

# Linux and the Low Cost PC Market

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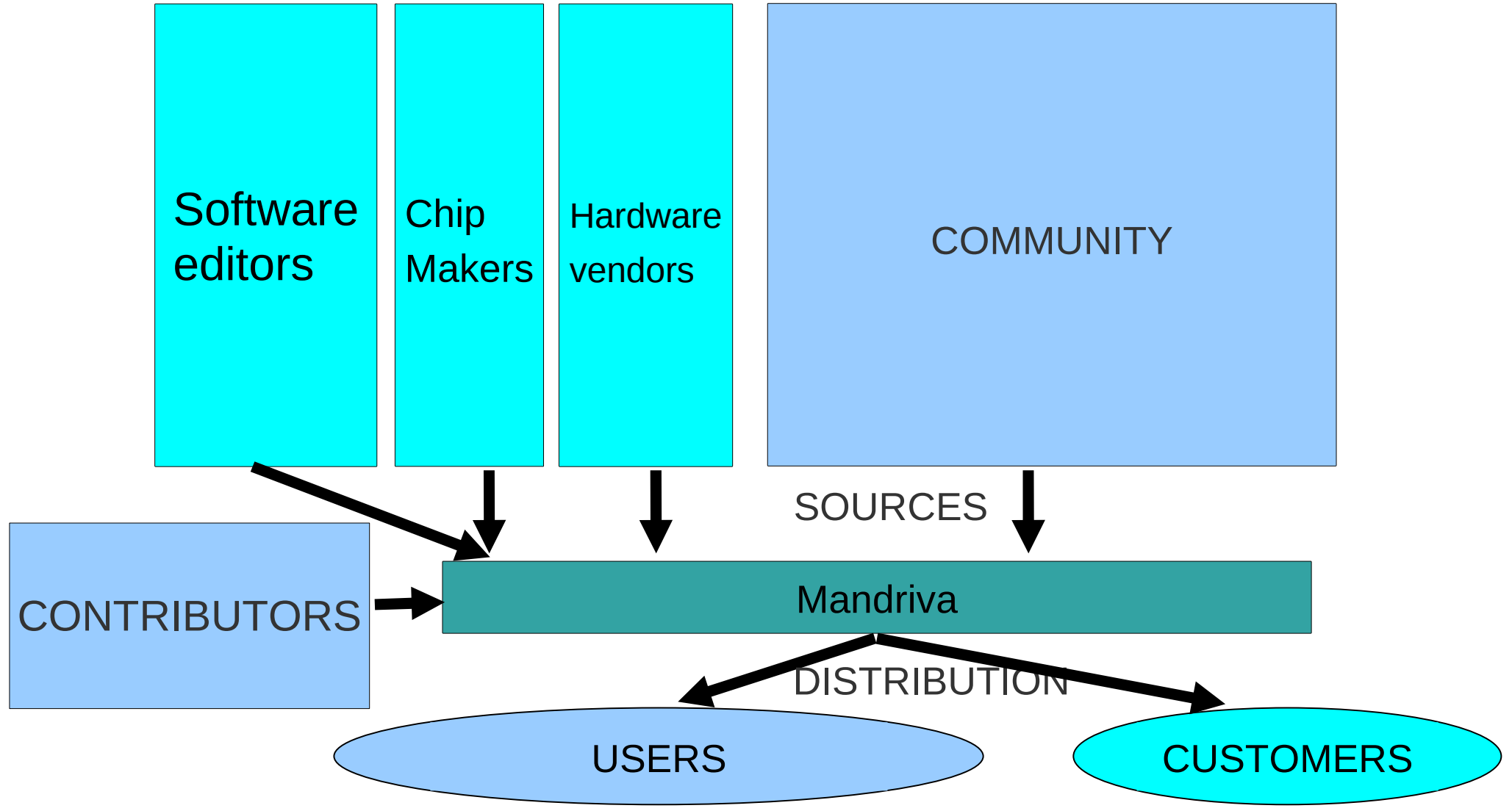
## Mandriva facts

- One of the few global Linux editors
- The only European one
- Traded on Euronext Marché Libre
- Founded 1998
- Offices in France, Brazil & US
- Active in France, Poland, Russia, Angola, Nigeria, Korea, Brazil, Argentina, etc.
- Technology innovator: major r&d projects funded by the European Union
- Strong partnerships: Intel, HP, STMicroelectronics, Skype, Adobe, etc.
- Business model based on the Open Source and Free Software principles

## Mandriva figures

- **500 contributors on Cooker**
  - strongly supported by the community
- **1,600 shareholders**
- **One million community members registered**
- **45 employees in France, 35 in Brazil**
- **Selling in 150 countries**
- **product translated in 80 languages**
- **2-3 million downloads of each new versions**
- **hundred of thousand of pre-loaded machines sold annually**
- **hundreds of corporate customers**
- **25 franchisees worldwide**

# Mandriva's job



# Mandriva: 3 Business Units

- **Corporate**
  - **Enterprise products**
    - Client and Server Linux Distributions
    - Administration tools for large numbers of machines
  - direct sales
- **OEM/ODM**
  - Linux distro pre-loaded on PCs
  - agreements with OEMs and ODMs
- **Community**
  - Mandriva Linux
  - Giving and selling Linux to Linux users
  - e-commerce and retail stores

## Success story examples

- **2-3 Millions downloads for each new version**
- **Management of 90 000 desktops for a large administration**
- **Management of 18 000 desktops for online betting point of sales**
- **Angola**
  - training and Angolinux deployment
- **Nigeria**
  - 11 000 Mandriva based Classmate PC
- **Brésil**
  - 40 000 machines under Mandriva sold monthly by Positivo

# LCPC Market



# LCPC

- **OEM/ODM market structure**
- **BRIC market**
- **LCPC drivers**
- **Early LCPCs**
- **LCPCs to UMDs**
- **Example**

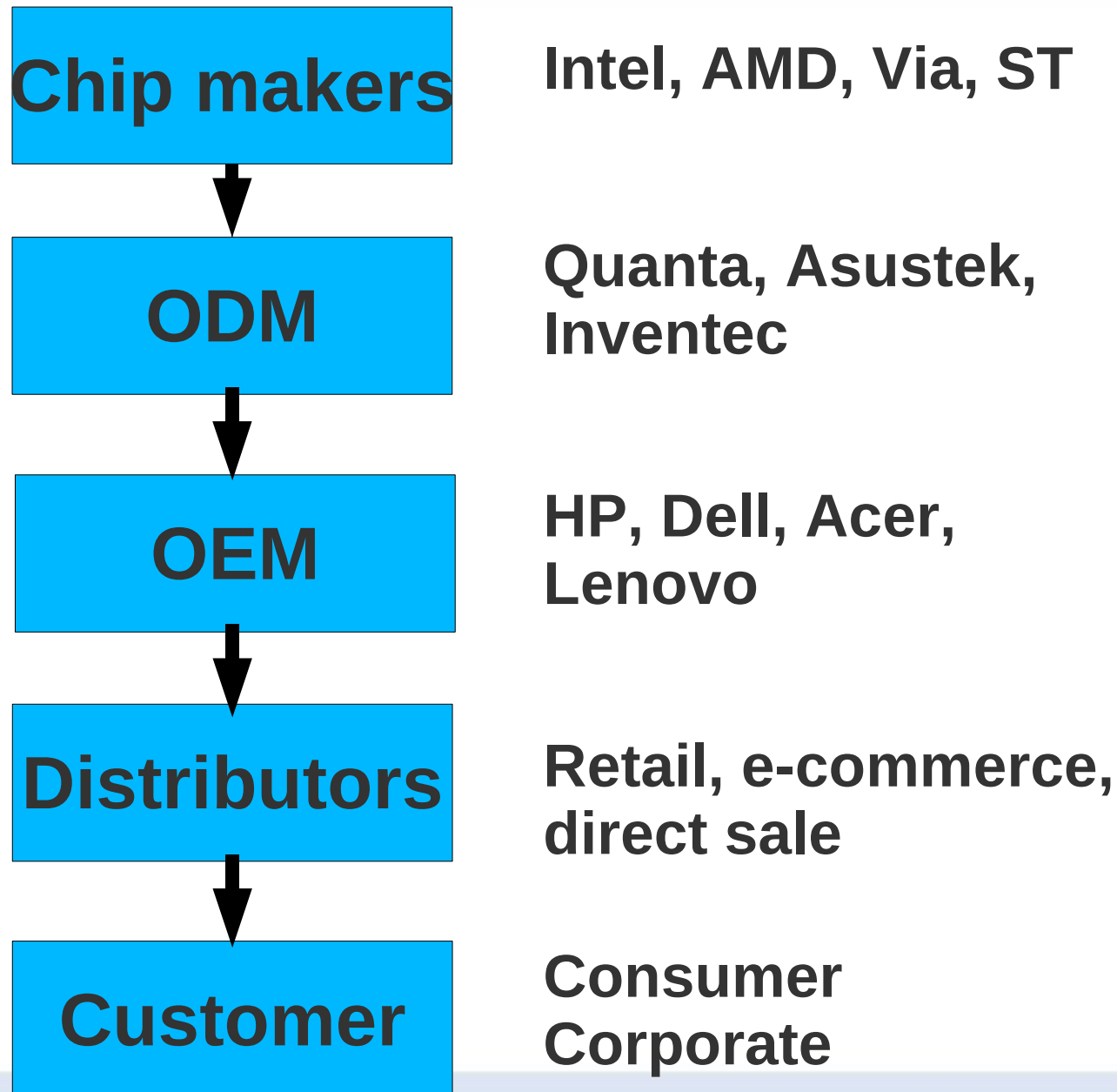
## OEM market

- **Original Equipment Manufacturer**
- **270 M PCs in 2007 (13% CAGR)**
- **300 M forecast for 2008 (Gartner)**
- **4 key players (OEM)**
  - HP
  - Dell
  - Acer
  - Lenovo
- **Today, OEMs design and manufacture less than 18% of their production**
- **In 2010, less than 8%**
- **OEMs focus essentially on marketing and sales**
- **OEM assets are brands and distribution network**

## ODM market

- **Original Design Manufacturer top 5**
  - Quanta
  - Compal
  - Asustech
  - Wistron
  - Inventec
- **\$100MM market size in 2006**
- **highly concentrated (top 5 is 60% of top 25)**
- **5-6% gross margin**
- **Headquartered in Taiwan, manufacturing in greater Shanghai**
- **Double digit growth**
- **Focused on PCs, mainly laptops**

# Supply Chain



## BRIC market: size

	<b>Population (millions)</b>	<b>Per Capita Annual Income (K\$)</b>	<b>Annual Growth</b>
<b>Brazil</b>	170	9	6%
<b>Russia</b>	143	10	4%
<b>India</b>	1000	3	7%
<b>China</b>	1300	6	11%
<b>France</b>	60	29	2%

## BRIC market: equipment rate

	<b>PC (Millions)</b>	<b>Internet Users (Millions)</b>
<b>Brazil</b>	11	14
<b>Russia</b>	13	20
<b>India</b>	6	18
<b>China</b>	25	79
<b>France</b>	21	22

# Internet Café, Beijing



## LCPC drivers

- **Emerging market growth**
  - BRIC, Asia, Africa, Middle East
  - more and more clients can pay
- **Industry productivity**
  - Moore's law
  - Volume production
  - Laptop components standardization
- **Price sensitivity**
  - When prices go down a new category of customer can access the product
- **Government funded programs to bridge the digital divide**
  - Brazil, Venezuela, Argentina, Nigeria, Angola, etc.

## LCPC

- **Announces a low price (\$200 or 200€)...  
...but could sell for much higher**
- **In emerging markets: shipping, procurement and import taxes are an issue**
- **small good quality screen, good connectivity (wifi, USB, external drive, etc.), small but decent keyboard, no hard drive but external drives, fun gadgets**

# Early LCPCs



**XO**



**Asus EEE**



**Classmate**

# XO

- **Negroponte's dream**
  - he thought he could change the industry
- **« one laptop per child »**
- **great marketing and PR**
- **popularized the concept**
- **came up with pioneering technologies**
- **the \$100 computer costs \$200**
- **not yet operational**

## Classmate PC

- Intel designed (and well designed)
- launched as a competitor to the XO
- sturdy and cute
- targeting the education market
- available from several ODMs
- who sells it?
- initially available only in emerging market
- soon to be available in Europe

## Asus EEE

- **Very well designed**
  - **I want it!**
- **Not limited to emerging markets**
- **In Q4 2007, the most sought for object on the Internet**
- **Asus can't produce them fast enough**
- **They plan 5M in 2008**
- **New releases coming now**

# From LCPC to UMD: the Logan syndrom



## From LCPCs to UMDs

- **In emerging markets**
  - LCPC is a real machine people can afford
- **In developed nations**
  - UMD is a cool object, targeting the impulsive buyer

## It's only a beginning

- **2007**
  - 200 000 Classmate PCs
  - 300 000 Asus EEE
  - OLPC ?
- **2008: 13M unités (ODM association)**
- **2009 ?**
- **And we will see dozens of competing machines**

## Why Linux on an LCPC or UMD?

- **Price**
  - on a \$200 machine, hard to finance \$40 of software
- **Power**
  - on a low end machine, hard to put power hungry software
- **Openness**
  - small markets require specific customization, therefore open software
  - emergence of local eco-system require open software

## Who will sell LCPCs and UMDs?

- **Direct access to ODMs is now a real possibility for new players**
- **Telco operators**
- **Retail channel owners**
- **Distributors**
- **Government organizations**
- **Device integrators**
- **etc.**

## Example

- **STMicroelectronics produces the Longsoon**
  - a MIPS based chip, available only with Linux
- **Mandriva produces the Linux Distro for the chip**
- **Dexxon produces the Gdium**
  - for the LCPC market
  - for the UMD market

# Evolution

- **One billion PCs on earth today**
- **The next billion will go predominantly to emerging markets**
- **That next billion will be predominantly under Linux**
- **This means hundreds of millions of Linux desktops**