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**TELECOMMUNICATION
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FOR INFORMATION

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TITLE: Information Technologies Observatory: ICT indicators collection survey 2005

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Results

Summary



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- **Methological elements**
 - Indicators
 - Samples construction
- **The results :**
 - Individuals and households
 - Businesses

Methodological elements

The indicators and samples



The indicators set

The indicators selected may be classified into three major groups, according to subject :

- Level of equipment ;
- ICT access ;
- ICT usage.

Households sample construction

Head Population and Target Population



- Moroccan population structure
 - 100% of urban households and 81% of rural households (ONE source) are electrified (against 71,9% in 2004 following the same source).

	Total	Urbain	Rural
Moroccan Population	29 680 069	16 339 561	13 340 508
	%	55%	45%
Households	5 665 264	3 439 755	2 225 509
	%	61%	39%
Population between 12 and 65 years (electrified zones)	20 252 295	12 521 397	7 730 898
	%	62%	38%
Households	3 765 438	2 455 116	1 310 322
	%	65%	35%

Base : The population distribution (2004 census).

Households sample construction

Sample representativeness



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■ Sample representativeness

- The target population is made of 12 and over (till 65) residing in electrified zones corresponding to 20.2 millions of individuals, or 68% of national population.
- In urban area, the category 12-65 years old represents 77% of national population while it represents 72% of the same population in rural area
- Through Individuals, we directly reach 3.8 millions of households, corresponding to 66% of national households (and indirectly the whole households residing in electrified zones corresponding to 5.2 millions of moroccan households)

Methodological elements

Businesses Sample

A decorative graphic on the right side of the slide features a semi-transparent globe showing the Americas, overlaid with a grid pattern and a horizontal bar containing the number '003'. The background is a light blue gradient.

Businesses sample construction



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Two criteria permit to classify the businesses :

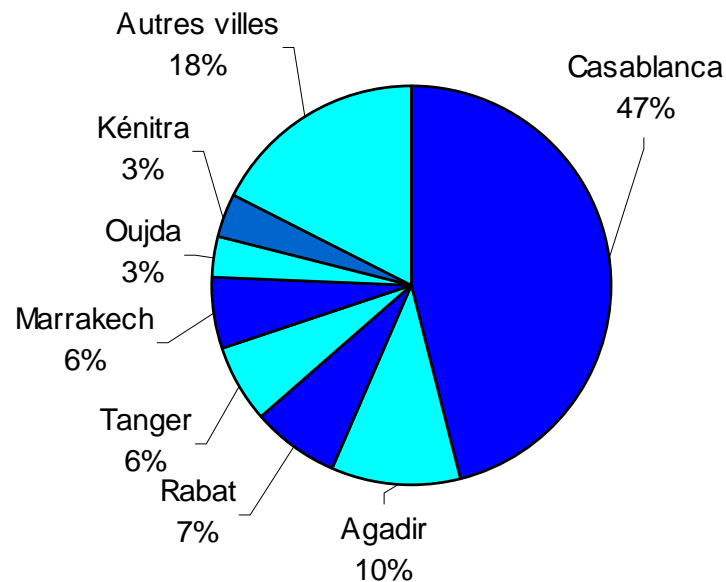
- The size (number of employees) ;
- Type of activity (ICT sector - Primary sector - Industrial/Manufacturing sector - Service/Transport sector).

The sample construction methodology is based on a random choice, which ensure a sample representativeness of the overall national structure.

Information source used in constructing the sample is the Kompass of moroccan businesses (company directory in Morocco).

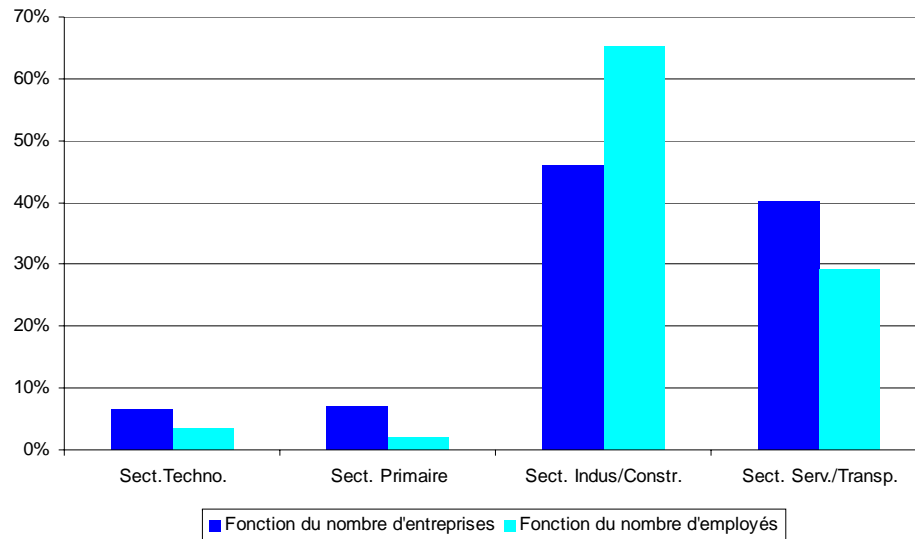
The sample size is about 250 businesses established in Morocco, which represents an error margin of $\pm 6,2\%$ with a first type risk of 95%.

Businesses : The geographic distribution



- About the half of business are located in Casablanca
- Three cities (Casablanca, Rabat et Agadir) concentrate over 60% of businesses.

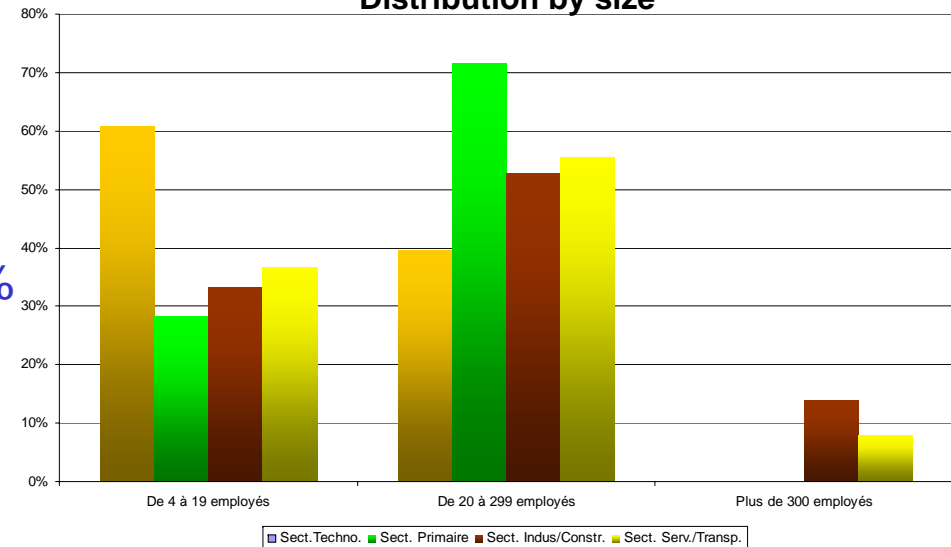
Businesses : Split by sector of activity and size



- The Industrial/Manufacturing sector comprises more than 50% of businesses and more than 60% of employees ;

- The ICT sector represents more than 7% of Businesses but only 3% of employees.

Distribution by size



The results

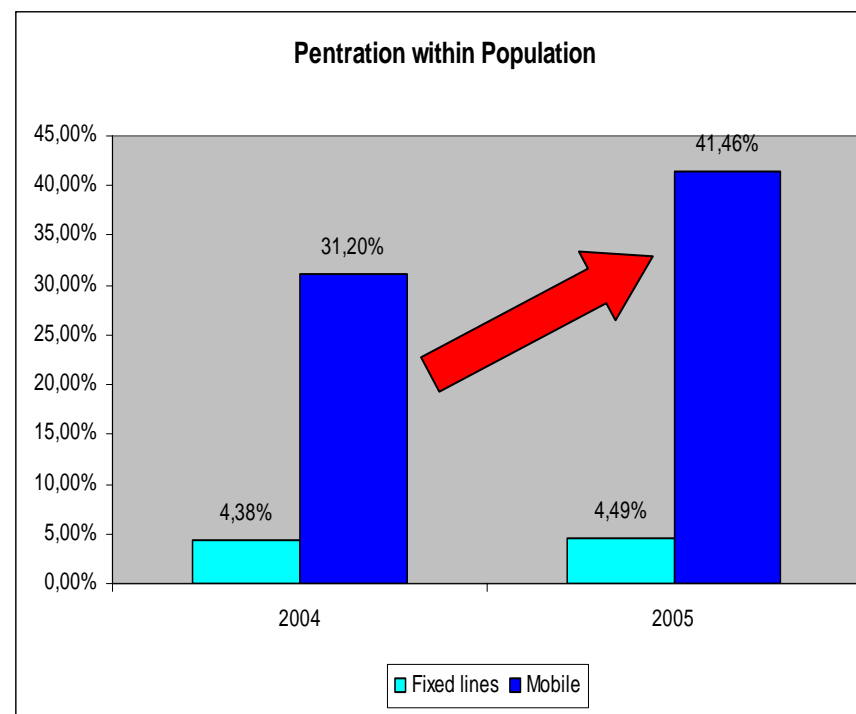
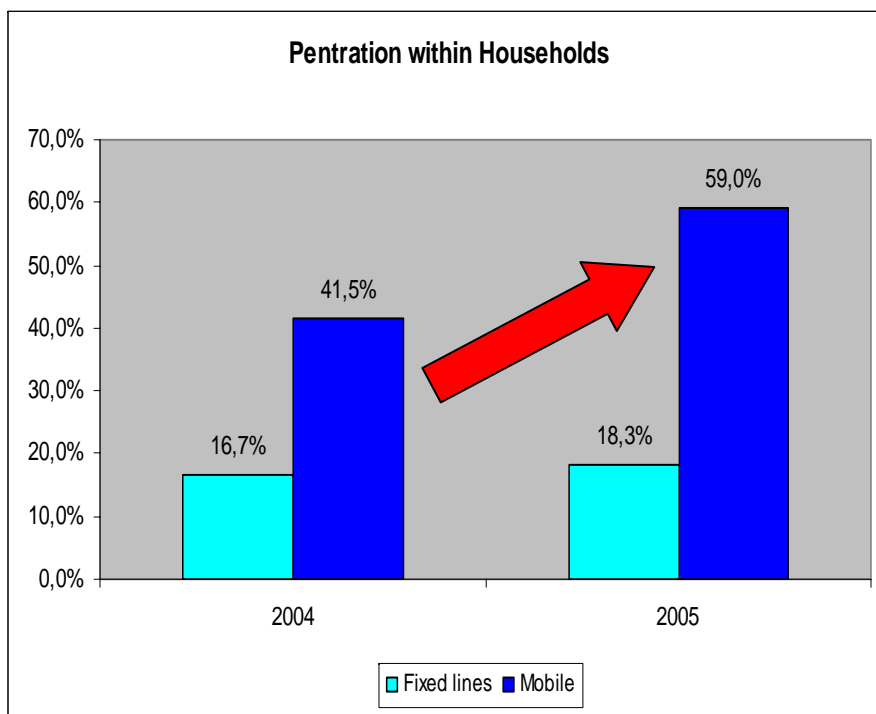
Individuals and households



Fixed and mobile telephony (1/2)



- Telephony equipment indicators



Fixed and mobile telephony (2/2)



■ Telephony equipment indicators

- Strong increase of Mobile within individuals which confirms the national trend watched over the boom of the number of subscribers.

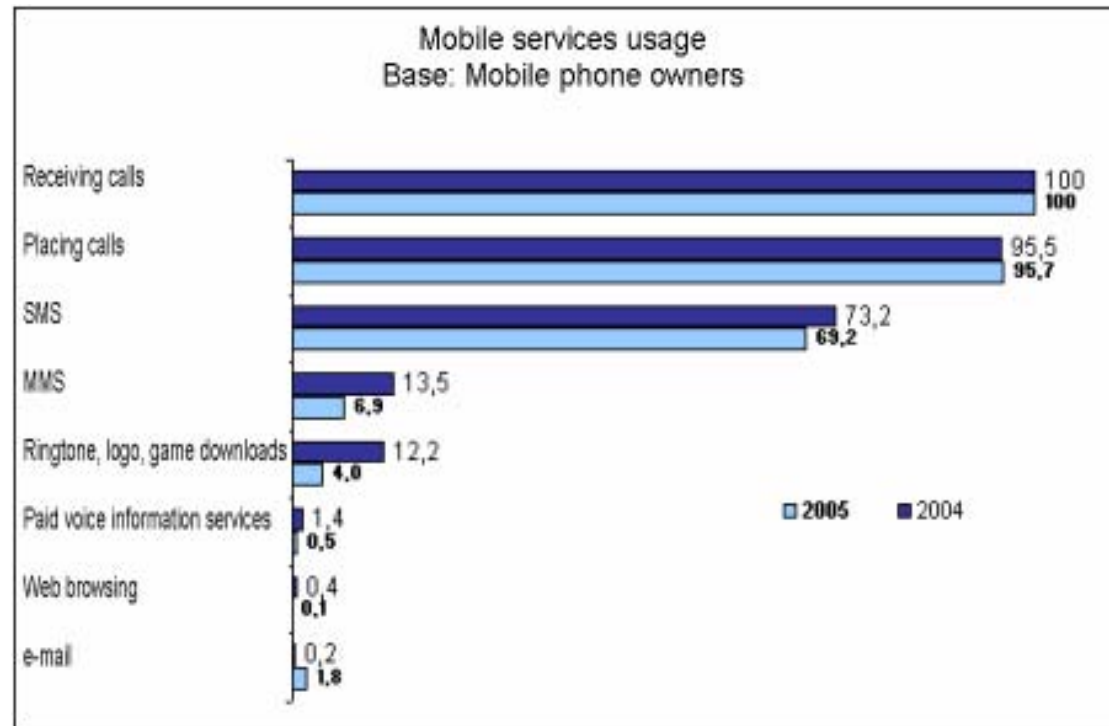
	Individuals owning in the Household 2004 Survey	Individuals owning in the Household 2005 Survey	Evolution	Penetration within Population (2004)	Penetration within Population (2005)	Evolution
Fixed lines						
In %	28,5%	26,8%	-1,7	4,38%	4,49%	2,3%
In Millions	-	-	-	1,31	1,34	+0,03
Residential	-	-	-	0,89	0,88	-0,01
Mobile						
In %	48,1%	88,5%	+40,4	31,2%	41,4%	33,3%
In Millions	-	-	-	9,3	12,4	+3,1

- ... It hides the weak evolution of fixed penetration at a national level.

Mobile telephony Usages



Mobile telephone usage

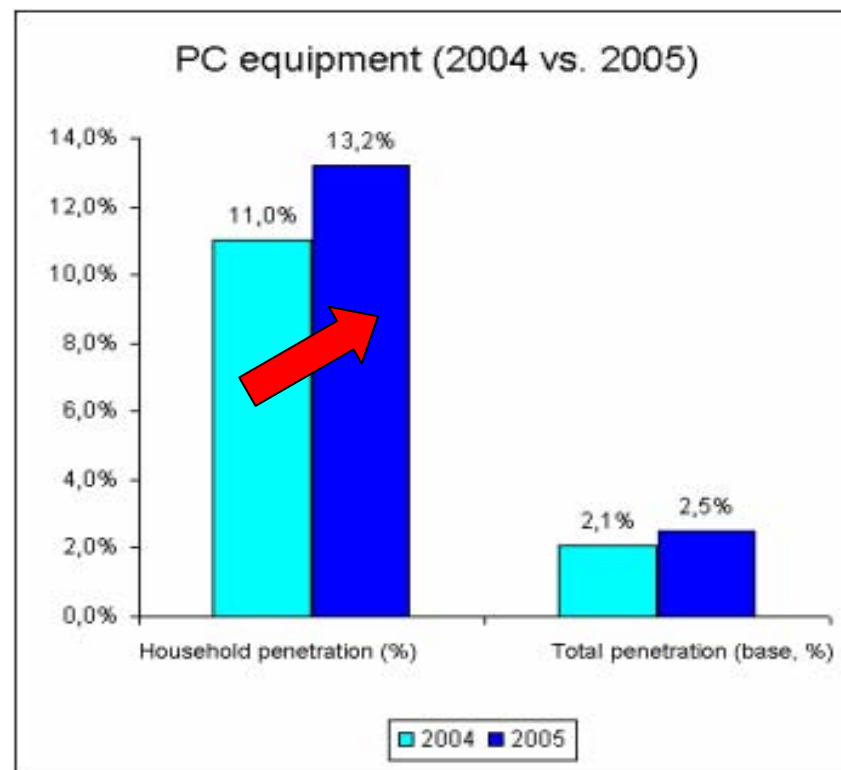


A part from SMS, value added services remain less developed.

Personal computers (1/3)

- PC equipment indicators

Personal computers penetration (2005 vs 2004)



Personal computers (2/3)

■ PC equipement indicators

- The PC penetration is increasing.

Personal Computer	Households penetration 2004	Households penetration 2005	Overall Population penetration 2004	Overall Population penetration 2005	Evolution 2004-2005
In %	11,0%	13,2%	2,1%	2,5%	19%
In millions	0,62	0,74	0,62	0,74	+0,12

- ... but the more equipped households are always those which have a purchasing power (an average monthly income exceding 2500 DH) and already well equipped in ICT equipement and having a high education level allowing new technologies acquisition.

Personal computers (3/3)

- PC usages

Use made of household PCs (according to location)

	Total 2004	Rural zone 2005	Urban zone 2005	Total 2005	Growth
e-commerce	1,4%	7,7%	1,5%	1,8%	→
Internet	23,2%	7,7%	53,3%	50,8%	↗↗
Home office	34,8%	38,5%	35,5%	35,6%	↗
Gaming	63,9%	61,5%	70,1%	69,6%	↗
Word processing	66,2%	84,6%	69,3%	70,1%	↗
Leisure/photos	85,0%	69,2%	67,1%	67,2%	↘↘

- In addition to classic uses, such as word processing/desktop publishing and gaming/leisure, personal computers are being more and more to surf the web.

Computers

Reasons for non equipement



Reasons for not using a PC

Reasons for non-equipment	% rural 2004	% rural 2005	% urban 2004	% urban 2005
Illiteracy	50,8	46,3	24,2	28,4
Too expensive	30,1	44,0	55,3	50,5
No need	22,4	24,5	27,0	30,5
Lack of means	17,0	5,8	4,9	1,8
Too complicated to use	16,1	8,3	20,0	15,4

In rural areas, “illiteracy” was cited by over 46% of respondents while, among city-dwellers, “too expensive” was the reason given by 50.5% of respondents as the main obstacle to buying a computer.

Internet (1/6)



■ Internet equipment indicators

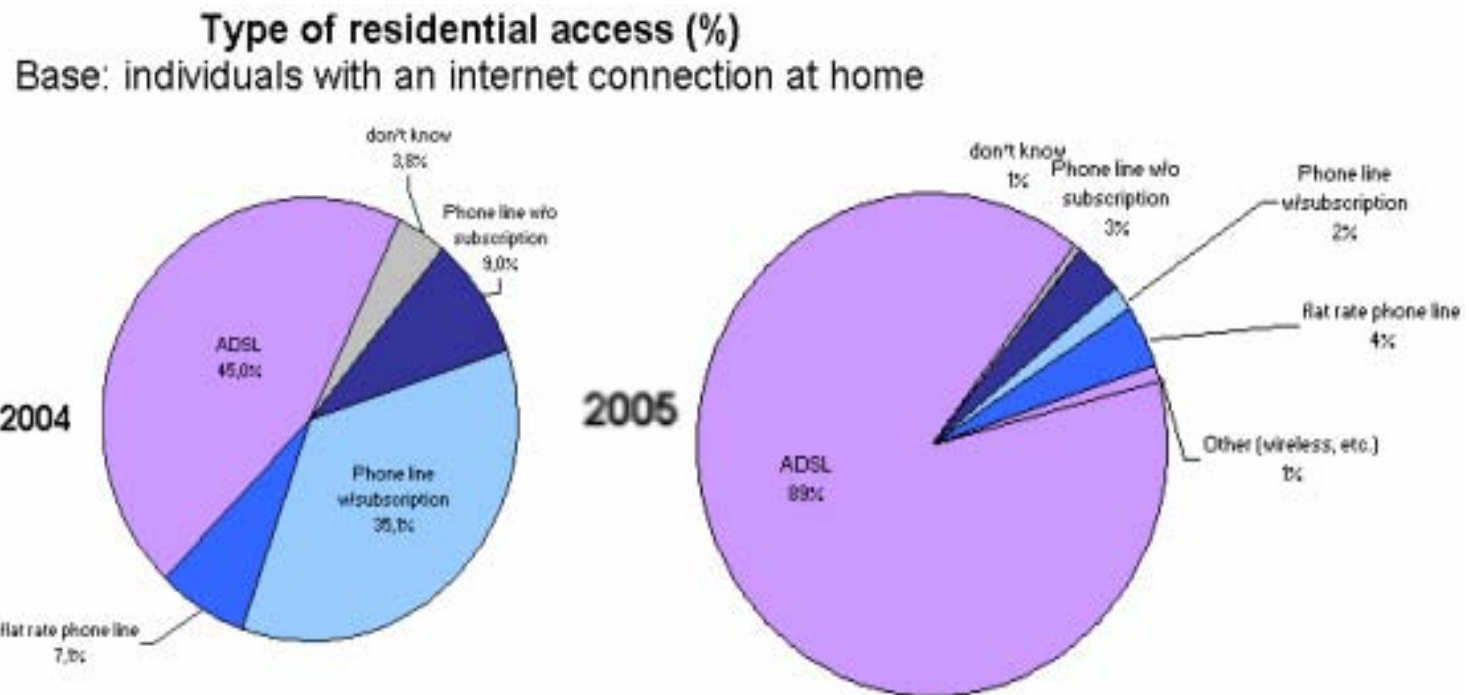
- Confirmation of Internet penetration within the population : the estimated number of households connected has doubled in one year to reach 240 000 lines (all access modes combined).

Internet acces	Penetration in households 2004 Survey	Penetration in households 2005 Survey	Evolution	Penetration in the Population 2004	Penetration in the Population 2005	Evolution
All access Types (%)	2,1%	4,3%	100%	-	-	-
In Millions	0,12	0,24	+0,12	0,113	0,262	+0,149
ADSL Access (%)	1,2%	3,9%	166%	-	-	-
In millions	0,0-	0,22	+0	0,063	0,248	+0,185

Internet (2/6)



- A High ADSL penetration :
 - 220 000 lines
 - It accounts for 89% of households connections to the Net.



Internet (3/6)



- A large number of Internet users : a part from internet access at home 34% of the population surveyed have an acces outside the home (83% accessing to the Net via an Internet Cafes).

Number of netizens in 2005 (projection to entire population)

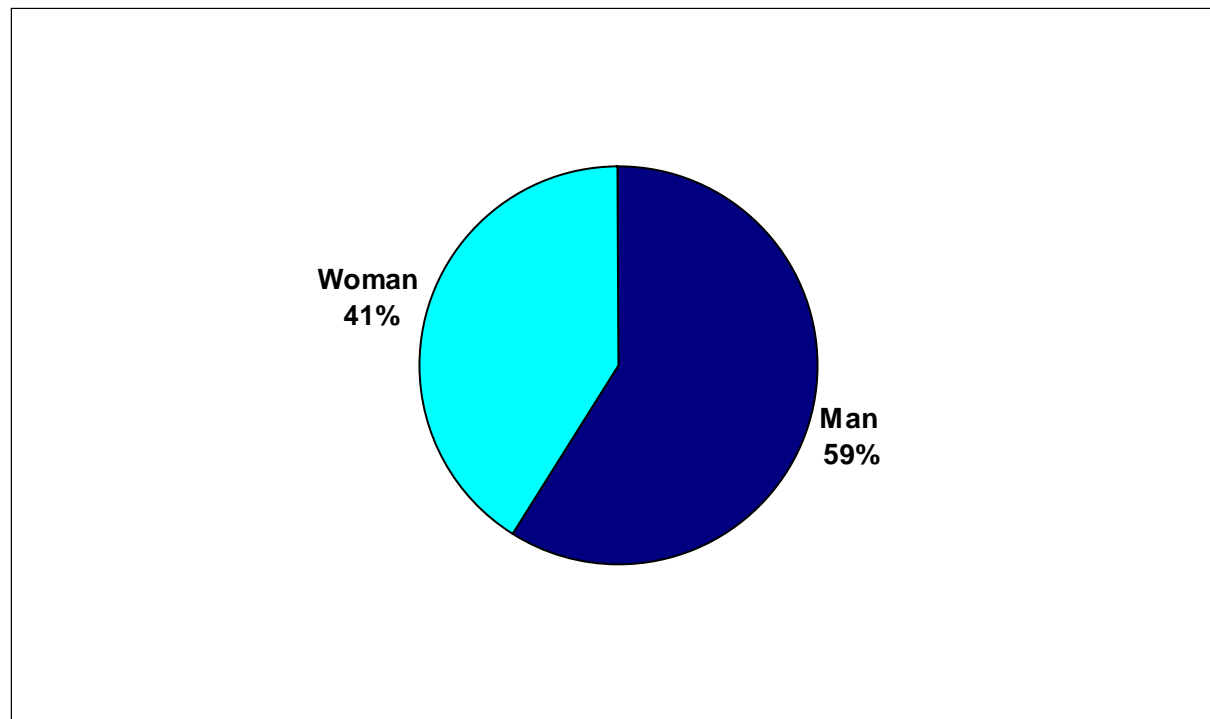
Netizens	Connected	as % of the population (2005)	Million (2005)	Growth 2004/2005 (%)	Growth 2004/2005 (Million)
Tiers 1	December 2005	15,6%	4,6	+31%	+1,1
Tiers 2	Year 2005	16,2%	4,8	+33%	+1,2

- In 2004, 96% of individuals with an internet connection (all locations combined), used the web to perform searches, compared to 91% in 2005: entertainment and use of the different messaging applications (IM and e-mail) are once again among the most common uses made of the internet.

Internet (4/6)



- Breakdown by sex of individuals claiming to have accessed the Internet during the past 12 months.



Internet (5/6)



- Obstacles to accessing the web

Main reasons for having no internet access at home (according to location)

	Total 2004	Rural zone 2005	Urban zone 2005	Total 2005	Growth
No need for it	21,9%	18,3%	13,9%	15,8%	↘
Do not have a computer	34,1%	30,1%	37,4%	34,3%	→
Illiteracy or lack of training	36,5%	48,7%	28,8%	37,2%	→
Too expensive	52,8%	38,2%	43,5%	41,3%	↘

Base : individuals with no Internet access at home

- While the lack of a computer is still the chief obstacle to gaining access to the internet, the price of internet access itself is now an obstacle to only just over 40% of individuals polled (compared to close to 53% in 2004).

Internet (6/6)



- Average monthly spending relating to the Internet Access.

- Among individuals who access the Internet, the average monthly spending is mainly less than the spending for the mobile telephony : 112 DH for 2005 :

2005	Rural	Urban	Overall
Average monthly spending (in DH)	61,1	122,8	112,0

- ...But very few households express the desire to shop online in the next 12 months, only 2,9% (and 98% have never do it during the last 12 months).

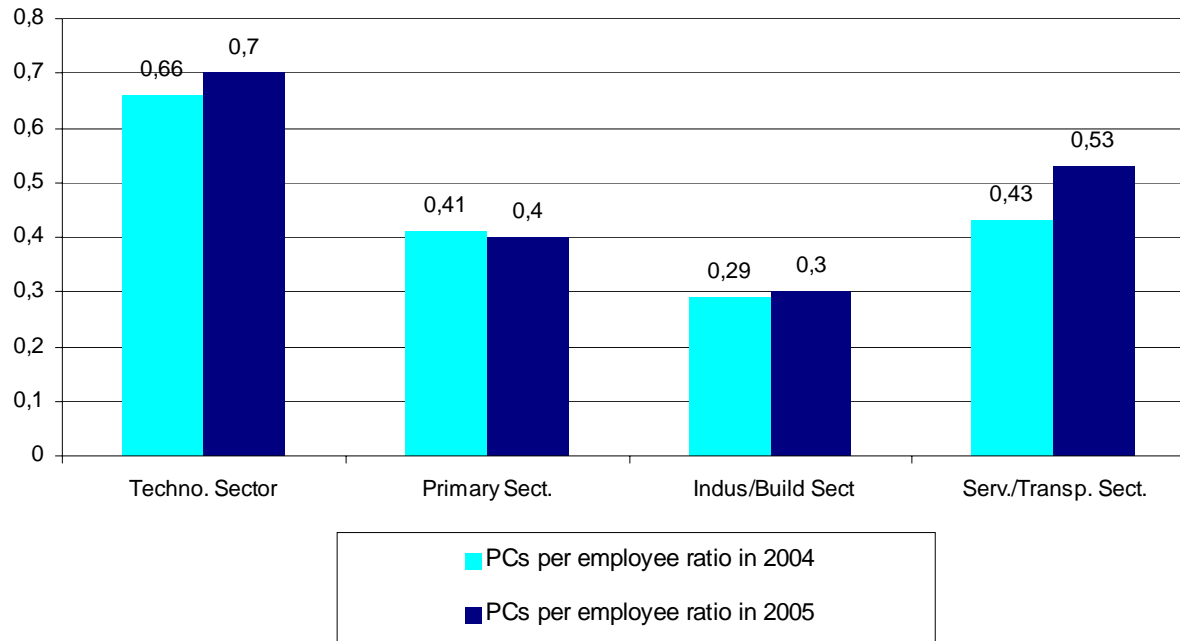
The results

Businesses



Businesses Equipement

Number of computers per employee



- The average number of computers per employee is up totalling 0.4 PCs per staff member in 2005 (vs. 0.37 in 2004).
- This average ratio for all sectors combined nonetheless hides sizeable disparities from one sector to the other.

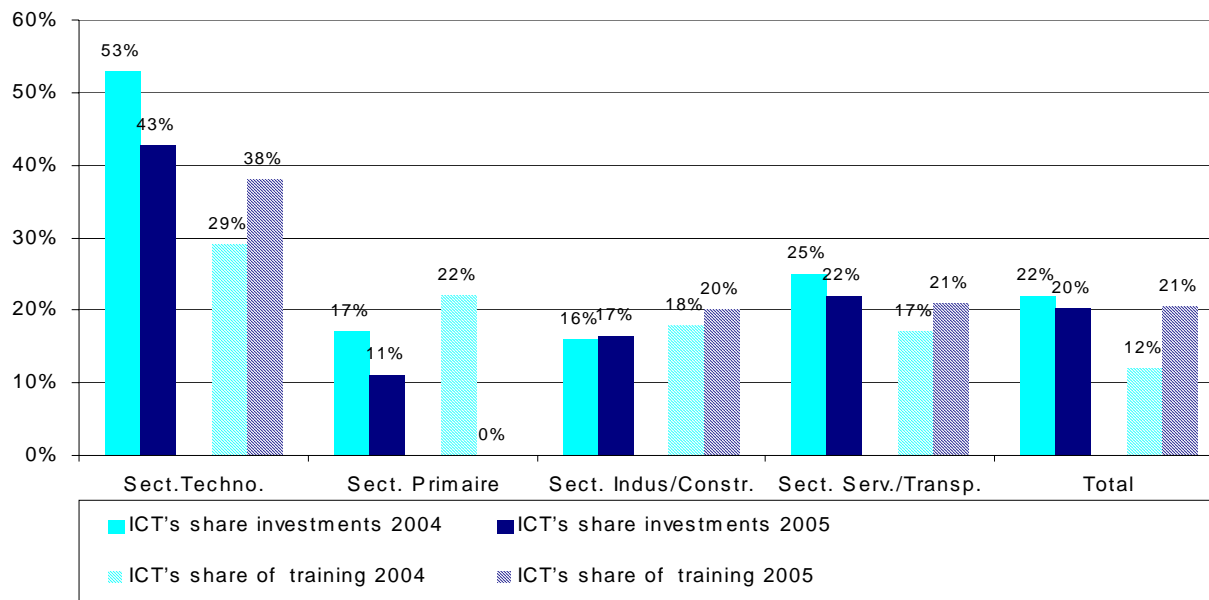
Businesses Equipment

Investment in ICT equipment **decreases**

Investment in human **increases**



ICT's share of corporate spending and training budgets

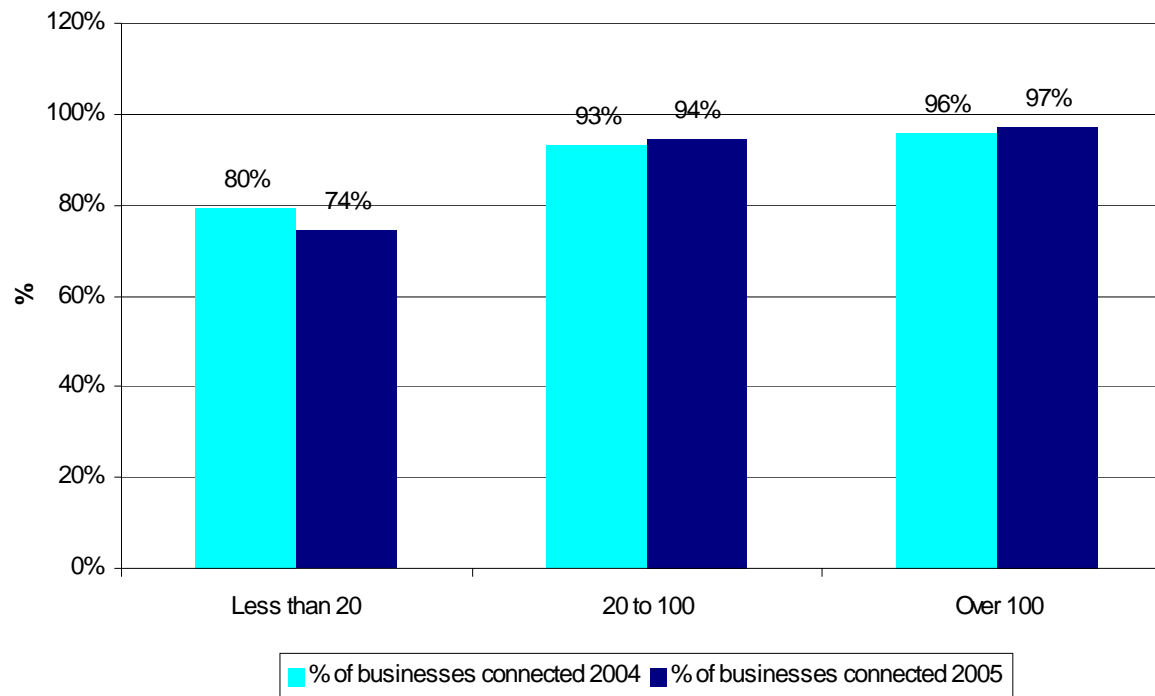


while average ICT spending has increased very little on average, investment in training staff is up considerably over the previous year.

Internet access Connected Businesses



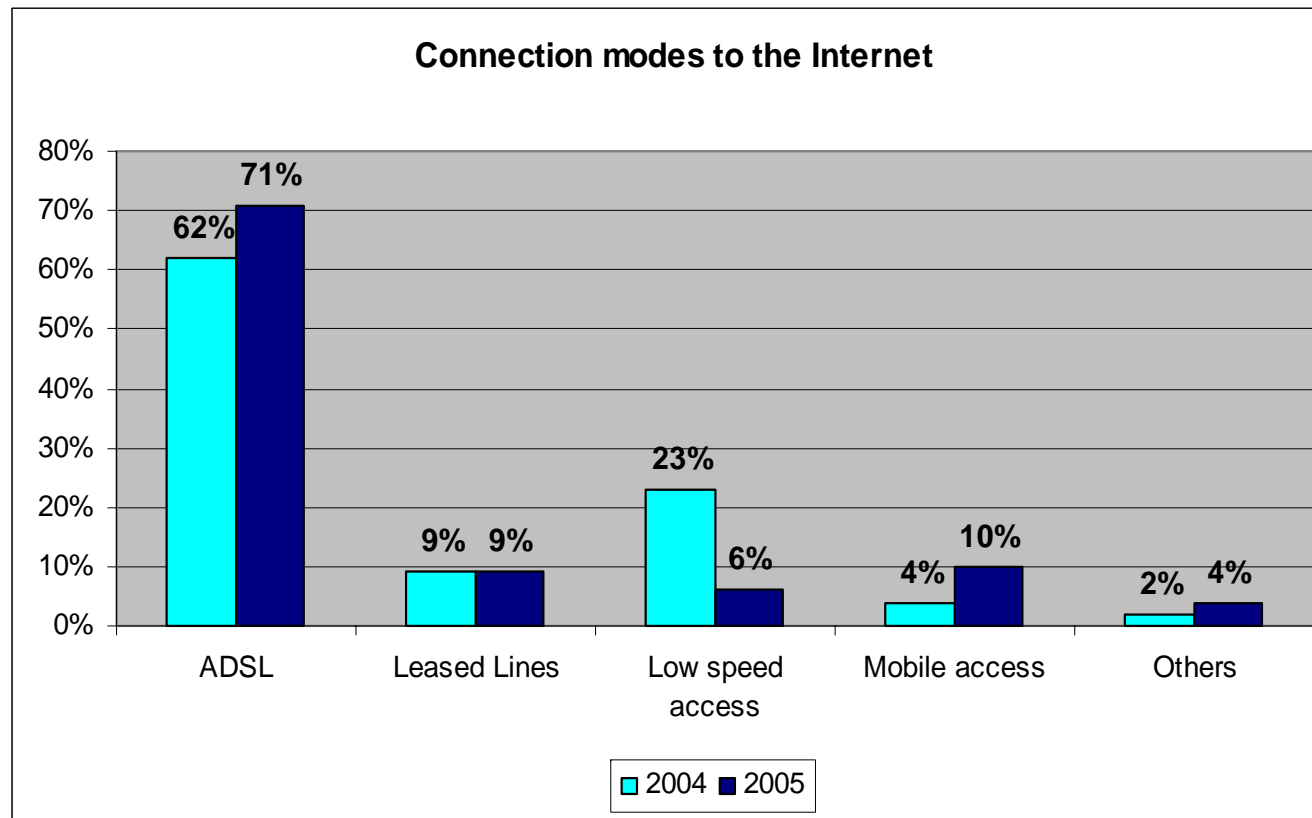
Proportion of Businesses connected following the size



A very low evolution for businesses with over 20 employees.

Internet access

Connection modes



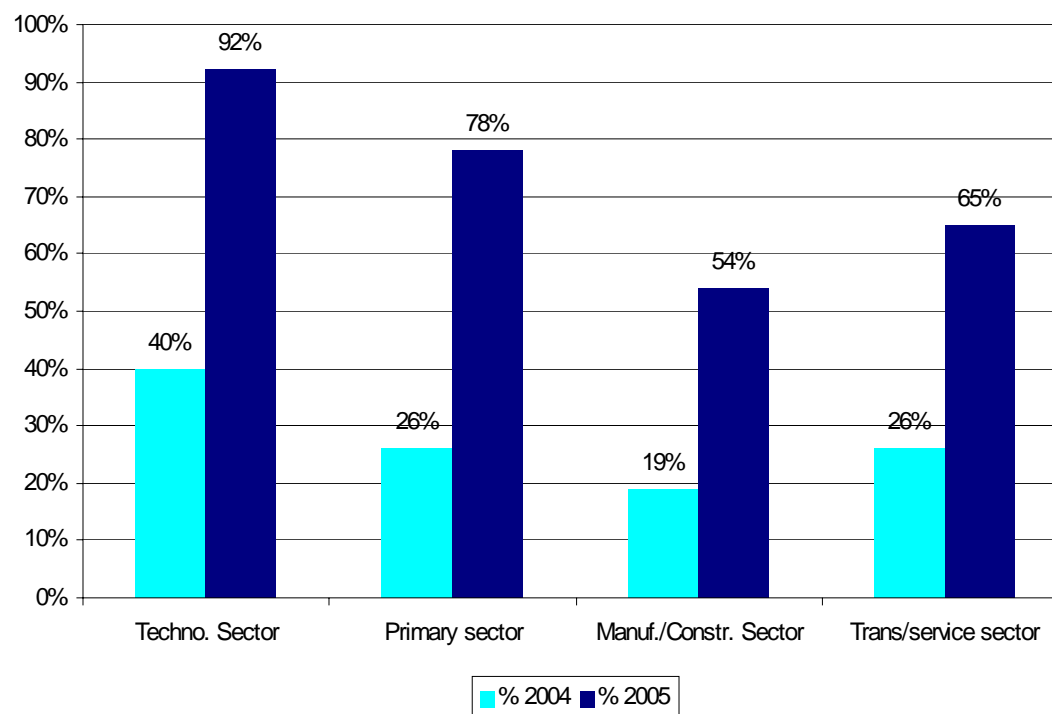
- Connection modes favouring ADSL solutions.
- Coexistence of many solutions within the same firm.

Internet access

Internet access within businesses



Percentage of office computers connected to the internet



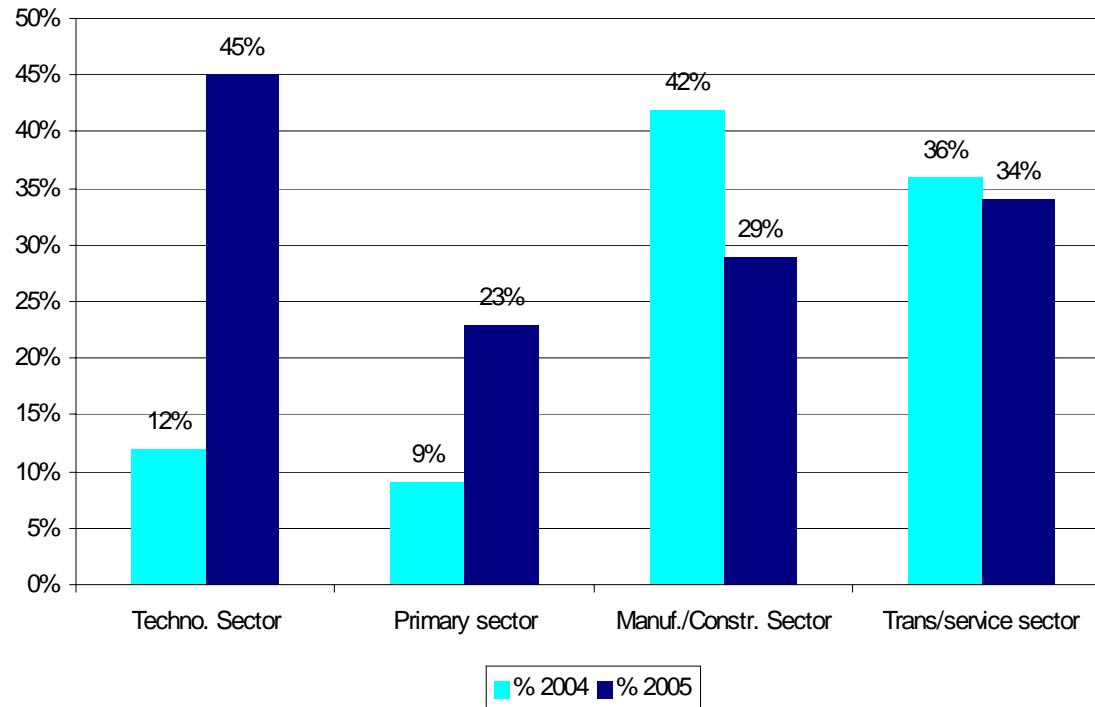
- Connection rates are very different depending on the sectors but in all sectors the number of computers connected to the Internet strongly increases.
- ... but, the increase is essentially benefiting to management-level employees.

Internet usages

Intranet existence



Share of companies equipped with an Intranet



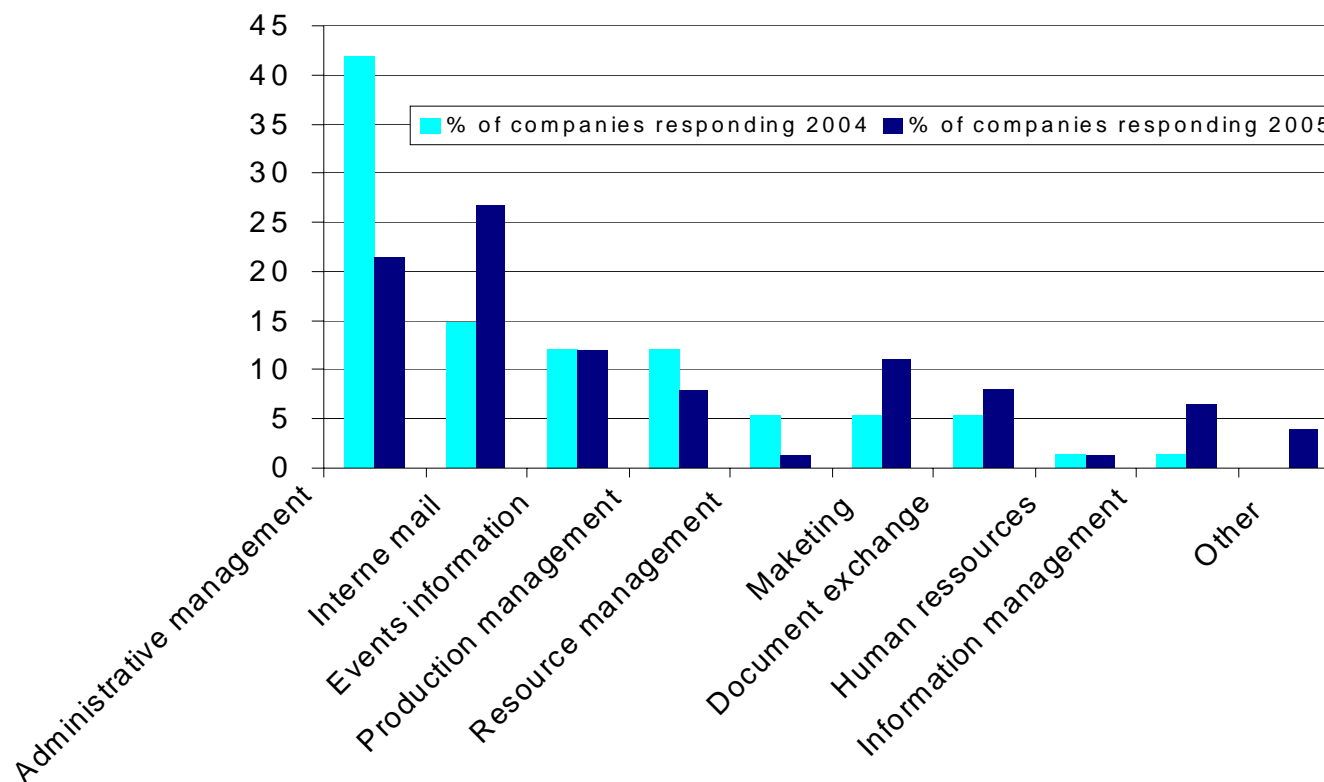
- The disparities from sector to sector remain considerable with, unsurprisingly, the Technological sector reporting a sharp rise in the number of companies equipped with an Intranet.

Internet usages

Usage of the Intranet



Intranet usage amongst equipped businesses



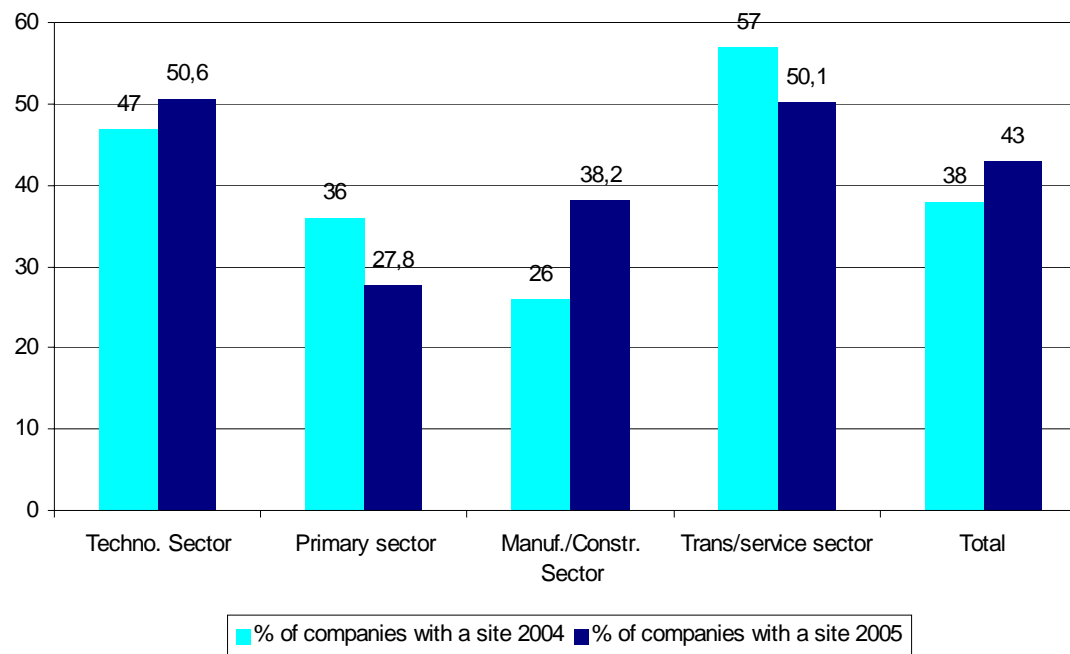
- The way that businesses use their Intranets is changing. Most companies are using their Intranet essentially more and more as a tool for distributing information within the company.

Internet usages

Existence of a web site



On average, 43% of businesses have a web site

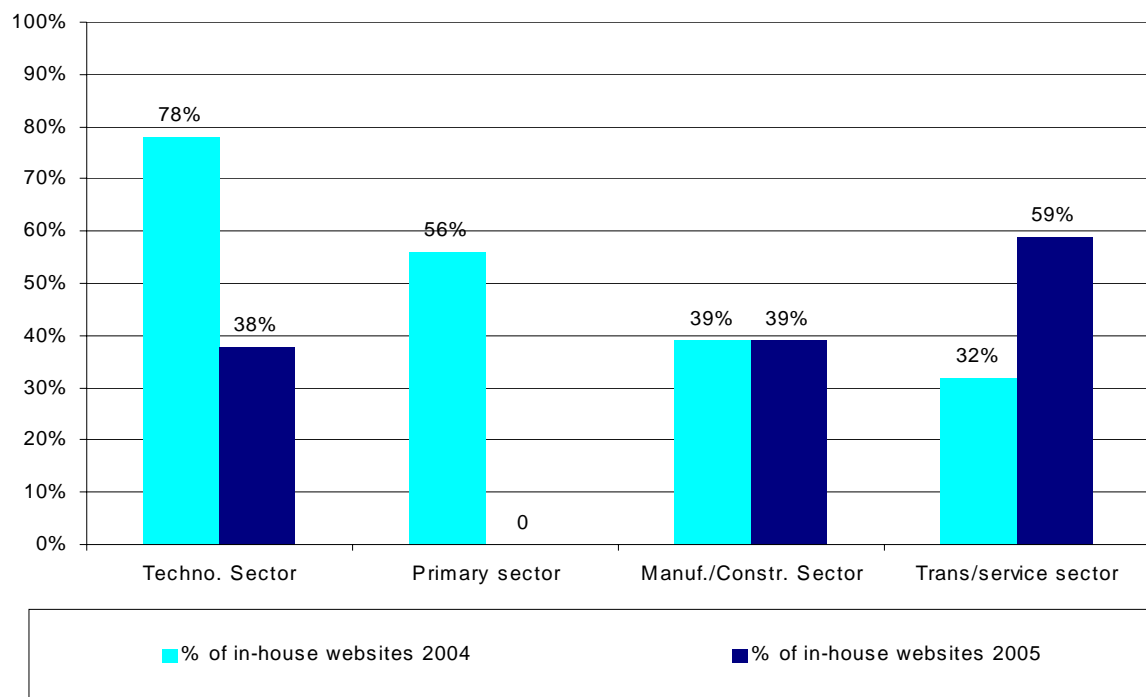


Internet usages

Web site development modes



Website development modes



While in 2004, half of all companies developed their sites in-house, 53% of them now outsource this function. This trend is particularly prominent in the “Technological” and “Primary” sectors.

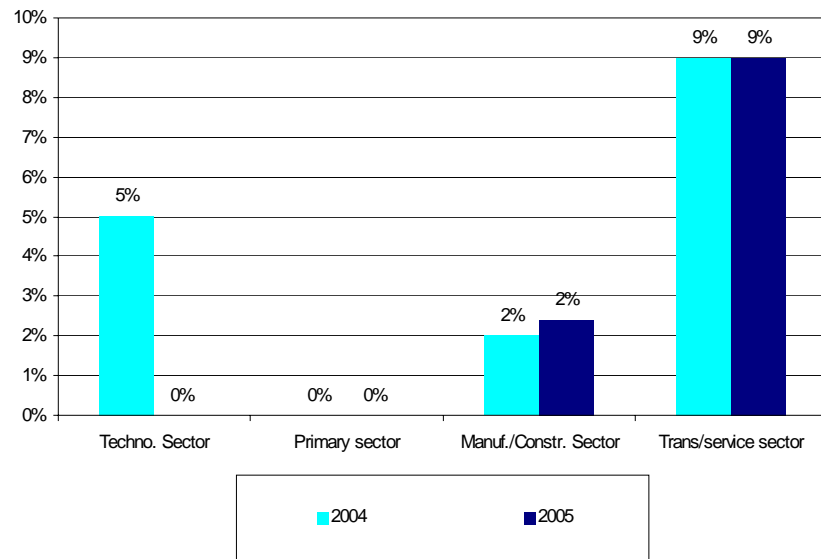
Internet usages



On line trading : the stumbling block

The B to B is relatively less developed than the e-commerce but in the both cases, only few businesses are concerned.

Proportion of Businesses selling online



Proportion of businesses purchasing online

