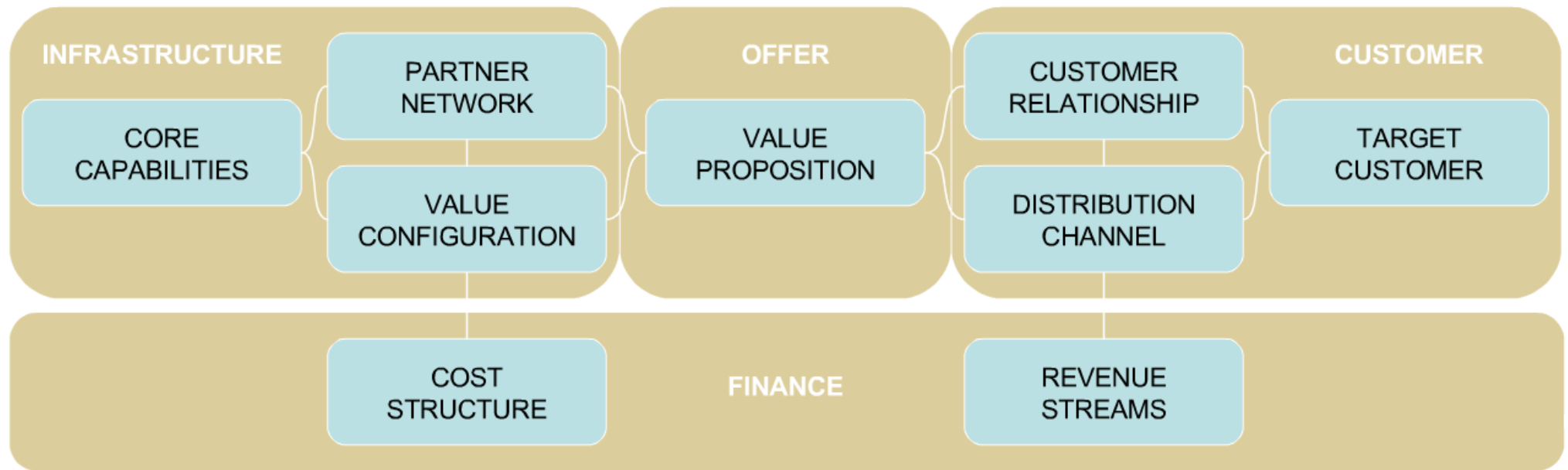# Business Model

- A **business model** is a framework for creating economic, social, and/or other forms of value. The term business model is thus used for a broad range of informal and formal descriptions to represent core aspects of a business, including purpose, offerings, strategies, infrastructure, organizational structures, trading practices, and operational processes and policies

- Osterwalder proposed a synthesis of different conceptualizations into a single **reference model** based on the similarities of a large range of models, and constitutes a **business model design template** which allows enterprises to describe their business model

Business Model

Business Model

- **Infrastructure**
  - *Core capabilities*: The capabilities and competencies necessary to execute a company's business model
  - *Partner network*: The business alliances which complement other aspects of the business model
  - *Value configuration*: The rationale which makes a business mutually beneficial for a business and its customers
- **Offering**
  - *Value proposition*: The products and services a business offers. Quoting Osterwalder (2004), a value proposition "is an overall view of .. products and services that together represent value for a specific customer segment. It describes the way a firm differentiates itself from its competitors and is the reason why customers buy from a certain firm and not from another."

Business Model

- **Customers**
  - *Target customer*: The target audience for a business' products and services
  - *Distribution channel*: The means by which a company delivers products and services to customers. This includes the company's marketing and distribution strategy
  - *Customer relationship*: The links a company establishes between itself and its different customer segments. The process of managing customer relationships is referred to as customer relationship management
- **Finances**
  - *Cost structure*: The monetary consequences of the means employed in the business model
  - *Revenue*: The way a company makes money through a variety of revenue flows

FLOSS Business Models

- Open source software can be sold and used for commercially

- The **financial return** on open source software can also come from **selling services**, such as training and support, rather than the **software itself**

- The use of **dual-licensing** provides an offer of the software under an open source license but also under separate proprietary license terms

- Customers can be attracted to a no-cost and **open source edition**, then be part of an up-sell to a **commercial enterprise edition**

- Customers will learn of open source software in a company's portfolio and offerings but generate business in other proprietary products and solutions, including **commercial technical support contracts and services**

- Another possibility is offering open source software in **source code form only**, while providing **executable binaries to paying customers only**

FLOSS Business Models

- Some companies, provide the **latest version available only to paying customers**

- Companies provide proprietary extensions, modules, plugins or add-ons to an open source package

- Sometimes a commercial version may be sold to finance the continued development of the free version

- Examples

  - Red Hat offers the **Fedora** for free through the Fedora Project, while selling **Red Hat Enterprise Linux** (RHEL)

  - Novell offers **openSUSE** for free, while selling **SUSE Linux Enterprise**

  - Sun Microsystems offers **OpenSolaris** for free, while selling **Solaris**. They also offer **OpenOffice.org** for free, while selling **StarOffice**

  - Apple Inc. offers **Darwin** for free, while selling **Mac OS X**

FLOSS Business Models

- Francisco Burzi offers **PHP-Nuke** for free, but the **latest version is offered commercially**

- **Ingres** is offered for free, but **with a subscription you can get services & support**. The Ingres Icebreaker Appliance is also offered as a commercial database appliance

- **MySQL** is offered for free, but **with the enterprise version you can get subscription, support and additional features**

- The closed source edition of **VirtualBox** (free to use for home-users) **must be bought by companies to be used** (but there is also an open-source version that can be used by anyone)

- Mozilla Foundation have a partnership with Google and other companies which provides revenue for inclusion of search engines in **Mozilla Firefox**

- Linspire, Inc. offers **Freespire** for free, while selling **Linspire**

Business Strategy

FLOSS Business Models

Subscription Feature/Benefit	MySQL Community Server	MySQL Enterprise Platinum
Software		
Open Source MySQL Server	Yes	Yes
Benefits from testing by worldwide Community	Yes	Yes
Extensive internal/external (Coverity, KLOCwork) testing		Yes
Automated Software Update Alerts		Yes
Technical Alerts		Yes
Monthly Rapid Update Service Pack Program		Yes
Quarterly Service Pack Program		Yes
Benchmarked with 2,000+ connections		Yes
Hot Fix Program		Yes
Bug Escalation Privilege		Yes
Support		
Online Knowledge Base		Yes
24x7 Production Support		Yes
Consultative Support		Yes
Extended End-of-Life Policy		Yes

FLOSS Business Models

	Liferay Portal Standard Edition	Liferay Portal Enterprise Edition
Target Audience	Early adopters and developers focused on contributing to a highly innovative project	Businesses or organizations that require a stable, hardened, and professionally supported version of Liferay Portal
License	MIT Open Source license	Commercial license
Technology	Bleeding-edge technology	Hardened, cutting-edge technology
Release interval	Approximately every 8 months	After every SE release, once it's been hardened through QA and testing
Testers	Developer community	Liferay, partners
Updates & Patches	Minor releases until next major release	Minor releases, updates, and patches via a web-based Update Repository
Support	Community support (Message Boards, Wiki, Blogs, etc.)	4 different levels of long-term professional support
Network	Community network	Community network and Customer Network
Update Lifetime	Until next major release	4 years
Price	Free	Annual Subscription with 4 different support options

Business Strategy

FLOSS Business Models

	Alfresco Enterprise Edition	Alfresco Labs
Recommended for	Corporations, Governments and other organizations looking for a production-ready open source ECM solution	Developer, Highly Technical Enthusiast. Non-Critical Environments
Primary Benefits	Stable, Reliable, Certified, Supported Application with Warranty, Indemnity with the Support of Alfresco and its Certified Partners	Bleeding Edge Technology Released Early and Often. Daily Changes with SVN Access
Development Model	100% Open Source	100% Open Source
Certification	Stress Tested Certified Build Commercial and Open Source Stack Certification Scalability Certification High-Availability Cluster Certification	None

Business Strategy

FLOSS Business Models

	Alfresco EnterpriseNetwork	Alfresco Community
Support	SLA - Gold or Platinum Call Tracking Issue Escalation Upgrade Support	Community Forums Community Forums Tracking
Upgrade & Maintenance	Service Packs Upgrades & Upgrade Support	None
Bug Fixing & Tracking	Bug Tracking and Fixing Bug Fix Patch Distribution Back-Port Patch Support	None
Product Knowledge	Quick Start and Expert Documentation Comprehensive Knowledgebase * Automatic Bug and Check-In Tracking *	Wiki, Tech Tips, Content Community
Update Information	Alfresco Enterprise News Feed Alfresco Enterprise Calendar	Alfresco Community News Feed Alfresco Community Calendar
Certified Training	Developer and Administrator Courses	Alfresco in an Hour
Certified Partner Support	Yes	No
Consulting & Professional Services	Yes	No
Licensing & Subscription	Annual Subscription Commercial Support	GPL
Indemnity & Warranty	Alfresco	None
Trial	Alfresco Enterprise Edition Download Trial Alfresco Enterprise Edition SaaS Trial	Alfresco Labs Download
Trial Support	Alfresco Enterprise Network Trial Support	Alfresco Community Forums

FLOSS Business Models

- Open source software is widely used for **private and non-commercial applications**. In addition, **many commercial organizations use open source frameworks, modules, and libraries inside their proprietary, for-profit products and services**

- Since GNU and some other open source licenses stipulate that derived works must distribute their intellectual property under an open source (**copyleft**) license, **legal and technical mechanisms have been developed to accommodate vendors' commercial goals**:

  - A **dual-license model**, where a code base is published under a traditional open source license and a commercial license simultaneously. Vendors typically charge a perpetual license fee for additional closed-source features, supplementary documentation, testing, and quality, as well as intellectual property indemnification to protect the purchaser from legal liability

FLOSS Business Models

– **Functional encapsulation**, where **an open source framework or library is installed on a user's computer separately from the commercial product**, and the commercial product uses the open source functionality in an "arm's length" (one indipendent from the other) way (under the argument that **the commercial product was shipped without the open source library**, even though it uses it). Vendors typically **charge a perpetual license fee for the functionality that they provide under closed source**, as they usually don't provide services or other direct value for the open source elements

– A **software as a service model**, under the argument that the vendor is charging for the services, not the software itself (because the software is never shipped to customers or installed on their computers). Vendors typically charge a monthly subscription fee for use of their hosted applications

FLOSS Business Models

- – Not charging for the software, but only for the **support, training, and consulting services** that assist users of the open source software. Vendors typically charge an **annual fee for support, per-student fees for training, and per-project fees for consulting engagements**

- Looking at the landscape of open source applications, many of the larger ones are sponsored (and largely written) by system companies such as IBM and Sun who **may not have an objective of software license revenues**. Their motivation tends to be more strategic, in the sense that they **are trying to change the rules of a marketplace** and reduce the influence of vendors such as Microsoft

- In the case of smaller vendors doing open source work, their objectives may be **less "immediate revenue growth"** and **more "developing a large and loyal community",** which may be the basis of a corporate valuation at merger time
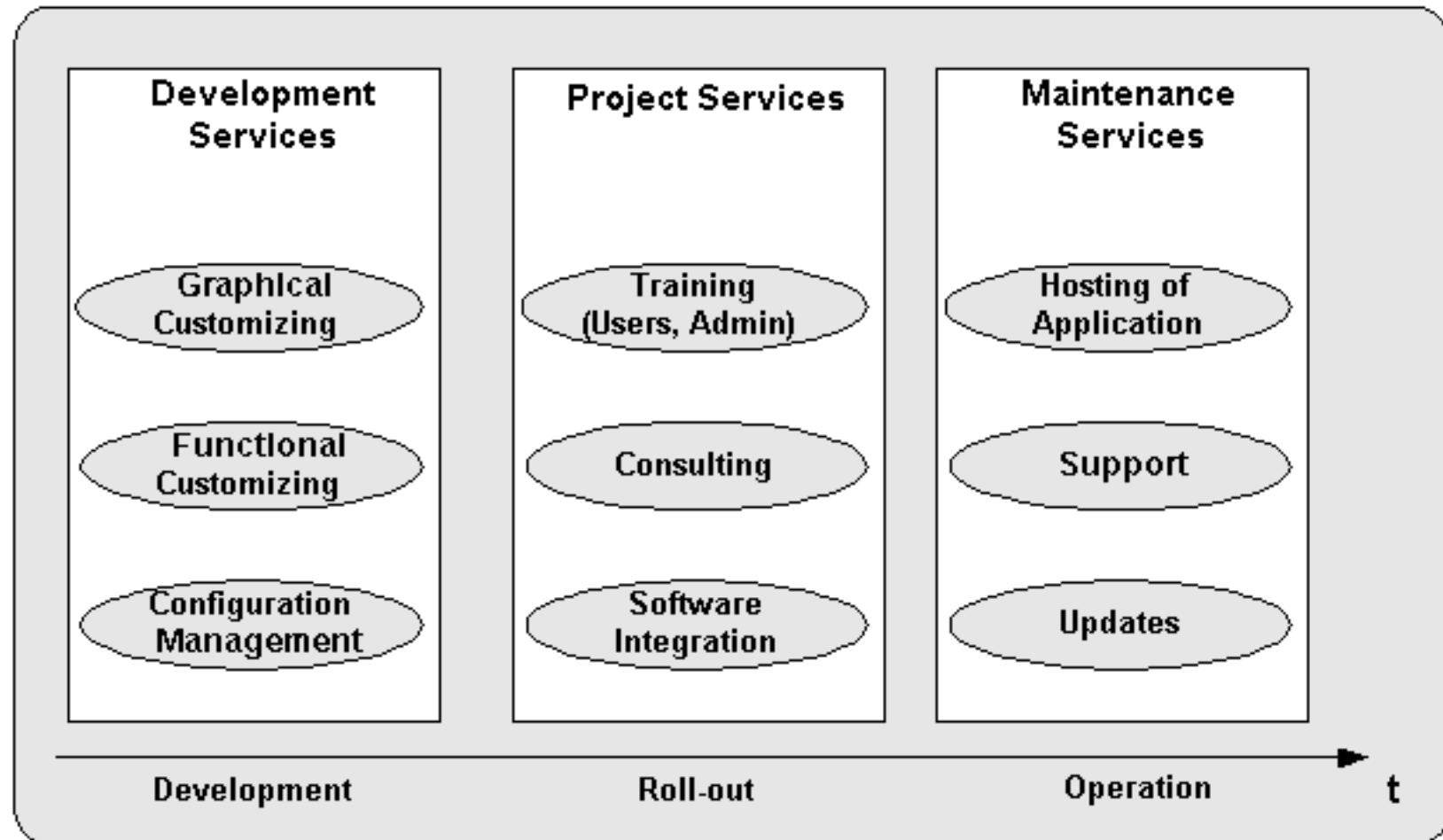
FLOSS Business Models

- There is not a large amount of literature available about FLOSS business models, but one possibility is to rely on **FLOSS success stories to identify them**:
  - Sell technical support services
  - Distribute software
  - Fund the projects using donations
  - Build and sell hardware and software configurations
  - Release proprietary versions of the software
  - Release proprietary add-ons, components
  - Dual licensing software
  - Offer each new version of a software only to paying customers

FLOSS Business Models

- **Sell technical support services**

FLOSS Business Models

Most of FLOSS projects offer **community-based support services** via several communicaton instruments, like **mailing lists**, **forums**, **web-sites**. This kind of support service is usually completely **free of charge**, clearly. Along with it, many industries offer **"professional" support** behind **payment of a fee**. These are commonly referred as **enterprise support services**

- **Distribute software**

Linux distribution, a real instance of the software distribution, usually refers to a distribution of software that includes:

- − The Linux kernel. This is the core of the operating system
- − A complete set of applications and user space tools. Most of them are coming from the GNU foundation project
- − Home-made tools and scripts. Usually a packaging systems, boot and init scripts, system configuration tools and patches to third parties software

FLOSS Business Models

The most popular Linux distributions:

- Offer a free download of the whole distribution. This includes downloading the sofware in binary and source forms

- Offer CDs and DVDs of the distribution charging a fee for it

Some other producers/distributors also offer particular versions of the distribution that are available only to paying customers

- **Fund the projects using donations**

  Funding the project with donations is a common way to bring money needed to support developers and further development of open source and free software projects. This is a business model that is best suited to those **communities consisting of volunteers**, but it can also apply and work well with big commercial communities. Funding via donations is something regulated by national laws

FLOSS Business Models

The Mozilla foundation has always used a donation business model. Money earned was always used for two main actvities:

- support the development
- advertising and dissemination initiatives

Volunteer donations are just one of the incoming voices. The Mozilla foundation in fact brings atention and receives donations from some leading industries to support the development of the Firefox Browser. Google Inc., for instance, funded the Firefox development with 180 millions of dollars distributed over a range of three years

FLOSS Business Models

- **Build and sell hardware and software configurations**

  It is possible to distinguish several options here:

  - A software producer that resells hardware coming with the software installed
  - A hardware producer selling the hardware with some software preconfigured on it

  In the **first category** fall all those software producers that distribute their products either as a stand-alone option or pre-installing it on a given hardware solution. It is possible to separately **sell services and technical support** or purpose a full pack including hardware, configuration and technical support. The added value is given by:

  - Installation and configuration services
  - Technical supporting
  - Ad-hoc hardware configurations

Business Strategy

FLOSS Business Models

The **second category** is constituted by hardware producers and vendors **shipping their own products with open source and free software**. Such companies are gaining a **big share of market**: if in the beginning it was a niche market targeted at "hackers" and very experienced people, it is now clear that most of average experienced people like to get products that work well but at the same moment having a large amount of control over them. Many big companies distribute networking devices with open source and free software firmwares preinstalled. The widespread popularity of embedded devices for professional use and entertainment is a very big share of market. Some fields of endeavour:

- Networking devices: routers, managed switches, firewalls
- Mobile devices: smart phones, PDAs, handhelds
- Entertainment devices: audio and video players and recorders, cameras, video cameras, TV set-top boxes

FLOSS Business Models

- **Release proprietary versions of the software**

  This is a simple business model where original software is modifed, features are added or bugs are fxed, and then the resulting software is released under the terms of a proprietary license

- **Release proprietary add-ons, components**

  This business model implies selling a component (a plug-in or an extension) under a commercial proprietary license, charging a fee for the license and/or its distributon. The definition of "component" could be something like "a piece of a larger work"

- **Dual licensing software**

  Dual licensing is becoming a popular business model in the Open Source and Free Software context. The same code base is released under two different licenses

FLOSS Business Models

On one hand under a free software license, the GNU GPLv2; on the other hand under the terms of a commercial proprietary license. The first makes the code **free for everyone to be downloaded and used, modifed and distributed**. The later is instead **available only to paying customers**. Paying customers gets guarantees that community users do not get. The dual licensing models **may have issues**. **Until one owns the copyright of the source code, there are no problems with dual licensing it**. But what happens when someone, a third part, contributes some code? This contribution will be published under the terms of the GPL, the contributor is the copyright owner. Can this contribution be merged into the code and then licensed under a commercial proprietary license without any permission or revenue for the contributor? This point is still unclear and, in the doubt, contributors are required to give the copyright back to the company

Business Strategy

FLOSS Business Models
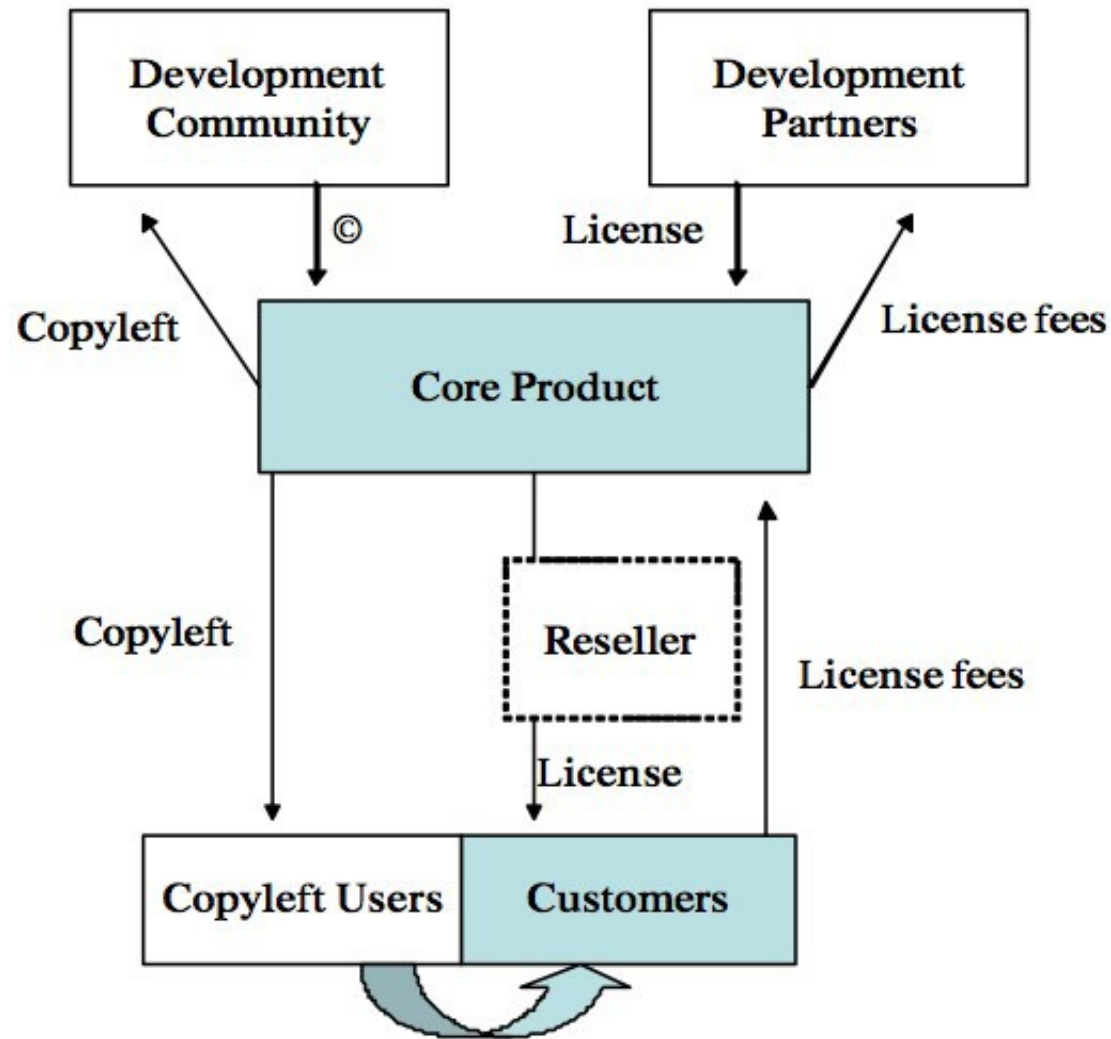
FLOSS Business Models

With the commercial license, the customer has the possibility to develop customizations, apply modifications and extend the software without having to release the source code, thus making all the modifications proprietary software

- **Offer each new version of a software only to paying customers**

  A viable model is offering a new software product, released under a free and open license, **for a limited range of time behind the payment of a fee**. This can be worked out in two ways:

  - Customers can **subscribe a plan** (pay for a membership) with which they get products as soon as they are released. The membership can expire after a certain number of months. The products, after some months from the release, will be widespread and accessible to anyone (even not paying users)

  - Customers can buy the product as soon as it is released. The same product will be distributed for free after some time

The impact of Free/Libre/Open Source Software on innovation and competitiveness of the European Union (Brussels, January 15, 2007)

- FLOSS applications are **top rung products** in terms of market share in several markets
- The existing base of quality FLOSS applications with reasonable quality control and distribution **would cost firms almost Euro 12 billion to reproduce internally**. This code base has been **doubling every 18-24 months** over the past eight years
- The notional value of Europe's investment in FLOSS software today is Euro 22 billion (36 billion in the US) representing **20.5% of total software investment** (20% in the US)

FLOSS Impact

- While the US has an edge in large FLOSS-related businesses, **Europe is the leading region in terms of globally active FLOSS software developers, and leads in terms of global project leaders**, followed closely by North America
- FLOSS-related services could reach a **32% share of all IT services by 2010**, and the FLOSS-related share of the economy could reach 4% of European GDP by 2010
- Though FLOSS provides ample opportunities for Europe, it is threatened by increasing moves in some policy circles to support regulation that **seeks to protect old business models** of creative industries, making it harder to develop new ways of doing business

FLOSS Impact

- Substitution / production cost for Debian collection of FLOSS applications

Code base collection	Debian 3.1 FLOSS distribution (2005)
Source lines of code	221.351.503
If Debian was written in a software company…	
Estimated effort	163.522 person years
Development cost estimate (till 2005)	Euro 11.9 billion
Development cost estimate (till 2010)	Euro 100 billion

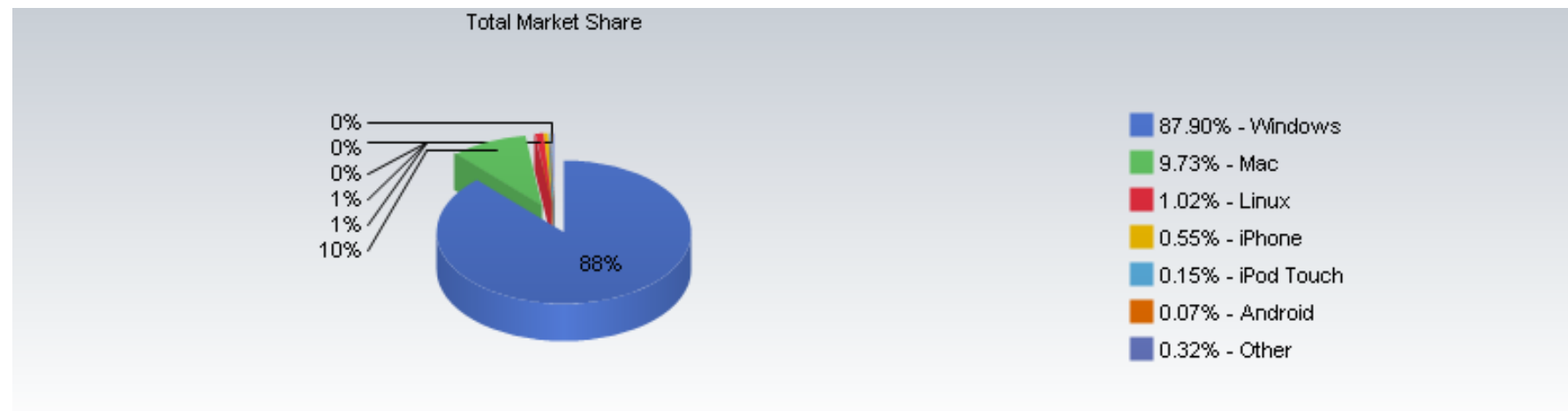- Substitution / production cost for Debian collection of FLOSS applications

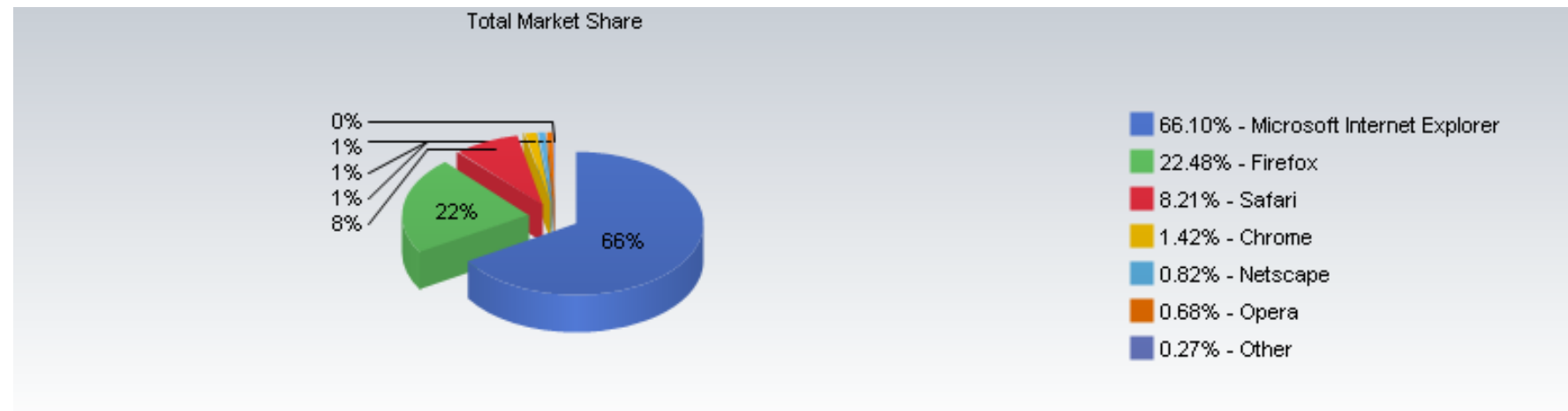| Software package	Lines of code	Months	Person-months	Cost (million Euro)
openoffice.org	5.181.285	130	79.237	482
kernel-source-2.6.8	4.033.843	160	145.036	882
mozilla (firefox)	2.437.724	87	25.339	154
gcc-3.4	2.422.056	113	54.048	329
xfree86	2.316.842	90	27.860	169

FLOSS Impact

- The market for FLOSS is accelerated by the following factors:

    - Availability of high-quality software

    - Low cost and low barrier to entry

    - Availability of customisation and local support services

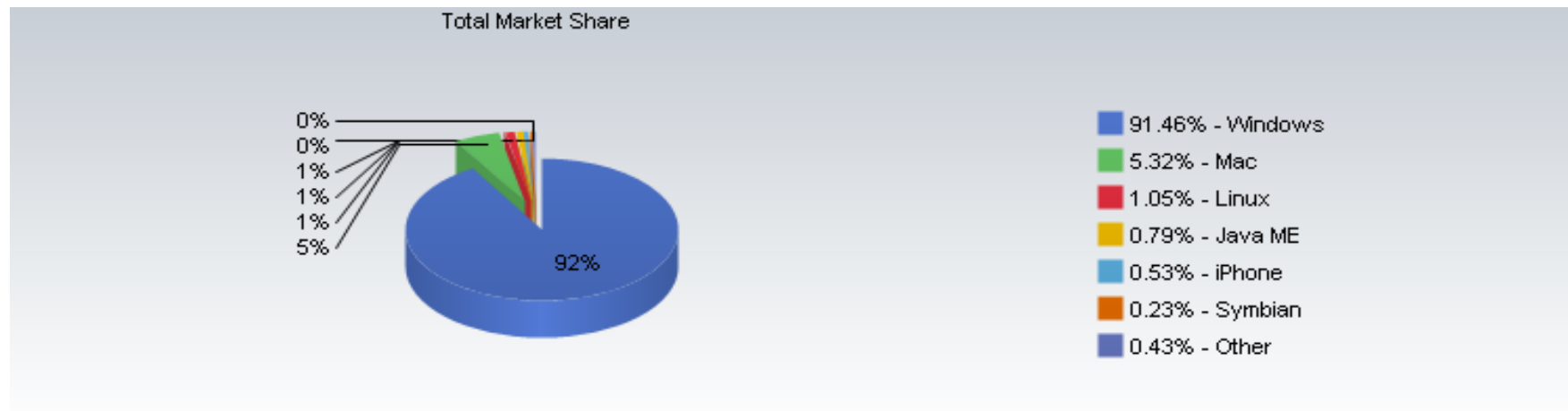   - Vendor independence and flexibility
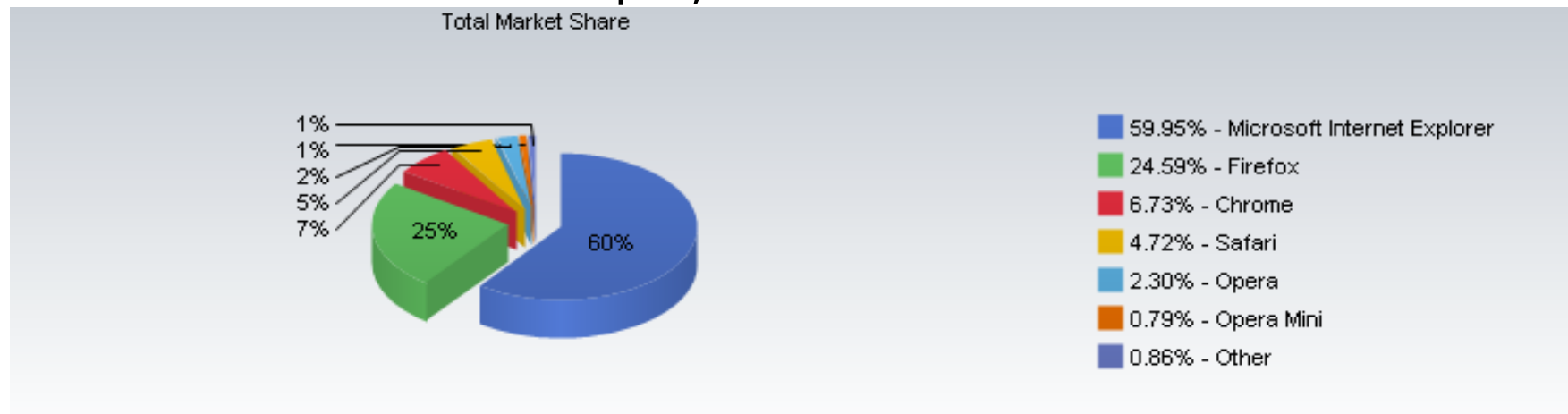
Operating System Market Share - April, 2009

Total Market Share

- 87.90% - Windows
- 9.73% - Mac
- 1.02% - Linux
- 0.55% - iPhone
- 0.15% - iPod Touch
- 0.07% - Android
- 0.32% - Other

0% / 0% / 0% / 1% / 1% / 10% / 88%

Browser Market Share - April, 2009

Total Market Share

- 66.10% - Microsoft Internet Explorer
- 22.48% - Firefox
- 8.21% - Safari
- 1.42% - Chrome
- 0.82% - Netscape
- 0.68% - Opera
- 0.27% - Other

0% / 1% / 1% / 1% / 8% / 22% / 66%

Operating System Market Share - April, 2010

Total Market Share

- 0%
- 0%
- 1%
- 1%
- 1%
- 5%
- 92%

- 91.46% - Windows
- 5.32% - Mac
- 1.05% - Linux
- 0.79% - Java ME
- 0.53% - iPhone
- 0.23% - Symbian
- 0.43% - Other

Browser Market Share - April, 2010

Total Market Share

- 1%
- 1%
- 2%
- 5%
- 7%
- 25%
- 60%

- 59.95% - Microsoft Internet Explorer
- 24.59% - Firefox
- 6.73% - Chrome
- 4.72% - Safari
- 2.30% - Opera
- 0.79% - Opera Mini
- 0.86% - Other

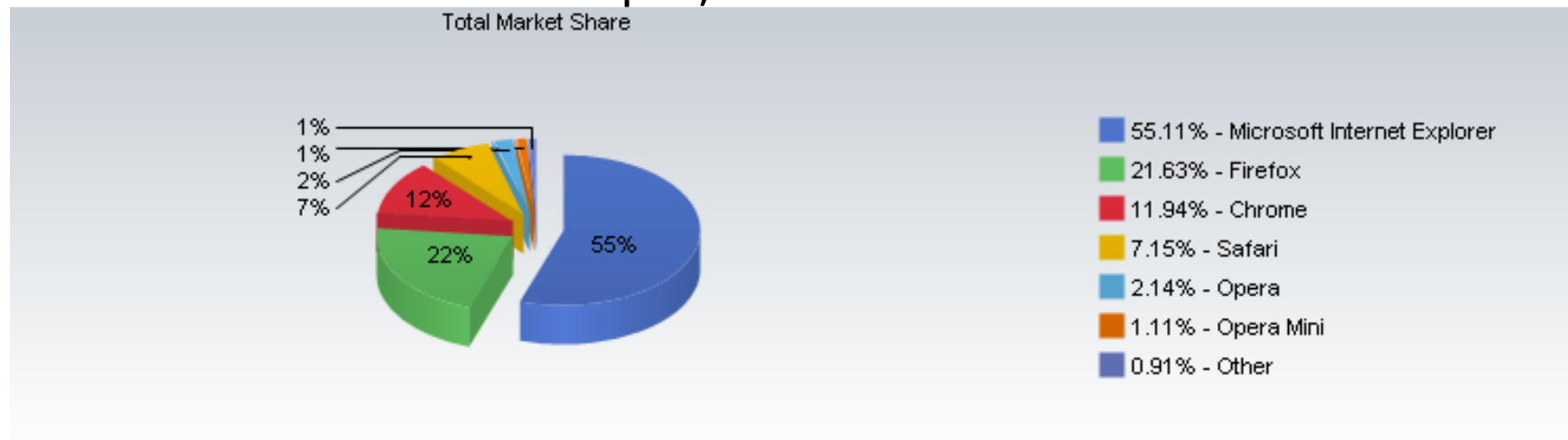*Business Strategy*

Operating System Market Share - April, 2011
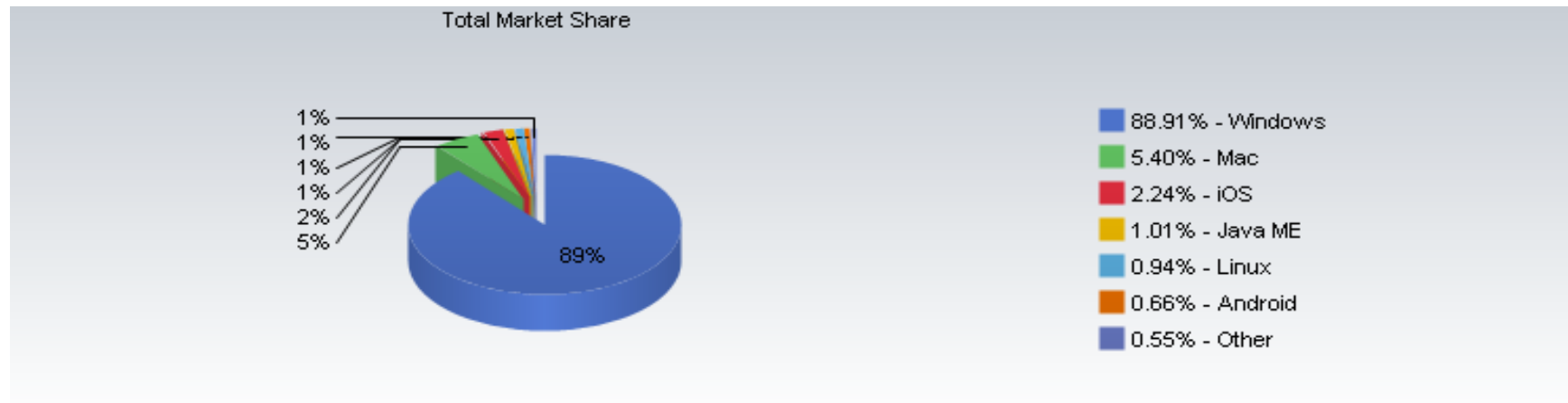
Browser Market Share - April, 2011

News from the Market

- May 5, 2009 - SpringSource, the company behind the popular Spring framework for Java, has acquired infrastructure management toolmaker Hyperic. The move will expand SpringSource's Java offerings and allow the company to provide a more comprehensive open source stack. SpringSource's core business revolves around selling an enterprise version of the Apache-licensed Spring framework, but the company has been steadily expanding its reach. Last year, SpringSource acquired G2One - the company behind the Java-based Groovy programming language - and Covalent, a company that provides support for Apache's Tomcat application server. SpringSource recently launched its own enterprise version of Tomcat and touts itself as one of the leading contributors to the project

News from the Market

- April 30, 2009 - The Eucalyptus project, which aims to provide open source infrastructure for cloud computing, is growing beyond its university roots and is heading straight for enterprise data centers. The key developers behind the project have launched a company with the intent of commercializing the technology, and have received $5.5 million in venture capital funding to get them started

- March 27, 2009 - Linux vendor Red Hat's latest earnings report indicates that the company's total annual revenue has grown 25 percent over the previous year, to $652 million. The company's success has led analysts to speculate that it might be a hot target for an acquisition

Business Strategy

News from the Market

- April 21, 2010 - Canonical's **330 employees are responsible for maintaining, supporting and selling service** for Ubuntu, an open-source version of the Linux operating system for servers, desktops and computer manufacturers. Some **120-150 of the Canonical employees contribute directly to the new releases** of the software that come out every **six months**, and most of the company's revenue comes from **supporting enterprise server customers and makers of computers that want to put Ubuntu on desktops**. Consumers also download the software, but **few pay Canonical for support. The company is not yet profitable**. Shuttleworth believes that in order to develop a strong business model around an open approach, one has to create an open option early, ideally through a strong standardization process and one also needs to have a lot of different open-source projects fighting it out.

Business Strategy