

## **Innovative medicines - the life blood of an efficient and effective healthcare system**

Brian Murphy Director of Commercial Affairs





# Role of Medicines

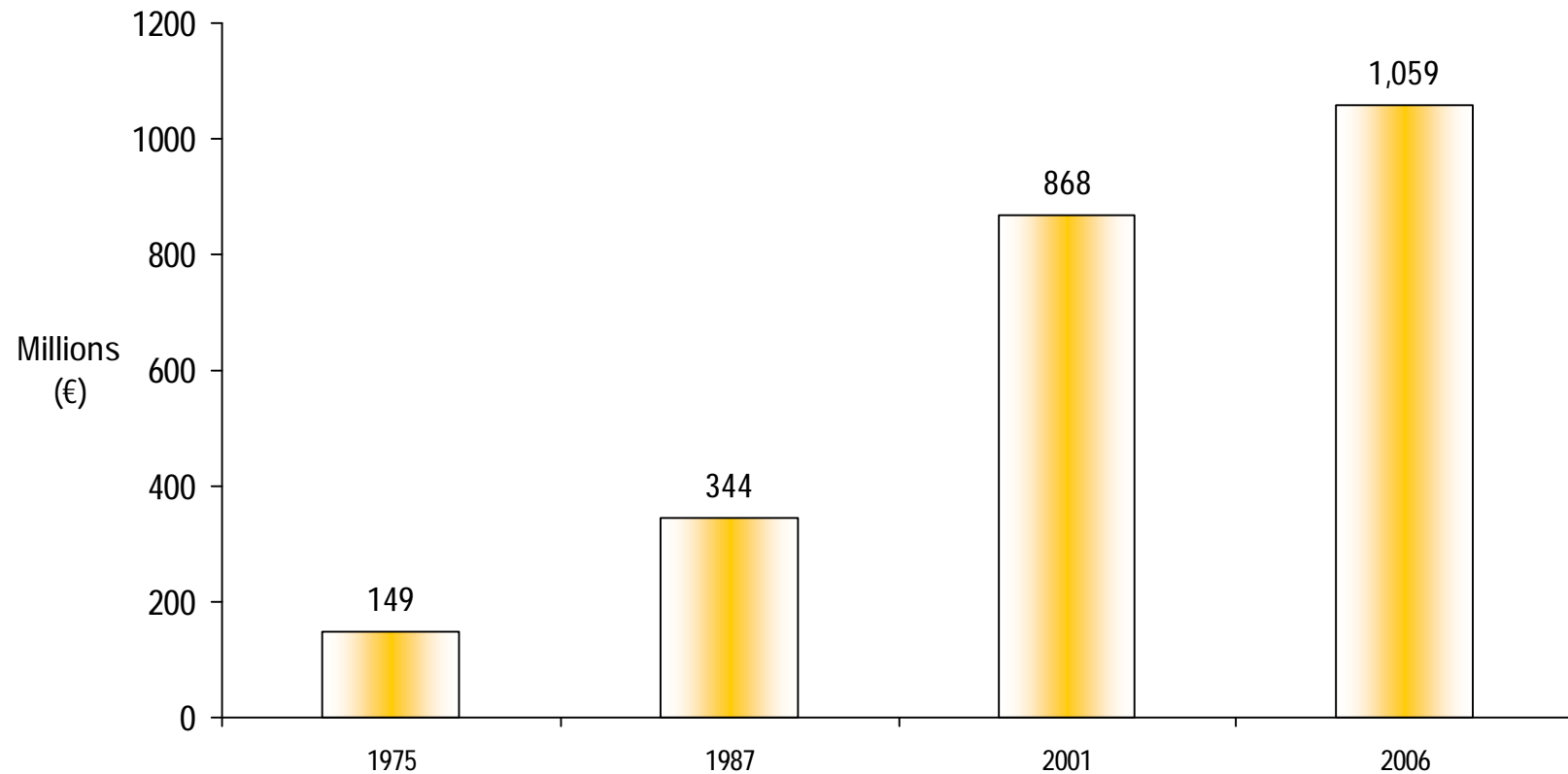
- § Medicines prevent, treat and cure disease
- § Improve life expectancy
- § Help to ensure efficient use of limited health resources



# The challenge for policy makers in 2008

- § How to meet the ever increasing demand from an aging population for a better and ever more comprehensive health system
- § A need to set priorities
- § European Governments talk about the need for innovation but are they willing to pay for it?

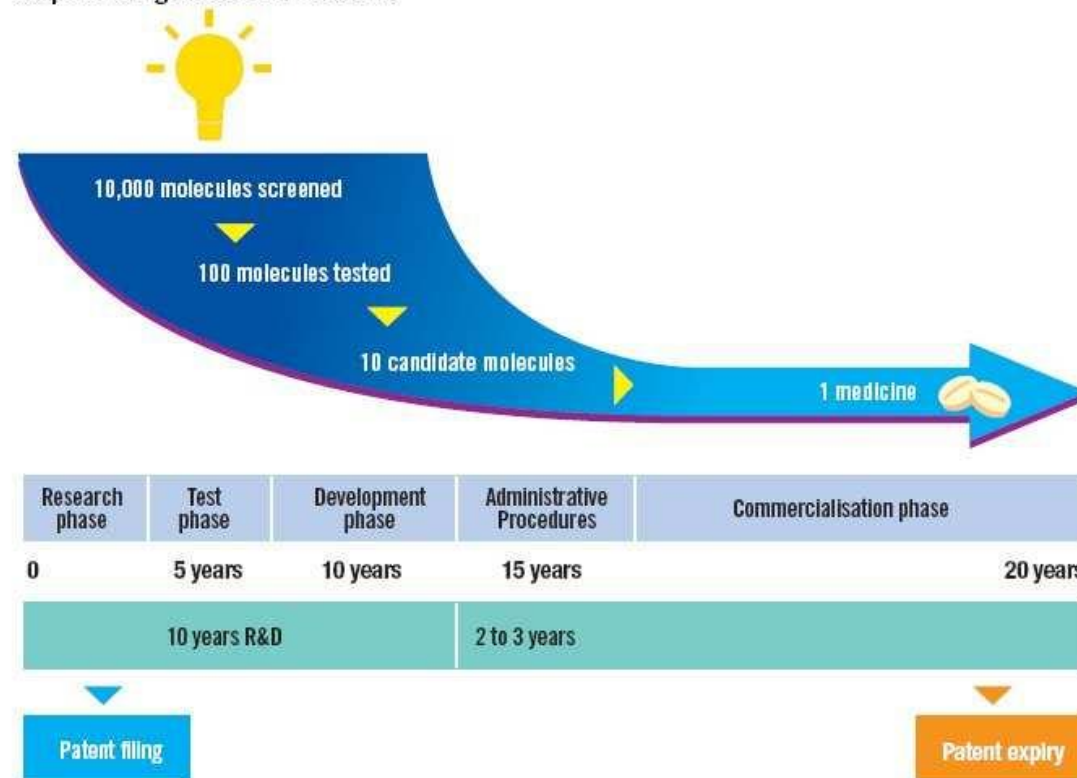
# Cost of Developing a New Medicine



Source: J.A DiMasi and H.G. Grabowski, 'The Cost of Biopharmaceutical R&D: Is Biotech Different?', Price of Innovation: New Estimates of Drug Development Costs', Managerial and Decision Economics 28 (2007) : 469- 479

# The Life Cycle of Medicines

From concept to product:  
steps in the genesis of a medicine





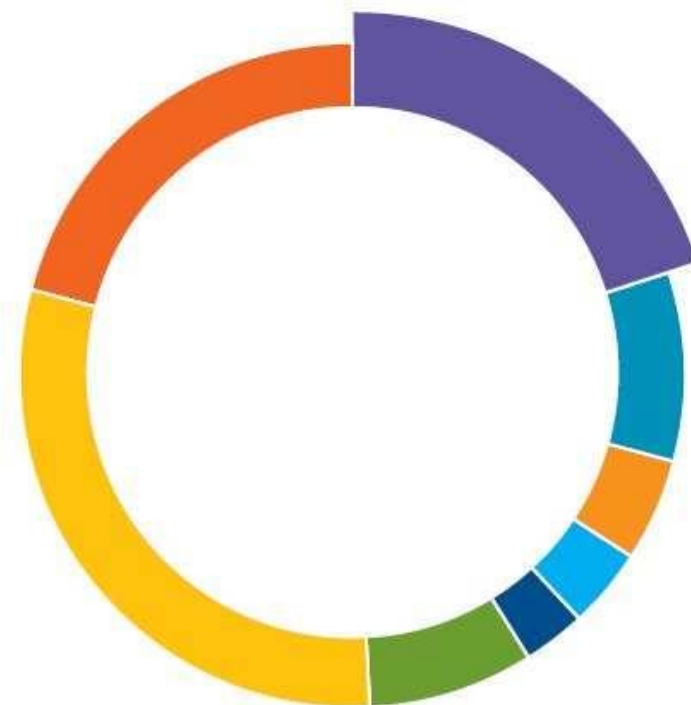
# Consequences of a failure to invest in new medicines

§ Bad for patients

§ Bad for the development of an economy

§ Inefficient use of scarce healthcare resources

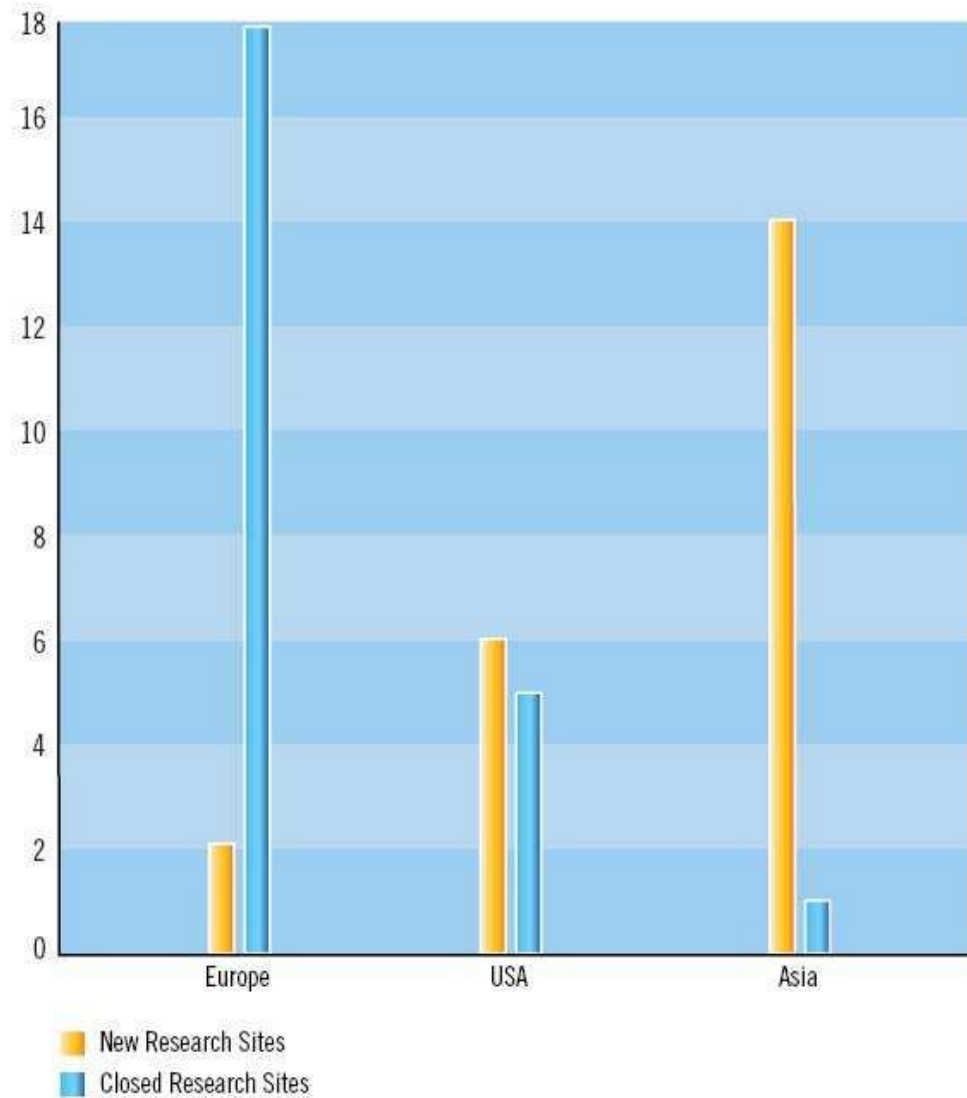
# Business Sector R&D in Ireland




● Software/Computer related	30%
● Electrical/Electronic equipment	21%
● Pharmaceuticals	20%
● Instruments	9%
● Food, Drink & Tobacco	5%
● Other services	4%
● Chemicals	3%
● Other sectors	8%

Source: *Source: Forfás Research and Development Statistics in Ireland, 2006 – at a glance*

# Changes in Location of Pharmaceutical Industry Research Sites in the Period 2001-2006



Note: Data collected from 22 global pharmaceutical companies  
Source: IMI, EFPIA Research Directors Group, IFPMA



**The alternative to the use of innovative medicines is not cost free; it may involve longer hospital stays, longer less effective treatments, invalidity, sick pay and a poorer quality of life.**



# Irish Model

§ Encourage and reward innovation

§ Utilise the fruits of innovation to deliver better patient care

# Prime Minister

***“Here in Ireland, we have placed R&D at the heart of our economic development strategy in recent years....The bottom line is that we in Ireland strive to become leaders in the global knowledge economy. In order to do this, we will continue to invest in the people and supports that have earned us our reputation to date as a good place to do business.”***

(Speaking to the opening of the Wyeth Biotech  
Campus September 8<sup>th</sup> 2005)

# Minister for Health

**“....we must seek the right balance; to provide....the most up-to-date therapies at acceptable costs while....providing industry with a reasonable return for its investment in research. In Ireland, we have achieved this balance for many years through the negotiation of price agreements between the Government and the industry, and....both the industry and the patients have benefited as a result”**

**9<sup>th</sup> December 1996**

# Ireland 1920's to 1950's

- § **Industrial Sector** – food, drink, textiles almost exclusive for the home market
- § **1930's/1950's self sufficiency and protectionism**
- § **Agriculture, the dominant employer (1949 – 43%)**
- § **High unemployment**
- § **Mass emigration**
- § **Declining population** – (*"The Vanishing Irish"*)

# Policy Shift

§Late 1950s decision to achieve economic expansion by stimulating export based industrial development

§Decision to target key sectors for foreign direct investment:

- Electronics
- **Pharmaceuticals**
- Engineering

# Success of new Policy

Exports as a % of GNP

1973	-	37%
1983	-	56%
1993	-	65%
2007	-	59%

**Agriculture** by 2007 accounted for less than 5% of total employment

# Pharmaceutical Industry

## § 1973 tiny presence

- Exports less than €100 million
- Employment less than 2,000

## § 2007

- Exports €42.7 billion
- Employment 24,500
- 120 sites in Ireland including 14 of the top 15 worldwide
- Replacement value of the investment by the pharma sector in the Irish economy exceeds €40 billion
- 1999-2008 alone nearly €7 billion invested



# Industry Profile

- § Multinational, R&D based, US/EU/Japanese
- § Stringent Quality Management/Compliance – 30 pharma plants FDA approved
- § Modern, state of the art facilities
- § Fine chemical plants producing bulk active materials
- § 47 finished pharma plants
- § New large bio-pharma investments



# Why Pharma Chooses Ireland

§ Business friendly environment, including re taxation

§ Stable responsive Government

§ EU/Euro membership – access to the large EU market of nearly 500 million

§ Skilled workforce



## Why Pharma Chooses Ireland (contd)

§ Competitive labour costs

§ Academic focus – science research

§ GMP compliance record

§ **Constructive attitude of the State to the Industry**



# State/Industry Agreement on the Supply of Medicines (1982-2010)

- § Supportive attitude to **ensure timely patient access to medicines**
- § **Scope** – all Rx medicines supplied to the health services
- § **No delisting** for the duration of Agreement
- § Freedom of **access to reimbursement**



# State/Industry Agreement on the Supply of Medicines (contd)

§ Freedom of the **doctor to prescribe**

§ **No substitution** by pharmacist

§ **State right to influence doctors and industry right to promote**

## Why they have worked

- § **Significant international pharma cluster in Ireland**
- § **Positive relationship** with government officials
- § **Focus on the long-term**
- § Pharma industry **treated as a partner in healthcare**, not just a supplier

# Focus on Shared Objective

**Full range of medicines for all,  
regardless of income and social  
status**



**Single  
parent**



**Elderly**



**Unemployed**



**Professional**



# Pro-innovation partnership

- § Irish State understands the benefits of innovation - for patients, for industry and for the economy
- § Prepared to reward innovation
- § Find pragmatic solutions to funding innovation e.g. price reductions on post patent products

# HTA (Health Technology Assessment ) in Ireland

§Timely

§Transparent ([www.ncpe.ie](http://www.ncpe.ie))

§Flexible – e.g. in relation to the provision of Irish cost data and in relation to choice of evaluation model

§Takes societal concerns into consideration

§Aware of the need to reward incremental innovation

# Innovation Challenge in the years ahead

- § The challenge of drug discovery – changing risk/benefit equation
- § The need to demonstrate and reward value
- § Plan for the medium and long-term not the short-term
- § Need to build a focused Industry/State partnership – willingness to come up with creative solutions



## Innovation Challenge in the years ahead (contd)

- § Recognition that new models of healthcare funding and delivery will be required
- § Open up a debate on cross border trade in medicines
- § Difficult challenges but only by meeting them can society and the industry move ahead