



@HumanomicsMap

# Documenting and analyzing humanities and social sciences scholarship

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Rolf Hvidtfeldt PhD

Louise Amstrup

28 March 2019

Technical University of Denmark | OPERA Conference



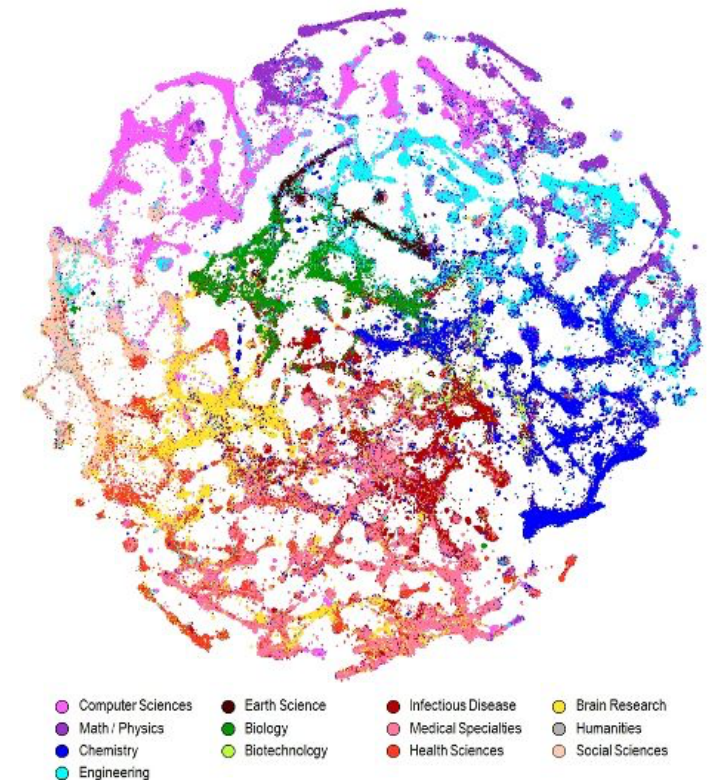
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# Agenda

- David Budtz Pedersen – Introduction and Framework
- Rolf Hvidtfeldt – Open Research Analytics for Tracing SSH Impact
- Louise Amstrup – Field Observations of Implementing SSH Metrics
- Katja Mayer – European Pathway to SSH Research Impact
- General discussion and Q&As

# Humanomics Research Centre

- ❑ Meta-research unit focused on studying the interdisciplinary and societal impact of research.
- ❑ 15 researchers, grants: Velux Foundation, Danish Council for Independent Research, European Commission, Danish Ministry of Science etc.
- ❑ Running projects “Mapping the Public Value of Humanities”, “Responsible Impact”, “Open Science Research Analytics” & H2020 “ACCOMPLISSH”



# RE<sub>imp</sub>sponsible ACT



**David Budtz Pedersen**  
*Professor*  
*Principal Investigator*



**Birger Larsen**  
*Professor*



**Mikael Vetner**  
*Head of*  
*Department*



**Marianne Lykke**  
*Professor*

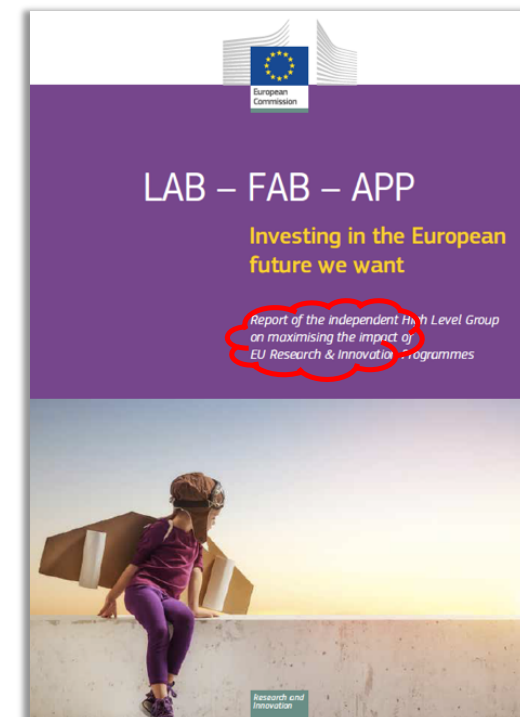
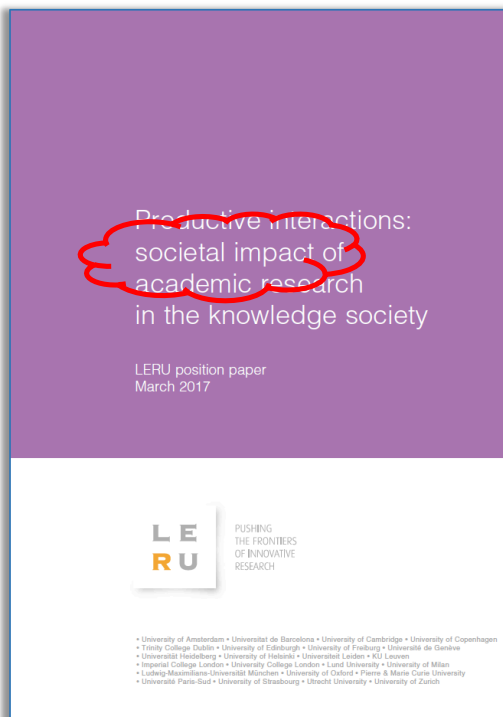


**Rolf Hvidtfeldt**  
*Postdoc*



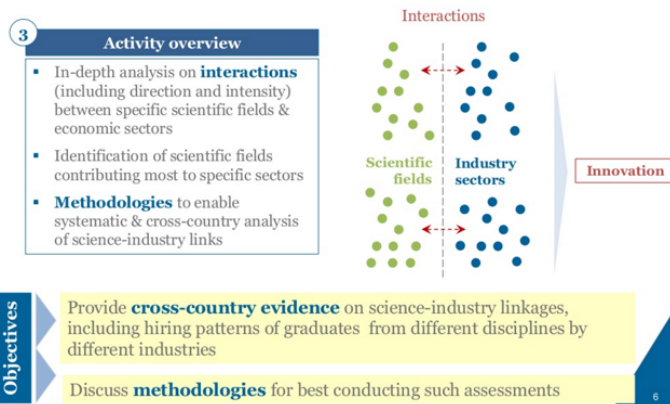
**Louise Amstrup**  
*Research Fellow*





# A hot topic in SSH

Assessing the contributions of specific scientific disciplines to industrial innovation



## R-QUEST

Center for Research Quality and Policy Impact Studies

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## RESEARCH QUALITY AND POLICY IMPACT

Quality in research is a highly prioritized, but also a much debated issue in research policy. The Centre for Research Quality and Policy Impact Studies (R-QUEST) constitutes an 8-year commitment to explore the nature and mechanisms of research quality – funded by the RCN FORINNPOL initiative. The centre will address three closely related questions:

Fixed funding from the European Union's Horizon 2020 research programme under grant agreement No 632477

## ACCOMPLISSH

Accelerate CO-creation by setting up a Multi-actor Platform for Impact from Social Sciences and Humanities

**Partners**

Participant No. *	Participant organisation name	Country
1	University of Groningen	NL
2	University of Glasgow	UK
3	University of Copenhagen	DK
4	Dalhousie University	SE
5	Newcastle University	UK
6	University of Zagreb	HR
7	University of Tartu	EE
8	Sapienza University of Rome	IT
9	University of Göttingen	DE
10	University of Duisburg-Essen	HU
11	University of Ghent	BE
12	University of Barcelona	ES
13	Tallinn University	EE
14	University of Coimbra	PT

**UiO: University of Oslo**

For employees Norwegian website Search

**OSIRIS - Oslo Institute for Research on the Impact of Science**

A part of TIK Centre for Technology, Innovation and Culture at Faculty of Social Sciences

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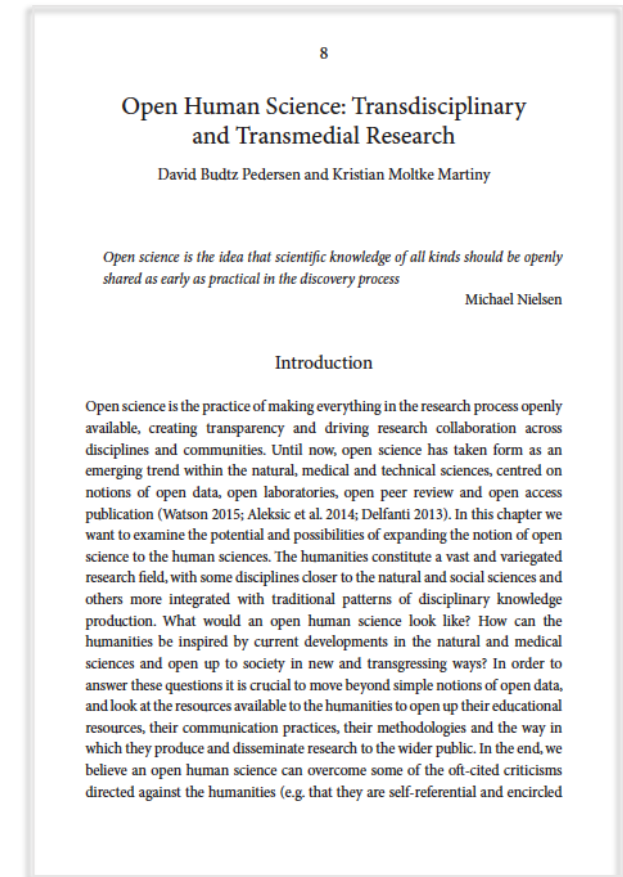
# Open Science Policy Agenda

- Increasing dissatisfaction with current (*closed*) publication models
- Increasing public demands for Responsible Open Science & Innovation
- Increasing policy interest in mission- and challenge-driven research (SDGs)
- Increasing importance of research for future employment, competitiveness, growth, well-being and policy-making (“broader impact”)
- Increasing emphasis on reviewing merit & promotion criteria (“Meritudvalg”)
- Increasing access to new digital tools and metrics that represent and track the dissemination and uptake of research (beyond bibliometrics)

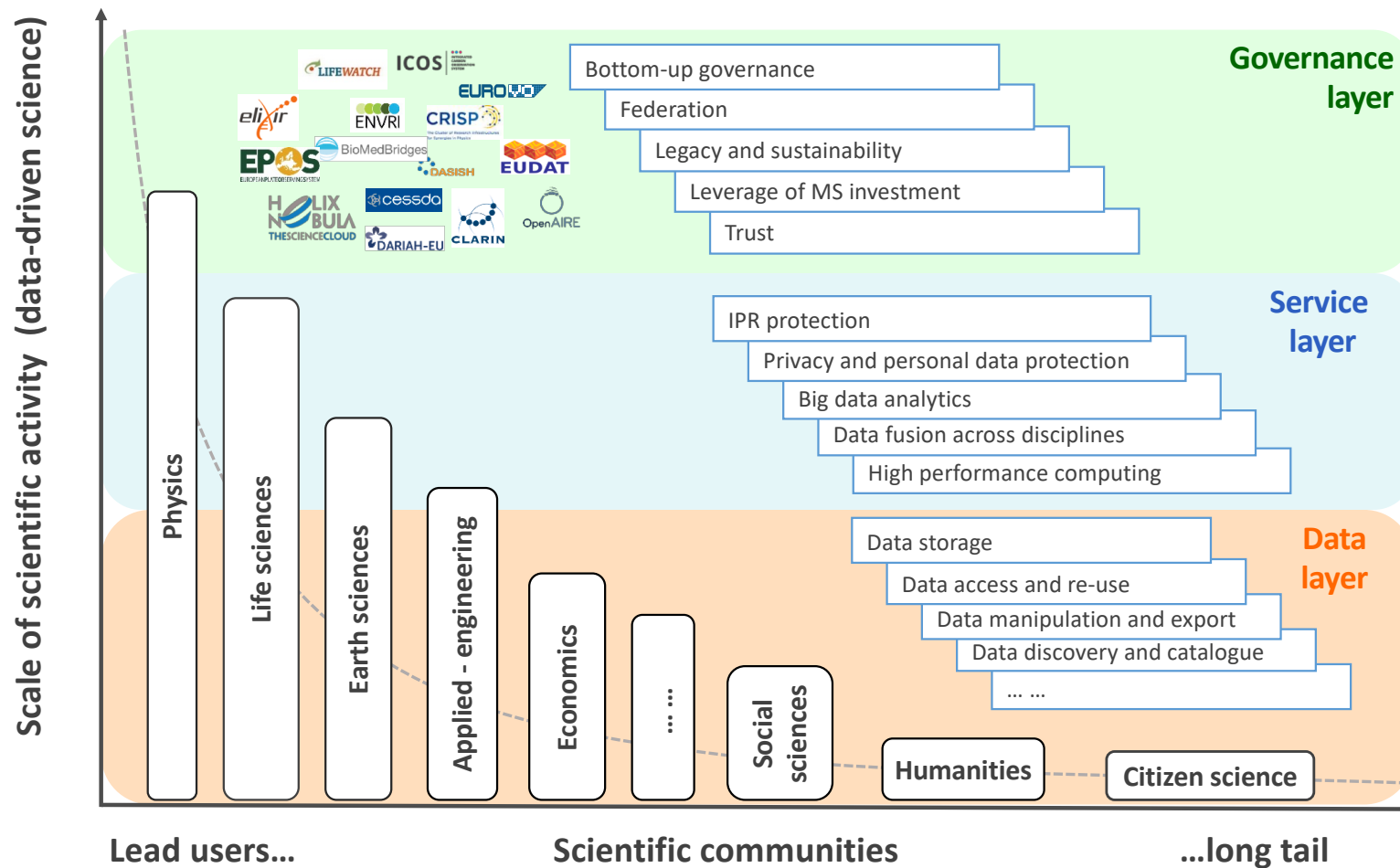
# ... Also the Humanities?

## OPERA WP2 objectives

- ❑ Enabling adequate documentation of humanities scholarship and social impact
- ❑ Documenting and analyzing SSH scholarship
- ❑ Experiment with metrics for publications, citations, co-authorship, and co-production w. collaborators



# European Open Science Cloud



## International Meta-Review of Impact Indicators in SSH

	REF	SEP	IMPACT -EV	HPB	SIAMPI	CM	RCF	FK	LE	RAPID
Implemented ex ante (Prospectively)										
Implemented ex post (Retrospectively)										
Impact plan, template, theory of change										
Tracking from process, interactions										
Tracking from outcome, impact										
Logic model/representation										
Stakeholder inclusion (alignment efforts)										
Bibliometrics indicators										
Altmetrics indicators										
Register and adm. data										
Commercialization statistics										
Peer/expert review (judgement)										
Impact repositories										
User-information										
Case-study (impact narrative)										
Surveys										
Interviews										
Workshops/Focus groups										
Field/site visits										
Document analyses										

Budtz Pedersen, Grønvad & Hvidtfeldt (2019), forthcoming/in press. *Research Evaluation*





# Pure

## An Enterprise System for Research Information Management

Elsevier's Research Intelligence Solutions



Elsevier's **Pure** is a comprehensive system-of-record for research information management, improving university performance across the complete research lifecycle. Based on an authoritative data model that includes content types such as Research Output, Activities, Grants, Prizes, Datasets, Equipment, Press/Media coverage and more, **Pure** is a sophisticated tool that improves research management effectiveness across your institution.



Serving over 230 institutions worldwide



Pure's Relational Data Model

### Relational Data Model and Core Data Sets

The power of **Pure** lies in its structured, relational data model that links together all content types within the system. This allows both for a full view of an institution's research activity and output, and for detailed reporting across the research lifecycle.

#### What information can be stored in Pure?

Pure can store over a dozen different data types, including:

- Publications
- Patents
- Datasets
- Courses taught
- Press clippings
- Funding opportunities
- Grants and Awards
- Projects
- Activities
- Equipment
- Prizes
- Departmental Structures
- ...and more



Configurable within Pure

### Advanced Reporting Functionality to Enable Data-driven Decisions

Leveraging **Pure's** authoritative data model, **Research Managers and Administrators** can build tailored reports to analyze the achievements of researchers, teams, departments, or custom-defined groups.

- Create and distribute reports on any content type in **Pure** using real-time validated data
- Generate reports for a wide range of purposes, such as promotion and tenure evaluations, departmental and institutional assessments and other requirements
- Produce reports that meet your specific needs by incorporating table, graph, matrix and list views and exporting the reports in multiple formats
- Save time by scheduling reoccurring reports to run at specific time intervals and **Pure** will automatically email them to your predefined distribution lists

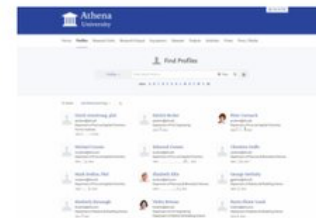


Researcher Profile View

### Comprehensive Researcher Profiles

Reduce administrative burden up front by integrating a wide range of data into researchers' profiles

- **Pure** creates the bulk of researchers' profiles by integrating institutional systems such as HR, student administration, finance and award management and automatically retrieving publications from a variety of databases
- Researchers can add supplemental data on courses taught, activities, projects, impacts, CV data and many other areas to extend the picture of their expertise. This ensures reporting is based on current and complete information and making them even more discoverable by potential collaborators, both internally and externally
- **Pure** minimizes manual entry by linking data from one section to another section of the system – i.e. an awarded grant can be later linked with a project without the need to re-enter the details of the grant
- **Pure** helps researchers stay organized by providing lists of recent actions and alerts for tasks requiring additional action
- Institutional repositories are automatically populated with content researchers enter into **Pure**



The Pure Portal: Showcase Your Institution's Research Expertise on the Open Web

### The Pure Portal: Showcase Your Institution's Research Expertise

The **Pure Portal** supports academic showcasing, discovery and networking via a public-facing portal populated by the data within **Pure**. The Portal features collaboration maps, profiles for academics and research organizational units, and the ability to search for individuals by specific areas of expertise – tools that help institutions understand their strengths and where they have valuable collaborations, both on and off-campus. All Portals are optimized to allow for indexing by Google and other popular search engines, enabling even greater discovery of your researchers on the open web.

You Are Here [My Awards](#) Help using this page

## My Awards

### AWARDS I AM RESPONSIBLE FOR

Novo Nordisk Fonden: Submitted on by 06 Dec 2016. You can still amend until 18 Jan 2017.

 Amend submission

Funder	Award name	Submission status	Days left for amending	Research Team
<a href="#">novonordiskfonden</a>	<a href="#">Peter award test (PeterInningsTest1)</a>	Submission completed	1 week 1 day	Peter Innings, Poppy Tabott, Oliver Kelly, Ferdinand Magalhães, Gavin Reddick
<a href="#">novonordiskfonden</a>	<a href="#">Second Test Award for Peter</a>	Submission completed	1 week 1 day	Peter Innings, Ferdinand Magalhães

### AWARDS WHERE I AM A RESEARCH TEAM MEMBER

Funder	Award name	Submission status	Next submission period	Research Team
There are no awards that you collaborate on				

## Welcome to e-grant.dk

e-grant is your entry point for applying for and administrating Research, Science and Innovation.

### Purpose

Application steps

Introduction

✓ Introduction

Basic application information

Basic project information

Applicant

Applicant

Other partners

Application

Key budget figures

Duration

Keywords and short description in Danish

English summary

Research training

Proposals for peer reviewers

Innovation Fund Denmark – Large scale projects – phase 1 2015

Introduction

Welcome to the electronic application form for large scale projects under Innovation Fund Denmark

For detailed information:

English

Danish

The application form

In the menu on the left, you can see the steps you have to complete. When you start working on a step, a check tick will show to indicate information has been entered. Note: This does not mean that the step has been completed.

You do not have to complete all steps at the same time, but can start filling in the form, save and close and resume your work later, just as you can edit previously entered information and add or delete appendices till you submit the application.

When the application is submitted it is locked. You can, however, unlock, edit and resubmit the application until the application deadline. This is done under the "Administration" step that appears at the bottom of the menu after submission.

You can give other people access to work on the application. You assign access to another person on the application portal e-grant.dk. Select your application and go to "case access".

Technical support

### Review application

#### Check all the information you have entered

[Preview the entered information in pdf](#)

You can go back to any step in the application process, using the menu to the left, and edit the entered information as well as remove/attach appendices.

#### Check your attached appendices

You can see all the appendices you have attached in the list below. Make sure that you have selected the correct files.

	Date	Document type	Size
	20.03.2015	Appendix C: CVs	549KB
ABC.pdf	20.03.2015	Appendix A: Project description	317KB

#### Application before submitting

[Receive copy of the entire application](#)

Before submitting the application, all the information you have entered and the appendices are gathered into one file.

You will receive a final result before you submit the application.

You will receive the "entire application". A copy will then be sent to your e-mail a couple of minutes before the file is sent.

Application steps

Introduction

✓ Introduction

Basic application information

Basic project information

Applicant

Applicant

Other partners

Budget

Upload budget

Key budget figures

Innovation Fund Denmark – Grand Solutions – phase 1 2016

Upload budget

Here you can download the mandatory budget template/form you need for filling in the budget item. When you have filled in the form, you need to attach the file before you can submit your application.

Download template

Attach

Attached by

Date and time

Back

Continue

Document Type

Appendix C: CVs

Attach

After clicking 'Attach': Please wait for the enclosure file name to appear on the list below. This can take a while depending on the size of the file, the speed of your connection, etc.

Filename	Date	Document type	Size	Delete
bilag A - Project description-ABC.pdf	20.03.2015	Appendix A: Project description	317KB	✕



## Track the visibility of your research with PlumX altmetrics

The library now provides the PlumX altmetrics service to researchers at TUT!

Read more about the PlumX service from Tutka.





Re-imagining discovery and access to research:  
grants, publications, citations, clinical trials and patents in one place

**Innovative**

Using data science  
to place research in  
its context!

**Extensive**

128 million grants,  
publications,  
clinical trials and  
patents with 4  
billion connections

**Together**

Built with and for  
the research  
community

Learn more about Dimensions



Access  
free app

Get in  
contact

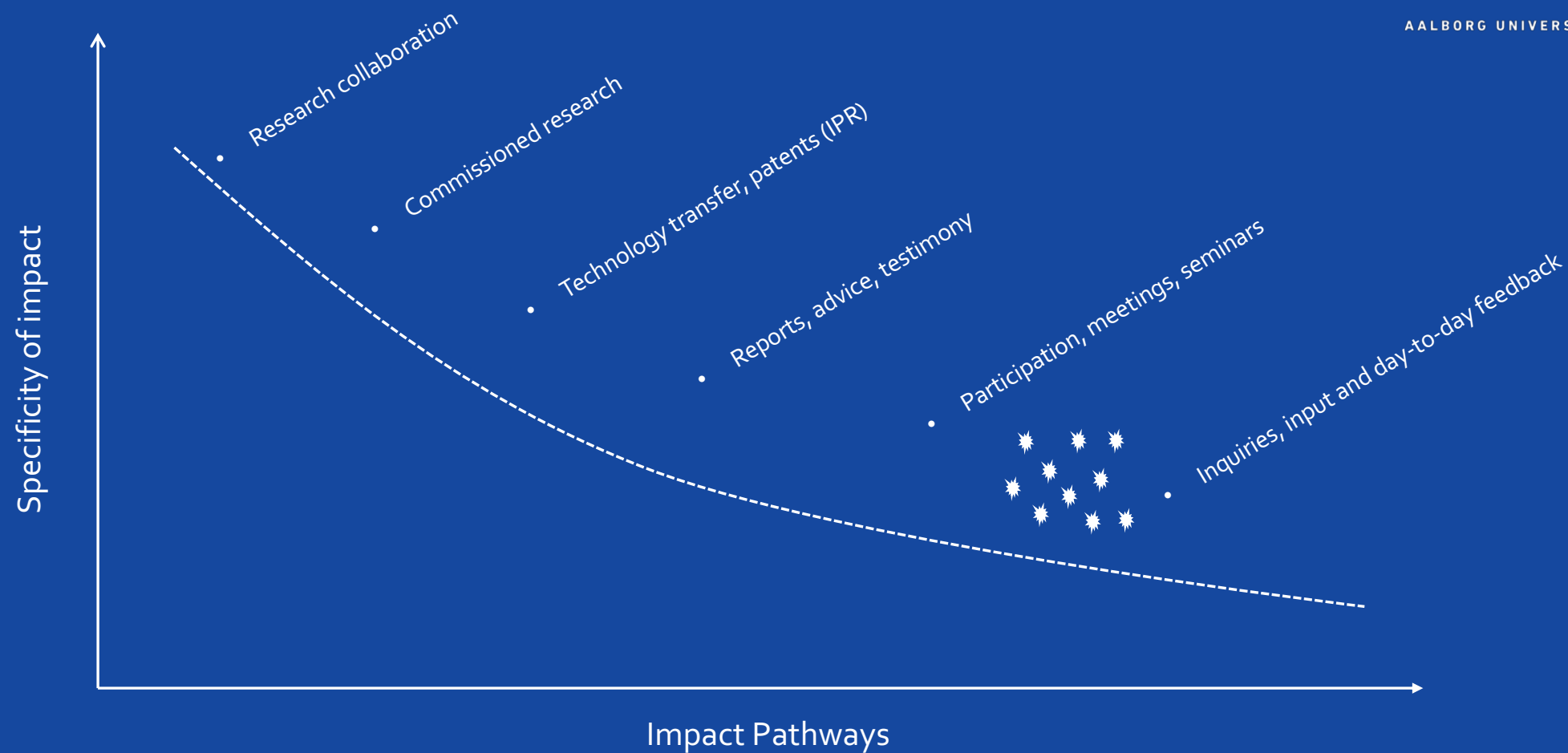
Stay  
updated

# **Domain-specificity and impact profiles**





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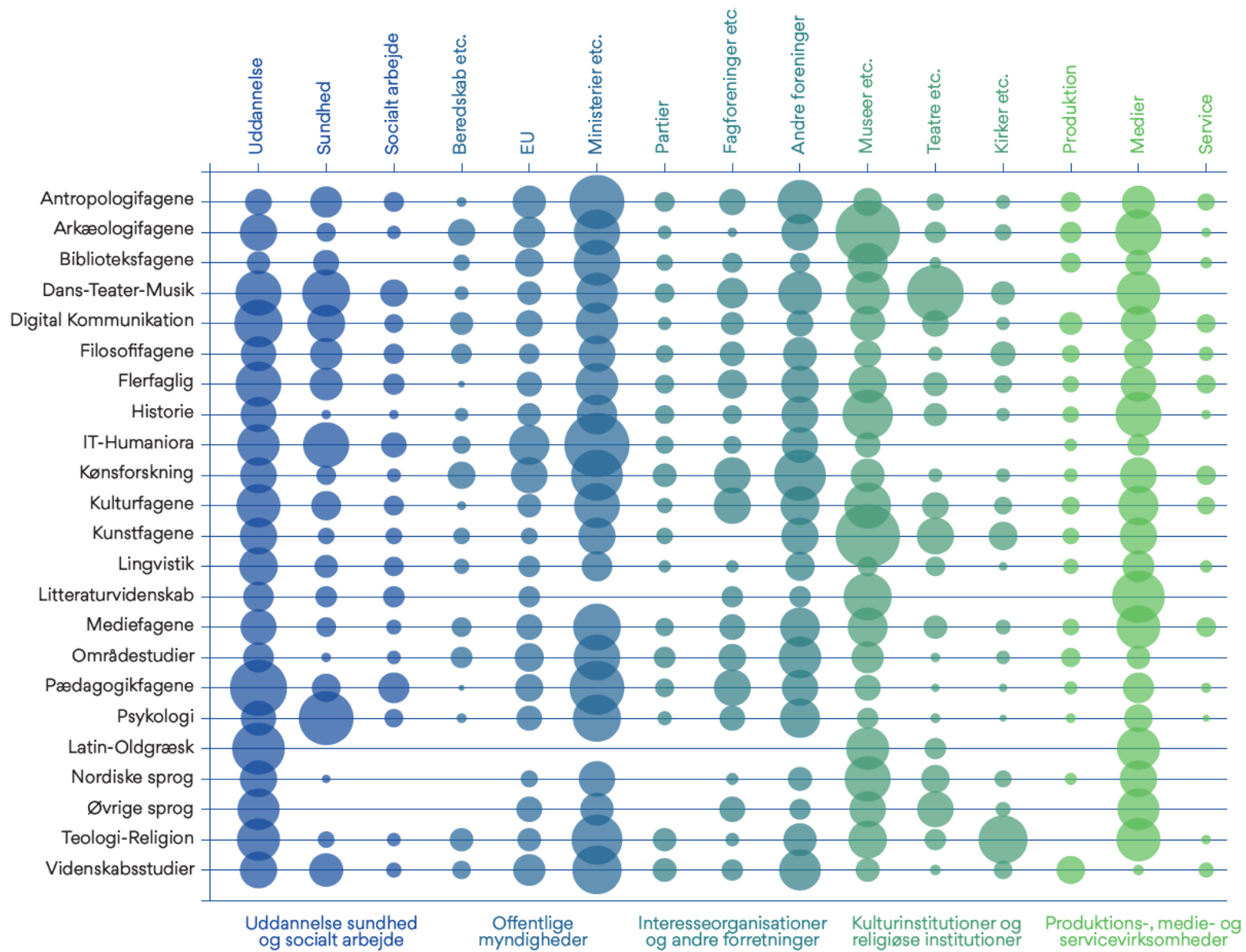


Budtz Pedersen et al. 2018  
Humanities Impact Survey 1371 respondents

# Knowledge exchange in the Humanities in Denmark (n=1372)

“The survey shows that a large part of humanities scholars at Danish universities actively participate in knowledge exchange and collaboration. 82 per cent of faculty has collaborated with actors and institutions outside academia within a reference period of three years”

82,29%



# ReAct VIVO Impact Assessment Platform

Budtz Pedersen & Hvidtfeldt (2019)

- Building an Open Impact Assessment system comprised of three main analytical **steps**:
  1. metrics-based ‘participatory indicators’ to trace “micro impacts” and monitor their real-time dynamics (‘numbers’);
  2. qualitative contextualisation of these indicators supplemented with qualitative evidence of specific impact pathways (‘narrative’);
  3. integrated analysis and case studies focusing on the local dimension of impacts – assessed by ‘extended peer review’.



## RESEARCH & TESTING

- Analyses of existing systems and metrics
- Literature review
- Conceptual development
- Participatory workshops
- Data collection (n≈50 researchers)
- “Bottom up” calibration of taxonomy
- Focus groups response

DEPARTMENT OF  
COMMUNICATION  
AND PSYCHOLOGY



e.g. publications of all kinds, distribution of research based products of all kinds, activities such as talks, debates, discussions, participation in development, meetings, events, exchanges of advice, collaborative interactions.

*Points of contact.  
Quite tangible indicators that there might be  
something interesting going on...*

**MICRO-IMPACT**

**PATHWAYS:**

“Interactions between  
researchers and society which  
are ‘productive’” (SIAMPI)

**VS.**

**IMPACT:**

“an effect on, change or benefit to the  
economy, society, culture, public policy or  
services, health, the environment or  
quality of life, beyond academia” (REF)

**MACRO-IMPACT**

*End effects.  
Transient, geographically dispersed, temporally  
dispersed, haunted by attribution problems...*

e.g. cultural development, legislative changes, altered educational practices,  
policy adjustments, economic growth, technological developments etc.



# 4 TYPES OF MACRO-IMPACT

1. Prototypical form of macro-impact: Scientific insight or innovation that immediately (more or less) result in significant change or disruption. E.g. technology that rapidly and significantly alter general circumstances such as smartphones, social media, or self driving cars.

## INVISIBLE PATHWAYS

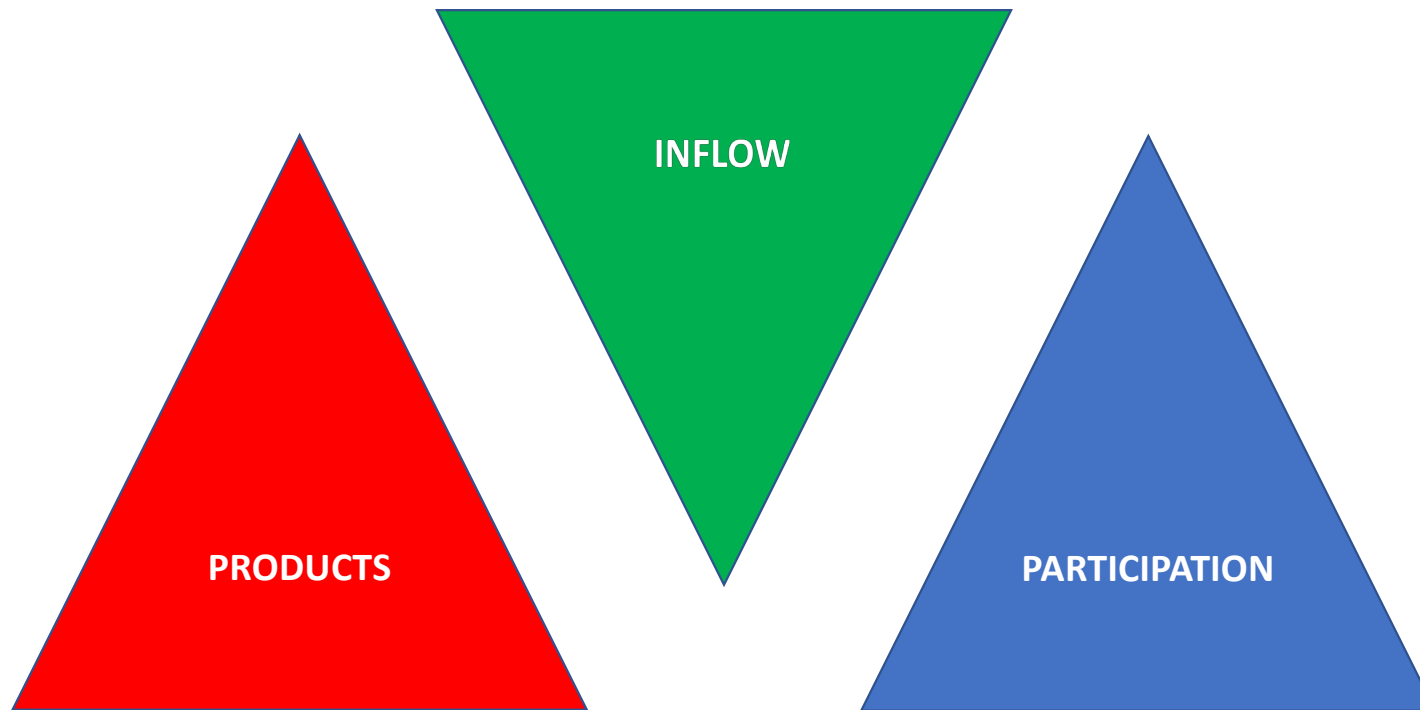
2. Series of micro-impacts which eventually, once critical mass is reached, results in significant change. E.g. the gradual buildup to legal change on the basis of research.

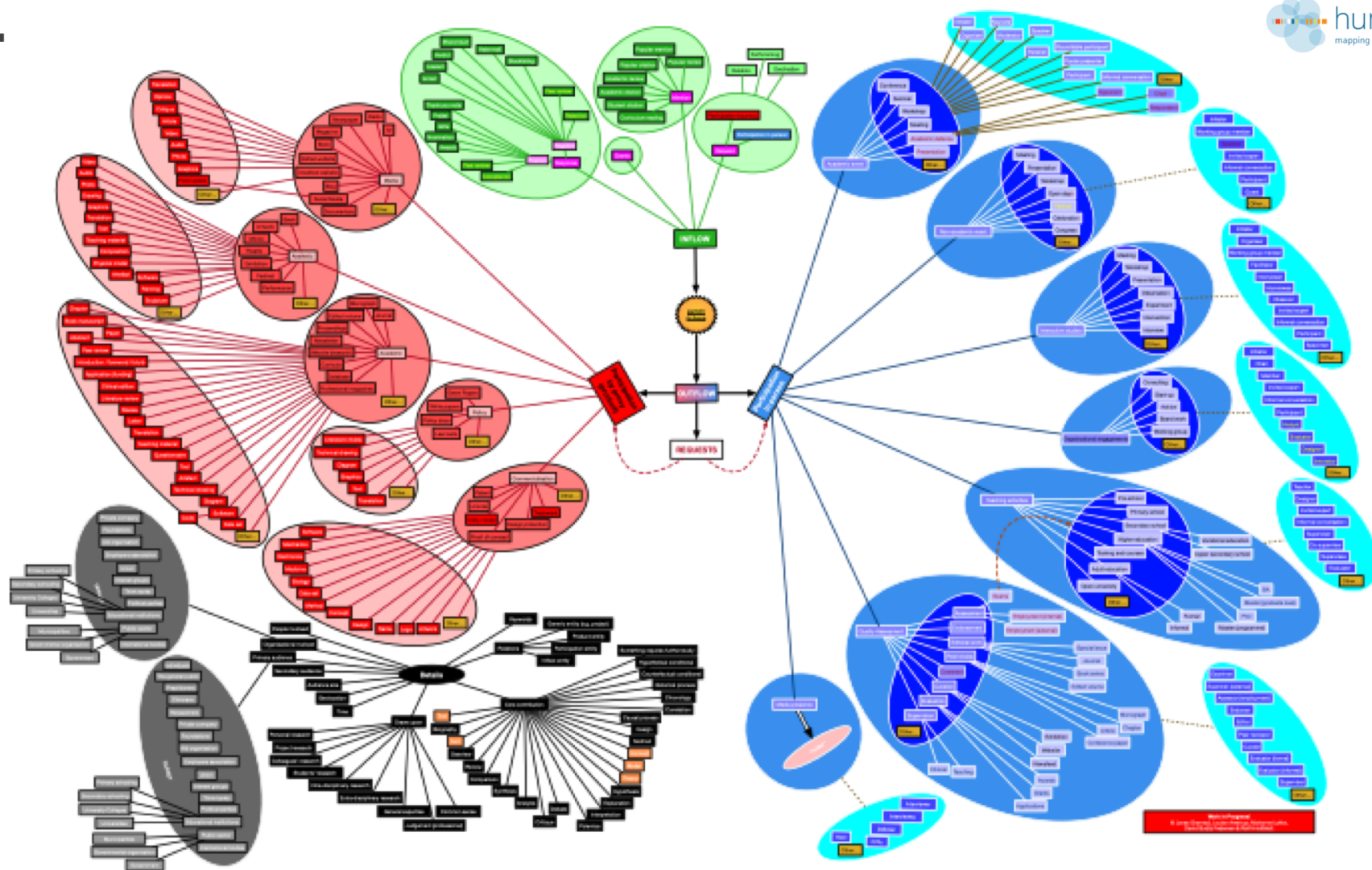
3. Gradual progress, buildup of capacity, or other forms of change based on accumulation of micro-impacts. BUT without ever reaching any remarkable tipping point. E.g. didactical research: a steady general progress (perhaps with occasional setbacks) that leads to overall increase in literacy and/or bildung. (Normal impact?)

## INVISIBLE

4. Micro-impacts contributing to the sustainment of functionality. “You don’t know what you got till it’s gone”. E.g. comments to law-texts by legal scholars.

# ≈120 TYPES OF MICRO-IMPACT





# REACT – RESPONSIBLE IMPACT

RE<sub>imp</sub> responsible  
ACT



*Responsible Impact* (ReAct) is an explorative research project intended to develop new tools for registering and monitoring research impact in real-time. By applying a rich and comprehensive impact taxonomy developed by interactive feedback from researchers combined with a user-friendly web-based research registration interface, the project aims to capture the diverse impact profiles of heterogeneous research groups while at the same time allowing researchers to have significant influence on how their impact is represented and communicated. The project is supported by **The Obel Family Foundation** and hosted by the Department of Communication and Psychology at Aalborg University.

## BACKGROUND

Universities and research funding agencies increasingly seek to understand and assess the way in which research translates into societal impact. In recent years there has been a dramatic increase in attempts to promote and measure knowledge exchange between universities and society as well as to capture the impact of research by indicators and metrics. Most indicators focus on bibliometric output and economic benefits (e.g. numbers of spin-offs, patents, gross value added, jobs created). While these are relatively easy to measure, it has turned out much more difficult to answer, especially with data and evidence, how universities and research groups are bringing about broader societal benefits (in society, economy, environment).

ReAct aims to develop a model of *Responsible Impact* by assessing how research practices translate into societal capacities and are directed towards a number of social ends. By explicitly drawing on a responsible approach to research analysis, ReAct takes into account the **diversity of impacts** by creating a participatory

REACT >  
REACT MANIFESTO >  
WORK PACKAGES >  
TEAM >  
PUBLICATIONS >  
NEWS & EVENTS >  
ADVISORY BOARD >

## CONTACT

ReAct welcomes inquiries regarding the group's research activities and partnership opportunities. Inquiries from the media are also welcomed.

For general inquiries, contact:

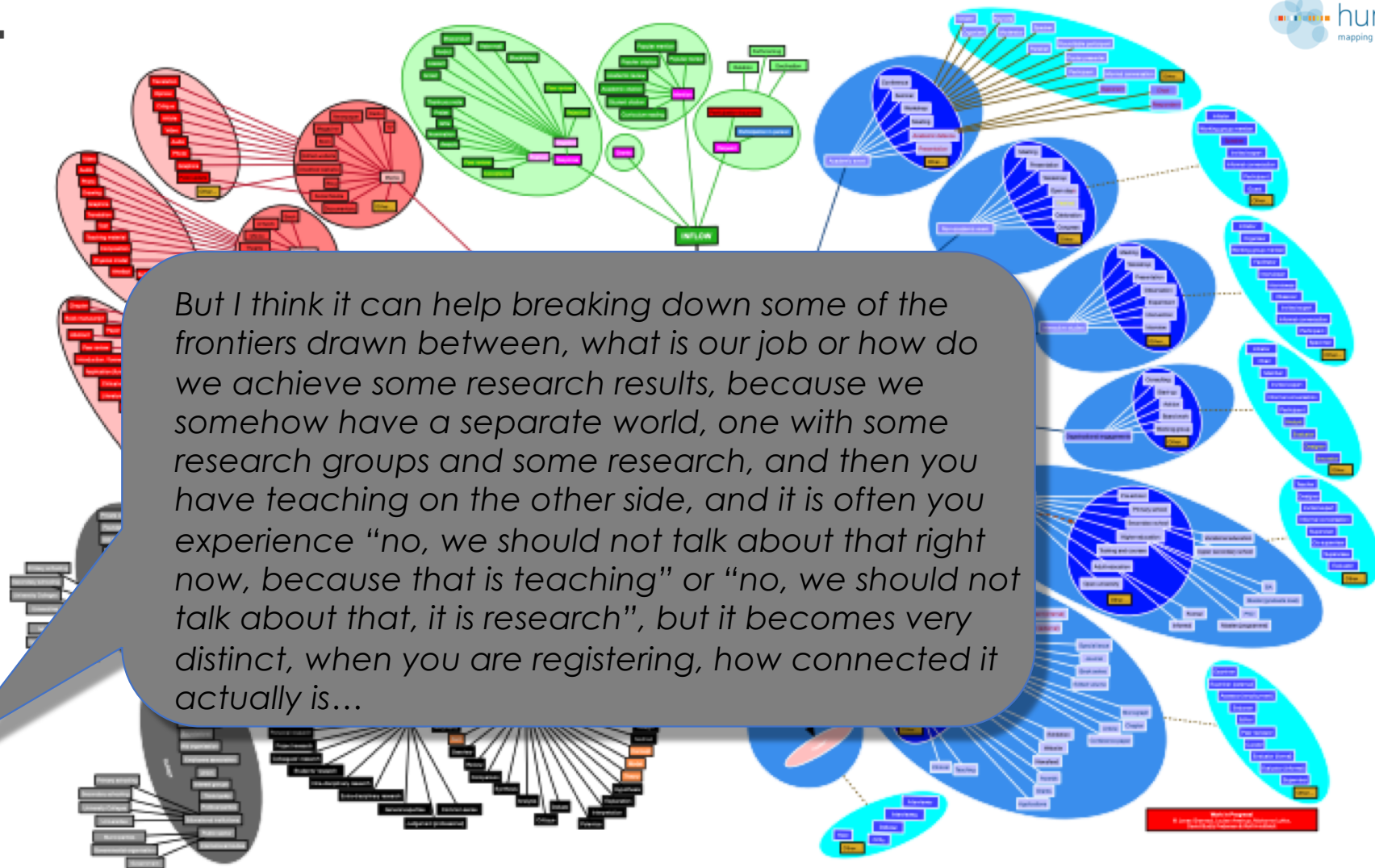
Prof. David Budtz Pedersen (PI)  
[davidp@hum.aau.dk](mailto:davidp@hum.aau.dk)

# GENERAL FEEDBACK

The feedback we have received on the project have overall been positive. The participants find the aim and the discussions the project addresses important and relevant.



The participants hope that the project will make it more evident what is going on in research, how many steps it takes just to collect the data, and lead to more appreciation of all the “invisible” and informal work taking place. They also hope the project somehow can make the terms better for comparing the SSH and the natural sciences.





# DATA COLLECTION AND REGISTRATION BEHAVIOR

452 meetings (includes e-mails, Skype- and phone calls)

In average 10 meetings per person - approximately half of them physical meetings of 45 minutes in average

Flexible service - approximately 18% of the participants have independently been responsible for their own registration

# POSSIBLE APPLICATIONS FOR THE VIVO DATA

Creates an overview and supports memory

The data can be used for documentation, e.g. in job applications and for internal learning.

The taxonomy can also be used as a tool to e.g. facilitate dialogue and for professional development

*" And this is where I think, that if you are getting some big EU project, then maybe there won't be any publications the first two years, because you have been spending your time on something else, and then suddenly it becomes very important to be able to document, it is not because this person has been lazy for two years, it is actually just because"*

# SOME CONCLUSIONS

The project have overall been well received

The registration and the taxonomy have been found usable for several purposes

If future use of Vivo/ a similar impact assessment tool it is important to consider impact portfolio management: how to facilitate the registration process

# Scenarios for future implementation

- Achilles heel for Open Science is "merit & metrics" (EU Commission Expert Group on Open Science 2018).
- Commission urges Member States to align university reward structures with OS activities.
- Commission calls for an emerging need to expand European university indicators to include OS metrics ('Bucharest Declaration').
- Commission is committed to make OS performance a mandatory criterium for grants and impact assessment in FP9 Horizon Europe

# HOW TO ORGANISE IMPACT PATHWAYS?

Questions	Policy priorities	Practices
value-for-society of SSH research	Skill sets for impact & co-creation Research Readiness Independent research + Honest broker	timely advise Merit & Incentives More societal allies (industry/policy)
changes in the e/valuation systems	Keeping diversity in eval. criteria Develop Open Indicators / Evaluation Transparency – in <i>infrastructure</i>	Train reviewers for epistemic diversity From outcome- to process-oriented
(role) models and forms of leadership	Importance of research group Diversification of career paths	Focus on 'collectives' rather individuals Learned societies & alliances – more involved in expert groups / statements
interaction with existing value systems and strategies (SDGs, ...)	Collect better evidence for SSH involvement in policy-making (incl. SDG, missions etc.)	Alignment of values, practices, incentives and indicators Involve NEW 'concerned' stakeholders in mission at all levels (more chairs)
role models and leadership of SSH in mission oriented and participatory settings	Permanent positions for Honest brokers (science attaches, boundary spanners).	Change agents / brokers / Impact Management Impact literacy SSH should make 'topics' more relevant for SSH research

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# Thank you for the attention

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Website: <http://mapping-humanities.dk>

Contributions from Rolf Hvidtfeldt, Jonas Grønvad  
and Louise Amstrup

