A study of the deployment of open source software – Finnish experiences from public and private sector

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‘’There is one thing that is stronger than all the armies in the world, and that is an idea whose time has come’’

Victor Hugo

What is Open Source?

1. Open Source
2. Open Content
3. Open Standards
4. Open Innovation
5. Open Access
6. Open Collaboration
7. Open Technologies
8. Open Hardware
9. Open Services
10. Open XXX

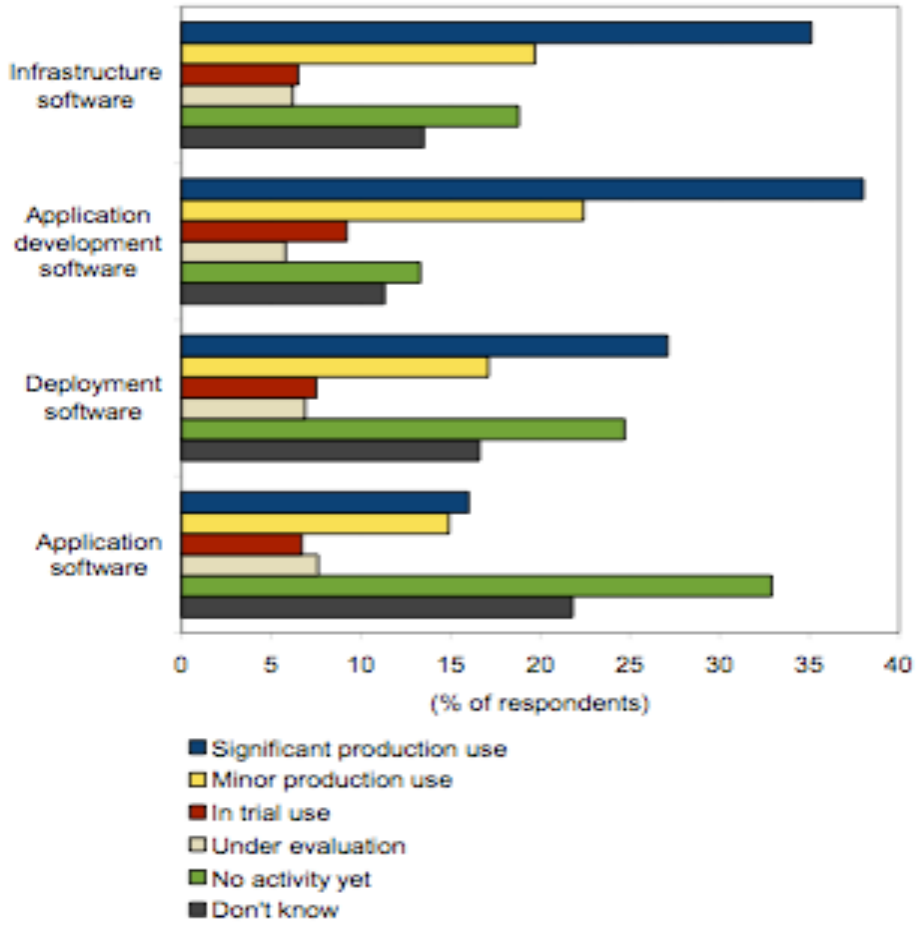
Free and Open Source Software

Source code for the software is always available, and the user of the software is licensed (always) to change and redistribute the software without fee, penalty or asking permission

FIGURE 2

Current Level of Open Source Software Adoption

Q. *Please indicate your organization's current level of adoption of open source software for each type of software (significant production use, minor production use, in trial use, under evaluation, no activity yet, don't know).*



Notes:

Unweighted n value for infrastructure software is 4,857; weighted n value is 4,832.

Unweighted n value for application development software is 4,864; weighted n value is 4,849.

Unweighted n value for deployment software is 4,842; weighted n value is 4,793.

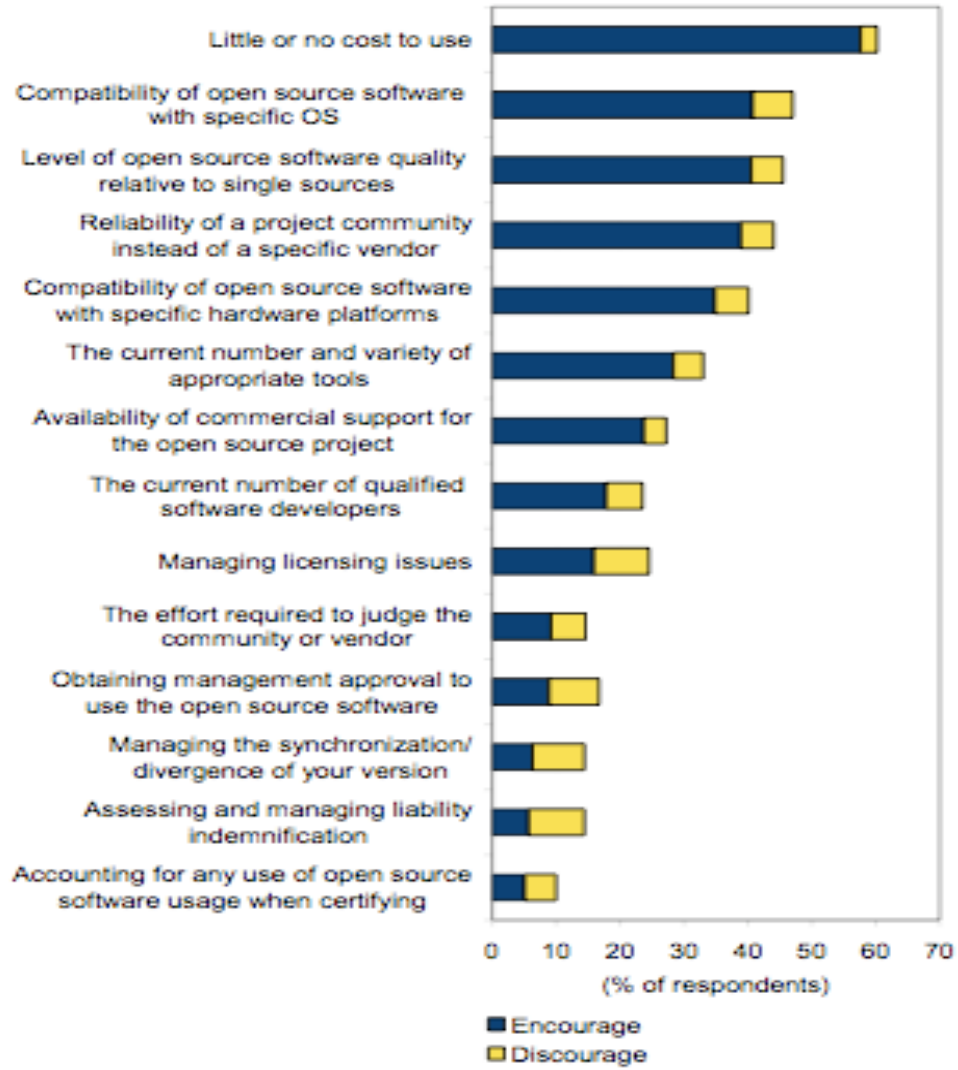
Unweighted n value for application software is 4,823; weighted n value is 4,792.

Source: IDC's *4Q05 Software Developer Network Collaborative Survey*

FIGURE 6

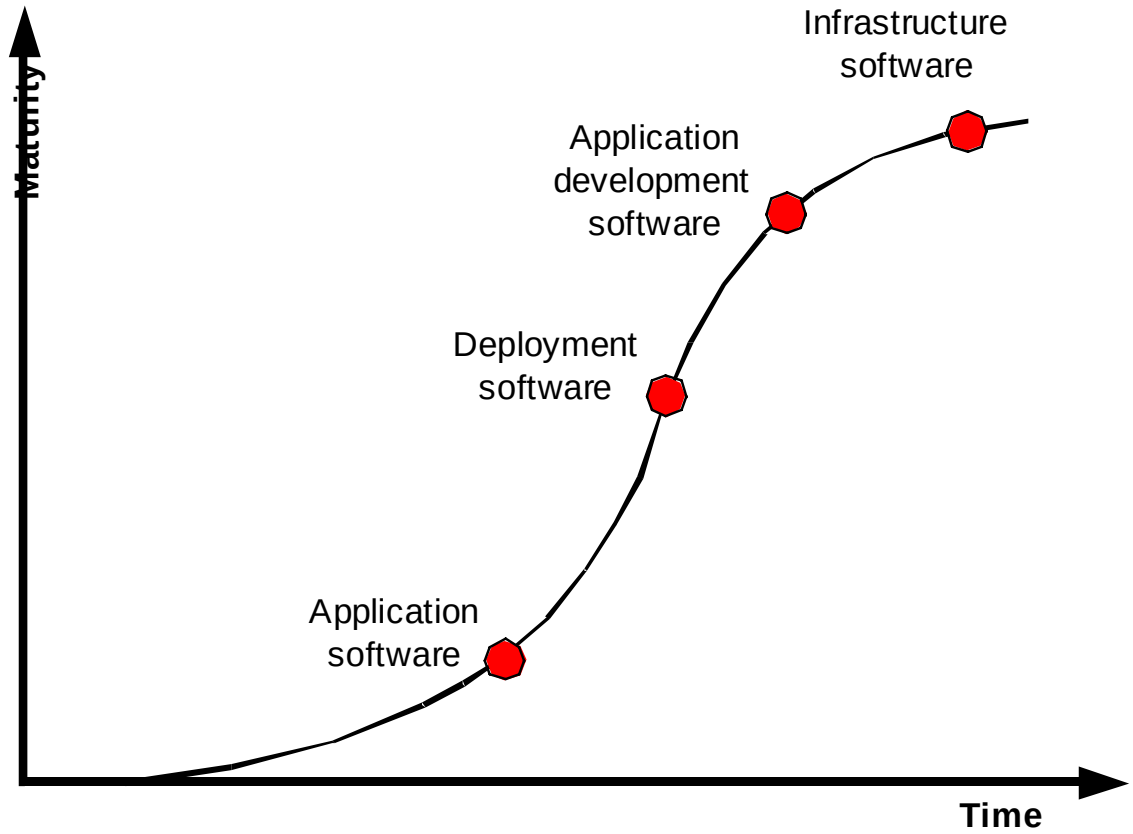
Factors Encouraging/Discouraging the Adoption of Open Source Software Among Worldwide Developers

Q. *In the context of your current work environment, does each issue in the following list encourage or discourage the use of open source software?*

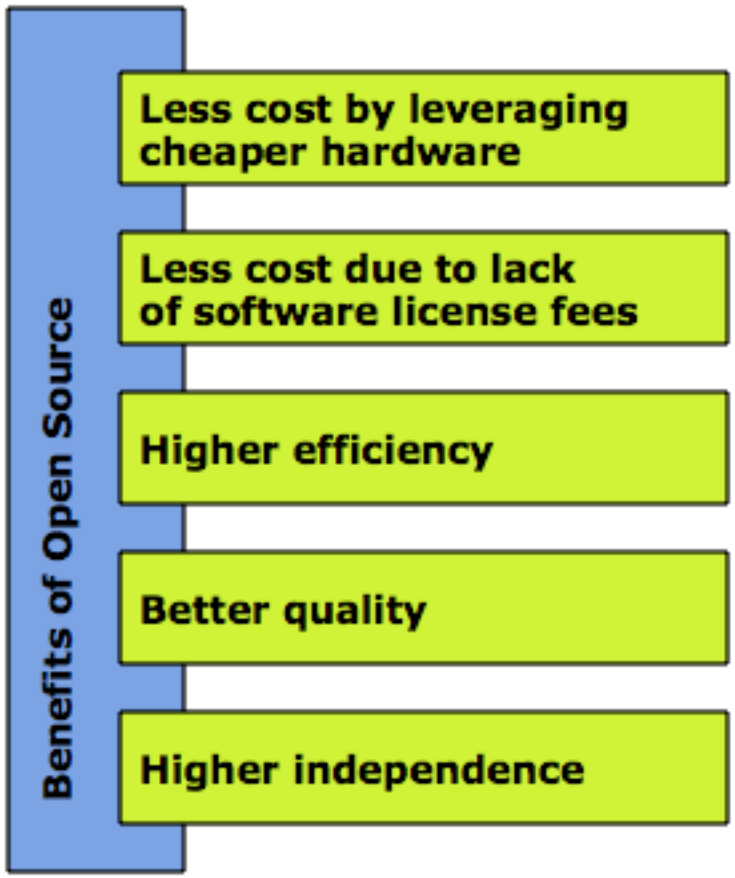


n = 2,815

Source: IDC's 4Q05 *Software Developer Network Collaborative Survey*


Maturity
Infrastructure software
Application development software
Deployment software
Application software
Time

The Benefits of Using Open Source Software and Components



Reasons

- Usage of commodity hardware (TCO)
- Better leverage of hardware resources (ROA)

- No software licence costs (TCO)
- Very competitive software maintenance and support market (TCO)

- Availability of skills and people (Cost)
- Platform for development (Value)

- Collaborative software development process (Cost/Value)
- Full access to software code (Value)

- No vendor lock in
- Non monopolistic approach
- Standard compliance

The Finnish View-Private sector

The Research Institute of the Finnish Economy surveyed the usage of open source among Finnish software companies . Companies using open source replied that 50% of their revenues is based on open source (32% in 2003 and 16% in 2000). The top three reasons for using open source were:

1) Independence from large IT-companies licensing and pricing policies,
2) Possibility for a small company to stay innovative, and
3) The use of open source lowers production costs in new products.

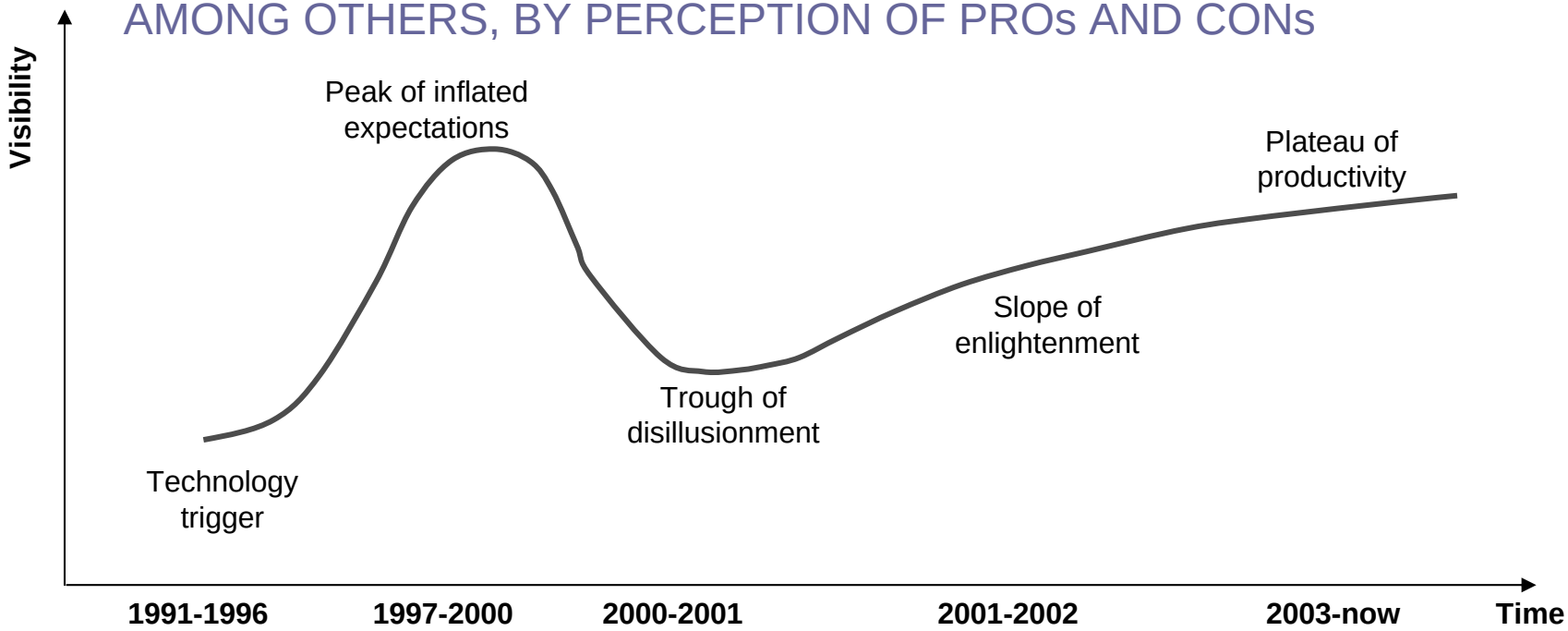
The Finnish View-Public sector

It should be also noted that there have been some large-scale adoptions, which have not been really publicized, especially in Ministry of Labor and Finnish Meteorological Institute. Also, the Finnish army is using open source products in its IT-infrastructure but the exact details are (not surprisingly) public.

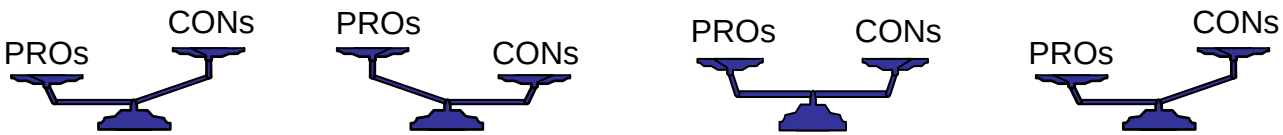
The National Technology Agency has taken a more pro-active position . They are proposing a R&D development program for the years 2006-2010, with a 120 million Euros budget with one of the key areas being the development of open-source based technologies and products

LINUX HYPE CYCLE HAS BEEN GUIDED,

AMONG OTHERS, BY PERCEPTION OF PROs AND CONs



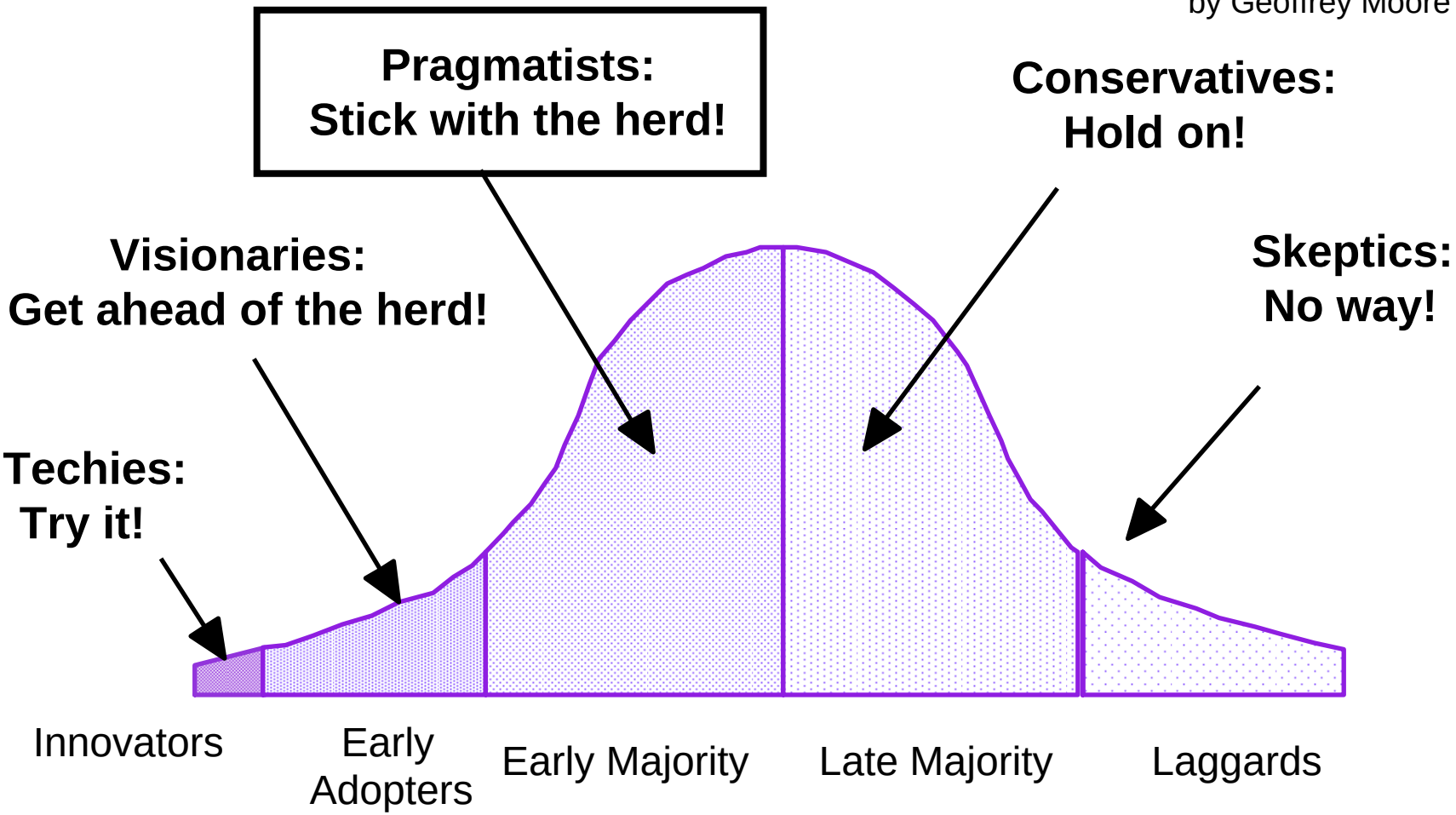
PROs & CONs in the press ?



Source: Gartner ; Novell ; Press clippings ; SaS analysis

Governing Model
Technology Adoption Life Cycle

by Geoffrey Moore



Pragmatists create the dynamics of high-tech market development!!

IT Stack (Guy Smith)

The entire IT stack can now be commoditized. With little effort a commodity stack can be deployed for 95 percent of all IT buyers. If you think this is an absurd view, ponder for a moment what has already happened to most of the stack:

Servers: Giants like e*Trade, Amazon, Yahoo, Google, and others are using x86 and x64 servers on everything except database hubs, and even those are targets for eventual replacement with massive multi-core x64 boxes. Little guys are using x86 servers universally.
Operating systems: For new deployments, it is either Windows or Linux, and Linux - along with Microsoft's tardiness on Vista - has caused Microsoft server sales to stagnate. Linux was born a commodity, and remains such.
Application servers: When Apache instantly dominated the Web server market, and started chipping away at the Java server market, once-mighty competitors started reeling.

IT Stack (Guy Smith)

Application development: With IT shops highly favoring Web-based application development for new projects, we see PHP, Perl and other Open Source systems replacing proprietary tool sets (what was the last 4th GL you sold?)

Databases: Oracle and IBM have retreated to the high ground, and gone as far as offering free versions of their DBMSs to low-end users, in an attempt to forestall adoption of commodity database systems like MySQL, PosgreSQL, and others.

Applications: The last refuge of high margin software is coming under attack in segments like CRM (SugarCRM, Compiere, OpenSourceCRM), ERP (Compiere, ERP5, OpenMFG), messaging and collaboration (SendMail, PostFix, Open-Xchange, Astrisk), verticals (MedSphere, OpenEMed, OpenClovis) and horizontals (Open Office, Plone, Zope).

Established & Emerging Companies Rely on MySQL (LAMP) - Which is Powering the Net and Google and the Next Googles'

- **High Volume Websites**
  - Web 2.0
  - Dynamic content
  - eCommerce
  - "Look to Book"
  - Session Management
  - Gaming & entertainment
  - Scale Out
- **Enterprise**
  - Data Warehousing
  - High-Volume OLTP
  - Scale Out
- **Embedded**
  - Bundled in software applications & hardware components

Becoming Microsoft (Bruce Perens)

Prospective software entrepreneurs are often asked: *how are you going to be the Next Microsoft?* And those who base a business upon Open Source are asked: how are you going to be the next Microsoft with *Free* software? But this isn't the right question if our goal is to achieve an *improvement* over the Microsoft model. It reflects the fact that most people have been thinking about software from an *extremely vendor-centric viewpoint.* Whether or not we will admit it, most of us are very impressed with Microsoft's wealth and arrogance, and when we think of producing software, we automatically think of Microsoft and the way *they* do it. But it turns out that the Microsoft model accounts for only a *minority* of the software that is made and used in business today. Around 30% of the software that is written is *sold as software*[2]. Most software is not sold at all. It is developed directly for its customer, by the customer's own employees or by consultants who bill for the *service of software creation* rather than for the end product.

The Finnish View

1) Public debate is similar to what is taking place internationally.
2) Open source is growing in importance in Finland's private sector as companies' are increasingly basing their business on it.
3) Finland seems to be taking an aggressive approach into building new open source based businesses through new government grants and training programs in 2006, even as there are still only early indications as to how sustainable and profitable open source businesses will be as there are only few companies that have managed to find and execute profitable business models in open source.

The Finnish View

4) Finland's public sector has so far tried open source desktop applications in small scale, that the impact and potential cost issues of larger deployment can only be estimated.
5) Finland's public sector is reluctant to test new software environments as a user until conclusive evidence about its benefits can be seen elsewhere.
6) While open source has gained a lot of ground in the public sector on the server side, desktop applications still have long way to go to reach popularity that would threaten the popularity of applications of Microsoft's etc.

As a comparison, the United States has defined its defense organization (DoD) to take in a way a selfish approach to software acquisition; firstly they look after their own interests and secondly at the interests of the U.S. domestic software industry.

The Future -Analysts View 1/3 (Gartner)

- OSS will not destroy industry giants, such as IBM and Microsoft, but it will revolutionize software markets by moving revenue streams from license fees to services and support.

- In doing so, it will be a catalyst that restructures the industry.

- By 2008 95 percent of Global 2000 organizations will have formal open-source acquisition and management strategies; and, OSS applications will directly compete with closed-source products in every software infrastructure market.

- By 2010, IT organizations in Global 2000 companies will consider open-source products in 80 percent of their infrastructure-focused software investments and 25 percent of their business software investments.

The Future -Analysts View 2/3 (IDC)

IDC Reveals the Real Impact of Open Source: Sustaining Innovations and Extending the Useful Life of Software Assets

FRAMINGHAM, Mass.--(BUSINESS WIRE)--Aug. 14, 2006--According to a newly released IDC study, the open source software phenomenon has spread far beyond Linux and is gaining enormous momentum. The study, which analyzed IDC surveys from over 5,000 developers in 116 countries, finds that developers worldwide are increasing their use of open source. The study declares that open source software represents the most significant all-encompassing and long-term trend that the software industry has seen since the early 1980s. IDC believes that open source will eventually play a role in the life-cycle of every major software category, and will fundamentally change the value proposition of packaged software for customers.

The Future -Analysts View 3/3 (IDC)

"The use of open source beyond Linux is pervasive, used by almost three-quarters of organizations and spanning hundreds of thousands of projects," said Dr. Anthony Picardi, senior vice president of Global Software Research at IDC. "Although open source will significantly reduce the industry opportunity over the next ten years, the real impact of open source is to sustain innovations in mature software markets, thus extending the useful life of software assets and saving customers money."

The study finds that of the 5,000 survey respondents, open source software is being used by 71% of the developers in the world and is in production at 54% of their organizations. In addition, half of the global developers claim that the use of open source is increasing in their organizations.

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