

Developing public transport through
multidisciplinary and benefit-oriented
research.

Final Report VINN Excellence Center Stage 1

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0. Summary

Our research profile focuses on the theoretical, methodological, and empirical aspects of transport-related services. One of the main arguments in the application submitted by SAMOT is that demands for customer-orientation and flexible transportation systems will increase. This involves new issues coming onto the research agenda; issues that the industry must work with in order to achieve the goal of public transport as an attractive and clear alternative as regards human mobility.

Much has been achieved by SAMOT during the initial stage: a number of research projects have been planned and initiated and operations have been established/developed. During the initial stage, we have achieved the following goals: establishing operations, finding functioning forms of collaboration, accomplishing a certain amount of research output, and developing and establishing our communication plan.

During this stage, we have established an organisation with a board, a management team, an international advisory board, and partner/research councils. SAMOT has also been established as a strategic area of Karlstad University. Researchers at SAMOT have contributed towards integrating transportation research into both undergraduate and post-graduate studies. Collaboration with our industrial partners during stage 1 has been largely about establishing arenas and meetings for doing research and discussing research findings. We feel that we have developed a good model for collaboration, which can attract more partners in the future. This impression is reinforced during the interviews we have conducted with some of our industrial partners (see SAMOT Assessment report for stage 1). Advantages mentioned by different representatives include access to fresh knowledge and the long-term expertise development of one's own co-workers. SAMOT members can present results which have already been recognized at international conferences and in journals. During stage 1, we have undertaken a number of activities in order to create internal and external channels of communication.

1. Long-term Vision, Mission, and Strategy

SAMOT's vision is public transport that succeeds in combining the individual's requirements for simple, effective, and flexible transportation with society's goals regarding the long-term, sustainable development of cities and regions. SAMOT's mission is to actively contribute toward this shift, and toward the sector developing in accordance with this vision, by producing and disseminating scientifically-grounded knowledge of public transport and its circumstances; knowledge which both stimulates continued development and inspires critical reflection as regards public transport's service- and market-orientation.

In relation to the Vinn Ex criteria (as stated in the 2003 VINN Excellence Call), the following general goals have been stated for SAMOT (Table 1).

Table 1.

VINN Excellence Criteria area	SAMOT General goals
Renewal	SAMOT plays a key role in the transition of public transport from a production paradigm to a service paradigm. SAMOT strategy involves choosing partners who cover different stages and angles of social and economic processes. Thus it is important to invite additional partners to join the SAMOT collaboration
Competence of participating parties	In SAMOT, best industry practice meets state-of-the-art research for mutual learning and knowledge development
Concentrated research environment and modes of collaboration	In SAMOT, the advantages of a physically co-located research group are supplemented with various forms of industry-university interaction, the forms of which are driven by content and results rather than formal structures and organizational borders
VINN Ex in relation to the university's long-term strategy and innovation environment	SAMOT embodies Karlstad University's strategy to promote strong research environments of high societal relevance. SAMOT's results and forms of industry collaboration are seamlessly integrated and bring impetus to the university's innovation environment (incl. holding company, key actor program, and business incubator). SAMOT's setup is multidisciplinary in nature, and the researchers and doctoral students are all involved in different levels of undergraduate education in their respective subjects. Thus, one strategy involves exerting an influence in many courses on different levels.

In relation to VINNOVA's overarching aim of promoting growth and prosperity throughout Sweden, it should be noted that the transportation system is an enabling infrastructure; a resource which does not primarily obtain its value by generating direct financial returns but by facilitating other activities in society. This is, perhaps,

most clearly noticeable in public transport: an operation which has shown itself in many cases to be crucially important to societal development, both on a large scale and on the level of the individual. One consequence of this enabling nature is that innovations and new ways of thinking in public transport primarily contribute toward economic growth and social development via their impact on other sectors of society, not principally through the commercialization of the innovation per se.

This is also reflected in the goals we have in SAMOT. Certainly, our research is relevant to, and has practical implications for, industry actors in a traditional triple helix sense, but the major contributions will be of a second order nature, not appearing until politicians and other decision-makers better understand how public transport can be used as a spur for growth and a development tool, and when the individual traveler, in his or her day-to-day life, experiences public transport as a natural choice and an attractive solution to his or her transport needs. Aided by SAMOT, public transport will then actively contribute toward enhanced economic, social, and environmental quality of life by directly changing the functioning of society, thus enabling the sustainable development of cities and functional regions. This in turn, as we see it, is a necessary precondition for achieving the overarching goal.

A complementary perspective is "service as innovations". The applied research that is conducted by SAMOT in collaboration between different parties will generate several innovations. One example of an innovation that has been developed in previous research is service guarantees. Application software is being developed in an ongoing project that may be used in future marketing research and/or in product/service development.

2. Research Area, Competence Profile, and Critical Size

2.1 Core Competency

SAMOT is strong in business administration, working life science, and psychology. In total, 27 researchers have been active in SAMOT during stage 1 (listed in Table 6). As planned, we have recruited two Ph D (academy) students during this stage (one in psychology and one in business administration). Furthermore, we have also been involved in the process of recruiting yet another three Ph D (industry) students (one in business administration, one in ethnogeography, and one in total quality management). We have prepared for the recruitment of a research associate in business administration (late autumn 2008). Furthermore, we have also employed an internationally renowned visiting professor in psychology on a part-time basis.

2.2 Facilities

Karlstad University is responsible for establishing and maintaining computers and other important facilities of SAMOT. In addition, the management team is responsible for ensuring that all SAMOT researchers have access to the equipment necessary for their research. All researchers, including PhD researchers, have their own desk and computers, which all have rapid access to all major programmes and the internet. Senior researchers have their own room. In some cases, PhD researchers share a room with one other PhD researcher.

SAMOT's research facilities (picture 1) at Karlstad University are situated in a modern building, on the same floor as the Department of Working Life Science, the Service Research Center and parts of the Department of Economics. This provides SAMOT with an intellectually stimulating milieu, in proximity to other SAMOT researchers as well as scientists from other disciplines.



Picture 1. SAMOT's research facilities at Karlstad University

All the on-campus facilities are in close proximity to each other. For instance, Karlstad University Library acts as a central focal point offering high-quality academic services to students and researchers. Researchers and students have internet access to many important journals in the field of service and transportation.

Within the Library, one person is responsible for contacts with our research centre. She takes care of the service and transport literature in the library and offers courses for the staff.

The library offers a study environment with plenty of space for reading and research, as well as group discussions. Computers are available to the students, both for laboratory work as part of their courses and for individual work. Karlstad University provides stimulating environments for active learning. This diversity offers attractive meeting-places, facilities for group work, and the most up-to-date electronic tools for communication. Undergrad studies and research take place side-by-side on campus. SAMOT provides an environment conducive to innovation, in proximity to business, industry, and other actors involved in the development and establishment of a transportation profile for the research conducted by the center.

SAMOT is also manifested in cyberspace, through its website www.samot.kau.se. This website was launched during stage 1, and is frequently updated with information about SAMOT's activities and results.

2.3 SAMOT in relation to internationally leading groups

Internationally, the research group has a unique focus. The majority of the identified international research groups often focus on logistics and the more technical aspects of transportation (e.g. the Institute for Transport Studies at the University of Leeds and the Institute of Transportation Studies at the University of Berkeley). Only a few have a focus which largely corresponds to our own (e.g. the Institute of Transport Studies at the University of Sydney).

2.4 New types of collaborations

The establishment of SAMOT has resulted in a new level of collaboration between academe and industry in contrast to traditional bilateral industry-academe projects. The involvement of our partners in projects, partner council and on the board has been extremely valuable and is crucial for the success of SAMOT. The long term nature of the collaboration is vital in order to build trust.

Our goal during stage 1 was to involve partners in such a way that they will take part in and have an impact on the development of knowledge within the sector. One sub-goal was to disseminate information about current projects and research results, arrange seminars, and a "kick-off" for all members of the Center.

Within SAMOT, collaboration entails both parties being involved in the research work. Collaboration often takes place during the different phases of the research process, from the initiation of the project, during the evolution of issues, the gathering of data, the interpretation and registration of results, and up until the dissemination/publication of the research findings. Our view of collaboration is, thus,

that the user of the research is involved in the research process. The purpose of collaboration is to contribute towards the professionalization of all parties – researchers as well as practitioners.

Collaboration during stage 1 has been largely about establishing arenas and meetings for communication regarding research and research findings. We have, for example, developed a partner council and a research council which regularly meet in order to discuss research projects and development projects, both in academe and in industry. As a consequence of our communication plan (see <http://www.samot.kau.se/publications.html>), we have set up a website to further disseminate information. Collaboration within the framework of SAMOT has been developed into something other than just working side-by-side in joint research projects. Collaboration also takes place via parallel projects (development and research projects), as well as in projects where our only departure point is a commonality of interests. This various forms of collaboration within SAMOT are discussed in our policy document (“Forms of collaboration and cost accounting within SAMOT”, <http://www.samot.kau.se/publications.html>).

Stage 1 saw the arrangement and implementation of a number of seminars and workshops, as well as a “kick-off” for those active in SAMOT. We have achieved our goal well with regard to collaboration during stage 1. However, excellent forms of collaboration are difficult and vary over time. We have identified difficulties during the stage, while also seeing forms and opportunities enabling us to overcome these problems.

2.5 The value added of being a Center

By working as a center of public transportation research, SAMOT can more effectively:

- Build up capacity,
- Share knowledge,
- Build up support for transportation research,
- Minimize redundant work,
- Influence the Swedish public transportation research agenda
- Engage in long-term R&D projects encompassing long-term industry developments
- Draw on the advantages of a clear identity as an acknowledged Center of Excellence (e.g. in recruiting personnel and new partners),
- Accumulate knowledge from several projects over a longer period of time
- Act as a bridge between academe and industry in a concrete organizationally-manifested way.

The collaboration conducted by the SAMOT research center makes research more relevant to the industry. Partners also guarantee more opportunities to communicate the benefits of research by providing access to different audiences. This greatly increases the chances of successful knowledge translation, resulting in improved and effective services and a strengthened public transport system. Advantages mentioned in our interviews with some of our partners (see the SAMOT Assessment Report for Stage 1) include access to fresh knowledge and long-term expertise development in their own co-workers.

Students taking part in the center program have substantially more contacts with public transport companies than ordinary Ph D or undergrad students. These frequent contacts outside the student's own research group certainly promote the scientific and personal development of the students. In addition, they also facilitate future corporate careers.

It is also with great pleasure that we are able to note that participation in SAMOT has also encouraged several of our SAMOT partners to expand their own research capacity. For example, during stage 1, Veolia Transport applied for and was granted VINNOVA funding for a project about knowledge production from the operator's point of view. Given the shortage of industry R&D in the transport sector (as noted for example in SOU 2003:67, Echeverri, 2003, VINNOVA Publication 2004-05-14), this development is encouraging.

Stage 1 has been a build-up period for SAMOT. During the period, we have expanded the number of researchers working at SAMOT. Through our background in the Service Research Center, right from its inception, there has been a critical mass of senior researchers. Gratifyingly, we have recruited many committed researchers who criticise and express viewpoints about, for instance, the content and design of SAMOT projects. Points of view are also gathered in from our partners. A guiding-light during the first stage has been the maintaining of genuine relationships with our partners. Partners have a more important role than merely being sponsors.

3. Center partners - companies and public service partners

3.1 Partner profile, interests, and interaction with SAMOT.

Our partners take part in decision-making on all levels and with regard to all aspects of SAMOT activities, including research strategy. Our partners are members of the board that decides on research policy at SAMOT. Companies are represented on the partner council, as well as in different projects where the detailed planning of activities takes place. The majority of SAMOT projects have been jointly initiated by university researchers and partner employees. All in all, the member companies have far more influence on SAMOT research than they have on industry-sponsored university research in general.

Table 2. Participating industrial and public partners

Name	Corporate profile	Number of employees	Location	Main interests in SAMOT	Interaction with SAMOT
Värmlandstrafik	Transportation principal	57	Karlstad	Utilizing a transportation principal as a proactive tool for sustainable regional development.	Member of the Partner Council, industrial Ph D students, research projects
Svensk Kollektivtrafik	Trade organisation	8	Stockholm	Sustainability, accessibility for the disabled, service frequency, consumer and marketing issues, new transportation solutions, service management, contracts and quality.	Member of the Partner Council and SAMOT Board (chair), research projects
Stockholm Transport	Transportation principal	700	Stockholm	Market and customers, business concept, brand identity and transportation services, contractual governance. Applied research within BEST (Benchmarking in European Service of Public Transport).	Member of the Partner Council and SAMOT Board, research projects
Veolia Transport Sweden	Private operator	7,500	Stockholm	Customer perceptions, management issues, HRM issues, service encounters, and broader institutional/societal issues.	Member of the Partner Council, research projects
City of Gothenburg (Mobility Services)	Transportation principal	119 (45.000 in Gothenburg Municipality)	Gothenburg	Customer-orientation, quality development, HRM issues, and contractual governance problems.	Member of the Partner Council, research projects
Gothenburg Trams	A major operator in Gothenburg	2,296	Gothenburg	Accessibility for the disabled, service quality, customer orientation, HRM issues, and service encounters.	Member of the Partner Council and SAMOT Board, research projects
Karlstad Municipality (Town planning administration/Karlstadsbuss)	A municipal transportation principal	66 (6,707 in Karlstad Municipality)	Karlstad	Utilizing a primary municipal passenger transportation solution with the possibility of functional municipal enlargement.	Member of the Partner Council, research projects

3.2 Mechanisms for innovation and knowledge translation

Ideas for research projects from industrial partners aimed at stimulating needs-driven research have several sources, e.g. previous internal development projects, internal ongoing development projects, and/or the monitoring of external collaborative development projects.

Industries with great determination initiate new project ideas to be tested (“industry as project generators”). Their project leaders and assistants are accustomed to associating with (social) scientists and know what to expect and what is possible to accomplish. These organizations have the capacity to unearth the extra resources needed for surveys, telephone interviews, or the gathering of statistical material. In comparison with the project generators, the category “industry as the object of study” has less experience of working together with scientists. However, the interest of these industries in the project is no less; it is just expressed in other ways. What gives such industries the epithet object of study is that they do not show as much interest in change, new subprojects or data handling, but they open their doors to researchers and PhD students to study what occurs in the transport sector. Thus, researchers have ideas that industries welcome and want to participate in. Their participation is also active and paves the way for internal reflection upon one’s own activities. The industries see the opportunity to think long-term.

Knowledge translation (KT) in SAMOT can be divided into two main categories: integrated knowledge translation and end project knowledge translation. In integrated KT, stakeholders and potential research knowledge users are engaged in the entire research process. Researchers and research users work together to shape the research process, starting with collaboration to set the research process, decide the methodology, be involved in data collection and tool development, interpret the findings, and help disseminate the research results. This approach, also known as collaborative research, action-oriented research, and the co-production of knowledge, should produce research findings that are more likely to be relevant to, as well as used by, the end users.

In end KT, the researcher makes the users aware of the knowledge gained from the project, e.g. conference presentations and publications in peer-reviewed journals. This can also involve more intensive dissemination activities that tailor the message to a specific audience (i.e. summary briefings to stakeholders, educational sessions with practitioners and/or policy makers, and media involvement).

3.3 Mechanisms for KT into new products, processes, and services

On its own, the creation of fresh knowledge does not often lead to widespread implementation in or impact on the public transport sector. There is an iterative

process by which knowledge is put into practice. Great efforts are made by Karlstad University to develop the Karlstad region into a strong environment for innovation. Karlstad University is actively involved in promoting new start-ups and regional development.

Business incubator Inova (supported by VINNOVA) provides entrepreneurs, students, researchers, or members of the general public with professional advice and a supportive environment wherein the development of business ideas into operational companies can be effectively carried out. Since the autumn of 2007, the University has also jointly been conducting a project with other regional actors within the framework of VINNOVA's Key Actor Program. The general objective of the program is to further enhance Karlstad University's ability to develop its research and education efforts by creating innovation and renewal in trade and industry as well as in the public sector. Furthermore, the program will develop the University's ability to understand and utilize the innovation system and further enhance the innovative process. This is being accomplished through a combination of program-specific activities, the establishment of additional support functions, and an enhanced learning process involving leadership and governance structures throughout the University. All in all, Inova and the Key Actor Program provide SAMOT with a comprehensive infrastructure for commercializing its research results.

SAMOT's commitment to innovative research means that we are building partnerships with a variety of stakeholders including the public, governments, universities, branch organizations, industry, and international organizations.

The key to stimulating the implementation of SAMOT research, however, is the active participation of our partners in the projects. Veolia Transport has embarked upon interesting initiatives in order to implement, on a comprehensive level, service- and market-oriented ideas on an internal corporate campus. In doing this, Veolia Transport is seeking to utilize academic research findings, including those directly emanating from SAMOT, in order to boost its knowledge-based competitiveness.

3.4 Measures to achieve strong links and integration

There has been a high level of involvement in SAMOT activities during stage 1. This has, for instance, been ensured by membership of the SAMOT partner council and the design of the projects. The partner council and the researcher council have been assembled a number of times during the stage in order to exchange experience. A concrete example is SL's interest in BEST data (benchmarking in European service of public transport) which led to a project where we have jointly analyzed and compared factors predicting satisfaction with public transport services in nine large European cities. Furthermore, the partner meetings have been held at different geographical locations to ensure a high level of participation. Partners have also

taken an active part in the project generation process during which they (among other things) make comments and recommendations regarding further actions (see Section 6.5, Figure 2). Another example is the industrial postgraduate projects initiated by Värmlandstrafik AB. Where three people, as part of Värmlandstrafik in-kind contribution, are employed by the company and are doing their PhDs within SAMOT. Further concrete examples include collaboration projects initiated at partner workshops and operationally-led interest on the part of Veolia Transport as regards studying the consequences of the new ticketing system in Stockholm.

Joint SAMOT reports, between academe and industry, have been published.

Every project is of particular interest to at least one partner, often several. Numerous informal meetings take place between the researchers and the relevant partner.

4. Research Program

4.1 Overview of the research program

During stage 1, a research profile containing three related main themes was established, which will also serve as the basis for SAMOT's operations during stage 2. An important point of departure is *how public transport is perceived by its users*. Also of importance are the employees' perceptions of the service operation, as well as their own work. From this, the following questions arise: "What is it, in actual fact, that is perceived?" and "What is public transport's 'product' or *customer offering*?" We are of the opinion that this offering is, to all intents and purposes, synonymous with the way in which the operations of the public transport companies are organized. Finally, we would also like to highlight the underlying *frameworks* and *rules of play* governing the sector and its actors. This is where the foundations are laid for the customer offerings produced, and thus also for the public transport that the passenger finally experiences.

Below, we describe the individual projects that have started up during stage 1 (for an overview, see Table 3). We begin with research projects conducted by senior researchers. Next, we describe our PhD projects, starting with the PhD program for industry and, finally, the PhD program for academe. Those partners most closely associated with the input are named under each project.

Table 3. Project overview

Title	Theme	Project leader	Status
Senior research projects			
1. Public Transport Satisfaction and Service Supply	1	Markus Fellesson	Ongoing
2. Trust, Flexibility and Changing Conditions of Work	1	Tommy Nilsson	Completed
3. Soft policy measures	1	Margareta Friman	Ongoing
4. User Involvement	1	Per Echeverri	Ongoing
5. Service development in multi-party collaboration	2	Patrik Gottfridsson	Ongoing
6. Organisational Reconfiguration Based on Service concept	2	Markus Fellesson	Ongoing
7. Value Creation as a tool for Sustainable Public Transport	3	Bo Enqvist	Ongoing
8. Market relations and relationship markets in public tendering	3	Patrik Gottfridsson	Ongoing
PhD programs – industry			
9. Motorists' capacity to predict their own satisfaction with public transport	1		Ongoing
10. Value-creating public transport	2		Ongoing
11. Quality from a system perspective	2		Ongoing
12. Route structure and regional development	3		Ongoing
PhD programs – academe			
13. How can travel on public transport replace travel by car?	1		Ongoing
14. What was the assignment again? On assignment formulation in project-based service development	2		Ongoing
15 The role of the service environment in the service experience	2		Ongoing
16. Contracts in the Public Transport industry	3		Ongoing
17. Service dialogue and service commitments as a means of increasing customer orientation	3		Completed

4.2 Descriptions of the research projects

A brief description is given of each ongoing research project.

4.2.1 Senior research projects

Public Transport Satisfaction and Service Supply

[Associate Professor Margareta Friman and Markus Fellesson PhD. From April 2006 to December 2008]. In the present project, we derive and investigate the salient dimensional structure of satisfaction regarding the European public transport industry using a multitude of service attributes and data from nine major cities across the continent. The aim is to identify empirically robust factors that can serve as a basis for further studies of public transport service satisfaction. The project has also included an overview of the possibility of charting various objective performance measurements in these nine cities.

Soft policy measures

[Professor Tommy Gärling and Associate Professor Margareta Friman. From April 2008 to April 2011].

The aim of soft policy measures is to exert an influence on individuals so that they change from habitual car journeys to other methods of transport by means of influencing their attitude and motivation. An important aim is determining which design is the most cost-effective. It will also be important to study what happens in other parts of the world. We will be developing international collaboration with the Tokyo Institute of Technology and Giessen University.

Service development in multi-party collaboration

[Professor Bo Edvardsson, Patrik Gottfridsson PhD. From January 2007 to December 2008]. The aim of this study is to apply a learning perspective to the service development process. Consequently, this study focuses on inter-organizational service development, with a particular focus on the communication, organizational learning and knowledge transformation that takes place between the parties interacting during the service development process. The empirical part of the study draws on three cases of service development processes within the public transport sector, all in the area of developing information and ticketing systems.

Organisational Reconfiguration Based on Service Concept

[Per Echeverri PhD, Markus Fellesson PhD. From May 2007 to May 2010]. On an overarching level, this project is about how development occurs in situations with double regimes, where a societal logic and a commercial logic are at work side-by-side. How do we make an organisation function in a customer-/service-oriented way along commercial lines, given the prerequisites of the industry? How do we manage the scope for action and the incentives which, in spite of everything, are to be found in the shaping of service culture?

User Involvement

[Per Echeverri PhD. From May 2007 to May 2010]. The overall aim is to make a theoretical contribution towards understanding the physical service environment and process quality by studying travellers with newly-acquired experience of travelling on public transport. A specific purpose of this project is to address alternative ways of evaluating user ideas. The project also addresses issues concerning how to develop methodology for a more real-time-oriented methodology.

Value Creation as a tool for Sustainable Public Transport

[Associate Professor Bo Enquist. From April 2006 to December 2008]. The focus of this project is to describe, analyse, interpret, and compare, in both Swedish and International contexts, the coordinating actors, systems, and infrastructure in value chain relationships from a dynamic sustainable service business point of view. The theoretical background is based on service logic, including value-in-use for different stakeholders. The research method is of a critical interpretative hermeneutic nature based on explorative case studies meeting a conceptual and theoretical framework designed for each subproject to provide a deeper understanding of different parts of the phenomenon of "Value-creating sustainable public transport".

Market relations and relationship markets in public tendering

[Patrik Gottfridsson, PhD. From April 2008 to June 2011]. How should the tendering process be organized and the final contract designed in order to function as a basis for successfully developing public transport throughout the contract period? The project's aim is to increase understanding of how managerial ideals of long-term development based on cooperation and relations of trust can be reconciled within the context of the more competitively-based and price-oriented logic that a tendering process traditionally implies.

4.2.2 PhD program – industry

Value-creating public transport

[Doctoral student Andreas Andeberg. Sponsor: Värmlandstrafik AB, County Administrative Board and the Swedish National Road Administration. Supervisors: Associate Professors Bo Enquist, Margareta Friman and Lars Haglund. From January 2006 to January 2011]. This project focuses on value creation when personal interest is in conflict with the interests of the general public (the social dilemma). One aim is to investigate sustainable public transport practice. Another is to explore value drivers in public transport, according to individuals.

Route structure and regional development

[Doctoral student Stephan Bösch. Sponsor: Värmlandstrafik AB, County Administrative Board and the Swedish National Road Administration. Supervisors: Professor Sune Berger, Professor Gerhard

Gustafson and Associate Professor Thomas Blom. From January 2006 to January 2011]. This project asks what role public transport plays in sustainable regional development. The project aims to investigate whether people in different places have different inclinations as regards using public transport. The project will also deal with culture on a societal level where public transport and physical planning boundaries (mostly administrative and functional ones) will be of interest.

Co-creation of value in public transportation

[Doctoral student Åsa Rönnbäck. Sponsor: Värmlandstrafik AB, County Administrative Board and the Swedish National Road Administration. Supervisors: Associate Professors Lars Witell and Bo Enquist and Professor Bo Bergman. From January 2006 to January 2011]. The overall purpose is to investigate *what* creates value among PTA contractors, users and potential users in public transport. A specific aim is to study how a Quality Management System can be designed and developed for a network of companies.

Motorists' capacity to predict their own satisfaction with public transport

[Doctoral student Tore Pedersen. Sponsor: the National Institute of Occupational Health (Norway). Supervisors: Associate Professor Margareta Friman and Per Kristensson PhD. From May 2006 to May 2010]. Better understanding is required of the psychological mechanisms underlying people's judgments regarding public transportation. One initial aim is to examine whether or not a satisfaction gap exists between frequent and less frequent users of public transport. A subsequent aim is to examine whether or not car users will rate public transportation more correctly after actually having experienced bus or train travel over a period of time.

4.2.3 PhD program - academe

Contracts in the Public Transport industry

[Doctoral Student Carolina Camén. Supervisors: Associate Professor Bo Enquist, Professors Bo Edvardsson and Tore Strandvik. From April 2006 to December 2008]. Contracts are used within the industry and form part of daily life, making it important to have an understanding of the effects a contract can generate. Contracts are drawn up and used because this is customary, both as a communication tool and to reduce uncertainty and risks. It is also in the contract that the service is specified and described. This project contains five subprojects where different aspects of contracts are studied.

What was the assignment again? On assignment formulation in project-based service development

[Doctoral Student Anna Stålhammar. Participating researcher: Anna Stålhammar. Supervisors: Associate Professor Lars Haglund and Professor Bo Edvardsson. From April 2006 to October 2008]. The overarching aim of the project is to describe as well as intensify understanding of how the service development process is carried out during interorganizational project collaborations. The contribution made is a detailed description of how the service development process has been carried out, from an action-oriented

perspective. The theoretical contribution consists of a process model illustrating how both the conceptual work and the design/implementation work are continuously being done throughout the entire development process.

The role of the service environment in the service experience

[Doctoral Student Jörg Pareigis. Supervisors: Professor Bo Edvardsson and PhD Per Echeverri. From April 2007 to April 2011]. Little is known today about the interaction processes between customer and service environment. One aim is to obtain a better understanding of these processes, in particular how value is created for customers and what the underlying drivers for favourable service experiences are. The two main research questions to be answered during the course of the project are: Which role does the service environment play in the service experience? And how can interaction processes be captured?

How can travel on public transport replace travel by car?

[Doctoral student Lars Eriksson, Supervisors: Associate Professor Margareta Friman and Professor Tommy Gärling. From May 2006 to May 2010]. The main purpose is to study which public transport services are attractive to car users. Different types of factors affect motorists' choices of mode of transport. Some are related to the PT system and others are related to the individual. Factors related to the PT system and the individual are interlinked, e.g. a change in the PT system can affect the opinions of the individual. The costs of the different modes of transport, as well as perceived time pressures, are of importance.

4.3 Research productivity

A specified goal in SAMOT's operational plan is international publication during each project. Since stage 1 was a setting-up phase, scientific publications were not expected to be as numerous as during subsequent years. However, as can be seen in this evaluation, several SAMOT members are in a position to present results which have already been recognized at international conferences and in journals.

Evolution towards international establishment commenced during stage 1, among other things aided by our international advisory board. During this stage, we have designed and started up a number of research projects which will probably generate a number of publications during the next stage. During the initial stage, we published 6 scientific articles (e.g. in *Transportation Research Part F: traffic psychology and behaviour*). A further 10 articles have been submitted to various journals for review. We have produced one PhD and one Lic Degree during the stage. We have written 3 SAMOT partner reports and presented 22 conference papers using the peer review system. All our research production is listed in Appendix 2 (Activities Report – Stage 1).

We have also involved previously ongoing doctoral projects at the Service Research Center in SAMOT's operations. This resource allocation to the transportation sector has been successful. It has contributed towards creating a critical mass which has supported the development of new transportation projects, while also benefiting the individual doctoral candidates. We feel that we have achieved our goal well with regard to scientific production during stage 1.

5. Financial Report for Stage 1

Financing of the Center has been the result of negotiations ahead of stage 1, and finalized in the agreements signed by all the parties. During spring 2008 it was decided, in agreement with VINNOVA and partners, to start stage 2 three months later than planned. As consequence, stage 1 was prolonged with three extra months. Thus, year 2 in stage 1 included 15 instead of 12 months. Table 8 (see Appendix 1) gives an overview of the financing of the Center by Karlstad University, VINNOVA, and the participating industrial partners during the initial year of stage 1. Karlstad University's contributions have been both in kind and funding. Industrial partners only made in kind contributions. From the Center's point of view, both types of contributions are valuable. In kind contributions pave the way for closer interaction between academe and industry, while funding provides the operational freedom to manage projects and other centre activities.

Existing sources of non-Center funds supporting related research is described in Table 12. Four grants have been applied for during this first stage. One has been granted (Methods for user involvement – META). The "Proposals for grants to younger researchers and international evaluation of Swedish research in the field of urban transport, Stage 2" was rejected. The expert group concluded that none of the applicant did have a clear framework within which to place the VREF young researcher grants. However it should be noted that they were impressed by the spirit and outreach of the SAMOT group. Yet another application that was turned down was "National centre for applied gender research at Karlstad University, Stage 2. During this stage we have also prepared an application to VINNOVA called "Individualised public transport adapted to motorists' transportation needs".

It should also be mentioned that we have other existing sources of non-Center funds supporting related research during stage 1. These financiers are the Swedish Rail Administration, the Swedish Road Administration and VINNOVA. Our partners have also their own related research projects supported by VINNOVA, the Värmland County Administrative Board and the Swedish Road Administration.

6. Organisation and Management of the Center

The organisation of the Center is illustrated in Figure 1. The projects are grouped under general themes.

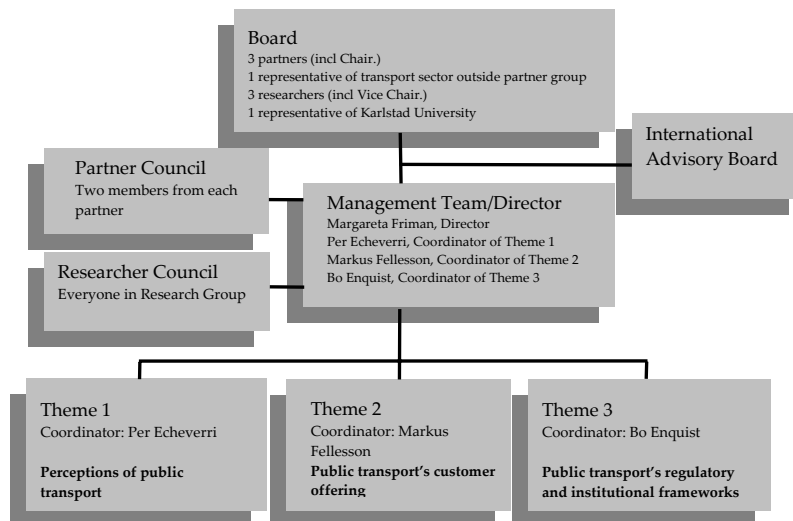


Figure 1. Organisation plan

6.1 Board of Directors

The board is comprehensively responsible for operations at the Center. Its brief is to make decisions regarding strategic development and focus. It has to work towards the common interests of the partners and keep them informed about circumstances considerably delaying, or preventing implementation of, the operational plan. It has to serve all parties with an annual budget for each year of operations, as well as monitor that annual and final reports are submitted by the University. Its duties include making decisions regarding individual project proposals screened, prepared, and approved by the Management Team. The Board of SAMOT is composed of members from three partners (the Chair is recruited from this group), three researchers, a representative of Karlstad University (Vice Rector), and a representative of the transport sector outside the circle of partners. The board meets three times a year. A work schedule has been drawn up during the stage which more closely describes the work of the board ("Arbetsordn SAMOT styrelse" in Swedish, see <http://www.samot.kau.se/publications.html>).

6.2 International Scientific Advisory Board

An international advisory board was set up during the year consisting of three people from Norway, the Netherlands, and the USA. The international advisory board is regarded as an important catalyst in international collaboration and exchange (e.g. EU projects). An initial meeting took place between the board, the management team, and the international advisory board in Karlstad on 15 May 2007 when we discussed, among other things, the future evolution of public transport and important research issues, future research collaborations, and the role of SAMOT in the international arena.

6.3 Management Team (incl. Director)

The Director is rapporteur to the Board and jointly responsible, with the Management Team, for the operational management of activities. The Management Team implements strategic decisions made by the Board and in other respects manages operations at the Center. The duties of the Management Team include initiating, coordinating, and evaluating new research projects in dialogue and collaboration with the Board, and the Researcher and Partner Councils. Over and above this, the Management Team will monitor project plans, progressions and outcomes. The Management Team meets once a month.

6.4 The scientific leadership of the Center

The Management team consists of the scientific leaders of the Center. The scientific leadership of the Center comprises four senior investigators, two of whom hold Associate Professor-level appointments at Karlstad University (Drs. Enquist and Friman) and two Ph D-level appointments (Drs. Echeverri and Felleson).

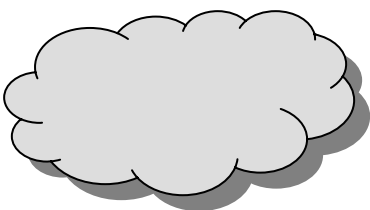
In order to further strengthen the scientific leadership, two professors have been drafted onto the board (important with regards to project decisions, see 6.5). The SAMOT international advisory board also constitutes a part of the scientific leadership of the center. Scientific leadership is also practiced on various supervisory committees and in individual projects. In these projects, several professors with differing subject backgrounds are involved.

6.5 The project generation process

The project generation process is illustrated in Figure 2. The center welcomes project proposals from SAMOT's industrial partners and academic researchers for research within the operational plan of the center. It is necessary that the proposer has established contacts and has gained preliminary approval for the project idea with the relevant partners prior to submission. It is also recommended that the project is discussed with members of the management team. The project proposal does not have to have been finalised when handed in for the first time. The management team announces, twice a year, a final date of submission for project ideas (once in the spring and once in the autumn).

Each proposal will be evaluated according to a list of criteria (se below) by the executive team. Projects that are approved will thereafter be sent to the SAMOT partner council who will make comments and recommendations regarding further actions.

The management team then takes the information into account when making a final recommendation to the board. The board will in turn make a decision regarding which projects will be launched.



Industry
Society
Researchers/partners

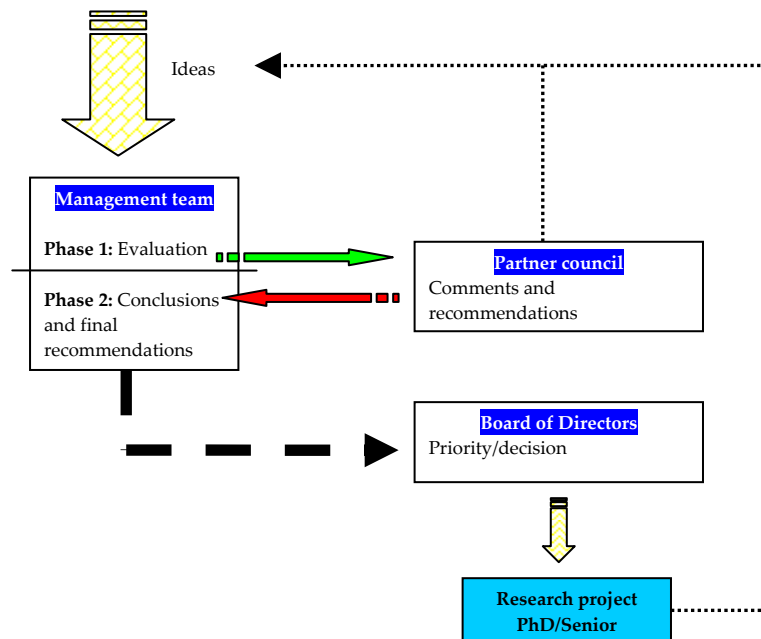


Figure 2. The project generation process

The criteria used by the executive team to evaluate each project proposal are as follows:

- Output
- Relevance
- Internationalisation
- Commitment
- Quality

6.6 Measures to stimulate innovation processes

Development, knowledge-creation, new understanding, innovation, knowledge transfer, and implementation must primarily be based on the involvement of the right people. We have observed great advantages to developing research projects in collaboration with industry-connected, reflective practitioners, as well as in relation to other service industries. We see it as particularly useful for the passenger transport industry to gain access to knowledge development in other industries. Secondly, knowledge production must be based on collaboration being built into the projects. If collaboration does not take place within the core processes of knowledge production, with co-workers and collaborating parties who feel motivated to keep the contact alive, the search for collaboration could be in vain. Thirdly, the collaboration must be built into several of the many phases of the knowledge process, everything from the idea stage to the implementation stage. We thus aim to build collaboration into each subproject as far down into the research organisation as possible. During the project, it is often of great value for a researcher to have these contacts. These provide access

to the problems facing the industry, as well as evaluation of the progress of the research. It is in accordance with these principles that we work during our projects.

The results of SAMOT's research can, via the collaborating partners at the center, be rapidly developed vis-à-vis companies via the joint incubator environment Inova.

SAMOT also contributes to the innovation and renewal of public transport on an industry level. By actively participating in the Koll Framåt government-sponsored task force, SAMOT researchers have been able to directly influence policy work and provide input into the future development of the sector. Following SAMOT's dedication to service and market orientation, creating the right institutional and cultural conditions for innovation and entrepreneurial activities in the transport industry is central to these efforts.

6.7 The status and role of the Center vis-à-vis the university

SAMOT matured and became an important and integral part of Karlstad University during stage 1. The status and role of SAMOT are commented on in this section in relation to the university's organisational units, the faculty, the central administration and other centers.

The University's organisational units. To realize Karlstad University's Vision 2015 (C2004/207), the University's strategy (C2007/127) is to promote multidisciplinary research environments that are capable of participating in the international scientific community while also cooperating actively with the society around them in knowledge creation and dissemination. SAMOT, with its focus on multidisciplinary world-class research in cooperation with public and industry partners and aimed at sustainable societal progress, fits well with the University's vision and strategies, as does the VINN Excellence model in general. Furthermore, SAMOT strengthens one of the University's six prioritized knowledge areas; the communication and service society. The University shares the Researcher Council's perception that the shaping and evolution of the transportation system is an important driving force for the sustainable development of societal activities in different areas, in public life, and in trade and industry. SAMOT can contribute and propel the university towards excellent research, with good social links.

SAMOT is a strong multidisciplinary research environment with an academic cutting-edge, playing an important role in the evolution of the University's intellectual infrastructure. SAMOT provides a good environment and scientific base for both undergraduate courses and master's programs, as well as on the doctoral level. The students of such courses/programs will contribute to regional as well as national development and supply international networks with unique competence. The University intends to develop this profile in close collaboration with both trade and industry and society.

The Faculty. The university's vision has been translated into a organization that was implemented with effect from 1 January 2006. Four faculties are organized to form the basis of multidisciplinary collaboration. The organization challenges tradition in several respects. The SAMOT Research Group is part of the Faculty of Economic sciences, Communication and IT. This broad concept has woven business administration, economics, psychology, law, computer science, working life science, informatics, and media and communication together in an exciting academic mix ready to face the challenges of today's society.

Central administration. SAMOT is well perceived by the central administration of Karlstad University. Even when negotiating the initial contract with VINNOVA, the Vice-Chancellor of Karlstad University underlined the fact that SAMOT was well in line with the University's vision, strategy and organization and that this would contribute to the University achieving its goals, acting as a positive force in the development of its infrastructure. Experiences from stage 1 of SAMOT have further strengthened this conviction.

Consequently, the Board of Karlstad University has recognized SAMOT as a priority area during the upcoming planning period and has included the University's co-financing as one of its specified budgetary items for the upcoming stage (Ref no. C2007/129). It should be noted that, due to the University's employment policy, direct allocations spent on hiring staff (with the exception of short-term contracts) are reported as in-kind contributions, since all posts are formally administered by the faculty board. Initiatives and job descriptions, however, are provided by the SAMOT board. This is important when the in-cash/in-kind ratio of the University's commitment is analyzed.

Other Centers. The SAMOT Researcher Council has evolved from the Service Research Center (CTF). Established some twenty years ago, CTF is a forerunner in the development of multidisciplinary service management thinking, as well as in the establishment of service science as an academic discipline. CTF provides SAMOT with a conceptually solid foundation for developing a service-oriented approach to public transport. Affiliation with CTF also encourages SAMOT researchers to actively contribute to service theory by bringing insights from specific SAMOT projects to the general academic debate in service management research. In particular, we see that the specific conditions of public transport highlight aspects of service production and consumption that have previously been ignored by service research. The consumer's cognitive and affective response to low-key involvement, repetitive mass-services being one example, as is the complex role played by technological infrastructure in such service operations. There are also important contributions to be made, by SAMOT, to the debate about service value and the development of a service dominant logic.

Furthermore, SAMOT and CTF share premises as well as some administrative resources. This lays the foundation for a very creative research milieu where truly multidisciplinary encounters can occur on a spontaneous, day-to-day basis.

In addition, SAMOT has also initiated collaboration with Cerut (Center for research on regional development) at Karlstad University. This opens up new research opportunities; for example, when it comes to the role of public transport in a sustainable society. The collaboration ranges from joint applications for external research grants to shared responsibilities in PhD supervisor committees.

Figure 3 illustrates how SAMOT is supported by the organization of the University.

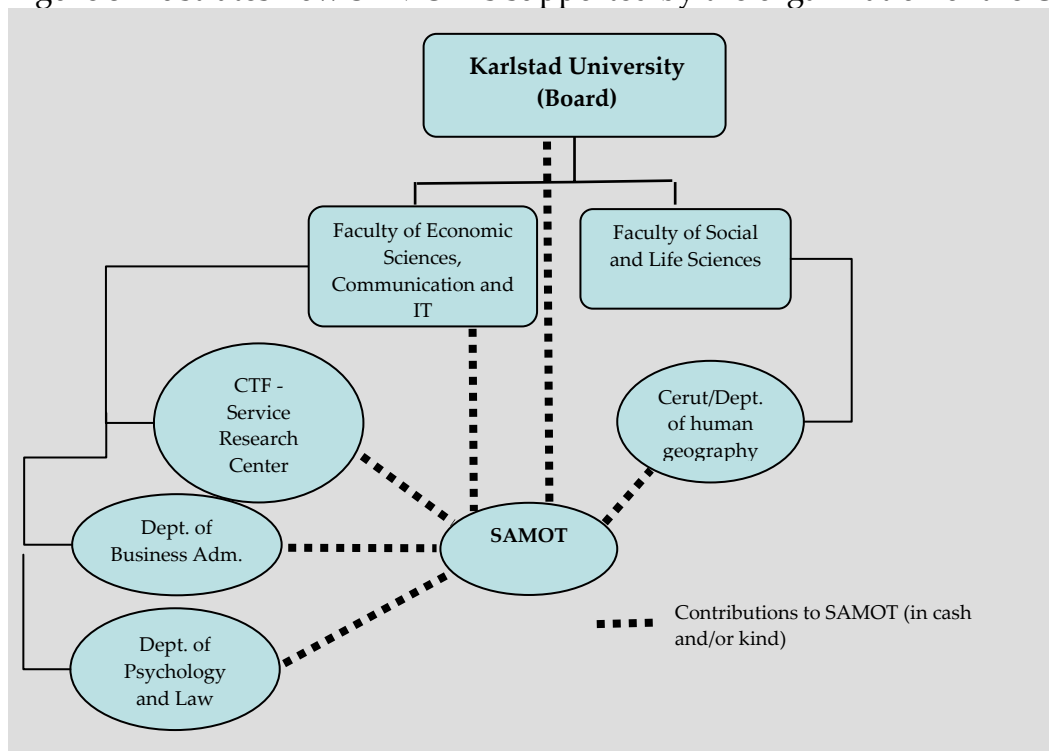


Figure 3. Karlstad University's support of SAMOT

One thing that has been of significance to the work of the SAMOT endeavor from the outset is the high level of commitment and enthusiasm of our industrial partners. This has made it possible to overcome many of the unavoidable obstacles when establishing a center like SAMOT.

Stage 1 has been characterized by an ongoing learning process, where expectations regarding input, output, ways of working, commitment, and reporting have been gradually refined and adjusted. This learning has been fueled by the day-to-day operations of SAMOT, as well as by the external evaluations conducted. The management team has deliberately taken a pragmatic stance in its work, avoiding formalities and stressing the importance of dialog with those involved in solving

problems. “Will this help to make SAMOT a better Excellence Center?” is the underlying question guiding all actions.

We sincerely believe that the key to SAMOT’s long-term success lies in retaining this positive, entrepreneurial spirit and avoiding bureaucratization and administrative overloads. We hope that all parties involved in SAMOT (including VINNOVA) share this belief in the power of relevance, trust, and good faith.

6.8 Communication

SAMOT is a collaboration between various parties; it is thus natural that communication and clarity take center stage in order for the parties to finally be able to achieve successful operations. Early on during stage 1, a communication plan was drawn up whose aim was to make SAMOT’s information and communication operations transparent, as well as work as a guiding tool for SAMOT’s managers and management team in their operations and prioritizations regarding information issues. The communication plan contributes to the overarching goal of the Vinn Excellence endeavour by ensuring professional and effective communication between the involved parties, something which is of key importance in allowing the collaboration which is aimed at to come about and obtain real content. During the initial stage, we have thus been working with internal and external channels of communication. Examples of internal communication channels include arranging meetings between our partner and research councils (1 meeting/term) where we have presented project plans, planning reports for doctoral theses, the findings of various sub-studies, and the case-studies and success stories of our partners. Examples of external communication channels during stage 1 include producing brochures, creating a website (www.samot.kau.se), which is expected to contribute towards good external and internal communication, and participating in national/international conferences/seminars. We have been actively working on developing and establishing our communication plan. In this way, we feel that we have achieved our goal well in this respect.

6.9 Measures to stimulate mobility

Industrial PhD students are one form of researcher exchange and mobility between the industrial/public service partners and academic milieus. In stage 1, the number of industrial PhD students in SAMOT was four. The PhD students’ professional activities lie outside the university. They are conducting research training within the framework of their professional activity.

Senior researchers at SAMOT are also encouraged to take on shorter industrial assignments, as consultants and/or experts. The involvement in Koll Framåt is one such example, where academicians in parallel with their research have also assumed a more operative role.

Similarly, interested practitioners are also invited to work in SAMOT research projects. A concrete outcome of such a collaboration is a joint research paper authored by Bo Enquist of SAMOT and Lars-Uno Roos of the Volvo Group, which was presented at the QMOD conference in Helsingborg in 2008.

Another measure to stimulate mobility is encouraging recruitment. Two of our (undergrad) students have found employment during stage 1 in the transportation industry due to their essay work at SAMOT. Furthermore, during the initial stage, two of our (female) senior researchers have left the academy to the benefit of the (transportation) industry (see Picture 2).



Picture 2. Former SAMOT researcher Sara Björnin Lidén, now group leader at WSP Sweden.

All in all, the collaboration strategy developed by SAMOT during stage 1 encourages various forms of interaction between industry and academia, ranging from informal meetings and discussions to the extensive industrial PhD project of Värmlandstrafik. These efforts blur the demarcation between research and practice, and encourage participants from both sides to get involved in each other's activities, in the short-term as well as the long-term

6.10 Measures to provide equality of opportunity

One aim (in accordance with Karlstad University's gender equality plan, see Ref no C2006/259 and Ref no C2005/102) is to achieve a gender ratio of 60/40 (male/female) on all academic levels in the SAMOT research group. This aim has satisfactorily been met on the PhD student level. However, a problem has been identified on the senior level where the ratio is very distorted. One explanation for this is that two of our senior female researchers have left the academy to the benefit of the (transportation) industry. Strategies for achieving this goal during stage 2 include supporting PhD students in obtaining funding after their PhD exams and actively encouraging women to apply for advertised posts.

Equal opportunities issues are also being dealt with by SAMOT research-wise, among other things through a "User involvement" project where methods are being developed in order to directly be able, during ongoing travel, to capture the experiences of the disabled and their perceptions of public transport. Accessibility issues will be a recurring theme in several SAMOT projects during stage 2, due to the governmental ambition to make all public transport accessible to everybody by 2010.

7. Highly competent staff at the Center during Stage 1

7.1 Contribution to university education

SAMOT's setup is multidisciplinary in nature, and the researchers and doctoral students are all involved in different levels of undergraduate education in their respective subjects, which are currently business administration, working life science, and psychology. Thus, one strategy is to exert an influence on many courses on different levels. A new master's program will be launched during the autumn of 2008 (Master of Public Transport Management), which is part of our strategy to manifest SAMOT research in undergraduate studies. A professor in service management, with the emphasis on passenger transportation, recruited during 2009, will support this venture.

7.2 Leading international competence

Recruiting members for our international advisory board has not presented any problems. Our understanding is that the members immediately realized the

advantage of conducting high-quality research at a VINN Excellence center. The construction itself offers many possibilities.

During Stage 1, we recruited a professor of international repute. Our offering is to conduct exciting projects within the framework of SAMOT's operational plan. This has been successful and our Stage 1 visiting professor will also continue during the next stage, while we also invite more scholars to spend time in our research environment.

SAMOT has also invited an international guest to stimulate the links with basic research. In the winter of 2007, Associate Professor Martin Fougère, Hanken School of Economics, Helsinki, visited SAMOT to co-author a Routledge book in which the academic discipline of marketing (an important theoretical foundation of SAMOT) was analyzed using a Foucauldian framework.

7.3 Student backgrounds

Table 1. Percentage of students associated with the Center whose first degree is from Karlstad University, another Swedish University, or universities outside Sweden

Category	First degree from Karlstad university	First degree from another Swedish university	First degree from a university outside Sweden
Undergraduate students (master's degrees)	4%	40%	56%
PhD students	63%	12%	25%

7.4 Opportunities for students to travel

As regards internationalisation, SAMOT and Karlstad University have set their targets very high, aiming to provide good opportunities for faculty exchanges and for students to do some of their studies at universities outside Sweden, and also to attract international students to Karlstad for a semester or a year.

The University has a wide range of bilateral cooperation agreements with European universities, both within the framework of the Socrates Programme and outside it. It is also involved in a number of projects within the Socrates, Leonardo da Vinci, and Tempus programmes, as well as other European Union programmes and initiatives.

Furthermore, Karlstad University was one of the founding members of the Compostela Group of Universities, a network of over eighty universities throughout Europe centered on the University of Santiago de Compostela.

Cooperation with universities outside Europe is also of major significance and the University has agreements with institutions in many countries and regions, including the US, Canada, Australia, New Zealand, Japan, India, South Africa, Korea, China and Latin America. Cooperation with India is particularly extensive. For a number of

years, the University has been an active member of the International Student Exchange Program (ISEP) and of the European University Association (EUA). We also participate in the OECD project "Supporting the Contribution of Higher Education Institutions to Regional Development".

We offer our essay students the opportunity to conduct field studies (both nationally and internationally). Besides giving our students financial support, we can also provide them with a wide contact network, nationally and internationally, within the transportation sector.

8. Summary of the plans for Development for Stage 2

8.1 Development of the Center, stage 2

We can state that – after the initial two-year period – it is our intention to continue our research with the same aims as today, i.e. to contribute to the public transport industry's sustainable development by supporting its evolution towards customer-orientation and managerial and institutional renewal.

Our strategy during stage 2 will be expressed in the content and shaping of the research projects as these are a means of achieving the Center's goals in both the short- and long-term. During the initial 2-year period, we have discussed the content and aim of our research, in particular within the partner and researcher councils, but this has also been an important subject at our Board meetings. This in turn has resulted in underlining the importance of both national (partner reports) and international publications. We have stimulated, and will continue to stimulate, collaboration between all our projects. Another goal is helping doctoral students to take part in international conferences and other forms of exchange. This is already taking place and is something that we will continue to support during the remainder of the duration of the project. By encouraging our doctoral students to study abroad, we will also be strengthening our internationalization.

In the coming 3-year period, we will continue to prioritize and develop our collaboration with our partner companies and the society around us. We will be working more actively to observe and measure effects, as well as encouraging collaboration between companies. We also wish to collaborate with more partners, gladly manufacturers and operators, in order to introduce more aspects and dimensions into our research. We will continue to reinforce the research milieu in the direction of the entrepreneurial organization, with a strong emphasis on output.

9. Facts about the Centre during Stage 1

TABLE 2: Centre Partners

Centre Partners	Name and position of the key contact
Svensk Kollektivtrafik	Charlotte Wäreborn – Schultz, MD
Stockholm Transport	Ann-Sofie Chudi, Director
Värmlandstrafik	Lars Bull, MD
Gothenburg Trams AB	Lars Börje Björfjäll, MD
Veolia Transport Sweden AB	Björn Johansson, Departemental manager
Karlstad Municipality/Karlstadsbuss	Sören Bergerland, MD
City of Gothenburg (Mobility Services)	Roland Jensen, Departemental manager

TABLE 3: Members of the Board of Directors

Name	Position	Affiliation	Location
Charlotte Wäreborn – Schultz (Chair)	MD	Svensk Kollektivtrafik	Stockholm
Lars Börje Björfjäll	MD	Gothenburg Trams	Göteborg
Ann-Sofie Chudi	Director	Stockholm transport	Stockholm
Bo Edvardsson (Vice Chair)	Professor	Karlstad University	Karlstad
Tommy Gärling	Professor	Göteborg University	Göteborg
Lena Eriksson	Deputy Head of Expert Support Unit	the Swedish Rail Administration	Stockholm
Bo Enquist	Associate Professor	Karlstad University	Karlstad
Gunnel Kardemark	Vice Rector	Karlstad University	Karlstad

TABLE 4: Management Team

Name	Position	Role
Margareta Friman	Associate Professor	Director
Per Echeverri	PhD	Coordinator of Theme 1
Markus Fellesson	PhD	Coordinator of Theme 2
Bo Enqvist	Associate Professor	Coordinator of Theme 3

TABLE 5: International Scientific Advisory Board

Name	Position	University/company	Location
Patricia Mokhtarian	Professor	Institute of Transport Studies, Univ. of California	USA
Randi Hjorthol	PhD	Institute of Transport Economics	Norway
Harry Timmermans	Professor	Eindhoven University of Technology	Netherlands

TABLE 6: Staff active in the centre

Name	Title	Sex	Affiliation	Degree of activity in centre Year 1 % of full time	Degree of activity in centre Year 2 % of full time
Bo Edvardsson	Professor	M	Karlstad University	5,0	5,0
Tommy Gärling,	Professor	M	Gothenburg University	25,0	25,0
Sune Berger	Professor	M	Karlstad University	5,0	5,0
Bo Bergman	Professor	M	Chalmers University of Technology	5,0	5,0
Gerhard Larsson	Professor	M	Karlstad University	5,0	5,0
Tore Standvik	Professor	M	Swedish school of Economics and Business Administration, Helsinki	5,0	5,0
Lars Haglund	Associate Professor	M	Karlstad University	5,0	5,0
Margareta Bjurklo	Associate Professor	F	Karlstad University	5,0	5,0
Thomas Blom	Associate Professor	M	Karlstad University	5,0	5,0
Margareta Friman	Associate Professor	F	Karlstad University	71,0	53,0
Lars Witell	Associate Professor	M	Karlstad University	5,0	5,0
Bo Enquist	Associate Professor	M	Karlstad University	50,0	50,0
Per Kristensson	Associate Professor	M	Karlstad University	5,0	5,0
Tommy Nilsson	PhD	M	Karlstad University	10,0	44,0
Markus Felleesson	PhD	M	Karlstad University	25,0	62,0
Patrik Gottfridsson	PhD	M	Karlstad University	11,0	64,0
Erik Sundström	PhD	M	Karlstad University	-	13,0
Mikael Johnson	PhD	M	Karlstad University	80,0	50,0
Per Echeverri	PhD	M	Karlstad University	19,0	37,0
Lars Eriksson	PhD student	M	Karlstad University	90,0	80,0
Anna Stålhammar	PhD student	F	Karlstad University	-	20,0
Carolina Camén	PhD student	F	Karlstad University	-	33,0
Jörg Pergis	PhD student	M	Karlstad University	-	67,0
Andreas	PhD student	M	Karlstad University	80,0	80,0

Andeberg					
Åsa Rönnbäck	PhD student	F	Chalmers University of Technology	80,0	80,0
Stephan Bösch	PhD student	M	Karlstad University	80,0	80,0
Tore Pedersen	PhD student	M	Karlstad University	50,0	50,0
Lena Hansson	Finance	F	Karlstad University	35,0	40,0
Britt-Marie Carlsson	Administrator	F	Karlstad University	20,0	10,0
Andreas Evestedt	Public Relations Officer	M	Karlstad University	2,5	-
Ingrid Hansson	Administrator	F	Karlstad University	5,0	-
Linda Rahkola	Web Editor	F	Karlstad University	2,5	15,0

TABLE 7-11: See appendix 1

TABLE 12: Websites

Name	Website
SAMOT	www.samot.kau.se
Karlstad University	www.kau.se
CTF – Service Research Center	www.ctf.kau.se
VINNOVA	www.vinnova.se
CERUT	www.cerut.kau.se
Veolia Transport	www.connex.se
The City of Gothenburg (Mobility Services)	www.fardtjansten.goteborg.se
Gothenburg Trams	www.goteborgssparvagar.se
Karlstad Municipality	www.karlstad.se/buss/
SL	www.sl.se
R3-Forskning för svensk kollektivtrafik	www.kollplatsen.com/r3/se
UITP (International Association of Public Transport)	www.uitp.org
Värmlandstrafik	www.kollplatsen.com
Svensk kollektivtrafik	www.svenskkollektivtrafik.se
University of Gothenburg	www.gu.se
Lund University	www.lu.se
Swedish School of Economics, Finland	www.hanken.fi
Institute of Transport Studies, University of California, USA	www.ucdavis
Institute of Transport Economics, Norway	www.toi.no
University of Technology, Holland	www.3.tue.nl
Department of Civil Engineering, Tokyo, Japan	www.plan.cv.titech.ac.jp
Giessen University, Germany	www.uni-giessen.de
Department of Civil Engineering, Tokyo Institute of Technology, Japan	www.titech.ac.jp
Center for Transportation and Logistics Studies, Gadjah Mada University, Yogyakarta, Indonesia	www.ugm.ac.id
Benchmarking in European Service of Public Transport (BEST)	www.besttransport.org

Appendix 1, Templates for the Financial Statements

Appendix 2, Activities report for SAMOT Stage 1

Appendix 3, CV of the Centre Director