

Date	20.02.2014	Overall rating	4
Panel	ENVSOC14		
Experts	Andersen, Enggrob-Boon, Fuchs, Lankford, Moen, Sharp, Shaw, Sjöberg, Sprungk		
Support reviews			
Application No.	275658		
Call	Academy Project 02.09.2013 - 25.09.2013		
Applicant	Jouni Tuomisto		
Research topic	Open dynamic decision support (ODDS)		

## 1 Research plan

### 1.1 Scientific quality and innovativeness of the research plan

*Guiding questions: Is the project scientifically significant? Is the project ambitious? Is the project breakthrough research containing risks and does it have potential for exceptionally significant outcomes? Is the project innovative? Can the project generate new knowledge, new methods, new technology or new practices to end-users? If the project is multi/inter/transdisciplinary, what is the added value of this?*

There is a clear outline of the objective of the project. The project has potentially high, applied value to municipalities or ministries and may lead to new knowledge about the implementation of decision-support systems in organisations like the Finnish municipalities. The project is highly innovative in terms of methodological inquiries into decision-supporting tools, specifically instruments to help policy-makers to adequately use science-based information in political decisions, and in this sense extremely relevant especially for policy-makers. Unlike many approaches deploring the lack of communication between policy and science by criticizing the inadequate production of information by scientists, this project rather focuses on the adequate use of scientific information by policy-makers. The project is highly ambitious in methodological and empirical terms. However, its relation to environment and health issues is instrumental in so far as the cases, on the basis of which the method will be studied, happen to come from this area. The panel thought that the project is lacking a more substantive question relating to environment and health. Moreover, there is an underlying philosophy that suggests that policy makers just need the right tools to assess the right information to make the right decisions, which ignores the role of power and interests in the policy process. This assumption should at least be critically reflected on in the proposal.

## 1.2 Feasibility of the research plan

*Guiding questions:* Are the research plan, objectives and hypotheses clearly presented and realistic? Does the applicant acknowledge potential scientific or methodological problem areas and how are alternative approaches being considered? Are the research methods and materials appropriate for the project? Are the project management, resources and the division of labour and the proposed schedule appropriate and well-planned?

The research plan, objectives and hypotheses are very clearly presented. The suggested research methods and materials seem appropriate for the project. The proposal also discusses methodological (especially regarding the "quantifiability" of decision-making problems related to uncertainty) and empirical (attractiveness of the system for policy-makers, stakeholder involvement) challenges and proposes solutions to them in a convincing manner. The dissection into five consecutive work packages and the corresponding division of labour is extremely well-planned and also includes a reflection on potential challenges.

## 1.3 Ethical questions (to be answered if relevant)

*Guiding question:* Are ethical issues involved and if so, how are they taken into account?

N.A.

<b>2 Competence of applicant and quality of research environment</b>	
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### 2.1 Competence and expertise of the applicants

*Guiding questions:* Are the merits and scientific expertise of the applicants appropriate and sufficient for the proposed project? What are the merits of the applicants to supervise doctoral/postdoctoral students (if relevant)?

The merits and scientific expertise of the applicant is appropriate and sufficient for the proposed project. He has specialized in risk management and environmental health risk analysis, and has been an Academy Research Fellow on a similar project on scientific uncertainties in decision-making from 2005-2010. He is head of the unit of assessment and modelling at the National Institute for Health and Welfare and has been involved in several EU and Academy-funded projects. As an adjunct professor for toxicology and risk assessment, he has been supervising several doctoral theses. The applicant has an extremely good publication record, including 76 peer-reviewed articles.

### 2.2 Research team and environment

*Guiding questions:* Does the research team bring complementary expertise to the project (if applicable)? Does the research environment support this project, including appropriate research infrastructures, and offer a wide base for researcher training?

The research will be carried out by different departments at the National Institute for Health and Welfare, and will thus include various researchers with different types of expertise. A team of visiting researchers will also be affiliated to the project, Two scholars from the US and one scholar from the Netherlands will act as consultants to the project. The research site at THL supports the project and provides the necessary infrastructure. However, a number of members of the research team work primarily with toxicology and health and it is unclear to what extent they are experts, when it comes to implementation of decision support systems.

### **2.3 Significance of research collaborations and researcher mobility**

*Guiding questions: Is the project engaged in national and/or international research collaborations that can significantly contribute to the success of the project? What is the significance of the mobility plan?*

The project is implemented in Finland. There is no international mobility plan. There are a number of relevant national collaborations with researchers and policy-makers. Yet, the international dimension of the project could have been bigger, especially given the expected wider relevance of the outcomes. Some international experience may be provided from the project's embeddedness in related EU and international projects. The small number of international links is probably explained by the fact that the project is based at a governmental research institute, and mainly aims at facilitating policy-making in Finland. Travel is also only planned for going to the case study municipalities. It could have been helpful, however, to more systematically include international experts and to disseminate and exchange ideas on an international level, as the method as such in principle be applicable beyond the Finnish case.

### **2.4 Research consortium (if relevant)**

*Guiding question: If a consortium is involved, what is the significance and added value of the consortium for the attainment of the research objectives?*

n/a

## **3 Overall assessment**

### **3.1 Main strengths and weaknesses of the project. Additional comments and suggestions.**

*Please note that the final rating should not be a mathematical average of the sub-ratings.*

The project is innovative, ambitious, and likely to produce significant outcomes especially for policy-makers. The research plan, objectives, and hypotheses are clearly presented. Various challenges facing the implementation of the project are carefully discussed and addressed. Yet, the international dimension could have been stronger. More fundamentally, the panel felt that the project requires a more substantive research question focusing on environment and health for funding by the Academy of Finland. The panel would expect such a well-developed project on methods for decision-making support to be of high interest to municipalities or ministries, however.