

## SIAMPI Workshop – December 10<sup>th</sup>, 2010 – Brussels

SIAMPI<sup>1</sup> stands for *Social Impact Assessment Methods for research and funding instruments through the study of Productive Interactions between science and society*. The main goal of this FP7 funded project is to broaden the scope of scientific research evaluation. That is, not only evaluating the outcomes of research for the scientific community, but also the impact of research on society.

On December 10<sup>th</sup> 2010, SIAMPI organised a workshop for an invited audience (see Annex 1 for participants; Annex 2 for agenda). In short, the following issues were on the agenda:

- The draft SIAMPI approach for the assessment of the social impact of scientific research;
- Results of three exploratory SIAMPI case studies;
- Demands for social impact assessment from the European Commission, in particular in relation to the framework program.

This report contains a summary of the discussions. For presentations, see Annex 3.

The SIAMPI team would like to thank all participants for contributing to the discussion in this workshop. The team greatly appreciates the comments, which will help present a much sharper version of the SIAMPI approach than otherwise would have been possible.

Early 2011 the SIAMPI team will publish the new approach for the assessment of social impact.

### **Introduction**

Jack Spaapen, coordinator of SIAMPI, introduced the project and workshop. For slides, see Annex 3.

Based on a number of case studies in four different fields (nanotechnology, health, ICT and social sciences and humanities) and four countries (UK, Netherlands, France, Spain), SIAMPI presents a draft approach for the assessment the social impact of scientific research. In the case studies, SIAMPI looked at the three main parts of its assessment framework:

- Productive interactions between researchers and relevant societal stakeholders:
  - *Direct*, in the sense of “personal” interactions involving direct contacts between humans,
  - *Indirect interactions* through some kind of material “carrier” (publication of texts, exhibitions, models, films),
  - *Financial* interactions occurring when potential stakeholders engage in an economic exchange
- The relationship between productive interactions and social impact
- Approaches and tools for the evaluation of social impacts that are used locally

The overall goal of SIAMPI is to come with an approach that is applicable in a range of fields and evaluation contexts, with a strong emphasis on the feasibility of the suggested mechanisms. This approach is

- contextual, that is, both research and stakeholders being engaged to work together;
- process oriented, that is, focussing on the three types of productive interactions;
- qualitative, that is, identifying best practices of achieving social impact.

The latter does not, however, preclude the use of quantitative methods to inform the evaluators (f.e. the contextual response analysis).

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<sup>1</sup> The research leading to these results has received funding from the European Union Seventh Framework Programme (FP7/2007-2013) under grant agreement n° 230330.

From the case studies, the SIAMPI team has concluded:

- Productive interactions in all cases are indeed resulting in social impact, but they are not always a necessary condition. Non-reciprocal action from researchers results sometimes in (unintended) social impact (nano in France).
- Regarding the focus on social impact achievement we found differences between fields and countries in the following aspects: mode of undertaking of research (mode 1, 2, teamwork or individual), temporality (timeline between basic research questions and practical applications, complexity of the relations between research and context, level of organization of the contextual network, power differences in the context).
- Social impact (changes in behaviour) can be shown through instances of success stories (best practices). Precise attribution remains difficult.
- Social impact can be distinguished from other impacts such as economic, environmental, technical, but there are no clear borders between the concepts (For example, improvement in the 'quality of life' may depend on a mix of social and cultural studies, environmental research, studies on food safety, health care research etc. Furthermore, changes in social behaviour can lead towards economic impacts.)
- Overall, there seems to be a growing awareness of the importance of social impact, but in many cases there seems to be no clear incentive to collect data on social impact. It doesn't seem to play a role in most allocation models.
- There is a growing awareness among stakeholders of the importance of finding the right contacts, the right productive interactions, with researchers.

## **Social sciences**

Puay Tang of the SIAMPI team read a letter by Ken Peattie, director the Centre for Business Relationships, Accountability, Sustainability and Society (BRASS), one of the cases studied in the Social Sciences and Humanities work package. Ken Peattie was not able to come. The BRASS center is located at the University of Cardiff in Wales and conducts research in a broad range of policy studies.

Vicky Crossley and Margaret Macadam (ESRC) gave a presentation on impact assessment at ESRC and the use of the SIAMPI approach. For letter and slides, see Annex 3.

Based on the presentations, the following issues were discussed.

- The case study at BRASS uncovered activities that were previously "under the radar", that is, researchers have been involved in activities they realised now can be characterized as productive interactions.
- The ongoing pressure from the Treasury department on the research community to produce numbers, hard figures, that assess the social impact of research.
- The complexity of the knowledge circulation process, requiring lots of carriers having different interests, demands and expectations.
- The notion of SIAMPI to 'use' intermediaries to make statements on the potential effects of research means a radical change compared to most of the current practices of social impact assessment (according to Philippe Laredo).
- The usefulness of collecting data on productive interactions with the goal of tracing actual impact.

## **Health research**

Ad Prins presented an overview of the results of the case studies in Health research, one in an institute for health care and health policy research (NIVEL in Utrecht), and one in an academic center: Leiden University Medical Center, LUMC.

Stéfan Ellenbroek of LUMC gave a presentation on impact evaluation at the LUMC medical hospital. For presentations, see Annex 3.

Based on the presentations, a number of issues were discussed.

- Part of the presentation was about the so-called Contextual Response Analysis (CRA), an instrument developed by Ad Prins of the SIAMPI team, aiming at capturing the internet response on documents publicized by a research institute. One of the issues discussed was how useful it is to include in the CRA impacts that are not aimed at in the mission of the research group.
- NIVEL's activities to organise through various mechanisms the input of societal stakeholders on the research process were discussed. In particular, it's meaning for the assessment of social impact.
- One of the questions was whether international impacts are captured with the methods used by SIAMPI (Fiona Wood). It turns out that in case of NIVEL, the overwhelming majority of responses is national (Prins), coming from national policy and industrial stakeholders, and also from local lobby groups.

## **ICT**

Kate Barker of the SIAMPI team gave a presentation on cases in ICT research in the UK and the Netherlands. For presentation, see Annex 3.

Based on the presentation, a number of issues were discussed.

- Are differences found within the various cases due to the two countries in which the cases were studied. Barker responded that the field seems to be a bigger influence than the nation (however, this seems reverse in the case of nano research, where the nation, i.e. the socio-political context, does seem to make a difference).
- The prominent place of ICT in current society and the big influence on society and the economy. In that light, it was questioned whether it is possible at all to find robust evidence of the contribution of a single project. According to Barker, the case studies have shown that it is possible to find clear evidence.

## **European Union framework programs**

Keith Sequeira and Jim Dratwa (European Commission, DG Research) presented an outlook on the policy changes and the need for and use of social impact assessment with respect to the framework programmes. For a summary of their presentation, see Annex 3.

Van der Meulen thinks that the SIAMPI approach can be helpful, however not to trace impact at the general level of the Framework Programme. At the level of projects however, SIAMPI insights are useful, since at this level productive interactions between researchers and social actors can be organised.

Laredo warns not use the same type of instruments and criteria for all cases. Cases will differ in the way actions are implemented and structured and therefore it is useful to think of tailor-made solutions.

Sequeira stresses that the type of challenges the EC aims to address involve more than development of new technologies. The EC will be more explicit in its calls for proposal as to the expected impacts. Evidence how to reach that impact need to be included in proposals. The EC is well aware that the impact paragraph is often written by others than the researchers. Both the applicants as well as the EC needs to pay more attention to that paragraph and not be satisfied with general statements.

## **General discussion**

Barend van der Meulen summarizes the main issues addressed.

Main issues:

- SIAMPI's core concept is the productive interaction between research and stakeholders
- Productive interactions can be direct, indirect and/or financial, and serve as proxy indicator for social impact
- There is a lack of available data on productive interactions and social impact
- There is a lack of conceptual clarity on productive interactions, social impact and stakeholders
- SIAMPI's main focus is on the outcome, but on processes
- SIAMPI should be clear about the tools for evaluation practices

On social impact assessment:

- When assessing social impact, always ask yourself Why? What are the reasons to do it?
- Is social impact assessment used to legitimize new policies? Are there in this respect relevant differences in the policy context of the SIAMPI cases?

Important lessons:

- Productive interactions can be organised; in several cases we have found that in fact they are being organised
- There is not one model for assessing social impact; each societal challenge has its own logic of knowledge production and knowledge use.

The issue of the difficulties tracing knowledge is addressed by a number of people; there is a limit as to how far one can trace an impact. Van der Meulen agrees; that is why not outcome, but productive interactions are the focus for SIAMPI.

Donovan gives a reaction from an outside point of view:

- In general there will be a correlation between productive interactions and social impact; however, don't get stuck at productive interactions. Make sure social impact does not drop out of the picture!
- This is the beginning of a method.
- SIAMPI has studied fields that most people are afraid of to study
- SIAMPI has a potential use as an enlightenment tool; it has learned us what impact is, and has shown what remains under the radar.

Bingen provides a reaction from the point of view of a science funder:

- Productive interactions can be organised and will be organised if there is an incentive
- It is striking that some people were unaware of the impact related to a project
- SIAMPI can be used as a tool upfront, when formulating a proposal
- At the moment we have ideas on how to track economic impact, this helps tracing other impacts

Claire Donovan closes the meeting by quoting Oscar Wilde (Lady Windermere's Fan, 1892, Act III):

*What is a cynic? A man who knows the price of everything and the value of nothing. (..)  
And a sentimentalist (...) is a man who sees an absurd value in everything,  
and doesn't know the market price of any single thing.*

## **Annexes**

### ***Annex 1: List of participants***

### ***Annex 2: Agenda***

### ***Annex 3: Presentations***

**Introduction:** Jack Spaapen, KNAW

**SIAMPI case BRASS:** Ken Peattie, BRASS  
Vicky Crossley and Margaret Macadam, ESRC

**SIAMPI case LUMC:** Ad Prins, Support in research management  
Stéfan Ellenbroek, LUMC

**SIAMPI cases ICT:** Kate Barker, MIOIR

**European Commission:** Keith Sequeira and Jim Dratwa, DG Research

**Annex 1: List of participants**

<b>Name</b>	<b>Country</b>	<b>Organisation</b>
Gerrit van Ark	NL	ZonMw
Frank Bingen	LU	Fonds National de Recherche
Paraskevas Caracostas	EC	DG Research
Laurence Colinet	FR	INRA
Remco Coppen	NL	Nivel
Vicky Crossley	UK	ESRC
Michel Dodet	FR	INRA
Carl Dolan	UK	European Foundation Centre
Claire Donovan	UK	Brunel University
Jim Dratwa	EC	DG Research
Stefan Ellenbroek	NL	LUMC
Hali Healy	UK	Kings College
Dionysia Lagiou	EC	DG Research
Philippe Laredo	FR	Université Paris-Est / University of Manchester
Margaret Macadam	UK	ESRC
Frank van der Most	SE	CIRCLE / Lund University
Keith Sequeira	EC	DG Research
Elisabeth de Turckheim	FR	INRA
Fiona Wood	AU	University of New England
Paul Wouters	NL	CWTS / Universiteit Leiden
		SIAMPI team members:
Kate Barker	UK	MIoIR / University of Manchester
Elena Castro	ES	CSIC
Leonie van Drooge	NL	Rathenau Instituut
Stefan de Jong	NL	Rathenau Instituut
Barend van der Meulen	NL	Rathenau Instituut
Jordi Molas Gallart	ES	CSIC
Ad Prins	NL	Support in research management
Jack Spaapen	NL	KNAW (coordinator of SIAMPI)
Puay Tang	UK	SPRU / University of Sussex

## ***Annex 2: Agenda***

Venue: Neth-ER, Aarlenstraat 22, 1050 Brussel

10.30 - 11.00	Coffee, tea
11.00 - 11.15	Welcome, introduction Jack Spaapen, KNAW, coordinator of SIAMPI project
11.15 – 12.05	BRASS, presentation and discussion Puay Tang, SPRU (reads letter by Ken Peattie, BRASS) Vicky Crossley and Margaret Macadam, ESRC
12.05 – 13.00	LUMC, presentation and discussion Ad Prins, Support in research management Stéfan Ellenbroek, LUMC
13.00 – 13.30	Lunch
13.30 – 14.00	ICT presentation Kate Barker, MIOIR
14.00-14.45	EU presentation Keith Sequeira and Jim Dratwa, DG Research
14.45 – 15.00	Short break
15.00 – 16.15	General discussion Barend van der Meulen, Rathenau Instituut
16.15 – 16.30	Conclusions
16.30 -	Drinks

## ***Annex 3: Presentations***

### **Presentation by Jack Spaapen, KNAW**



- Identification of productive interactions between researchers and society in four research fields: nanotechnology, health, ICT and social sciences and humanities.
- Improvement of our understanding of the necessity of productive interactions as a condition for research to have a social impact.
- Development of approaches and tools for the evaluation of social impacts that are applicable in a range of fields and evaluation contexts, with a strong emphasis on the feasibility and sustainability of the suggested mechanisms.

Social Impact Assessment Method through Productive Interactions

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## First conclusions: on productive interactions

- Mode of research
- Temporality
- Quality of interactions and power
- National culture
- Motivation of individual researcher
- Sense of urgency

Social Impact Assessment Method through Productive Interactions

s i a m p i



## First conclusions: on social impact

- Lack of systematic
- Definition of social
- Unintended and unexpected impacts
- Awareness

Social Impact Assessment Method through Productive Interactions

s i a m p i



## First conclusions: on assessing proposals

- when assessing (social) impact, one has not only to look at what researchers promise, but also find evidence of contributing activities to this promise, be it in terms of network activities or output and outcome
- use the productive interactions as a proxy for dissemination, and also include the strategies of researchers / institutes to achieve social impact

Social Impact Assessment Method through Productive Interactions

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## First conclusions: on assessing social impact

- Productive interactions are not a sine-qua-non
- Robust data collection necessary
- Take into account differences in context
- Pay attention to influence of power
- Describe best practices
- Take into account unintended impacts
- There are differences, yet no clear borders between various types of impact

## Letter by Ken Peattie, Brass

Read by Puay Tang, SPRU

*A few words on what ESRC-funded centres have to report on and how often. If possible or applicable, focus on performance issues that the ESRC requires, and what these issues are.*

ESRC Centres like BRASS are required to produce formal annual reports at the end of March together with one year forward plans. There are also more informal 'Troika' meetings every six months involving the Centre Director, their ESRC Case Officer and the ESRC Research Board member responsible for the investment. The formal reporting covers the following:

1. *Introduction:* main activities and any major changes (staffing etc), summary of the aims and objectives for the past year.
2. *Impact and highlights:* highlighting the most successful work from the past 12 months including two examples each of research progress; academic impact; and economic and societal impact. Each example of impact is briefly described in terms of:
  - a. the research;
  - b. how it has been communicated/steps that have been taken to generate impact;
  - c. details of any impact claimed.
3. *Progress against objectives:* progress against the aims and objectives for the past year, as set out in a previously agreed Forward Plan.
4. *Investment Specific Indicators:* assessment of progress against agreed Key Performance Indicators. BRASS's KPIs cover:
  - a. Scholarly outputs
    - Refereed journal articles
    - Books authored
    - Book chapters contributed
    - Conference and seminar papers
  - b. Engagement activities
    - Major partnership projects with policy/business organizations
    - Reports provided for research commissioners and users
    - Policy briefings
  - c. Additional funding secured
  - d. Visiting Scholars hosted
5. *ESRC General Indicators for Reporting to Government:* These figures cover the number of :
  - activities and events involving the general public
  - projects attracting co-funding
  - public policy/business orientated seminars and workshops
  - non-academic users have worked within the investment on a formal basis to complete a specific programme of work?
  - researchers have the investment placed in user organisations on a formal basis to complete a specific programme of work?
  - non-academic users on the investment's Advisory Committee

In terms of feedback from the reporting, this has tended to be relatively brief and mostly along the lines that the ESRC are relatively happy with BRASS's approach, agenda and performance. Our Case Officer, who acts as our link with the ESRC is however very good and very proactive at spotting how elements of our research agenda connect with other ESRC investments or policy/industry initiatives and events that he is aware of. So he has been very good at helping to develop further linkages between our research and research stakeholders and other opportunities on the basis of what we report on. Whether other Centres enjoy a similar level of support, I can't really say, but my suspicion is that we are lucky in having a very enthusiastic Case Officer who always does keep an eye out for opportunities for us, and that other Centres might not be quite so lucky.

*How useful have the results of the BRASS case study been (or whether they have been useful) to BRASS' reporting on its performance to the ESRC? If they have been useful/helpful, please provide at least three examples from our BRASS report.*

Involvement as a SIAMPI case study has been valuable in several ways. Partly it provided an additional vehicle through which to communicate some of BRASS's engagement activity to the ESRC, and in a way that had greater credibility than simple self-reporting. The page length rigors of the ESRC annual reporting process tends to make it difficult to do more than provide edited highlights of our user engagement and impact that we generate. The SIAMPI Report represented a useful tool for highlighting key aspects of our engagement activity.

Another benefit of the SIAMPI project was that it helped to legitimise activity which BRASS researchers typically engage in, which are valuable for BRASS and for research users, but which traditionally are given little weight in academic schools heavily biased towards judging the worth of activity in terms of its direct contribution to REF scores. Informally BRASS researchers felt that they did a lot of useful 'stuff' without ever really having an intellectual peg on which to hang it. The notion of 'productive interactions' was one which BRASS researchers could easily relate to and recognise from their own work, and the very notion of such interactions as 'productive' provides a level of positive reinforcement which is helpful in encouraging researchers to engage with users. It also provides a legitimisation of the strategy of getting out and meeting research users, networking and attending/presenting at meetings – which we all know is important in terms of creating research opportunities, yet can often feel not quite like 'proper' academic work. I think some of the researchers involved found it reassuring that the somewhat haphazard way that their own research projects and opportunities evolved was not that untypical, and that there was an approach to evaluating impact emerging which recognised and could cope with the often serendipitous and only partly planned nature of their own research successes.

The SIAMPI report has also helped to kick start conversations with other parts of the University in ways which I hope will increase the recognition of the type of impact-orientated work that we engage in and move the debate about engagement in our direction. For example a copy was passed to the member of the Business School's Senior Management Team responsible for developing a new Innovation & Engagement Strategy for the Business School to demonstrate how the 'productive interactions' approach can be used as a way to understand and manage engagement.

*As a social scientist, how do you think that social impacts should best be captured or "measured"?*

I think the type of approach embedded in the SIAMPI project is an extremely good way to try to capture positive engagement and impacts. From my own experience it can be difficult to judge positive impacts via formal recognition – good research often doesn't get explicit credit when things go right in terms of business strategies or political decisions. Research very rapidly gets the blame however

when things go wrong for either businesses or policy makers. Similarly the perceived quality of research can get explicitly criticized if the findings it uncovers contradict past strategies or preferred options – even though it then may be very effective in leading to uncredited, behind-the-scenes changes later. Ultimately social science research is an ingredient in political, organisational, educational and business processes, but is not one that you can easily isolate from the other ingredients to set up simple and direct cause-and-effect relationships. Research will often inform a decision or a policy and therefore have an impact, but to say that research X led to decision or policy Y is often too simplistic. The narrative case based approach of the SIAMPI methodology, and trying to get to know and understand both the researchers and users in order to understand their interactions and the impact that the research and the researcher-user relationship have strikes me as a much better way to appreciate the role and impact of research.

I think the performance indicators that the ESRC either ask of us, or have agreed with us, are the right ones to have. To a large extent although you aim to have impact, it is important to measure activity since number of conferences presented to, books published or media stories do give some indication of impact as well as input. Also other measures, like additional funding attracted, do become a reasonable surrogate measure of impact over time. The reason we have won multiple projects to provide research for the likes of Defra or the Welsh Assembly Government, is because projects that are successful and have impact provide a basis to secure further projects. Measures like the number of secondments, events involving the public, events involving policy makers or business etc are worth reporting on – although they only capture particular facets of impact, not the whole story.

## Presentation by Vicky Crossley and Margaret Macadam, ESRC

Economic and Social Research Council

### SIAMPI Workshop 10 December Lessons for ESRC



Economic and Social Research Council



## Overview

- Context and Background
- ESRC impact evaluation
- ESRC and SIAMPI
- Future developments

Economic and Social Research Council



## ESRC Overview

### QUALITY – INDEPENDENCE – IMPACT



- Independent research organisation, funded mostly through the Department for Business, Innovation and Skills
- £204 million budget – we fund over 2,500 researchers in the UK based at academic/policy institutions and support more than 2,000 postgraduate students to address big social and economic issues
- We have an international reputation both for:
  - providing independent, high-quality research on issues of importance to business, public and third sector organisations
  - our commitment to training world-class social scientists.

Economic and Social Research Council



## ESRC Overview

### QUALITY – INDEPENDENCE – IMPACT



- UK's leading agency for research funding and training in economic and social sciences
  - research: directive and responsive, and everything in between
  - capacity: people and infrastructure
  - engagement: communication and use of research
- Increasing explicit focus on achieving impact – academic and non-academic; requires
  - Interdisciplinarity
  - 'Co-production' and collaboration
  - Innovation

Economic and Social Research Council



## ESRC Strategic Plan 2009-14



'The ESRC expects that all the research it funds will be high quality and of scholarly distinction, but we are also committed to **increasing its non academic impact**, and benefit to the UK in public policy, economic prosperity, culture, and quality of life... These include the **close engagement with potential research users** before, during and after the research process, and a **flow of people between research and the worlds of policy and practice**'.

Economic and Social Research Council



## What do we mean by Impact?



The Research Councils define impact as the demonstrable contribution that excellent research makes to society and the economy. Impact embraces all the extremely diverse ways in which research-related knowledge and skills benefit individuals, organisations and nations by:

- fostering global economic performance, and specifically the economic competitiveness of the United Kingdom;
- increasing the effectiveness of public services and policy; and
- enhancing quality of life, health and creative output.

Economic and Social Research Council



## What are we evaluating?

- 
- Impact on all sectors of UK economy and society
  - Impact includes both direct economic benefits & wider social policy
  - Try to learn what works, how and why
  - Implement lessons to increase future impact
  - Create & support impact by:
    - research results and knowledge exchange
    - people transfer
    - the use of data, information and methodologies.

Economic and Social Research Council



## How are we evaluating impact?

- 
- Policy and Practice studies
  - 'Tracking Back' studies (economic impact)
  - Conceptual impact
  - Skilled people

Economic and Social Research Council



## Critical Issues for Impact Evaluation

- 
- Different types of impact
    - Instrumental
    - Conceptual
    - Capacity Building
  - What are the problems?
    - Timing – how long to wait?
    - Attribution – what role has research played in change?
    - Additionality – what is ESRC's contribution?

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## ESRC Impact Evaluation Aims

- 
- Aims:
    - to trial methods - 'what works'
    - produce evidence – 'demonstrating impact'
    - improve understanding - 'how does impact occur'
  - Testing:
    - wide range of methods
  - Key Requirements:
    - conceptual framework
    - understanding the 'how' as well as the 'what'

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## SIAMPI and ESRC



- Learning from the methodology – ‘What works?’
- Improving understanding – ‘How does impact occur?’
- Producing evidence – ‘Demonstrating impact’

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## What Works – developing ESRC impact evaluation approaches



- SIAMPI study complements ESRC evaluation programme
- Understanding productive interactions is key to understanding how impact is generated
- Provides useful evidence of the complexities of impact assessment
- Key areas of interest:
  - Impact through the mobility of individuals across the academic/non-academic interface
  - Challenges of assessing indirect impact

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## How impact occurs: advice for ESRC investments



- SIAMPI findings help ESRC to guide its investments towards increasing the influence of their research
  - Importance of networks/relationships
  - Co-production of research
  - Documenting productive interactions

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## Demonstrating impact – evidence for stakeholders



- Examples of impact from SIAMPI study inform government reporting requirements
- Findings used to answer queries on specific areas of impact
- Findings may be used by BRASS to support applications for further funding

## Future directions



- Multi-dimensional approach
  - Core focus on policy and practice studies
  - Impact of qualified social scientists
  - Conceptual impact
  - Quantifying impact
- Evidence from a range of perspectives to build robust evidence of impact
- Continuing emphasis on understanding the complex processes and productive interactions that underpin the impact narrative

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## Thank you



### For further information:

#### Visit

[www.esrcsocietytoday.ac.uk](http://www.esrcsocietytoday.ac.uk)

#### Contact

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## Presentation by Ad Prins, Support in research management

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### WP5 Health: Siampi in the assessment of institutes

December 10, 2010

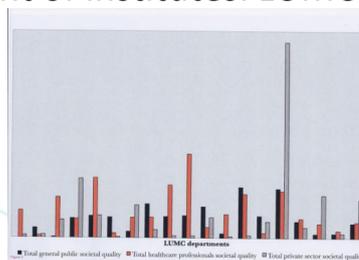
Dr. A. Prins

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### SIAMPI in the assessment of institutes: LUMC

Academic Medical Centres

- Enormous varieties in research outcomes per group
- Varieties of stakeholder relations
- Varieties in social impacts



Mostert, Ellenbroek, Van Ark, et al, 2010

**Productive interactions: Can we find indicators for social impacts that are more or less generic for such varieties in research?**

Siampi WP5 Health: LUMC & NIVEL

	Cases	Interactions	Impact analysis
LUMC Leiden University Medical Centre (6500 employees)	3 departments: <ul style="list-style-type: none"> <li>• Public Health &amp; General Practice</li> <li>• Gynecology</li> <li>• Anatomy</li> </ul>	Programme leaders (9) and stakeholders (6)	Contextual Response Analysis of some output
NIVEL Dutch institute for health service research (90 fte)	21 projects <ul style="list-style-type: none"> <li>• Statistical sample out of 200 projects</li> <li>• 3 added cases</li> </ul>	Programme leaders (15) and stakeholders (20)	Contextual Response Analysis of output

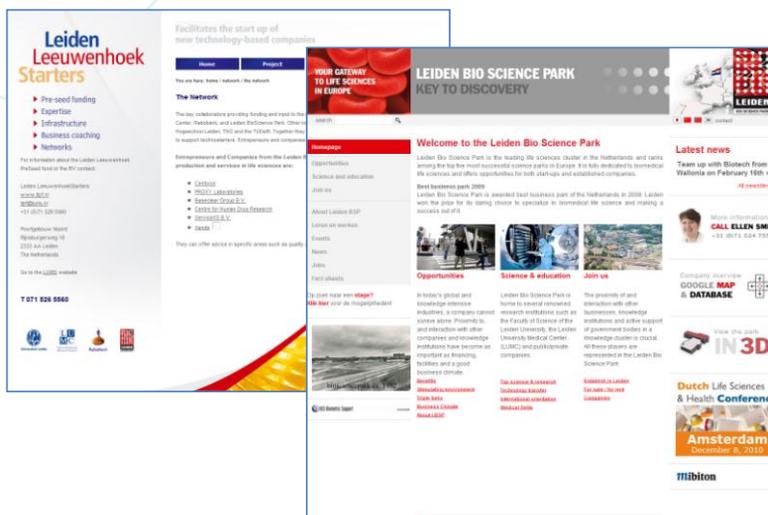
Productive interactions: Interaction is organized

LUMC	<p><b>Occasional external frameworks:</b></p> <ul style="list-style-type: none"> <li>• PPP consortia</li> <li>• Public funding programmes</li> <li>• Restraint in (public) interactions: e.g. stem cell research</li> </ul> <p><b>Occasional internal frameworks:</b></p> <ul style="list-style-type: none"> <li>• Technology Transfer Offices, Holdings</li> <li>• Translational research: internal cooperation</li> </ul>
NIVEL	<p><b>Internal formal stakeholder management:</b></p> <ul style="list-style-type: none"> <li>• stakeholder consultation rounds,</li> <li>• surveillance of sensitive projects,</li> <li>• check and balances with funding agents</li> </ul>

### LUMC: External public frameworks for interaction



### LUMC: Internal frameworks for interaction: TTO





## External Public Private frameworks: PPP consortia

The image shows three overlapping website screenshots. On the left is the Top Institute Pharma website, featuring a yellow liquid in a glass and text about public-private partnerships. In the center is the BMM logo, a blue sphere with the letters 'BMM' below it. On the right is the Center for Translational Molecular Medicine website, which includes a search bar, navigation tabs, and a 'LATEST NEWS' section with a date of 22/10/2010.

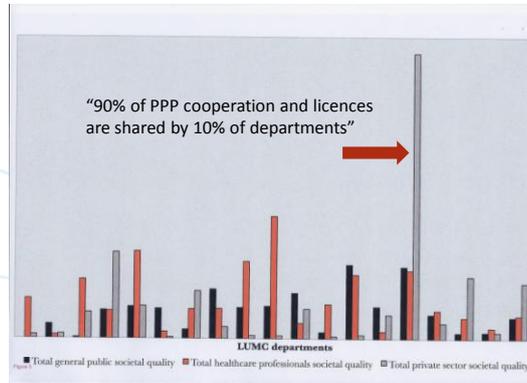


## PPP Consortia: vast resources, limited access

The image displays two website screenshots. On the left is the VIRGO consortium website, showing a network diagram of partners including OVirioNativa, Intervet, and others, with a list of member institutions at the bottom. On the right is the Netherlands Genomics Initiative (NGI) website, featuring a navigation menu and an 'About NGI' section that states: 'For its second five-year period, 2008 - 2012, NGI can tap into € 280 million of government funds. This amount will attract additional investments from industry, academia and research institutes creating a total budget that is expected to amount to € 600 million.'

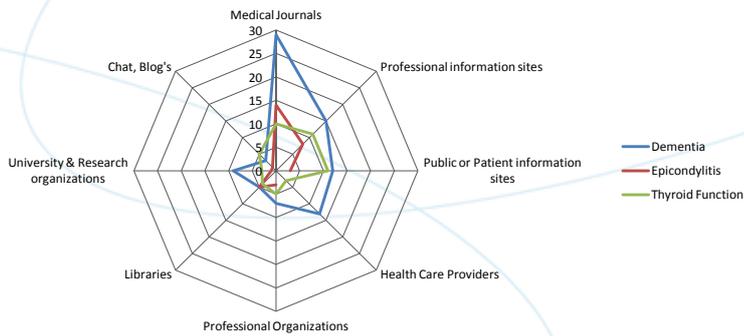
External impacts unequally distributed

- Impacts of only few departments can be measured by patents, licences, funding
- Other departments too have impacts, in different domains (societal, professional etc), difficult to measure?
- How to "leverage" these other departments?



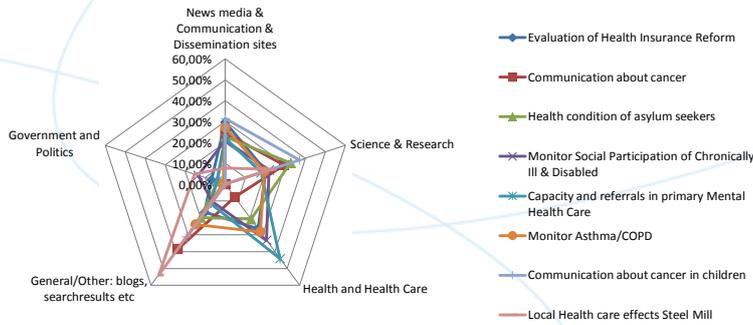
Mostert, Ellenbroek, Van Ark, et al, 2010

Social impact of three medical guidelines for GPs



Google searches for three guidelines of LUMC Dep. of Public Health and General Practice

Social Impact of NIVEL reports, per domain



Interactions per type of interaction and phases :  
Frameworks in most cases

Type of framework of interaction	Agenda setting	Funding and doing research	Dissemination and Implementation
External Public	Yes	Yes	Yes
Internal TTO	Bottom up (researchers)	Yes	Yes
External Public Private Consortia	Yes	Yes	Yes

Generic characteristics of Productive Interactions

Interactions in Phases of Research
Agenda setting & Research Process
Dissemination and Implementation

Three general characteristics of interaction:
A. The mission of the research organization
B. How interactions are managed and organized (Network)
C. Stakeholder characteristics: variety, dispute and dominance (Stakeholders)

Stakeholder characteristics

Characteristic	Example
i. Dominance of (funding) agents	Larger funding agents (Ministry of Health, ZonMw, PPP consortia) define programmes and research priorities. (Literature: industries may also dominate)
ii. Dominance of researchers	ZonMw: stakeholders should be involved in agenda development (Professional workers) Otherwise: limited set of stakeholders are involved in agenda setting in external funding (e.g. in PPP-consortia)
iii. Differences in insight and interests	Policies of accomodation and balancing (NIVEL, Public Health & General Practice)

Network characteristics

Characteristic	Example
1. Stable relations (longevity of investment in interaction);	Organizing interaction by internal (or external) management
2. Density of interaction: plurality of actions taken to establish impact,	e.g. Translation of science papers, presentations, involvement in agenda setting
3. Diversity of stakeholders, esp. in agenda setting	Addressing differences in insight and interests

Critical indications of productive interactions

1. Stable relations (longevity of investment in interaction); Internal (or external) management of interaction
2. Transparency in involvement of funding agents,
3. Density of interaction: the variety of actions taken to establish impact (e.g. translation, presentations, agenda setting),
4. Diversity of stakeholders, esp. in agenda setting → address differences in insight and interests
5. Impact analysis such as Contextual Response Analysis: identify stakeholders, measure response

**Presentation by Stéfan Ellenbroek, LUMC**



*Societal Impact Evaluation at the Leiden University Medical Center*

**Stéfan Ellenbroek – “SIAMPI workshop”  
Brussel - 8 December 2010**



*Leiden University Medical Center*

= Knowledge institute with public tasks

- Patient care
- Research
- Education (Medicine & Biomedical Sciences)
- Training (Specialists and nurses)
- Postgraduate training and refresher courses



= Largest employer at Biosciences Park (± 6,500 employees;  
annual turnover: ~M€ 560)

Translational research: from bed to bench and vice versa



International cooperation

- International & EU grants



*Practical set-up of Science evaluation in LUMC*

- Annual analysis of LUMC research programs (~80)
  - Mainly retrospective (nr. of theses, earning power, etc.)
  - On the basis of an integral CWTS study of bibliometrics of all (WOS) articles
  - Descriptions of programs and themes
- Tri-annual Self-evaluation (SEP)
  - All of the above
  - Retrospective (production, bibliometry and other indicators of quality) AND prospective (plans, vitality)
  - Coupled to input (funding and fte)
- Something was missing!



*Societal*

Mostert et al. Health Research Policy and Systems 2010, 8:30  
<http://www.health-policy-systems.com/content/8/1/30>

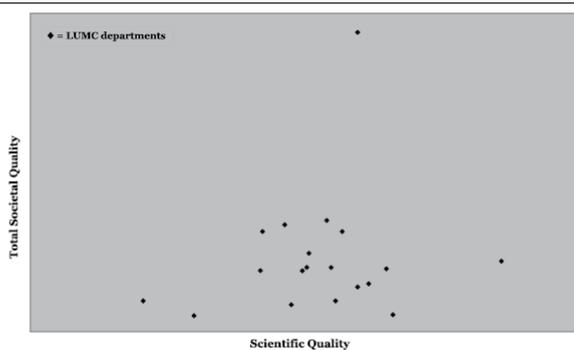


RESEARCH

Open Access

t

Societal output and use of research performed by



**Figure 2 Total Societal Quality versus Scientific Quality.** In this graph the Total Societal Quality is plotted against the Scientific Quality of all LUMC departments that contributed to this study. The correlation between the two is weak which suggests that societal quality is not simply the consequence of high scientific quality.

scientific use (scientific references) [3,5] and benefits of

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cal centre: the Leiden University Medical Center (LUMC). University medical centres in the Netherlands are the result of mergers between university hospitals and medical faculties of universities, and combine university patient care with medical, biomedical and health-care research and the education and training of doctors.



*Scientific impact – conclusions LUMC*

- Based upon our experiences we really need a good administrative system
  - This should be the 1st step for all those wanting to perform whatever annual impact measurement
    - Bibliometry AND societal impact
  - The Converis system from Avedas AG will be used
  - Good and clear indicators
    - As much as possible coupling with existing databases (patents, turnover, press activity, etc.)
  - Continue developing our means to measure / weigh
  - SIAMPI will very possibly be implemented in some way or the other
- Indicators must be agreed upon (inter)nationally(?)



**LUMC, Center of Medical Innovation**

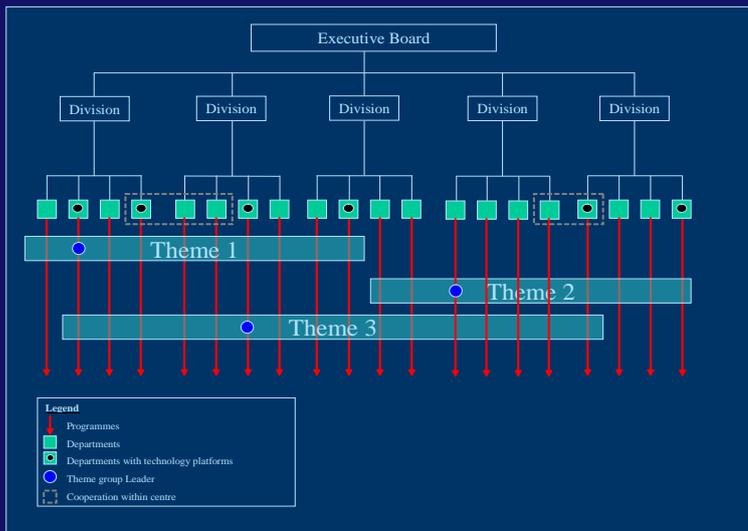


*What indicators were measured?*

	General public	Health community	Private sector
<b>Knowledge production</b>	<ul style="list-style-type: none"> <li>•Contributions to television programmes</li> <li>•Contributions to radio programmes</li> <li>•Contributions to newspapers or journals (non peer reviewed)</li> <li>•Contributions to public websites</li> <li>•Contributions to public news forums</li> <li>•Contributions to schoolbooks or study material</li> </ul>	<ul style="list-style-type: none"> <li>•Publications in medical journals (non peer reviewed)</li> <li>•Contributions to professional websites</li> <li>•Contributions to medical charters or protocols</li> </ul>	<ul style="list-style-type: none"> <li>•Patents</li> </ul>
<b>Knowledge exchange</b>	<ul style="list-style-type: none"> <li>•Memberships of public funding agencies or patient organizations</li> <li>•Speeches for general public or contributions to public forums</li> <li>•Information for scholars</li> </ul>	<ul style="list-style-type: none"> <li>•Memberships of advisory committees or professional associations</li> <li>•Speeches at medical conferences</li> </ul>	<ul style="list-style-type: none"> <li>•Speeches for companies</li> <li>•Cooperation with companies</li> </ul>
<b>Knowledge use</b>	<ul style="list-style-type: none"> <li>• Use of schoolbooks or study material in medical education programmes</li> </ul>	<ul style="list-style-type: none"> <li>• Use of new medical charters or protocols in medical practice for diagnosis or therapy</li> </ul>	<ul style="list-style-type: none"> <li>• Use of technology by companies to produce new products or therapies</li> </ul>
<b>Earning capacity</b>	<ul style="list-style-type: none"> <li>•Charity funding (3<sup>rd</sup> money stream)</li> </ul>	<ul style="list-style-type: none"> <li>•Indirect funding (2<sup>nd</sup> money stream)</li> </ul>	<ul style="list-style-type: none"> <li>•Contract funding (4<sup>th</sup> money stream)</li> </ul>



*Research organisation LUMC*





## Research

- Themes  
Regenerative Medicine; Vascular Medicine; infectious Diseases and Immunology; Ageing; Neurosciences; Immunotherapy of Cancer; Genetic Epidemiology and Bio-Informatics; Oncogenetics
- Technology platforms  
Center for Molecular Imaging; Leiden Genome Technology Center; Center for Bio-Molecular Mass Spectrometry; Center for Stem Cell Research
- Centers  
Center for Medical Systems Biology; Center for Infectious Diseases; LUMC Cancer Center; Center for Public Health; Center for Diabetes

9



## Education

### • **Medicine**

Training students to become physician

Introduction of BaMa structure in 2007

315 enrolments a year + a small number in later years

### • **Biomedical Sciences**

Training students to become scientific researchers \*

65 enrolments a year

### • **Total of approx. 2,100 students**

\* Divided in four different degrees



10

## Presentation by Kate Barker, MIOIR

Social Impact Assessment Methods through Productive Interactions

s i a m p i



### Productive Interactions in ICT Case

*Brussels, 10<sup>th</sup> December 2010*

2 national settings: UK and Netherlands

EU level

Manchester and Rathenau teams

Social Impact Assessment Methods through Productive Interactions

s i a m p i



### ICT Case Description

UK Case – Digital Economies Hub “Social Inclusion through the Digital Economy” Newcastle and Dundee

Universities + additional interviews from UK E-science Programme

- impact “built in” to project design engaging users and end users

Dutch Case – interviews with researchers and stakeholders in Dept Informatics, Vrij University Ams

EU level – examining case studies of IST projects and how existing monitoring and evaluation addresses social impact and productive interactions



**Productive Interactions – personal connections underpin, often long standing relations built, relations with users and user organisations run by professionals with the university**

Interaction type	Informal	Formal
Between persons	Former colleagues (in industry) 'The gym', user pools	Software Demo's
Between person and organization	Committee or board memberships	Advisory role to large company, involvement in spin offs
Between organizations	Joint research project, joint testing, long standing relations eg participation in research	Strategic alliance, also between societal organisations and research performers



**Social impact – variety – ICT is enabling technology**

- Present UK Hub too early but past examples include development of assistive technology, speech recognition, accessible web and interface design
- Development of new tools to assist health care planning (childhood obesity) used by local NHS strategists
- Development of new tools, software, protocols used by hundreds (1,000s?) of scientists (e-science research) and medical practitioners
- New services for citizens, increased safety ...full range of quality of life as well as economic impacts in new products and services and firm creation



## Stakeholders

- Great variety, sometimes organisations, sometimes very much at individual level within organisations, private and public, intermediaries, NGOs, government, *other academic communities*
- willingness to develop long term relationships with ICT researchers including funding and co-funding
- For funding stakeholders – expectations of impact from ICT are high (naïve?)



## Networks and timing

- Serve as a pool of potential productive interactions
- Seem to be the infrastructure that allows knowledge to travel
- Seem to shape conditions required for knowledge to have impact
- Networks involve players at various spatial levels – global (business), national (funding), regional and local (SMEs, users, community groups, funders)
- Timing varies – some quick results, some longer ones, depends on nature of the innovation
- Some social welfare effects seen immediately, though as an adjunct to the research



## Within-case comparison

- Huge variety within ICT research as application domains are diverse
- Differences in PIs and SI according to type of research (more fundamental, more application oriented) but not between the national settings of UK and NL
- Differences with EU ICT arise from the nature of the project funding conditions (fixed contracts with stakeholder partners) and large project size (PIs require active management)

## Summary of presentation by Keith Sequeira and Jim Dratwa, EC, DG Research

In the Innovation Union (published October 2010), new rationales for EU policy are described. The approach will be geared towards the societal challenges mentioned in the various EU reports<sup>1</sup>:

- The rationale for public intervention will be an approach based on the grand societal challenges (see Europe 2020, a strategy for smart, sustainable and inclusive growth). The EC is interested in innovation that points in a certain direction. The desirability of a particular outcome will be more central than before.
- The EC so far has interacted with researchers and innovation agencies. There is a far more complex set of actors involved in the societal challenge approach. This is a challenge for all involved.
- Instruments and mechanisms will be different:
  - EC will intervene in a different part of the chain; the user takes a risk when trying out a new technology; so the EC will fund the user, and involved from early on
  - A systems approach will be used, where the societal challenge is central and innovation partnership is crucial.

Questions the EC deals with at present – and why EC is interested in SIAMPI - are:

- What areas do we fund?
- Are there any differences between disciplines that EC should take into account when assessing proposals??
- Do we ask to include users?
- What should we be doing with follow up projects, because the desired impact will probably only be realised in a follow up project.

The EC is developing the assessment for (future policy) FP8. It is easy to assess the economic impact; however it is a challenge to assess environmental and social impact. The EC is therefore interested in answers on questions like:

- What is social impact?
- What are productive interactions?
- What stakeholders do matter in what case?
- How far does the EC need to trace the impact?

Also, it is discussed what the goal is of evaluations. Not in the sense of summative or formative evaluations, but in the sense that the EC wants to understand what didn't go well and learn from that. This means more than capturing the impact; it might mean looking at impact pathways. It would be extremely useful for the EC to use the concept of productive interactions for impact in general. The EC aims at a feedback loop and include the insights gained from a policy instrument into the next step or phase of that instrument. Assessing early traces of future impact and finding proxies (that can be related to future impacts) are therefore useful and important. The EC has tried to trace impacts of research projects in policies. It was impossible to find them. A solution can be to ask the researcher to indicate the policy they try to influence and ask policymakers to refer to research they base their policy on.

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<sup>1</sup> The key societal challenges are climate change and the need for clean energy, sustainable transport, sustainable consumption and production, and improved public health or food, water and energy security