

Initial outcomes of the socio-economic impact report

Bengt Jönsson

Professor Emeritus, Department of Economics
Stockholm School of Economics

What is socio-economic impact?

- Improvements in wealth
 - Pharmaceutical industry is an important sector of the economy in Europe
 - Key for future economic growth based on progress in life sciences
- Improvements in health
 - New medicines are an important factor for improved outcome and efficiency in health care

Life cycle perspective on drug development

Simvastatin as example. Swedish data

Table 1 Sales, social surplus (million € per million inhabitants) of simvastatin treatment, and the distribution of surplus appropriation over time

Period	1987–2002	2003–2008	2009–2018	2019–28	Total
Total sales	50	19	25	19	113
Savings (direct and indirect costs)	5	12	24	19	59
Net social costs	45	7	1	0	54
Consumer surplus					
Based on VSL	161	501	948	706	2,315
Based on LYG	90	325	602	448	1,465
Based on QALY	54	237	454	338	1,083
Producer surplus (profit)	40	4	5	4	52

Lindgren P, Jönsson B.
 Cost-effectiveness of statins revisited:
 lessons learned about the value of
 innovation.
 Eur J Health Econ. 2012 Aug;13(4):445-50

What creates socio-economic impact?

- IMI is an investment in medical research
 - The primary outcome is improved medical knowledge
- It is the research output that creates the socio-economic impact
 - Difficult to measure the quantity and quality of research output
 - IMI is in this way not different from national investments in medical research

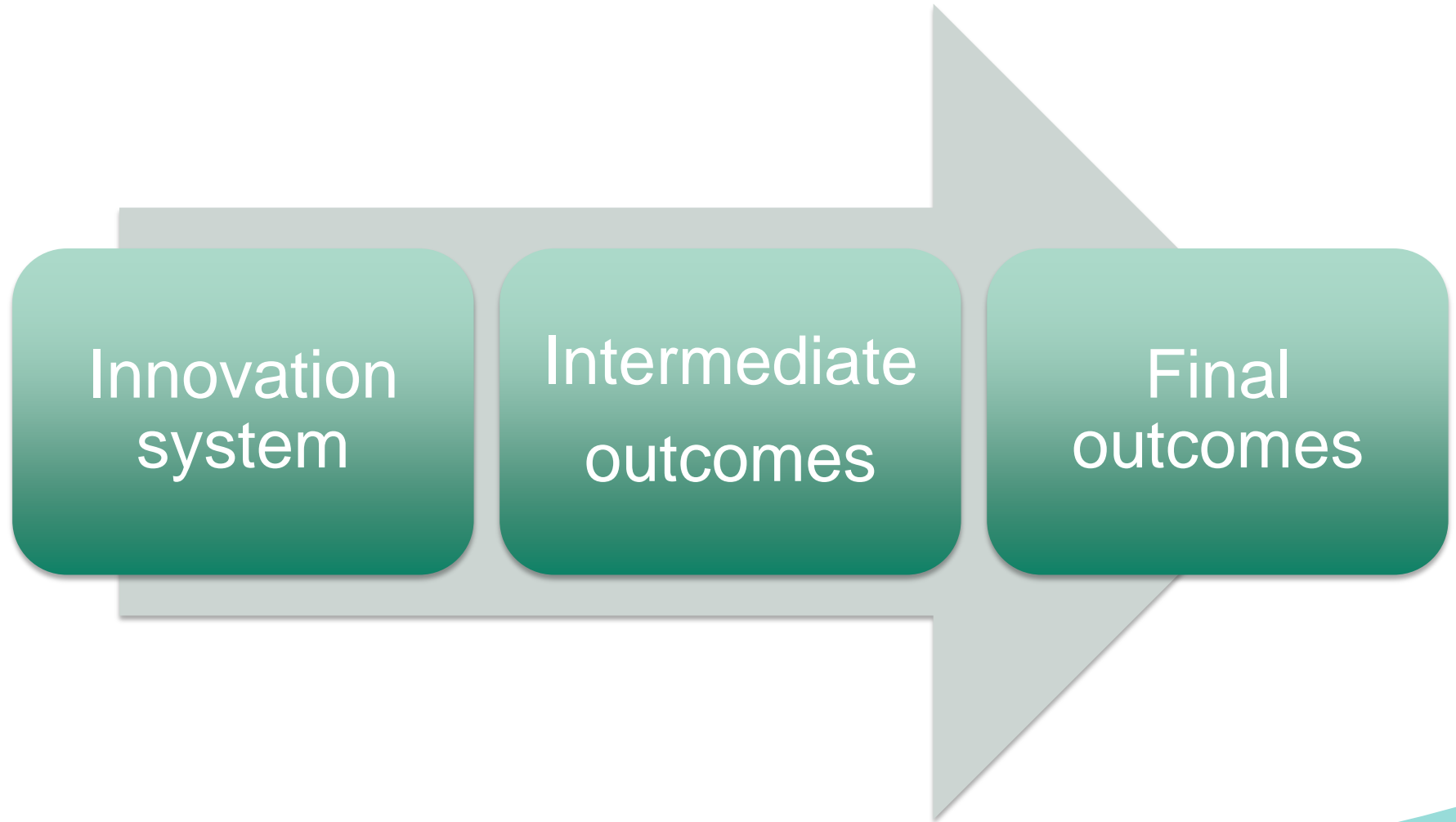
What should we look for?

- Potential market failures
 - Investments where private returns are lower than social returns
 - Long term investments (beyond patent protection)
 - Free rider problems (where collaboration pay off)
 - Reward system inadequate (antibiotics)
- Additionality
 - What is not done by other actors
 - At the national level
 - By other industry or PPP collaboration

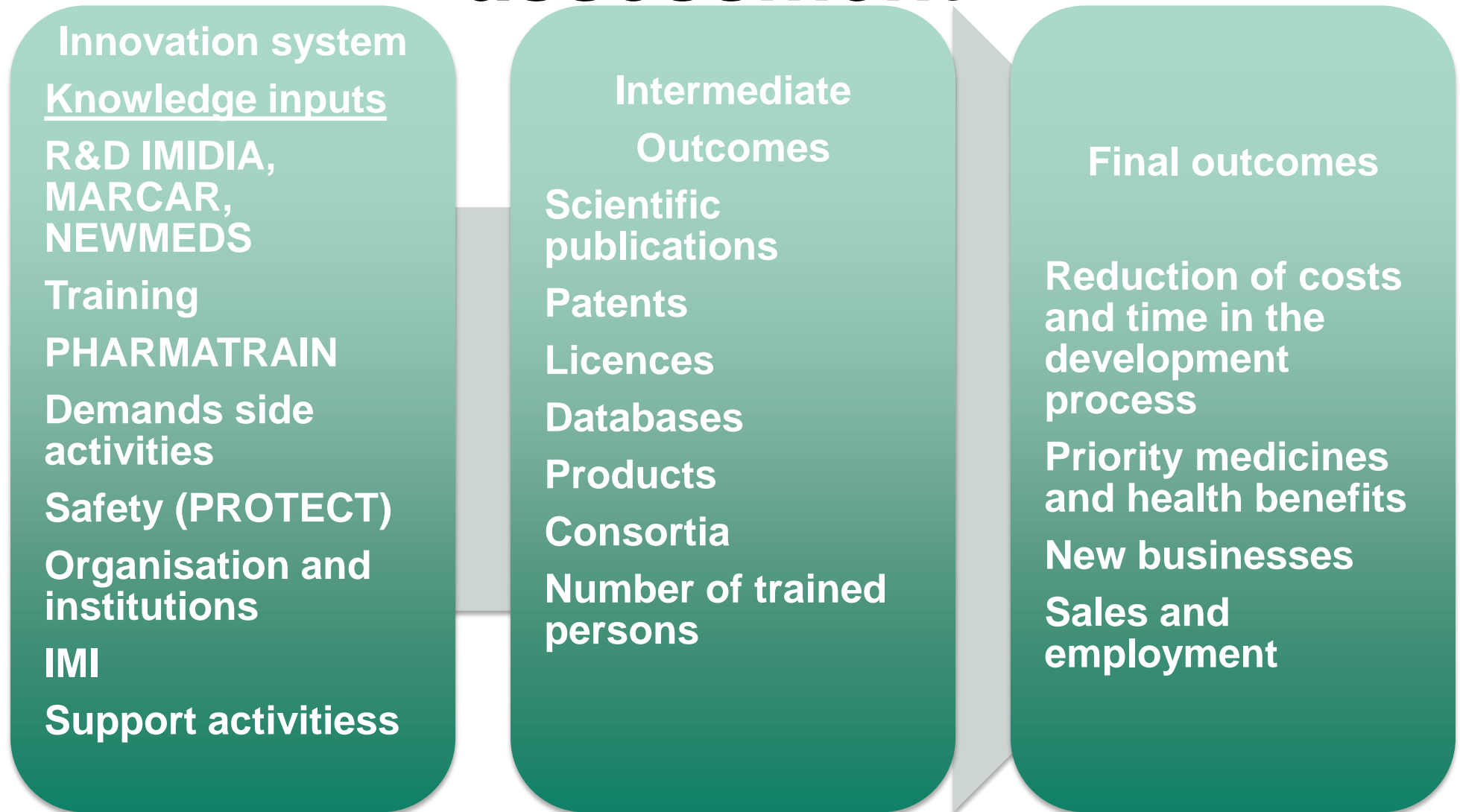
IMIDIA as an example

- Diabetes a major health problem
- Juvenile diabetes has low incidence but the socio-economic benefits of a cure are huge
- Investments in development of new approaches to drug development will have greater social than private benefits
- Creates “first mover advantage” for European pharmaceutical industry for development of new drugs in an important market

How do we provide evidence about socio-economic impact?



Three levels for impact assessment



IMIDIA: Summary of potential socio-economic impact

Research Impacts	Yes	No	Maybe
Follow-on Research	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Research Staff Trained	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Consortia Established	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Product & Business Development	Yes	No	Maybe
New business established	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Licenses to existing business	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
New product to market	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Process of productivity gain	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Impact on product development process	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Health System Benefits	Yes	No	Maybe
Improved Health	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Healthcare Costs	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Workforce Health	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Policy	Yes	No	Maybe
New policies implemented	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Regulations changed	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

IMIDIA: Summary of potential socio-economic impact

- 70+ scientific papers
- The human beta cell line available, via SME partner in the project, Endocell
- Discovery of plasma biomarkers, that when fully validated, will provide a tool for type 2 diabetes taxonomy and the evaluation of treatments.
- World's largest biobank of human beta cell samples, all based on the same protocols and quality standards, a specific benefit of collaboration.
- A large database of information, that provides the basis for on-going work. The data is held and managed by the Lausanne Institute of Bioinformatics.
- Progress with the imaging of the pancreas, which is important since the cells that produce insulin are scattered so difficult to see and so complex imaging techniques are need.
- Development of a systems biology approach to animal models.

IMI Socio-economic Impacts Evaluation Expert Group

- Progress report delivered (19 February)
- Assessment of four projects
 - IMIDIA, MARCAR, NEWMEDS, PHARMATRAN
 - Total investment of €73.0 million. €26.6 million from IMI1
- Next step
 - 5-6 additional projects
 - Final analysis and conclusions
- Final report mid April, 2016

Thank you

Bengt Jönsson
hebj@hhs.se

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