

COINVEST: Competitiveness, Innovation and Intangible Investment in Europe

French presentation

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French team

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Concepts and objectives : background

- Implementing R&D as a fixed asset is one of the major change in the new SNA 2008
 - Implementation for EU in 2014
- Eurostat Task force on R&D prepares templates for supplementary tables of R&D
 - Compulsory for member states in due time
- New OCDE Handbook provides guidance on compiling estimates of intellectual property products (IPP)
 - By the end of 2008 or early 2009



Concepts and objectives

- What's in and what's out of GFCF
 - Produce benefits for more than a year to the economic owner
- Seeking for service lives
 - Israel, Germany and UK have undertaken pilot surveys on R&D service lives
 - But surveys must be done on other assets service lives
- Seeking for price index
- Avoiding double counting
 - Between software and R&D for example



Concepts and objectives : GFCF vs IC

- Most of « intangible expenditures » are taken into account in NA
 - Already considered as GFCF since SNA 1993
 - Software
 - Mineral exploration
 - Architecture and engineering
 - Copyright and license cost
 - Recorded as IC and specified as a « distinct » commodity
 - R&D
 - Advertising expenditure, market research
 - Recorded as IC but not as distinct
 - Training
 - Organizational expenditures



First step : benchmarking methods and data

- For distinct « assets » in national account
 - Could we start from commodity flows ?
 - R&D example
- For other « assets »
 - What source of data are available item by item ?



Starting from commodity flows (1/2)

- The « supply and use table » shows goods and services by product and by industry :
 - By type of supply :
 - Imports
 - Production
 - by type of use :
 - Intermediate consumption
 - Final consumption
 - GFCF
 - Exports



Starting from commodity flows (2/2)

- The input-output table shows the uses of the goods or services (R&D for example) industry by industry
 - But we have to avoid double counting at the intersection (diagonal) of product and industry
 - i.e. R&D used in the process of production of R&D and/or sub-contracting



In France, R&D is already in National Accounts

- A survey based on the Frascati Manual (FM) recommendations is made every year on units who employ at least one full-time equivalent researcher :
 - private corporations ;
 - Government units ;
 - non profit institutions.
- Two others sources are available and allow comparisons between data :
 - Enterprises' accounts and fiscal declarations for business sector ;
 - Publics accounts for the research expenditures from Government units.



R&D in French national accounts

T1 : Production account of R&D industry

Intermediate consumption	19,1
Gross value added	14,2
Output of R&D industry	33,3
market output	25,5
other non market output	7,8

T2 : Input - Output Table

Goods & services	Industries			
	R&D	Others non market industries	others market industries	TOTAL
R&D	2,2	1,5	19,7	23,4
other goods & services	16,9	45,1	1 385,2	1 447,2
Total	19,1	46,6	1 404,9	1 470,6

2004, in billions, current euro

T3 : R&D Supply and Use Table

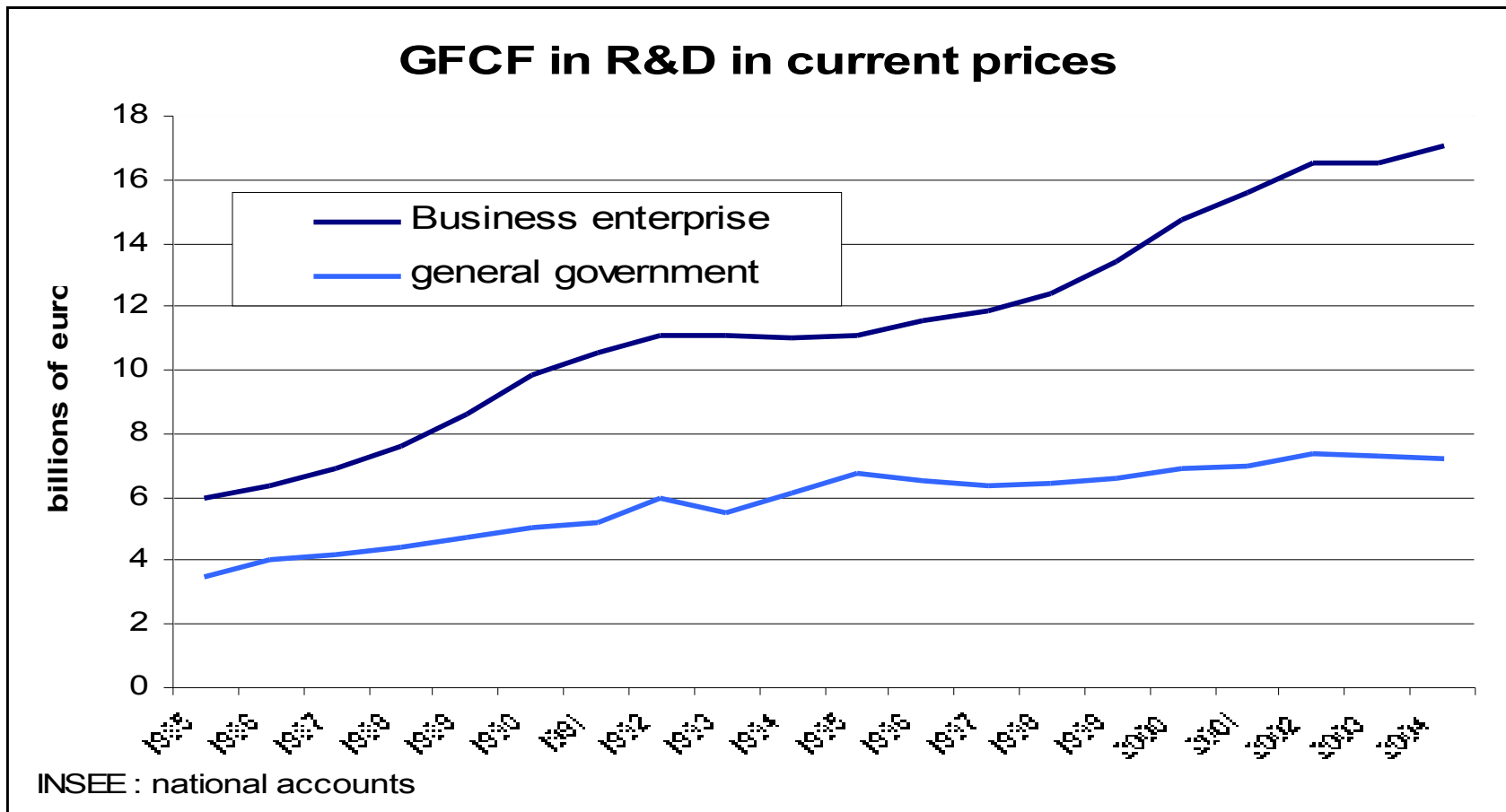
Supply	Production (1)	32,4
	Imports	1,3
	Total Supply (1)	33,7
	Taxes on products	0,2
	<i>of which VAT</i>	0,2
	subsidies on products	0,0
TOTAL SUPPLY (2)	33,8	
Use	Intermediate consumption	23,4
	Final collective consumption of government	7,8
	Exports	2,7
	TOTAL USES	33,8

(1) Basic prices

(2) Market prices



Measurement of R&D as GFCF

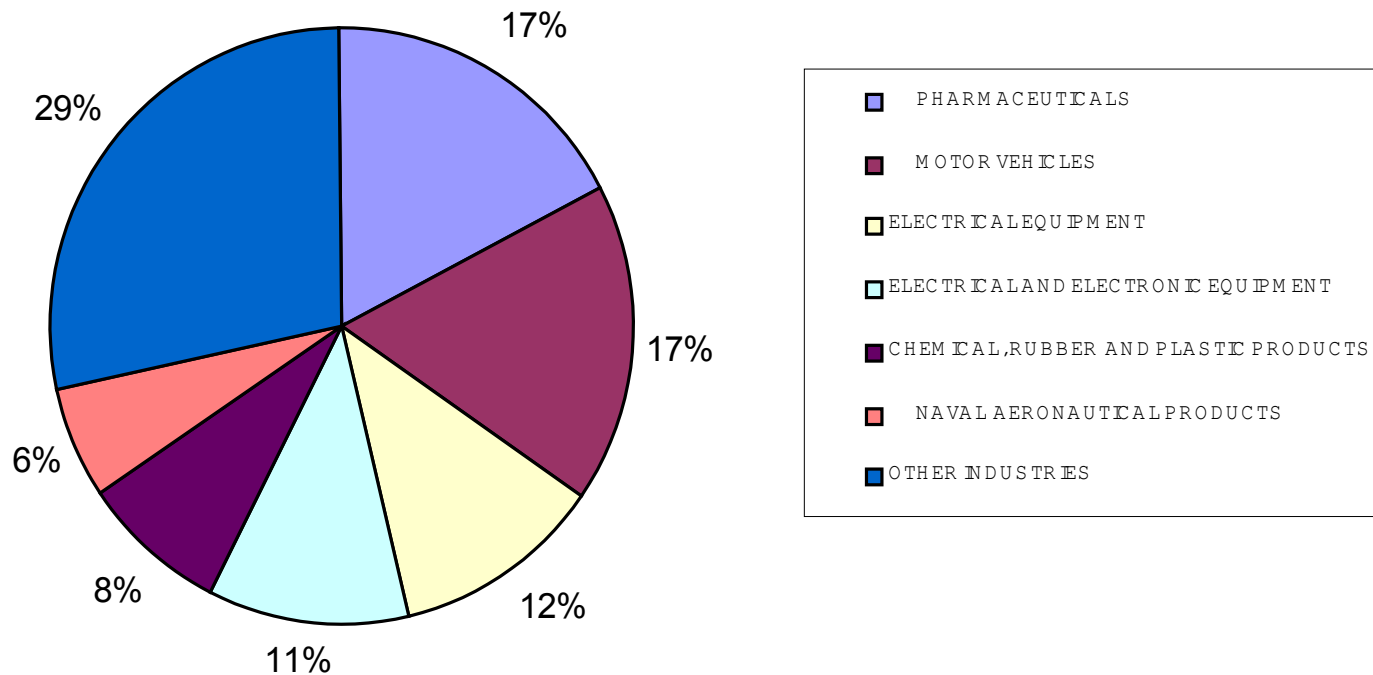




Main industries, R&D producers

R&D producers in 2004

%





Starting point (1/3)

- Hao, Manole & Van Ark (2008) (HMA)
 - Following CHS (2005) methodology
 - Baseline study covering intangible investment between 1991 and 2004 in France and Germany
 - Need for:
 - Improvement in measuring GFCF
 - Homogenization of data sources



Starting point (2/3)

- Data used in HMA for France:
 - Computer software: INSEE
 - Databases: EUKLEMS
 - R&D: EUROSTAT (excluding R&D in computing industry)
 - Mineral exploration: own calculations and Al-Attar & Alomair (2005)
 - Copyright and licence costs: Screen Digest (2005), CHS (2005) methodology



Starting point (3/3)

- Data used in HMA for France (contd.):
 - Developments in fin. industry: STAN, CHS (2005) methodology
 - Architectural and engineering designs: EUKLEMS
 - Advertising: EUKLEMS
 - Firm-specific human capital: LCS, CVTS, EUKLEMS
 - Organisational structure: EFMCA, SES, EUKLEMS

LCS: Labour Costs Survey

CVTS: Continuing Vocational Training Survey

SES: Structure of Earning Survey

EFMCA: European Federation of Management Consultancies Associations



Objectives

- For COINVEST
 - Homogenize data sources
 - Provide more and reliable and accurate figures for French intangible GFCF
- For INSEE and national accounting
 - Get a clear view on pre-existing GFCF accounts
 - Integrate new accounts with sound statistical bases



Software (1/5)

- Purchased software (National accounts, EAE) from:
 - Softwares providers (722Z)

60.6% = GFCF {

- System software
- Specific software
- Computing services (60%)

39.4% = IC {

- Consulting in software development
- Maintenance
- Software support
- Computing services (40%)



Software (2/5)

- Purchased softwares from:
 - IT consulting (721Z)

45% = GFCF {

- Software provision and installation
- Hard- and software leasing (45%)

55% = IC {

- Consulting and analysis
- Hard- and software leasing (55%)



Software (3/5)

- Own account software

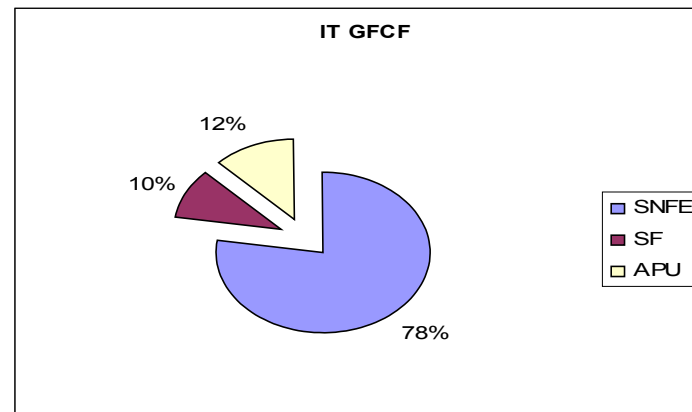
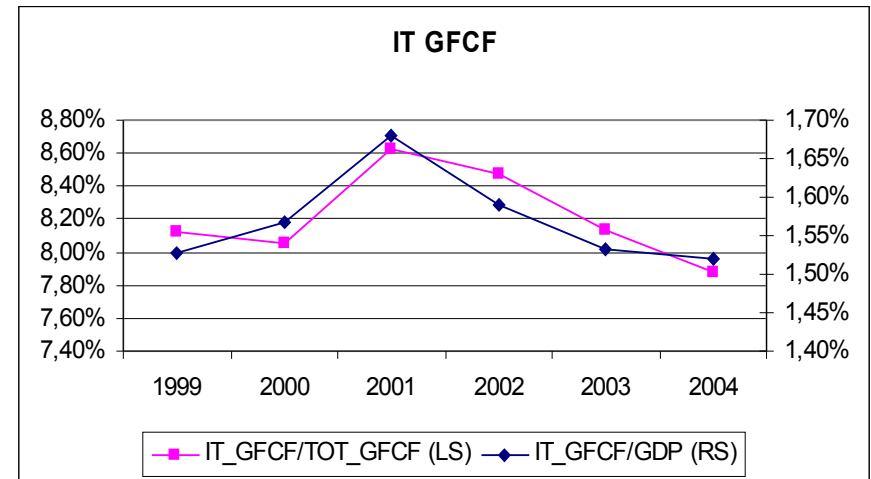
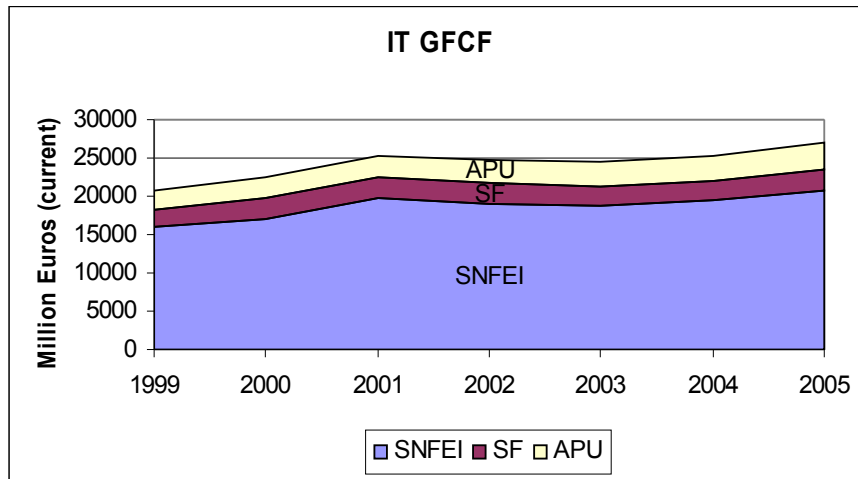
- IT employees (DADS, census) 23% own account
 - In IT firms (40% of all) → 77% to be sold
 - In non-IT firms (60%) → 85% own account
→ 15% to be sold

- Time spent on programming software = 50%
- Non-labour costs = 85% of labour costs



Software (4/5)

- Results





Software (5/5)

- To be done
 - Assess reliability of figures and percentages used
 - Apply same methodology to database providers



Advertising & Market research (1/4)

- IC in national accounts
 - Total in 2004 = 27 000 million Euros including:
 - 98.2% by private sector
 - 11.8% by public sector
 - 23.9% of private sector expenditures are inter-industry (sub-contracting)
 - 20 031 million euros Ad purchase



Advertising & Market research (2/4)

- Distribution across media & non-media:
 - 34.83% = media
 - 65.17% = non-media
- Rooijen-Horsten, Bergen et Tanriseven (2008), France Pub:
 - 82% of news papers advertising are brand-forming
- 78.55% of total advertising could be brand-forming

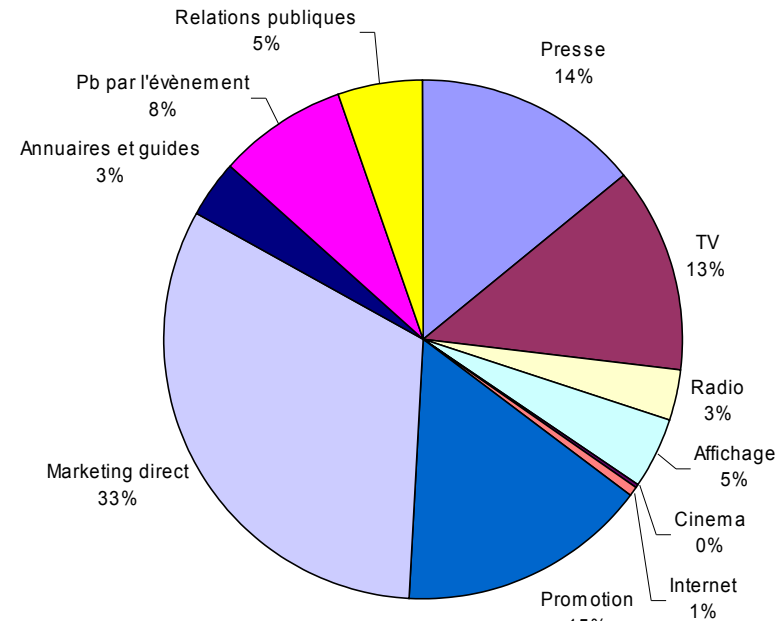
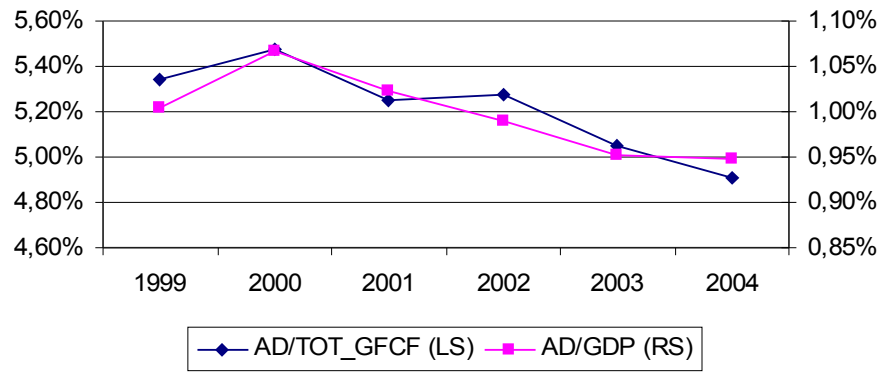


Advertising & Market research (3/4)

- Results

Distribution of expenditures media non-media

Ad & Market research



Source : France Pub



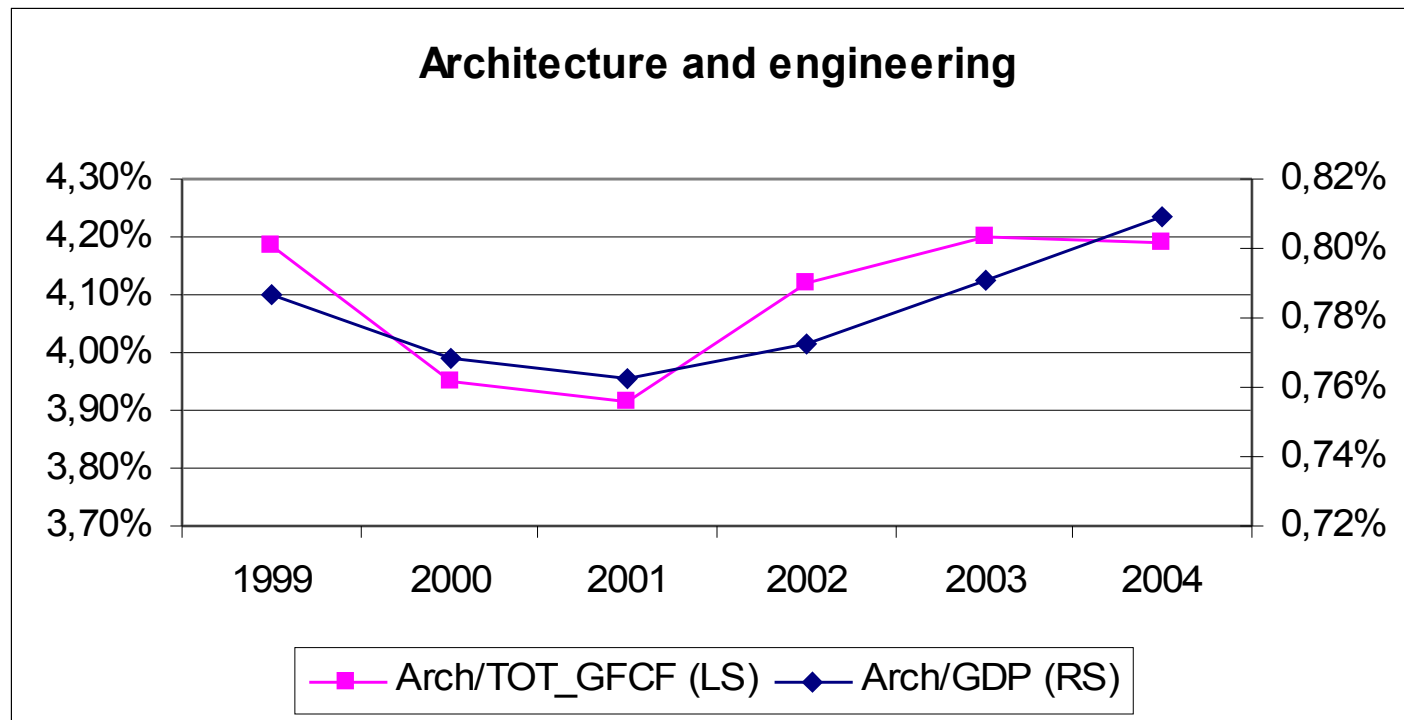
Advertising & Market research (4/4)

- To be done
 - Disaggregate Advertising and market research
 - Evaluate in-house advertising (large part but small amounts) with employment surveys and census
 - Deepen brand-forming capacity of each type of ad.



Architecture

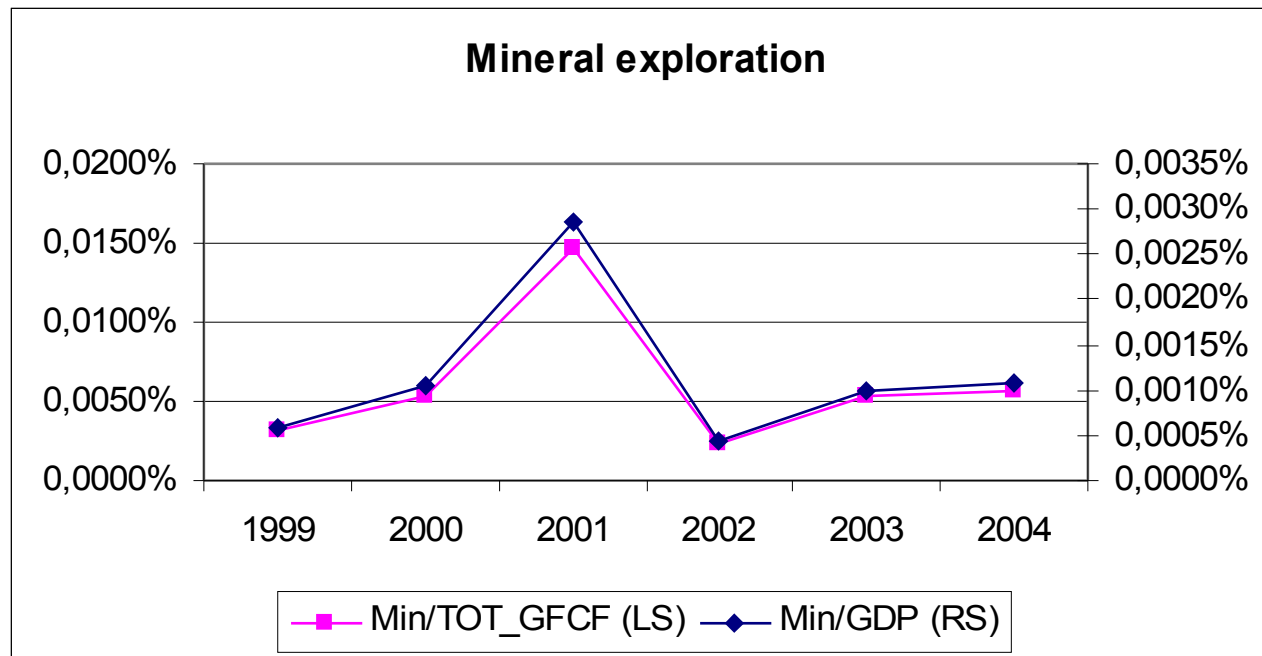
- In 2004 INSEE recorded 13 431 million euros in architecture & Engineering (Excluding households)





Mineral exploration

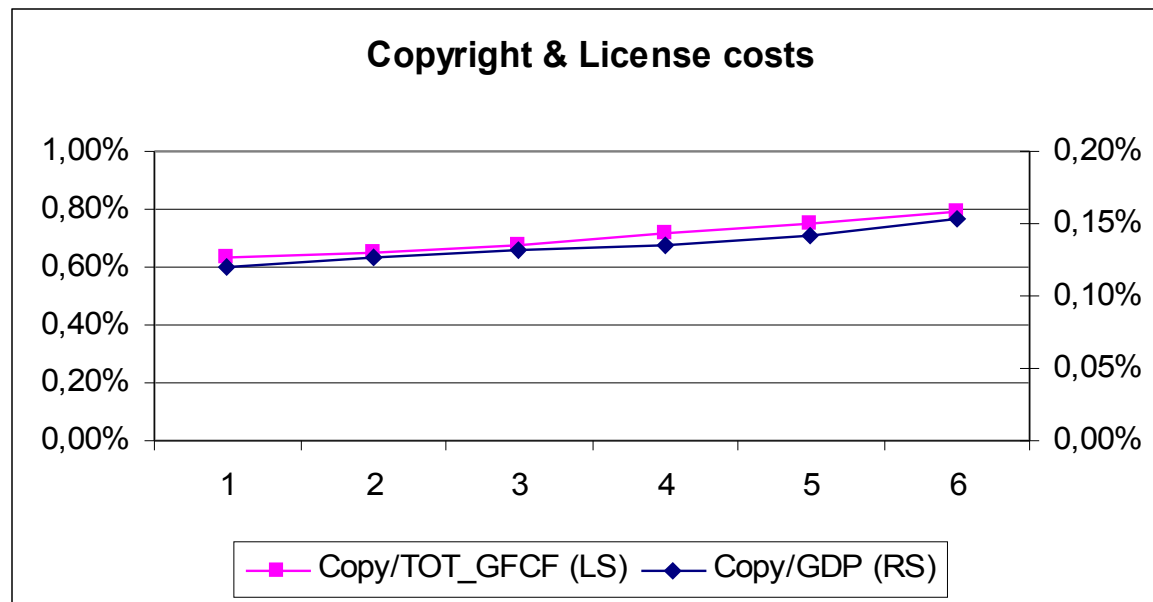
- In 2004 INSEE recorded 18 million euros in mineral exploration, 0.001% of GDP and 0.005% of total GFCF





Copyrights & License costs

- In 2004 INSEE recorded 2,538 million euros in motion picture, radio and sound recording.
 - Copyrights GFCF is considered to be the amount of intra-industry consumption





Results

<u>In 2004</u>	HMA (2008)		INSEE	
	Million euros	% GDP	Million euros	% GDP
Software	14 211	0.86	25 232	1.53
Databases	738	0.04	?	?
R&D	34 724	2.09	24 335	1.46
Mineral exploration	0	0	18	0.001
Copyrights & License costs	3 144	0.19	2 538	0.15
Financial innovation	9 666	0.58	?	?
Architecture & Engineering	14 927	0.90	13 431	0.81
Advertising	22 763	1.37	15734	0.95
Market research	4 444	0.27		
Human capital	24 986	1.51		
Organisational structure	37 496	2.26	?	?

