



Cybercom Poland Sp. z o.o.

The impact of IT on Business



Piotr Ciski
Managing Director

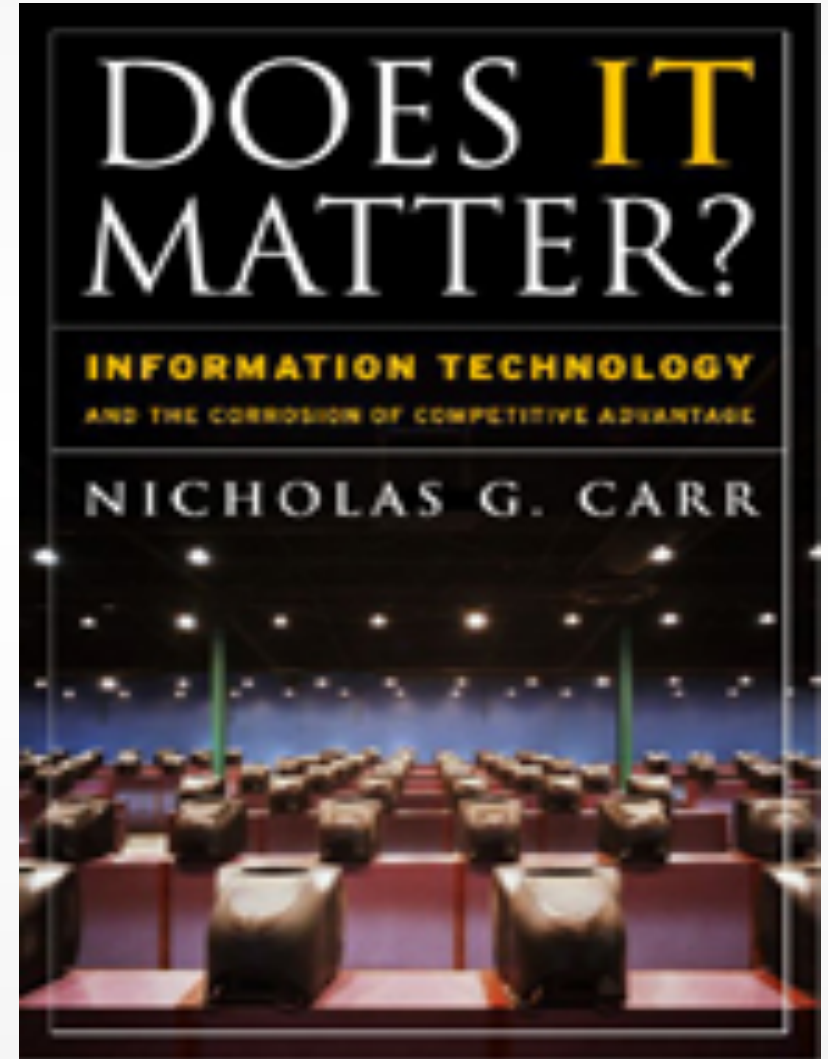


- **Does IT offers us competitive advantage?**
- **IT Revolution**
- **New trends**
 - **Open Source**
 - **Cloud Computing**
 - **SaaS**
- **World goes Mobile**



Harvard Profesor Nicholas G. Carr

Published as article in HBR





**“Taking shower every day guarantee
business success “**





taking shower every day guarantees business success

“

Definitely “Not”

but can we give up taking showers?



- **Hygienic factors**

- Known to everyone

- Standard

- but you still need to have them to achieve efficiency and to stay in line with your competitors

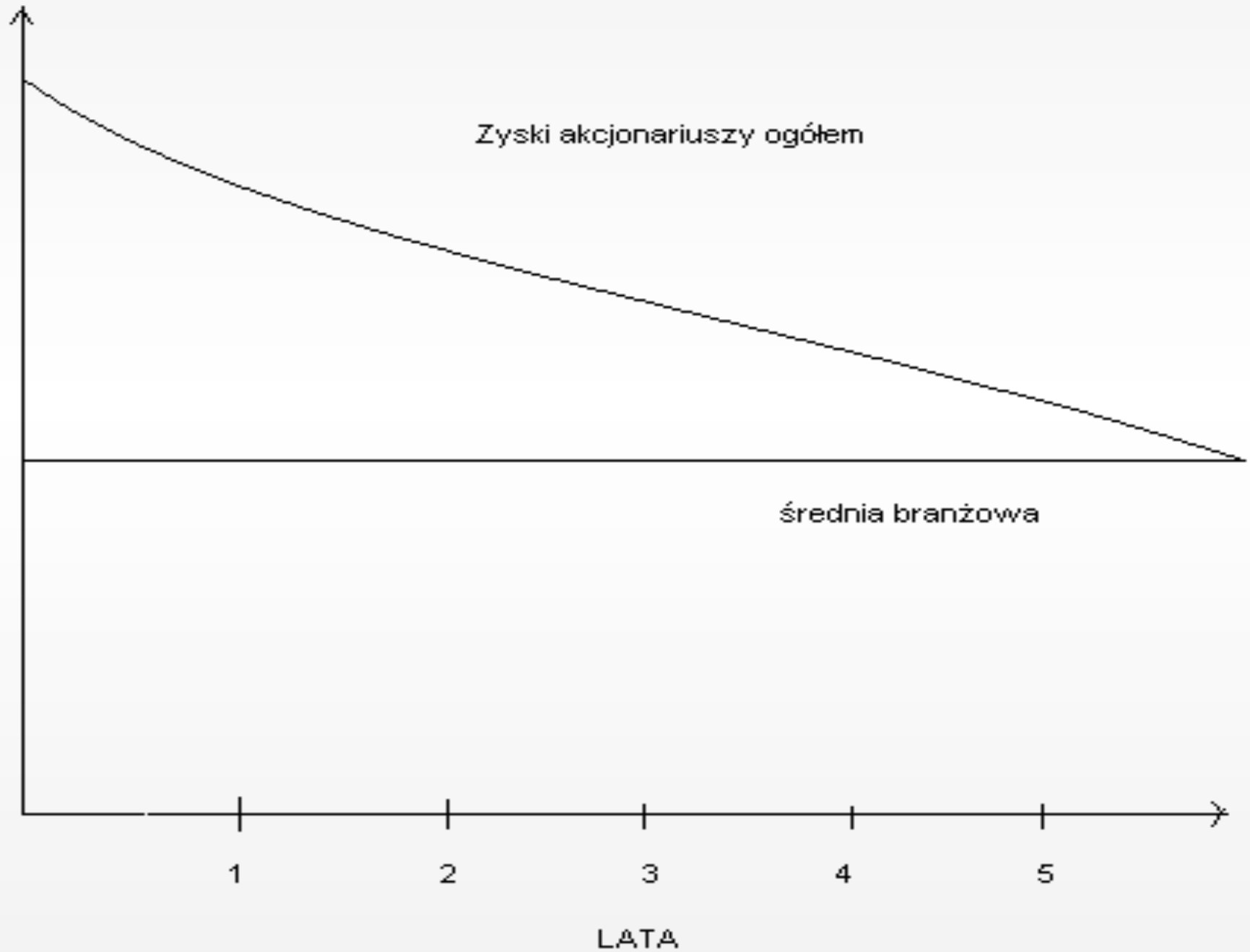
- “*it* takes all the running you can do to keep in place!”

- **Strategic factors = “scarcity”**

- Innovative, customised solutions combined with organisational adaptation



Regression of champions to average in the industry takes 3-7 years



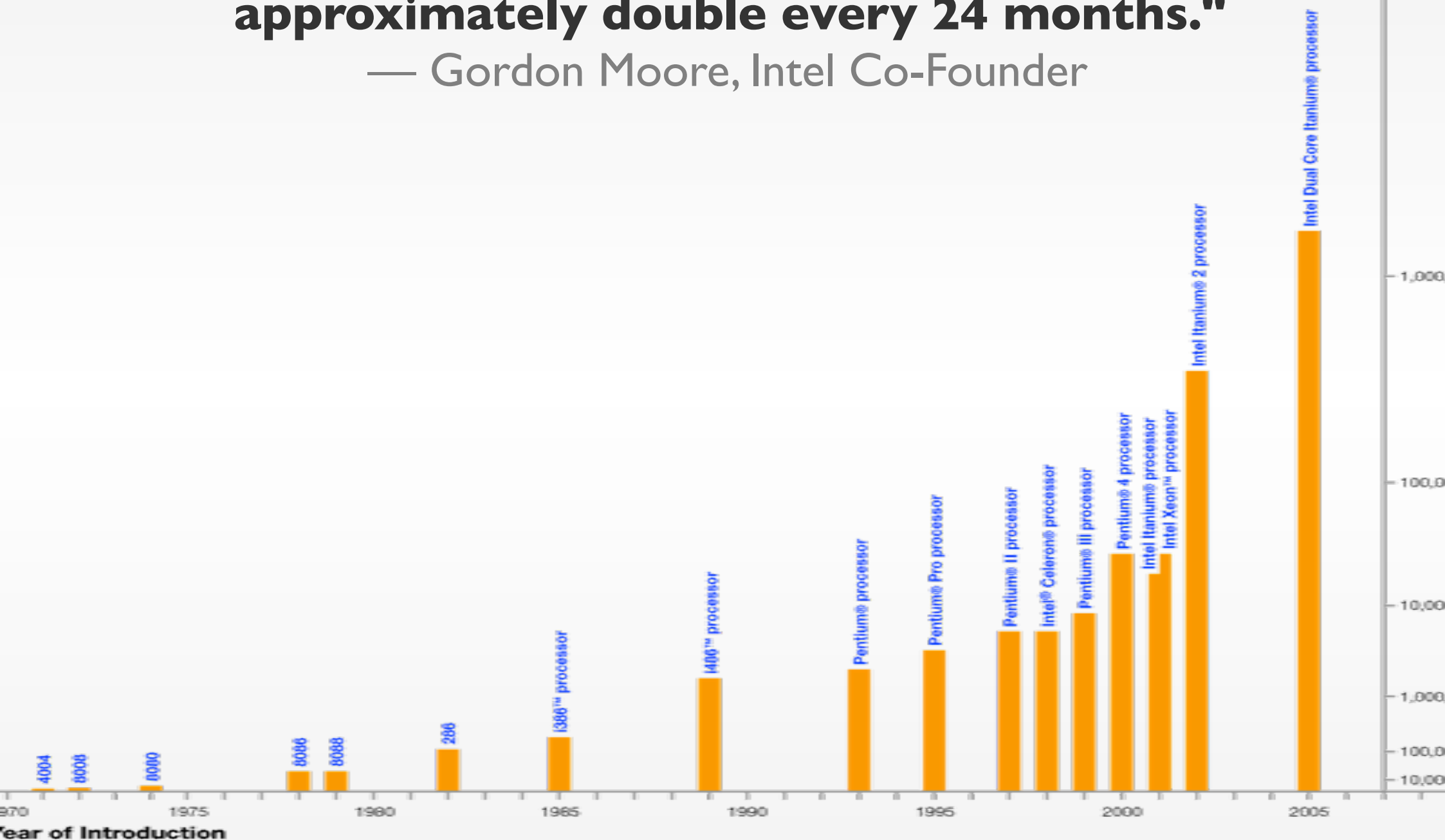


Year	Cost	ComputingPower
1967	10.000.000 USD	1
2002	7 USD	1.508.002
2007	0,07 USD	11.508.821
2017	0,01 USD	670.329.823



"The number of transistors incorporated in a chip will approximately double every 24 months."

— Gordon Moore, Intel Co-Founder



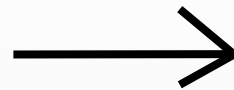
Note: Vertical scale of chart not proportional to actual Transistor count.



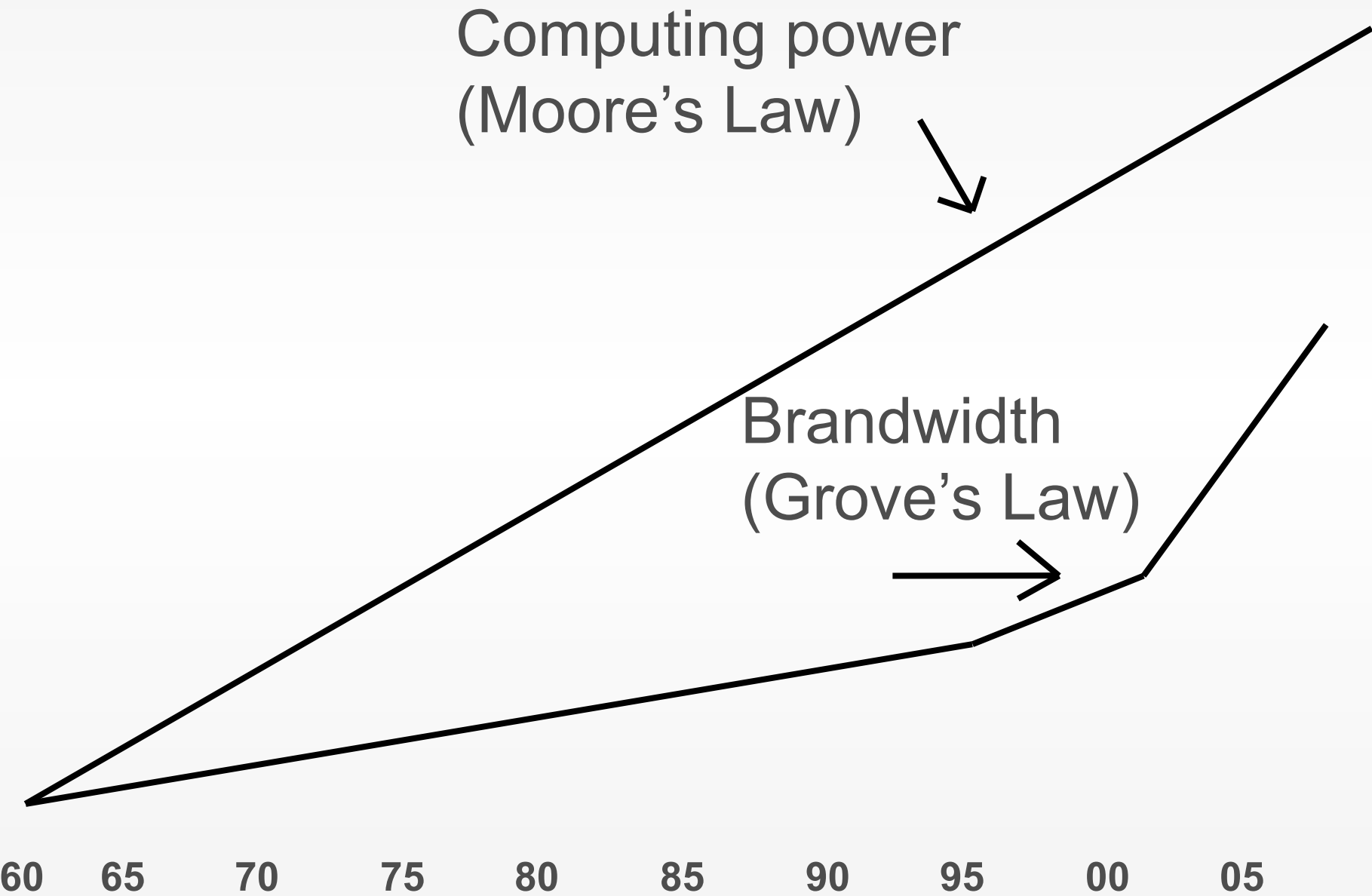
Computing power
(Moore's Law)



Bandwidth
(Grove's Law)



60 65 70 75 80 85 90 95 00 05





“When the network becomes as fast as the processor, the computer hollows out and spreads across the network”

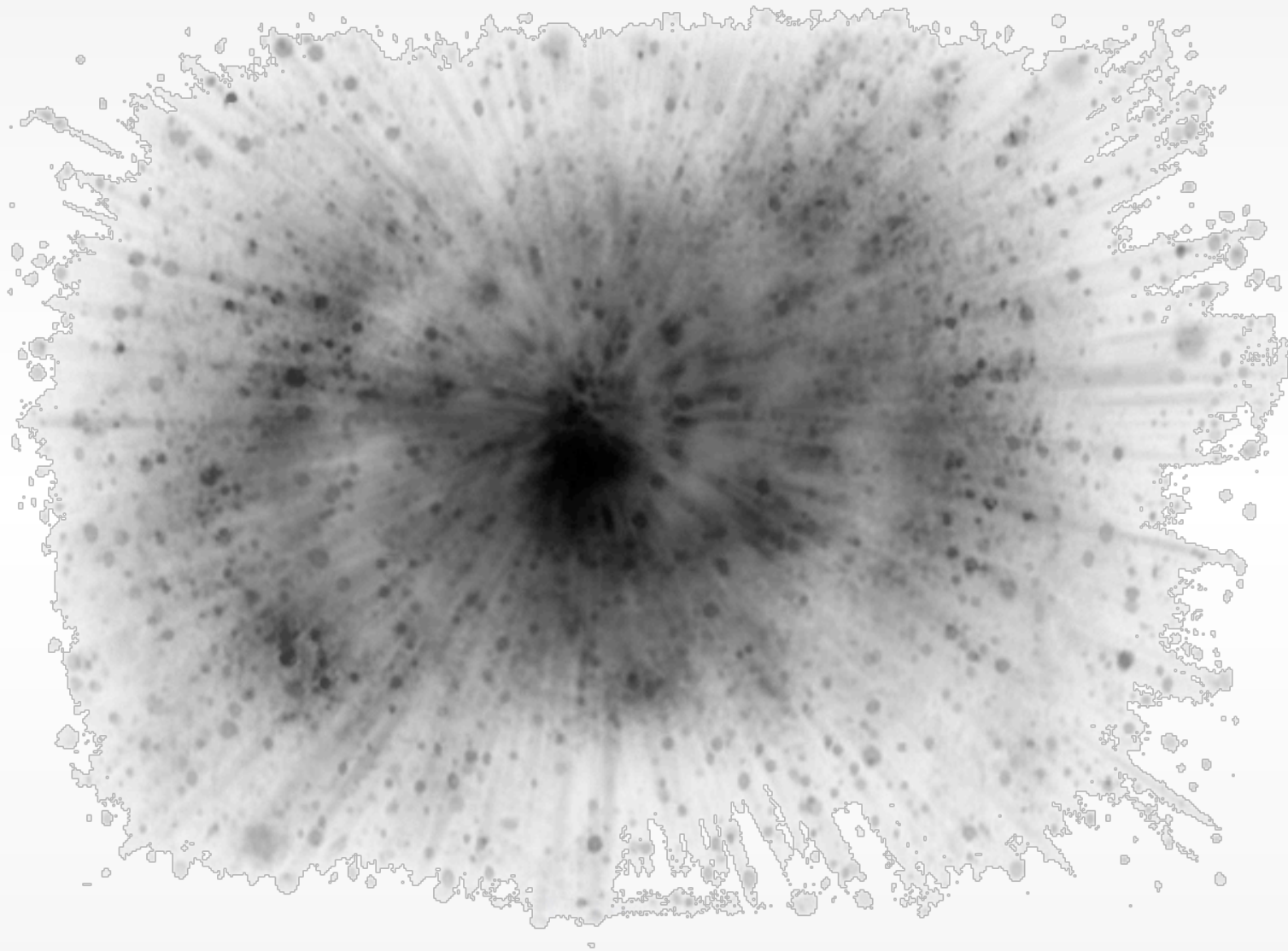
-Eric Smith 1993



Transaction cost influence organisation structure

- Search and discovery costs
- Communication and coordination costs
 - Negotiation and contracting costs

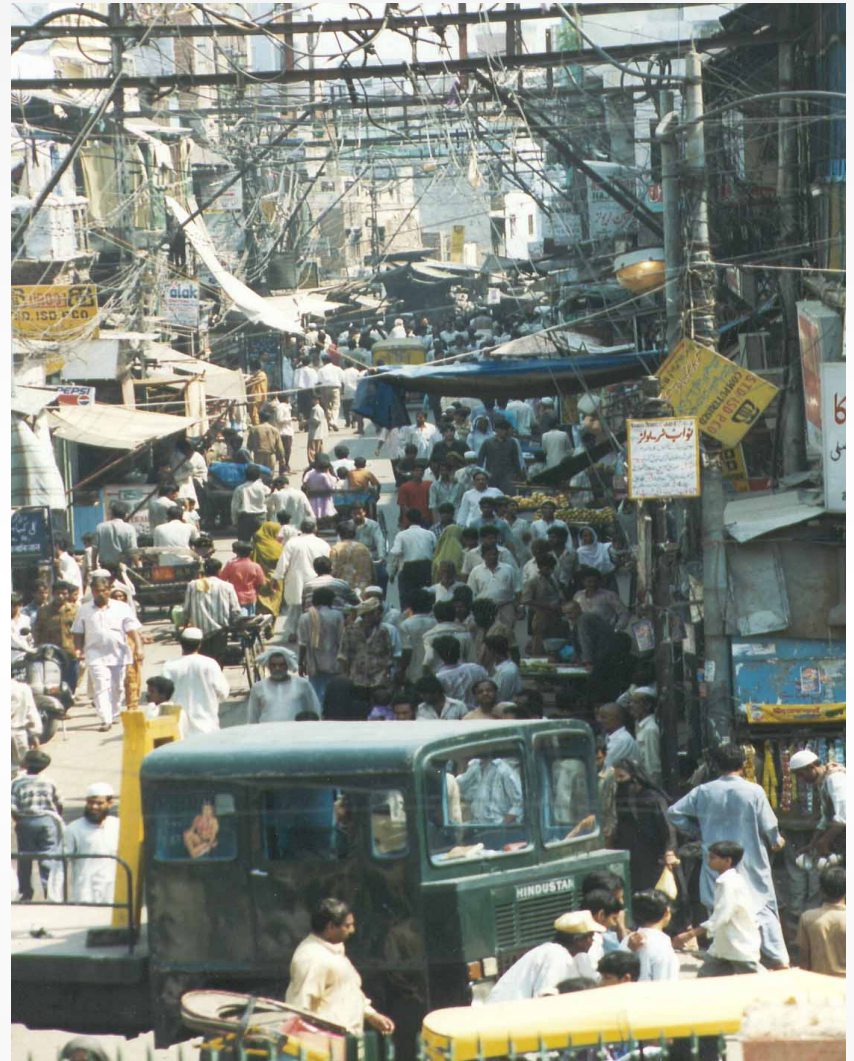
**High costs encourage formal
organisations**



encourages new business forms



Cathedral



Bazaar



- **Top-down**
- **Hierarchical**
- **Controlled**
- **Monetary incentives**
- **Closed**
- **Wizards rule**



- **Bottom-up**
- **Democratic**
- **Chaotic**
- **Mixed incentives**
- **Open**
- **Masses rule**



- **Open Source**
- **Cloud computing**
- **SaaS**
- **Open source cloud computing**



Open source



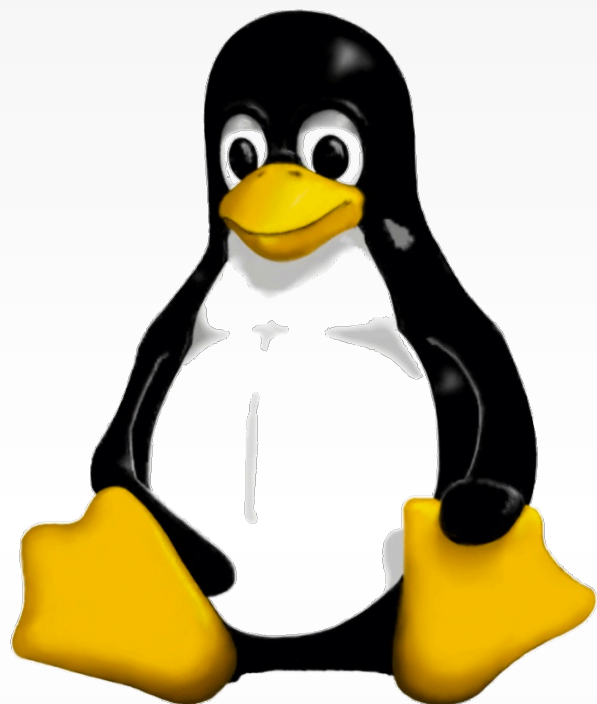
Pros of Open Source CRM Solutions

- For free/No license fee
- Free source code, possibility of any modifications suitable to our business needs
- Easy to combine with other systems – thanks to well-known technologies and transparent code

Companies using Open Source CRM Solutions - e.g.

- Coca-Cola
- Toyota
- Fujifilm
- Kia Motors
- AXA





VS.



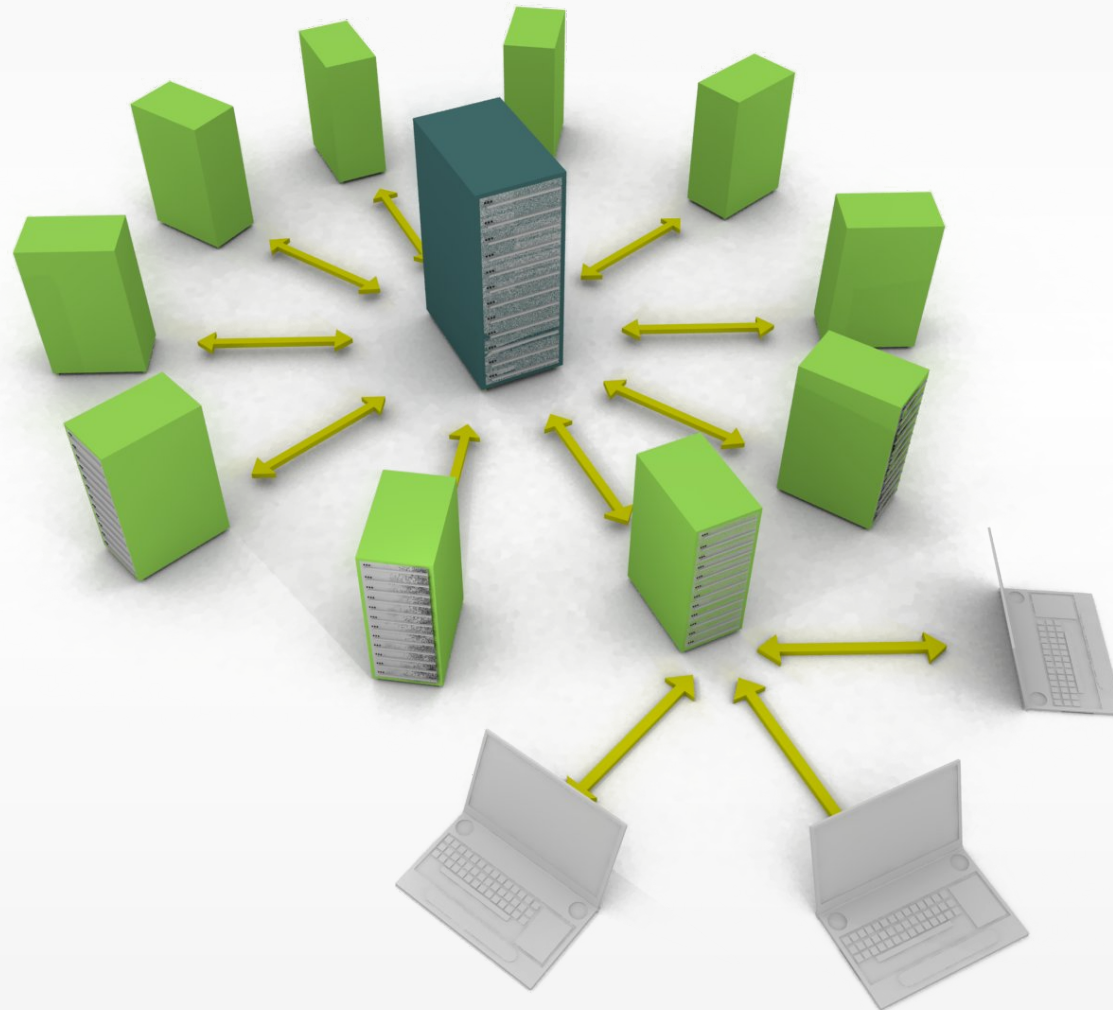
***‘In world without fences and walls,
who needs Gates and Windows’***



Open Source extended beyond OS:

- **CRM**
- **ERM**
- **Office tools**
- **Developer tools**

Cloud Computing



What is Cloud Computing?

‘It is a general term for anything that involves delivering hosted services over the Internet.’

Three categories

- Infrastructure-as-a-Service (IaaS)
- Platform-as-a-Service (PaaS)
- Software-as-a-Service (SaaS)

Three distinct characteristics that differentiate it from traditional hosting

- Sold on demand (*typically by minutes or hours*)
- It is elastic (*use as much as you want in any given time*)
- Fully managed by the provider (*you only need personal computer and Internet access*)



Costs of ownership - comparison of hosted (cloud computing) and on-premise CRM Application

FTE – Full-time equivalent

DBA – Database Administrator

UPS – Uninterruptible Power System

RDBMS - Relational Database Management System

		Number of users	35
On-Premise	On-premise per user software cost		\$795
	Annual software maintenance		22% of software cost
	Cost of server(s) for on-premise software		\$9,000
	Annual hardware maintenance cost		12%
	Fully loaded cost of IT resource for support		\$90,000
	Allocation of FTE to support software (Ops/DBA/support)		25%
	Cost of firewall		\$2,500
	Cost of UPS		\$1,200
	Cost of operating system and RDBMS		\$6,500
	Hosted	Hosted cost per user per month	



On-premise CRM Application annual cost about \$ 100.000

Hosted CRM Application annual cost about \$ 800



Document Management Case Study

Some of DocuVantage OnDemand's (Hosted) immediate benefits include:

- Instant access to all of your documents from anywhere with an Internet connection.
- A secure, centralized location for all of your information.
- Boosted productivity and enhanced customer service.
- Ensured compliance with government regulation through permanent online document storage.
- Decrease of manpower



Software as a Service (SaaS)



Profits for enterprise

- Faster implementation of a system
- Lower costs of implementation
- Lower risk of adoption failure
- No big IT investments, no service
- Lower IT costs, mainly TCO (Total Costs of Ownership)
- Possibility of telecommuting
- Easy-to-use
- Higher product & service quality
- Better accessibility & security
- Monthly fee
- More predictable IT costs





- **Faster implementation of a system**

30 days SaaS, when 12 to 18 months on-premise application

- **Lower costs of implementation**

25% to 40% of those for an on-premise implementation, as measured in terms of the costs for internal staff and professional services

- **Lower risk of failure**

SaaS provider is a professional company with deep knowledge, experienced and focused on adoption success

- **No big IT investments, no service, low TCO**

All IT devices are hosted by provider. Only PC and internet access required



- **Possibility of telecommuting**

Employee can work anywhere, because only PC and internet is required

- **Easy-to-use**

Friendly interface, intuitive operation, run on all PC's

- **Higher product & service quality**

Permanent upgrades of SaaS

- **Better accessibility & security**

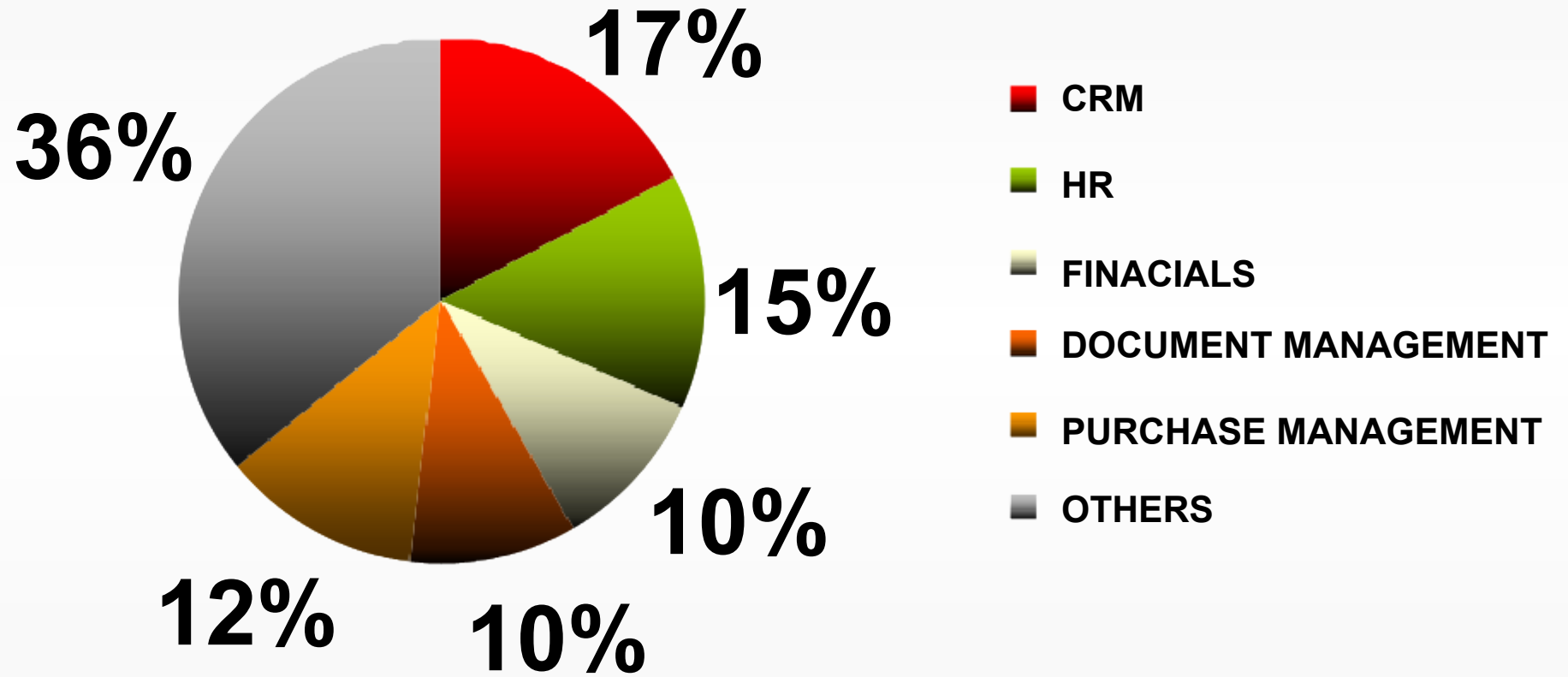
Datas are stored in secure data centers, they are transferred to the external servers via encrypted channel

- **Monthly fee, More predictable IT costs**

Thanks to fixed rates it is easy to predict a stable schedule of costs that are spread over time and easy to predict



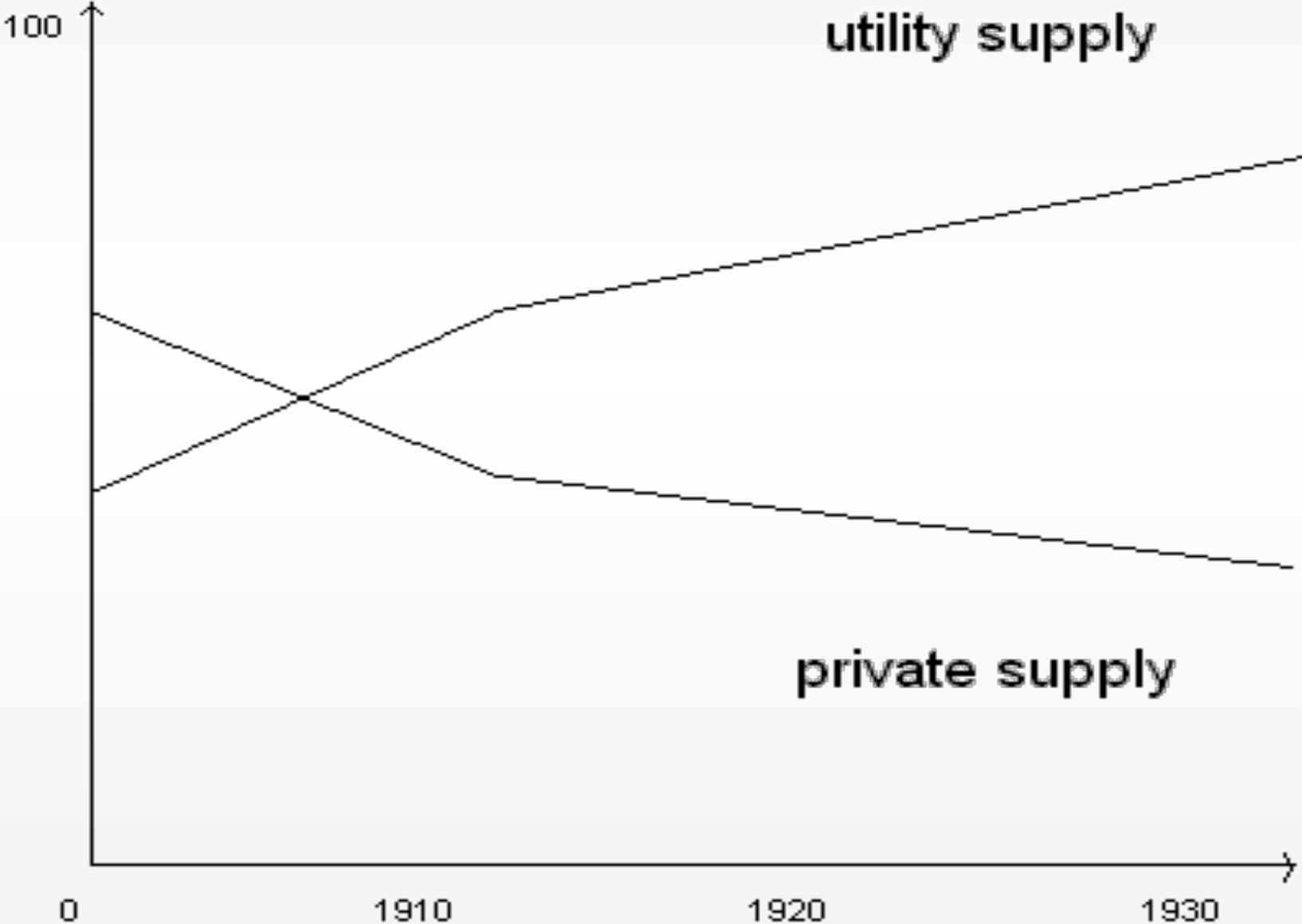
The most popular SaaS



Source: Own elaboration based on Gartner



Source of electricity (%)

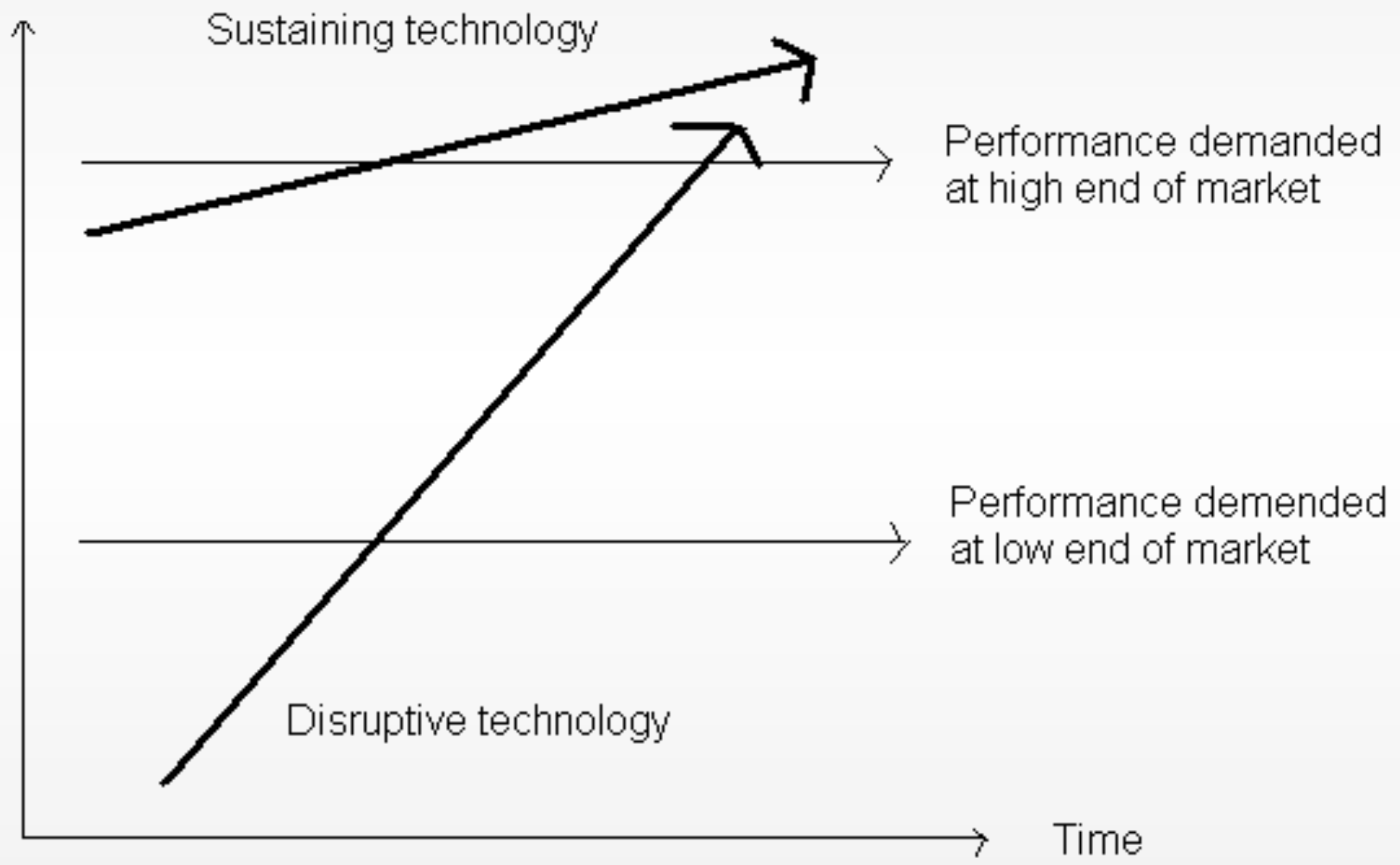




- ✓ **Capacity**
- ✓ **Security (data and infrastructure)**
 - ✓ **Reliability**
 - ✓ **Connectivity**
- ✓ **Standards (data portability)**
 - ✓ **Fear of change**



Performance





The world goes mobile

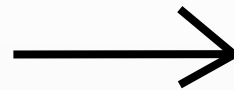




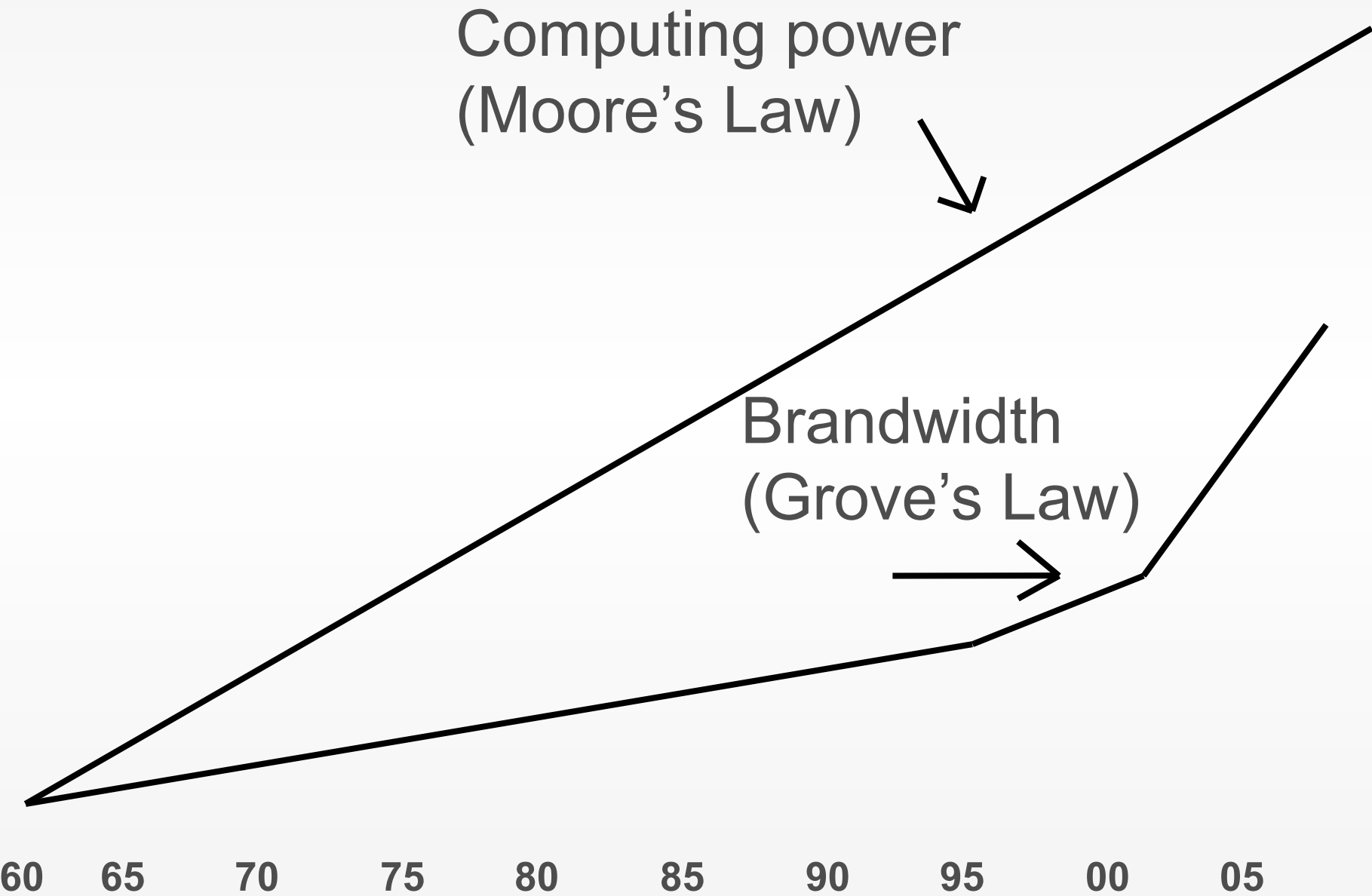
Computing power
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60 65 70 75 80 85 90 95 00 05



- The number of devices connected to the network in the world exceeded **5 billion**
- **Billion** desktops and laptops are connected to the Internet
- The remaining **four billion** are mobile phones, tablet PCs, netbooks, cameras, cars
- By 2020, the number of active devices in the network will more than quadruple, **reaching 22 billion**

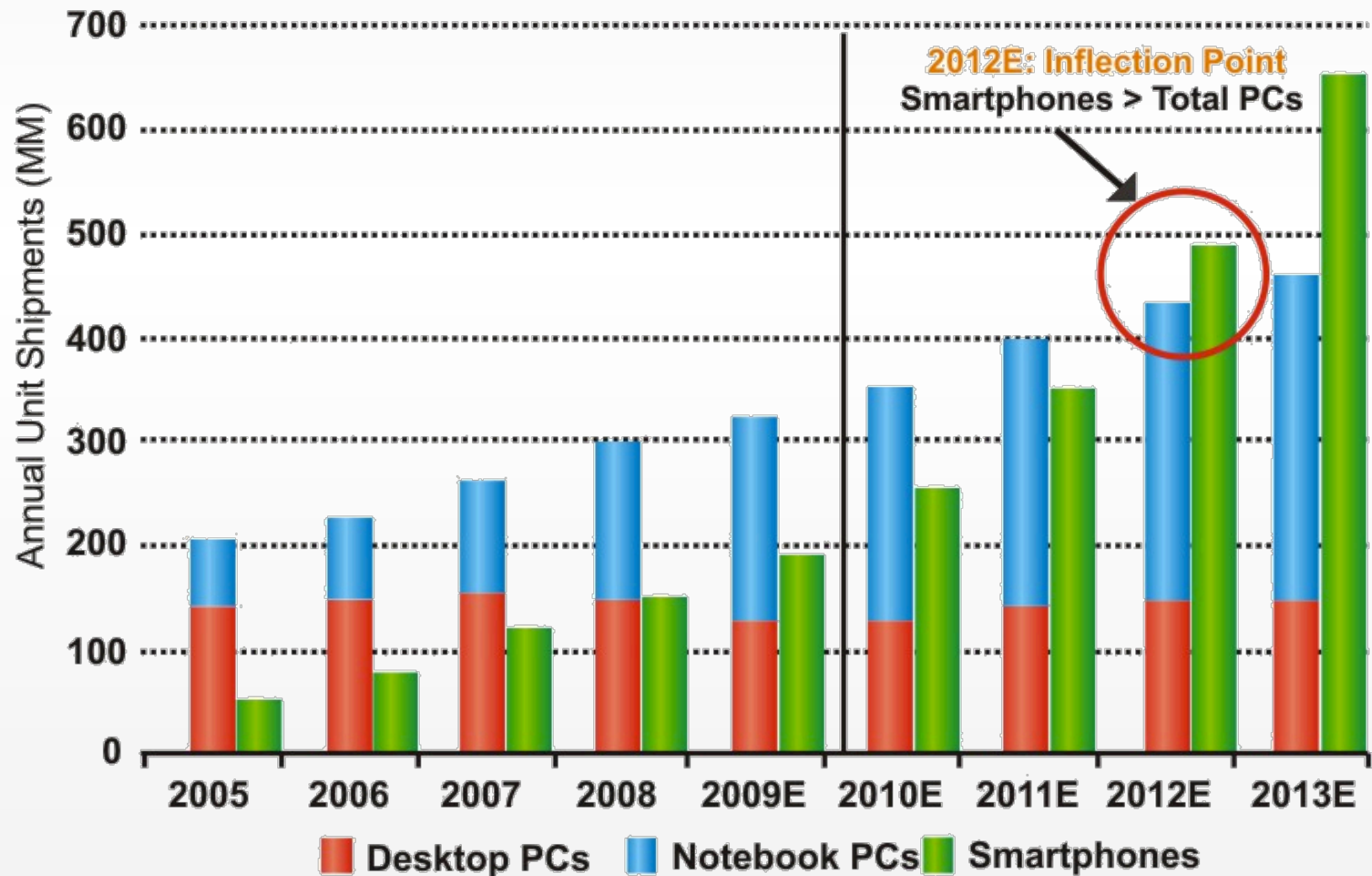
(Source: IMS Research)



Smartphones better than computers in 2010???

Smartphone > PC Shipments Within 2 Years, Global -
Implies Very Rapid Evolution of Internet Access

Global Unit Shipments of Desktop PCs + Notebook PCs vs. Smartphones, 2005 - 2013E





Penetration of SIM cards at the end of 2009 amounted to over **117.4%**, which is **44.8 million** active cards, and a **53%** increase compared to 2005

Between 2005 and 2009 the number of **fixed broadband lines increased 155%** (from 2.02 million to 5.16 million)

Price of 1 Mbit / s offered by operators in 2005 dropped on an average by **52%** (TP and Vectra) and by **65%** (Netia) in 2009

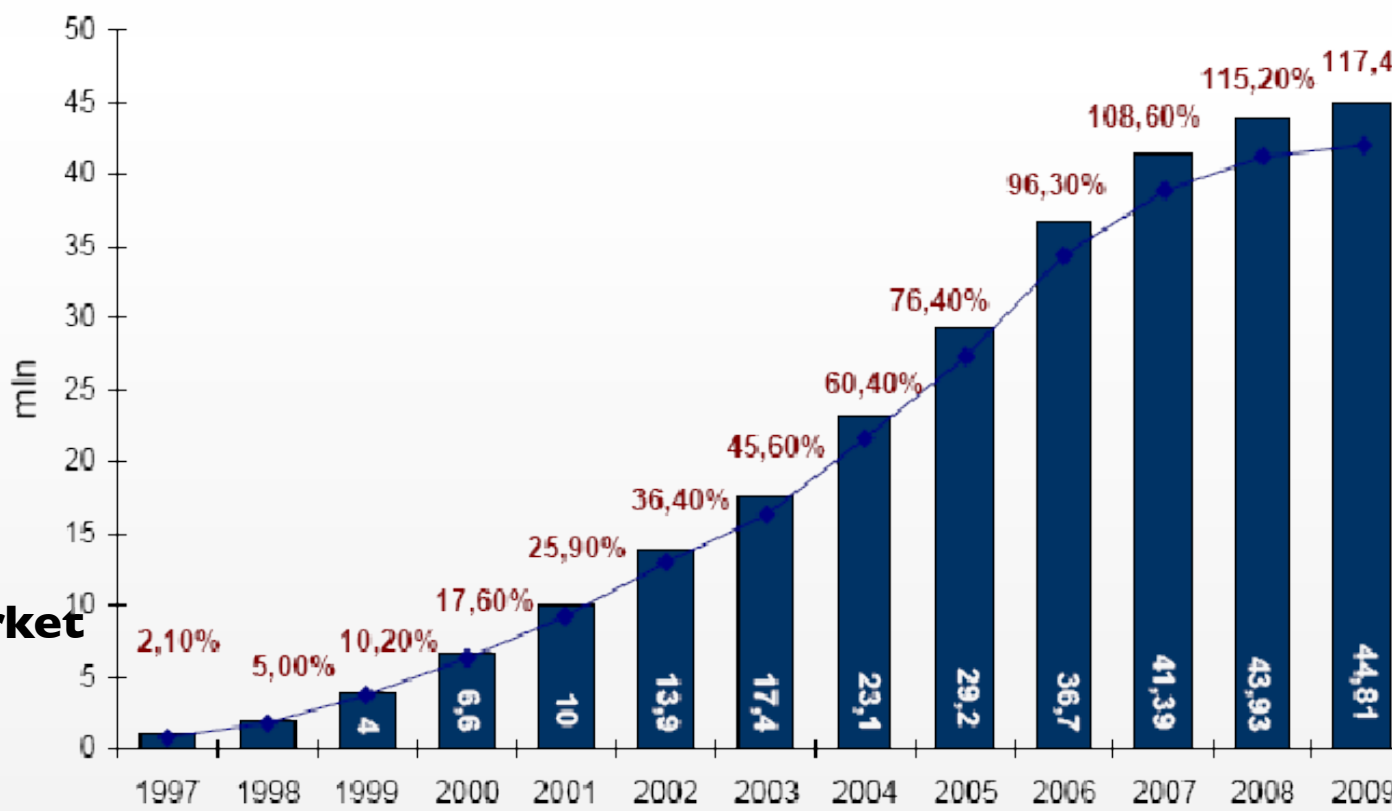
Penetration of the SIM card market in 2013 will exceed **130%**

and the number 50 million

... dynamically growing number of mobile Internet subscribers and participation of non-voice revenue of operators (M2M)

Nominal number of users and market penetration in Poland in 1997 – 2009

(Source: UKE)



Polish market

- 1 million of sold smartphones in 2009
- Growth of 12% YOY in opposit to simple phones
- 16% of sold mobile phones will be smartphones – 2010 forecast

Global market

- 174,3 million of sold smartphones in 2009
- 12,7% of sold mobile phones were smartphones – 2009

Simple Vs. Smart Phone

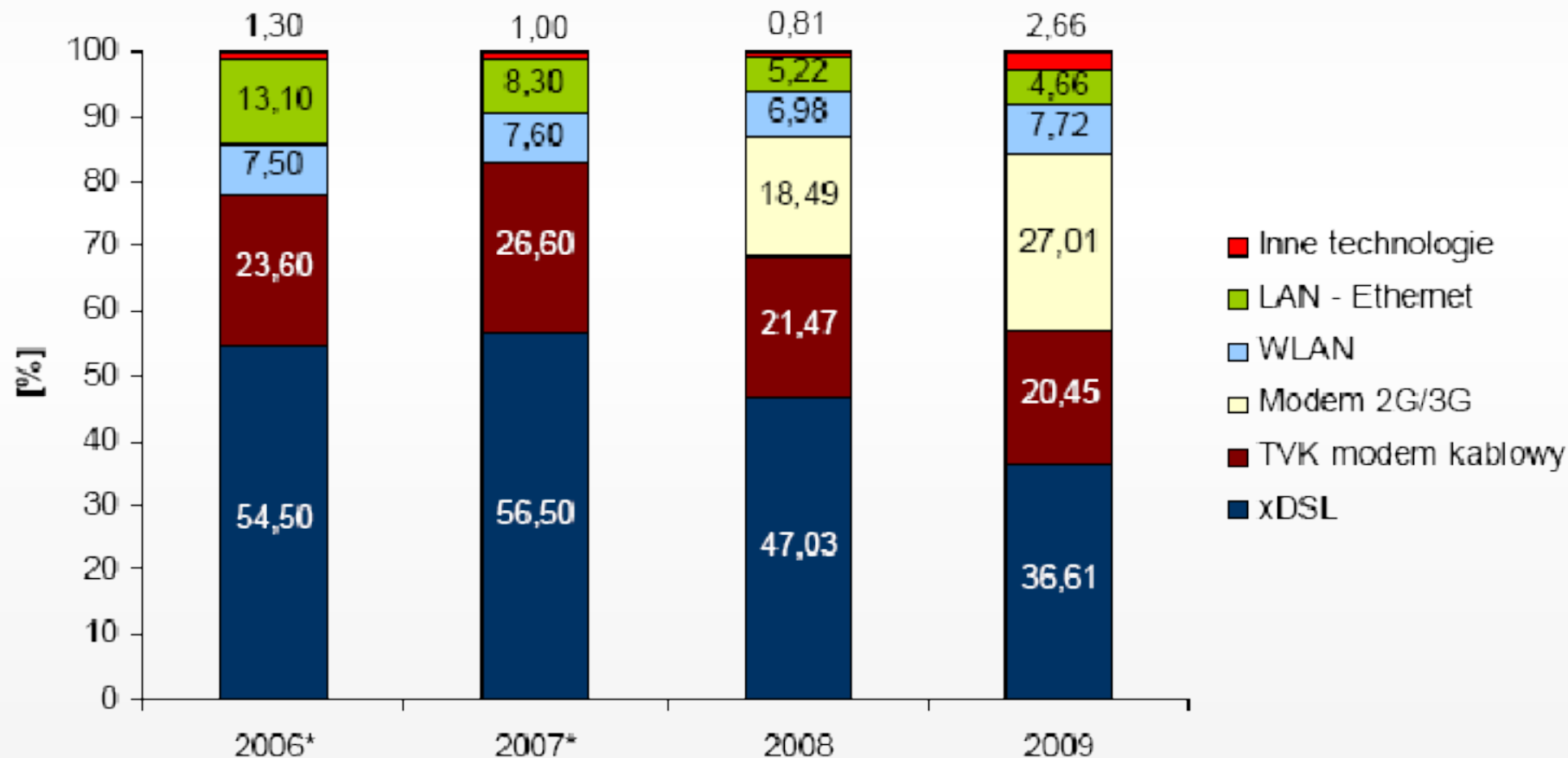




In Poland, there are now virtually all the possible technologies used to provide broadband services.

The main technologies of permanent Internet access remains xDSL, cable modem, CATV and LAN / WLAN Ethernet.

Chart: Percentage of different types of connection technology in the years 2006-2009



(Source: UKE)

Comment:

1. Between 2006 and 2007 were not collected data on the number of modems 2G/3G
2. Category 'Other technologies' technologies include CDMA, FWA, WiMAX, leased lines



- **MBA Services** (Mobile Business Applications) - mobile applications
- **SaaS Services** (Software-as-a-Service) - IT solutions and products sold as a service
- **Customized solutions** (Custom Development) for corporate clients
- **M2M Services** (Machine-to-Machine) - built on the GSM / UMTS, enabling remote management and monitoring devices: individual objects and entire production processes
- **Mobile Digital TV (DVB-H)** - convergence of the telecommunications and media





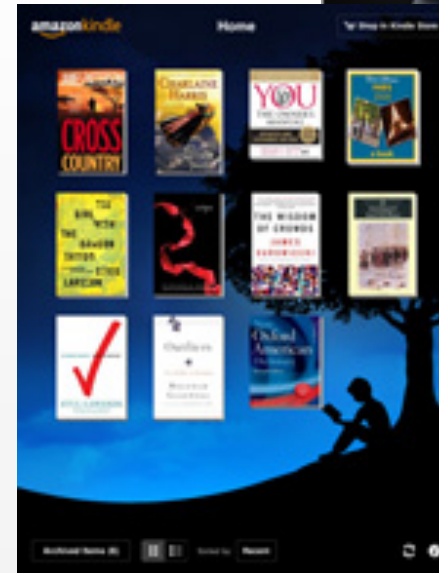
- **New media and entertainment**

- music
- books,

- **newspapers,**

- TV,
- Games,

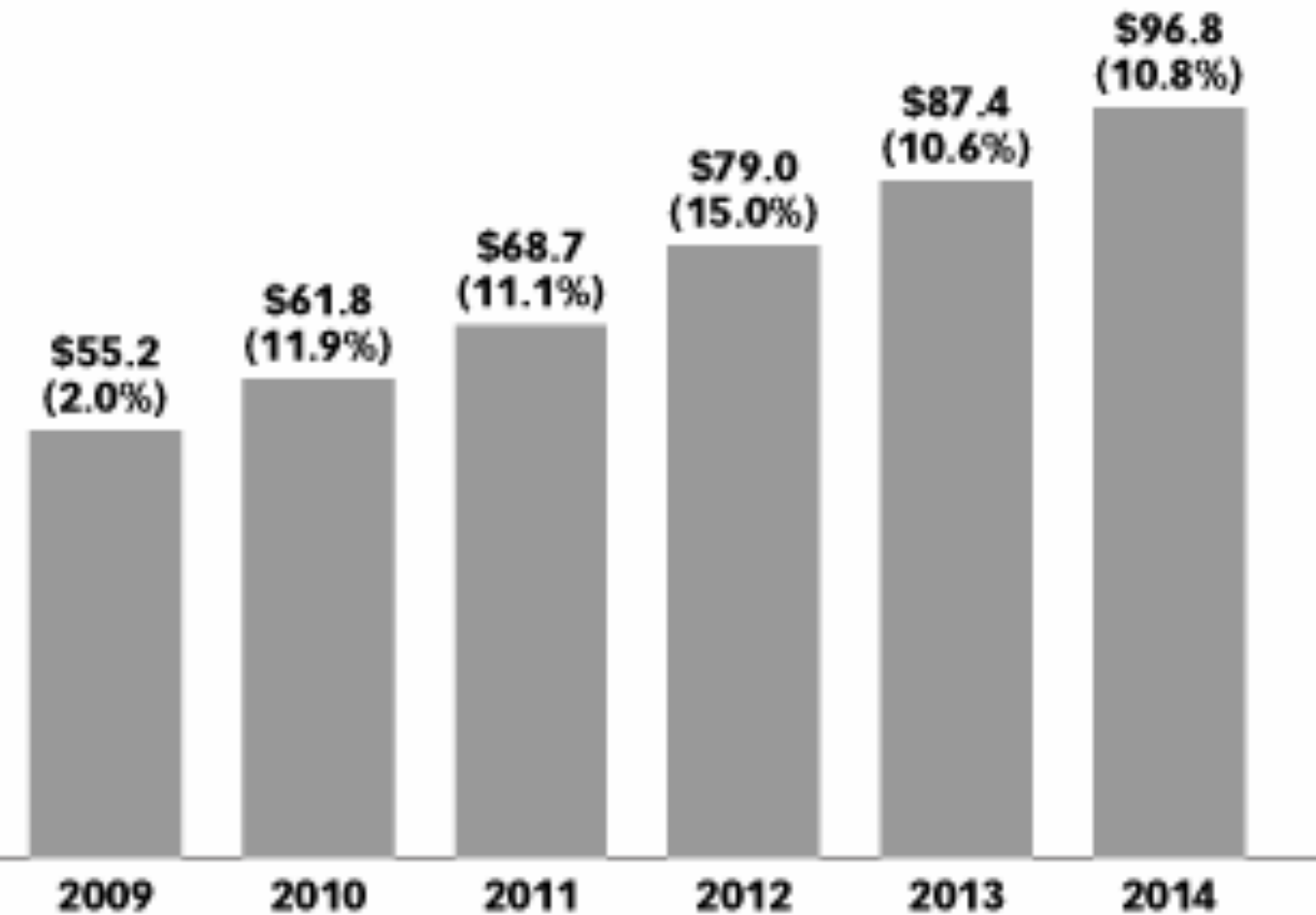
- **Social networks**





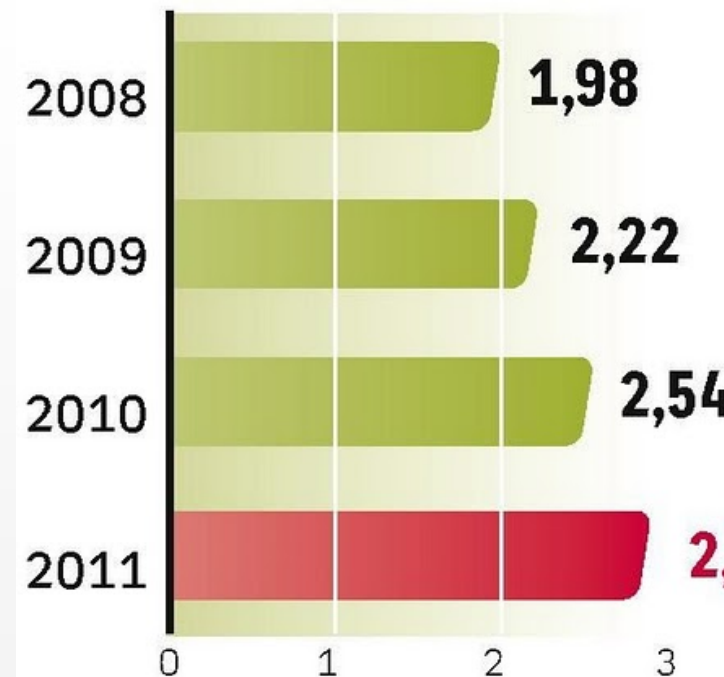
Online Advertising Spending Worldwide, 2009-2014

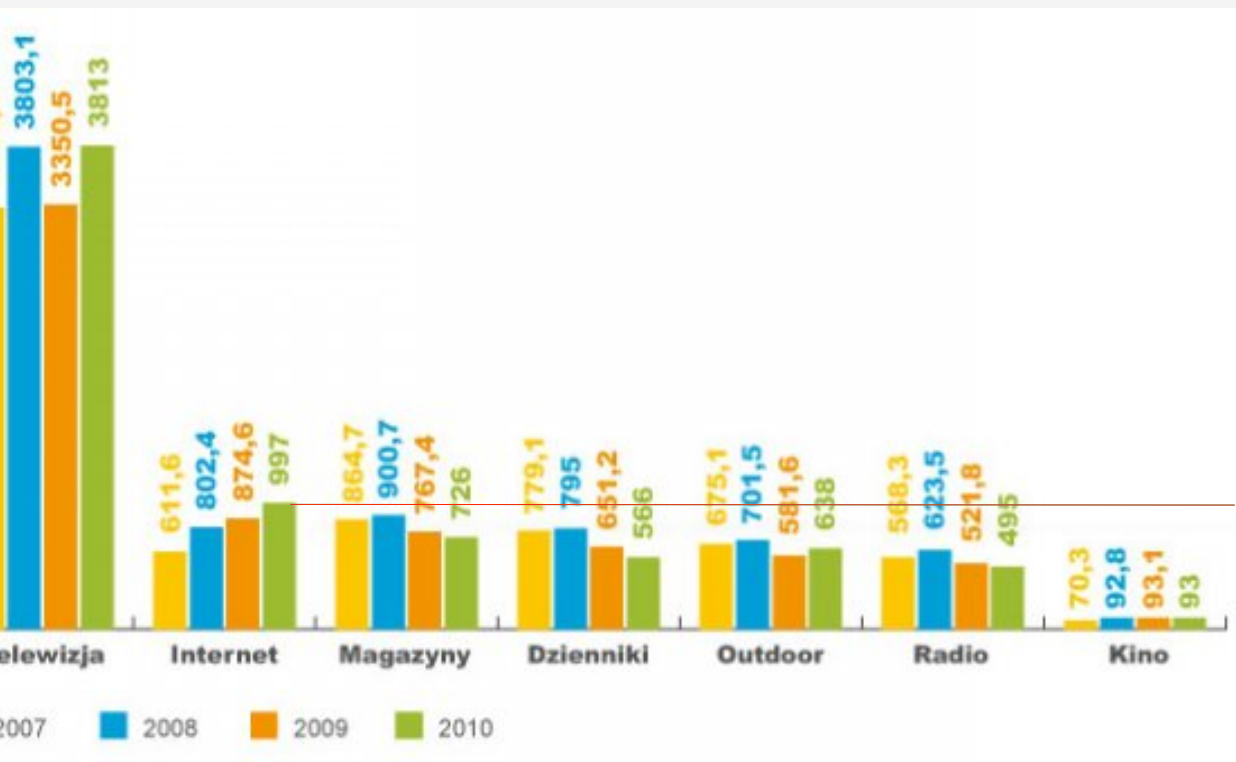
(Billions and % change)



Note: includes banner ads, search, rich media, video, classifieds, sponsorships, lead generation and e-mail; excludes mobile ad spending
 Source: eMarketer, June 2010

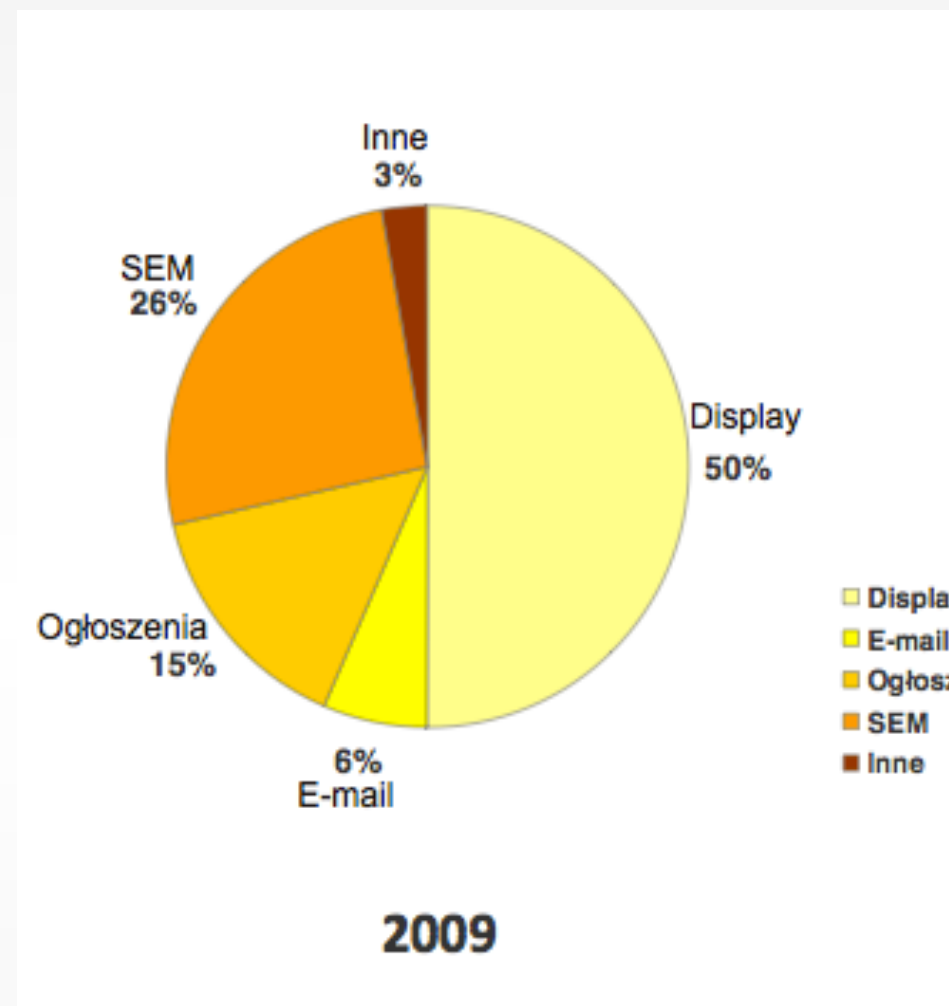
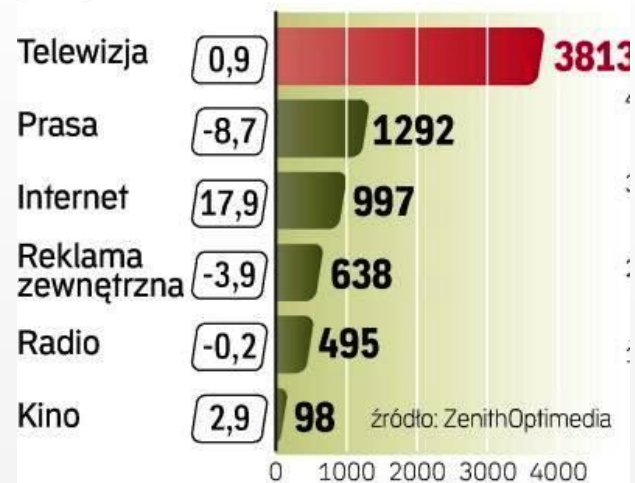
Wydatki na reklamę w serwisach społecznościowych, w mld dol.

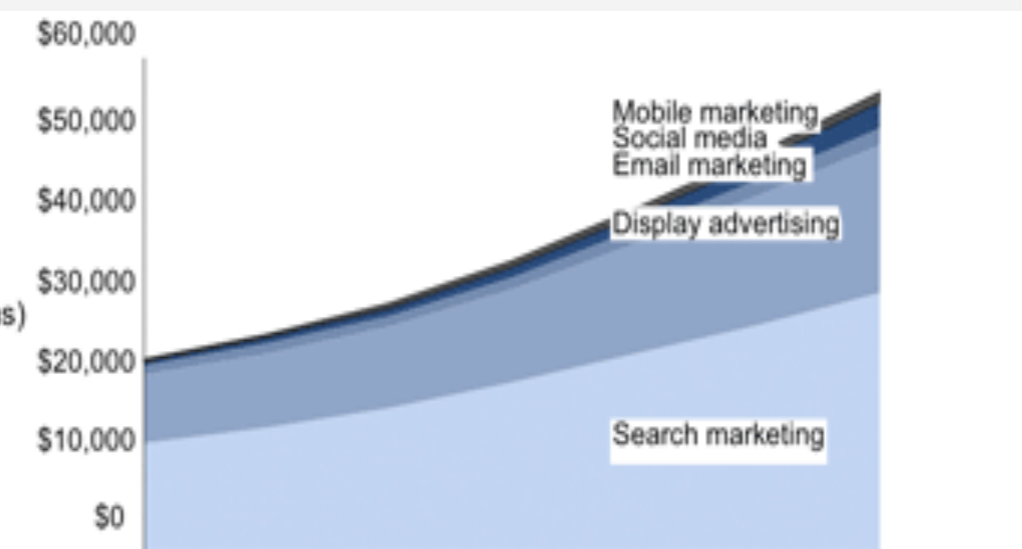




Rynek reklamy w Polsce w 2010 r.

xxx w mln zł w mln zł





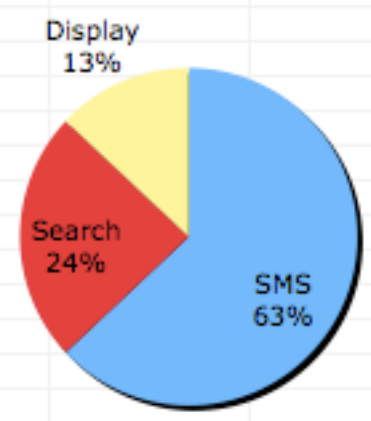
	2008	2009	2010	2011	2012	2013	2014	CAGR
Search marketing	\$232	\$391	\$561	\$748	\$950	\$1,131	\$1,274	27%
Social media	\$455	\$716	\$935	\$1,217	\$1,649	\$2,254	\$3,113	34%
Email marketing	\$1,170	\$1,248	\$1,355	\$1,504	\$1,676	\$1,867	\$2,081	11%
Display advertising	\$7,699	\$7,829	\$8,395	\$9,846	\$11,732	\$14,339	\$16,900	17%
Search marketing	\$13,516	\$15,393	\$17,765	\$20,763	\$24,299	\$27,786	\$31,588	15%
Total	\$23,073	\$25,577	\$29,012	\$34,077	\$40,306	\$47,378	\$54,956	17%
Ad spend	9%	10%	11%	13%	15%	17%	19%	

© 2009 Forrester Research, Inc. All rights reserved.
 Source: Forrester Research Interactive Advertising Forecast, 4/09 (US Only)

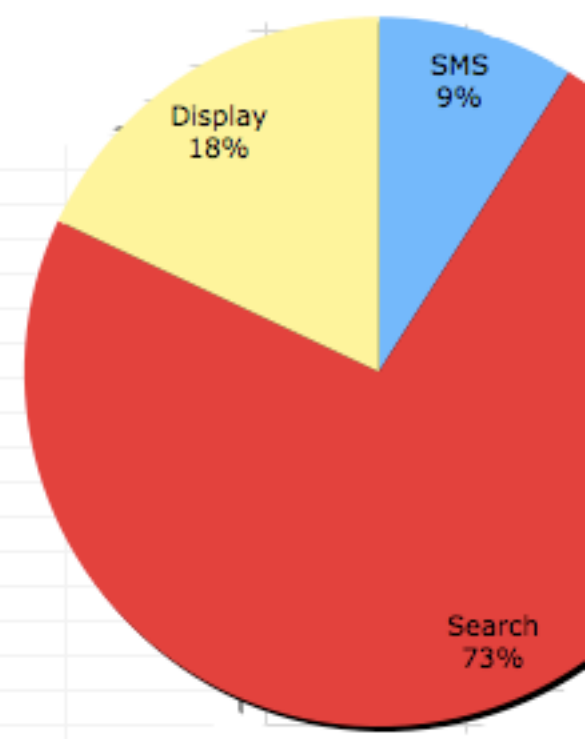


- SMS
- Search
- Display

2008 Mobile Ad Market \$160MM



2013 Mobile Ad Market \$31.5B





“Mobile field workers need mobile data”

Willie Jow,
vice president at Sybase

“Enterprise-wide mobility is not happening. But business units are in fact mobilizing their workers because they see the ROI”

Clyde Foster, vice president,
Services and Software at Nokia

“Email has become ubiquitous”

Sal Tirabassi,
partner in MC Venture Partners

Potential workes

- Insurance claims adjusters
- Engineers
- Repair technicians
- Managers
- Pollsters
- Merchants
- Sales reps / Vendors
- Truckers / suppliers
- Taxi drivers





Insurance Claims Adjusters

Case of car accident

- All information about client in a system on a mobile phone (insurance premiums, car history, policy details)
- Take photo by phone (straight to a system)
- No paperwork (claims and damages straight to a system; environment protection – CSR value)
- Estimated value of compensation (access to new parts prices – body shops)

+ I

- Savings on time and costs of computers
- Usage of only one device
- Serving more people in the same time





Repair technicians



- All information about device in mobile phone (technical drawings, specifications etc.)
- Take a photo of a broken element
- Information about client (e.g. servicing)
- Information about stocks in a warehouse with option to order
- Plug in with mobile phone to a software of repaired device
- Signatures
- No paperwork
- Localization
- Possibility to connect the printer

Sales reps

Key Features:

- Active sales:
 - Collecting orders
 - Checking deliveries and order status
 - Preview
 - Stock
 - Product range
 - Payment history
 - Active Sales reporting
- Reporting: work load (time sheets), meetings
- Secure access to the intranet
- Possibility to connect the printer
- Localization (option)
- Signatures





Pros and cons of mobile working

Pros:

- Increased Productivity
- Working in real time
- Flexible working
- Cost reduction
- Responsiveness

Cons:

- Limited interaction
- Motivation
- Relations may deteriorate

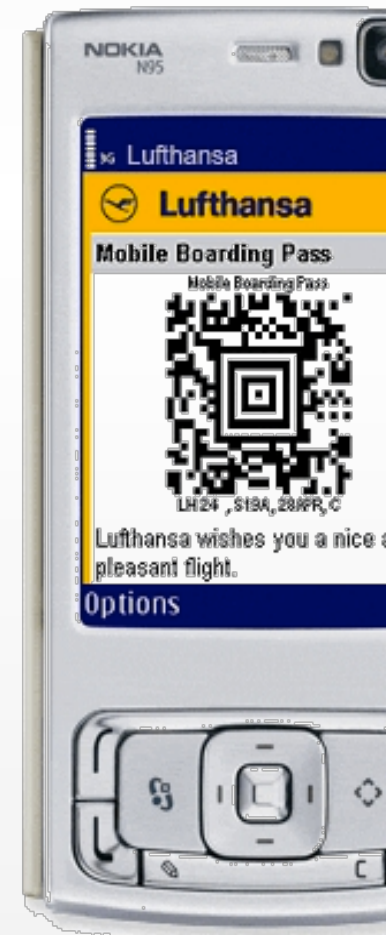


Lufthansa Check-In by Mobile

- Enter card number/booking code, Last and First name
- Check-in / you can check-in your companion
- Select seats
- Choose the way in which your boarding pass has to be sent (mobile or e-mail) – type phone number or e-mail address
- Receive Mobile Boarding Pass QR code

Other eFly Services on mobile

- Flight status
- Timetable
- Booking
- Miles & more
- My bookings
- Info & service
- Entertainment



Mobile Wallet (NFC) in Poland

- New way of payments
- Near Field Communications(NFC) is a wireless technology that allows the exchange of data in a short distance

PTC, Intligo & MasterCard

- They begun first NFC payments in our county
- Transactions valued up to 50 PLN without PIN or signature authorization
- Over 10.000 points of sale in Poland
- Samsung Avila with special chipset that is normally put in contactless cards is used instead of card

PTC & Polbank EFG

They partnered in a new project, which effect was PayPass contactless sticker that can be put on the back of the mobile phone. This specific card is connected to customers bank account and works as a normal PayPass debit card.

inteligo





Our client : Tele-P and Modul System (Sweden)

Mobile applications (Java) for registering of the user, turn on/off time of parking or purchasing the ticket

- access also via IVR
- SMS notification about the status of parking

Payment by credit card

- www or mobile application activation process

Projects wholly developed by Cybercom Poland



‘Shopping smarter with Google Shopper’

How does it work?

■ Searching

- Search by voice (say the name of the product)
- Scan the cover (point camera on the cover and take a photo)
- Scan the barcode (take a photo of the barcode)
- Type your search

■ Information about

- On line prices
- Detailed product information
- Local stores (prices in nearby stores)
- Share with friends
- Save your history and favorites





- **Hygienic factors**

- Known to everyone
- Standard but you still need to have them to achieve efficiency and to stay in line with your competitors
- “*it takes all the running you can do to keep in place!*”

- **Strategic factors = “scarcity”**

- Innovative, customised solutions combined with organisation adaptation



“Grid computing, standardization of components, and open systems, far from stifling differentiation, provide a stable platform to build on and offer new ways of differentiating either by cost, structure, product, or service”

“Outsourcing the commodity infrastructure is a great way to control costs, build competence, and free up resources, which can be used to combine data bits in creative ways to add value. “

F. Warren McFarlan
Richard L. Nolan





Strategic factors = “scarcity”

Innovative, customised solutions combined
with organisation adaptation



Thank You !

Q&A