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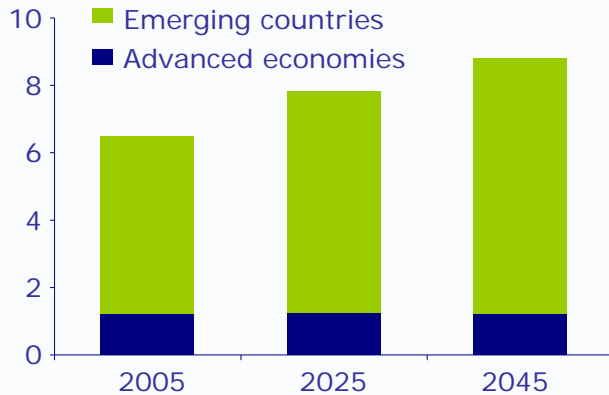
**Aspen for G8
Global Health Forum**

Sergio Dompé
Farmindustria, President

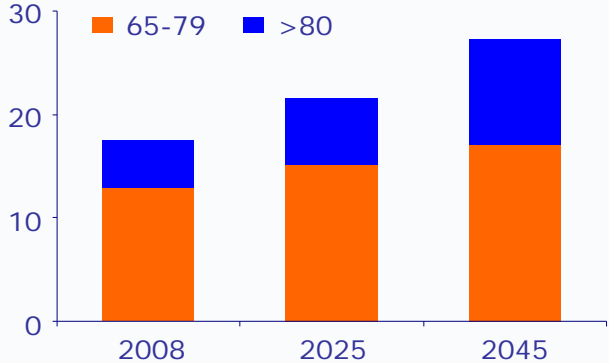
International Conference
Rome, 13 february 2009

Drivers for change in Global Health

World Population (billions)

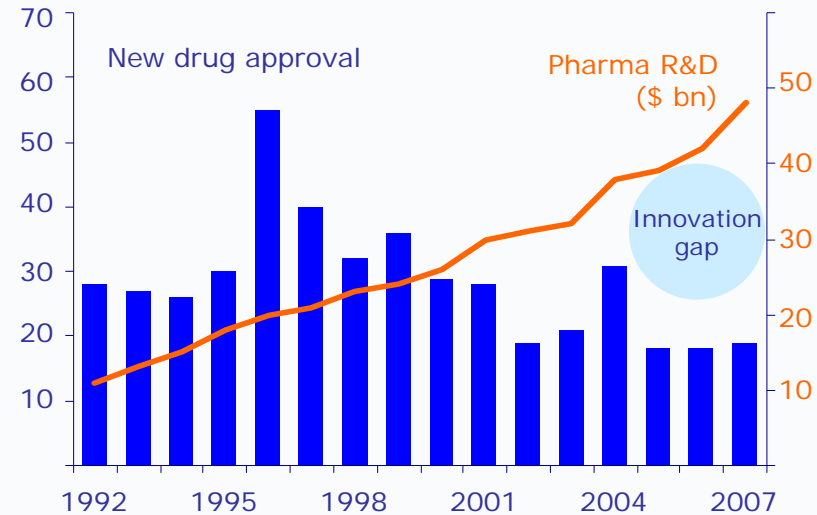


Over-65 in Eu (% on total)



- World Population growth and ageing advanced economies
- Macroeconomic growth and sustainability

Pharmaceutical R&D trend



New trends in healthcare R&D

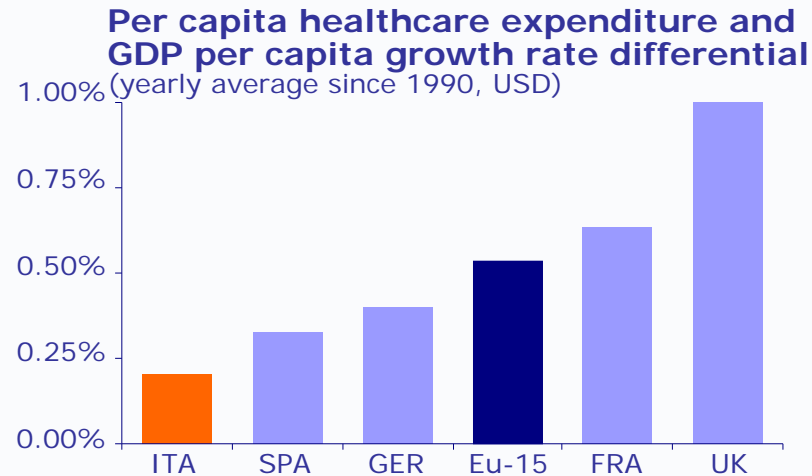
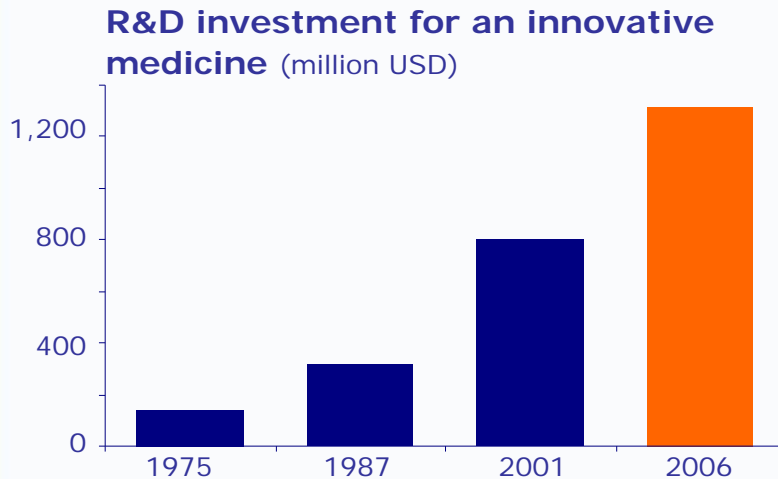
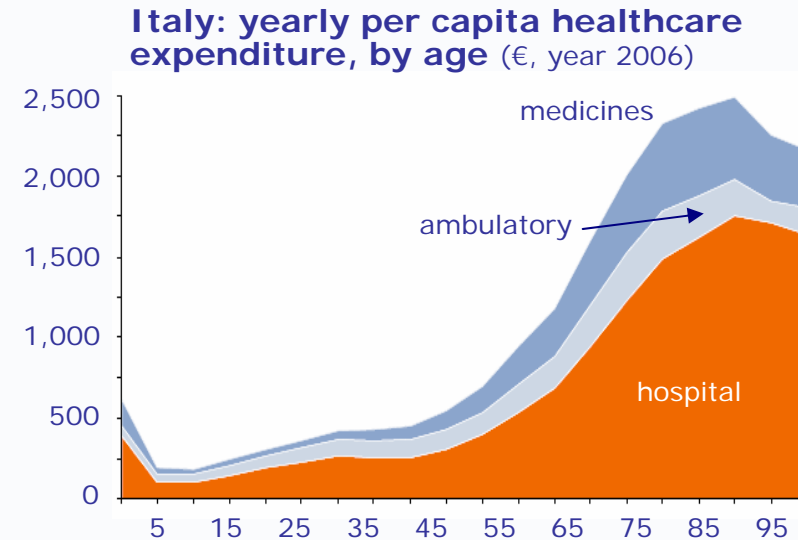
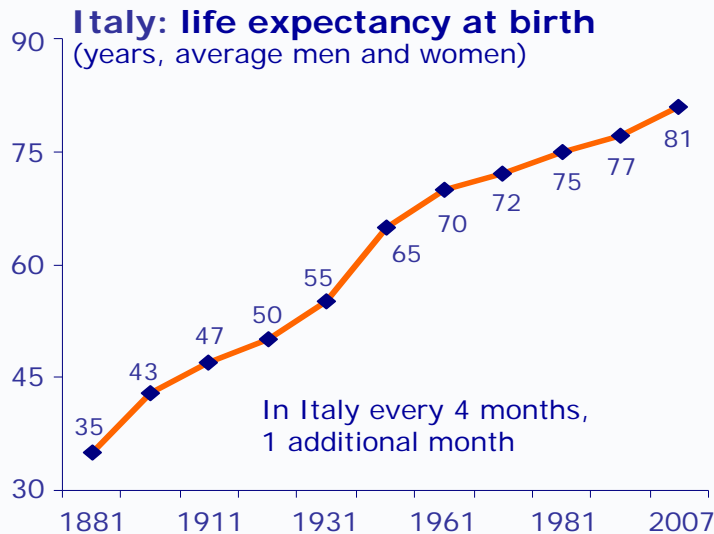
- Growing R&D costs
- New demand for unmet medical needs
- New cutting-edge technologies
- Growing specialisation
- Interdisciplinary R&D
- Move to personalized medicine



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Source: UN, eurostat, SCRIIP

Ageing society and sustainability



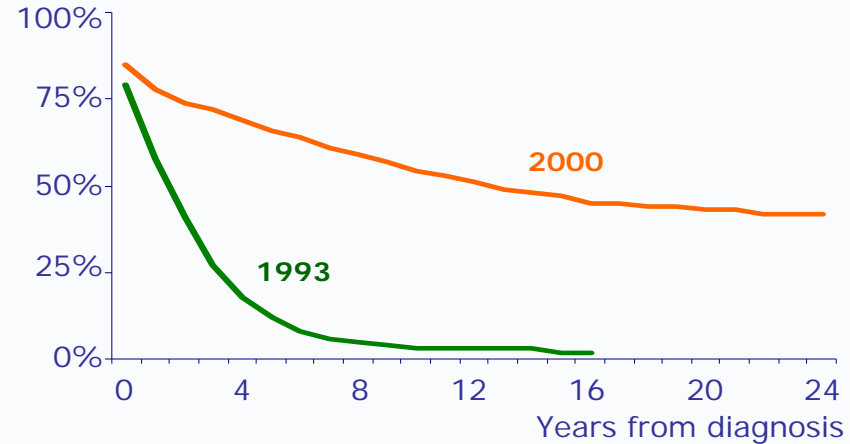
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Source: Istat, Phrma, OECD, Min Salute

Healthcare is expensive. But how much is it the cost of illness?

HIV/AIDS: **60%** of life expectancy increase depends on pharmaceutical innovation

HIV/AIDS: survival probability



Italy: Average yearly cost for Alzheimer's treatment
(€ per Patient)

Home care	~ 53.000
Medicines	~ 1.000

New Alzheimer's medicine allow patients to remain independent longer (estimates of more than 2 years)



Life expectancy increase heavily depends on pharmaceutical innovation: a primary instrument for Global Health

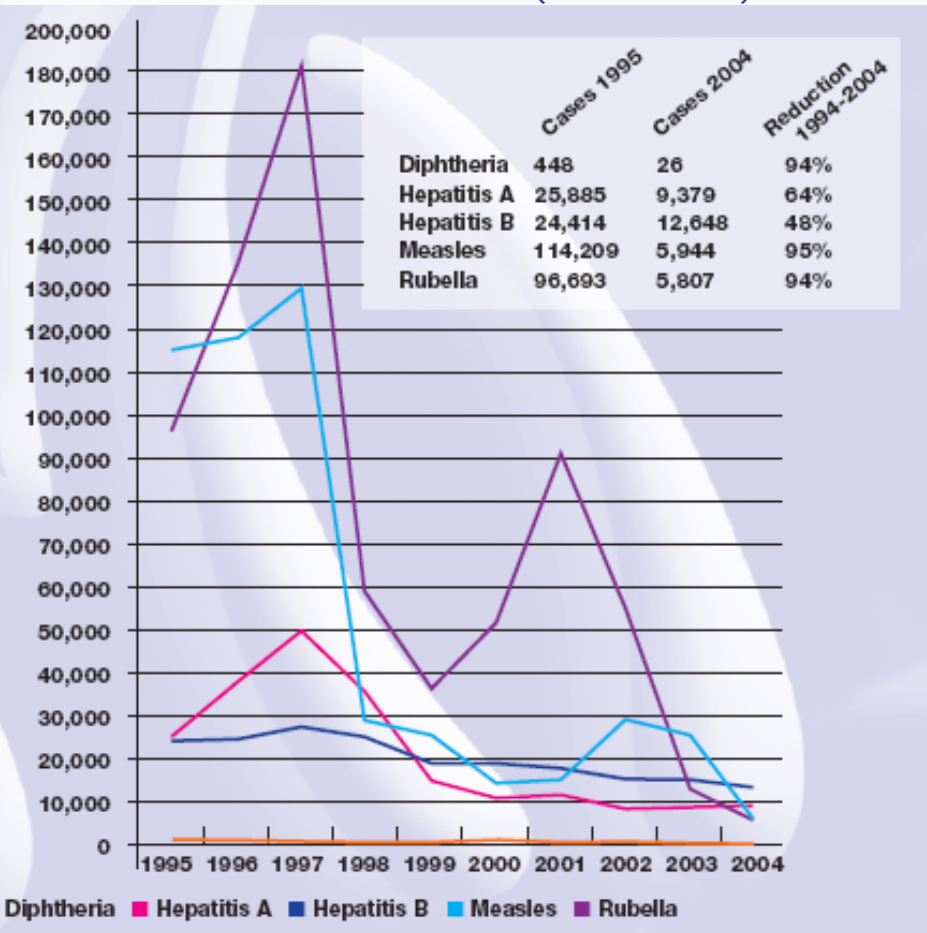


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Source: Censis, Phrma, Lichtenberg (2007)

Industry's commitment for vaccines and Diseases of the Developing World

Reduction in vaccine-preventable diseases in the Eu and EEA/Nafta (n° of cases)



4,000 R&D project worldwide, for example

- 388 for infectious diseases (146 vaccines)
- 109 for HIV/AIDS (29 vaccines)
- 67 for Diseases of the Developing World (9 vaccines)

Vaccines are among the most cost-effective health investments

An important role for Italy

- Industrial and public excellence for vaccines and neglected diseases (**Industria 2015 Program**)
- One of the funders of **Advanced Market Commitment**, for R&D on vaccines



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Source: EVM, Phrma, IFPMA

From pharmaceuticals the opportunities for a more efficient Healthcare System

Medicines and vaccines are an instrument for NHS efficiency

- Preventing diseases
 - Avoiding surgery
 - Slowing the degeneration or mitigating symptoms of diseases
 - Shortening or avoiding hospitalization
 - Reducing the risk of disabilities
-

Medicines and vaccines have to be considered an investment and not current expenditure

Italy: Yearly savings from pharmaceuticals (€ billions)

Healthcare costs	6.4
Non-healthcare costs (higher productivity, lower social expenditure)	6.0
TOTAL	12.4

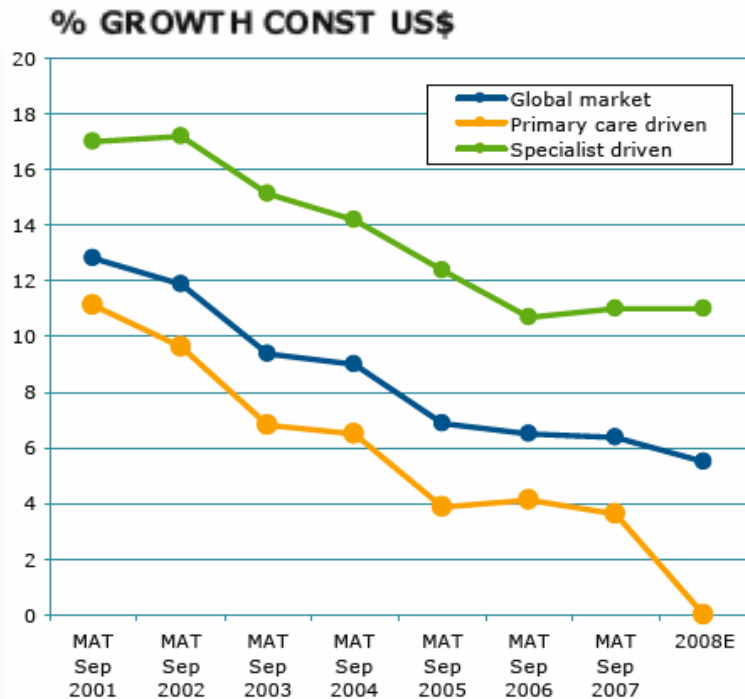
Note: estimates based on cardiovascular, respiratory and NCS diseases



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Source: CER, Il valore del farmaco (2008)

Growing role for specialist pharmaceutical treatments



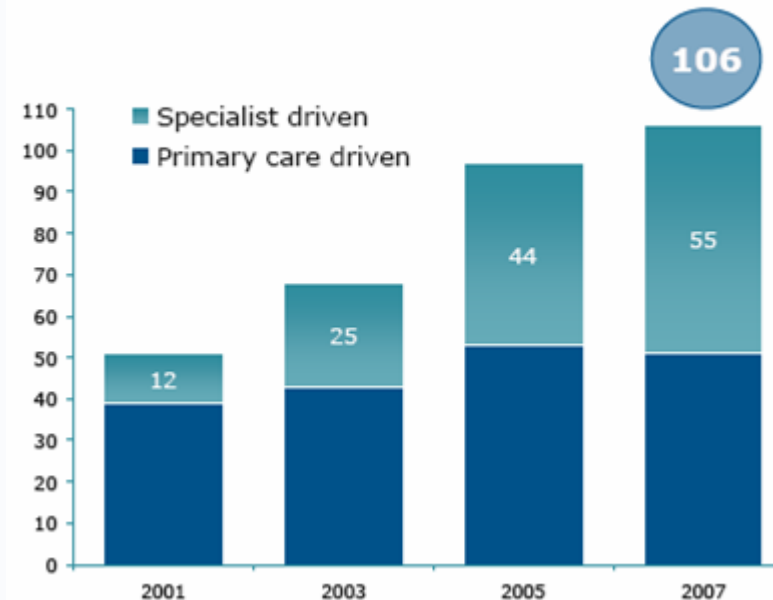
- Specialist driven market share from 30% in 2001 to 40% in 2007, accounting for 2/3 of total growth

Source: IMS

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Number of Global Blockbusters



- From biotech 20% of available medicines, but 50% of those under development
- 2008: 19 New Chemical Entities launched for specialist care, 10 for primary

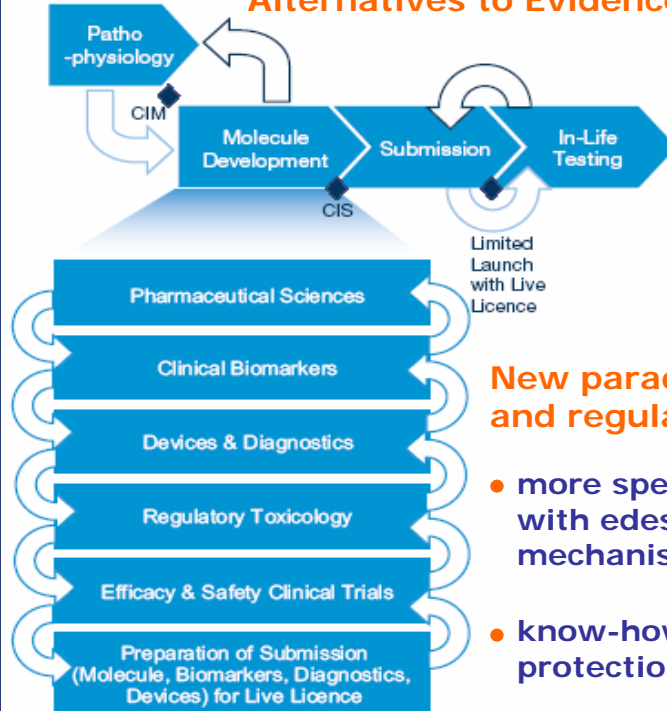
New models for increasing efficiency in Life Sciences R&D process

Today



2020

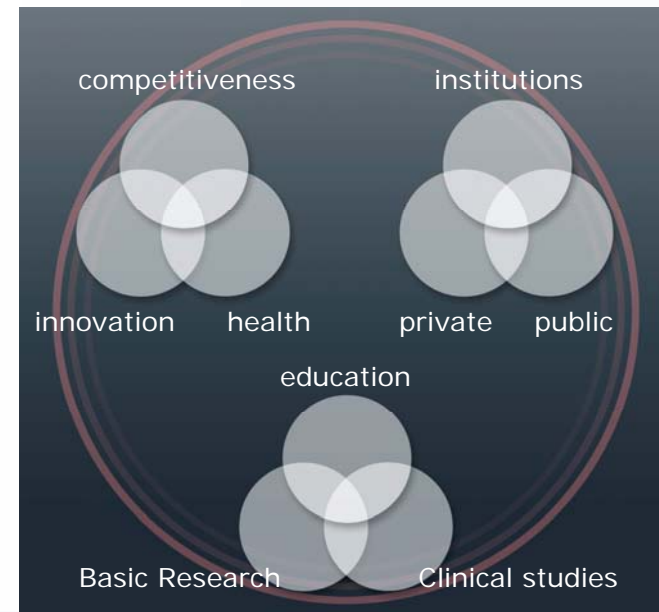
Alternatives to Evidence Based Medicine



New paradigms for R&D and regulation, e.g:

- more specific clinical trials with edesigned monitored mechanisms
- know-how open source protection

The triple helix model



Specialisation, interdisciplinarity, traslational Research bring **opportunities for many different subjects** (Big Pharma, SMEs, spin-off, Public Research, University, ...)



Source: PriceWaterHouseCoopers, ATA

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New models to promote Innovation

Most efficient source of future Innovation

(% on total respondent companies)

Outsourcing	41%
Biotech-focused M&A	39%
In-house R&S	20%

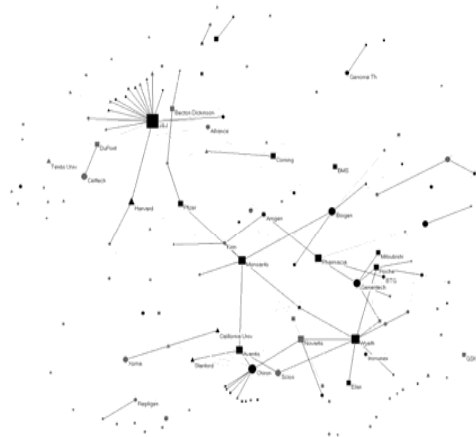
Source: Scrip (2008)

Growing specialisation, also in R&D

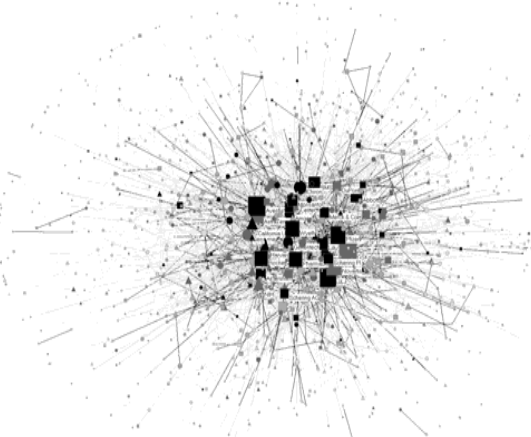
Most of the innovation happens outside the company's walls

Up to a few years ago critical mass was necessary. Today network competitiveness, not just size, is the key

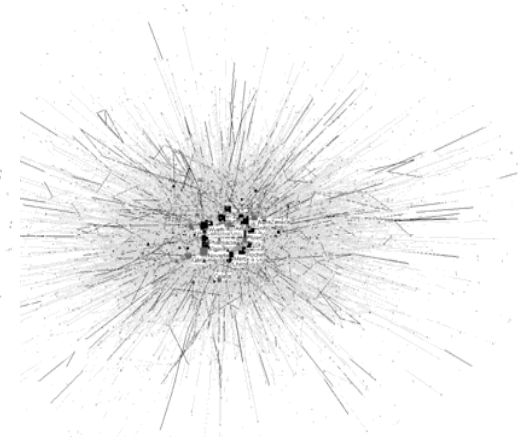
1985



1995



oggi



Source: ATA

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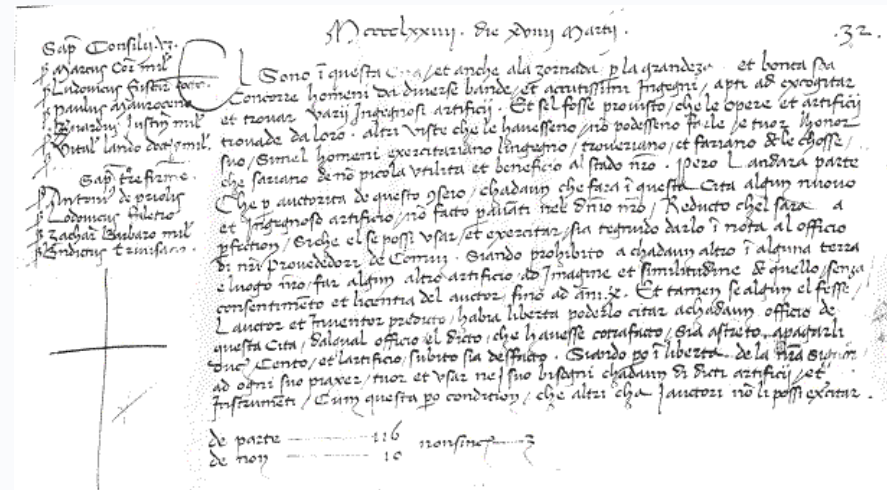
In Italy a great tradition of innovation and *Animal Spirits* which "by nature" tend to develop research into new applications and integration of different forms of knowledge



Being curious about any “new ingenious device” is in our DNA

«...L'andarà parte che per auctorità de questo Conseio, chadaun che farà in questa Cità **algun nuovo et ingegnoso artificio**, non facto per avanti nel dominio nostro, reducto chel sarà a perfection, siche el se possi usar, et exercitar, sia tegnudo darlo in nota al officio di nostri provveditori de Comun. Siando prohibito a chadaun altro in alguna terra e luogo nostro, far algun altro artificio, ad immagine et similitudine di quello, senza consentimento et licentia del auctor, fino ad anni X...»

Republic of Venice Statute on Patents (19 March 1474)



“Indeed all Western patent systems are merely a copy of the footnotes to the ancient Venetian Statute”.

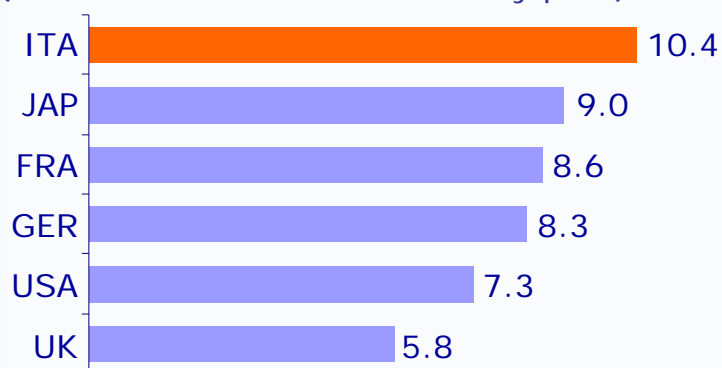
Alfred North Whitehead (1861-1947)



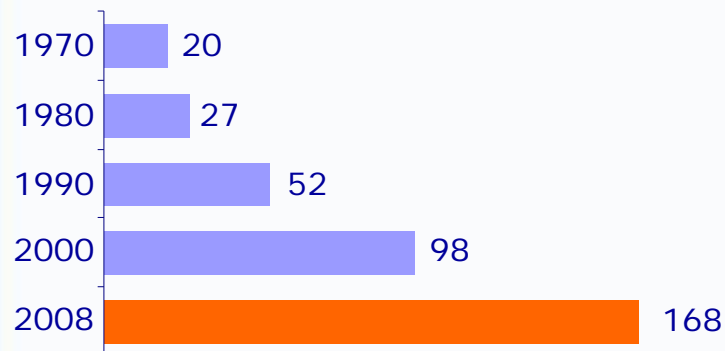
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Positive prospects for Italy in the new Life Sciences R&D scenario

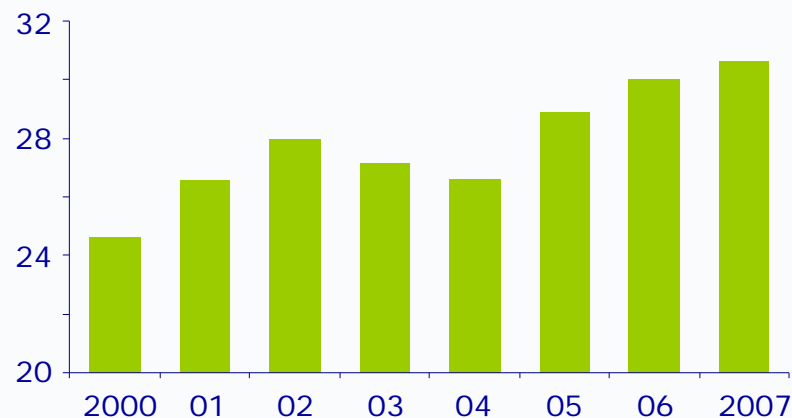
Specialisation index 2000-2008 for publications on rare diseases (% on total Life Sciences country pub.)



Red biotech companies in Italy



Oncology: Clinical studies (% on total, ma3)



Pharmaceuticals in Italy: some facts and figures

- 70,000 employees, 6,250 Researchers
- 147 biotech medicines under development
- Over 30 acquisitions abroad since 2000
- Export/Production value: 53%



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Source: Cerm-ATA, Aifa, Blossom Assobiotech, Farmindustria

Research: a combined effort (Industry, Academia, Government, Foundations) to benefit patients all over the World

R&D investments by industrial sector (2007 Worldwide)

	% on total	% on net sales
1. Pharmaceuticals & biotech	19.2	16.1
2. Technology hardware & equipment	18.3	8.5
3. Automobiles & parts	17.0	4.2
TOTAL	100.0	3.4

Source: European Commission

Health, economic growth and sustainability are strictly related

Investments in Life Science/Healthcare sector are strategic for the Knowledge Economy

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Action to be implemented to support the industrial commitment in innovation

- a steady regulatory framework
- transparent, equitable and fast procedures to allow quick access to innovative medicines
- incentives for innovation, including incremental innovation
- free competition in all market segments
- value of intellectual property rights

