CORE

HELSINGIN YLIOPISTO
HELSINGFORS UNIVERSITET
UNIVERSITY OF HELSINKI



INTERNATIONAL EVALUATION OF RESEARCH AND DOCTORAL TRAINING AT THE UNIVERSITY OF HELSINKI 2005–2010

# RC-Specific Evaluation of STS – Science and Technology Studies

Seppo Saari & Antti Moilanen (Eds.)



**Evaluation Panel: Social Sciences** 

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Seppo Saari & Antti Moilanen

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International Evaluation of Research and Doctoral Training at the University of Helsinki 2005–2010 : RC-Specific Evaluation of STS – Science and Technology Studies

Evaluations

#### Summary:

Researcher Community (RC) was a new concept of the participating unit in the evaluation. Participation in the evaluation was voluntary and the RCs had to choose one of the five characteristic categories to participate.

Evaluation of the Researcher Community was based on the answers to the evaluation questions. In addition a list of publications and other activities were provided by the TUHAT system. The CWTS/Leiden University conducted analyses for 80 RCs and the Helsinki University Library for 66 RCs.

Panellists, 49 and two special experts in five panels evaluated all the evaluation material as a whole and discussed the feedback for RC-specific reports in the panel meetings in Helsinki. The main part of this report is consisted of the feedback which is published as such in the report.

Chapters in the report:

- 1. Background for the evaluation
- 2. Evaluation feedback for the Researcher Community
- 3. List of publications
- 4. List of activities
- 5. Bibliometric analyses

The level of the RCs' success can be concluded from the written feedback together with the numeric evaluation of four evaluation questions and the category fitness. More conclusions of the success can be drawn based on the University-level report.

#### **RC-specific information:**

Main scientific field of research:

Social Sciences

RC-specific keywords:

sociology of science and technology, philosophy of science, interdisciplinarity, environmental policy,

innovation policy, learning

#### Participation category:

2. Research of the participating community is of high quality, but the community in its present composition has yet to achieve strong international recognition or a clear breakthrough

#### RC's responsible person:

Helén, Ilpo

#### Keywords:

Research Evaluation, Meta-evaluation, Doctoral Training, Bibliometric Analyses, Researcher Community

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#### Foreword

The evaluation of research and doctoral training is being carried out in the years 2010–2012 and will end in 2012. The steering group appointed by the Rector in January 2010 set the conditions for participating in the evaluation and prepared the Terms of Reference to present the evaluation procedure and criteria. The publications and other scientific activities included in the evaluation covered the years 2005–2010.

The participating unit in the evaluation was defined as a Researcher Community (RC). To obtain a critical mass with university-level impact, the number of members was set to range from 20 to 120. The RCs were required to contain researchers in all stages of their research career, from doctoral students to principal investigators (Pls). All in all, 136 Researcher Communities participated in this voluntary evaluation, 5857 persons in total, of whom 1131 were principal investigators. Pls were allowed to participate in two communities in certain cases, and 72 of them used this opportunity and participated in two RCs.

This evaluation enabled researchers to define RCs from the "bottom up" and across disciplines. The aim of the evaluation was not to assess individual performance but a community with shared aims and researcher-training activities. The RCs were able to choose among five different categories that characterised the status and main aims of their research. The steering group considered the process of applying to participate in the evaluation to be important, which lead to the establishment of these categories. In addition, providing a service for the RCs to enable them to benchmark their research at the global level was a main goal of the evaluation.

The data for the evaluation consisted of the RCs' answers to evaluation questions on supplied e-forms and a compilation extracted from the TUHAT – Research Information System (RIS) on 12 April 2011. The compilation covered scientific and other publications as well as certain areas of scientific activities. During the process, the RCs were asked to check the list of publications and other scientific activities and make corrections if needed. These TUHAT compilations are public and available on the evaluation project sites of each RC in the TUHAT-RIS.

In addition to the e-form and TUHAT compilation, University of Leiden (CWTS) carried out bibliometric analyses from the articles included in the Web of Science (WoS). This was done on University and RC levels. In cases where the publication forums of the RC were clearly not represented by the WoS data, the Library of the University of Helsinki conducted a separate analysis of the publications. This was done for 66 RCs representing the humanities and social sciences.

The evaluation office also carried out an enquiry targeted to the supervisors and PhD candidates about the organisation of doctoral studies at the University of Helsinki. This and other documents describing the University and the Finnish higher education system were provided to the panellists.

The panel feedback for each RC is unique and presented as an entity. The first collective evaluation reports available for the whole panel were prepared in July-August 2011. The reports were accessible to all panel members via the electronic evaluation platform in August. Scoring from 1 to 5 was used to complement written feedback in association with evaluation questions 1-4 (scientific focus and quality, doctoral training, societal impact, cooperation) and in addition to the category evaluating the fitness for participation in the evaluation. Panellists used the international level as a point of comparison in the evaluation. Scoring was not expected to go along with a preset deviation.

Each of the draft reports were discussed and dealt with by the panel in meetings in Helsinki (from 11 September to 13 September or from 18 September to 20 September 2011). In these meetings the panels also examined the deviations among the scores and finalised the draft reports together.

The current RC-specific report deals shortly with the background of the evaluation and the terms of participation. The main evaluation feedback is provided in the evaluation report, organised according to the evaluation questions. The original material provided by the RCs for the panellists has been attached to these documents.

On behalf of the evaluation steering group and office, I sincerely wish to thank you warmly for your participation in this evaluation. The effort you made in submitting the data to TUHAT-RIS is gratefully acknowledged by the University. We wish that you find this panel feedback useful in many ways. The bibliometric profiles may open a new view on your publication forums and provide a perspective for discussion on your choice of forums. We especially hope that this evaluation report will help you in setting the future goals of your research.

Johanna Björkroth Vice-Rector Chair of the Steering Group of the Evaluation

#### Steering Group of the evaluation

Steering group, nominated by the Rector of the University, was responsible for the planning of the evaluation and its implementation having altogether 22 meetings between February 2010 and March 2012.

#### Chair

Vice-Rector, professor Johanna Björkroth

#### Vice-Chair

Professor Marja Airaksinen

Chief Information Specialist, Dr Maria Forsman
Professor Arto Mustajoki
University Lecturer, Dr Kirsi Pyhältö
Director of Strategic Planning and Development, Dr Ossi Tuomi
Doctoral candidate, MSocSc Jussi Vauhkonen

## Panel members

#### **CHAIR**

#### **Professor Hebe Vessuri**

Social anthropology

Venezuelan Institute of Scientific Research, Venezuela

#### **VICE-CHAIR**

#### **Professor Christine Heim**

Psychology, neurobiology of early-life stress, depression, anxiety, functional somatic disorders
Charité University Medicine Berlin, Germany

#### **Professor Allen Ketcham**

Ethics and social philosophy, applied Social philosophy, ethics of business Texas A&M University – Kingsville, USA

#### **Professor Erno Lehtinen**

Education, educational reform University of Turku, Finland

#### **Professor Enzo Mingione**

Urban sociology University of Milan - Bicocca, Italy

#### **Professor Giovanna Procacci**

Political sociology, transformation of citizenship, social rights, social exclusion, immigration policy University of Milan, Italy

#### **Professor Inger Johanne Sand**

Law, public law, legal theory University of Oslo, Norway

#### Professor Timo Teräsvirta

Time series econometrics Aarhus University, Denmark

#### **Professor Göran Therborn**

General sociology University of Cambridge, Great Britain

#### **Professor Liisa Uusitalo**

Consumer behaviour (economic & social theory), marketing and communication research
Aalto University, School of Economics, Finland

The panel, independently, evaluated all the submitted material and was responsible for the feedback of the RC-specific reports. The panel members were asked to confirm whether they had any conflict of interests with the RCs. If this was the case, the panel members disqualified themselves in discussion and report writing.

Added expertise to the evaluation was contributed by two members from the Panel of Humanities.

Experts from the Panel of Humanities Professor Erhard Hinrichs Professor Pauline von Bonsdorff

#### **EVALUATION OFFICE**

**Dr Seppo Saari**, **Doc.**, Senior Adviser in Evaluation, was responsible for the entire evaluation, its planning and implementation and acted as an Editor-in-chief of the reports.

**Dr Eeva Sievi**, **Doc.**, Adviser, was responsible for the registration and evaluation material compilations for the panellists. She worked in the evaluation office from August 2010 to July 2011.

**MSocSc Paula Ranne**, Planning Officer, was responsible for organising the panel meetings and all the other practical issues like agreements and fees and editing a part the RC-specific reports. She worked in the evaluation office from March 2011 to January 2012.

**Mr Antti Moilanen**, Project Secretary, was responsible for editing the reports. He worked in the evaluation office from January 2012 to April 2012.

#### **TUHAT OFFICE**

#### Provision of the publication and other scientific activity data

Mrs Aija Kaitera, Project Manager of TUHAT-RIS served the project ex officio providing the evaluation project with the updated information from TUHAT-RIS. The TUHAT office assisted in mapping the publications with CWTS/University of Leiden.

**MA** Liisa Ekebom, Assisting Officer, served in TUHAT-RIS updating the publications for the evaluation. She also assisted the UH/Library analyses.

**BA Liisa Jäppinen**, Assisting Officer, served in TUHAT-RIS updating the publications for the evaluation.

#### **HELSINKI UNIVERSITY LIBRARY**

#### Provision of the publication analyses

**Dr Maria Forsman**, Chief Information Specialist in the Helsinki University Library, managed with her 10 colleagues the bibliometric analyses in humanities, social sciences and in other fields of sciences where CWTS analyses were not applicable.

#### Acronyms and abbreviations applied in the report

#### **External competitive funding**

AF - Academy of Finland

TEKES - Finnish Funding Agency for Technology and Innovation

**EU - European Union** 

**ERC - European Research Council** 

International and national foundations

FP7/6 etc. /Framework Programmes/Funding of European Commission

#### **Evaluation marks**

Outstanding (5)

Excellent (4)

Very Good (3)

Good (2)

Sufficient (1)

#### **Abbreviations of Bibliometric Indicators**

P - Number of publications

TCS - Total number of citations

MCS - Number of citations per publication, excluding self-citations

PNC - Percentage of uncited publications

MNCS - Field-normalized number of citations per publication

MNJS - Field-normalized average journal impact

THCP10 - Field-normalized proportion highly cited publications (top 10%)

INT\_COV - Internal coverage, the average amount of references covered by the WoS

WoS - Thomson Reuters Web of Science Databases

#### **Participation category**

Category 1. The research of the participating community represents the international cutting edge in its

Category 2. The research of the participating community is of high quality, but the community in its present composition has yet to achieve strong international recognition or a clear break-through.

Category 3. The research of the participating community is distinct from mainstream research, and the special features of the research tradition in the field must be considered in the evaluation.

Category 4. The research of the participating community represents an innovative opening.

Category 5. The research of the participating community has a highly significant societal impact.

#### Research focus areas of the University of Helsinki

Focus area 1: The basic structure, materials and natural resources of the physical world

Focus area 2: The basic structure of life

Focus area 3: The changing environment - clean water

Focus area 4: The thinking and learning human being

Focus area 5: Welfare and safety

Focus area 6: Clinical research

Focus area 7: Precise reasoning

Focus area 8: Language and culture

Focus area 9: Social justice

Focus area 10: Globalisation and social change

#### 1 Introduction to the Evaluation

#### 1.1 RC-specific evaluation reports

The participants in the evaluation of research and doctoral training were Researcher Communities (hereafter referred to as the RC). The RC refers to the group of researchers who registered together in the evaluation of their research and doctoral training. Preconditions in forming RCs were stated in the Guidelines for the Participating Researcher Communities. The RCs defined themselves whether their compositions should be considered well-established or new.

It is essential to emphasise that the evaluation combines both meta-evaluation<sup>1</sup> and traditional research assessment exercise and its focus is both on the research outcomes and procedures associated with research and doctoral training. The approach to the evaluation is enhancement-led where self-evaluation constituted the main information. The answers to the evaluation questions formed together with the information of publications and other scientific activities an entity that was to be reviewed as a whole.

The present evaluation recognizes and justifies the diversity of research practices and publication traditions. Traditional Research Assessment Exercises do not necessarily value high quality research with low volumes or research distinct from mainstream research. It is challenging to expose the diversity of research to fair comparison. To understand the essence of different research practices and to do justice to their diversity was one of the main challenges of the present evaluation method. Understanding the divergent starting points of the RCs demanded sensitivity from the evaluators.

#### 1.2 Aims and objectives in the evaluation

The aims of the evaluation are as follows:

- to improve the level of research and doctoral training at the University of Helsinki and to raise their international profile in accordance with the University's strategic policies. The improvement of doctoral training should be compared to the University's policy.<sup>2</sup>
- to enhance the research conducted at the University by taking into account the diversity, originality, multidisciplinary nature, success and field-specificity,
- to recognize the conditions and prerequisites under which excellent, original and high-impact research is carried out,
- to offer the academic community the opportunity to receive topical and versatile international peer feedback,
- to better recognize the University's research potential.
- to exploit the University's TUHAT research information system to enable transparency of publishing activities and in the production of reliable, comparable data.

#### 1.3 Evaluation method

The evaluation can be considered as an enhancement-led evaluation. Instead of ranking, the main aim is to provide useful information for the enhancement of research and doctoral training of the participating RCs. The comparison should take into account each field of science and acknowledge their special character.

<sup>&</sup>lt;sup>1</sup> The panellists did not read research reports or abstracts but instead, they evaluated answers to the evaluation questions, tables and compilations of publications, other scientific activities, bibliometrics or comparable analyses.

Policies on doctoral degrees and other postgraduate degrees at the University of Helsinki.

The comparison produced information about the present status and factors that have lead to success. Also challenges in the operations and outcomes were recognized.

The evaluation approach has been designed to recognize better the significance and specific nature of researcher communities and research areas in the multidisciplinary top-level university. Furthermore, one of the aims of the evaluation is to bring to light those evaluation aspects that differ from the prevalent ones. Thus the views of various fields of research can be described and research arising from various starting points understood better. The doctoral training is integrated into the evaluation as a natural component related to research. Operational processes of doctoral training are being examined in the evaluation.

#### Five stages of the evaluation method were:

- 1. Registration Stage 1
- 2. Self-evaluation Stage 2
- 3. TUHAT<sup>3</sup> compilations on publications and other scientific activities<sup>4</sup>
- 4. External evaluation
- 5. Public reporting

#### 1.4 Implementation of the external evaluation

#### **Five Evaluation Panels**

Five evaluation panels consisted of independent, renowned and highly respected experts. The main domains of the panels are:

- 1. biological, agricultural and veterinary sciences
- 2. medicine, biomedicine and health sciences
- 3. natural sciences
- 4. humanities
- 5. social sciences

The University invited 10 renowned scientists to act as chairs or vice-chairs of the five panels based on the suggestions of faculties and independent institutes. Besides leading the work of the panel, an additional role of the chairs was to discuss with other panel chairs in order to adopt a broadly similar approach. The panel chairs and vice-chairs had a pre-meeting on 27 May 2011 in Amsterdam.

The panel compositions were nominated by the Rector of the University 27 April 2011. The participating RCs suggested the panel members. The total number of panel members was 50. The reason for a smaller number of panellists as compared to the previous evaluations was the character of the evaluation as a meta-evaluation. The panellists did not read research reports or abstracts but instead, they evaluated answers to the evaluation questions, tables and compilations of publications, other scientific activities, bibliometrics and comparable analyses.

The panel meetings were held in Helsinki:

- On 11-13 September 2011: (1) biological, agricultural and veterinary sciences, (2) medicine, biomedicine and health sciences and (3) natural sciences.
- On 18–20 September 2011: (4) humanities and (5) social sciences.

<sup>&</sup>lt;sup>3</sup> TUHAT (acronym) of Research Information System (RIS) of the University of Helsinki

<sup>&</sup>lt;sup>4</sup> Supervision of thesis, prizes and awards, editorial work and peer reviews, participation in committees, boards and networks and public appearances.

#### 1.5 Evaluation material

The main material in the evaluation was the RCs' self-evaluations that were qualitative in character and allowed the RCs to choose what was important to mention or emphasise and what was left unmentioned.

The present evaluation is exceptional at least in the Finnish context because it is based on both the evaluation documentation (self-evaluation questions, publications and other scientific activities) and the bibliometric reports. All documents were delivered to the panellists for examination.

Traditional bibliometrics can be reasonably done mainly in medicine, biosciences and natural sciences when using the Web of Science database, for example. Bibliometrics, provided by CWTS/The Centre for Science and Technology Studies, University of Leiden, cover only the publications that include WoS identification in the TUHAT-RIS.

Traditional bibliometrics are seldom relevant in humanities and social sciences because the international comparable databases do not store every type of high quality research publications, such as books and monographs and scientific journals in other languages than English. The Helsinki University Library has done analysis to the RCs, if their publications were not well represented in the Web of Science databases (RCs should have at least 50 publications and internal coverage of publications more than 40%) – it meant 58 RCs. The bibliometric material for the evaluation panels was available in June 2011. The RCspecific bibliometric reports are attached at the end of each report.

The panels were provided with the evaluation material and all other necessary background information, such as the basic information about the University of Helsinki and the Finnish higher education system.

#### **Evaluation material**

- 1. Registration documents of the RCs for the background information
- 2. Self evaluation material answers to the evaluation guestions
- 3. Publications and other scientific activities based on the TUHAT RIS:
  - 3.1. statistics of publications
  - 3.2. list of publications
  - 3.3. statistics of other scientific activities
  - 3.4. list of other scientific activities
- 4. Bibliometrics and comparable analyses:
  - 4.1. Analyses of publications based on the verification of TUHAT-RIS publications with the Web of Science publications (CWTS/University of Leiden)
  - 4.2. Publication statistics analysed by the Helsinki University Library mainly for humanities and social sciences
- 5. University level survey on doctoral training (August 2011)
- University level analysis on publications 2005–2010 (August 2011) provided by CWTS/University of Leiden

#### **Background material**

#### University of Helsinki

- Basic information about the University of the Helsinki
- The structure of doctoral training at the University of Helsinki
- Previous evaluations of research at the University of Helsinki links to the reports: 1998 and 2005

#### The Finnish Universities/Research Institutes

- Finnish University system
- Evaluation of the Finnish National Innovation System
- The State and Quality of Scientific Research in Finland. Publication of the Academy of Finland 9/09.

The evaluation panels were provided also with other relevant material on request before the meetings in Helsinki.

#### 1.6 Evaluation questions and material

The participating RCs answered the following evaluation questions which are presented according to the evaluation form. In addition, TUHAT RIS was used to provide the **additional material** as explained. For giving the feedback to the RCs, the panellists received the evaluation feedback form constructed in line with the evaluation questions:

#### 1. Focus and quality of the RC's research

- Description of
  - the RC's research focus.
  - the quality of the RC's research (incl. key research questions and results)
  - the scientific significance of the RC's research in the research field(s)
- Identification of the ways to strengthen the focus and improve the quality of the RC's research

The additional material: TUHAT compilation of the RC's publications, analysis of the RC's publications data (provided by University of Leiden and the Helsinki University Library)

A written feedback from the aspects of: scientific quality, scientific significance, societal impact, innovativeness

- Strengths
- Areas of development
- Other remarks
- Recommendations

Numeric evaluation: OUTSTANDING (5), EXCELLENT (4), VERY GOOD (3), GOOD (2), SUFFICIENT (1)

#### 2. Practises and quality of doctoral training

- Organising of the doctoral training in the RC. Description of the RC's principles for:
  - recruitment and selection of doctoral candidates
  - supervision of doctoral candidates
  - collaboration with faculties, departments/institutes, and potential graduate schools/doctoral programmes
  - good practises and quality assurance in doctoral training
  - assuring of good career perspectives for the doctoral candidates/fresh doctorates
- Identification of the RC's strengths and challenges related to the practises and quality of doctoral training, and the actions planned for their development.

The additional material: TUHAT compilation of the RC's other scientific activities/supervision of doctoral dissertations

A written feedback from the aspects of: processes and good practices related to leadership and management

- Strengths
- Areas of development
- Other remarks
- Recommendations

Numeric evaluation: OUTSTANDING (5), EXCELLENT (4), VERY GOOD (3), GOOD (2), SUFFICIENT (1)

#### 3. The societal impact of research and doctoral training

- Description on how the RC interacts with and contributes to the society (collaboration with public, private and/or 3rd sector).
- Identification of the ways to strengthen the societal impact of the RC's research and doctoral training.

The additional material: TUHAT compilation of the RC's other scientific activities.

A written feedback from the aspects of: societal impact, national and international collaboration, innovativeness

- Strengths
- Areas of development
- Other remarks
- Recommendations

Numeric evaluation: OUTSTANDING (5), EXCELLENT (4), VERY GOOD (3), GOOD (2), SUFFICIENT (1)

#### 4. International and national (incl. intersectoral) research collaboration and researcher mobility

- Description of
  - the RC's research collaborations and joint doctoral training activities
  - how the RC has promoted researcher mobility
- Identification of the RC's strengths and challenges related to research collaboration and researcher mobility, and the actions planned for their development.

A written feedback from the aspects of: scientific quality, national and international collaboration

- Strengths
- Areas of development
- Other remarks
- Recommendations

Numeric evaluation: OUTSTANDING (5), EXCELLENT (4), VERY GOOD (3), GOOD (2), SUFFICIENT (1)

#### 5. Operational conditions

- Description of the operational conditions in the RC's research environment (e.g. research infrastructure, balance between research and teaching duties).
- Identification of the RC's strengths and challenges related to operational conditions, and the
  actions planned for their development.

A written feedback from the aspects of: processes and good practices related to leadership and management

- Strengths
- Areas of development
- Other remarks
- Recommendations

#### 6. Leadership and management in the researcher community

- Description of
  - the execution and processes of leadership in the RC
  - how the management-related responsibilities and roles are distributed in the RC
  - how the leadership- and management-related processes support
    - high quality research
    - collaboration between principal investigators and other researchers in the RC the RC's research focus
    - strengthening of the RC's know-how
- Identification of the RC's strengths and challenges related to leadership and management, and the actions planned for developing the processes

#### 7. External competitive funding of the RC

- The RCs were asked to provide information of such external competitive funding, where:
  - the funding decisions have been made during 1.1.2005-31.12.2010, and
  - the administrator of the funding is/has been the University of Helsinki
- On the e-form the RCs were asked to provide:
- 1) The relevant funding source(s) from a given list (Academy of Finland/Research Council, TEKES/The Finnish Funding Agency for Technology and Innovation, EU, ERC, foundations, other national funding organisations, other international funding organisations), and
- 2)The total sum of funding which the organisation in question had decided to allocate to the RCs members during 1.1.2005–31.12.2010.

Competitive funding reported in the text is also to be considered when evaluating this point. A written feedback from the aspects of: scientific quality, scientific significance, societal impact, innovativeness, future significance

- Strengths
- Areas of development
- Other remarks
- Recommendations

#### 8. The RC's strategic action plan for 2011-2013

RC's description of their future perspectives in relation to research and doctoral training.

A written feedback from the aspects of: scientific quality, scientific significance, societal Impact, processes and good practices related to leadership and management, national and international collaboration, innovativeness, future significance

- Strengths
- Areas of development

- Other remarks
- Recommendations

#### 9. Evaluation of the category of the RC in the context of entity of the evaluation material (1-8)

The RC's fitness to the chosen participation category

A written feedback evaluating the RC's fitness to the chosen participation category

- Strengths
- Areas of development
- Other remarks
- Recommendations

Numeric evaluation: OUTSTANDING (5), EXCELLENT (4), VERY GOOD (3), GOOD (2), SUFFICIENT (1)

10. Short description of how the RC members contributed the compilation of the stage 2 material Comments on the compilation of evaluation material

11. How the UH's focus areas are presented in the RC's research? Comments if applicable

- 12. RC-specific main recommendations based on the previous questions 1-11
- 13. RC-specific conclusions

#### 1.7 Evaluation criteria

The panellists were expected to give evaluative and analytical feedback to each evaluation question according to their aspects in order to describe and justify the quality of the submitted material. In addition, the evaluation feedback was asked to be pointed out the level of the performance according to the following classifications:

•	outstanding	(5)
•	excellent	(4)
•	very good	(3)
•	good	(2)
•	sufficient	(1)

Evaluation according to the criteria was to be made with thorough consideration of the entire evaluation material of the RC in question. Finally, in questions 1-4 and 9, the panellists were expected to classify their written feedback into one of the provided levels (the levels included respective descriptions, 'criteria'). Some panels used decimals in marks. The descriptive level was interpreted according to the integers and not rounding up the decimals by the editors.

#### **Description of criteria levels**

#### Question 1 - FOCUS AND QUALITY OF THE RC'S RESEARCH

Classification: Criteria (level of procedures and results)

#### Outstanding quality of procedures and results (5)

Outstandingly strong research, also from international perspective. Attracts great international interest with a wide impact, including publications in leading journals and/or monographs published by leading international publishing houses. The research has world leading qualities. The research focus, key research questions scientific significance, societal impact and innovativeness are of outstanding quality.

In cases where the research is of a national character and, in the judgement of the evaluators, should remain so, the concepts of "international attention" or "international impact" etc. in the grading criteria above may be replaced by "international comparability".

Operations and procedures are of outstanding quality, transparent and shared in the community. The improvement of research and other efforts are documented and operations and practices are in alignment with the documentation. The ambition to develop the community together is of outstanding quality.

#### Excellent quality of procedures and results (4)

Research of excellent quality. Typically published with great impact, also internationally. Without doubt, the research has a leading position in its field in Finland.

Operations and procedures are of excellent quality, transparent and shared in the community. The improvement of research and other efforts are documented and operations and practices are to large extent in alignment with the documentation. The ambition to develop the community together is of excellent quality.

#### Very good quality of procedures and results (3)

The research is of such very good quality that it attracts wide national and international attention.

Operations and procedures are of very good quality, transparent and shared in the community. The improvement of research and other efforts are documented and operations and practices are to large extent in alignment with the documentation. The ambition to develop the community together is of very good quality.

#### Good quality of procedures and results (2)

Good research attracting mainly national attention but possessing international potential, extraordinarily high relevance may motivate good research.

Operations and procedures are of good quality, shared occasionally in the community. The improvement of research and other efforts are occasionally documented and operations and practices are to large extent in alignment with the documentation. The ambition to develop the community together is of good quality.

#### Sufficient quality of procedures and results (1)

In some cases the research is insufficient and reports do not gain wide circulation or do not have national or international attention. Research activities should be revised.

Operations and procedures are of sufficient quality, shared occasionally in the community. The improvement of research and other efforts are occasionally documented and operations and practices are to some extent in alignment with the documentation. The ambition to develop the community together is of sufficient quality.

Question 2 - DOCTORAL TRAINING Question 3 - SOCIETAL IMPACT Question 4 - COLLABORATION

#### Classification: Criteria (level of procedures and results)

#### Outstanding quality of procedures and results (5)

Procedures are of outstanding quality, transparent and shared in the community. The practices and quality of doctoral training/societal impact/international and national collaboration/leadership and management are documented and operations and practices are in alignment with the documentation. The ambition to develop the community together is of outstanding quality. The procedures and results are regularly evaluated and the feedback has an effect on the planning.

#### Excellent quality of procedures and results (4)

Procedures are of excellent quality, transparent and shared in the community. The practices and quality of doctoral training/societal impact/international and national collaboration/leadership and management are documented and operations and practices are to large extent in alignment with the documentation. The ambition to develop the community together is of excellent quality. The procedures and outcomes are evaluated and the feedback has an effect on the planning.

#### Very good quality of procedures and results (3)

Procedures are of very good quality, transparent and shared in the community. The practices and quality of doctoral training/societal impact/international and national collaboration/leadership and

management are documented and operations and practices are to large extent in alignment with the documentation. The ambition to develop the community together is of very good quality.

#### Good quality of procedures and results (2)

Procedures are of good quality, shared occasionally in the community. The practices and quality of doctoral training/societal impact/international and national collaboration/leadership and management are documented and operations and practices are to large extent in alignment with the documentation. The ambition to develop the community together is of good quality.

#### Sufficient quality of procedures and results (1)

Procedures are of sufficient quality, transparent and shared in the community. The practices and quality of doctoral training/societal impact/international and national collaboration/leadership and management are occasionally documented and operations and practices are to some extent in alignment with the documentation. The ambition to develop the community together is of sufficient quality.

#### Question 9 - CATEGORY

Participation category - fitness for the category chosen

The choice and justification for the chosen category below should be reflected in the RC's responses to the evaluation questions 1–8.

- The research of the participating community represents the international cutting edge in its field.
- 2. The research of the participating community is of high quality, but the community in its present composition has yet to achieve strong international recognition or a clear break-through.
- 3. The research of the participating community is distinct from mainstream research, and the special features of the research tradition in the field must be considered in the evaluation. The research is of high quality and has great significance and impact in its field. However, the generally used research evaluation methods do not necessarily shed sufficient light on the merits of the research.
- 4. The research of the participating community represents an innovative opening. A new opening can be an innovative combination of research fields, or it can be proven to have a special social, national or international demand or other significance. Even if the researcher community in its present composition has yet to obtain proof of international success, its members can produce convincing evidence of the high level of their previous research.
- 5. The research of the participating community has a highly significant societal impact. The participating researcher community is able to justify the high social significance of its research. The research may relate to national legislation, media visibility or participation in social debate, or other activities promoting social development and human welfare. In addition to having societal impact, the research must be of a high standard.

#### An example of outstanding fitness for category choice (5) 5

The RC's representation and argumentation for the chosen category were convincing. The RC recognized its real capacity and apparent outcomes in a wider context to the research communities. The specific character of the RC was well-recognized and well stated in the responses. The RC fitted optimally for the category.

•	Outstanding	(5)
•	Excellent	(4)
•	Very good	(3)
•	Good	(2)
-	Sufficient	(1)

The above-mentioned definition of outstanding was only an example in order to assist the panellists in the positioning of the classification. There was no exact definition for the category fitness.

 $<sup>^{\</sup>rm 5}$  The panels discussed the category fitness and made the final conclusions of the interpretation of it.

#### 1.8 Timetable of the evaluation

The main timetable of the evaluation:

1. Registration

2. Submission of self-evaluation materials

3. External peer review

4. Published reports

- University level public report

- RC specific reports

November 2010 January–February 2011 May–September 2011 March–April 2012

The entire evaluation was implemented during the university's strategy period 2010–2012. The preliminary results were available for the planning of the following strategy period in late autumn 2011. The evaluation reports will be published in March/April 2012. More detailed time schedule is published in the University report.

#### 1.9 Evaluation feedback – consensus of the entire panel

The panellists evaluated all the RC-specific material before the meetings in Helsinki and mailed the draft reports to the evaluation office. The latest interim versions were on-line available to all the panellists on the Wiki-sites. In September 2011, in Helsinki the panels discussed the material, revised the first draft reports and decided the final numeric evaluation. After the meetings in Helsinki, the panels continued working and finalised the reports before the end of November 2011. The final RC-specific reports are the consensus of the entire panel.

The evaluation reports were written by the panels independently. During the editing process, the evaluation office requested some clarifications from the panels when necessary. The tone and style in the reports were not harmonized in the editing process. All the reports follow the original texts written by the panels as far as it was possible.

The original evaluation material of the RCs, provided for the panellists is attached at the end of the report. It is essential to notice that the exported lists of publications and other scientific activities depend how the data was stored in the TUHAT-RIS by the RCs.

## 2 Evaluation feedback

#### 2.1 Focus and quality of the RC's research

- Description of
  - the RC's research focus
  - the quality of the RC's research (incl. key research questions and results)
  - the scientific significance of the RC's research in the research field(s)
- Identification of the ways to strengthen the focus and improve the quality of the RC's research

ASPECTS: Scientific quality, scientific significance, societal impact, innovativeness

This is a network of researchers in many departments having a common interest in studies of science and technology. A number of interesting contributions have been published, and the overall publication record is good in the context of Helsinki social science, around the median with 1.7 refereed publications (A1, A3, C1) a year by non-student scholars, and around the field average according to the bibliographic data. Journal publications are hardly in internationally leading journals, though.

The field itself is very wide and dispersed, and in order to raise its profile STS should give priority to one or a few areas where it wants to make its main scholarly impact.

Examples of how wide the RC is reflected in the foci of this RC. These foci are the production and preconditions of science and technology in society. One of their interests is biomedicine and the ethical problems generated by the blurring of boundaries between public and private. Another interest is the tension found amid the social & biological sciences, and the role of economics in that stress. In addition, the RC is interesting in the ideological limitations of policy. Interestingly, the RC works with the postmodern theory of Michel Foucault and published two articles in the Philosophy of the Social Science. Is the RC too wide and what is the rationale for inclusion and exclusion in the RC? Why is some philosophy with politics and economics and not in this RC?

A challenge is to ensure this particular grouping is academically justified.

Numeric evaluation: 3 (Very good)

#### 2.2 Practises and quality of doctoral training

- Organising of the doctoral training in the RC. Description of the RC's principles for:
  - recruitment and selection of doctoral candidates
  - supervision of doctoral candidates
  - collaboration with faculties, departments/institutes, and potential graduate schools/doctoral programmes
  - good practises and quality assurance in doctoral training
  - assuring of good career perspectives for the doctoral candidates/fresh doctorates
- Identification of the RC's strengths and challenges related to the practises and quality of doctoral training, and the actions planned for their development.
- Additional material: TUHAT compilation of the RC's other scientific activities/supervision of doctoral dissertations

ASPECTS: Processes and good practices related to leadership and management

The national Titeko program of training doctoral candidates in Science, Technology and Innovation studies is excellent, although very small, with five students for 2010-13. An unknown number of students with other funding also participate in the program. The program also has an eminent input of teachers from abroad, and is part of international networks.

The structure and requirements used in the recruitment of doctoral students is suitable. The requirements for admission are clear and germane. The concern for the socialization of students into the community of scientific scholars is laudable.

A challenge for the RC, as with most RCs, is the career prospective for their graduates. The STS states that the opportunities for appointments for their undergraduates are good.

Numeric evaluation: 4 (Excellent)

#### 2.3 The societal impact of research and doctoral training

- Description on how the RC interacts with and contributes to the society (collaboration with public, private and/or 3rd sector).
- Identification of the ways to strengthen the societal impact of the RC's research and doctoral training.
- Additional material: TUHAT compilation of the RC's other scientific activities.

ASPECTS: Societal impact, national and international collaboration, innovativeness

The RC is clearly very actively engaged with society extra muros, with enterprises, governmental agencies, and other social users of knowledge. One of the principal investigators has received an award from the Academy of Finland for Social impact of research.

The STS demonstrates an abundance of interactions with organs of the greater society. Importantly, the STS seem to utilize their extra-academic interactions to help their doctors to find nonacademic employment.

Challenges: The STS has identified several challenges for their RC such as interventions, policy generation, recommendations to governing bodies. The RC could consider more private sector consulting.

Numeric evaluation: 4 (Excellent)

# 2.4 International and national (incl. intersectoral) research collaboration and researcher mobility

- Description of
  - the RC's research collaborations and joint doctoral training activities
  - how the RC has promoted researcher mobility
- Identification of the RC's strengths and challenges related to research collaboration and researcher mobility, and the actions planned for their development.

ASPECTS: Scientific quality, national and international collaboration

STS is participating in many international research projects. It is also involved in researcher exchange with research institutes and universities in USA as well as in several countries of Europe. The STS seems to have developed very good research mobility.

Challenge: The RC should deliberately nurture international researchers as co-authors. This should be a particularly important goal.

Numeric evaluation: 4 (Excellent)

#### 2.5 Operational conditions

- Description of the operational conditions in the RC's research environment (e.g. research infrastructure, balance between research and teaching duties).
- Identification of the RC's strengths and challenges related to operational conditions, and the actions
  planned for their development.

ASPECTS: Processes and good practices related to leadership and management

STS is embedded in several organizational frameworks, which may have advantages of providing wide and multiple perspectives. But operational conditions seem to be sub-optimal. The development of science and technology studies will need the establishment of a real research institute, and not just a network.

#### 2.6 Leadership and management in the researcher community

- Description of
  - the execution and processes of leadership in the RC
  - how the management-related responsibilities and roles are distributed in the RC
  - how the leadership- and management-related processes support
    - high quality research
    - collaboration between principal investigators and other researchers in the RC
    - the RC's research focus
    - strengthening of the RC's know-how
- Identification of the RC's strengths and challenges related to leadership and management, and the actions planned for developing the processes

ASPECTS: Processes and good practices related to leadership and management

The decentralized, network character of STS means collegial equality and flexibility, but it also means a lack of leadership and of interactive integration. In effect, there is no organizational leadership. This situation often employs euphemisms such as fair, egalitarian or non-hierarchical to couch the situation of low or no leadership. It is assumed that, like many other RC's, the Pls that gain the external funding function as de facto leaders.

The plan to set up a steering group of the Principal Investigators is an overdue first step towards a better organization. This step seems essential prior to the implementation of the group's bold plan to build its own permanent and independent research institute.

#### 2.7 External competitive funding of the RC

- The RCs were asked to provide information of such external competitive funding, where:
  - the funding decisions have been made during 1.1.2005-31.12.2010, and
  - the administrator of the funding is/has been the University of Helsinki
- On the e-form the RCs were asked to provide:
  - 1) The relevant funding source(s) from a given list (Academy of Finland/Research Council, TEKES/The Finnish Funding Agency for Technology and Innovation, EU, ERC, foundations, other national funding organisations, other international funding organizations), and
  - 2) The total sum of funding which the organisation in question had decided to allocate to the RCs members during 1.1.2005–31.12.2010.

Competitive funding reported in the text is also to be considered when evaluating this point.

ASPECTS: Scientific quality, scientific significance, societal impact, innovativeness and future significance

STS has been quite successful in attracting external funding, including from EU and the Nordic Council. Specifically, the RC obtained 4,414,000 euros during the evaluation period or 735,667 euros per year. This is a very good record for the 24 member RC.

The challenge, of course, is to continue this rate of external funding. It may be that funding efforts should be closely linked with the primary plan of creating an independent research institute for the RC. That is probably the number one funding effort for the STS.

#### 2.8 The RC's strategic action plan for 2011-2013

RC's description of their future perspectives in relation to research and doctoral training.
 ASPECTS: Scientific quality, scientific significance, societal Impact, processes and good practices related to leadership and management, national and international collaboration, innovativeness, future significance

The plan has two main organizational goals, integration into the European Forum of Studies of Policies for Research and Innovation, and the establishment of a research institute in Helsinki. Especially the latter is necessary for further development of science and technology studies. The plan includes no goals of scholarly foci and priorities, a weakness following from current operational conditions.

Also, a unique, comprehensive and extensive "business plan" should be developed to counter the current temporary organization with (HIST) and (Titeko). The planned new STS Institute requires a professionally expounded "business plan" that can elicit support from both the public and private sectors.

# 2.9 Evaluation of the category of the RC in the context of entity of the evaluation material (1-8)

The RC's fitness to the chosen participation category.

Category 2. The research of the participating community is of high quality, but the community in its present composition has yet to achieve strong international recognition or a clear break-through.

STS places itself in category 2, which seems quite adequate, and largely due to its dispersed character, without any firm institutional base of its own.

Numeric evaluation: 4 (Excellent)

# 2.10 Short description of how the RC members contributed the compilation of the stage 2 material

The material presented was written by a STS professor and a STS senior researcher. All 24 members of the RC head opportunities for input.

#### 2.11 How the UH's focus areas are presented in the RC's research

Focus area 10: Globalisation and social change

STS is not quite in the focus of the university, but it does have a relationship, through its studies of innovation to area 4.

#### 2.12 RC-specific main recommendations

At least by the time the necessary institutional basis of STS has been decided, a scholarly plan of foci and priorities should be drawn up.

## 2.13 RC-specific conclusions

This is a network on an important topic, socially as well as scholarly, and it has demonstrated quite considerable potential. However, for a real breakthrough of Science and Technology studies at Helsinki University a proper organizational infrastructure of a real – not just a virtual – research institute will be necessary.

# **3** Appendices

- A. Original evaluation material
  - a. Registration material Stage 1
  - b. Answers to evaluation questions Stage 2
  - c. List of publications
  - d. List of other scientific activities
- B. Bibliometric analyses
  - a. Analysis provided by CWTS/University of Leiden
  - b. Analysis provided by Helsinki University Library (66 RCs)



# International evaluation of research and doctoral training at the University of Helsinki 2005-2010

#### RC-SPECIFIC MATERIAL FOR THE PEER REVIEW

NAME OF THE RESEARCHER COMMUNITY: Science and Technology Studies (STS)

LEADER OF THE RESEARCHER COMMUNITY: Professor Ilpo Helén, Department of Social Research

#### RC-SPECIFIC MATERIAL FOR THE PEER REVIEW:

- Material submitted by the RC at stages 1 and 2 of the evaluation
  - STAGE 1 material: RC's registration form (incl. list of RC participants in an excel table)
  - STAGE 2 material: RC's answers to evaluation questions
- TUHAT compilations of the RC members' publications 1.1.2005-31.12.2010
- TUHAT compilations of the RC members' other scientific activities 1.1.2005-31.12.2010
- UH Library analysis of publications data 1.1.2005-31.12.2010 <u>results of UH Library analysis will</u> <u>be available by the end of June 2011</u>

NB! Since Web of Science(WoS)-based bibliometrics does not provide representative results for most RCs representing humanities, social sciences and computer sciences, the publications of these RCs will be analyzed by the UH Library (results available by the end of June, 2011)



#### RC-SPECIFIC STAGE 1 MATERIAL (registration form)

#### 1 RESPONSIBLE PERSON

Name: Helén, Ilpo

E-mail:

Phone: +358 9 191 24618

Affiliation: Department of Social Research

Street address: Unioninkatu 35

#### 2 DESCRIPTION OF THE PARTICIPATING RESEARCHER COMMUNITY (RC)

Name of the participating RC (max. 30 characters): Science and Technology Studies

Acronym for the participating RC (max. 10 characters): STS

Description of the operational basis in 2005-2010 (eg. research collaboration, joint doctoral training activities) on which the RC was formed (MAX. 2200 characters with spaces): The RC consists of internationally acknowledged scholars working in the multidisciplinary field of science and technology studies. The key objectives of the RC fall under two broad categories: to advance research and doctoral training in the field of science and technology studies and to strengthen the institutional basis of science and technology studies in Finland. More specifically, the research and education focus on 1) the production of scientific knowledge and technical innovations, and their diffusion in society and 2) the preconditions of science and technology processes as well as their societal and environmental consequences (for further details, see section 5).

The members of the RC include 10 principal investigators (PI) and 16 researchers and doctoral students. Of the PIs, one is Academy Professor, two Full Professors, two Acting Professors and one Professor emerita. The RC members work in many departments at the University of Helsinki (UH) and represent disciplines like sociology, social policy, education and philosophy. They do collaborate with one another within two interdisciplinary research networks, the Helsinki Institute of Science and Technology Studies (HIST) and the Network for Higher Education and Innovation Research (HEINE). The RC is also engaged with joint doctoral training organized under the auspices of the Finnish Post-Graduate School in Science, Technology and Innovation Studies (Titeko), established in 2006. In addition to these activities, the members of the RC have collaborated with one another in research projects and in organizing courses, research seminars and symposiums of various kinds.

#### 3 SCIENTIFIC FIELDS OF THE RC

Main scientific field of the RC's research: social sciences RC's scientific subfield 1: Social Sciences, Interdisciplinary

RC's scientific subfield 2: Sociology



#### RC-SPECIFIC STAGE 1 MATERIAL (registration form)

RC's scientific subfield 3: Philosophy

RC's scientific subfield 4: Environmental Studies

Other, if not in the list: Science and technology studies, Adult education

#### 4 RC's Participation Category

Participation category: 2. Research of the participating community is of high quality, but the community in its present composition has yet to achieve strong international recognition or a clear break-through

Justification for the selected participation category (MAX. 2200 characters with spaces): Being composed of 26 members from different disciplines and organizational units at UH, the RC is producing work that is of both international quality and social relevance. This progress is proved by the numerous articles by the RC members in leading international journals (e.g., Social Studies of Science, Research Policy, Studies in History and Philosophy of Science) as well as by books published or forthcoming by major international publishers (e.g., Routledge, Cambridge University Press, Oxford University Press). The doctoral training by the RC members shows continuous growth both in quality and quantity, supported by established graduate schools in the fields of sociology, philosophy, education and science and technology studies. In the years to come, the aim of the RC is to become Finland's focal point for internationally recognized science and technology studies activities. In 2008, this goal was highly acknoledged by the Strategic Advisory Board of HIST, in the activities of which the most of the PIs are engaged with.

Despite the fact that many members of the RC are doing cutting edge research in their fields of investigation, the RC as a whole still lacks a clear international break-through. This is largely due to the dispersed nature of the field of science and technology studies in general, an irretrievable aspect of the global, expanding science and technology studies community. Furthermore, the RC has operated in its present form for a relatively short period of time and thereby lacks a strong and established organizational home base, such as a joint research center.

#### 5 DESCRIPTION OF THE RC'S RESEARCH AND DOCTORAL TRAINING

Public description of the RC's research and doctoral training (MAX. 2200 characters with spaces): The research activitities of the RC fall into two main categories, 1) the production of scientific knowledge and technical innovations, and their diffusion in society and 2) the preconditions of science and technology processes as well as their social, ethical and environmental consequences. Concerning the studies on the production of scientific knowledge, the research by the RC addresses the practices of university research groups and the ways in which they collaborate with one another as well as with relevant stakeholders in society. Another major topic of interest in this area is interdisciplinarity among and between the social and natural sciences. In addition to studying academic research, the RC members are actively engaged in understanding the production and use of technical innovations both in business and in public services. Topics most prominently addressed in this field are producer-user interaction in technology development, user-centered creation of technological realities as well as participation of general publics in biomedical research. The preconditions of science and technology processes within the RC include research on different aspects of science and technology policy, both from the Finnish and comparative international perspectives, as well as sustainability assessment and strategy, with empirical applications in



#### RC-SPECIFIC STAGE 1 MATERIAL (registration form)

environmental and technology policy, waste management and environmental governance in northern regions.

In addition to supervising doctoral students in their home departments (and in other graduate schools), the PIs pursue joint doctoral training under the auspices of the Finnish Post-Graduate School in Science, Technology and Innovation Studies (Titeko). Within Titeko, the PIs have organized (with senior researchers from other universities) seminars as well as winter and summer schools focused on different topics in science and technology studies. Titeko has enabled to recruit prominent international scholars as lecturers and commentators in its seminars, and has formed permanent collaborative relations with the universities of Oxford, York, Lund and Oslo.

Significance of the RC's research and doctoral training for the University of Helsinki (MAX. 2200 characters with spaces): The RC's research and doctoral training is important not only from the perspective of UH but from that of Finland as well. Since the 1980s, the country has adopted a line of policy which puts strong emphasis on science and technology. More recently, it has emphasized the effective operation of the national innovation system to enhance its prosperity and global competitiveness. Despite these policy priorities, there is not a single major research center with permanent funding in this country focusing on these topics of central importance. Furthermore UH has adopted the goal of doing high-level, high-profile and long-term research with significant impact on society. In meeting these national and university-level objectives, social scientific research on science, technology and innovation is indispensable.

With the help of a small grant obtained from the Ministry of Education and Culture (€ 200 000/year), UH established in 2004 the Helsinki Institute of Science and Technology Studies (HIST), a network consisting of the total of nine research groups coming from UH and Aalto University. Given the fact that only a handful of scholars are engaged in science and technology studies in Finland, it is evident that the current RC is by far the most extensive group of scholars committed to work in this field in the country. The prominence of the RC is further emphasized by the fact that it has taken the leading position in the Finnish Post-Graduate School in Science, Technology and Innovation Studies (Titeko) since its beginning in 2006. The RC has thus a major responsibility in creating new knowledge on issues related to science, technology and innovation, as well as securing the production of the competent experts for academia, industry and public sector.

Keywords: sociology of science and technology, philosophy of science, interdisciplinarity, environmental policy, innovation policy, learning

#### 6 QUALITY OF RC'S RESEARCH AND DOCTORAL TRAINING

Justified estimate of the quality of the RC's research and doctoral training at national and international level during 2005-2010 (MAX. 2200 characters with spaces): The RC's research activities meet high international standards in different sub-fields of science and technology studies. This is evidenced by the constant flow of articles and books by the RC members in leading international journals and scientific publishers. Thus all major work by the RC members has gone through peer review process at international level. The RC members also have been granted numerous positions of trust in international scientific journals and associations, which evidences the recognition of their contribution to the scientific activities



#### RC-SPECIFIC STAGE 1 MATERIAL (registration form)

worldwide. The same holds true for the measure of external competitive research funding received by the RC members during the evaluation period. It should be noted as well that among the RC members is the holder of the position of Academy Professor, which is the highest-ranking professorship in Finland. Younger members of the RC received public recognition for their outstanding scientific work too (e.g., Academy of Finland Award in 2010). In addition to these, the members of the RC acted regularly as examiners of dissertations in Finland and abroad as well as taught in universities in many countries. During the evaluation period, the RC had active collaborative relationships with many established scholars and research groups all over the world.

Much of what was said above about the RC members in general also holds true for the doctoral students. It is common for the doctoral candidates of this RC to publish in peer reviewed scientific journals during their studies, which serves as a constant quality assessment of their work. Quality assurance also takes place through established exchange of doctoral candidates between the Finnish Post-Graduate School in Science, Technology and Innovation Studies (Titeko) and its international partner universities. Resulting from these measures, it is common for the RC's doctoral candidates to receive high grades for their PhD dissertations and be hired to expert positions in academia and elsewhere after their graduation.

Comments on how the RC's scientific productivity and doctoral training should be evaluated (MAX. 2200 characters with spaces): The most appropriate method for assessing the scientific outcomes of this RC would be peer review conducted by experts coming from the RC's areas of scientific specialty. Analysis of documentary materials and publications should be supplemented with site visits and face-to-face discussions with the RC members. To improve the future activities of the RC, the evaluation report should not only include the positioning of the RC's activities both in the Finnish and international scientific contexts but put forward realistic developmental measures for implementation by both the RC and the university. When it comes to the evaluation of the doctoral training, similar method should be applied. Attention should be paid to the educational practices used in the doctoral education as well as on the resources at hand by the RC. Current and former doctoral students should be interviewed and the quality of their scientific work should be evaluated.

The RC's publishing strategy is diversified. First of all, the RC members will publish their major research results in leading international journals representing different sub-fields of science and technology studies. The relevant journals are many and they appear in the following areas of research: sociological and philosophical studies on science, technology and innovation, methodology of the social sciences, higher education research, environmental, educational and research policy as well as R&D and innovation management. Second, results that are supposed have more extensive readership in the contexts of current discussions in philosophy, sociology, education and environmental sciences will be published in major disciplinary outlets covering these areas. Third, major theoretical and empirical work will be pulled together in the form of scholarly books appearing in both national and international planes. And fourth, new scientific perspectives and results that have potential practical value in the national context will be published in Finnish either as books or articles in journals directed to scientific, professional and general publics.

#### LIST OF RC MEMBERS

NAME OF THE RESEARCHER COMMUNITY:			Science and Technology Studies (STS)		
RC-LEADER		I. Helen			
CATEGORY		2			
	Last name	First name	PI-status (TUHAT, 29.11.2010)	Title of research and teaching personnel	Affiliation
1	Helén	Ilpo	Х	Professor	Dept of Social Research
2	Lehtonen	Turo-Kimmo	Х	Professor	Dept of Social Research
3	Häyrinen-Alestalo	Marja	Х	Professor	Dept of Social Research
4	Miettinen	Reijo	Х	Professor	Institute of Behav. Sciences
5	Mäki	Uskali	Х	Professor	Dept of Pol. and Econ Studies
6	Hukkinen	Janne	Х	Professor	Dept of Social Research
7	Arminen	Ilkka	Х	Professor	HEINE
8	Tapaninen	Anna-Maria		Senior researcher	Dept of Social Research
9	Hyysalo	Sampsa	Х	Senior researcher	Collegium of Adv. Studies
10	Tuunainen	Juha	Х	Senior researcher	Dept of Social Research
11	Meskus	Mianna		Postdoctoral Researcher	Dept of Social Research
12	Snell	Karoliina		Postdoctoral Researcher	Dept of Social Research
13	Tupasela	Aaro		Postdoctoral Researcher	Dept of Social Research
14	Pelkonen	Antti		Postdoctoral Researcher	Dept of Social Research
15	Janasik	Nina		Doctoral candidate	Dept of Social Research
16	Hautamäki	Lotta		Doctoral candidate	Dept of Social Research
17	Silvast	Antti		Doctoral candidate	Dept of Social Research
18	Liukko	Jyri		Doctoral candidate	Dept of Social Research
19	Veilahti	Antti		Doctoral candidate	Dept of Social Research
20	Teräväinen	Tuula		Doctoral candidate	Dept of Social Research
21	Waltari	Suvi-Tuuli		Doctoral candidate	Dept of Social Research
22	Huutoniemi	Katri		Doctoral candidate	Dept of Social Research
23	Saikkonen	Paula		Doctoral candidate	Dept of Social Research
24	Freeman	Stephanie		Doctoral candidate	Institute of Behav. Sciences



#### RC-SPECIFIC STAGE 2 MATERIAL

#### **BACKGROUND INFORMATION**

Name of the RC's responsible person: Helén, Ilpo

E-mail of the RC's responsible person:

Name and acronym of the participating RC: science and technology studies, STS

The RC's research represents the following key focus area of UH: 10. Globalisaatio ja yhteiskunnan muutos – Globalisaation and social change

Comments for selecting/not selecting the key focus area: Science, technology and innovation are key driving forces of societal change today. They are global phenomena that are linked in many intimate ways to various other sectors of the society, such as economy, politics and culture. They are, therefore, at the heart of globalization and related societal change processes.

#### 1 FOCUS AND QUALITY OF RC'S RESEARCH (MAX. 8800 CHARACTERS WITH SPACES)

 Description of the RC's research focus, the quality of the RC's research (incl. key research questions and results) and the scientific significance of the RC's research for the research field(s).

The RC's work has focused on the ways in which science and technology (S&T) affect politics, economy, environment and culture and how these influence S&T. Under this theme, two foci can be discerned: 1) the production of scientific knowledge and technical innovations, and their application and diffusion in society and 2) the preconditions of S&T processes, and their social, political and environmental consequences. Concerning the former, the RC has addressed the practices of scientists and the ways in which they collaborate with one another as well as with relevant societal stakeholders. It also has investigated interaction between S&T and other societal institutions, such as politics, business and public service production. Concerning the latter, the RC has addressed different aspects of S&T policy, e.g., analysis of S&T policy in national and comparative perspectives, and sustainability assessment, governance and strategy. The RC has established many significant and timely research topics in science and technology studies (STS) in Finland, e.g.:

- university-society relationship and change of research work;
- relationship between biomedicine and society;
- interdisciplinarity;
- S&T policy analysis;
- user-producer interaction in technical development; and
- environmental policy, governance and assessment.

Concerning the changing nature of the university, and the relationship between science and other social institutions, the RC has confronted and criticized general models of university-industry relations, e.g., the mode-two knowledge production. According to these, there has been major transformation in the relations between science and other institutions with profound impact on the nature of scientific work and knowledge. By refining such models the RC has shown that while universities and science may be changing, the movement is far from uniform. Even within rather applied areas there are constituencies that do not see commercialization as the only way to go: no single resolution is predetermined by the larger historical and institutional processes but the transformation is contradictory involving many



### **RC-SPECIFIC STAGE 2 MATERIAL**

epistemic and organizational options. The results thus constitute a good basis for understanding the third mission of the university in a richer way than is usually the case.

Within the RC, historical and sociological studies of biomedicine have created international collaboration with top research centres in the world. The research has provided insights about the ways in which biomedicine is assembled in society today confirming results about the transformation of science into transnational activity and the blurring of boundaries between between public and private research institutions. Studies also have shown that the establishment of new specialities in biomedicine requires a socio-political foothold in the realm of health practices and general policy; the relations between clinical genetics and maternal care as well as biobanking and national innovation policy are examples of this. Finally, the research has shown that embeddedness of biomedicine in medical care and health policy creates an intensive pressure to implement advanced technologies in actual practices. This technical imperative seems to engender ethical problems and questions about sharing of responsibility, too.

Still another set of results focuses on the unity and disunity in the social sciences. Important interdisciplinary encounters are taking place within the social sciences, as well as between the social sciences and cognitive and biological sciences. These interactions and transformations are not smooth and uniform but involve tensions and conflicting tendencies towards both integration and disintegration. By looking at these tendencies and tensions, the RC members have shown that economics have played a major role in these developments, both as an exporter and importer of new ideas. Furthermore, analysis of the Academy of Finland's general research grants have produced a typology of indicators for interdisciplinarity research plus recommendations for organizing interdisciplinary evaluation panels and procedures.

In studying S&T policies, sociological and political theories have been used to explain the socio-political transformation and its relationship to the S&T systems in Europe. Because economic and S&T policies are fundamental to the social development, an effort has been made to analyse the expanding role of S&T in the economy and the larger society, the increasing public concern in new technologies, the renewal of public services, the logic of market forces and the demand for globalization. The RC has been among the forerunners in the field to pay attention to permanent inconsistencies and tensions between economic and broader societal concerns, especially in relation to universities, public services and globalization. It also has introduced the need for multipurpose, horizontal and integrated ways of policy-making, and for participatory democracy in the S&T policy. Finally, the RC has used rhetorical analysis to stress the ways in which vocabulary derived from the national innovation systems approach and evolutionary economics of innovation has influenced the S&T policy. By so doing, a deeper understanding of the ideological limitations of the current policy has been fostered.

In distributed innovation and user-producer interaction one of the major tasks has been to understand the ways in which users shape the development of new technologies. The research has focused on developing methods for involving users as a source of inventive ideas and showing their decisive input during early stages of innovation processes. In addition, attention has been paid to the ways in which users modify and adjust technologies to their needs and practices during stages of end-use. The longitudinal research on new health-care technologies has confirmed that users are crucial for the success and social acceptability of new technologies: all studied projects have been redirected by users, as the original ideas have proved unfeasible. All in all, the major contribution has been to question the dominant "project and tools" focus in innovation studies and to articulate a more sophisticated approach to user involvement in innovative projects. In addition to this, the RC has repetedly underlined



### **RC-SPECIFIC STAGE 2 MATERIAL**

the importance of user-producer interaction in the context of S&T policy, an endeavour which has fostered the inclusion of user collabration in the Finnish innovation strategies.

Under the topic of environmental policy, governance and assessment several research questions have been investigated. First, questions concerning resource governance in the north have led to recommendations for participatory institutions to manage conflicts between competing northern land users. They have also improved methodologies for the integration of knowledge produced by local practitioners, government planners and academic researchers. Second, questions concerning the framing of sustainable development and its monitoring have produced conceptual models for improved sustainability governance, structured around indicators that use scenarios as their frame of reference. Third, questions concerning the emergence of new environmentally relevant technologies and compounds have improved understanding of new generation risks and the mental models underlying such risks. They also have provided guidance to the socio-cognitive processes of deliberation that are needed for reliable governance of the new generation risks. Finally, issues related to new energy technologies and climate change have received attention within the RC.

• Ways to strengthen the focus and improve the quality of the RC's research.

As evidenced by the CVs and publication lists of the RC members, the quality of the research is of high international standard with constant flow of articles in leading scientific journals. This standard will be maintained and increased - if possible - by means of further international collaboration and researcher exchange.

The members of the RC have different kinds of theoretical, methodological and empirical backgrounds, which opens up opportunities to make creative scientific breakthroughs in STS and other fields of study. To achieve this, the RC will combine different topics, approaches and traditions in theoretically informed ways. Such work has already begun within the RC between STS and Foucauldian analysis, cultural-historical activity theory and pragmatism, among others. The many common and complementary themes of empirical research also form useful platforms for increasing scientific quality of the RC, for instance, through joint seminars, research projects and publications.

### 2 PRACTISES AND QUALITY OF DOCTORAL TRAINING (MAX. 8800 CHARACTERS WITH SPACES)

 How is doctoral training organised in the RC? Description of the RC's principles for recruitment and selection of doctoral candidates, supervision of doctoral candidates, collaboration with faculties, departments/institutes, and potential graduate schools/doctoral programmes, good practises and quality assurance in doctoral training, and assuring good career perspectives for the doctoral candidates/fresh doctorates.

Doctoral training, one of the key activities of the RC, was pursued by in multiple ways. The most important organization in this respect was the Finnish Post-Graduate School in Science, Technology and Innovation Studies (Titeko) where the PIs of the RC played a leading role, for instance, by serving as the leaders of the school between 2005-10. The education given by Titeko was regarded as excellent in quality and productivity in the Academy of Finland's evaluation in 2008.

The number of positions for doctoral candidates in Titeko was three in 2006-09 and five in 2010-13. In addition to these posts, additional students have been appointed to the school as status members. These students participate in the activities of Titeko but get their funding from other sources.

Students of Titeko have been recruited through an open call published in the University of Helsinki's (UH) web pages. In the application phase, each person submitted the following documents to the



#### RC-SPECIFIC STAGE 2 MATERIAL

Titeko's steering group: a cover letter, a research plan and an account of the study place and supervision of the dissertation. The group selected the students on the basis of the following criteria: 1) relatedness of the topic to the research themes of the school, 2) membership of the student in a research group participating in Titeko, 3) scientific significance of the topic of dissertation, 4) quality of the research plan, 5) need for interdisciplinary supervision, 6) capacity for independent research and scientific writing and 7) applicant's international orientation. Moreover, Titeko observed equality between men and women, and took account of disciplinary and regional representation when recruiting the students. According to the the Academy of Finland's evaluation, the selection process of the students followed good practice and acceptable criteria.

The activities of Titeko were organised into four themes on the basis of the students' and supervisors' research objects and disciplinary backgrounds. These were: 1) the transformation of science and scientific institutions, innovation as well as science and technology policy, 2) technology, environment and organizations, 3) historical studies on science and technology and 4) ethics and philosophy of science. Within Titeko, the PIs of the RC organized, together with other senior scholars, seminars as well as winter and summer schools on different topics in science and technology studies (STS).

In the research seminars students presented their work in the form of written papers and presentations, and received comments from supervisors, external experts, senior scholars and other students. In winter seminars different phases of the dissertation process were addressed, in addition to issues related to scientific profession and research funding. Representatives of research funding agencies and other key actors in science and technology policy were often present to give their contributions to the discussion. Finally, the summer schools were organized around topical themes of STS, such as multidisciplinarity or the notion of commons. The summer schools included lectures by international experts accompanied by relevant articles, group work, methods workshops and panel discussions. Doctoral students were encouraged to take part in domestic and international research seminars and conferences too, as well as to participate in international student exchange programmes.

Dissertations pursued within Titeko were supervised by the members of the school's management group many of which were Pls of the RC, including the current and former leaders of Titeko.

Titeko has formed permanent collaborative relations with the following universities:

- Prof. Steve Woolgar, University of Oxford;
- Prof. Andrew Webster, University of York; and
- Prof. Merle Jacob, Lund University and University of Oslo.

Other international teachers participating in Titeko's activities include:

- Prof. Jürgen Schriewer (Humboldt University);
- Prof. Sverker Sörlin (Umeå University);
- Prof. Benoît Godin (University of Quebec);
- Prof. Raymond Miller (San Fransisco State University); and
- Prof. Jouni Paavola (University of Leeds).



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Titeko collaborates with Globelics Academy, an international graduate school focused on innovation systems and economic development. Globelics Academy is organized under the auspices of the Interim Scientific Board of Globelics network, members of which include Prof. Bengt Åke Lundvall (Aalborg University), Dr. Jorge Niosi (University of Québec), Prof. Luc Soete (Maastricht University) and Prof. Richard Nelson (Columbia University), among others. Through Helsinki Institute of Science and Technology Studies (HIST), Titeko is currently engaged in plans of expanding the international collaboration in doctoral training through a membership in the European Forum for Studies of Policies for Research and Innovation (Eu-SPRI Forum), a collaborative network of 13 European research organizations in the field of science, technology and innovation policy. Eu-SPRI Forum is, currently, headed by Prof. Stefan Kuhlman of the University of Twente.

In addition to the teaching activities by Titeko and its partners, the PIs of the RC supervise doctoral students in their home departments as well as in other graduate schools operating in such fields as sociology, philosophy, adult education and environmental research.

The quality assurance procedures in doctoral training are closely tied to the socialisation of the students into the international scientific community in STS. During the socialization process the students learn best practices in research as well as international quality standards. Some examples of the ways in which quality assurance is achieved are listed below:

- careful evaluation of the research plans written by students during the recruitment process;
- critical and constructive discussion about the empirical, methodological and theoretical choices made by them during the dissertation projects;
- analysis of empirical data together with senior scholars;
- writing of articles together with senior scholars;
- critical review of dissertation manuscripts in supervisory meetings and seminars;
- presentation of research results in domestic and international conferences during doctoral studies;
- participation of doctoral candidates in international student exchange programmes;
- publication of articles in peer-reviewed international journals;
- preliminary examination of PhD theses by external experts nominated by Faculties of UH; and
- public defence of the thesis.

Career perspectives of the students with background in STS are good. Because science, technology and innovation are all the more important issues in policy making, experts in STS are urgently needed, for instance, in ministries, public research institutes (e.g., VTT Technical Research Center of Finland) and science and technology funding agencies (Academy of Finland, The Finnish Funding Agency for Technology and Innovation Tekes). In addition to this, the number of private sector organizations (e.g., consultancies, interest groups) focusing on science, technology and innovation has expanded in Finland. Many of them make use of scientific knowledge developed in this field to advance operation of knowledge-based industries and national innovations systems in many countries (e.g., Advansis Ltd in South Africa and Latin America). Furthermore, Finnish universities and polytechnics have expanded their activities in STS, which has increased their demand for qualified labour force. Finally, some of the scholars having graduated from Titeko have moved to work in universities located abroad.



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RC's strengths and challenges related to the practises and quality of doctoral training, and the actions
planned for their development.

The strenghts of the doctoral training include:

- established structures and practices of doctoral training through post-graduate school in science and technology studies;
- close collaborative relationships with relevant other schools;
- expanding international collaboration; and
- good career prospects for PhDs.

The challenges of the doctoral training include:

- small amount of student positions in the doctoral school;
- limited supply of courses in STS in Master's level; and
- lack of permanent teaching positions in STS (one professorship only).

Because Titeko has just reformed its structure, collaborative relationships and action plan for the years 2010-13, there is not an urgent need to address them. Concerning the next lifetime of Titeko, the school will apply for more student positions on the basis of its supposedly productive activity. In addition to this, there have been initiatives to establish a university lecturer's position in STS too, but with no success for the time being. Nonetheless, the work towards increasing undergraduate teaching at the UH has already begun.

#### 3 SOCIETAL IMPACT OF RESEARCH AND DOCTORAL TRAINING (MAX. 4400 CHARACTERS WITH SPACES)

- Description of how the RC interacts with and contributes to the society (collaboration with public, private and/or 3rd sector).
  - Globalization of economy and fast technological progress has enthroned science, technology and innovation (ST&I) in the heart of the societal development. New knowledge, technologies and commercial products are needed for fostering the prosperity of nations in the knowledge intensive social and economic competition. Knowledge about ST&I is important from the point of view of public policy and decision-making too. Research on ST&I thus has strong societal relevance built into it. The RC's work forms no exception to this rule. It has contributed to the society, e.g., by
  - developing sophisticated approaches to user involvement for innovative technology development;
  - giving recommendations for participatory institutions to manage conflicts between competing land uses:
  - improving methodologies for the integration of knowledge produced by local practitioners, government planners and academics;
  - producing conceptual models for improved sustainability governance;
  - creating better understanding of the new generation risks and the mental models underlying such risks;
  - supporting the development of practices in different areas of public policy and service; and
  - producing new understanding about the latest socio-economic transformations.



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Many means have been applied in disseminating research results from the scientific community to practitioners working in different sectors of the society. Examples below give some indication of the significance of the research done by the RC:

- Projects have included interventionist research designs, e.g., in TeleChemistry Ltd and Vivago Ltd.
- Results have been published in bulletins and publication series of public sector organizations to communicate their social implications as widely as possible.
- The RC has contributed to the evaluation and improvement of public R&D programs and conducted commissioned policy-oriented projects, e.g., evaluation of the Finnish environmental cluster research programme, final synthesis of the ProAct technology policy initiative and promotion of interdisciplinary research at the Academy of Finland.
- Projects funded by the Ministry of Education, Finnish Funding Agency for Technology and Innovation Tekes, OECD, EU or other have had streering groups where users of knowledge have been represented. Such groups have been vital for making sure that the research results will meet the needs of the endusers.
- Results have been communicated to those investigated by means of face-to-face interaction or by sending publications to them.
- Projects have held public seminars, lectures and talks during and after the research. This has been important from the point of view of communication between researchers and relevant societal interest groups.
- Reseachers have been invited to give briefings and talks about topics investigated by insurance companies, ministries and other public sector organizations etc.
- The RC members have served as experts in committees in public sector and in civic organizations.
- Dr. Hyysalo received in 2010 Academy of Finland Award for Social Impact of Research.
- Many doctors have found jobs outside academia.

Many PIs are also members of HEINE, HIST and Titeko that produce knowledge relevant to public administration and policy-making.

- Ways to strengthen the societal impact of the RC's research and doctoral training.
  - Until now, the RC has contributed to the society in diverse ways. These activities will be continued in the future, too. The RC will, for instance,
  - become engaged with policy makers and other users of the RC's knowledge during early stages of new research projects,
  - direct its research and teaching activities so as to produce societally relevant knowledge;
  - do interventionist research together with different user communities;
  - conduct commissioned, policy-oriented projects;
  - communicate its research results to various user groups in the society; and
  - give recommendations to administrators and policy-makers.

One of the central missions of the University of Helsinki's Network for Higher Education and Innovation Research (HEINE, see Section 5 below) is to produce scientific knowledge that is relevant to university administration and policy-making in Finland. Having been established in 2010, HEINE is currently in the



### **RC-SPECIFIC STAGE 2 MATERIAL**

midst of developing ways in which such contribution will be materialized. The RC will play an active role in this endeavour whenever possible.

4 INTERNATIONAL AND NATIONAL (INCL. INTERSECTORAL) RESEARCH COLLABORATION AND RESEARCHER MOBILITY (MAX. 4400 CHARACTERS WITH SPACES)

Description of the RC's research collaborations and joint doctoral training activities and how the RC
has promoted researcher mobility.

The international research collaboration has been extensive ranging from hands-on joint research to membership in international organizations and networks. The RC publishes its work in leading international journals and books, and participates in multiple, in-depth projects funded by international funding agencies, e.g.:

- DNA and Immigration Exploring the Social, Political and Ethical Implications of Genetic Testing for Family Reunification;
- Privacy regimes in variation and transformation The emerging field of post-genomics;
- Knowledge-based Tools for Sustainable Governance of Energy and Climate Adaptation in the Nordic Periphery (Nordic Center for Spatial Development);
- Collaborative Priority-setting for Innovation Activities in Eastern Finland (European Social Fund);
- Public Debate on Research Policy in Nordic Countries Issues and Trends (Nordic Research Board);
- Work package on precautionary procedures for nanomaterial safety assessment for the project Nanomaterials in REACH Evaluation of Applicability of Existing Procedures for Chemical Safety Assessment to nanomaterials (EU 6th FP);
- Knowledge-Based Tools for Sustainable Governance of Energy and Climate Adaptation in the Nordic Periphery (Nordic Center for Spatial Development); and
- Work package on dissemination and exploitation: social-ecological analysis of nanopatterning and related applications for the project Nanopattering, Production and Applications Based on Nanoimprinting Lithography (EU 7th FP).

The RC has represented Finland in the management groups of two EU COST programmes Science and Technology Research in Knowledge-based Economy and Bio-objects and their Boundaries: Governing Matters at the Intersection of Society, Politics and Science. The RC members also have served in boards of international scientific societies (e.g., ISA, ESA).

The RC has actively participated in international researcher exchange with the help of EU's Marie Curie fellowships and other support structures. Longer time periods were spent in the following universities: Harvard, Edinburgh, Westminster, Graz, Rotterdam, Paris I, Bielefeld, Santa Clara, Sussex, Oslo and York. Researcher mobility from abroad has been equally ample with scholars coming from London, Leuven, Rotterdam, Alabama, Naples, Exeter, Sussex, Berlin and Budapest. The PIs have acted as supervisors and examiners of dissertations in many countries and participated in numerous scientific journals and associations as reviewers, editors, board members, members of organizing committees etc. They also have acted as experts in international organizations (e.g., EC, ESF and OECD) and reviewed research proposals, job and student applications and promotion proposals for universities, research institutes and funding agencies worldwide.



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The RC is a major actor in the Finnish STS community with extensive collaboration with actors coming from higher education, philosophy of science and environmental research. Good working relations exist between the RC and scholars coming from different departments. The RC members hold many expert positions and collaborate with other researchers under the auspices of HEINE, HIST, Titeko and Finnish Society for Science and Technology Studies.

For collaboration in doctoral training, see Section 2.

RC's strengths and challenges related to research collaboration and researcher mobility, and the
actions planned for their development.

Strenghts concerning international collaboration:

- well established, extensive and rich collaborative relationships in Finland and abroad.

Challenges concerning international collaboration:

- relatively small number of co-authored publications with international scholars and
- uneven distribution of international collaborative relations within the RC.

In the future, the RC will develop its national and international collaboration, for instance, by:

- organizing national and international seminars and workshops on research topics pursued by the RC members;
- using existing memberships in international scientific organizations and networks as platforms to initiate new collaborative projects;
- actively seeking possibilities to produce joint publications with international partners;
- socializing the RC members to international STS community already during the doctoral studies; and
- disseminating international contacts among the members of the RC.

For plans to increase collaboration in doctoral training, see Section 2.

#### 5 OPERATIONAL CONDITIONS (MAX. 4400 CHARACTERS WITH SPACES)

 Description of the operational conditions in the RC's research environment (e.g. research infrastructure, balance between research and teaching duties).

The operation of the RC is embedded in many organizations, such as:

1) Finnish Society for Science and Technology Studies

The society supports research and teaching in STS in Finland. It brings together a range of scholars from different disciplines and publishes an international peer-reviewed journal Science Studies. The PIs of the RC have been key actors in the society serving as editors and editorial board members of the journal and holding chairman's and board members' positions in the society.

2) Finnish Post-Graduate School in Science, Technology and Innovation Studies (Titeko)

The school aims at developing researcher training in STS, strengthening the research groups operating in the field and fostering multidisciplinary research. The school's goal is to educate international level scholars with abilities needed in S&T administration. It is a multidisciplinary entity and the University of



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Helsinki (UH) is liable for its activities. Other member universities include Tampere, Oulu, Eastern Finland, Jyväskylä and Aalto. Titeko's current term ends in 2013.

### 3) Helsinki Institute of Science and Technology Studies (HIST)

HIST is a network established by the UH and Aalto University (AU). It aims at strengthening research and doctoral training in the two universities and intends to become Finland's focal point in internationally recognized STS. Its goals include: 1) to advance research and post-graduate education and 2) to strengthen the institutional basis of STS. Research and education in HIST focuses on the production of scientific knowledge and development of technical innovations in connection to their larger societal and environmental preconditions and consequences. The task of institutional strengthening focuses on the facilitation of high-quality research and conducting commissioned policy analyses. Currently, the unit's organizational structure and legal status are in limbo due to the fact that UH and AU have not lengthened the contract period beyond 2009. The funding of HIST is secured until the end of 2012.

### 4) Network for Higher Education and Innovation Research (HEINE)

HEINE was established to bolster research and education in science, technology and innovation studies, higher education and economics of education. HEINE gets its funding from the Ministry of Education and Culture and it is secured until the end of 2012. The goal of HEINE is to produce knowledge that is relevant to university policy and has value for the development of university research and education. The network consists of four units: 1) Helsinki Center of Economic Research responsible for research in economics of education and innovation, 2) Higher Education Governance and Management responsible for research on higher education policies and university management, 3) Helsinki Institute of Science and Technology Studies responsible for research on the innovation system and its changes, and on the development of science and technology, and 4) Centre for Research and Development of Higher Education, which promotes research-based education and its development.

The Pls are closely engaged in the activities of their home departments at the UH. They contribute to the undergraduate teaching in the study block of STS and offer courses in different departments.

 RC's strengths and challenges related to operational conditions, and the actions planned for their development.

The strenghts of the operational conditions consist of the manifold organizations operating in the field of science and technology studies. The weaknesses include their short lifetimes, scant resources and the lack of mature teaching program at the undergraduate level.

For actions planned to address these and other weaknesses, please see Sections 1-4, 6 and 8 of this document.

#### 6 LEADERSHIP AND MANAGEMENT IN THE RESEARCHER COMMUNITY (MAX. 4400 CHARACTERS WITH SPACES)

Description of the execution and processes of leadership in the RC, how the management-related
responsibilities and roles are distributed in the RC and how the leadership- and management-related
processes support high quality research, collaboration between principal investigators and other
researchers in the RC, the RC's research focus and strengthening of the RC's know-how.

The research and teaching activities pursued by the RC are organized in a decentralized manner. The work organization of the RC is based on independent research groups operating under the leadership of professors, that is, PIs of the RC. There are six major research groups within the RC at the University of



#### RC-SPECIFIC STAGE 2 MATERIAL

Helsinki (UH) plus two more groups of researchers working under the PIs in other universities (Aalto University and University of Tampere). The groups located at the UH are:

- the research group on innovation and organization of research work;
- the research group for comparative sociology;
- the research group on biomedicine and society;
- the research group on material culture, markets and welfare;
- the research group on trends and tensions in intellectual integration; and
- the research group on environmental policy.

These groups finance their work through external competitive research funding. This means that no formal organizational or managerial body – not to mention a joint department or institute – exists within the RC. However, the RC is tied together by two cooperative organizations pursuing scientific research and doctoral training in science and technology studies: the Helsinki Institute of Science and Technology Studies (HIST) and the Finnish Post-Graduate School in Science, Technology and Innovation Studies (Titeko). The managerial model applied in both of these organizations is collegial rather than administratively or managerially driven. This means that neither HIST nor Titeko has a director. Instead, major decisions concerning the research and teaching activities are prepared and made in concert by members of their management groups that are composed of the PIs of this RC.

Another link tying together the RC is the Professor of Science and Technology Studies located at the Department of Social Research. The professor acts as the chairman of the management groups of HIST and Titeko thus serving as a mediator between them. In addition to this, the professor acts as a convenor within the entire RC supported by HIST's research co-ordinator who also takes part in the planning, administration and direction of the RC's activities.

In addition to the above mentioned collaborative organizations, the PIs of the RC collaborate with one another in many issues related to teaching and research in STS, and come together to deal with common issues whenever necessary.

The future plans by the RC to form a strong and permanent research institute focusing on STS will evidently necessitate stronger management and coordination of research and teaching activites within the RC (please see Section 8 below).

For the RC's research focus and collaboration related to it, please see Section 1.

 RC's strengths and challenges related to leadership and management, and the actions planned for developing the processes.

The strenghts of the current collegial model of leadership of the RC are as follows:

- managerial orientation is based on teamwork, responsible behavior and self-discipline by those involved:
- the managerial model fosters supportive and egalitarian work practices; and
- open and collegial management style facilitates free movement of ideas and fosters formation of a shared motivation among the RC members.



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The weaknesses of the collegial model are as follows:

- the research and teaching activities by the RC may remain somewhat disintegrated: and
- the performance of strategic leadership is difficult due to the lack of joint organizational home base, central managerial body and financial resources.

To address these weaknesses, a steering group consisting of the PIs will be formed. It will be responsible for decisions concerning the RC as whole. It also will facilitate interaction within the RC thus integrating present and future research themes and approaches. On the longer run, the RC seeks to form a permanent institute led by a director and management group (see Section 8).

### 7 EXTERNAL COMPETITIVE FUNDING OF THE RC

- Listing of the RCs external competitive funding, where:
  - the funding decisions have been made during 1.1.2005-31.12.2010, and
  - the administrator of the funding is/has been the University of Helsinki
- Academy of Finland (AF) total amount of funding (in euros) AF has decided to allocate to the RC members during 1.1.2005-31.12.2010: 4640000
- Finnish Funding Agency for Technology and Innovation (TEKES) total amount of funding (in euros)
   TEKES has decided to allocate to the RC members during 1.1.2005-31.12.2010: 2100000
- European Union (EU) total amount of funding (in euros) EU has decided to allocate to the RC members during 1.1.2005-31.12.2010: 250000
- European Research Council (ERC) total amount of funding (in euros) ERC has decided to allocate to the RC members during 1.1.2005-31.12.2010: 0
- International and national foundations names of international and national foundations which have decided to allocate funding to the RC members during 1.1.2005-31.12.2010, and the amount of their funding (in euros).
  - names of the foundations: Koneen säätiö € 68600
  - Emil Aaltosen säätiö € 209600
  - Maj ja Tor Nesslingin säätiö € 111000
  - Suomen kulttuurirahasto € 104000
  - Fortumin säätiö € 16000
  - Konkordia-liitto € 2500
  - Kansan sivistysrahasto € 5000
  - total amount of funding (in euros) from the above-mentioned foundations: 520000
- Other international funding names of other international funding organizations which have decided to allocate funding to the RC members during 1.1.2005-31.12.2010, and the amount of their funding (in euros).
  - names of the funding organizations: Nordic Council of Ministers (Nordregio) € 211000
  - Nordic Research Council € 15000
  - University of Lausanne and Research Council of Switzerland € 6000



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- total amount of funding (in euros) from the above-mentioned funding organizations: 230000
- Other national funding (incl. EVO funding and Ministry of Education and Culture funded doctoral programme positions) names of other national funding organizations which have decided to allocate funding to the RC members during 1.1.2005-31.12.2010, and the amount of their funding (in euros).
  - names of the funding organizations: Ministry of Education and Culture € 504000
  - The Finnish Work Environment Fund € 150000
  - The Finnish Post-Graduate School in Science, Technology and Innovation Studies (Titeko) € 110000
  - The Finnish Doctoral Program in Social Sciences (Sovako) € 86000
  - total amount of funding (in euros) from the above-mentioned funding organizations: 850000

#### 8 RC's strategic action plan for 2011–2013 (Max. 4400 characters with spaces)

• Description of the RC's future perspectives in respect to research and doctoral training.

The main goal of the RC is to to strengthen research and post-graduate education in the field of science and technology studies (STS) and to become Finland's focal point for internationally recognized STS activities. The RC aims at doing high-level scientific research on science-society interaction, including research on basic mechanisms of science, technology and innovation processes as well as their societal conditions and impacts. To achieve this, the members of the RC will fortify pooling together their complementary knowledge and expertise as well as further expand their international collaborative relationships.

In addition to doctoral training given at University of Helsinki's (UH) different departments, the RC members will continue their active participation in the Finnish Post-Graduate School in Science, Technology and Innovation Studies (Titeko). Because Titeko has just reformed its structure, collaborative relationships and action plan for the years 2010-13, there is no need to address them in the near future. In addition to the existing plans of Titeko to strengthen its international educational activities, the RC members will work towards integrating the Finnish STS community into the European Forum for Studies of Policies for Research and Innovation (Eu-SPRI Forum), which is a joint effort of 13 European research organizations operating in the field of science, technology and innovation policy. Eu-SPRI Forum is in the process of broadening its activities to cover South and South-East Asian countries too, an area where one of the members of the RC already has been active in.

The achievements of the RC members during the past five years lay a solid foundation for its future activities. Key challenge for the RC's future is, however, the organizational consolidation and institutionalization. Currently, the organizational structures related to STS at UH are temporary only. This creates uncertainty and directs energy from research and teaching to organizational manoeuvring. The strategic goal of the RC is thus to secure its operational conditions by creating a strong home base in the form of an indipendent research institute.

To achieve this, the RC will act together with scholars coming from Aalto University (AU) to form a strong research institute in the Helsinki metropolitan area. In this endeavour, the current temporary organizations, the Helsinki Institute of Science and Technology Studies (HIST) and the Finnish Post-Graduate School in Science, Technology and Innovation Studies (Titeko) will serve as useful platforms. The organizational model of the new institute will be the Helsinki Institute for Information Technology (HIIT). The mission of HIIT is to carry out international level research and to provide undergraduate and doctoral education based on the Institute's collaborative research activities. The forthcoming unit will be



### **RC-SPECIFIC STAGE 2 MATERIAL**

directed, developed and supervised by a director and a board, supported by an international scientific advisory committee. If a joint research institute between UH and AU will appear to be unrealistic, the RC will work towards forming a research institute of its own at UH only.

The above mentioned goal was supported by the International Scientific Advisory Board of HIST in 2008. The board stated in its recommendation: "Being composed of nine committed, top-level research groups from the three prominent capital area universities [...] HIST is producing work that is of both international quality and societal relevance. This progress is evidenced, for instance, by the many publications of the HIST-affiliated scholars in leading international journals as well as by the several national and international rewards, positions of responsibility and assignments granted to them. To ensure that these contributions continue in the future, it is the strong belief of the Strategic Advisory Board of HIST that the Institute's organizational structure, legal status, human resources and scientific activities ought to be consolidated by the participating universities beyond 2009."

9 SHORT DESCRIPTION OF HOW THE RC MEMBERS HAVE CONTRIBUTED TO THE COMPILATION OF THE STAGE 2 MATERIALS (MAX. 1100 CHARACTERS WITH SPACES).

This document was written by HIST's research co-ordinator, Dr Juha Tuunainen, and Professor of Science and Technology Studies, Ilpo Helén, on the basis of the materials produced and supplied by the members of the RC. The contents of the document were initially discussed by the RC's PIs in a joint meeting organised before drafting the first version of the text. The final document was subjected to review by all of the members of the RC before submitting it to the evaluation panel.



# RC-SPECIFIC TUHAT COMPILATIONS OF PUBLICATIONS DATA 2005-2010

#### STS/Helen

## 1 Analysis of publications

- Associated person is one of Ilpo Antero Helen, Reijo Miettinen, Reijo Miettinen, Uskali Mäki, Janne Ilmari Hukkinen, Ilkka Arminen, Anna-Maria Tapaninen, Tuunainen, Manna Meskus, Karoliinia Snell, Antti Pelkonen, Antti Silvast, Jyri Liukko, Tuula Teräväinen, Stephanie Freeman, Valtari, Ratri Ilona Huutoniemi, Paula Saikkonen, Stephanie Freeman,

#### Publication year

Publication type	2005	2006	2007	2008	2009	2010	Total Count 2005 - 2010
A1 Refereed journal article	12	21	8	11	18	14	84
A2 Review in scientific journal			1	1		2	4
A3 Contribution to book/other compilations (refereed)	6	6	3	9	13	4	41
A4 Article in conference publication (refereed)		1		1	2		4
B1 Unrefereed journal article	4	2	4	5	4	2	21
B2 Contribution to book/other compilations (non-refereed)	1	2		1	2	3	9
C1 Published scientific monograph	2	5	1	4	3	3	18
C2 Edited book, compilation, conference proceeding or special issue of journal					1	1	2
D1 Article in professional journal			1	2	1	1	5
D4 Published development or research report	1	1	2		1	2	7
E1 Popular article, newspaper article	2		4	3	2	2	13
E1 Popular contribution to book/other compilations				1			1
E2 Popular monograph	1	1					2



#### RC-SPECIFIC TUHAT COMPILATIONS OF PUBLICATIONS DATA 2005-2010

#### STS/Helen

### 2 Listing of publications

#### A1 Refereed journal article

#### 2005

Arminen, I 2005, 'Sequential order and sequence structure - the case of incommensurable studies on mobile phone calls', Discourse Studies, vol 7, no. 6, pp. 649-662.

Helen, I 2005, 'Genealogia kritiikkinä', Sosiologia, vol 42, no. 2, pp. 93-109.

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Lehtonen, T 2005, 'Muistaminen, muistuttaminen ja vastamuisti', Tiede & edistys, vol 30, no. 1, pp. 46-59.

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Miettinen, R, Virkkunen, J 2005, 'Epistemic objects, artefacts and organizational change', Organization, vol 12, no. 3, pp. 437-456.

Miettinen, R 2005, 'Object of activity and individual motivation', Mind, Culture, and Activity, vol 12, no. 1, pp. 52-69.

Pelkonen, A **2005**, 'State restructuring, urban competitiveness policies and technopole building in Finland: a critical view on the glocal state thesis', **European Planning Studies**, vol 13, no. 5, pp. 685-705.

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Lehtonen, T 2006, 'Kaupungin aineksia', Yhdyskuntasuunnittelu, vol 44, no. 2, pp. 6-23.

Lehtonen, T 2006, 'Tavaroiden kanssa: kulutustutkimus ja materiaalisuus', Sosiologia, vol 43, no. 4, pp. 306-318.

Lehtonen, T 2006, 'Simmelin filosofiakäsityksestä', Niin & näin: filosofinen aikakauslehti., vol 13, no. 4, pp. 47-51.

Meskus, M 2006, 'Geenitiedon lupaus ja yksilöllistyvä terveyspolitiikka', Tiede & edistys, vol 31, no. 2, pp. 119-135.

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### RC-SPECIFIC TUHAT COMPILATIONS OF PUBLICATIONS DATA 2005-2010

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Silvast, A **2007**, 'Epävarmuutta kohtaamassa: insinöörien ja maallikoiden näkemyksiä sähkökatkoista', **Tekniikan Waiheita**, vol 25, no. 1, pp. 13-21.

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Meskus, M 2009, 'Humanismista elämäkeskeisyyteen', Niin & näin: filosofinen aikakauslehti., vol 16, no. 3, pp. 37-39.

Miettinen, R, Samra-Fredericks, D, Yanow, D 2009, 'Re-turn to practice: an introductory essay', Organization Studies, vol 30, no. 12, pp. 1309-1327.

Mäki, U, Marchionni, C 2009, 'On the structure of explanatory unification: the case of geographical economics', Studies in History and Philosophy of Science, vol 40, no. 2, pp. 185-195.

Mäki, U 2009, 'Economics imperialism: concept and constrains', Philosophy of the Social Sciences, vol 39, no. 3, pp. 351-380.

Mäki, U 2009, 'MISSing the world: models as isolations and credible surrogate systems', Erkenntnis, vol 70, no. 1, pp. 29-43.

Tapaninen, A 2009, 'Sinne ja takaisin: lahiokenttatyosta kaupunkietnografiaan', Elore, vol 16, no. 2, pp. [1-17].

Tapaninen, A 2009, 'Moral landscapes in Southern Italy', If: journal of Italo-Finnish studies., vol 3, pp. 37-51.

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Tupasela, A, Sihvo, S, Snell, K, Jallinoja, P, Aro, AR, Hemminki, E 2009, 'Attitudes towards biomedical use of tissue sample collections, consent, and biobanks among Finns', Scandinavian Journal of Public Health, vol 37, no. 0 - OnlineFirst, pp. 1-7.

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Tupasela, A, Sihvo, S, Snell, K, Jallinoja, P, Aro, AR, Hemminki, E 2010, 'Attitudes towards the biomedical use of tissue sample collections, consent and biobanks among Finns', Scandinavian Journal of Public Health, vol 38, no. 7, pp. 46-54.

## A2 Review in scientific journal

#### 2007

Arminen, I 2007, 'Mobile communication society?', Acta Sociologica, vol 50, no. 4, pp. 431-437.

#### 2008

Helén, IA 2008, Terveyskansalaisuuden kohtalot: Huomioita uudesta terveyspolitiikasta ja huipputeknologisesta lääketieteestä', Sosiaalilääketieteellinen aikakauslehti, vol 15, no. 2, pp. 146-154.

#### 2010

Helén, IA 2010, 'Psykiatrian muodonmuutos ja depression nousu kansantaudiksi: historiallis-sosiologinen interventio', Sosiaalilääketieteellinen aikakauslehti, vol 17, no. 1, pp. 45-58.

Tapaninen, A 2010, 'Complications in Family Reunification', Suomen Antropologi, vol 35, no. 4, pp. 53-55.

#### A3 Contribution to book/other compilations (refereed)

#### 2005

Helén, I 2005, 'Risk management and ethics in high-tech antenatal care', in EBRBAAP (ed.), Genetic governance. health, risk and ethics in a biotech era., Routledge, London, pp. 47-63.

Hyysalo, S, Lehenkari, J 2005, 'Instrument-oriented history, ethnography and interventions in studying IS design', **Putting activity theory to work. contributions from developmental work research., International cultural-historical human sciences, vol. Bd. 13, Lehmanns Media, Berlin,** pp. 143-166.

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#### STS/Helen

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### RC-SPECIFIC TUHAT COMPILATIONS OF PUBLICATIONS DATA 2005-2010

#### STS/Heler

Mäki, U 2009, 'Realistic realism about unrealistic models', in H Kincaid, D Ross (eds), The Oxford handbook of philosophy of economics, Oxford University Press, Oxford, pp. 68-98.

Pelkonen, A, Teräväinen, T, Waltari, S 2009, 'Assessing policy coordination capacity: higher education, science, and technology policies in Finland', Education in Finland, National Institute of educational Resources and Research (NIOERAR), Taipei.

Silvast, A **2009**, 'Riskiyhteiskunta ja merkityksenanto: sähkönjakelun häiriöiden semioottista tarkastelua', in E Hannula, U Oksanen (eds), **Murtuvat merkit: semiotiikan teoreettisen ja soveltavan tutkimuksen näkökulmia, Palmenia-sarja, no. 53, Gaudeamus**, pp. 187-198.

#### 2010

Helen, IA 2010, 'Mobilities of medical care', in A Tupasela (ed.), Consumer Medicine, TemaNord, no. 530, Nordic Council of Ministers, Copenhagen, pp. 129-144.

Helen, IA **2010**, 'Hyvinvointi, vapaus ja elämän politiikka: Foucault'lainen hallinnan analytiikka', in JK&MP (ed.), **Hallintavalta. Sosiaalisen, politiikan ja talouden kysymyksiä, Gaudeamus, Helsinki**, pp. 27- 48.

Miettinen, R 2010, 'The curriculum, school governance and democracy', in J Kauko, R Rinne, H Kynkäänniemi (eds), Restructuring the truth of schooling. Essays on discursive practices in the sociology and politics of education: a Festschrift for Hannu Simola., Kasvatusalan tutkimuksia / Research in educational sciences, no. 48, Finnish Educational Research Association, Helsinki, pp. 278-245

Teräväinen, T 2010, 'Ecological Modernisation and the Politics of (Un)Sustainability in the Finnish Climate Policy Debate', in SW Simard, ME Austin (eds), Climate Change and Variability, Sciyo Publishing.

#### A4 Article in conference publication (refereed)

#### 2006

Hyysalo, S 2006, 'User knowledge - current challenges to human centred technology', in Proceedings of the Workshop on Human Centered Technology HCT06, [June 11-13, 2006, Pori, Finland], pp. 78-85.

#### 2008

Häyrinen-Alestalo, M 2008, 'Il riflessi di Bologna e di Lisbona nel contesto universitario finlandese', in IX Profilo de laureati italiani. La riforma allo specchio, pp. 403-408.

#### 2009

Miettinen, R 2009, 'From culture of control to culture of trust: curriculum, school governance and democracy', in **Proceedings of the IASK International Conference on Teaching and Learning 2009: [Porto, 7-9 December, 2009] / M. Munos & Camp; F. Ferreira (Fds.)** pp. 347-357

Reunanen, M, Silvast, A 2009, 'Demoscene Platforms: a Case Study on the Adoption of Home Computers', in History of Nordic Computing 2: Second IFIP WG 9.7 Conference, HiNC 2, Turku Finland August 2007 Revised Selected Papers, pp. 289-301 IFIP AICT, no. 303.

## **B1** Unrefereed journal article

#### 2005

Hyysalo, S 2005, '[Book review]', Science Studies: a Scandinavian journal published by the Finnish Society for Science Studies, vol 18, no. 1, pp. 86-88.

Häyrinen-Alestalo, M 2005, 'Editorial', Science Studies: a Scandinavian journal published by the Finnish Society for Science Studies, vol 18, no. 2, pp. 3-4.

Liukko, J 2005, 'Vakuutusyhteiskunnan armoilla', Tiede & edistys, vol 30 (2005), no. 1, pp. 62-65.

Tuunainen, J 2005, 'Selkeästi tieteentutkimuksesta', Tieteessä tapahtuu, vol 2005, no. 4, pp. 74-76.

#### 2006

Lehtonen, T 2006, 'Sosiologia ja ja ja ja: tuhat Deleuzea', Verkkolehti Megafoni.

Miettinen, R **2006**, 'Hajautettu luominen ja tiedon omistusoikeudet: tietoyhteiskunnan innovaatiopolitiikan perusteet', **Tieteessä tapahtuu**, vol 24, no. 4, pp. 5-14.

#### 2007

Arminen, I 2007, 'Comment', Contemporary Sociology, vol 36, pp. 607-607.



#### RC-SPECIFIC TUHAT COMPILATIONS OF PUBLICATIONS DATA 2005-2010

#### STS/Heler

Ehrenberg, A, Hautamäki, L **2007**, 'Itseksi tulemisen uupuminen: yhteiskunnallis-historiallinen näkökulma masennukseen', **Tiede & edistys**, vol 32, no. 2, pp. 89-102, 176.

Hyysalo, S, Johnson, M, Heiskanen, E 2007, 'Design-use relationships in sociotechnical change: guest editors' introduction', **Human Technology**, vol 3, no. 2, pp. 120-126.

Meskus, M 2007, 'Historiallista sosiologiaa naisten mielisairaudesta', Sosiologia, vol 44, no. 4, pp. 342-343.

#### 2008

Arminen, I 2008, 'Book review: Sequence organization in interaction: A primer in conversation analysis, vol 1', Discourse Studies, vol 10, no. 4, pp. 571-575.

Hyysalo, S 2008, 'Yhteisöllisyys aineksina ja kytköksinä', Tiede & edistys, vol 33, no. 3, pp. 238-242.

Lehtonen, T, Lonkila, M 2008, 'Laurent Thevenot ja yhteiselon oikeutukset', Sosiologia, vol 45, no. 4, pp. 342-346.

Mäki, U 2008, 'Realism from the 'lands of Kaleva': an interview with Uskali Mäki', **Erasmus journal for philosophy and economics**, vol 1, no. 1, pp. 124-146.

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#### 2009

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Meskus, M 2009, 'Hankala sosiaalinen konstruktionismi', Niin & näin: filosofinen aikakauslehti., vol 16, no. 4, pp. 116-117.

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Tournay, V, Tupasela, A 2009, 'Making a Diffuse Group Consistent and Substantial: Toward a Sociology of Social Texture', Science Studies: a Scandinavian journal published by the Finnish Society for Science Studies, vol 22, no. 2, pp. 2-6.

#### 2010

Häyrinen-Alestalo, M 2010, 'Tieteen puolustamisen sietämätön vaikeus', Tiede & edistys, vol 35, no. 2, pp. 159-165.

Silvast, A 2010, 'Kirja-arvostelu: Giampietro Gobo: Doing Ethnography', Sosiologia, vol 47, no. 4, pp. 312-313.

#### B2 Contribution to book/other compilations (non-refereed)

#### 2005

Häyrinen-Alestalo, M, Pelkonen, A, Teräväinen, T, Villanen, S 2005, 'Changing Governance for Innovation Policy Integration in Finland', Governance of Innovation Systems. Volume 2: Case Studies in Innovation Policy., OECD, Paris, pp. 111-138.

#### 2006

Hyysalo, SII 2006, 'Review of The problem of health technology – Policy implications for modern health care systems (P.Lehoux)', EASST Review, 2 edn, vol. 26.

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#### 2008

 $Helen, IA~\textbf{2008}, 'Seksuaalinen~arki',~\textbf{Suomalaisen~arjen~historia~4: Hyvinvoinnin~Suomi, Weilin~+~\textbf{G\"{o}\"{o}s}, pp.~232-249~i.}$ 

#### 2009

Tupasela, A 2009, 'Foreword', in K Prpic, L Oliveira, S Hemlin (eds), Women in science and technology, Institute for Social Research, Zagreb, pp. 9-10.

Waltari, S 2009, 'Kilpailua ja kumppanuutta: palvelutuotannon kehittäminen Helsingin kaupungissa', Markkinamekanismit julkisissa palveluissa, Tekesin katsauksia, no. 253, Tekes, pp. 12-15.

#### 2010

Helen, IA **2010**, 'Elämä seksuaalisuudessa: (Jälkisanat)', **Michel Foucault: Seksuaalisuuden historia I-III**, 2. uud. edn**, Gaudeamus**, pp. 499-517.

Saikkonen, P, Häikiö, L 2010, 'Tarvitsemme uusia utopioita hyvinvoinnin politiikkaan', in M Bardy, S Parrukoski (eds), Hyvinvointi ilmastonmuutoksen oloissa? . Keskustelunavauksia tulevaisuusvaliokunnalle., Terveyden ja hyvinvoinnin laitos, pp. 37-39.



### RC-SPECIFIC TUHAT COMPILATIONS OF PUBLICATIONS DATA 2005-2010

#### STS/Helen

Tupasela, A 2010, 'Introduction: Consumer medicine: From Passive Patients to Active Consumers', Consumer Medicine, vol. 2010, Nordiska ministerrådet, pp. 13-24.

#### C1 Published scientific monograph

#### 2005

Freeman, S 2005, Opening the Office: Motivation and Emerging Patterns of Participation in a Firm-Community 'Hybrid' Free and Open Source Software Project, Working papers, no. 33, University of Helsinki, Helsinki.

Liukko, J 2005, Hyvinvoinnin eetos ja henkivakuutus: riskin, vastuun ja solidaarisuuden muodonmuutokset, Sosiaali- ja terveysturvan tutkimuksia, no. 82, Kelan tutkimusosasto, Helsinki.

#### 2006

Ali-Yrkkö, J, Honkanen, P, Hyysalo, S, Uotinen, J **2006**, *Globalisaatio, innovaatio ja kansalaisuus: ProACTiivisia näkökulmia innovaatiopolitiikkaan*, [Kauppa- ja teollisuusministeriö], [Helsinki].

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Miettinen, R, Tuunainen, J, Knuuttila, T, Mattila, E 2006, Tieteestä tuotteeksi?: yliopistotutkimus muutosten ristipaineessa, Yliopistopaino, [Helsinki].

Miettinen, R, Toikka, K, Tuunainen, J, Lehenkari, J, Freeman, S 2006, Sosiaalinen pääoma ja luottamus innovaatioverkoissa, Tutkimusraportteja / Helsingin yliopisto, kasvatustieteen laitos, toiminnan teorian ja kehittävän työntutkimuksen yksikkö, no. 9, Helsingin Yliopisto, Helsinki.

#### 2007

Sihvo, S, Snell, K, Tupasela, A, Jallinoja, P, Aro, AA, Hämäläinen, E, Hemminki, E 2007, Väestö, biopankit ja lääketieteellinen tutkimus: suomalaisten suhtautuminen lääketieteellisten näytteiden käyttöön, Työpapereita / Stakes, no. 18/2007, Stakes, Helsinki.

#### 2008

Haarni, I, Hautamäki, L 2008, Ikääntyvät juomatavat: elämänkokemus ja muuttuva suhde alkoholiin, Gaudeamus, Helsinki.

Hukkinen, J 2008, Sustainability networks: cognitive tools for expert collaboration in social-ecological systems, Routledge studies in ecological economics, no. 1, Routledge, New York, N.Y.

Lehtonen, T 2008, Aineellinen yhteisö, Episteme, Tutkijaliitto, Helsinki.

Miettinen, R, Toikka, K, Tuunainen, J, Freeman, S, Lehenkari, J, Leminen, J, Siltala, J **2008**, *Informaatiotekninen kumous, innovaatiopolitiikka ja luottamus*, **Tekesin katsaus, no. 234, Tekes, Helsinki**.

#### 2009

Hukkinen, JI, Hansen, KG, Langlais, R, Rasmussen, RO, Jeppson, S, Levänen, J, Lund Sørensen, F, Schmitt, P, Lange, S 2009, Knowledge-based tools for sustainable governance of energy and climate adaptation in the Nordic periphery (K-Base), Nordic Research Programme 2005-2008 Report, no. 7, Nordregio, Stockholm.

Hyysalo, SII 2009, Käyttäjä tuotekehityksessä—Tieto, tutkimus, menetelmät, Taideteollinen korkeakoulu, Helsinki.

Miettinen, R 2009, Dialogue and creativity: activity theory in the study of science, technology and innovations, International cultural-historical human sciences, no. Bd. 29, Lehmanns Media, Berlin.

#### 2010

Hyysalo, S 2010, Health Technology Development and Use: From Practice Bound Imagination to Evolving Impacts, Routledge.

Miettinen, R 2010, The Finnish National Innovation System: From technology to human capabilities [in Japanese], Shinhyoron Inc., Tokyo.

Pelkonen, A, Teräväinen, T, Häyrinen-Alestalo, M, Waltari, S, Tuominen, T 2010, Tiedepolitiikan kansainvälisiä kehitystrendejä 2000-luvulla, Opetus- ja kulttuuriministeriön julkaisuja, no. 14, vol. 2010.



### RC-SPECIFIC TUHAT COMPILATIONS OF PUBLICATIONS DATA 2005-2010

#### STS/Helen

### C2 Edited book, compilation, conference proceeding or special issue of journal

#### 2000

Mäki, U (ed.) 2009, The methodology of positive economics: reflections on the Milton Friedman legacy, Cambridge University Press, Cambridge.

#### 2010

Tupasela, A (ed.) 2010, Consumer Medicine, TemaNord, no. 530, vol. 2010, vol. 2010, 1 edn, Nordisk Ministerråd, Copenhagen.

#### D1 Article in professional journal

#### 2007

Tupasela, A, Snell, K, Sihvo, S, Jallinoja, P, Aro, AR, Hemminki, E **2007**, Väestön suhtautuminen lääketieteellisten näytekokoelmien uudelleen käyttöön ja biopankkeihin', **Suomen lääkärilehti**, vol 62, no. 51-52, pp. 4780-4782.

#### 2008

Hukkinen, JI 2008, Which way scientific publishing?', ESEE newsletter.

Jallinoja, P, Sihvo, S, Hemminki, E, Tupasela, A, Snell, K, Aro, AR 2008, 'Luottavatko suomalaiset terveydenhuollon toimijoihin?', Kansanterveys: Kansanterveyslaitoksen tiedotuslehti., no. 8, pp. 26-27.

#### 2009

Hukkinen, J 2009, 'Nuclear heaven: part 2', European Society for Ecological Economics Newsletter.

#### 2010

Meskus, M 2010, 'Yhteiskunta ja humisevat hormit', Yhteiskuntablogiikka.

### **D4 Published development or research report**

#### 2005

Tapaninen, A 2005, Tohtoriksi valtiotieteellisessä tiedekunnassa, Helsingin yliopiston valtiotieteellinen tiedekunta

#### 2006

Tapaninen, A 2006, Learning, Living, Wondering: International Degree Students in the Faculty of Social Sciences,.

#### 2007

Siltala, JK, Freeman, S, Miettinen, R 2007, Exploring the tensions between volunteers and firms in hybrid projects, Working papers, no. 36, Center for Activity Theory and Developmental Work Research, University of Helsinki, Helsinki.

Virkkunen, J., Engeström, Y., Miettinen, R. 2007, Sosiaalihuollon kehittämistoiminnan tulevaisuus: projekteista konseptikehittämiseen, Sosiaali- ja terveysministeriön selvityksiä, no. 2007:49, Sosiaali- ja terveysministeriö, Helsinki.

#### 2009

Alanko, A, Hautamäki, L, Vehko, T, Keskimäki, I **2009**. Miten ehkäistä laman hyvinvointia rapauttavat vaikutukset: Mitä opittiin 1990-luvun lamasta? -seminaarin raportti (Tieteiden talo 25.5.2009),.

#### 2010

Lemola, T, Hukkinen, JI, Kuisma, M, Viljamaa, K, Lahtinen, H 2010, Ympäristöklusterin tutkimusohjelman loppuarviointi, Ministry of the Environment Report, no. 8/2010, Ministry of the Environment.

Tuominen, T, Arminen, I, Vartiainen, H **2010**, Ehdotus yliopistojen rahoitusmallin uudistamiseksi vuodesta 2013 alkaen, **Opetusministeri**ö.

### E1 Popular article, newspaper article

#### 2005

Lehtonen, T, Mäenpää, P 2005, 'Raha mittaa suurkaupunkilaisten suhteet', Helsingin Sanomat.



### RC-SPECIFIC TUHAT COMPILATIONS OF PUBLICATIONS DATA 2005-2010

#### STS/Heler

Pelkonen, A 2005, 'Innovaatiopolitiikalle laajempi pohja', Helsingin Sanomat.

### 2007

Häyrinen-Alestalo, M 2007, 'Public debate in the Nordic countries: globalization and research', NordForsk magasin., no. 1, pp. 11-13.

Lehtonen, T **2007**, 'Kulttuuri kuuluu luontoon, väistämättä', **Helsingin Sanomat**.

Meskus, M **2007**, 'Toteutuuko sikiöseulonnoissa valinnan vapaus?', **Helsingin Sanomat**.

Snell, K, Tupasela, A 2007, Tutkimus kansalaisten ja potilaiden näkemyksistä biolääketieteeseen', Suomen potilaslehti, no. 3, pp. 14-

#### 2008

Lehtonen, T 2008, 'Uusi suhde tavaraan', Helsingin Sanomat.

Meskus, M 2008, 'Ihmisistä ja teknologioista terveyssosiologiassa', Laadullisen terveystutkuksen verkosto.

Pelkonen, A 2008, 'Suomi siirtymässä hyvinvointivaltiosta kohti kilpailuvaltiota', Kuntapuntari, no. 2, pp. 3-6.

#### 2009

Hukkinen, J 2009, 'Kohti uusia ydinvoimakiistoja', Helsingin Sanomat.

Niiranen, V, Liukko, J 2009, 'Tukea vain elinikäiseen eläketurvaan', Helsingin Sanomat.

#### 2010

Hukkinen, JI 2010, 'Tutkijoiden sananvapaudelle pitäisi luoda pelisäännöt', Helsingin Sanomat, vol 2010, pp. C5.

Hukkinen, JI 2010, 'Taloutta ei pidä kasvattaa vaan supistaa', Helsingin Sanomat, pp. A2.

### E1 Popular contribution to book/other compilations

#### 2008

Pelkonen, A 2008, 'Euroviisu-Helsinki kansainvälisessä mediassa', Täydet pisteet = Twelve points . Eurovision laulukilpailut Helsingissä 2007 = Eurovision song contest in Helsinki 2007., Helsingin kaupungin tietokeskus, Helsinki, pp. 109-116.

## E2 Popular monograph

# 2005

Lehtonen, T, Kaupunkitutkimuksen koordinaatioryhmä 2005, Muuttuva kaupunki: Helsingin metropolialueen tutkimusohjelma kaudelle 2005-2008, Helsingin Yliopisto, [Helsinki].

#### 2006

Tapaninen, A 2006, Sosiaali- ja kulttuuriantropologian johdantokurssi,.



## RC-SPECIFIC TUHAT COMPILATIONS OF OTHER SCIENTIFIC ACTIVITIES 2005-2010

## STS/Helen

### 1 Analysis of activities 2005-2010

Activity type Supervisor or co-supervisor of doctoral thesis 37 Prizes and awards 3 Editor of research journal 86 Peer review of manuscripts 15 Editor of special theme number 6 Membership or other role in research network Membership or other role in national/international committee, council, board 93 Membership or other role in public Finnish or international organization 13 Membership or other role of body in private company/organisation 12 22 Participation in interview for written media Participation in radio programme Participation in TV programme Participation in interview for web based media 1



### RC-SPECIFIC TUHAT COMPILATIONS OF OTHER SCIENTIFIC ACTIVITIES 2005-2010

### STS/Helen

### 2 Listing of activities 2005-2010

#### Supervisor or co-supervisor of doctoral thesis

#### Ilpo Antero Helen,

Väitöskirjatutkimuksen ohjaaja, Ilpo Antero Helen, 15.02.1999 → 10.09.2007

Väitöskirjatutkimuksen ohjaaja, Ilpo Antero Helen, 15.03.2002 → 10.02.2009

Väitöskirjatutkimuksen ohjaaja, Ilpo Antero Helen, 10.04.2003 → 31.05.2009

Supervision of doctoral thesis, Ilpo Antero Helen, 01.03.2007 → 31.12.2007, Finland

#### Marja Häyrinen-Alestalo,

Co-supervisor of the students of the Finnish Doctoral School of Science and Technology Studies, Marja Häyrinen-Alestalo,  $2004 \rightarrow 2009$ , Finland

Supervisor of Doctoral Thesis (Aaro Tupasela), Marja Häyrinen-Alestalo, 2004 → 2008, Finland

Supervisor of Doctoral Thesis (Pirjo Kutinlahti), Marja Häyrinen-Alestalo, 2004 ightarrow 2006, Finland

Supervisor of Doctoral Thesis (Antti Pelkonen), Marja Häyrinen-Alestalo, 2006 ightarrow 2008, Finland

Supervisor of Doctoral Thesis (Karoliina Snell), Marja Häyrinen-Alestalo, 2006 ightarrow 2009, Finland

 $\hbox{Co-Supervisor of Doctoral Thesis (Arja Haapakorpi), Marja H\"{a}yrinen-Alestalo, 2008 \rightarrow 2009, Finland and Finland (Arja Haapakorpi), Marja H\ddot{a}yrinen-Alestalo, 2008 \rightarrow 2009, Finland (Arja Haapakorpi), Marja Haapakorpi), Marja$ 

#### Uskali Mäki .

Supervising Clemens Hirsch's PhD Thesis, Uskali Mäki, 2010

Supervising Ekaterina Svetlova's PhD Thesis, Uskali Mäki, 2010

Supervising Luis Mireles Flores' PhD Thesis, Uskali Mäki, 2010

### Janne Ilmari Hukkinen ,

Doctoral dissertation co-supervisor, Janne Ilmari Hukkinen, 01.09.1999 ightarrow 05.02.2010, Finland

Doctoral dissertation co-supervisor, Janne Ilmari Hukkinen, 01.09.2000  $\rightarrow ...,$  Finland

Doctoral dissertation co-supervisor, Janne Ilmari Hukkinen, 01.09.2001  $\rightarrow ...$ , Finland

Doctoral dissertation co-supervisor, Janne Ilmari Hukkinen, 01.08.2008 ightarrow 18.03.2011, Finland

Doctoral dissertation co-supervisor, Janne Ilmari Hukkinen, 01.08.2008  $\rightarrow ...,$  Finland

Doctoral dissertation co-supervisor, Janne Ilmari Hukkinen, 01.08.2008  $\rightarrow ...,$  Finland

Doctoral dissertation supervisor, Janne Ilmari Hukkinen, 01.08.2008  $\rightarrow ...$ , Finland

Doctoral dissertation supervisor, Janne Ilmari Hukkinen, 01.08.2008  $\rightarrow ...$ , Finland

Doctoral dissertation supervisor, Janne Ilmari Hukkinen, 01.08.2008  $\rightarrow ...,$  Finland

Doctoral dissertation supervisor, Janne Ilmari Hukkinen, 01.08.2008  $\rightarrow ...$ , Finland

Supervision of doctoral thesis, Janne Ilmari Hukkinen, 01.01.2008  $\rightarrow$  31.12.2008, Finland

Supervision of doctoral thesis, Janne Ilmari Hukkinen, 01.01.2008 → 31.12.2008, Finland

Supervision of doctoral thesis, Janne Ilmari Hukkinen, 01.01.2008  $\rightarrow$  31.12.2008, Finland

Supervision of doctoral thesis, Janne Ilmari Hukkinen, 01.01.2008 ightarrow 31.12.2008, Finland

Supervision of doctoral thesis, Janne Ilmari Hukkinen, 01.01.2008  $\rightarrow$  31.12.2008, Finland

Supervision of doctoral thesis, Janne Ilmari Hukkinen, 01.01.2008 ightarrow 31.12.2008, Finland

Supervision of doctoral thesis, Janne Ilmari Hukkinen, 01.01.2008  $\rightarrow$  31.12.2008, Finland Supervision of doctoral thesis, Janne Ilmari Hukkinen, 01.01.2008  $\rightarrow$  31.12.2008, Finland

Supervision of doctoral thesis, Janne Ilmari Hukkinen, 01.01.2008  $\rightarrow$  31.12.2008, Finland

Supervision of doctoral thesis, Janne Ilmari Hukkinen, 01.01.2008 ightarrow 31.12.2008, Finland



### RC-SPECIFIC TUHAT COMPILATIONS OF OTHER SCIENTIFIC ACTIVITIES 2005-2010

#### STS/Helen

#### Anna-Maria Tapaninen,

Supervision of doctoral thesis, Anna-Maria Tapaninen, 01.01.2006 → 31.12.2006, Finland

#### Juha Tuunainen,

Väitöskirjatyön ohjaus, Juha Tuunainen, 01.01.2010 ightarrow 31.12.2010, Finland

Väitöskirjatyön ohjaus, Juha Tuunainen, 01.01.2010 ightarrow 31.12.2010, Finland

Väitöskirjatyön ohjaus, Juha Tuunainen,  $29.07.2010 \rightarrow 31.12.2010$ 

#### Prizes and awards

#### Sampsa Ilja Ilari Hyysalo,

Suomen Akatemia, tunnustuspalkinto yhteiskunnallisesta vaikuttavuudesta, Sampsa Ilja Ilari Hyysalo, 14.10.2010, Finland

#### Antti Silvast

Helsingin yliopiston tiedesäätiön apuraha lahjakkaalle nuorelle tutkijalle, Antti Silvast, 2007 → ...

Koneen säätiön apuraha, Antti Silvast, 2007  $\rightarrow \dots$ 

### Editor of research journal

#### Ilpo Antero Helen .

Science, Technology & Driver, Human Values, Ilpo Antero Helen, 01.01.2005 ightarrow 31.12.2005, United States

Social Science & Dicentification (Medicine, Ilpo Antero Helen, 01.01.2005 → 31.12.2005, United Kingdom

Sosiaalilääketieteellinen aikakauslehti, Ilpo Antero Helen, 01.01.2005 ightarrow 31.12.2005, Finland

tiede & Distriction amp; edistys, Ilpo Antero Helen, 01.01.2005  $\rightarrow$  31.12.2005, Finland

Distinktion – The Scandinavian journal of social theory, Ilpo Antero Helen, 01.01.2006 ightarrow 31.12.2006, Denmark

Science, Technology & Discourse, Human Values, Ilpo Antero Helen, 01.01.2006 ightarrow 31.12.2006, United States

Sosiaalilääketieteellinen aikakauslehti, Ilpo Antero Helen, 01.01.2006 ightarrow 31.12.2006, Finland

Vest Journal for science and technology studies, Ilpo Antero Helen,  $01.01.2006 \rightarrow 31.12.2006$ 

tiede & edistys, Ilpo Antero Helen, 01.01.2006 ightarrow 31.12.2006, Finland

Psykologia, Ilpo Antero Helen, 01.01.2007 → 31.12.2007, Finland

Social Science & Discourse Science (Science) Medicine, Ilpo Antero Helen, 01.01.2007 ightarrow 31.12.2007, United Kingdom

Sociology of Health and Illness, Ilpo Antero Helen, 01.01.2007 → 31.12.2007, United Kingdom

tiede & edistys, Ilpo Antero Helen, 01.01.2007 ightarrow 31.12.2007, Finland

### Marja Häyrinen-Alestalo,

Science Studies. An Interdisciplinary Journal for Science and Ttechnology Studies, Marja Häyrinen-Alestalo,  $01.01.2005 \rightarrow 31.12.2010$ , Finland

#### Reijo Miettinen .

Mind, Culture and Activity, Reijo Miettinen, 01.01.2005  $\rightarrow$  31.12.2005

Mind, Culture and Activity, Reijo Miettinen, 01.01.2005 → 31.12.2005

Research Policy, Reijo Miettinen, 01.01.2005  $\rightarrow$  31.12.2005

Science and Technology Studies, Reijo Miettinen, 01.01.2005 → 31.12.2005

Aikuiskasvatuslehti, Reijo Miettinen, 01.01.2006 ightarrow 31.12.2006, Finland

Mind, Culture and Activity, Reijo Miettinen, 01.01.2006  $\rightarrow$  31.12.2006

Outlines, Reijo Miettinen, 01.01.2006  $\rightarrow$  31.12.2006

Research Policy, Reijo Miettinen, 01.01.2006  $\rightarrow$  31.12.2006

Science studies, Reijo Miettinen, 01.01.2006  $\rightarrow$  31.12.2006

Cognitive Systems Research, Reijo Miettinen, 01.01.2007  $\rightarrow$  31.12.2007



### RC-SPECIFIC TUHAT COMPILATIONS OF OTHER SCIENTIFIC ACTIVITIES 2005-2010

#### STS/Heler

Organization Studies - Special issue on the concept of practice, Reijo Miettinen, 01.01.2007  $\rightarrow$  31.12.2007

Science Studies, Reijo Miettinen, 01.01.2007 → 31.12.2007

Science, Technology, & D. Human Values, Reijo Miettinen, 01.01.2007 → 31.12.2007

Science Studies, Reijo Miettinen, 01.01.2008 → 31.12.2008

Science, Technology, & Dy Human Values, Reijo Miettinen, 01.01.2008 ightarrow 31.12.2008

Science as Culture, Reijo Miettinen, 01.09.2009 ightarrow 30.09.2009, United Kingdom

#### Uskali Mäki

Economics and Philosophy, Uskali Mäki, 1994  $\rightarrow \dots$ 

Energeia. International Journal of Philosophy and Epistemology of Economics, Uskali Mäki, 2001  $\rightarrow \dots$ 

Journal of Economic Methodology, Uskali Mäki, 2005  $\rightarrow \dots$ 

British Journal for the Philosophy of Science, Uskali Mäki,  $01.01.2007 \rightarrow 31.12.2007$ 

Economics and Philosophy, Uskali Mäki,  $01.01.2007 \rightarrow 31.12.2007$ 

Economics and Philosophy, Uskali Mäki, 01.01.2007  $\rightarrow$  31.12.2007

Episteme. A Journal in Social Epistemology (Honorary Founding Editor), Uskali Mäki, 01.01.2007 → 31.12.2007

Episteme. A Journal of Social Epistemology, Uskali Mäki, 01.01.2007 ightarrow 31.12.2007

International Journal of Philosophy and Epistemology of Economics, Uskali Mäki, 01.01.2007 → 31.12.2007

Journal of Economic Behavior and Organization, Uskali Mäki, 01.01.2007 ightarrow 31.12.2007

Journal of Economic Methodology, Uskali Mäki, 01.01.2007 ightarrow 31.12.2007

Journal of Institutional Economics, Uskali Mäki, 01.01.2007 → 31.12.2007

Metroeconomica, Uskali Mäki, 01.01.2007  $\rightarrow$  31.12.2007

British Journal for the Philosophy of Science, Uskali Mäki,  $01.01.2008 \rightarrow 31.12.2008$ 

Cambridge Journal of Economics, Uskali Mäki, 01.01.2008 ightarrow 31.12.2008

Economica, Uskali Mäki, 01.01.2008 → 31.12.2008

Economics and Philosophy, Uskali Mäki, 01.01.2008 ightarrow 31.12.2008

Economics and Philosophy, Uskali Mäki, 01.01.2008  $\rightarrow$  31.12.2008

Erasnus Journal for the Philosophy of Science, Uskali Mäki, 01.01.2008  $\rightarrow$  31.12.2008

Erkenntnis, Uskali Mäki, 01.01.2008  $\rightarrow$  31.12.2008

International Journal of Philosophy and Epistemology of Economics, Uskali Mäki, 01.01.2008 ightarrow 31.12.2008

Jornal des Economistes et des Humaines, Uskali Mäki, 01.01.2008 ightarrow 31.12.2008

Journal Of Institutional Economics, Uskali Mäki, 01.01.2008 ightarrow 31.12.2008

Journal of Economic Methodology, Uskali Mäki, 01.01.2008 ightarrow 31.12.2008

European Journal for Philosophy of Science, Uskali Mäki, 2009  $\rightarrow \dots$ 

#### Janne Ilmari Hukkinen,

International Journal of Learning and Change, Janne Ilmari Hukkinen, 01.01.2003 ightarrow 31.12.2010

Journal of Integrative Environmental Sciences, Janne Ilmari Hukkinen, 01.01.2003  $\rightarrow$  31.12.2010

Biodiversity and Conservation (Springer), Janne Ilmari Hukkinen, 01.01.2008  $\rightarrow$  31.12.2008, Germany

Biodiversity and Conservation (Springer), Janne Ilmari Hukkinen, 01.01.2008 → 31.12.2008, Germany

Environmental Sciences Journal of Integrative Environmental Research (Taylor & Damp; Francis, Janne Ilmari Hukkinen, 01.01.2008 → 31.12.2008, United Kingdom

Environmental Sciences Journal of Integrative Environmental Research (Taylor & Damp; Francis), Janne Ilmari Hukkinen, 01.01.2008  $\rightarrow$  31.12.2008, United Kingdom

 $Human\ Organization\ (Society\ for\ Applied\ Anthropology),\ Janne\ Ilmari\ Hukkinen,\ 01.01.2008 \rightarrow 31.12.2008,\ United\ States$ 



### RC-SPECIFIC TUHAT COMPILATIONS OF OTHER SCIENTIFIC ACTIVITIES 2005-2010

#### STS/Helen

Human Organization (Society for Applied Anthropology), Janne Ilmari Hukkinen,  $01.01.2008 \rightarrow 31.12.2008$ , United States International Journal of Learning and Change (Inderscience), Janne Ilmari Hukkinen,  $01.01.2008 \rightarrow 31.12.2008$ , United Kingdom International Journal of Learning and Change (Inderscience), Janne Ilmari Hukkinen,  $01.01.2008 \rightarrow 31.12.2008$ , United Kingdom Routledge, London, textbook proposal in ecological economics, Janne Ilmari Hukkinen,  $01.01.2008 \rightarrow 31.12.2008$ , United Kingdom Routledge, London, textbook proposal in ecological economics, Janne Ilmari Hukkinen,  $01.01.2008 \rightarrow 31.12.2008$ , United Kingdom

#### Sampsa Ilja Ilari Hyysalo,

Guest Editor, Human Technology, Sampsa Ilja Ilari Hyysalo, 2006 ightarrow 2007

Reviewer for the following journals and presses, Sampsa Ilja Ilari Hyysalo, 01.01.2006  $\rightarrow$  31.12.2010

Chief Editor , Science Studies, an international journal for science and technology studies, Sampsa Ilja Ilari Hyysalo,  $01.01.2007 \rightarrow 31.12.2010$ 

#### Juha Tuunainen,

Hänninen, H. & Diviainen, H. (toim.) (2006) Oppiminen ja työ: Rajojen ylittäminen työelämässä. PS-Kustannus, Helsinki., Juha Tuunainen,  $01.01.2005 \rightarrow 31.12.2005$ , Finland

Science Studies, Juha Tuunainen, 01.01.2005 ightarrow 31.12.2005, Finland

Science Studies - An Interdisciplinary Journal for Science and Technology Studies, Juha Tuunainen, 01.01.2005 ightarrow 31.12.2010

Science Studies an Interdiciplinary Journal for Science and Technology Studies, Juha Tuunainen, 01.01.2006 → 31.12.2006

Science, Technology, & Dunary Human Values, Juha Tuunainen, 01.01.2006 → 31.12.2006, United States

Scandinavian Journal of Management, Juha Tuunainen, 01.01.2007 ightarrow 31.12.2007

Science Studies an Interdiciplinary Journal for Science and Technology Studies, Juha Tuunainen, 01.01.2007 → 31.12.2007, Finland Science Studies an Interdiciplinary Journal for Science and Technology Studies, Juha Tuunainen, 01.01.2007 → 31.12.2007, Finland Tiedepolitiikka, Juha Tuunainen, 01.01.2010 → 31.12.2010, Finland

#### Aaro Tupasela,

Science Studies, Aaro Tupasela, 2000 ightarrow 2006

Critical Public Health, Aaro Tupasela, 01.01.2005 ightarrow 31.12.2005, United Kingdom

Science Studies - an Interdisciplinary Journal for Science and Technology Studies, Aaro Tupasela,  $01.01.2005 \rightarrow 31.12.2005$ , Finland Science Studies, Aaro Tupasela,  $2006 \rightarrow ...$ 

### Antti Pelkonen ,

Politiikka, Antti Pelkonen, 01.01.2005 → 31.12.2005, Finland

Regional Studies, Antti Pelkonen, 01.01.2005 → 31.12.2005, United Kingdom

#### Stephanie Freeman,

Assistant Editor / Toimitussihteeri, Stephanie Freeman, 05.2009 → ...

#### Peer review of manuscripts

#### Janne Ilmari Hukkinen ,

Ecological Economics, Janne Ilmari Hukkinen,  $01.01.2010 \rightarrow 30.01.2010$ 

Ecological Economics, Janne Ilmari Hukkinen,  $01.04.2010 \rightarrow 30.04.2010$ 

Ecological Economics, Janne Ilmari Hukkinen, 01.07.2010 ightarrow 30.07.2010

Ecological Economics, Janne Ilmari Hukkinen, 01.08.2010 ightarrow 30.08.2010

Ecological Economics, Janne Ilmari Hukkinen, 01.10.2010 ightarrow 30.10.2010

Ecological Economics, Janne Ilmari Hukkinen, 01.12.2010 ightarrow 30.12.2010 Energy Policy, Janne Ilmari Hukkinen, 01.10.2010 ightarrow 30.10.2010

Environmental Policy and Governance, Janne Ilmari Hukkinen, 01.11.2010 ightarrow 30.11.2010

Global Environmental Change, Janne Ilmari Hukkinen, 01.05.2010 → 30.05.2010



### RC-SPECIFIC TUHAT COMPILATIONS OF OTHER SCIENTIFIC ACTIVITIES 2005-2010

#### STS/Helen

Global Environmental Change, Janne Ilmari Hukkinen, 01.11.2010 → 30.11.2010

Journal of Cleaner Production, Janne Ilmari Hukkinen,  $01.07.2010 \rightarrow 30.07.2010$ 

Journal of Cleaner Production, Janne Ilmari Hukkinen, 01.10.2010 ightarrow 30.10.2010

Journal of Planning Education and Research, Janne Ilmari Hukkinen, 01.04.2010 → 30.04.2010

#### Juha Tuunainen,

Prometheus - Critical Studies in Innovation, Juha Tuunainen, 10.05.2010

Social Studies of Science, Juha Tuunainen, 19.08.2010

#### **Editor of series**

#### Uskali Mäki .

Strategies for Social Inquiry, Uskali Mäki, 2009  $\rightarrow \dots$ 

#### Editor of special theme number

#### Juha Tuunainen .

International Journal of Contemporary Sociology, Juha Tuunainen, 11.07.2010 → 31.12.2010

#### Membership or other role in research network

#### Juha Tuunainen,

 $Helsinki\ Institute\ of\ Science\ and\ Technology\ Studies\ (HIST), Juha\ Tuunainen,\ 01.09.2005 \ \rightarrow 31.12.2010,\ Finland\ Studies\ (HIST)$ 

ISA Research Committee 23: Sociology of Science and Technology, Juha Tuunainen, 01.06.2006  $\rightarrow$  31.12.2010

Science and Technology Research In a Knowledge-based Economy (STRIKE), Juha Tuunainen,  $07.03.2007 \rightarrow 31.12.2010$ 

#### Aaro Tupasela

Bio-objects and their Boundaries: Governing Matters at the Intersection of Society, Politics, and Science, Aaro Tupasela, 14.09.2010 → 12.12.2014. Finland

### Lotta Hautamäki,

Jäsensihteeri, Lotta Hautamäki, 2008 → ...

### Antti Silvast,

E-Newsletter Editor and Web Manager of European Sociological Association's Disaster & D

# Membership or other role in national/international committee, council, board

#### Ilpo Antero Helen,

Vital Politics II conference, London School of Economics; the organising committee, Ilpo Antero Helen,  $01.11.2005 \rightarrow 30.09.2006$ , United Kingdom

ENSN steering committee, Ilpo Antero Helen, 12.06.2007  $\rightarrow$  11.06.2012, United Kingdom

 $Qualitative\ Research\ on\ Mental\ Health\ II\ conference;\ scientific\ committee,\ Ilpo\ Antero\ Helen,\ 01.10.2007 \rightarrow 31.12.2007,\ Finland\ Antero\ Helen,\ Conference \ Antero\ Helen,\ Antero\ Helen,\ Antero\ Helen,\ Antero\ Helen,\ Antero\ Hele$ 

Director of executive board, Ilpo Antero Helen, 15.01.2010  $\rightarrow ...$ , Finland

#### Maria Hävrinen-Alestalo .

Belgian Science Policy for the Programme "Interuniversity Attraction Poles", Project "The Loyalties of Knowledge", Marja Häyrinen-Alestalo,  $01.01.2005 \rightarrow 31.12.2005$ , Belgium

ETAN (European Technology Assessment Network) of the European Commission, Marja Häyrinen-Alestalo,  $01.01.2005 \rightarrow 31.12.2005$ , Belgium

Organizing Committee preparing the International Conference of the ProACT programme "Innovation Pressure, Rethinking Competitiveness, Policy and Society in a Globalised Economy", Marja Häyrinen-Alestalo, 01.01.2005  $\rightarrow$  31.12.2005, Finland

Organizing Committee preparing the sessions of RC23 for the XVI World Congress of Sociology, Marja Häyrinen-Alestalo, 01.01.2005  $\rightarrow$  31.12.2005, Spain



### RC-SPECIFIC TUHAT COMPILATIONS OF OTHER SCIENTIFIC ACTIVITIES 2005-2010

#### STS/Helen

The Belgian Science Policy: The Programme Interuniversity Attraction Poles, Marja Häyrinen-Alestalo, 2005, Belgium

The European Commission Pilot Action: Regions in the Knowledge Economy, Marja Häyrinen-Alestalo, 2005, Belgium

The Helsinki School of Economics, Docent Application, Marja Häyrinen-Alestalo, 2005, Finland

VTT:n teknologian tutkimuksen tukiryhmä, Marja Häyrinen-Alestalo, 01.01.2005 → 31.12.2005, Finland

 $He lsinki\ Institute\ of\ Science\ and\ Technology\ Studies\ (HIST),\ Marja\ H\"{a}yrinen-Alestalo,\ 01.01.2006\ \to\ 31.12.2006,\ Finland\ Marja\ H\"{a}yrinen-Alestalo,\ 01.01.2006\ \to\ 31.12.2006,\ Finland\ Marja\ H\ddot{a}yrinen-Alestalo,\ 01.01.2006\ \to\ 31.12.2006,\ Finland\ Marja\ H\ddot{a}yrinen-Marja\ H\ddot{a}y$ 

Opintosuoritusten tutkintolautakunta, Marja Häyrinen-Alestalo, 01.01.2006 ightarrow 31.12.2006, Finland

Organizing Committee preparing the sessions of RC23 for the XVI World Congress of Sociology, Marja Häyrinen-Alestalo, 01.01.2006  $\rightarrow$  31.12.2006, South Africa

The Society for the Study of Science and Technology in Finland, Chair, Marja Häyrinen-Alestalo, 01.01.2006 ightarrow 31.12.2009, Finland

Tieteen- ja teknologiantutkimuksen valtakunnallinen tutkijakoulu, Marja Häyrinen-Alestalo, 01.01.2006 → 31.12.2006, Finland

VTT:n teknologian tutkimuksen tukiryhmä, Marja Häyrinen-Alestalo, 01.01.2006 → 31.12.2006, Finland

Chair and Member of the Boad, Marja Häyrinen-Alestalo, 01.01.2007 → 31.12.2009, Finland

European Science Foundationin (ESF) kutsuma asiantuntija konferenssiin: "Forward Look on Higher Education in Europe Beyond 2010: Resolving Conflicting Social and Economic Expectations", Marja Häyrinen-Alestalo, 15.03.2007 → 16.03.2007, Belgium

Expert panel of the ESF, Marja Häyrinen-Alestalo,  $01.01.2007 \rightarrow 31.12.2011$ 

Helsingin yliopiston opintosuoritusten tutkintolautakunta, Marja Häyrinen-Alestalo, 01.01.2007 ightarrow 31.12.2007

Helsinki Institute of Science and Technology Studies (HIST) kehittämis-/johtoryhmä, Marja Häyrinen-Alestalo, 01.01.2007  $\rightarrow$  31.12.2007, Finland

Kutsuttu asiantuntija Tekesin keskustelutilaisuudessa aiheesta "Strategisen huippuosaamisen keskittymän perustamismahdollisuudet terveys- ja hyvinvointialueella", Marja Häyrinen-Alestalo, 07.02.2007 ightarrow 31.12.2007, Finland

The Expert Pool of the OECD, Marja Häyrinen-Alestalo, 01.01.2007 ightarrow 31.12.2011, France

The Helsinki Research Network for Higher Education and Innovation Studies (HEINE), Marja Häyrinen-Alestalo, 2008 → 2009, Finland

Doctoral School of Comparative Studies in Higher Education and Science Institutions, COHERES, Marja Häyrinen-Alestalo, 2010  $\rightarrow$  2014, Finland

The Preparatory Professor Group for the Professorship of Higher Education Management, Organization and Leadership, Marja Häyrinen-Alestalo,  $2010 \rightarrow 2011$ , Finland

The Preparatory Professor Group for the Professorship of Science and Technology Studies, Marja Häyrinen-Alestalo, 2010  $\rightarrow$  2011, Finland

### Reijo Miettinen ,

HIST:n (Helsinki International Center for Science and Technology Studies) kehittämisryhmän (johtokunnan) jäsen, Reijo Miettinen, 01.01.2006  $\rightarrow$  31.12.2006, Finland

HISTin (Helsinki Institute for Science and Technology Studies) ohjausryhmän jäsen, Reijo Miettinen, 01.01.2008 → 31.12.2008

KASVAN (Kasvatusalan valtakunnalinen tohtorikoulu) johtoryhmän jäsen., Reijo Miettinen, 01.01.2008 ightarrow 31.12.2008, Finland

TITEKON (Tieteen ja teknologian tutkimuksen kansallinen tohtorikoulun) johtoryhmän jäsen, Reijo Miettinen, 01.01.2008 → 31.12.2008, Finland

#### Uskali Mäki,

Member of the Advisory Board of the BUES Center for Pluralistic Economic Studies, Uskali Mäki, 1998  $\rightarrow \dots$ 

 $Member of the Academic Advisory Board of the Helsinki Institute for Science and Technology Studies, Uskali M\"{a}ki, 2004 \rightarrow ..., Finland Making Studies, Uskali Ma$ 

 $Member of the International \ Advisory \ Committee \ of the \ Witten \ Lectures \ in \ Economics \ and \ Philosophy, \ Uskali \ M\"{a}ki, \ 2005 \ \rightarrow \dots$ 

Erasmus Institute for Philosophy and Economics, Uskali Mäki, 01.01.2007 ightarrow 31.12.2007

European Association for Evolutionary Political Economy, Uskali Mäki, 01.01.2007 ightarrow 31.12.2007

European Philosophy of Science Association, Uskali Mäki, 01.01.2007  $\rightarrow$  31.12.2007

Helsinki Institute for Science and Technology Studies, Uskali Mäki, 01.01.2007 ightarrow 31.12.2007

Honorary Member of EIPE, Uskali Mäki, 2007  $\rightarrow \dots$ 

International Network for Economic Method, Uskali Mäki, 01.01.2007  $\rightarrow$  31.12.2007



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#### STS/Helen

Erasmus Institute for Philosophy and Economics, Uskali Mäki, 01.01.2008 → 31.12.2008

European Association for Evolutionary Political Economy, Uskali Mäki, 01.01.2008 ightarrow 31.12.2008

International Network for Economic Method, Uskali Mäki, 01.01.2008 → 31.12.2008

International Network for Economic Method, Uskali Mäki, 01.01.2008 → 31.12.2008

Member of the Erik Allardt Academic Advisory Board, Uskali Mäki, 2009 → ...

Member of the Executive Board of INEM, Uskali Mäki, 2009  $\rightarrow \dots$ 

#### Janne Ilmari Hukkinen

Member of the Advisory Board of Finnish Futures Research Centre, Janne Ilmari Hukkinen, 01.01.2000 ightarrow 31.12.2010, Finland

Board Member of National Graduate School in Environmental Social Science, Janne Ilmari Hukkinen, 01.01.2001 → 31.12.2010,

Board Member of National Graduate School in Science and Technology Studies, Janne Ilmari Hukkinen, 01.01.2001 → 31.12.2010, Finland

Member of the Board of European Society for Ecological Economics (ESEE), Janne Ilmari Hukkinen,  $01.01.2006 \rightarrow 31.12.2010$ , United States

Member of the Board of Directors of Helsinki Institute of Science and Technology Studies (HIST), Janne Ilmari Hukkinen, 01.01.2007 →

Board of Directors of Helsinki Institute of Science and Technology Studies (HIST), Janne Ilmari Hukkinen, 01.01.2008 → 31.12.2008, Finland

Board of Directors of Helsinki Institute of Science and Technology Studies (HIST), Janne Ilmari Hukkinen, 01.01.2008 → 31.12.2008, Finland

Board of Directors of the Finnish Graduate School in Environmental Social Science (YHTYMÄ), Janne Ilmari Hukkinen, 01.01.2008 → 31.12.2008. Finland

Board of Directors of the Finnish Graduate School in Environmental Social Science (YHTYMÄ), Janne Ilmari Hukkinen,  $01.01.2008 \rightarrow 31.12.2008$ , Finland

Board of Directors of the Finnish Graduate School in Future Business Competencies (TULIO), Janne Ilmari Hukkinen,  $01.01.2008 \rightarrow 31.12.2008$ , Finland

Board of Directors of the Finnish Graduate School in Science and Technology Studies (TITEKO), Janne Ilmari Hukkinen, 01.01.2008  $\rightarrow$ 

Board of Directors of the Finnish Graduate School in Science and Technology Studies (TITEKO), Janne Ilmari Hukkinen, 01.01.2008 →

31.12.2008, Finland

Board of European Society for Ecological Economics (ESEE), Janne Ilmari Hukkinen, 01.01.2008 → 31.12.2008

Board of European Society for Ecological Economics (ESEE), Janne Ilmari Hukkinen, 01.01.2008 → 31.12.2008

 $European\ Commission\ s\ 7th\ Framework\ Programme\ Environment\ Advisory\ Group,\ Janne\ Ilmari\ Hukkinen,\ 01.01.2008\ \rightarrow\ 31.12.2008$ 

European Commission s 7th Framework Programme Environment Advisory Group, Janne Ilmari Hukkinen, 01.01.2008 → 31.12.2008

Independent expert interviewed for the Finnish Environment Institute international evaluation, Janne Ilmari Hukkinen,  $27.11.2008 \rightarrow 31.12.2008$ , Finland

Independent expert interviewed for the Finnish Environment Institute international evaluation, Janne Ilmari Hukkinen, 27.11.2008 → 31.12.2008 Finland

Member of the European Commission's 7th Framework Programme Environment and Climate Scientific Advisory Group, Janne Ilmari Hukkinen,  $01.01.2008 \rightarrow 31.12.2010$ , Belgium

Member of the Steering Committee of Helsinki University Centre for Environment (HENVI), Janne Ilmari Hukkinen, 01.08.2008 →

Steering Committee of Helsinki University Centre for Environment (HENVI), Janne Ilmari Hukkinen, 01.01.2008 ightarrow 31.12.2008, Finland

Steering Committee of Helsinki University Centre for Environment (HENVI), Janne Ilmari Hukkinen, 01.01.2008 → 31.12.2008, Finland

Ympäristönsuojelun kummiprofessori, Teknillinen korkeakoulu, Lahden keskus, Janne Ilmari Hukkinen, 01.01.2008 → 31.12.2008, Finland

Ympäristönsuojelun kummiprofessori, Teknillinen korkeakoulu, Lahden keskus, Janne Ilmari Hukkinen, 01.01.2008 → 31.12.2008, Finland



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#### STS/Helen

of Directors of the Finnish Graduate School in Future Business Competencies (TULIO), Janne Ilmari Hukkinen, 01.01.2008 → 31.12.2008 Finland

Board Member of the National Graduate School in Arctic Studies, Janne Ilmari Hukkinen, 01.01.2010 → 31.12.2010, Finland

Board member of Ruralia Institute, University of Helsinki, Janne Ilmari Hukkinen, 01.01.2010  $\rightarrow$  ..., Finland

Chair of Advisory Board of Finnish Environment Institute, Janne Ilmari Hukkinen,  $01.01.2010 \rightarrow 31.12.2010$ , Finland

Member of selection committee, professor of Russian energy policy, University of Helsinki, Janne Ilmari Hukkinen, 01.03.2010 → 31.12.2010. Finland

Member of selection committee, professor of science and technology studies, University of Helsinki, Janne Ilmari Hukkinen, 01.10.2010 → ...

Member of the Publication Forum, Janne Ilmari Hukkinen,  $01.12.2010 \rightarrow 31.12.2011$ , Finland

#### Anna-Maria Tapaninen,

Helsingin tutkijanaiset, Anna-Maria Tapaninen, 01.01.2006 → 31.12.2006, Finland

Suomen Antropologinen Seura, Anna-Maria Tapaninen, 01.01.2006 → 31.12.2006, Finland

#### Juha Tuunainen,

Suomen tieteen ja teknologian tutkimuksen seura ry., Juha Tuunainen, 01.01.2005 ightarrow 31.12.2005, Finland

European Concerted Research Action (COST) IS0604 Science and Technology Research In a Knowledge-based Economy (STRIKE), Juha Tuunainen,  $01.01.2007 \rightarrow 31.12.2007$ 

Finnish Society for Science and Technology Studies, Juha Tuunainen, 01.01.2007  $\rightarrow$  31.12.2007, Finland

International Sociological Association, Research Committee 23 Sociology of Science and Technology, Juha Tuunainen,  $01.01.2007 \rightarrow 31.12.2007$ 

### Aaro Tupasela,

European Sociological Association's (ESA) Sociology of Science and Technology Network (SSTNET). , Aaro Tupasela,  $09.2003 \rightarrow 09.2007$ 

Suomen Tieteen- ja teknologiantutkimuksen seura ry., Aaro Tupasela, 2005  $\rightarrow ...$ , Finland

The European Sociological Association's (ESA) Sociology of Science and Technology Network (SSTNET), Aaro Tupasela, 01.01.2005 → 31.12.2005

European Sociological Association's (ESA) Sociology of Science and Technology Network (SSTNET). , Aaro Tupasela, 05.09.2007 → 04.09.2011

Nordic Committee on Bioethics, Aaro Tupasela,  $01.01.2008 \rightarrow 31.12.2010$ 

#### Antti Pelkonen ,

Suomen tieteen- ja teknologiantutkimuksen seura ry, Antti Pelkonen, 01.01.2005 ightarrow 31.12.2005, Finland

#### Jyri Liukko ,

Board membership of 'Sociology of Risk and Uncertainty' (SoRU) research network, Jyri Liukko, 2007  $\rightarrow$  2011

Research Network of the European Sociological Association (ESA): Sociology of Risk and Uncertainty, Jyri Liukko,  $01.01.2007 \rightarrow 31.12.2007$ 

#### Membership or other role in public Finnish or international organization

### Marja Häyrinen-Alestalo ,

European Science Foundation, HELF: Forward Look on Higher Education - Workshop 2: Higher education and the needs of the knowledge society, Marja Häyrinen-Alestalo, 24.11.2006, Finland

Hannu Uusitalon haastattelema asiantuntija Suomen Akatemian tutkimusrahoituksen vaikuttavuuden arviointia varten, Marja Häyrinen-Alestalo,  $04.01.2006 \rightarrow 31.12.2006$ , Finland

Days of Science 2007: The Disappearing Borders of Science, Panelist, Marja Häyrinen-Alestalo, 12.01.2007, Finland

Innovaatiotutkimuksen työpaja. Kutsuttu asiantuntija keskustelussa Tekesin ja KTM:n yhteisestä "Innovaatioista kasvuun (INNOKAS)" tutkimusohjelman lähtökohdista, Marja Häyrinen-Alestalo,  $03.12.2007 \rightarrow 31.12.2007$ , Finland

Opetusministeriön sekä korkeakoulujen ja tiedelaitosten johdon seminaari: "Korkeakoulujen tulevaisuus" -paneelikeskustelu, Marja Häyrinen-Alestalo, 14.11.2007  $\rightarrow$  31.12.2007, Finland



### RC-SPECIFIC TUHAT COMPILATIONS OF OTHER SCIENTIFIC ACTIVITIES 2005-2010

#### STS/Helen

Project PUBIT, Maria Hävrinen-Alestalo, 2007 → 2008, France

The Serve-programme Innovative Services 2006-2010, Marja Häyrinen-Alestalo, 2007 → 2008, Finland

#### Reijo Miettinen,

 $Hallituksen \ luovuustategian \ valmisteluryhm\"{a} \ (Luova \ Ihminen), \ Reijo \ Miettinen, \ 08.02.2005 \rightarrow 20.10.2005, \ Finland \ Miettinen, \ M$ 

OPM:n korkeakouluosaston pyynnöstä Suomen Akatemian pääjohtajan Markku Mattilan puheenjohtaman "Tutkimustulosten hyödyntämistä koskevien toimien kehittäminen yliopistoissa" -työryhmän asiantuntija, Reijo Miettinen, 01.01.2006 → 31.12.2006, Finland

#### Janne Ilmari Hukkinen

Expert Counsellor on the Environment for the Supreme Administrative Court of Finland, Janne Ilmari Hukkinen, 01.01.2000 → 31.12.2010. Finland

Korkein hallinto-oikeus (KHO), ympäristöasiantuntijaneuvos, Janne Ilmari Hukkinen, 01.01.2008 → 31.12.2008, Finland

Korkein hallinto-oikeus (KHO), ympäristöasiantuntijaneuvos, Janne Ilmari Hukkinen, 01.01.2008 → 31.12.2008, Finland

Vice Member of Finnish National Commission on Sustainable Development, Janne Ilmari Hukkinen, 01.01.2008 → 31.12.2010, Finland

#### Membership or other role of body in private company/organisation

#### Marja Häyrinen-Alestalo,

Lauttasaari-Seura, Marja Häyrinen-Alestalo, 01.01.2005 ightarrow 31.12.2005, Finland

Lauttasaari-seura, Marja Häyrinen-Alestalo, 01.01.2006 ightarrow 31.12.2006, Finland

Helsingin kaupunginosat ry (HELKA), Marja Häyrinen-Alestalo, 01.01.2007 ightarrow 31.12.2011, Finland

### Janne Ilmari Hukkinen ,

Ekosäätiö, Janne Ilmari Hukkinen, 01.01.2008 ightarrow 31.12.2008, Finland

Ekosäätiö, Janne Ilmari Hukkinen, 01.01.2008 → 31.12.2008, Finland

Ilmari Turjan seuran hallitus, Janne Ilmari Hukkinen, 01.01.2008 ightarrow 31.12.2008, Finland

Ilmari Turjan seuran hallitus, Janne Ilmari Hukkinen, 01.01.2008 ightarrow 31.12.2008, Finland

Suomen Kulttuurirahaston Kannatusyhdistys ry, Janne Ilmari Hukkinen, 01.01.2008 ightarrow 31.12.2008, Finland

Suomen Kulttuurirahaston Kannatusyhdistys ry, Janne Ilmari Hukkinen, 01.01.2008 ightarrow 31.12.2008, Finland

Member of the Board of WWF Finland, Janne Ilmari Hukkinen, 01.07.2010 → 31.12.2010, Finland

#### Juha Tuunainen,

International Sociological Association, Research Committee 23 Sociology of Science and Technology, Juha Tuunainen, 01.01.2006 → 31.12.2006, United States

Suomen tieteen- ja teknologiantutkimuksen seura ry, Juha Tuunainen, 01.01.2006 ightarrow 31.12.2006, United States

#### Participation in interview for written media

#### Marja Häyrinen-Alestalo,

Helsingin yliopiston 350-vuotisjuhlat, Täällä tullaan tulevaisuus, lehdistötilaisuus, Marja Häyrinen-Alestalo,  $16.01.2005 \rightarrow 31.12.2011$ , Finland

Suomen Tiedetoimittajain liiton syyskokous, Marja Häyrinen-Alestalo, 23.11.2005 ightarrow 31.12.2011, Finland

Suomen Tieteen- ja teknologiantutkimuksen seuran vuosiseminaari, Marja Häyrinen-Alestalo, 31.03.2006 → 31.12.2011, Finland

alustus Suomen Akatemian järjestämässä keskustelutilaisuudessa: Genomitutkimuksen eettiset, filosofiset ja yhteiskunnalliset näkökohdat, Marja Häyrinen-Alestalo, 27.11.2006  $\rightarrow$  31.12.2011, Finland

### Reijo Miettinen ,

INSBIS, Turku, Reijo Miettinen, 30.03.2000 ightarrow 31.12.2011, Finland

Tieteen päivät, esitelmä, Reijo Miettinen, 11.01.2001 ightarrow 31.12.2011, Finland

 $VTT\text{-automaatio, Hyvä tutkimuskäytäntö kurssi, luento, Reijo Miettinen, 22.01.2001 \rightarrow 31.12.2011, Finland Miettinen, Proposition (2001) and Miettinen (200$ 

Helsingin Sanomien mielipidepalsta, Reijo Miettinen, 01.01.2006 ightarrow 31.12.2011, Finland



### RC-SPECIFIC TUHAT COMPILATIONS OF OTHER SCIENTIFIC ACTIVITIES 2005-2010

#### STS/Helen

Tieteessä tapahtuu -lehti 4/2006 (artikkeli), Reijo Miettinen, 01.01.2006 → 31.12.2011, Finland

#### Janne Ilmari Hukkinen,

Jäähyväiset kasvupakolle, Janne Ilmari Hukkinen, 06.06.2010, Finland

Kasvun rajat, Janne Ilmari Hukkinen, 17.09.2010, Finland

#### Juha Tuunainen ,

Suomen ylioppilaskuntien liiton Ruskayliopisto, Juha Tuunainen, 31.10.2002 ightarrow 31.12.2011, Finland

Helsingin yliopiston ja Ulkoministeriön yhteisesti ulkomaalaisille toimittajille järjestämä Press Tour : Education and R&D a Key to Competitiveness in Finland, Juha Tuunainen,  $22.09.2004 \rightarrow 31.12.2011$ , Finland

#### Mianna Meskus,

Naisten kaupunki, Mianna Meskus, 15.05.2004  $\rightarrow$  31.12.2011, Finland

#### Karoliina Snell,

Metsätieteen päivä, Karoliina Snell, 25.10.2002 ightarrow 31.12.2011, Australia

#### Aaro Tupasela,

The Politics of Biobanking , Helsinki, Finland Seminar organizer and presenter, Aaro Tupasela, 12.10.2005  $\rightarrow$  31.12.2011, United Kingdom

#### Antti Pelkonen,

Tutkittu juttu: Väärää kaistaa kotiin? YLE Teema, Antti Pelkonen, 01.01.2006 → 31.12.2011, Finland

#### Lotta Hautamäki,

Asiantuntijahaastattelu, Lotta Hautamäki, 2009  $\rightarrow \dots$ 

### Jyri Liukko ,

Myytävänä vastuuta ja unelmia, Jyri Liukko, 06.2006, Finland

Sosiaalivakuutus -lehti 1/2006, Jyri Liukko, 01.01.2006 ightarrow 31.12.2011, Finland

Yhteisvastuu on kadonnut, Jyri Liukko, 01.2006, Finland

Yliopisto-lehti 6/2006, Jyri Liukko, 01.01.2006 ightarrow 31.12.2011, Finland

## Participation in radio programme

#### Marja Häyrinen-Alestalo,

Radio Klara, haastattelijana Jean-Pierre Roudas, Marja Häyrinen-Alestalo, 16.08.2006 ightarrow 31.12.2011, Finland

### Karoliina Snell,

Kvanthopp, Karoliina Snell, 29.10.2009

#### Lotta Hautamäki,

Päiväntasaaja, Lotta Hautamäki, 2010  $\rightarrow \dots$ 

#### Participation in TV programme

#### Lotta Hautamäki,

Epäkorrektia, Tuomas Enbuske, Lotta Hautamäki, 2008  $\rightarrow \dots$ 

### Participation in interview for web based media

## Lotta Hautamäki,

Asiantuntijahaastattelu, Lotta Hautamäki, 2010  $\rightarrow \dots$ 

### Appendix B.b.

Maria Forsman, Chief Information Specialist, DSocSc Helsinki University Library 7.7.2011

#### The bibliometric analyses by Helsinki University Library (HULib)

**Background:** The bibliometric analyses – especially citation analyses – have raised a lot of discussion and critics among researchers in social sciences and humanities. Researchers view that bibliometric analyses are often unfair to these fields of sciences because they do not give a good enough picture of the publishing. Citation databases – Web of Science and Scopus – cover only weakly the main publications in these fields. Also, in humanities and social sciences monograph is still the main form of publishing, and it does not include in these article databases.

At the University of Helsinki, the above mentioned concerns have been taken into account in the evaluation. The Evaluation Office has ordered analyses from the Helsinki University Library (HULib) for the participating researcher communities that are weakly represented in Web of Science. The database for the HULib analyses is TUHAT (<a href="https://tuhat.halvi.helsinki.fi/portal/en/">https://tuhat.halvi.helsinki.fi/portal/en/</a>) including all the publications that the researchers have considered important.

Based on this data, information specialists at HULib have carried out the following analyses:

- 1) Number of authors/publication/year as a table; a pie of authors/publication in the period 2005-2010;
- 2) Language of publication/year; a pie of language of publication in the period 2005-2010:
- 3) Articles/journal/year; journals have been compared by ISSN with the Norwegian, Australian and ERIH (2007-2008) journal ranking lists; number of articles in ranked journals;
- 4) Publisher/monograph type (according to TUHAT database); monographs have been compared with the Norwegian publisher ranking list. According to this, it has been counted how many monographs are published by a leading scientific publisher (2) or a scientific publisher (1).
- 5) Conference publications (from TUHAT database) especially in computer sciences; compared with the Australian conference ranking list.

Where relevant, some additional analyses and notes concerning the publication culture of a scientific field have been added. Overall, these analyses complement the other evaluation material and lists of the publications of the participating researcher communities.

If the publications of the RCs were less than 50 or/and the internal coverage less than 40 percentage, the WoS analyses were considered not reliable. These RCs were 58 altogether.

In addition, both Leiden and Library analyses were done to the RCs if WoS analyses covered less than 40 per cent of the peer review (A+C) publications of the RC. These RCs were 8 altogether.

The appendix includes the analyses of the RC under discussion.

### Analysis of publications by Helsinki University Library – 66 RCs altogether

### **Biological, Agricultural and Veterinary Sciences**

Luukkanen, Olavi- VITRI Valsta, Lauri - SUVALUE

#### **Natural Sciences**

Abrahamsson, Pekka - SOFTSYS Kangasharju, Jussi - NODES Ukkonen, Esko - ALKO Väänänen, Jouko - HLG

#### **Humanities**

Aejmelaeus, Anneli - CSTT Anttonen, Pertti - CMVG Dunderberg, Ismo - FC Havu, Eva - CoCoLaC Heikkilä, Markku - RCSP Heinämaa. Sara - SHC Henriksson, Markku - CITA Janhunen, Juha - LDHFTA Kajava Mika, - AMNE Klippi, Anu - Interaction Knuuttila. Simo - PPMP Koskenniemi, Kimmo - BAULT Lauha, Aila - CECH Lavento, Mika - ARCH-HU Lukkarinen, Ville - AHCI Lyytikäinen, Pirjo - GLW Mauranen, Anna - LFP Meinander, Henrik - HIST Nevalainen, Terttu - VARIENG Pettersson, Bo - ILLC Pulkkinen, Tuija - Gender Studies Pyrhönen, Heta - ART Ruokanen, Miikka - RELDIAL Saarinen, Risto - RELSOC Sandu, Gabriel - LMPS Tarasti, Eero - MusSig Vehmas-Lehto, Inkeri - TraST Östman, Jan-Ola – LMS

#### **Social Sciences**

Airaksinen, Timo - PPH Engeström, Yrjö - CRADLE Granberg, Leo - TRANSRURBAN Haila, Anne - Sociopolis Hautamäki, Jarkko - CEA Heinonen, Visa - KUMU Helén, Ilpo - STS Hukkinen, Janne - GENU Jallinoia. Riitta - SBII Kaartinen, Timo - SCA Kettunen, Pauli - NordSoc Kivinen, Markku - FCREES Koponen, Juhani - DEVERELE Koskenniemi, Martti - ECI Kultti, Klaus - EAT Lahelma, Elina - KUFE Lanne, Markku - TSEM Lavonen, Jari - RCMSER Lehtonen, Risto - SocStats Lindblom-Ylänne, Sari - EdPsychHE Nieminen, Hannu - MECOL Nuotio, Kimmo - Law Nyman, Göte - METEORI Ollikainen, Markku - ENFIFO Pirttilä-Backman, Anna-Maija - DYNASOBIC Rahkonen, Keijo - CulCap Roos, J P - HELPS Simola, Hannu - SOCE-DGI Sulkunen, Pekka - PosPus Sumelius, John - AG ECON Vaattovaara, Mari - STRUTSI Vainio, Martti - SigMe

The next appendix includes the analyses of the RC under discussion.

PUBLICATION DATA 2005-2010

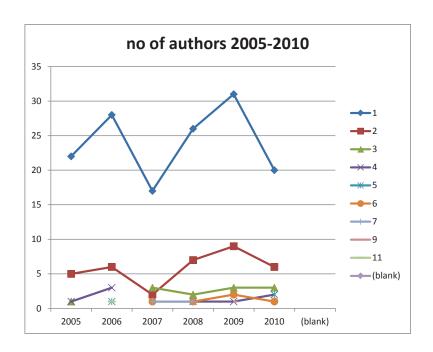
30.6.2011/MH&MF 20.4.2012 EH

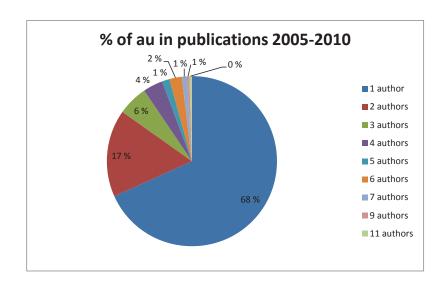
RC/STS/Helén

Category 2. The research of the participating community is of high quality, but the community in its present composition has yet to achieve strong international recognition or a clear break-through.

# Number of authors in publications / year

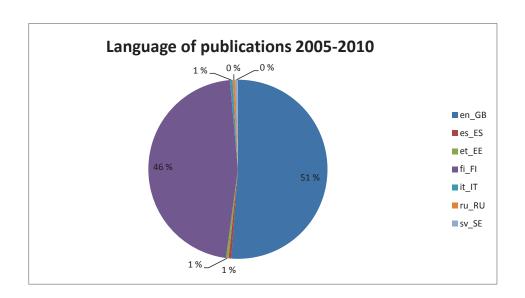
Number of authors	2005	2006	2007	2008	2009	2010	Grand Total
1	22	28	17	26	31	20	144
2	5	6	2	7	9	6	35
3	1		3	2	3	3	12
4	1	3		1	1	2	8
5		1				2	3
6			1	1	2	1	5
7			1	1			2
9					1		1
11		1					1
Grand Total	29	39	24	38	47	34	211





# Language of publication / Year

Language	2005	2006	2007	2008	2009	2010	<b>Grand Total</b>
en_GB	17	17	7	16	32	19	108
es_ES				1			1
et_EE		1					1
fi_FI	12	21	16	19	15	15	98
it_IT				1			1
ru_RU				1			1
sv_SE			1				1
Grand Total	29	39	24	38	47	34	211



# Journal / Year / Total

Most of the articles have been published in *Tiede & edistys* that is one of the leading journal in social sciences in Finland. It does not include, however, to the ranking lists. The international journals on the top are *Social Studies* and *Acta Sociologiga* that belong to the Australian ranking category B and A. Nine of the articles have been published in the leading Finnish newspaper *Helsingin Sanomat*.

Journal	2005	2006	2007	2008	2009	2010	Grand Total
Tiede & edistys	2	4	3	2		1	12
Helsingin Sanomat	2		2	1	2	2	9
Sosiologia	1	1	1	1	1	1	6
Science Studies : a Scandinavian journal published by the							
Finnish Society for Science Studies	2		1		1		4
Acta Sociologica		1	1	1		1	4
Janus : sosiaalipolitiikan ja sosiaalityön tutkimuksen aikakaus	slehti		1		1	1	3
Research Policy					2	1	3
Tiedepolitiikka		1			1	1	3
Niin & näin : filosofinen aikakauslehti.		1			2		3
Scandinavian Journal of History	2						2
Social Studies of Science	1	1					2
Science and Public Policy		1		1			2
Higher Education	1	1					2
Suomen Antropologi				1		1	2
Human Technology			1	1			2
Scandinavian Journal of Public Health					1	1	2
Journal of Economic Methodology				1		1	2
Discourse Studies	1			1			2
Mind, Culture, and Activity	2						2
Sosiaalilääketieteellinen aikakauslehti	•	•		1		1	2
New Genetics and Society		1				1	2
Symbolic Interaction	1					1	2
Philosophy of the Social Sciences	•			1	1		2
Tieteessä tapahtuu	1	1					2
ESEE newsletter				1			1
Public Understanding of Science	•		1				1
International Journal of Innovation Management				1			1
Contemporary Sociology			1				1
Gerontologia					1		1
Journal for the Theory of Social Behaviour		1					1
Studies in History and Philosophy of Science					1		1

European Journal of Cancer Care		1					1
Tiede &				1			1
Journal of Integrative Environmental Sciences						1	1
Creativity and Innovation Management				1			
Journal of Medical Humanities			1				1
Erkenntnis					1		1
Journal of Pragmatics					1		1
Ecological Economics						1	1
Kansanterveys : Kansanterveyslaitoksen tiedotuslehti.				1			1
Suomen lääkärilehti			1				1
Kuntapuntari				1			1
Tekniikan Waiheita			1				1
Laadullisen terveystutkimuksen tutkijaverkosto				1			1
Psykologia			1				1
Management Learning				1			1
R & D Management					1		1
European Planning Studies	1						1
Genomics, Society and Policy					1		1
European Society for Ecological Economics Newsletter					1		1
Computer Supported Cooperative Work					1		1
Continental Philosophy Review				1			1
Science, Technology & Society					1		1
Environmental Politics						1	1
If : journal of Italo-Finnish studies.					1		1
Verkkolehti Megafoni		1					1
Storia del Pensiero Economico. Nuova Serie		1					1
Yhdyskuntasuunnittelu		1					1
Information Society		1					1
Erasmus journal for philosophy and economics				1			1
Suomen potilaslehti			1				1
Outlines : critical practice studies		1					1
Technology Analysis & Strategic Management						1	1
Personal and Ubiquitous Computing		1					1
Elore					1		1
Fennia		1					1
International Sociology						1	1
Politics					1		1
NordForsk magasin.			1				1
Voprosy èkonomiki				1			1
Nordic Studies on Alcohol and Drugs						1	1
Yhteiskuntablogiikka						1	1
Organization	1						1
Organization Studies					1		1
Grand Total	18	23	18	22	25	21	127

# Journal ranking (Norway, Australia, ERIH)

### Norway ranking

Level 2 = highest scientific, Level 1= scientific

#### **Australian ranking**

#### Α\*

Typically an A\* journal would be one of the best in its field or subfield in which to publish and would typically cover the entire field/subfield. Virtually all papers they publish will be of a very high quality. These are journals where most of the work is important (it will really shape the field) and where researchers boast about getting accepted. Acceptance rates would typically be low and the editorial board would be dominated by field leaders, including many from top institutions.

#### Δ

The majority of papers in a Tier A journal will be of very high quality. Publishing in an A journal would enhance the author's standing, showing they have real engagement with the global research community and that they have something to say about problems of some significance. Typical signs of an A journal are lowish acceptance rates and an editorial board which includes a reasonable fraction of well known researchers from top institutions.

## В

Tier B covers journals with a solid, though not outstanding, reputation. Generally, in a Tier B journal, one would expect only a few papers of very high quality. They are often important outlets for the work of PhD students and early career researchers. Typical examples would be regional journals with high acceptance rates, and editorial boards that have few leading researchers from top international institutions.

### C

Tier C includes quality, peer reviewed, journals that do not meet the criteria of the higher tiers.

## ERIH ranking 2007-2008

Purpose of The European Reference Index for the Humanities (ERIH) is to develop and to maintain an impact assessment tool for European research journals. Journal classification processes are conducted by discipline-specific expert panels. In the ERIH 2007 Initial List there are three categories:

A = international publications, both European and non-European, with high visibility and influence among researchers in the various research domains in different countries, regularly cited all over the world.

B = international publications, both European and non-European, with significant visibility and influence in the various research domains in different countries.

C = European publications with a recognized scholarly significance among researchers in the respective research domains in a particular readership group in Europe; occasionally cited outside the publishing country, though the main target group is the domestic academic community.

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<sup>7</sup> 8/ <sub>5</sub> □	Of V	18 P 8/6	Teb.	✓ RACE	TON	Conce 1	Str.	70/1/ W	1087
Science Studies: a Scandinavian journal published by the Finnish Soci	4	1 B			В	В			
Acta Sociologica	4	2 A							
Research Policy	3	2 A*							
Niin & näin : filosofinen aikakauslehti.	3	С						С	
Scandinavian Journal of History	2	1 B			В				
Social Studies of Science	2	2 A*			В	В			
Science and Public Policy	2	1 B							
Higher Education	2	2 A		Α					
Suomen Antropologi	2	1 B	В						
Human Technology	2	1							
Scandinavian Journal of Public Health	2	2 B							
Journal of Economic Methodology	2	1 B							
Discourse Studies	2	2 B					Α		
Mind, Culture, and Activity	2	1 A		Α					
New Genetics and Society	2	1 B							
Symbolic Interaction	2	1 B							
Philosophy of the Social Sciences	2	2 B			В	В		В	
Public Understanding of Science	1	1 A			В	В			
International Journal of Innovation Management	1	1 B							
Contemporary Sociology	1	1 C							
Journal for the Theory of Social Behaviour	1	1 B							С
European Journal of Cancer Care	1	1 A*							
Journal of Integrative Environmental Sciences	1	1							
Creativity and Innovation Management	1	1 C							
Journal of Medical Humanities	1	1 C							
Erkenntnis	1	2 A				Α		A	
Journal of Pragmatics	1	2 A					A	В	
Ecological Economics	1	1 A							
Suomen lääkärilehti	1	С							
Management Learning	1	1 B							
R & D Management	1	1 A							
European Planning Studies	1	2 A							
Genomics, Society and Policy	1	1 C							
Computer Supported Cooperative Work	1	В							
Continental Philosophy Review	1	1 A*						В	
Science, Technology & Society	1	С							
Environmental Politics	1	1 A							
Information Society	1	2 A							
Outlines : critical practice studies	1	1 C							
Technology Analysis & Strategic Management	1	2 B							
Personal and Ubiquitous Computing	1	В							
International Sociology	1	2 A							
Nordic Studies on Alcohol and Drugs	1	1 C							
Organization	1	1 B							
Organization Studies	1	2 A*							
Grand Total	68								

# **Amount of ranked articles (Norway)**

Level 2 = highest scientific, Level 1= scientific

Norway	Journal article
Level 2	24
Level 1	37

# **Amount of ranked articles (Australian)**

Australia	Journal article
Level A*	8
Level A	17
Level B	29
Level C	11

# Publisher ranking (based on Norwegian ranking list)

2 = leading scientific

1 =scientific

no = non-scientific or not ranked

C1 Published scientific monograph (18)

C2 Edited book, compilation, conference proceeding or special issue of journal (2)

Three books of are published by a high ranked leading scientific publisher, 4 by a ranked scientific publisher.

CA SCIENTIFIC PUBLISHER   EXAMPLE   CA SCIENTIFIC   CA SCIENTI	nonograph	res special	Publis Stand Total	her lanking v
[Kauppa- ja teollisuusministeriö	1		1	no
Cambridge University Press		1	1	2
Edita	1		1	1
Gaudeamus	1		1	1
Helsingin yliopisto	1		1	no
Kelan tutkimusosasto	1		1	no
Lehmanns Media	1		1	no
Nordisk MinisterrŒd		1	1	1
Nordregio	1		1	no
Routledge	2		2	2
Shinhyoron Inc.	1		1	no
Stakes	1		1	no
Taideteollinen korkeakoulu	1		1	no
Tekes	1		1	no
Tutkijaliitto	1		1	1
University of Helsinki	2		2	no
Yliopistopaino	1		1	no
(blank)	1		1	
Grand Total	18	2	20	

University of Helsinki Administrative Publications 80/107 Evaluations

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# Internet address:

http://www.helsinki.fi/julkaisut/aineisto/rc\_evaluation2012/hallinnon\_julkaisuja\_80\_107\_2012.pdf

