

Finding the future
of (un)travel

Mistra SAMS

Sustainable Accessibility and
Mobility Services

Annual Report 2018



The Mistra SAMS research programme examines transformations of accessibility and mobility through new service innovations.

The 2018 annual report covers the second year of the 4-year programme supported by Mistra, the Swedish Foundation for Strategic Environmental Research, in which KTH Royal Institute of Technology and VTI, the Swedish National Road and Transport Institute, are core academic partners.

Mistra SAMS, Sustainable Accessibility and Mobility Services. Annual report 2018

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Introduction

This annual reports showcases highlights from Mistra SAMS work during 2018. The programme has a large number of researchers and partners, and this report aims to capture selected parts of the ongoing work.

Three themes have emerged in publications and presentations from Mistra SAMS during 2018, themes which have been used as headlines in this report. The first is *Governance of "Smart Mobility"*, a theme closely tied to Mistra SAMS focus on the role of public actors in the transformation of the mobility and accessibility system. The second is *Indicators for AaaS and MaaS*, a theme that connects with how planners and practitioners can use Mistra SAMS results in their work. The third theme is *User-perspectives on Accessibility and Mobility*, a perspective which is sometimes underexplored in research and policy surrounding new services for accessibility and mobility: who is "the user", and who is excluded?

The iconography shows examples of services that Mistra SAMS investigates.

Public transport, autonomous vehicles, telecommuting, bike- and car-sharing initiatives, integrated ticket purchasing, walkable streets, co-offices... all of these can be regarded as services that provide accessibility to different users.



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Chair's page

I started as acting chair of the board in August after our previous chair Darja Isaksson left her post to become director-general of Vinnova, the Swedish innovation agency. Darja will be missed in Mistra SAMS, but for Sweden it's a great thing to have such a competent and knowledgeable leader of our innovation agency! As for me, I'm very pleased to be acting chair of a research program that contributes to our global sustainability goals with insight into the future of mobility and accessibility.

2018 was an active year in Mistra SAMS. The program is running at full speed and research is being conducted, and articles published, in all parts of the program. Initial findings have raised interest abroad at a number of international scientific conferences, and Mistra SAMS's ambition to work closely with the international research community is met through, among other things, visiting lectures in 2018, and visiting young researchers in the year ahead.

As findings from Mistra SAMS researchers are published, collaboration within the programme is made easier. Results from previous studies in

Mistra SAMS play in to the planning of new studies, just as intended!

To achieve the rapid decarbonisation required by the Paris agreement, transport needs to quickly change into a great contributor to sustainability. The Exponential Climate Action Roadmap, to which Mistra SAMS researchers contributed, shows that such change in the transport sector is possible and will require strong leadership. As the report shows, the transformation of the transport-sector requires more than just switch to electrical cars. Moving from car-ownership to shared mobility and accessibility services, and non-travel via online solutions, is an important part of lowering the carbon footprint of transportation. So knowledge from Mistra SAMS can make a real contribution to our global sustainability.

In the transformation of the transport sector, digitalization is a prerequisite. Digitalization enables more efficient transport logistics and planning, mobility-as-a-service, and also reduces the need for physical movement of both people and goods all together.

At Ericsson, we're hard at work making 5g more widespread, and that is an important building-block for autonomous transports which could increase transport efficiency and enable lighter constructions demanding less energy.

Looking to 2019, it will be very interesting to see the work of Mistra SAMS progress further. Our second living lab will let participants try different accessibility services through a work hub and will teach us much about what works in practice. Researchers from the program will work together with practitioners and decision-makers in Sweden to see how scientific findings

best can be applied for a sustainable urban mobility. A number of young researchers from other countries will visit us and bring their perspectives on accessibility.

And, even as the program is in full swing, we will need to keep the big picture in mind and start identifying which research questions to address in a possible continuation of Mistra SAMS.

Torbjörn Lundahl

Acting chair of the board, Mistra SAMS



A word from Mistra SAMS programme directors



2018 has been exciting and the Mistra SAMS programme has been moving at full sail! For us programme directors, the year ended with a visit to COP24 in Katowice. The trip became another reminder of the serious situation we face with the climate issue. *“The next ten years will be the most important in human history”*, Sir Nicholas Stern noted in his speech.

The planet will remain, but will there be conditions for people to live? COP24 gathered all countries’ climate ministers, who decided on a rulebook for how the Paris agreement from 2015 will be implemented. Our trip reminded us that the research performed in Mistra SAMS is important, and is part of the solution.

We started the year by making a slight calibration of our research focus to make it more specific, which made the programme group better aligned. Mistra SAMS is to make recommendations to decision makers on different choices: what possible roles are there for public actors in the new mobility/accessibility paradigm, what alternatives are there and how can long-term sustainability goals be met?

The research in all work-packages, thus contributes knowledge to support the legislation and policies that will be needed to achieve the goals agreed in the rulebook during the climate summit in Katowice, both at national and global level.

During the year we have presented our research in both international and local contexts. On a global level, we have contributed to the “Exponential Climate Action Roadmap” which shows the potential of halving the emissions next decade by the support of digital technology. We made a very appreciated study tour to Finland where we shared experiences of implementing Mobility as a Service (MaaS). A conclusion from the trip is that it’s not enough to deregulate, if the climate goals are to be met with these new services.

At Almedalen in Visby we discussed the ownership of digital transport platforms with politicians at the Regional and Local level in City of Stockholm (Kristoffer Tamsons and Daniel Helldén) as well as the general director of Sweden’s innovation authority (Darja Isaksson) and manager of traffic planning at Transport administration in Sweden (Roberto Maiorana). The question posed to the panel was: *How much should Google and Baidu control in our transport system?*

That is a relevant question, as we are starting to see a backlash for the digital giants, with heavy criticism from the EU concerning the domination of the large IT-industry players such as Facebook and Google. Chinese telco operators are also being questioned since they use their networks to gather all sorts of information from Western countries.

Looking forward to 2019 our international ambitions will bear fruit, as young researchers from different European Universities will visit us and our own PhD students will visit both the east and west coast of the US. We have presented our research at several conferences during 2018 and that is something that we will continue to do.

In 2019, we also look forward to the assessment of Living Lab 2, investigation of scenarios for a sustainable Swedish accessibility and transport system, development of transport modelling to include new services, as well as results from different user surveys!

Anna Kramers & Jonas Åkerman
Programme directors, Mistra SAMS

Mistra SAMS overview

Sweden aims to become one of the first fossil-free welfare states in the world, with a vehicle fleet independent of fossil fuels by 2030. Stockholm strives to decrease car traffic despite a rapidly growing population. These goals require rapid and radical transformation of accessibility and mobility in the country.

Mistra SAMS provides in-depth scientific knowledge about factors that influence public actors' ability to, together with private actors, contribute to that transformation through platform-based accessibility services.

Mistra SAMS is a transdisciplinary research programme situated at the main campus of KTH Royal Institute of Technology in Stockholm. Research in the programme involves both interdisciplinarity and a close collaboration with users and practitioners.

Researchers come from engineering, behavioral studies, and social sciences, and work together to identify promising services, understand user needs and institutional conditions that enable services to be adopted, design and test services and service platforms, and influence policy and society.

Literature seminar on Governance of the Smart Mobility Transition (Marsden, G & Reardon, L 2018)



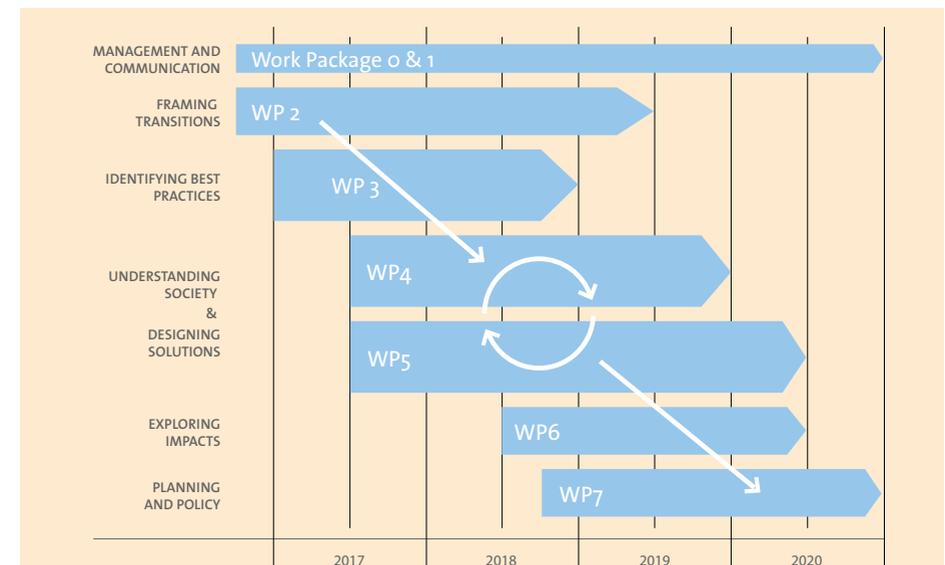
The vision of Mistra SAMS is that Sweden by 2030 largely has transitioned to far-reaching sustainable accessibility and mobility in urban regions, through the implementation of disruptive accessibility services. Services that meet the needs and preferences of broad groups of users and significantly contribute to sustainability goals.

Organisation

Mistra SAMS works through a number of interconnected research projects called work packages. The work packages allow the programme to

examine transition towards sustainable accessibility within a theoretical framework, to take a strategic outlook on accessibility service innovations and platforms, to understand the needs and capabilities of the various actors involved, to design and test service systems, to explore the impact of accessibility services on different levels of society, and to provide scientific knowledge to decision-makers.

The work packages are led by researchers from KTH Royal Institute of Technology and VTI Swedish National Road and Transport Research Institute.



The Mistra SAMS team

Programme executive committee

Anna Kramers, programme co-director, KTH
 Jonas Åkerman, programme co-director, KTH
 Anders Gullberg, UrbanCity
 Karolina Isaksson, VTI
 Teo Enlund, KTH
 Jane Summerton, VTI (until January 2019)
 Åsa Aretun, VTI (from January 2019)

Programme board

Torbjörn Lundahl, acting Chair, Research Director, Ericsson
 Christer Hårrskog, Chief Strategist, Swedish Transport Administration
 Gunnar Björkman, Innovation Director, City of Stockholm
 Professor Göran Finnveden, KTH
 Professor Sofia Ritzén, KTH
 Research Director Anna Anund, VTI
 Co-opted member: (until February 2019)
 Christopher Folkesson Welch, Programmes Director, Mistra
 Co-opted member: (from February 2019)
 Linda Bell, Programmes Director, Mistra

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 Tobias Abrahamsson, communications officer

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 Jacob Witzell, KTH & VTI
 Jan Andersson, VTI
 John Hultén, VTI
 Katrin Lättman, KAU
 Kelsey Oldbury, VTI & KTH
 Lars E Olsson, KAU
 Liridona Sopjani, KTH
 Malin Henriksson, VTI
 Margareta Friman, KAU
 Martin Sjöman, KTH
 Mattias Höjer, KTH
 Mikael Johannesson, VTI
 Peter Arnfalk, LU
 Tina Ringenson, KTH
 Wilco Burghout, KTH

[Read more at sams.kth.se/team](http://sams.kth.se/team)



Mistra SAMS members at the programme's second annual conference, January 2019

The Consortium

Mistra SAMS engages researchers as well as key public and private actors. Consortium partners participate in the administration of the programme as well as in research.



Governance of “smart mobility”

Mistra SAMS investigates possible roles of public actors in the transformation of accessibility and mobility. An issue that is of interest to all researchers in the programme, and to Mistra SAMS consortium, is the governance of new, “smart mobility”.

Seminar at Almedalen Week

How much should Google and Baidu control in our transport system? Which is the role of public institutions?

Rapid development of digital platforms and services can be a central part of reaching a sustainable mobility and accessibility system. However, criticism aimed at data companies such as Facebook and Google surrounding user integrity, violation of competition laws and the spread of “fake news” show some of the problems that can arise from companies having large amounts of data about their users. In order to reach goals of sustainability and data security in accessibility, the public sector will need to create a framework for private actors to develop within.

Mistra SAMS seminar at the Almedalen Week, one of the most important forums in Swedish politics, drew a large audience and led to an interesting discussion in the panel around the risks and benefits of digital information platform technology in the mobility and accessibility sector.



PANEL

Anna Kramers and **Jonas Åkerman**, Mistra SAMS programme directors
Daniel Helldén (Mp), Vice Mayor of the Traffic Division in Stockholm.
Kristoffer Tamsons (M), Regional transport commissioner, and chairman of Stockholm transport.
Darja Isaksson, Director-General at Vinnova, the Swedish Innovation Agency.
Roberto Maiorana, Director of Traffic Management, Swedish Transport Administration

All Change or Business as Usual? The Discursive Framing of Digitalized Smart Accessibility in Sweden

This paper by **Malin Henriksson, Jacob Witzell and Karolina Isaksson** was presented at the **Mobil.TUM** conference in **Münich**.

ABSTRACT In recent years, ideas related to digitalization have come to form important parts of the contemporary transport policy agenda. This paper is motivated by an interest in the ongoing formative phase of the emerging policy and planning area of digitalization and smart mobility. The aim is to examine and critically discuss the ongoing discursive framing of digitalization in contemporary transport policy and planning, and to see what perspectives and meanings related to “smart” mobility and accessibility that are being established in strategic plans and policies for the transport sector. The paper is based upon a discourse analysis of the contemporary framing of the digitalization agenda in the Swedish transport policy context.

The empirical focus is on transport strategies and official reports developed at the national level. The main findings indicate that digitalization is being framed as a rapid and unstoppable transformation process, which will lead to a range of positive outcomes such as reduced climate emissions, less congestion, improved accessibility and a smoother and more resource-efficient transport system. According to the ideas and assumptions that are being established through the current discourse, it is only through a stronger involvement of business enterprises that this transformation can occur.

This governing strategy, or lack of governing strategy, makes it unclear how transport policy objectives are balanced against market and innovation interests. It also risks leaving the transition to sustainable mobility to less formalized and transparent policy arenas, parallel to, and partly detached from, established planning and strategy making processes.

[Read more at www.sams.kth.se/publications](http://www.sams.kth.se/publications)

Urban transport: eliminating blind spots and missing links in the era of the fourth industrial (r)evolution

This paper by Anders Gullberg was presented at the Thredbo 15 conference in Stockholm.

ABSTRACT The transport sector, especially in growing cities, faces challenges relating to the climate, local environment, congestion, funding and equality, and uncertainties over political leadership, self-driving vehicles, citizens' reactions, and how the system is understood.

Despite ambitious goals and investments, problems escalate via motoring's self-supporting processes: more cars, more roads, longer journeys, urban sprawl, more cars...



Anders Gullberg at the Almedalen week

Neither technical streamlining nor investing in public transport and attractive urban environments can trump the process.

This paper examines whether we can use the methods of the fourth industrial (r)evolution to transform the urban-transport system. Starting points are: the role of transport in creating accessibility; the sector's inherent logic and vast unused capacity, particularly in infrastructure; and the methods and business models of the rapidly expanding digital-platform monopolies. A feasible future is described, its basis a digital multi-modal urban-transport platform for information and payment, founded on the sector's base services: room on the streets, roads, rails, car parks and public transport. The technology exists but institutional problems abound.

Radical public-sector service innovations are required. The paper identifies opportunities and obstacles. It concludes by evaluating the potential to realize these ambitious goals, looking at public transport's role in a reorganized system of this kind.

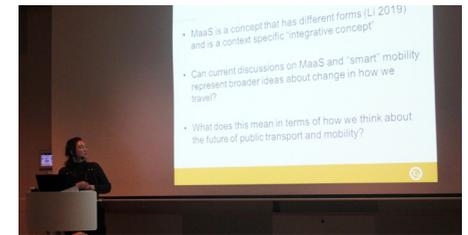
[Read more at www.sams.kth.se/publications](http://www.sams.kth.se/publications)

Re-inventing Public Transport in a future of "Smart" Mobility: Roles, strategies, and collaboration

Preliminary findings from this research project were presented by Kelsey Oldbury at Transportforum 2019 in Linköping.

This research project, led by Claus Hedegaard Sørensen, and including Karolina Isaksson and Kelsey Oldbury along with Mårten Rignell, Alexander Paulsson and Göran Smith, examines case studies of Mobility-as-a-Service across public transport authorities in six Nordic cities and asks the question: *How is MaaS formed in practice?*

Researchers analyze different ways that public transport authorities work to develop MaaS, their strategies and goals for MaaS, and their key challenges. Through interviews and document analyses the project aims to understand more about the different ways public transport authorities are working with MaaS today, such as through different kinds of pilot initiatives, national mobility programmes, a Nordic network for knowledge exchange and broader national legislation.



Kelsey Oldbury: "Is MaaS developed for the sake of developing a new concept, or to develop and challenge existing goals and visions?"

The project will examine the implications of these changes for both what MaaS is and the role and future of public transport and mobility. It will also look at the development of autonomous vehicles in public transport.

Research is funded by Mistra SAMS partner K2 and continues in 2019. As Mistra SAMS connects with researchers and practitioners in other countries (see international collaboration below) comparing different governance strategies will be a useful way of approaching the programme's goal of understanding possible roles of public actors in the transition towards sustainable accessibility and mobility.

Indicators for sustainable AaaS and MaaS

In 2018, much research has been done in Mistra SAMS work package 3, *Identifying best practices*, on the question of which indicators can be used to examine applications for Accessibility-as-a-service (AaaS) and Mobility-as-a-Service (MaaS).

AaaS and MaaS for reduced environmental impact of transport: Indicators for identifying promising digital service innovations.

This article by Anna Kramers, Tina Ringenson, Liridona Sopjani and Peter Arnfalk was presented at the ICT4S conference in Toronto.

ABSTRACT In this paper, a set of indicators is presented that aim to identify promising service innovations for Accessibility as a Service (AaaS) and Mobility as a Service (MaaS); services that potentially can reduce the demand for transport and optimize use of transport infrastructure and vehicles in urban regions.

The proposed indicators characterize service innovations from three different perspectives: 1) Is the service innovation environmentally sustainable? Does it reduce negative impacts on the environment (carbon emissions, use of space),

2) Is it rewardable? Is value created for an organization? Does it make use of new sustainable business models, and

3) How widely is the service spread? How many users are there, what is the geographic distribution and what level of societal transition has occurred? The developed indicators are meant to guide policy makers, decision makers, business developers and academia in the prioritizations that need to be made when allocating land and resources to the most promising and powerful innovations, moving towards more environmentally friendly mobility and accessibility.

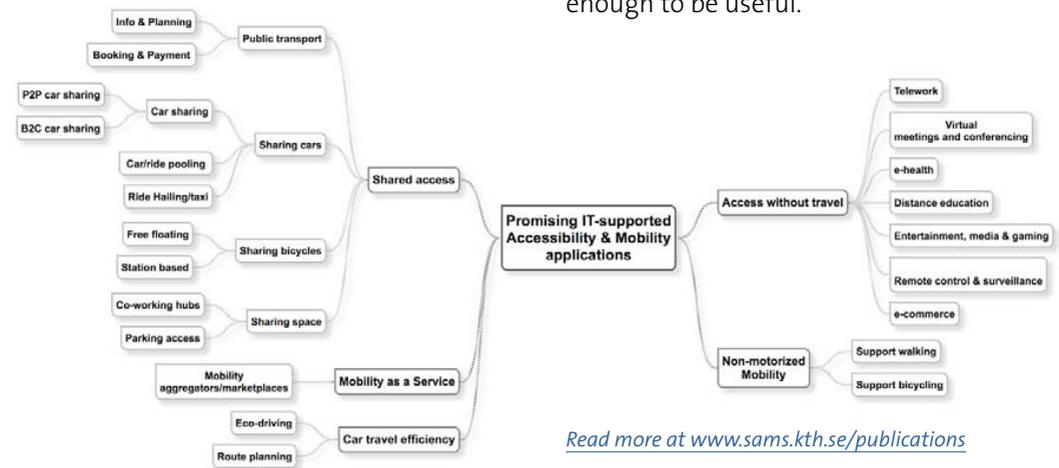
The next step will be to test the indicators to identify and categorize existing and emerging new services, ideas, pilots and prototypes.

[Read more at www.sams.kth.se/publications](http://www.sams.kth.se/publications)

Indicators for Promising Accessibility and Mobility Services

This article follows up on the work done by Anna Kramers, Tina Ringenson, Liridona Sopjani and Peter Arnfalk in the article opposite, and was published in *Sustainability*, vol. 10 iss.8

ABSTRACT Cities are increasingly facing major transportation challenges, and new sustainable solutions are needed. New ICT-enabled services can be part of solving the problems, including both improving and finding new transportation services and providing digital access to different services.



[Read more at www.sams.kth.se/publications](http://www.sams.kth.se/publications)

It is important to identify which services have the best potential for environmental benefits (e.g., travel reduction leading to lesser emissions), economic viability and spread. Such identification can be carried out with the help of indicators.

This article uses four types of new accessibility services to test out a previously formulated set of indicators and suggest changes to make them more useful. Using common indicators for transportation and digital accessibility services seem to support collecting and condensing information about the services and simplifies understanding their benefits and challenges. However, a challenge for this approach is finding indicators that are both specific and broad enough to be useful.

User perspectives on accessibility and mobility

A transition towards smart and sustainable accessibility will require changes in individual mobilities. Existing research and development has a bias towards technical dimensions and theoretical optimization on the micro-level, while user perspectives and institutional dimensions are seldom explored in depth. To remedy this, many studies in Mistra SAMS emphasise the user-perspective.

A new approach to accessibility- Examining perceived accessibility in contrast to objectively measured accessibility in daily travel.

This article by Katrin Lättman, Lars E.Olsson and Margareta Friman was published in *Research in Transport Economics* vol. 69

ABSTRACT Accessibility has conventionally been measured and evaluated ignoring user perceptions in favor of focusing on travel time and distance to a number of pre-determined destinations.

Acknowledging this gap, we recently developed a scale for perceived accessibility, PAC, aimed at capturing the individual perspective of accessibility with a certain travel mode. In this paper, we: 1) further develop the PAC measure of perceived accessibility in order to capture how easy it is to live a satisfactory life with the help of the transport system,

2) compare levels of perceived accessibility between residential areas and main travel modes, and

3) compare residents' perceived accessibility to the objective accessibility level for the same residential area.

Data from 2711 residents of Malmö, Sweden show that perceived accessibility is consistently different from objective accessibility across 13 residential areas, with minor differences in levels of perceived accessibility between areas.

Surprisingly, bicycle users rate their accessibility significantly higher than those who mainly use the car or public transport for daily travel, contrary to objective accessibility assumptions. These differences point at the importance of including perceived accessibility as a complementary tool when planning for and evaluating transport systems.

[Read more at www.sams.kth.se/publications](http://www.sams.kth.se/publications)

Katrin Lättman, Doctoral Thesis: Perceived Accessibility: Living a satisfactory life with help of the transport system

In December 2018, Mistra SAMS researcher Katrin Lättman successfully defended her doctoral thesis.

ABSTRACT This thesis fills a gap in contemporary transport research and planning as it introduces perceived accessibility as a theoretical and methodological concept for incorporating the individual dimension of accessibility in current practice. Perceived accessibility is defined as “how easy it is to live a satisfactory life with the help of the transport system”, and is proposed as a complement to objective measures and understandings of accessibility.

The thesis includes three studies. Study I developed a measure for capturing perceived accessibility with a specific transport mode, based on theories and conceptualizations of accessibility. Study II looked at determinants of perceived accessibility, and Study III further developed the measure of perceived accessibility to include actual travel (combinations of transport modes), and explored the

relation between perceived accessibility and objectively measured accessibility for the same geographical area in Sweden. Empirical findings further support the complementary nature of the approach and results indicate that assessments of perceived accessibility may be helpful in determining where to direct interventions aiming at improving accessibility by evaluating different transport modes or different segments of individuals. The method developed for capturing perceived accessibility shows merit in contributing to further theory development on accessibility by its ability to identify determinants of perceived accessibility and its potential in identifying segments of the population that experience significantly lower accessibility than other groups, and thus are at risk of experiencing social exclusion or suffer from transport disadvantage.

[Read more at www.sams.kth.se/publications](http://www.sams.kth.se/publications)



Katrin Lättman was awarded a prize at TRA VISIONS 2018 for cross-modal transport.

Living lab 1: Future playing rules for everyday travel

A "Living Lab" in Mistra SAMS is an in-depth explorative study that uses design interventions to examine how participants interact with services and incentives.

Interventions are carried out in participants' everyday lives and are followed with qualitative interviews and observational studies. In 2018, Mistra SAMS carried out its first living lab *Future playing rules for everyday travel*.

In a future of sustainable mobility and accessibility, "playing rules" such as incentives will need to be different than the ones we have today. Mistra SAMS living lab simulated some of those future rules.

Nine participants were chosen from randomly selected volunteers. Three design interventions were used in the living lab over a six-month period during which the participants logged all their travel via an app.



The first design intervention was that researchers calculated the real cost per kilometer of participants' car use, including fuel, insurance fees, reduced resale-value, taxes etc. Participants were informed via the app after each trip how much that trip had cost them. The idea was to simulate that participants' private cars were part of a carpool and the calculations were made based on the participants' own cars, not on average costs.

The second design intervention was that participants were offered reduced prices for public transport tickets if they travelled in off-peak hours. The idea was to simulate public transport having dynamic pricing to lower peak-use, which is very costly for transport providers.

The third intervention was a small sum of money paid out directly to the participants per kilometer travelled by bike. The idea was to simulate policy in which healthy behaviour is directly rewarded. Rewards for biking to work are already in place in e.g. France and The Netherlands.

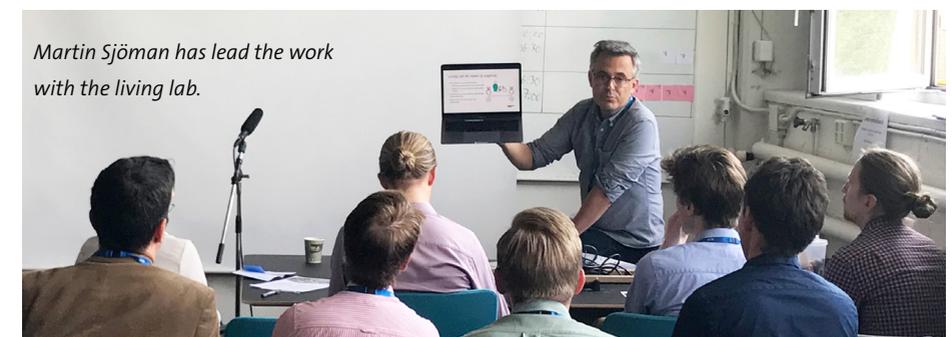
Preliminary results from the explorative living lab show fruitful areas for further study:

Participants had very low insight into the costs of their car ownership and usage, and showed an active unwillingness to increase their knowledge. The fact that drivers don't know the full costs of their cars has been shown in previous studies, but the interviews with participants gave new insight into attitudes that can impact behavior change.

Participants' car use was much higher in summer than in autumn, as vacation travel accounted for very long distances. This has also been previously shown, but the difference in the living lab was striking! This shows a potential role for MaaS and AaaS solutions to contribute to lowering environmental impact by addressing long-distance travel, specifically. This finding also raises interesting questions for how and when travel patterns are measured in Sweden. New measures to complement the national travel surveys can benefit from taking summer travel into account.

Results from the study are being analyzed and will be presented during 2019.

[Read more at sams.kth.se/activities/living-labs](https://sams.kth.se/activities/living-labs)



International Collaboration

Mobility Big Data

- First some realizations
 - We (public sector) don't have to own all the data, tools, back office systems or end user applications
 - All public sector data doesn't need to be 100 % solid fact, accept the value of "beta" - label data
- Define ultimate goal:
 - More and better services and applications to citizens and businesses
- Conclusion
 - We need to focus on ENABLING!

From presentation by the City of Helsinki: Public sector needs to focus on enabling



At LVM, the Ministry for Transport and Communications

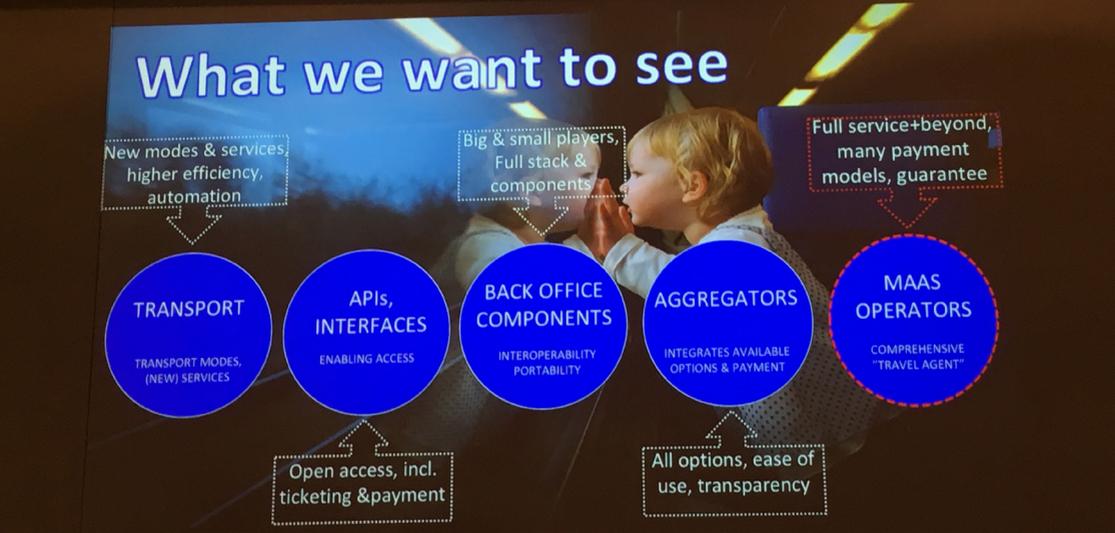
Study trip to Finland

In October, researchers from Mistra SAMS visited Helsinki to study the development of Mobility-as-a-Service (MaaS) in Finland.

Helsinki was chosen as a relevant place for the research team to visit as Finland has started to transform its transport legislation in an extensive way to open up for innovation in the transport system. The recently implemented Act on Transport Services is intended to create a framework for a more efficient arrangement of publicly subsidised passenger transport by utilising digitalisation, combined transport, and different fleet types. Among other things, the act requires that transport providers share traffic and passenger data, and create application programming interfaces (API:s) that allow third parties to sell tickets.



Greger Henriksson, Malin Henriksson, Anna Kramers and Jarkko Jaakola at Whim, one MaaS provider in Helsinki



From presentation by the City of Helsinki: what the city wants to see

In Helsinki, Mistra SAMS met representatives from academia, business and government. All the actors that Mistra SAMS met presented very similar views on the development of MaaS in Finland, using the same keywords: innovation, business opportunities, and user-perspectives.

However, Mistra SAMS researchers are concerned that there seems to be no coherent plan for evaluation of the sustainability effects of the new legislation, or a risk analysis of possible future need for (renewed) public interference in the market place to ensure public interests. There also seems to be no clear strategy, and perhaps no one actor with responsibility, for how to integrate pilot projects with long-range goals of sustainability and just accessibility.

Public actors in Finland appear to have a great willingness to test innovations in real life, and MaaS innovations are developing as a result. However, there are as yet no services combining MaaS and Accessibility-as-a-Service (AaaS) in the Finnish market. Mistra SAMS looks forward to following how MaaS develops in our neighbour country and what effects its current boom will have on sustainable accessibility and mobility for Finnish travelers.

[Read more at www.sams.kth.se/publications](http://www.sams.kth.se/publications)



Arriving in Helsinki: Fredrik Johansson, Martin Sjöman, Malin Henriksson, Jane Summerton



David Banister, Jane Summerton, Jonas Åkerman, Elizabeth Deakin, and Anna Kramers.

International scientific advisory Panel

In September, Mistra SAMS international scientific advisory panel (ISAP) came to Stockholm to give feedback to the work packages and program management.

The panel is composed of senior researchers and experts who are internationally recognized as outstanding academic leaders in the fields of mobility and accessibility. In summary, Mistra SAMS ISAP had the following to say:

Mistra SAMS seems to be on track! The team has a friendly attitude and a climate of open discussions, with high potential to produce results that are scientifically and practically useful.

We're pleased to see how much collaboration is happening between the PhD students, and between PhD students and senior researchers.

What we want to see more of in the coming year are research results and thoughts on their societal and policy implications. We also hope to see Mistra SAMS connect more with its consortium and different actors in society. The programme's focus on the role of public actors is excellent but the public sector alone cannot materialize the new mobility paradigm, so don't forget to closely examine the relationship between different actors.

Also, don't be afraid to raise critical and provocative questions, based on Mistra SAMS results!

[Read more at sams.kth.se/team/isap](https://sams.kth.se/team/isap)

Exponential Climate Action Roadmap

The roadmap was published 13 September at the Global Climate Action Summit in San Francisco. The roadmap outlines the global economic transformation required by 2030 to meet the Paris Agreement on climate.

Digital revolution and market forces poised to drive economic transformation away from fossil fuels, but not without the right policy mix and bold climate leadership. The roadmap is based on the idea of a "Carbon Law" where emissions are halved every decade. Researchers from Mistra SAMS contributed to the roadmap, especially in the section on transport.

Summary of the roadmap's recommendations for transport:

The highest emission sources must be addressed first. Road-based transport is currently 70% of the problem. Introduce bans on sales of new cars with internal combustion engines.

Cities, companies, organisations and individuals should phase out the usage of internal combustion engines as soon as possible.

Corporations and investors should set science-based targets and roadmaps for full decarbonisation of transport emissions in their portfolios.

Incentivise a sharing economy and shift from vehicle ownership to usage.

Minimise air travel and goods transport

Introduce a meaningful price on carbon and stricter emission standards for aviation and shipping emissions.

Implement policy for clear disclosure of carbon emissions in all business- and consumer-facing transport services.

Invest in R&D and acceleration of early stage high impact solutions for avoiding emissions from aviation, shipping and long-haul travel.

[Read more at https://exponentialroadmap.org](https://exponentialroadmap.org)



Iain Docherty: "The publicness of the mobility system is under threat from smart mobility"

Iain Docherty: The future of connected and autonomous vehicles and potential threats to public transport systems

Together with the Integrated Transport Research Lab (ITRL) at KTH, Mistra SAMS invited Professor Iain Docherty of the University of Glasgow Adam Smith Business School to hold a lecture which was also live-streamed online.

Professor Docherty's research and teaching addresses the interconnecting issues of public administration, institutional change and city and regional competitiveness, with particular emphasis on the structures and processes of local and regional governance, policies for delivering improved economic performance

and environmental sustainability, and the development and implementation of strategic planning and transport policies.

[Read more at www.itrl.kth.se/events/our-events](http://www.itrl.kth.se/events/our-events)

Mohamed Jama Mohamed: Impact of ridesourcing services

Mohamed Jama Mohamed from Edinburgh Napier University visited Mistra SAMS in 2017 through the programme's young international researcher grant. In October 2018, Mohamed returned to Stockholm and presented results from his research on how ride-sharing services impact public transport use in London.

Anna Kramers, Mohamed Jama Mohamed and Jacob Witzell



Glenn Lyons: "Uncertainty is an uncomfortable position. But certainty is an absurd one"

Glenn Lyons: Handling uncertainty in transport planning and decision-making

Glenn Lyons is Mott MacDonald professor of Future Mobility at the University of West England. Professor Lyons visited Mistra SAMS in January and headed a seminar on uncertainty in planning and decision-making, a topic on which he has written extensively.

"The proposition has been put forward that instead of reactive policymaking that is vulnerable to policy failure due to unanticipated change (predict and provide), we need proactive policymaking that helps guard against policy failure through adaptability to unanticipated change (decide and provide). However, charting a course through this territory is highly challenging for the parties involved."

[Read more at sams.kth.se](http://sams.kth.se)

Presentations and participation at conferences, events and workshops

Mistra SAMS researchers have participated in many different seminars, research conferences, workshops and meetings throughout the year, to talk about the programme and about sustainable accessibility and mobility.

January 9. Katrin Lättman. *Upplevd tillgänglighet kontra objektivt baserade mått på tillgänglighet i stadsmiljö – därför bör vi bredda vårt fokus.* Transportforum 2018, conference arranged by VTI.

March 6. Katrin Lättman. *Perceived Accessibility - a complement to conventional measures of accessibility.* Accessible Cities, event arranged by Mistra Urban Futures.



April 10. Mistra SAMS consortium. *Strategic workshop for planning the programme's second living lab: Near Work, Smart Mobility.*

April 10. Margareta Friman. *The future of public transport in a context of AVs and shared mobility. A psychological perspective.* Breakfast seminar arranged by ITRL.

April 16. Katrin Lättman. *Capturing the human (individual) dimension of accessibility in transport.* Transport Research Arena 2018 (TRA2018).

April and May. Tina Ringenson visited the Center for Sustainable Urban Development at Columbia University.



May 14. Anna Kramers, Liridona Sopjani, Tina Ringenson and Peter Arnfalk. *AaaS and MaaS for reduced environmental impact of transport: Indicators for identifying promising digital service innovations.* ICT for Sustainability conference.

May 22. Jacob Witzell and Karolina Isaksson. *The discursive framing of digitalized smart accessibility in Sweden.* Breakfast seminar arranged by ITRL.

June 5. Katrin Lättman was invited opponent at K2 final seminar of a research program on the traveler perspective.

June 11. Anna Kramers. *Promising AaaS and MaaS.* ITRL Conference on Integrated Transport CIT'18.

June 13. Malin Henriksson, Jacob Witzell and Karolina Isaksson. *All Change or Business as Usual? The Discursive Framing of Digitalized Smart Accessibility in Sweden.* mobil.TUM 2018 "Urban Mobility – Shaping the Future Together" - International Scientific Conference on Mobility and Transport.

July 2. Anders Gullberg and Anna Pernestål. *Kan politikerna möta mobilitetsrevolutionen genom att bli mer disruptiva?* Seminar at the Almedalen Week.



July 2. Jonas Åkerman. *Affärsmöjligheter utan ökad konsumtion.* Seminar at the Almedalen Week.



July 4. Mattias Höjer and Anna Kramers. *Vetenskap vs politik - en miljöutfrågning.* Seminar at the Almedalen Week.

July 10. Jacob Witzell. *Organizing status quo.* Congress of the Association of European Schools of Planning (AESOP).

July 15. Margereta Friman, Lars E. Olsson and Katrin Lättman. *Capturing Perceived Accessibility in Daily Travel* 15th International Conference on Travel Behavior Research (IATBR).

September 6. Karolina Isaksson and John Hultén. *Digitaliseringens möjligheter och risker - vad innebär det för samhällsplaneringens aktörer?* Seminar arranged by KTH.

September 18. Karolina Isaksson. *Policy och planering för hållbar mobilitet - ett maktperspektiv.* Seminar arranged by Stockholm University.

October 15. Margereta Friman, Lars E. Olsson and Katrin Lättman. *Hur tillgängligt upplevs ett hållbart resande?* Nationell konferens i transportforskning, arranged by Handelshögskolan i Göteborg och Chalmers tekniska högskola.

November 7. Anna Kramers. *Hållbar framtid – har vi någon handbok för det?* Seminar by Global Utmaning and Kulturhuset Stadsteatern.

November 20. Margareta Friman. *Autonoma fordon och delad mobilitet – ett psykologiskt perspektiv.* Transport Analysis annual conference.

November 20. Karolina Isaksson. *Kunskap för ett hållbart transportsystem - en kritisk reflektion.* Transport Analysis annual conference.

Transportforum, January 9-10, 2019

Many researchers from the programme participated in VTI:s Transportforum, the largest Nordic transport conference of its kind.

Anna Pernestål. *Smart mobilitet kräver smart styrning - men framtiden är osäker.*

Malin Henriksson. *All Change or Business as Usual? The Framing of Smart Mobility in Sweden.*

Kelsey Oldbury. *Governing strategies for MaaS in six Nordic cities.*

Peter Arnfalk. *Using indicators to find the gold nuggets of sustainable accessibility.*

Katrin Lättman. *Perceived accessibility when travel options are limited to sustainable alternatives.*

Martin Sjöman. *Economic incentives from a user-perspective.*

Lars E Olsson. *What determines if people use car-sharing or not?*

Anna Kramers chaired two seminars: *Measuring sustainable accessibility, and User perspectives on new mobility and accessibility services.*

Margareta Friman chaired a seminar: *Shared mobility.*

Jacob Witzell surveyed attendees on the effectiveness of current transport planning for sustainable transition.



Anna Kramers opens a seminar at Transportforum 2019

December 2. Anna Kramers and Jonas Åkerman were invited to act as observers during the 24th Conference of the parties to the United Nations Framework Convention on Climate Change (COP24)

Jan 23-24. Mistra SAMS Consortium. *Annual programme conference.*

Jan 31. Teo Enlund, Anna Kramers, Martin Sjöman, and Tina Ringenson. *Launch of second living lab: Near Work, Smart Mobility.*



Teo Enlund welcomes participants to the Mistra SAMS work hub

Coming from Mistra SAMS in 2019

Near work, smart mobility

Mistra SAMS second living lab will run throughout 2019 and will let the programme test a large number of design interventions together with users.

Young researcher visits

In 2019 Mistra SAMS international young researchers grant will connect the programme with the University of LEEDS, TU Delft, ZGT-TU Berlin, the University of Zürich, and the University of Southern California.

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