

# Can we\* still afford all treatment options? A health economic view

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\* We = society

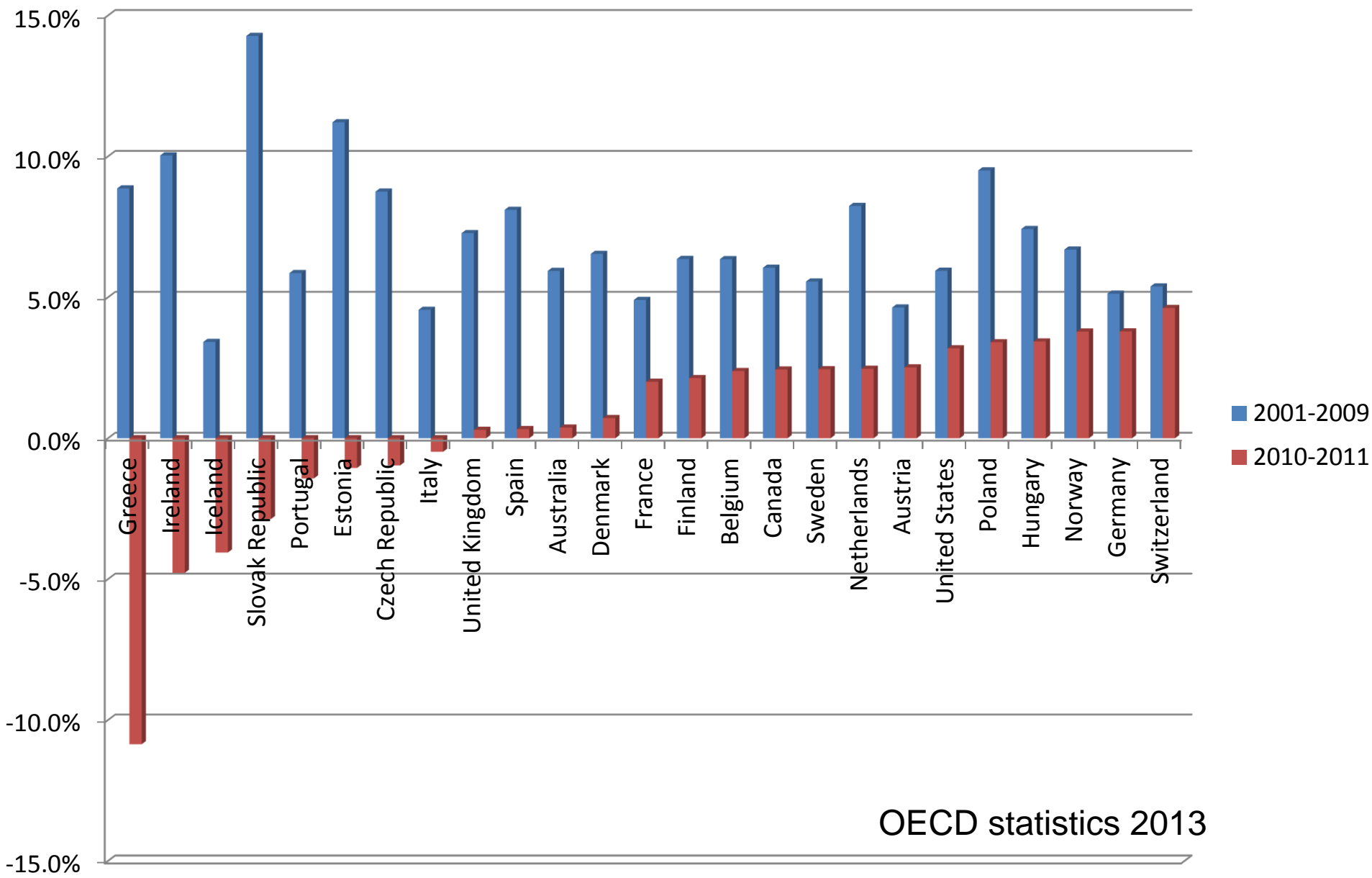


# Outline

1. **The real goal of health care**
2. Health economic evaluations: a speed course
3. Health economic evaluations in decision making: issues and possible solutions
4. Conclusion: recommendations for hospitals and physicians

# Result of the crisis: savings

Health sector growth per year in EU



OECD statistics 2013

# The ultimate goal of health care policies is not to save money

BUT to maximize the health of the population within the limits of the available resources, and within an ethical framework built on equity and solidarity principles.

Council of Ministers of Health in Dec 2010 and Dec 2013



EUROPEAN  
COMMISSION

Brussels, 20.2.2013  
SWD(2013) 43 final

## SOCIAL INVESTMENT PACKAGE

### COMMISSION STAFF WORKING DOCUMENT

Investing in Health

*Accompanying the document*

COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN  
PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL  
COMMITTEE AND THE COMMITTEE OF THE REGIONS

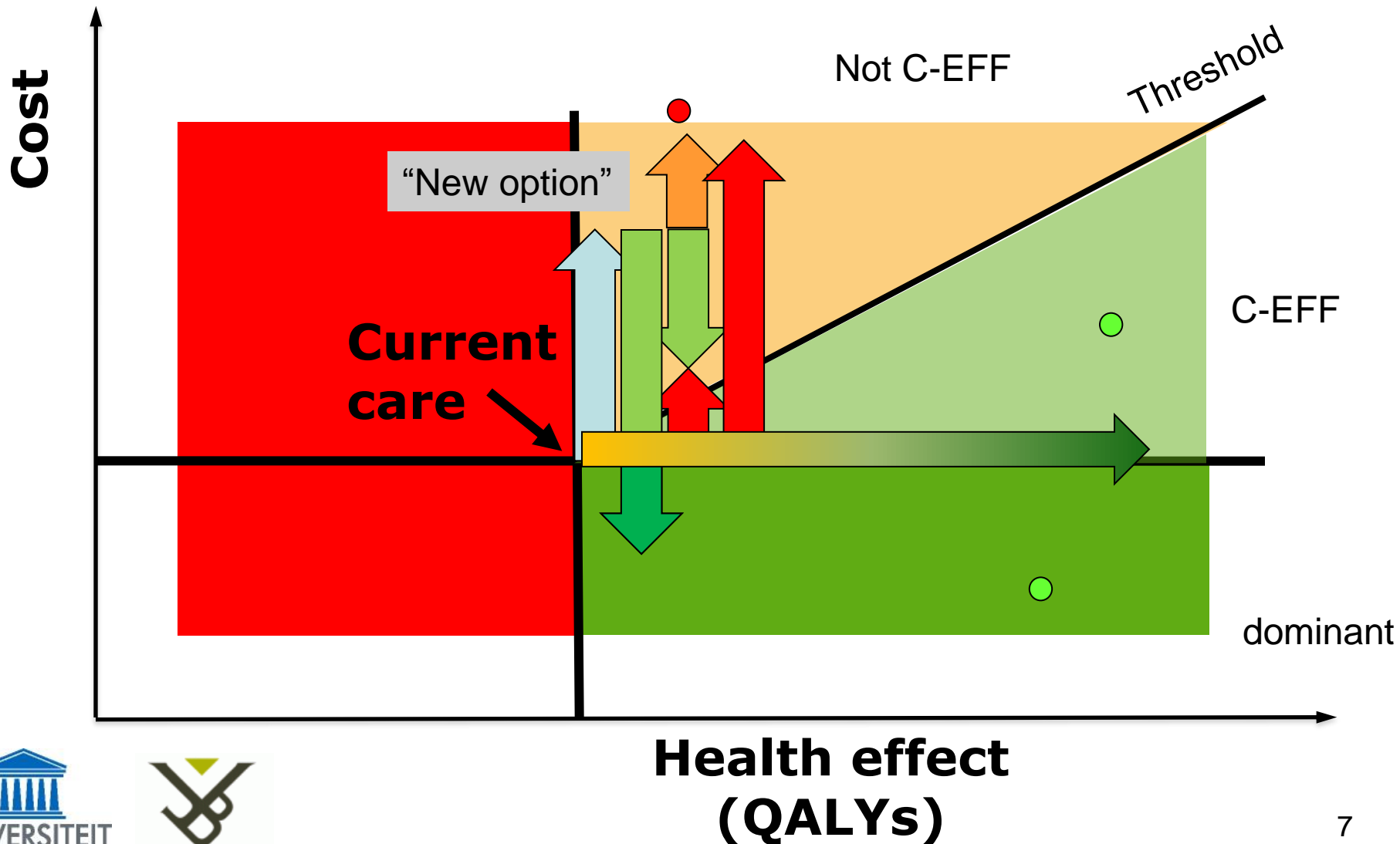
***“Health is a value in itself.  
It is also a precondition for  
economic prosperity.  
People’s health influences  
economic outcomes in terms  
of productivity, labour supply,  
human capital and public  
spending.”***

# What does it mean for innovative medicines?

“We need to stimulate and make available innovative technologies that offer an added therapeutic benefit at an acceptable cost (i.e. are cost-effective) so that we can guarantee equity”

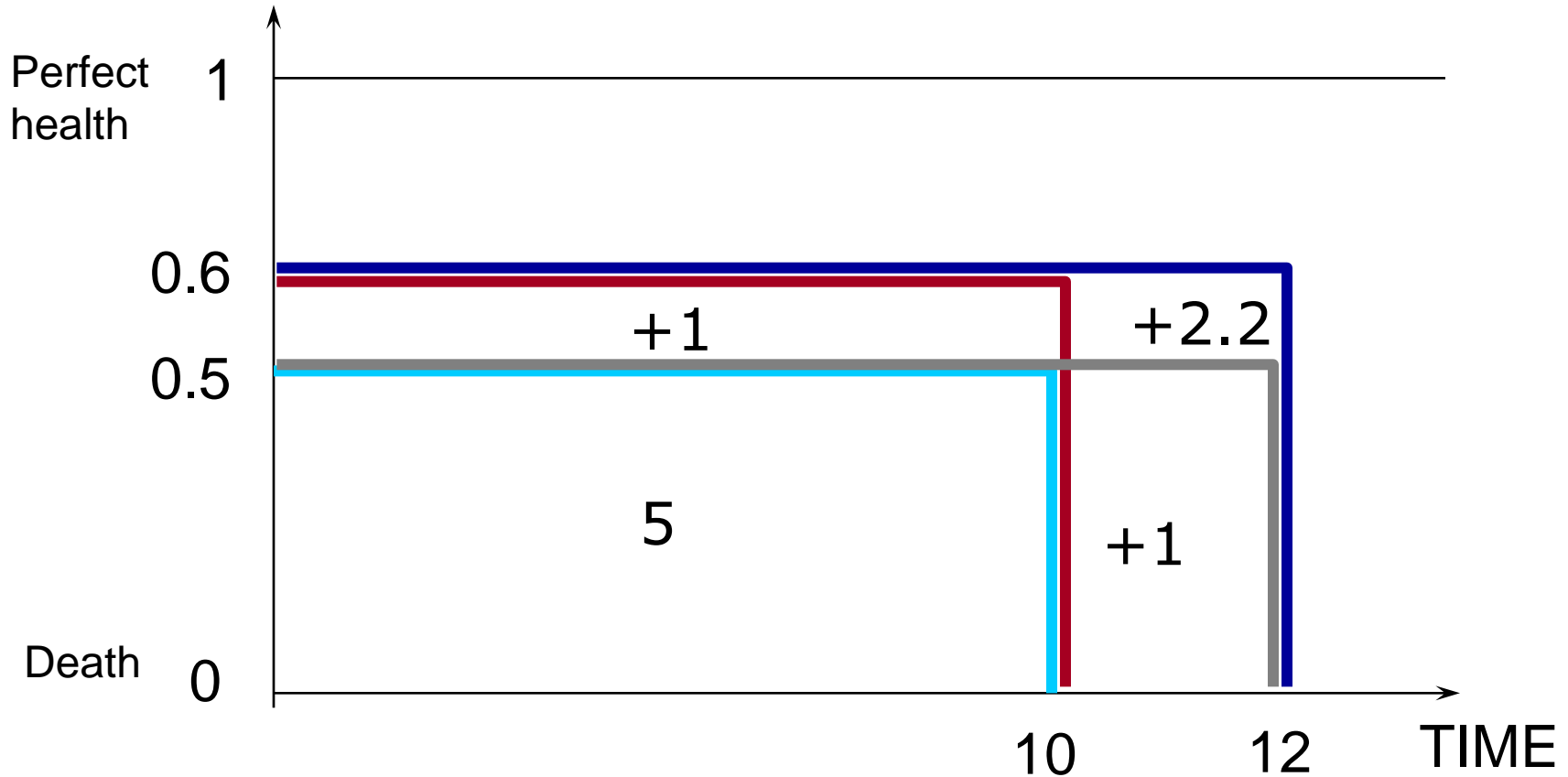
- OECD 2003
- Report of the Belgian EU Presidency, adopted by the EU Council of Ministers of Health in Dec 2010

# Cost-effectiveness



# QALY = Quality Adjusted Life Years

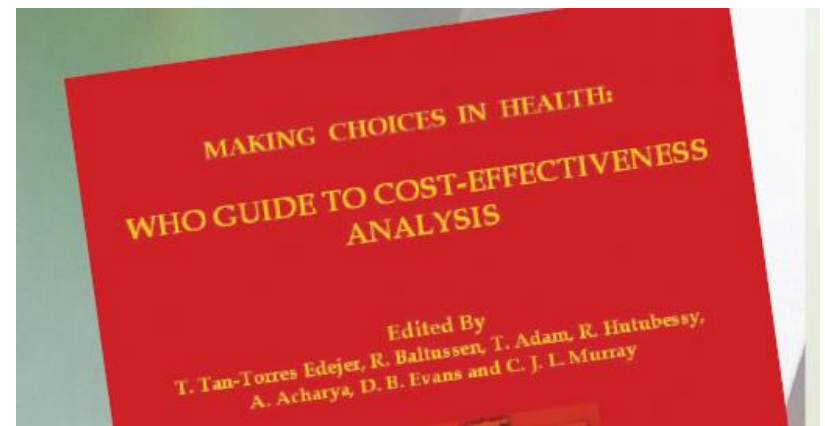
INDEX ('QALY weight' or 'utility level')





# PROBLEM: where is the threshold?

- HISTORICAL BENCHMARK +/- 50,000€ per QALY:  
= cost effectiveness of caring for a dialysis patient  
(+/- 4 QALYs gained for an investment of +/- 200,000€)
- Desaigues et al (2007): willingness to pay method  
→ €40,000 per Healthy Life Year (EU25)
- WHO (2003): GDP per capita (e.g. Belgium = +/- €34000)



# Some examples

Treatment	Cost per QALY gained (€)
Statins in secondary prevention for CHD	5,000
Total Hip Replacement	12,000
HIV/AIDS drug cocktails	14,000
New generation drugs in MS	35,000
Kidney dialysis	50,000
Exercise ECG for asymptomatic men aged 40 years	95,000
Annual CT scan of former heavy smokers to detect lung cancer	1,000,000

- Tufts university CEA registry
- Commission for the reimbursement of drugs Belgium

What is the cost-effectiveness of innovative medicines for GI cancer?

# An eye-opener in 2007: bevacizumab in metastatic colorectal cancer

Treatment arm	Mean LYGs	Mean QALYs gained	Mean total cost (£)	Marginal cost per LYG (£)	Marginal cost per QALY gained (£)
<b>Study AVF2107g<sup>58</sup></b>					
Bevacizumab + IFL	1.98	1.44	43,006.57		
IFL	1.57	1.13	23,645.84		
Difference	0.41	0.31	19,360.73	<b>46,853.48</b>	<b>62,857.10</b>
<b>Study AVF2192g<sup>60</sup></b>					
Bevacizumab + 5-FU/FA	1.59	1.19	37,113.45		
5-FU/FA	1.41	1.01	21,459.35		
Difference	0.19	0.18	15,654.10	<b>84,607.43</b>	<b>88,657.67</b>

Incremental Cost-Effectiveness Ratio (ICER )  
 = difference in cost / difference in QALY  
 = 15,654.10 / 0.18 (rounding!)

**“not value for money”**

# Not much has changed since then...

*“Patients are predicted to survive for approximately 6 months on BSC, 8.5 months on panitumumab, 10 months on cetuximab, and 16.5 months on cetuximab plus irinotecan.*

*An incremental cost-effectiveness ratio (ICER) of **£95,000** per quality-adjusted life-year (QALY) was estimated for **cetuximab** versus BSC.*

*The estimated ICER for **panitumumab** versus BSC, at **£187,000** per QALY, is less certain due to assumptions in the adjustment for the substantial crossing-over of patients in the RCT.*

*The ICER for **cetuximab plus irinotecan** versus BSC, at **£88,000** per QALY, is least certain due to substantial uncertainty about progression-free survival, treatment duration, and overall survival.*

***All three treatments always remain poor value for money.”***

**Hoyle et al**, Cost-effectiveness of cetuximab, cetuximab plus irinotecan, and panitumumab for third and further lines of treatment for KRAS wild-type patients with metastatic colorectal cancer. Value in Health, 2013.



Available at [www.sciencedirect.com](http://www.sciencedirect.com)

ScienceDirect

journal homepage: [www.ejancer.com](http://www.ejancer.com)



The cost effectiveness of bevacizumab when added to capecitabine, with or without mitomycin-C, in first line treatment of metastatic colorectal cancer: Results from the Australasian phase III MAX study



*Conclusions: Bevacizumab was not found to be cost effective at its listed price, based on results from the MAX trial.*

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# ISSUE 1: Uncertainty: potential value

The typical  
Dilemma at  
Submission

PAYER

**“Give us more  
evidence that your  
medicine is value  
for money”**

INDUSTRY

**“Allow us first to the market  
(reimburse/recommend it)  
and then we will be able to  
show real life evidence”**





# → More Performance based agreements?

*= formal agreements between a payer and a manufacturer where the price/revenue is related to the **performance** of the product in either a research or in a real life situation.*

1. Coverage upon evidence development
2. Performance Linked Reimbursement

# ISSUE 2: Budget impact

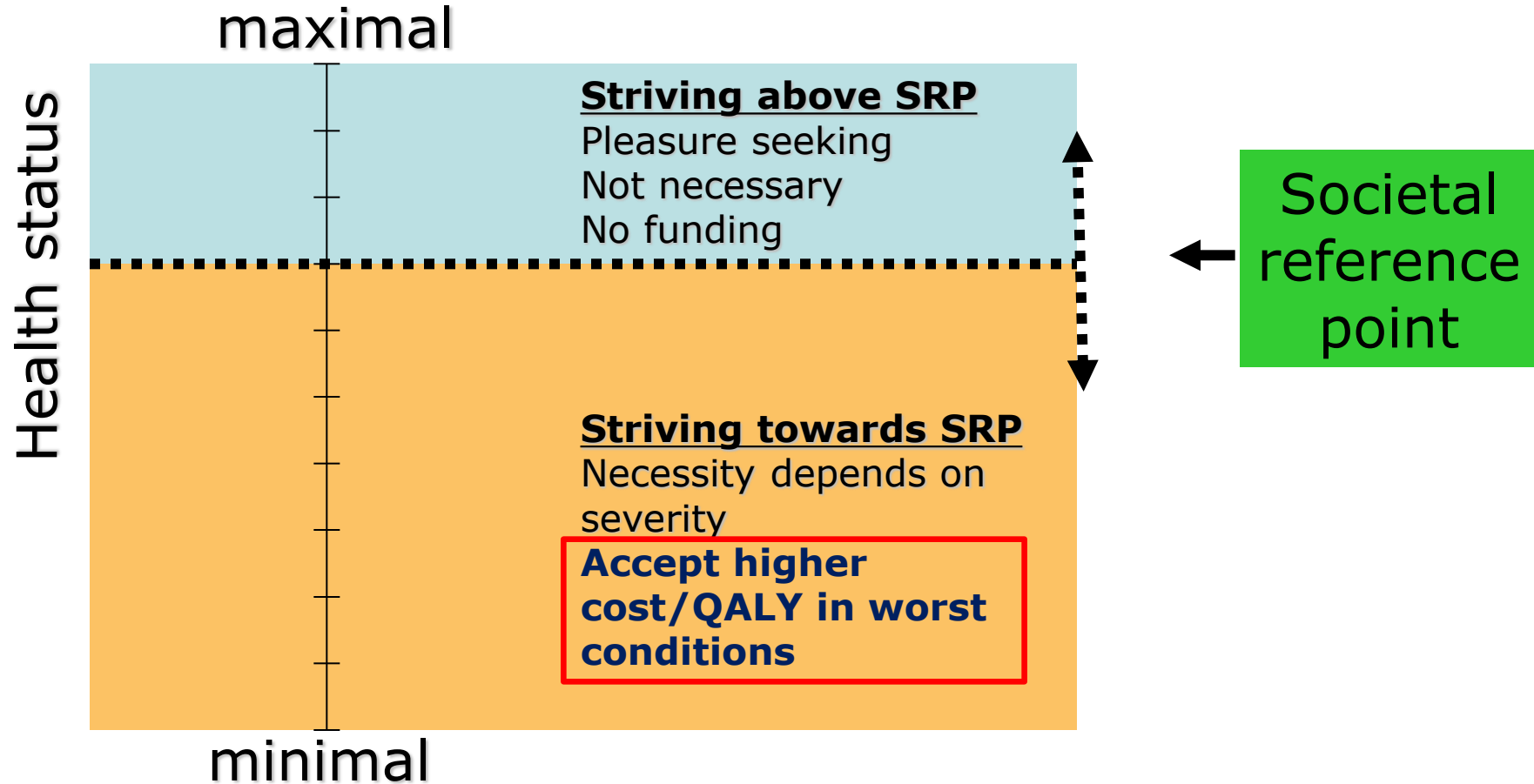
Economic rationale for budget impact analyses is opportunity cost

→ “If we spend all our money on this drug then nothing is left for other things”

→ Possibilities for stratified medicine!

# ISSUE 3: The importance of medical need.

## Cfr. Societal reference point (Scitovsky)



# Recommendations

1. Avoid cost myopia
2. Avoid cost ignorance
3. Maximize the patient's health within the limits of what is societally acceptable
4. Multicriteria decision making: Cost-effectiveness; Budget impact; Medical need
5. Promote and foster the cost-effective *development* of medicines
6. Promote and foster the cost-effective *use* of technologies (in the right population, in the right way → stratified!)
7. Much better partnerships between policy makers, physicians and industry needed
8. Need for post-marketing follow up – registries
9. Need for training in health economics
10. Engage in health economics

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