS/FS Developers

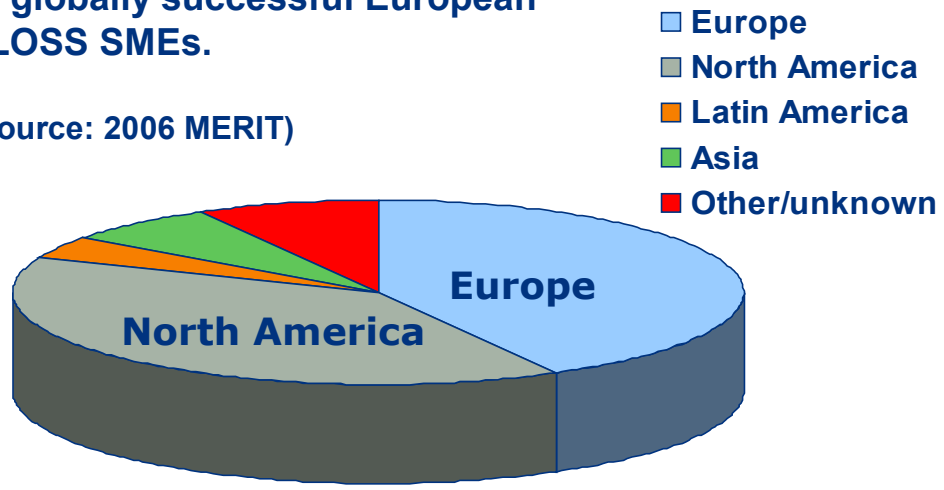


Source: FLOSS Report 2002

Europe is the leading, followed closely by North America, Asia and Latin America.

Central Europe and Scandinavia provide disproportionately high numbers of developers which has led to an increasing number of globally successful European FLOSS SMEs.

(Source: 2006 MERIT)

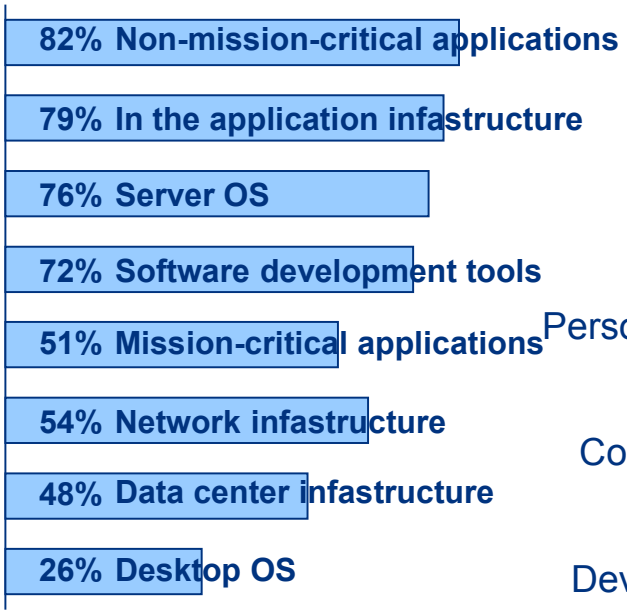


Source: sourceforge.net 2005 MERIT

Support cost during OSS lifetime is high therefore OSS is best at regions and environments where cost of work is low. *) s20

FLOSS usage in Europe

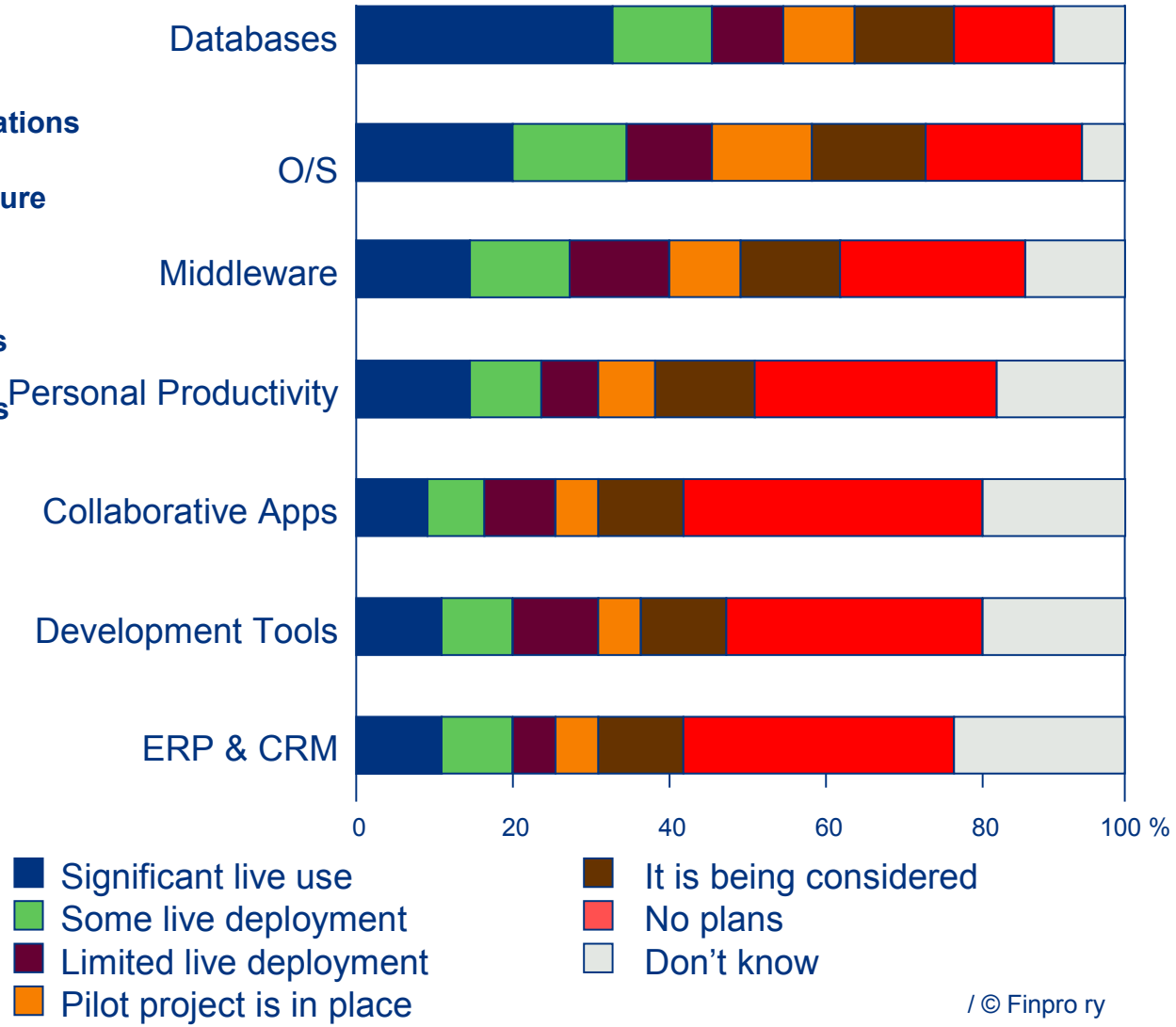
Open source software use by type



Source: A commissioned study conducted by Forrester Consulting on behalf of Unisys, March 2007

FLOSS usage in Europe by application

Source: IDC's 2005 Western European Software End-User Survey (N=625)



Content

- Introduction
- Who developes, uses, what, where in Europe
- User/contributor case Alcatel
- Business models for OSS developers
- User case Central Scotland Police
- OSS market - growth and limitations
- Orixo – European OSS Business model case
- Zea Partners – European OSS Business model case
- European OSS market

Alcatel – TELECOM INDUSTRY USER CASE

ALCATEL ACTIVELY USES FOSS AND ACTIVELY CONTRIBUTES TO THE FOSS MARKET PLACE. RULES OF USE OF FOSS IN ALCATEL ARE:

THE TOTAL COST OF FOSS IS NOT MUCH LOWER FOR ALCATEL THAN THAT OF PROPRIETARY SOFTWARE

- Advantages of FOSS: reduced dependence on supplier terms and conditions, better competition among distributors, a long-term software solution even if a supplier changes, broad user basis for mainstream FOSS, which assures fast turn-around time for corrections, new features, security fixes, etc

FOSS CAN NOT BE USED FREELY – FOSS LICENSE MANAGEMENT IS DIFFICULT

- FOSS licenses are sometimes very complex and combination of many licenses.

FOSS HAS MANY RISKS IN CONFIGURATION, STABILITY AND SECURITY

- FOSS can not be downloaded and used as is – FOSS quality is variable and quality control must be maintained.
  - It has been made very clear to Alcatel engineers that they must handle FOSS just like any other proprietary software component. Only FOSS that has been approved and qualified and is good enough to sustain our high quality standards can be used.

ALCATEL SELECTS ONLY FOSS WITH LARGE OPEN SOURCE COMMUNITIES

- The source code of mainstream FOSS is scrutinized by a large community of software specialists.

ALCATEL USES ONLY FOSS SUPPORTED BY DISTRIBUTORS

- If the distributor terms and conditions become inappropriate, it is easy to change distributor.

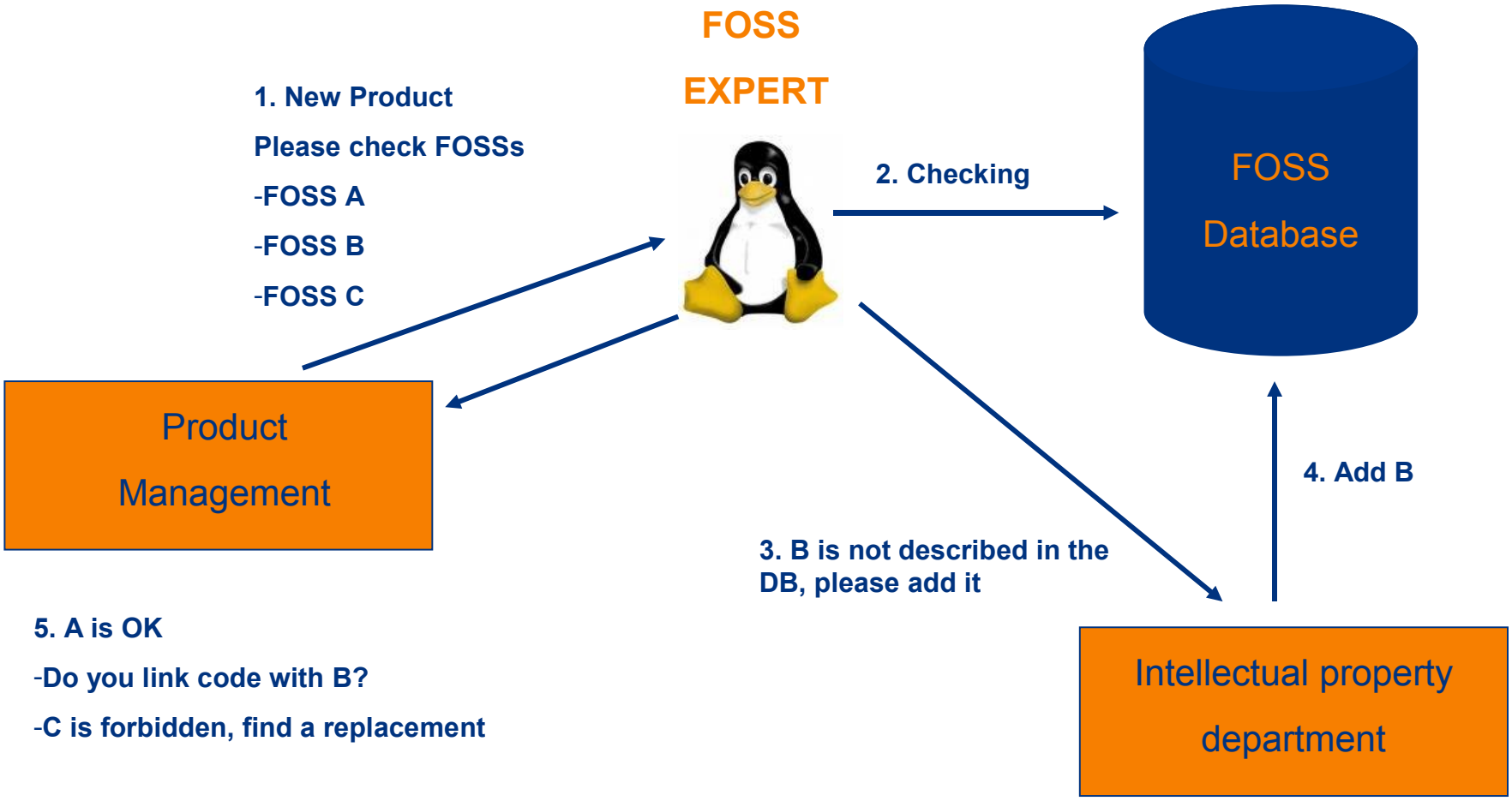
ALCATEL HAS FORMAL FOSS RISK MANAGEMENT PROCESS

- Programmers can not decide use of FOSS

ALCATEL REQUIRES (LINUX) DISTRIBUTORS TO GIVE LIST OF SOFTWARE PARTS

- Some LINUX is still distributed without clear license which means high risk for Alcatel

Alcatel FOSS Management Process



How Alcatel shapes OSS market

THE COBRA EXAMPLE

The Alcatel preferred CORBA*) supplier was acquired in 2001 by one of it's competitors, resulting in dramatically changed licensing conditions for Alcatel. As a result, the company initiated a survey of CORBA Open Source Software and found that many lacked sufficient mass to bring an industrial-strength product to market.

Finally, contact was made with a company developing services on top of proprietary CORBA systems; they were persuaded to support/distribute two Open Source Software CORBA products: JacORB (Java, general-purpose-based) and TAO (C++, real-time and general-purpose).

A business model was co-developed with them to include specific enhancements that were part of Alcatel's funding proposal. This resulted in Alcatel signing a 3-year contract (meanwhile extended), during which all Alcatel Corba-based solutions were migrated. Contacts with other interested parties (Alcatel customers, other NEPs) were organized, strengthening the further industrialization of the Total CORBA Solution (TCS).

*) (ITU-T and Telemanagement Forum standard from the Object Management Group (OMG) for Network Management)

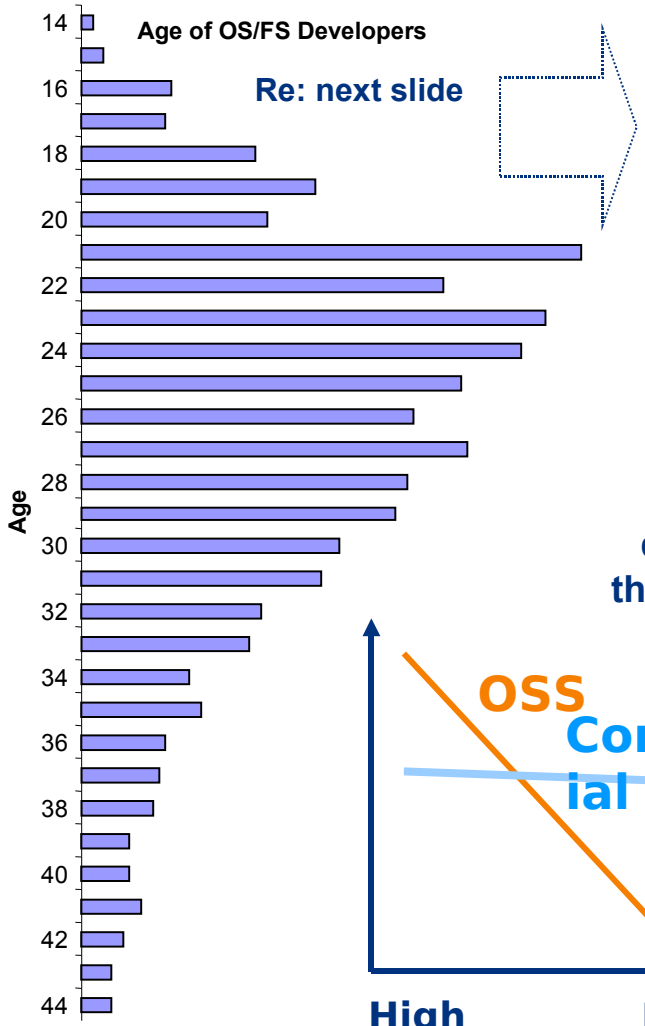
Alcatel on OSS – things to be beware of

- FOSS licenses can have a contaminating effect on a company's own software development. Use of GPL may make own software OSS.
- FOSS licenses are sometimes very complex, a Linux distribution comes with hundreds of different FOSS components, each with a different license.
- Some license conditions make sustainable commercial usage in Alcatel products impossible.
- Before selecting a FOSS module, three majors legal aspects need to be controlled: a) determining the origin of the FOSS, b) ensuring that the usage of the FOSS is compatible with its license, and c) mitigating the liability risks.
- Software with no proper license does not mean that the user is free to interpret how it can be used. A common mistake is to consider software without a license as "public domain" software.
- License announced on a Web page may not be the exact, real license that comes with the software.
- Licenses are known to change with a new FOSS release. Experience shows that it can take a great deal of effort to find the exact license of a specific FOSS and optimize its usage.
- FOSS can also be subject to trade regulations, for example encryption.
- Most of the FOSS comes with licenses that disclaim any liability, but liability cannot be waived under legislation prevailing in many countries. Contrary to proprietary software, liability cannot be assumed by a supplier, so Alcatel must often assume a risk similar to that of distributing proprietary code.
- Copyright infringement can happen when some third-party software has been included in the FOSS.
- Patent infringement by a FOSS is the third liability risk.

Content

- Introduction
- Who developes, uses, what, where in Europe
- User/contributor case Alcatel
- Business models for OSS developers
- User case Central Scotland Police
- OSS market - growth and limitations
- Orixo – European OSS Business model case
- Zea Partners – European OSS Business model case
- European OSS market

Business model of OSS development – how and who does

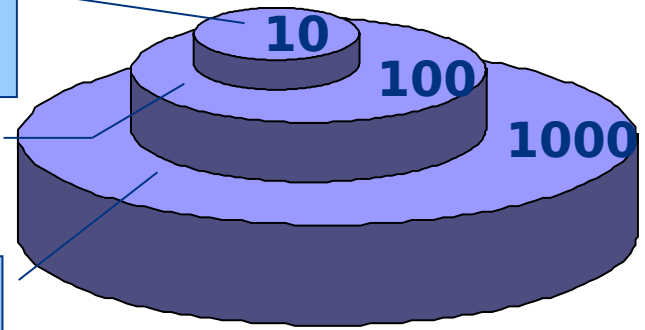


Re: next slide

Core team (new functionality

Code contributors

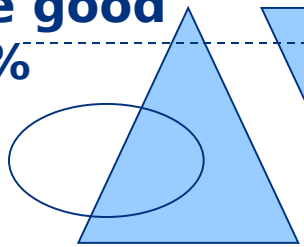
Community (problem reports)

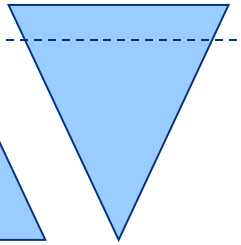


If community does not exit, the OSS becomes DumpWare

Development is mostly done by individuals but they are usually employed.
(Lakhani and Wolf, 2005)

The good 10%





FINPRO

What motivates programmers contribute to (your) OSS project

OBSERVATION: Most academic studies have not quite spotted the right reason(s)

OBSERVATION: Most contributors are young (60% under 26) =>

OSS GIVES POSSIBLITY FOR YOUNG PROGRAMMERS TO PARTICIPATE IN A LARGE IMPORTANT PROJECT (53%)

Young and talented programmers usually don't have possibility in daily work to participate in a big project (in a significant role) because:

- Big companies have other project leaders with proven track record. Commercial project must succeed (100% success rate expected) and only programmers with long track record are selected.
- Company is small and it does not have big projects anyway

Nobody notices failed OSS projects – so there is no career risk in participating. (OSS project fails by nobody being interested any more – possible failures are not visible.)

COMPANY, ORGANISATION OR INDIVIDUAL HAVE INTERNAL NEED FOR THE RESULTING SOFTWARE (3%)

- It is just easier to do it in a joint project. No any 'grad' reasons.

OSS IDEOLOGY MAY BE PART OF THE REASON BUT NOT THE ONLY ONE (13%)

- Sometimes purely personal reasons are explained with OSS ideology

Source for % data: R. Ghosh, Perspectives on Free and Open Source Software, EU study

OSS business models

- **PACKAGERS** such as Red Hat and SuSE.
  - Bundle software developed by a third party and offer a shrink-wrapped or downloadable product.
- **PROFESSIONAL OPEN SOURCE DEVELOPMENT – DUAL LICENSING** such as MySQLAB and JBoss, Inc.
  - Free for open-source; fee for binary distribution.
  - Paid high-quality, full-time developers
    - "Safe" for the enterprise – competitive enterprise levels of service (e.g. 24/7 technical support)

3. **SERVICES, SOFTWARE DEVELOPMENT AND CONFIGURATION CONSULTANCY** (such as IBM)
   - For IBM, open source gives its consulting business access to government accounts
   - BUT: IBM will stop marketing and selling support for Cloudscape product (Derby OSS) after June 13, 2007 and it will not be supported by IBM after September 30, 2008. IBM published Cloudscape into OSS in 2004 probably as an effort to generate more interest in the product . "Just releasing something under an open-source license doesn't suddenly mean that you have people who care and will contribute," Michael Olson, CEO of Sleepycat Software
4. **NTEGRATED PRODUCT SUITES** (SpikeSource)
   - Open source kernel packaged within closed-source solution. (e.g.uPortal, Sakai, Moodle, and Harvest Road's Hive)
5. **SUPPORT HARDWARE SALES**
   - For hardware makers such as Sun, HP, IBM and some makers of embedded devices, open source is a way to reduce the cost of software and thus expand the market for computers.

Source: Jim Farmer, Georgetown University

Content

- Introduction
- Who developes, uses, what, where in Europe
- User/contributor case Alcatel
- Business models for OSS developers
- User case Central Scotland Police
- OSS market - growth and limitations
- Orixo – European OSS Business model case
- Zea Partners – European OSS Business model case
- European OSS market

FINPRO

Central Scotland Police - FAILED OSS IMPLEMENTATION CASE

2000

- In 2000, CSP decided to implement an open source crime reporting application
- Linux and StarOffice (a Sun customised version of the FLOSS application OpenOffice), open source web servers, database servers, firewalls.
- **Savings £245,000:** Managers estimated that they could save an initial £245,000 compared to the cost of using software from Microsoft

2005

- The initial £245,000 it projected to save was being consumed by high maintenance and support costs.
- "An estimated 25 percent of additional staff time was routinely required to install and maintain open source-based systems”
- **Collaboration with other justice organisations:** Software applications received from other police departments had to be customised by the CSP IT staff in order to run in the FLOSS environment. (Integration and compatibility with other criminal justice agencies and community partners.)
- **Remote users:** Most officers were having extreme difficulty in filing reports from remote areas and had to return to their desks in order to do so.
- **IT:** The core service of police is not to extensively employ IT staff.
- **=> Migration off from OSS**: ”Decision was based purely on business needs. There were no ideological arguments about OSS”. Certain back-end applications remain in OSS because it has done a good job.

FINPRO

Content

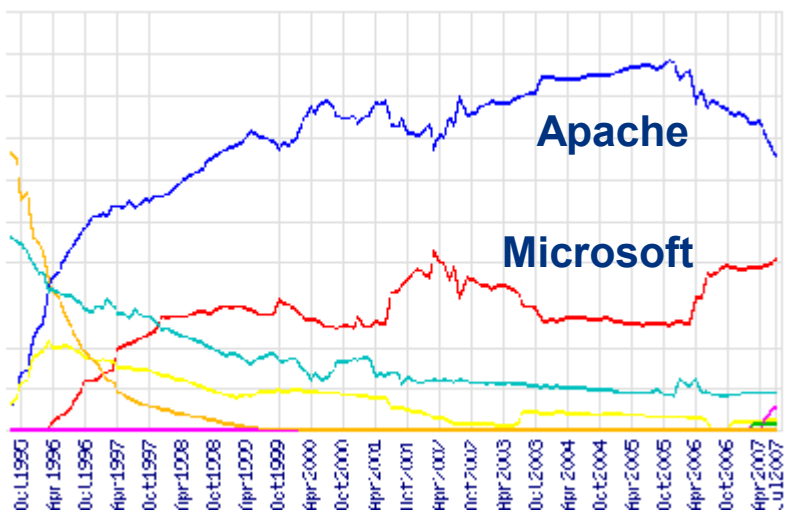
- Introduction
- Who developes, uses, what, where in Europe
- User/contributor case Alcatel
- Business models for OSS developers
- User case Central Scotland Police
- OSS market - growth and limitations
- Orixo – European OSS Business model case
- Zea Partners – European OSS Business model case
- European OSS market

FINPRO

Limits of OSS growth

- **COMMUNITY IS INTERESTED IN GROUND BREAKING PROJECTS** (=OSS mobile phone)
- **COMPLEX LICENSING** – hard to understand and manage
- **COST / BENEFIT ANALYSIS COMPLICATED**
  - **Proprietary software** cost is money – benefit the software
  - **OSS** cost is contribution to community + information to competitors – benefit is the free software + updates from community and competitors per infinity

Web server market share 1995 - July 2007



- **INFINITE THINKING LOOPS** Cost / benefit evaluation becomes easily infinite
- **IRRATIONAL DECISIONS** Human cost / benefit analysis becomes irrational as shown in many game theory experiments
- **FLOSS CAN EASILY REPLACE ONLY PACKAGED SW** Packaged proprietary software is 19% of the European software and 16% of the US software. Custom software (52% in Europe, 41% in the US) and in-house software (29% Europe, 43% US) cannot be replaced by FLOSS (they do not involve software licence fees that are the spending FLOSS typically eliminates)
- **COMMERCIAL COMPANIES MODIFY THEIR BUSINESS MODELS -** if company faces significant threat from OSS then one good strategy is to publish own OSS.
- **OWN PROPRIETARY IN-HOUSE SOFTWARE GIVES COMPETITIVE ADVANTAGE**

Limits of OSS growth - market considerations

- **BIG EUROPEAN COUNTRIES HAVE LOW UNIT COST OF SOFTWARE DELELOPMENT AND OTHER CONSIDERATIONS THAN COST THAT LIMIT USE OF OSS (FINNISH THINKING DOES NOT ALWAYS APPLY OUTSIDE FINLAND)**
  - ”Because own software development is very expensive one should use ready software and modules as much as possible”
    - ABROAD cost of software development per unit is 1/10th in large country – what can not be done in Finland becomes easily affordable in a large country.
    - ABROAD major companies consider in-house software as competitive advantage in business – it can not be given to public.
- **OSS HAS LOW PROCUREMENT COST – HIGHER SUPPORT COST**
- **PROPRIEATARY SOFTWARE HAS HIGH PROCUREMENT COST - LOWER SUPPORT COST**
  - OSS especially suitable where cost of work is low and money tight. This means public / publicly funded organizations and projects, less developed countries and regions, community projects, SMEs.
  - By definition this means that OSS is very important for Asia, Africa and Latin America and they may become leaders once use of computers expands
  - Cost structure attractive particularly in: Small countries and regions, small language groups, special needs groups, but in Europe these do not yield into high volumes.

FINPRO

Limits of OSS growth – license worries

- **Permissive license (BSD):** Worry: "…competitors turn it into proprietary."
- **Reciprocal license**: Worry: "…GPL contaminates company's own software development making all our software GPL"
- **Half-way license (MPL):** Worry: "Well, of course I'm willing to give you something back that we made for this client, but then everyone has it and can use it, but without them giving back their improvements on the thing I made."

Content

- Introduction
- Who developes, uses, what, where in Europe
- User/contributor case Alcatel
- Business models for OSS developers
- User case Central Scotland Police
- European OSS market - growth and limitations
- Orixo – European OSS Business model case
- Zea Partners – European OSS Business model case
- European OSS market

Orixo – European OSS Business model case

PRODUCT: MISSION-CRITICAL OSS SERVERS TO LARGE USERS Orixo network of SMEs in Belgium, France, Germany, Italy, UK and Switzerland specialize in massive mission-critical web server applications based around customizing the FLOSS web server Apache and related Java/XML technology (such as Cocoon) for large users.

- Partners in other countries supporting each other's clients.

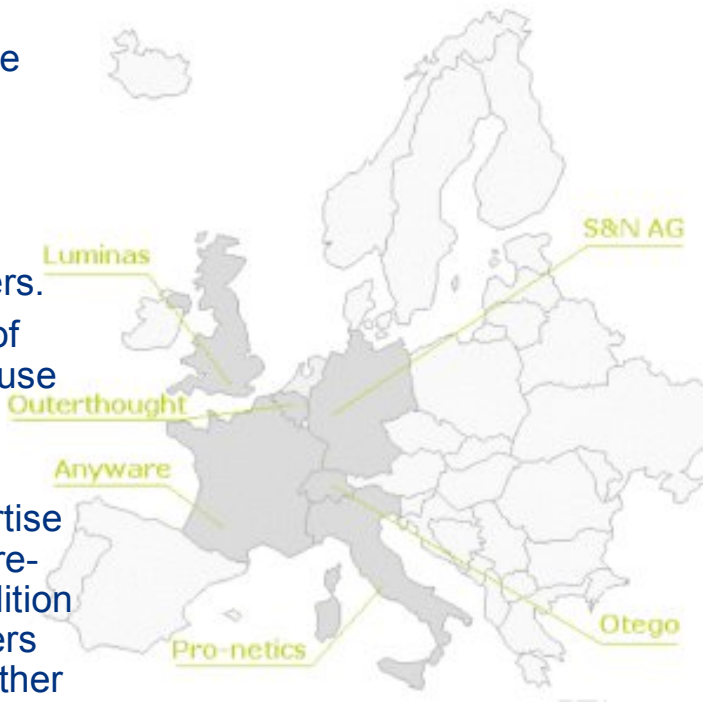
CLIENTS

VNUNet, large European online newswire services, serves 100 000 articles with 6 million pages downloaded each month. around six million page impressions a month. The conversion from old architecture took four months

BNL Corporate Banking, e-banking solution based on Apache Cocoon's RAD offering

Radiotelevisione Italiana & BBC, build FLOSS-based solutions for broadband and mobile media content servers.

BIOMED, scientific journals publisher, online collection of around 8000 medical, dental, and veterinary images for use in learning, teaching and research.



BENEFITS

This model allows each small firm to profit from its expertise for custom solutions, while drawing on a large base of pre-written software under FLOSS licences, and draw in addition on a large community of hundreds of individual developers spread around the world, including volunteers but also other similar small companies.

Zea Partners – European OSS Business model case

PRODUCT: CONTENT MANAGEMENT SYSTEM SERVER & SOFTWARE TO LARGE USERS can be used to build corporate web sites, news sites, extranet servers or intranet, publishing system and documents repository, groupware tool, e-commerce, etc.

- ZEA includes 16 SMEs from nine European countries as well as four non-European partners: from the US, South Africa, India and Argentina.

CLIENTS

eBay.com, Philips Research, London-based IMS, Oxfam America, ETH Zurich and the Rotterdam Police Department.

BENEFITS

ZEA provides promotion, training and coordination services as well as some degree of technical support to members, each of who specialize in their own application domains, and usually (but not necessarily) their own regions. Acting as a network makes it easier to approach large clients.

Content

- Introduction
- Who developes, uses, what, where in Europe
- User/contributor case Alcatel
- Business models for OSS developers
- User case Central Scotland Police
- European OSS market - growth and limitations
- Orixo – European OSS Business model case
- Zea Partners – European OSS Business model case
- European OSS market

European OSS market

FRANCE France is one of the most Open Source-intensive countries. Impressive **growth rate of 80%** in 2006, compared to +79% in 2005. The market is influenced by **public spending** where the 'ideological' aspect remains strong. The **private sector is becoming less and less of a dominant force**. Main growth is in Client workstations particularly Open Office projects, Portals and content management, Security, and STIE IT. There is lack of risk capital. In France, the **market is mainly dominated by service providers** such as Capgemini, Thales or Atos Origin who have to compound with the growing, smaller, more specialized players, such as SQLI, Devoteam or Bull.

GERMANY The enterprise market for Open Source software in Germany will grow from today € 131 million to € 307 million in 2007. While the **penetration** of Open Source software within German companies is today at 12% it will increase to 18% by end of 2005 and **to 24% by end of 2007.** Open Source **stronghold is the manufacturing industry** where already 18% of enterprises use Open Source software in a significant way. **In the future** however the **Public Administration** will be driving the growth. **Revenue sources are support services** for OSS followed by **training services**, **installation services**. Software pack-ages are the smallest part paying only about.

UK **public sector contracts are awarded on a value-for-money basis** but **less government emphasis**. Local government has **Open Source Academy project** that brings together local authorities. Large public sector organizations have tested with thousands on OSS desktop licenses but implemented mostly commercial software (healthcare 800.000 commercial desktops). **In private sector 50% have adopted** or planning to adopt OSS. 73% expect OSS to develop within their strategy over next five years. UK open source success story is Xen.

Le marché du logiciel libre en France