

La innovación en la tecnología sanitaria: garantía para la perdurabilidad del SNS

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From Economic Challenge to Opportunity to Change

A Strategic Role for Medical Technology

Rosanna Tarricone, EHTI

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Agenda of the Presentation

- ✓ EHTI. An “innovation” in researching medical devices
- ✓ Is Medical technology the true health expenditure driver? Evidence from elsewhere...
- ✓ How is the value of medical devices assessed in Europe? Does it tell the true story?
- ✓ Conclusive remarks

EHTI Vision

- To conduct and support high-quality empirical research on a range of topics relevant to medical technology, including value of innovation, quality of life, quality of care, productivity, and financing & reimbursement.
- To examine the financing of medical devices across different health care settings in Europe.
- To provide systematic, comparative evidence on policies across countries and technologies, and generate evidence on the impact of adopted policies, in terms of technology uptake and diffusion

Areas of Research

- The Institute is currently conducting independent research in two areas:

1. Financing of Medical Devices

- How is medical technology financed in various European countries?
- How are resources allocated to different technologies?
- What are the (political) objectives/ intentions of the different financing mechanisms employed?
- Is there any relationship between financing and diffusion of MDs?

2. The Socio-Economic Value of Medical Devices

- Develop evidence on the global (economic and social) benefits of medical devices for the economies of European countries

EHTI: structure

Board:

1. Universities

- Prof. Borgonovi – Università Bocconi, Milan
- Prof. Busse – Berlin University of Technology
- Prof. Drummond – York University & London School of Economics

2. Policy-makers

- Dr Dzworski – European Commission
- Dr Gasòliba – ex Spanish Senator
- Prof. Suhrcke – University of East Anglia (ex-World Health Organization)

3. Industry (Eucomed)

- L Cattani – Stryker
- T Sarda – Smith & Nephew
- Z Vercooteren – Johnson & Johnson

ExCOM:

1. Universities

- A Torbica – Università Bocconi
- G Cappellaro – Università Bocconi
- R Mujica-Mota – Università Bocconi
- C Sorenson - London School of Economics
- M Baeumler – Berlin University of Technology
- C Henschke – Berlin University of Technology

1. Industry (Eucomed)

- A Anastassoupoplou – WL Gore
- R Peteers – Medtronic
- M Siebert – St Jude Medical

Director: Rosanna Tarricone

Is medical technology the true health expenditures driver? (1)

USA

- in 2006, medical device spending totalled \$131.6 billion or **6.2 percent** of total national health expenditures (\$2,112.7 billion)
- during the 18-year period (1989-2006), medical device spending rose from 5.4 percent in 1989 to 6.2 percent in 2006: a **0.8 percentage point increase over the 18-year period.**
- Medical device prices have increased at an average annual rate of **1.1** percent, compared to the Consumer Price Index increase of **2.9** percent, the Medical Consumer Price Index increase of **4.9** percent, and the Medical Services Consumer Price Index Increase of **5.2** percent.

Donahoe & King, Estimates of Medical Device Spending in the United States, 2009

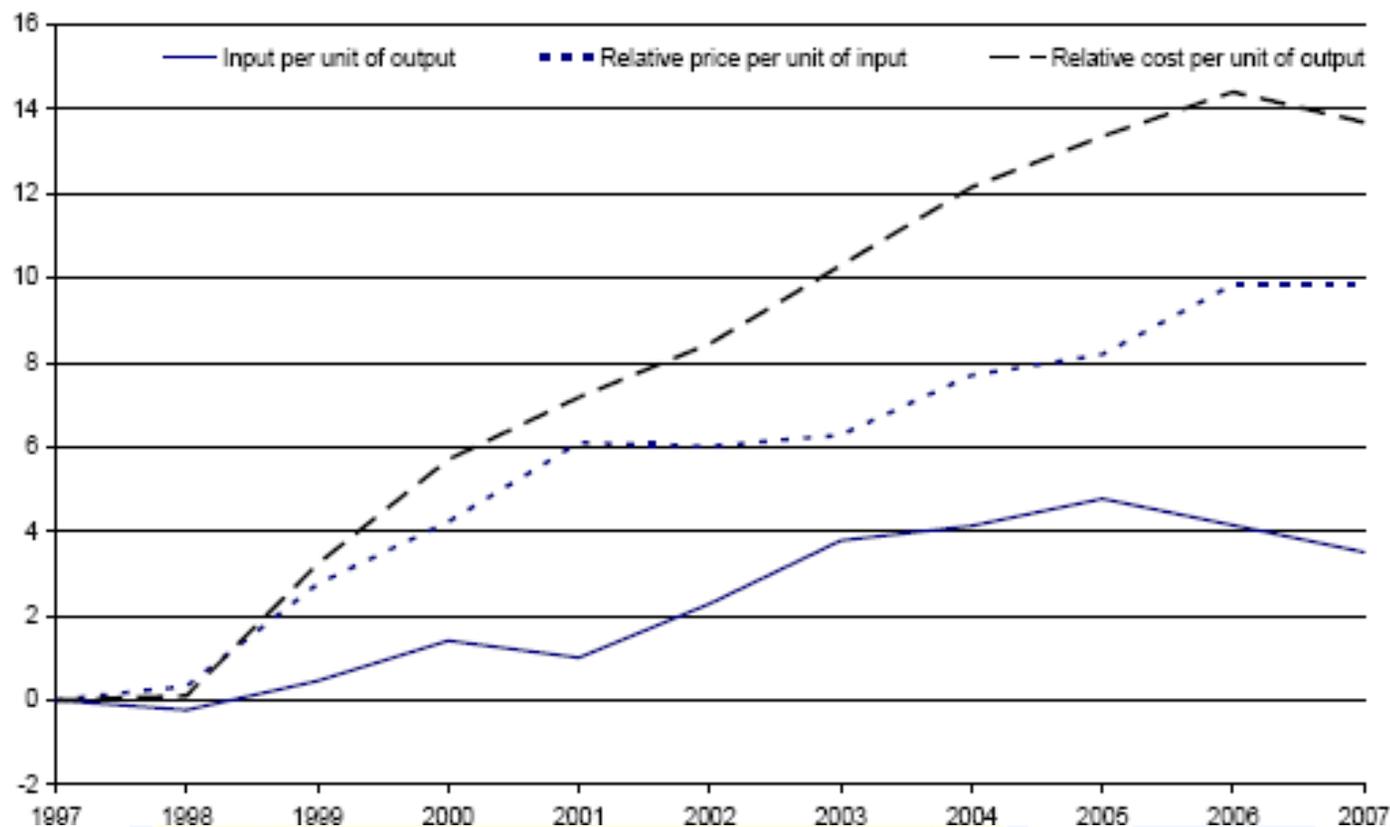
Is medical technology the true health expenditures driver? (2)

UK

- Between 1997-2007, the unit cost of public service output grew **by 13.7 per cent more than unit costs for the whole economy**: an annual average relative rise of 1.3 per cent:
 - o changes in the price of inputs used in the public service (i.e. pay rates for people employed and prices paid for the goods and services)
 - The aggregate price index for these inputs rose by 9.8 per cent more than prices in general for the whole economy between 1997 and 2007, an annual average rise of 0.9 per cent
 - o changes in the efficiency and effectiveness (i.e. productivity) with which resources are used to produce the output.
 - Between 1997 and 2007, public service productivity fell by 3.4%

The change in total public service input per unit of output, relative price per unit of input and relative cost per unit of output, 1997–2007

United Kingdom
Per cent

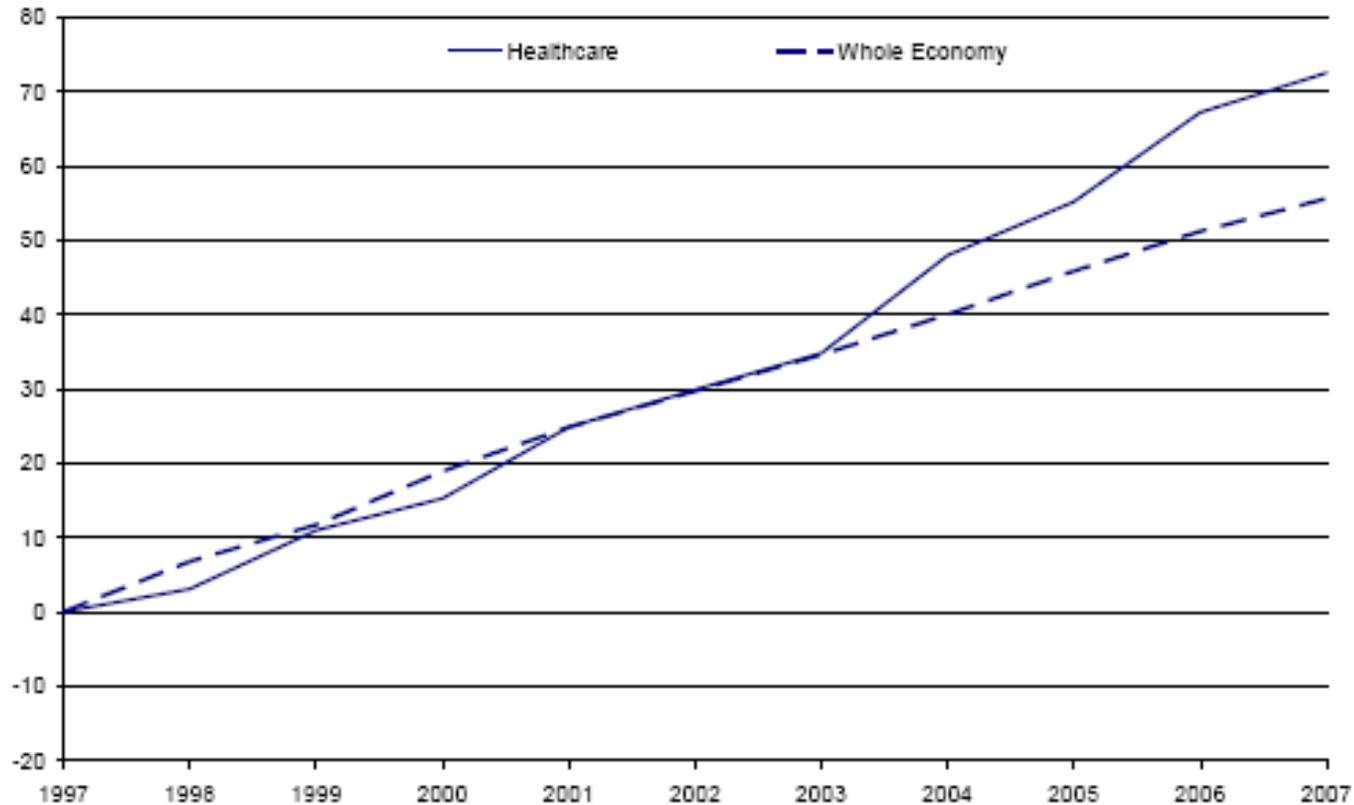


Phelps MG, Changing costs of public services.

UK Centre for the Measurement of Government Activity. Office for National Statistics, 2009

The cumulative change in labour costs in healthcare and whole economy, 1997–2007

United Kingdom
Per cent

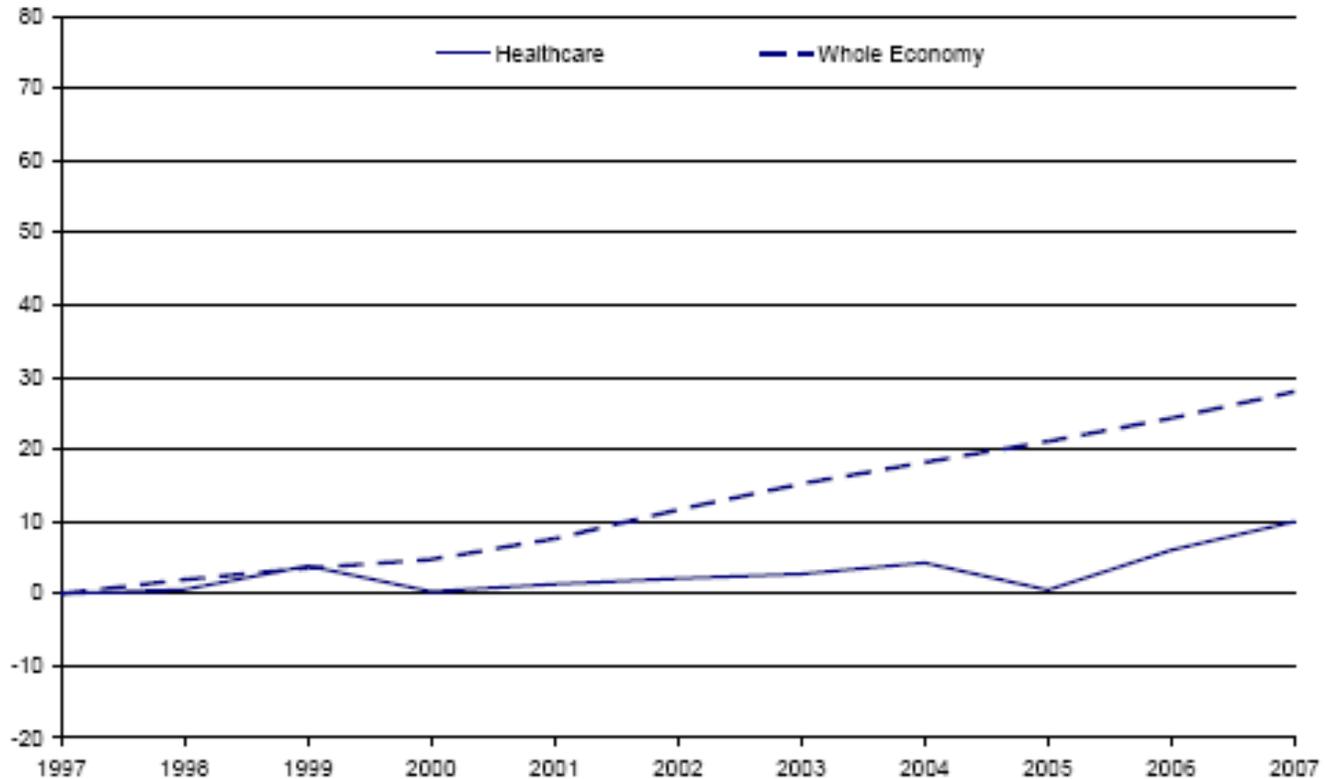


Phelps MG, Changing costs of public services.

UK Centre for the Measurement of Government Activity. Office for National Statistics, 2009

The cumulative change in goods and services costs in healthcare and whole economy, 1997–2007

United Kingdom
Per cent



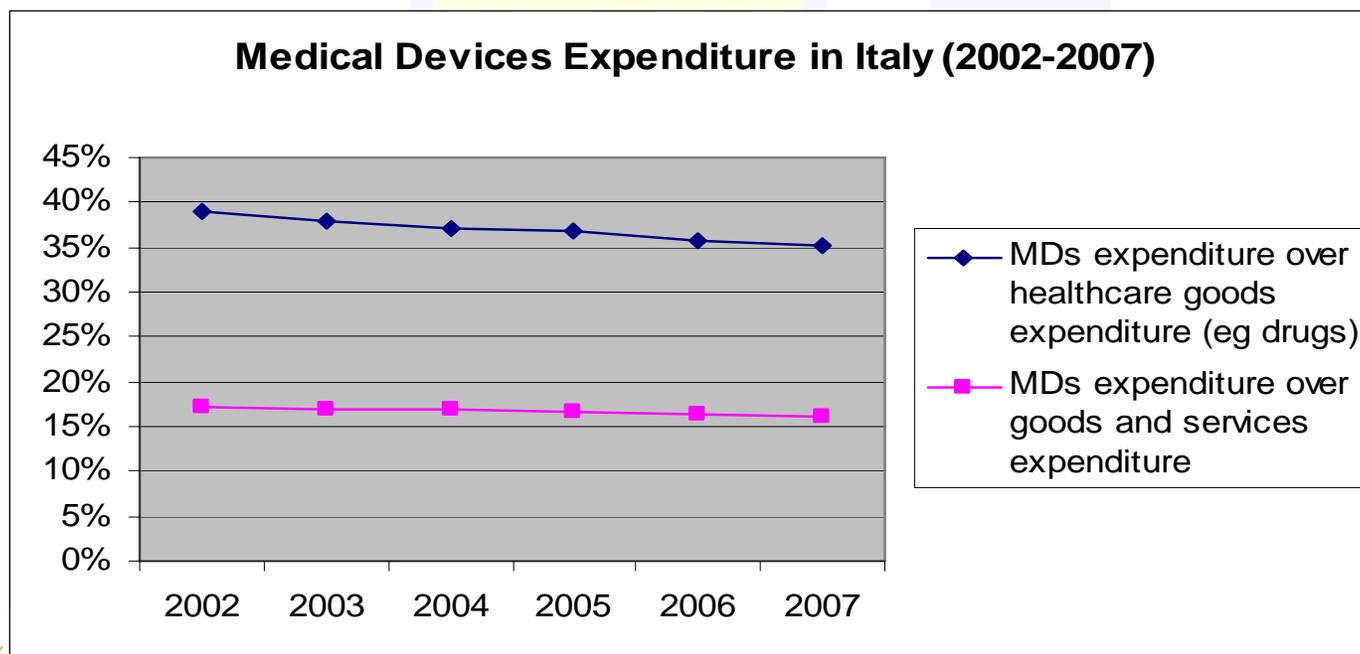
Phelps MG, Changing costs of public services.

UK Centre for the Measurement of Government Activity. Office for National Statistics, 2009

Is medical technology the true health expenditures driver? (3)

ITALY

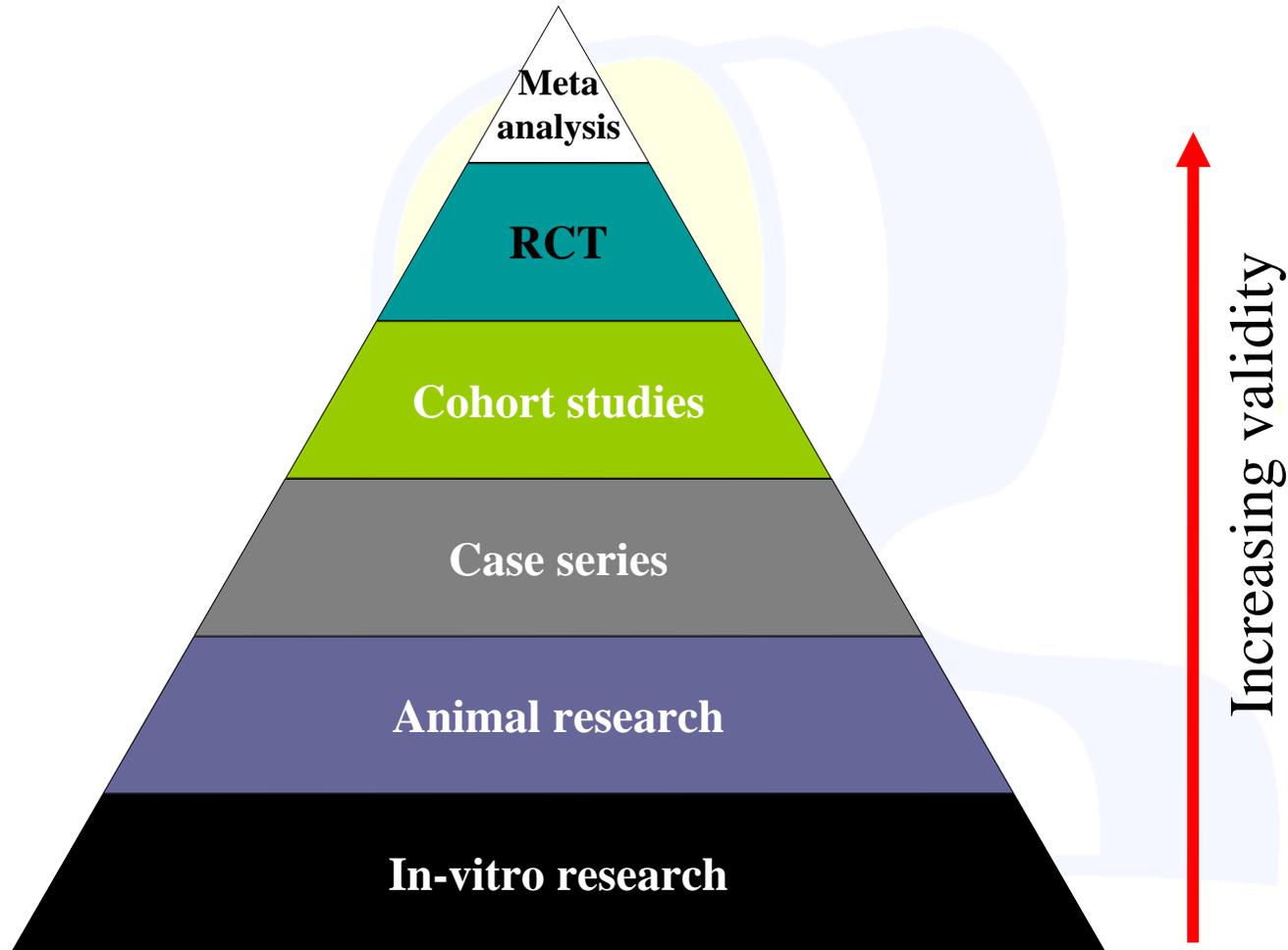
- Between 2002-2007 Italian hospitals' spending on medical devices has grown less than for other healthcare goods and services in general



How is the value of medical devices assessed in Europe?

- For whom to assess?
 - Societal vs. hospital or healthcare system perspective
 - Quality of life and wellbeing vs. savings
 - Disease management vs. episodes of care (i.e. silos in timing and in budget)
- How to assess?
 - Do “drug-centred” methods fit medical devices’ characteristics?
 - Sources of clinical evidence
 - What do we compare?
 - Timing of assessment
 - Role of stakeholders

Sources of clinical of evidence



Sources of clinical of evidence

- RCT: is it the true golden standard for HTA?
 - Unethical (evidence is clear), Not possible, Difficult
 - Limitations & problems: sample size, (length and losses to follow-up, sub-groups analysis and types of outcomes
 - Reliability vs. Relevance
- Quasi- or Non-Experimental studies (e.g. longitudinal cohort studies, registers) may be more relevant but not problem-free

What do we compare?

Clinical effectiveness of new program vs. current practice? Or inexperience with the new program vs. experience of the current practice?

- Learning curve asks for recognition and incorporation into statistical analysis
- Learning curve poses the question of timing of assessment

Role of Stakeholders in assessing the value of MDs

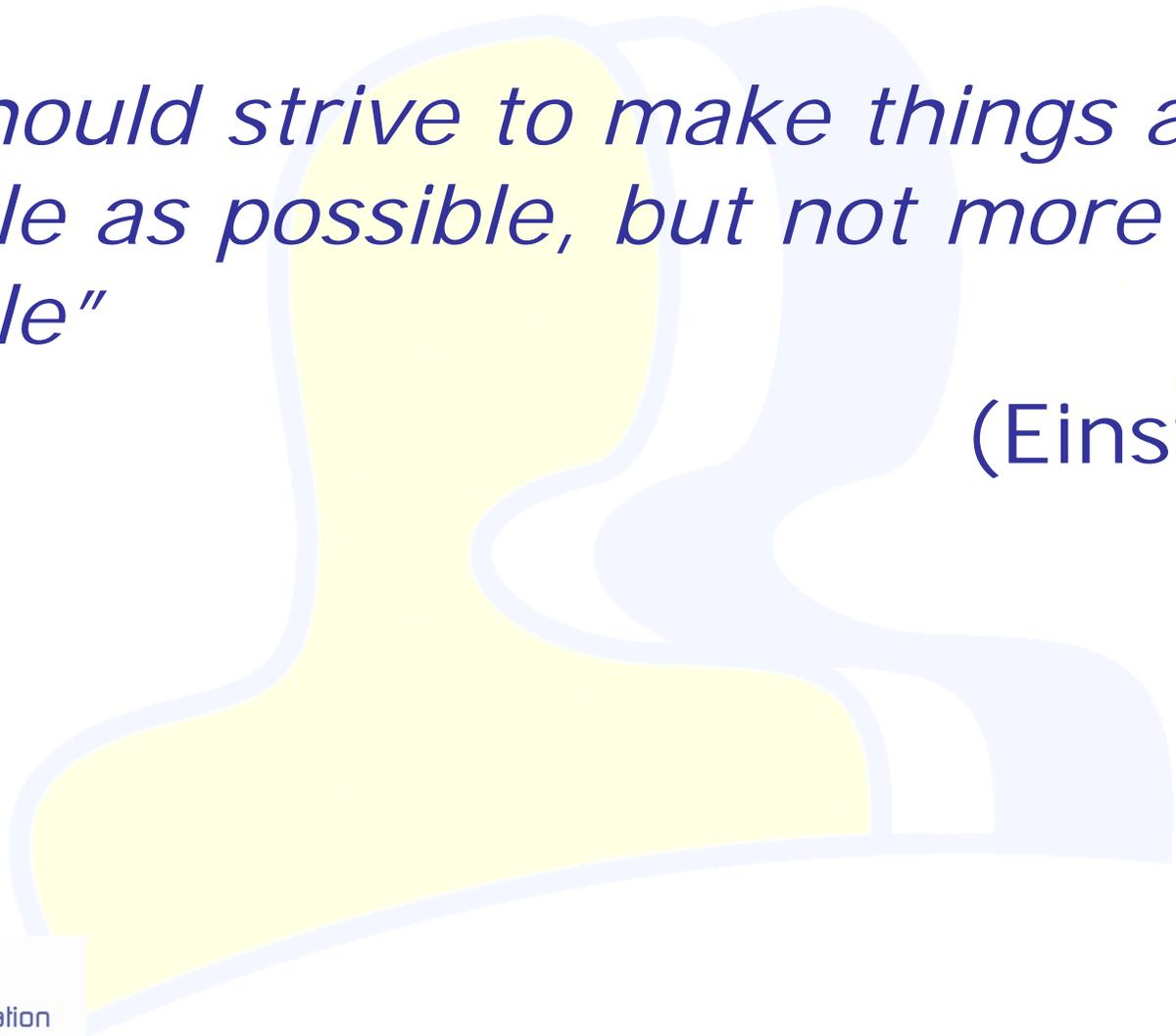
- European countries (and Spain) are not keen to involve industry in the HTA process
- Spain: industry can submit request of assessment paying a fee-for-service (only CAHTA and AETS) but excluded from the assessment process itself
- EC Joint Action and Strategic Engagement: *possible turning-point?*

Conclusive remarks (1)

- ✓ In the last 1-2 decades, the development of new medical devices (e.g. from stents to CRT, to artificial hips and knees, to new imaging modalities to new diagnostic tests to new surgical tools) has driven changes of medical practice (all industrialised countries).
- ✓ Spending on medical devices has risen less than - if not declined (Italy, UK) – other goods and services purchased by healthcare systems.
- ✓ Prices of medical devices have actually been growing more slowly not only than the MCPI but than the CPI as a whole (USA, UK)
- ✓ MDs' value is narrowly defined by decision-makers who – besides – use not always the correct tools to make the assessment
- ✓ Assessment not a transparent and participative process

Conclusive remarks (2)

- ✓ Systems' efficiency & effectiveness – hence productivity - the key drivers of costs:
 - o Data is coming but needs to be further developed in Europe
 - o Industry needs to get empowered by solid evidence to open dialogues with decision-makers
 - o Policy-makers need to look for evidence of health policy decisions before perpetuating past paradigms



"We should strive to make things as simple as possible, but not more simple"

(Einstein)