# Developing a typology of impact pathways for social sciences and the humanities STSM report

**STSM Applicant:**   Dr. Reetta Muhonen
**Home Institution:**   The Research Center for Knowledge, Science, Technology and Innovations Studies, TaSTI
Faculty of Social Sciences, University of Tampere, Finland
reetta.muhonen@staff.uta.fi
+ 358-50-3186156

**Host Institution:**   The Center for Higher Education Policy Studies at the University of Twente, Netherlands **Host:**       Dr. Paul Benneworth, leader of the ENRESSH WG2 **STSM period:**       3.1.-28.2.2017

**Aim of the STSM – creating a typology on SSH pathways to societal impact**
The main aim of the STSM was to develop a systematic typology of SSH pathways to societal impact by analyzing narrative impact cases in the field of social sciences and humanities (SSH). The STSM took place in the Center for Higher Education Policy Studies (CHEPS) at the University of Twente (The Netherlands), 3.1.-28.2.2017. Dr. Reetta Muhonen carried out the STSM. The main person responsible for the STSM candidate's stay at CHEPS was the leader of the ENRESSH Working Group 2, Dr Paul Benneworth. In addition, co-leader of the WG2, Dr. Julia Olmos Penuela, took part by commenting by email the progress of the STSM's work.

There were also other aims outside the substance in conducting this STSM in relation to the applicant's career progress and strengthening and creating international networks and collaboration between two research centers involved in the STSM. Results of these aims are reported in the end part of the report.

Prior to the STSM there were 47 completed impact cases from 13 countries gathered by ENRESSH WG2 members. The tasks of the STSM aiming at producing a SSH

typology to societal impact started with *collecting* more impact cases and *standardizing* the dataset. The STSM candidate made the second round with the data gathering by asking WG2 members who had not yet contributed on data gathering to deliver theirs. This resulted with the 18 more impact cases, in total of 65 cases from 17 different countries. The applicant was responsible for *coordinating, archiving*, *synthetizing* and *analyzing* the data aiming at producing the typology of SSH pathways to impact.

**Analyzing the data**
The candidate started the STSM by reading all impact cases and doing meta-analysis of them (tables 1 a & b). The cases covered wide range of SSH fields from more traditional discipline based fields, like sociology and philosophy, to cases on documentarism and cultural studies. Besides field-specific cases, the data consists of cases with multidisciplinary orientation inside the SSH fields. In some cases, there was also collaboration with STEM fields.  The data coverage on the variation of different beneficiaries was also good. Besides these background factors, information was gathered on the orientation of research and the type of knowledge playing the main role in impact cases. Based on the results of meta-analysis it was concluded that the data coverage in relation to the most important background factors was good and the data would work well for the purposes of building a typology of SSH pathways.

| Countries (17) | Social Sciences | Arts and Humanities | STEM |
|---|---|---|---|
| Finland, Iceland, Norway | public finance, administrative law, human geography | history, philosophy | medicine, chemistry |
| Belgium, France, Germany, Netherlands, Switzerland, UK | sociology, criminology, religion studies, political science, educational sciences, psychology | archeology, ethnology, cultural antrophology | industrial engineering, ICT, ergonomic science |
| Croatia, Estonia, Sebia, Slovakia | journalism, communication sciences, science studies, | linguistics, philology, music, theatre studies, | |

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| | gender studies, cultural studies | classical studies, documentarism | |
|---|---|---|---|
| Cyprus, Italy, Spain, Portugal | multidisciplinary research | | |

Table 1a. Meta-analysis of the narrative impact cases (n=65)

| Pathways | Beneficiaries | Type of knowledge | Orientation of research |
|---|---|---|---|
| scientific publishing, publishing for wider audience | citizens, NGOs | content, product, concept | academic, applied or both |
| media engagement, public engagement | professionals, practiconers | method, technic | |
| policy, legislation | policy makers | approach | |
| epistemic training | business, industry | expertise | |
| | cultural industry | theory | |

Table 1b. Meta-analysis of the narrative impact cases (n=65)

**Building a typology**

Building the typology of SSH pathways was strongly based on the phase of the meta-analysis where candidate tracked the main channels of interaction and knowledge exchange leading to societal impact (table 1b). Impact creation in SSH cases took place through media and public engagement, scientific and popular publishing, policy, legislation and epistemic training.

In the first two models, a keyword is *dissemination* (table 2 & figure 1). Model 1. *The interactive dissemination* represent the SSH cases where stakeholders become aware of the results of research through different modes of dissemination or dissemination channels, like publications, social media, websites, databases or broadcasts. What is noteworthy in this model is that besides dissemination, no other modes of interactions are reported. In the case of *The media dissemination model*, in addition to knowledge dissemination, publicity is a necessity for the research project to make an impact on society.

The next three models in our typology concern *cocreation*. With *The cocreation model* we want to demonstrate the SSH cases where regular collaboration between researchers and stakeholders is a key for research having an impact. *The public engagement model* is respectively about cocreation but besides regular collaboration there is a need for public's active participation in creating impact. In a way results of research are taken into action by using society as a laboratory. *The expertise and evaluation model* is a classical demonstration of how a researcher plays a role of an

expert in both wider societal contexts, like as a public intellectual and in specific projects, committees and working groups aiming at supporting policy makers, professionals or other stakeholders.

The further we go in our typology, the more complicated the relationships between researchers, society and intermediating institutions become. Sometimes the crucial thing for research having an impact comes outside researchers' scope. Our typology includes three models in relation to idea of *reacting to societal impact. The Anticipating anniversaries model* is based on the idea of researchers being able to recognize the *window of opportunity coming ahead* in relation to actuality of the topics of the research they are involved. Anticipation can take place in relation to occasions like historical anniversaries, forthcoming elections or global trends stepping up at the agenda, like ageing population or climate change. *The "seize the day" model* is also about the actuality of things coming outside research, but where the anticipating model leaves researchers time to prepare themselves, the seize the day model is more about researchers' ability to take over the suddenly changed situation. It can be about something happening ranging from ongoing policies and hot topics brought up in media to coincidences like, natural catastrophes and terrorist attacks, which makes *suddenly* some topics more relevant than others. The social innovation model is also about reacting societal change, but what is relevant here is that at the same time both society and academy start working on some spesific social problem independently to understand it and develop solutions to it. Then at some point those two sides come back together and create a network or platform to solve the problem, with each of their respective knowledges and legitimacy contributing to the strength of the network. This network through its social power then constitutes a solution to the problem and therefore drives through a societal progress and makes a difference. The impact would not exist without collaboration between these two parties.

The three last models of our typology stress the idea of driving the societal change. *The "research engagement as therapy" model* derives from the idea of the role of

research as empowering people. Through the research process, the targets of the study get recognition and sense of empowerment. The impact can be about the things happening in different phases of research process: choosing in between different topics to study is already a first step for making an impact. Impact can also be about interview processes or offering people a chance to tell about their personal experiences om sp,e pther way, like through writing. it can also be about taking stands for some minority group in the media. In *The "research engagement as therapy" model,* moments of actions and actors involving making an impact are to some extent traceable, and compared to *The knowledge "creeps" into society model* the difference in knowledge diffusion is very clear. In relation to latter one, it is not possible to say from where the new way of thinking originally derives – instead its origin is dispersed into numerous different sources and sequential occasions. There is no eureka moments in the research process in relation to making an impact – just as opposite; it can take even a change from one generation to another to really feel the impact. It is like a research results "creep" into daily life and political arena. In parallel or later on, some changes take place or actions occur in relation to mundane practices, public opinion or legislation. The last model in our typology is the *building "new epistemic" communities model*. This model is based on the idea of a researcher introducing a new way of thinking, which changes a curriculum or institutional practices.

| SSH PATHWAYS TO SOCIETAL IMPACT | | | |
|---|---|---|---|
| **General model** | **Model** | **Mechanism** | **Example case** |
| dissemination | **The classical pipeline model** | → → | |
| | **The interactive dissemination model** | Stakeholders become aware of the results of research through publications, social media, websites, databases, broadcasts etc. | Young descendants of African immigrants, Portugal |
| | **The media dissemination model** | publicity is needed for the impact | Quality control of tourist destinations, Croatia |
| cocreation | **The cocreation model** | a researcher collaborates regularly with stakeholders | Restorative justice, Italy |

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| | | | |
|---|---|---|---|
| | **The public engagement model** | results of research are taken into action by using society as a laboratory | All male panel, Finland |
| | **The expertise & evaluation model** | a researcher plays a role as an expert, makes policy recommendations etc. | Vetlesen, Norway |
| **reacting to societal impact** | **The "anticipating anniversaries" model** | researchers are preparing themselves to coming issues discussed in the media | Holenstein, Switzerland |
| | **The "seize the day" model** | something happens ranging from ongoing policies and hot topics brought up in media to coincidences like, natural catastrophes and terrorist attacks, which makes *suddenly* some topics more relevant than others | 11Mourning archive, Spain |
| | **The social innovation model** | work starts independently and then at some point two sides come back together | Geolinguistics (Voice Passport), Spain |
| **driving societal change** | **The "research engagement as therapy" model** | targets of the study get recognition and sense of empowerment through the research process | Child abuse, Finland |
| | **The knowledge "creeps" into society model** | Research results "creep" into daily life and political arena. In parallel or later on, some changes take place/actions occur in relation to mundane practices, public opinion or legislation. | Nation State, Iceland |
| | **building "new epistemic communities" model** | a researcher introduces a new way of thinking and this changes a curriculum/institutional practices | Nunnery school, Myanmar |

Table 2. SSH pathways to societal impact

A typology need to have a logic. The starting point for the typology of SSH pathways is a "classical pipeline model" based on a presumption of research results transferring straight to society. The order of the models refers to the hierarchy embedded in the typology. It demonstrates the deviation from the pipeline model in relation to complexity of interactions. The further each model goes from the pipeline model the more complex the couplings between research, society and intermediating institutions get (figure 1).
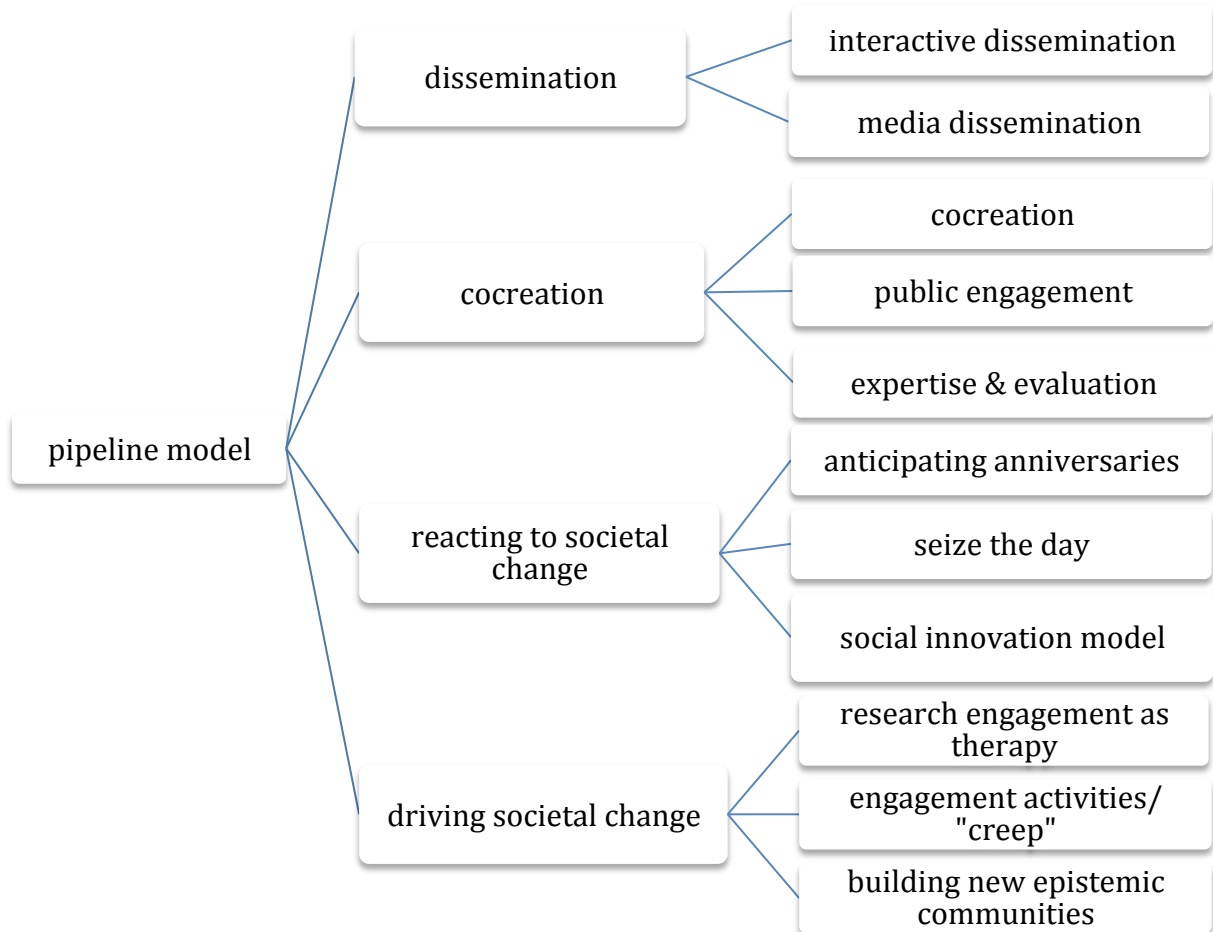
Figure 1. The pipeline model and SSH pathways to societal impact

**Difficulties**

Difficulties met by STSM took place in relation to data gathering and the fact that producing impact cases was based on voluntary participating of the members of the ENRESSH WG2. Some of the members of WG2 did not submitted the cases they had promised to deliver. There was also an issue of timeliness: only 47 of 65 cases were delivered in time. The fact that data gathering was carried out by 34 WG2 members was also challenging in relation to data reliability. However, none of these difficulties were insurmountable and the work of the STSM candidate was delivered in time.

**Outcomes of the STSM**

The main outcome of the STSM was the typology of SSH pathways reflecting 17 countries (figure 1). The STSM at hand was significant for STSM's career development, both substantially and in relation to the aspects of internationalisation. The candidate's focus has been on studying science policy related issues, like the societal impact of SSH, in the Finnish context. This STSM offered an important international step forward in her research career. In addition, for the candidate this was her first longer visit as a role of researcher abroad. She has published most of her work in Finnish, thus this STSM motivates and encourages her to international publishing.

What is worth to mention is that persons involved in this STSM, did not know each other before – STSM worked as a launch for they collaboration. Although STSM period is over, STSM candidate continues her work on this joint topic of ENRESSH working group 2 in close collaboration with the leader and co-leader of the group. STSM candidate is also considered to host the candidate of the next STSM round of ENRESSH WG2 at her home institution, at the Research Center for Knowledge, Science, Technology and Innovations, in the University of Tampere. In relation to the networking, responsibility of the data gathering and analysing it – the position it

The STSM was a start for a collaboration between two research centers, TaSTI and CHEPS, sharing partly same research interests. The candidate get to know also other researchers working at the host institution. They didn't share the interests of the STSM topic, but through candidate's previous studies she was able to help the junior colleagues of the host institution. She got also a chance to offer her help as an expert of Finnish higher education system to Dutch colleagues. They are going to meet at the CHER Conference to be held next autumn in candidate's previous hometown Jyväskylä, Finland.

ENRESSH and STSM offered also agenda for strengthening and updating former research collaborations. In the end of the STSM period, Norwegian Research Professor Gunnar Sivertsen (also member of the Cost Action ENRESSH) visited CHEPS and the host and the candidate had a meeting for discussing the draft version of the SSH pathways with him. Now professor Sivertsen is actively involved with the work of WG2.
In the end of the STSM period, the candidate presented also the results together with the host at CHEPS seminar.

Collaboration between the candidate, the host and co-leader of the WG2 is planned to continue mostly through joint conference presentations and co-authored publications (tables 3 & 4). Besides they continue their collaboration under  the program and aims of the ENRESSH-network. Three presentations are already held (table 3). During her stay at CHEPS, the candidate made a proposal for an abstract for Annual Sociology Conference in Finland. It was accepted as a presentation. Findings of the STSM will be presented at five subsequent conferences in 2017.

| Presentations | Forthcoming presentations |
|---|---|
| Reetta Muhonen, Julia Olmos Peñuela & Paul | Reetta Muhonen, Julia Olmos Peñuela & Paul |

| | |
|---|---|
| Benneworth (2017) State of the Art – Societal impact and relevance of the SSH research. SSH Evaluation: Reconciling needs and methods. Cost Action ENRESSH Stakeholder meeting 19-20 January 2017, Prague, Czech Republic. | Benneworth (2017) *How SSH research makes it way beyond academia?* Annual Sociology Meeting, 23-24 March 2017, Tampere, Finland. (paper accepted) |
| Reetta Muhonen, Julia Olmos Peñuela & Paul Benneworth (2017) Pathways to impact – modes of SSH engagement with society. CHEPS seminar, 24 February 2017, University of Twente, Netherlands. | Reetta Muhonen, Julia Olmos Peñuela & Paul Benneworth (2017) *Modes of SSH engagement.* **Experimentation and Evidence. Annual symposium of Science and Technology Studies, 8–9 June 2017, Helsinki, Finland.** |
| Muhonen, Reetta, Olmos Peñuela Julia & Benneworth Paul (2017) SSH Pathways to societal impact. ENRESSH meeting 7.-8.3.2017 Sofia, Bulgary. | Paul Benneworth, Julia Olmos-Peñuela & Reetta Muhonen (2017) *Towards a common understanding on the societal impact of SSH research.* RESSH Conference, 6-7 July 2017, Antwerp, Belgium |
| | Reetta Muhonen, Julia Olmos Peñuela & Paul Benneworth (2017) *From products to process – SSH pathways to societal impact.* CHER Conference, 28-30 August 2017, University of Jyväskylä, Finland. |
| | Reetta Muhonen, Paul Benneworth & Julia Olmos Peñuela (2017) *Yhteiskunta- ja humanististieteellisen tutkimuksen polut yhteiskunnalliseen vaikuttavuuteen.* (SSH Pathways to societal impact). Symposium for Higher Education Studies in Finland, 31.8.-1.9.2017, University of Jyväskylä, Finland. |

Table 3. Presentations in relation to STSM in 2017

| **Publication plan for 2017** |
|---|
| Reetta Muhonen, Julia Olmos Peñuela & Paul Benneworth (2017) *SSH pathways to societal impact.* CHEPS Working paper series. University of Twente, Netherlands. |
| Paul Benneworth, Reetta Muhonen, Julia Olmos Peñuela (2017) Towards a common understanding on the societal impact of SSH research CHEPS Working paper series. University of Twente, Netherlands. |
| Reetta Muhonen (2017) *SSH Pathways to societal impact – metaphors from music world.* The CHEPS blog. |
| Reetta Muhonen, Julia Olmos Peñuela, Paul Benneworth & Gunnar Sivertsen (2018) (eds) Special Issue (e.g. Palgrave Communications) on SSH Impact generation and consequences for evaluation |

Table 4. Publication plan for 2017 & 2018

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