

Annual Report 2023



Sustainable Accessibility and Mobility Services



Information & contact

Mistra SAMS Sustainable Accessibility and Mobility Services Annual Report 2023.

This annual report highlights the research carried out in the Mistra SAMS program during 2023 and shares scientific output and impact that we, along with our partners, achieved during this period. Mistra SAMS is 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 Research Institute have leading roles.

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Production and layout: Jenny Rosen Where appropriate, this report uses hyperlinks in the text to help the reader find articles, publications and websites. © Mistra SAMS, KTH Royal Institute of Technology, March 2024, Stockholm.

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Bringing knowledge and insights to society

As 2023 has come to an end, I am proud to introduce this report which brings a summary of Mistra SAMS' achievements over the last year.

Mistra SAMS annual report for 2023 spans topics such as Living Lab findings on sustainable commuting challenges for residents and workers, as well as overall transport system learnings on what is necessary for a low-carbon transport system to become reality.

By integrating a Living Lab into its research portfolio, Mistra SAMS entered a complex and important mode of research from the get-go. As the second Living Lab has now closed, it has brought insights on the importance of connecting theoretical research and findings to the complexities of people's daily struggles. While this is already in itself important, the Living Lab has also brought opportunities for researchers to study the role of living labs in a wider context, which can help future research in different domains.

Originally focused on residents, the extended focus on those commuting to an area has been an important addition and speaks to the justice perspective of the climate transition. It is important that societal analysis do not forget about those that make our care systems function by working off-office hours every day of the week. Given the importance of this topic, it is gratifying to see that knowledge has already been shared with regional and municipal authorities and public transport suppliers.

Such an interaction with authorities, suppliers and other stakeholders is not unique but I dare say that Mistra SAMS has been both mindful and successful in sharing its findings with stakeholders. To me, this demonstrates the program's ambition to not only be a hub for producing knowledge but a place for actively bringing insights, policy advice and knowledge to society.

Another example of this, is the study of different scenarios



Pernilla Bergmark

site for decarbonisation, it is not sufficient. It needs to be coupled with a substantial reduction in the total amount of traffic. The researchers' policy advice is to include

for emission reductions in the Swedish transport system.

The study shows that, while electrification is a prerequi-

reduced car travel in policies, reward electric cars that have small batteries, incentivise car sharing and consider life time emissions of transports.

Looking forward, the final year of Mistra SAMS will be an important one, both in terms of new research findings, and also for making results available and

to a wider group of stakeholders. I hope you will find

this report interesting and that you will follow Mistra MS on its remaining journey





Mistra SAMS Board of Directors, from left to right: Karl-Henrik Johansson, Sara Bergendorff, Göran Finnveden, Anna Kramers (Director), Karolina Isaksson (Deputy Director), Christer Hårrskog, Pernilla Bergmark (Chair). Inset: Anna Anund, Malin Lindgren, Karolina Skog.

Timely research on everyday travel

2023 was an intense climate policy year. The EU's Fit for 55 climate package has highlighted the need for rapid emission reductions and for each member state to do its fair share.

The UN climate summit in Dubai and the agreement that the world's countries should transition away from fossil fuels underscores the importance of guickly moving from the what to the how in emission reduction efforts.

Mistra SAMS' research is timely in relation to these international commitments. For although the targets are set internationally, much of the transition work will need to be carried out locally, in Swedish cities and regions. The focus of our programme is on everyday travel and the overall question is how digital technology and other measures can be combined to create sustainable accessibility in metropolitan areas, with a particular focus on semi-urban environments.

Given that road traffic accounts for a large share of domestic greenhouse gas emissions, the issue is of great strategic importance.

Intensive research year

Karolina Isaksson Over the past year, research published in the programme has shown that electrification is important, but far from sufficient to meet emission targets. In addition to fuel switching, car travel needs to be reduced by 2030, by between 20% and 50% per person and year. The size and weight of cars and batteries are also important.

Other results show the importance of strengthening the link between the type of future prototypes tested in the programme's Living Labs, and the strategic planning and development work carried out in traffic and urban planning, and in collaboration with industry and civil society at local and regional level.

In 2023, Mistra SAMS was characterised by intensive activities to collect empirical data and analyse what the transformation to sustainable travel and sustainable accessibility means for different groups in different places. One interesting example was the time-limited trial of a service that reinforces regular public transport for com-

muters with inconvenient working hours.

Other topics that have shaped the work of the programme over the past year have included local change processes, citizens' experiences of switching to more sustainable everyday travel, sustainable business models and service concepts, and interactive workshop methods for learning and exchanging experiences of sustainable transformation across organisational and subject boundaries.

New guestions and perspectives include the role of visions in the transition, consumption-based emission targets and their relationship to the climate policy framework, issues of timetabling in public transport, indirect effects of increased use of virtu-

al reality and political leadership for the transition.

Mistra SAMS Phase 2, 2021-2024

At the centre of the Phase 2 in Mistra SAMS are three perspectives: Citizen perspectives, those of Policy actors and those of Market actors. This holistic approach is key to a better understanding of opportunities for a transformation to a sustainable transport system. Equally important is how the interactions between each perspective affect the transformation process. The Mistra SAMS living labs provide a basis for in-depth research on all three perspectives.



Conclusions from Living Lab Riksten

Early results from Living Lab Riksten

In Living Labs, Mistra SAMS researchers have investigated future prototypes for sustainable transport in close collaboration with citizens, market actors and public planners. In the Living Lab Riksten, citizens living in the neighbourhood became co-researchers, and tested how accessibility and mobility services worked for them in their everyday lives.

Mistra SAMS design researchers have developed the design-driven living lab approach implemented in 2023. Living labs are long-term interventions in people's everyday lives, often lasting several months to a year. Such interventions consist of changes designed to test how new mobility services affect everyday life, to explore future possibilities. In Living Lab Riksten, initiatives for more sustainable travel were studied for a year, together with 14 co-researcher house-holds. Botkyrka Municipality and Region Stockholm have also been partners in the research projects connected to Riksten.

The past year in Living Lab Riksten

Living Lab Riksten in Tullinge, south of Stockholm, has resulted in productive research, collaboratively conducted with citizens. It has generated new insights and significant interest from policymakers, employers, and planners. Now, Living Lab Riksten has reached its conclusion.

By setting goals to reduce individual car use and trying new mobility services, the co-researchers in Living Lab Riksten have been attempting to change their travel habits. In parallel, the experiences from the Living Lab have been discussed in policy lab workshops with planners and local and regional policymakers. How mobility and accessibility solutions can be integrated into further urban development, what infrastructure needs to be in place to support new mobility solutions, and if municipalities need new tools and understandings to prioritise accessibility over mobility, have been discussed.

Using an app to book mobility solutions

In 2023, the co-researchers were offered e-bikes, e-cargo bikes, and e-scooter services booked in the SAMSAS app.

The research team also developed and tested the SAMSAS shuttle, a future prototype for on-demand public transport.

Co-designed cycle parking

Basic planning strategies and infrastructure for sustainable travel need to be in place to introduce new solutions effectively. One challenge in the project was to obtain building permits for cycle parking. Eventually permits were obtained, and cycle parking was successfully built, hosting the shared bikes offered in the Living Lab Riksten. The cycle parking proved essential for the mobility-sharing system to work.

The Living Lab approach

Through living labs, Mistra SAMS research projects explore possible future sustainable transport prototypes. Citizens living in the neighbourhood become co-researchers, as they test how different accessibility and mobility solutions work for them in everyday life. The services were booked via an app, tailor made for the purpose. Through tasks, interviews and via the app, the co-researchers have shared their challenges and lived experience of the mobility solutions with the researchers.

Exploring new ways of getting to and from work

In 2023 a new group of co-researchers were introduced to the Living Lab Riksten: Commuters with inconvenient working hours for whom the regular public transport time tables do not meet their needs. They tested the SAMSAS shuttle to try out an enhanced public transport service.

Public transport is not always well matched with working hours. This is particularly noticeable for those who work within healthcare and other care services and who are often scheduled to work early mornings, late evenings or weekends. For those who do not have a car, it often results in challenging commuting trips and long days away from home.

What if instead there was a form of public transport that could be pre-booked at a suitable time and take the traveller all the way to the final destination, making the journey to and from work both guick and efficient, reducing stress in everyday life?

A prototype for future public transport

This became reality in Riksten during the spring of 2023, when the SAMSAS shuttle ran for a selected group of employees in the area. The shuttle came in the form of a taxi, but could be described as a prototype for a possible future of public transport, as well as a concrete solution to an accessibility problem experienced by groups dependent on public transport.

"Being scheduled for work at hours when public transport rarely runs, can lead to a form of transport-related vulnerability resulting in a reduced quality of life. We hope that the results of the experiment can partly facilitate the life puzzle for individuals who try out the service, but also that the results raises questions about what responsibility employers and public actors have for work trips, as well as how public transport can contribute to social sustainability", says Malin

Henriksson, senior researcher in the research program Mistra SAMS.

A time saver and stress reducer

To the project's co-researchers, who have tried the service, the shuttle was a real time-saver, saving them between 20-40 minutes per one-way trip. The ride thus contributed to a better quality of life by

reducing stress, and anxiety about being late for work. The participants also deemed the ride to be more reliable than the current public transport. This is also shown in a <u>newly</u> published Master's Thesis within Mistra SAMS: using public transport, workers who travel to Riksten have experienced inaccessibility in their daily trips, despite living in surrounding municipalities.

Working with employers and public actors

The next step for the project will be to report in detail what a shuttle service can entail, and who should finance it. The researchers are working on this together with employers, municipalities, public transport managers and government agencies.

Results from the SAMSAS shuttle were presented at a workshop for civil servants from regional and municipal authorities and public transport suppliers. The workshop topic was how and why such a service can contribute to social sustainability and how to support accessibility for a diversity of user groups.

Living the change: Real-life experimentation

In 2023 Martin Sjöman presented his PhD thesis on design-driven living labs for real-life exploration of possible sustainable concepts and futures.

To support the radical lifestyle changes needed to address the climate crisis, design and design research must change to place more focus on challenging the status quo. There is also growing consensus that real-life experimentation is required to understand and realise the potentials of sustainability innovations.

In <u>his thesis</u>, Martin Sjöman presents an approach for design-driven, or 'designerly' living labs for the real-life exploration and demonstration of possible sustainable concepts and futures.

He concludes that more mainstream living labs and pilots are mainly concerned with later stages of development and commercialisation, often based on a market or policymaking logic. Here, the main focus is on evaluative testing, and more explorative or open-ended research is rarely carried out in the context of people's everyday-lives. More active user participation may take place in creative workshops.

In designerly living labs, Martin Sjöman writes, designers devise paths towards desirable futures and "enrol" people in reflectively exploring them. This designer-led approach is also contrasted against research that aims to "activate" citizens to make real changes in their local society. In this comparison, designerly living labs allow for more open-ended experimentation and more radical changes.

Overall, the thesis proposes several models to better understand these key differences. More open-ended experimentation and exploration is needed to transform our lifestyles. Still, these types of research are often hindered by dominant understandings of pilots and labs as means for developing, evaluating and scaling up new technologies.

By the participants 'living the change', the designerly labs have provided rich insights into the entangled social-



In the picture, a future sustainable concept (here symbolised by a bike) is placed in today's society. The intervention exposes how surrounding structures may be conflicting or unfit, posing barriers to sustainable lifestyle changes. Illustration: Martin Sjöman

technical nature of sustainable concepts, identifying societal barriers and potential pathways towards these futures.

Mistra SAMS published dissertations

Sjöman, M., Living the change: Designerly Modes of real-life Experimentation, PhD Thesis (2023)

Vaddadi, B., Understanding the system-level for Mobility as a Service: A framework to evaluate full-scale impacts of MaaS, PhD Thesis (2022)

Johansson, Fredrik, A Shift in Urban Mobility and Parking?: Exploring Policies in Relation to Practices, PhD Thesis (2021) Lättman, K., Perceived Accessibility - Living a satisfactory life with help of the transport system, PhD Thesis (2018)

Exchanging experience with policy makers

Sharing the insights with policy makers and planners is an important part of the research programme, and has been a key focus area in 2023.

Study visit for local politicians

In September 2023, Mistra SAMS invited politicians from Stockholm municipalities to a study visit at the Living lab Riksten, to learn about the unique research initiatives that were underway and co-produced with residents in the area.

The study visit gave an opportunity to discuss which conclusions can be drawn from the research projects in Riksten: What are the conditions for working towards more sustainable everyday travel in similar neighbourhoods?

During the study visit, the link between this type of initiative at the local level and the overall design of housing and transport infrastructures, was discussed.

" I am here to get inspiration, tips and ideas about different solutions that are being tested and developed."

Robert Nibelius, chair of the technical committee in Danderyd municipality.

" It is important to review old planning programmes so that new knowledge and environmental thinking is included in new detail

plans."

Henrik Juhlin, chair of the Nature and Urban Environment Committee in Huddinge municipality.

Workshops to explore accessibility and strategic planning

During 2023 Mistra SAMS arranged a workshop series for municipal planners and strategists within traffic planning, neighbourhood development and environment. The workshops provided opportunity for joint exchange, mutual learn-



Politicians are shown the local electric bike pool in Riksten. Photo: Magnus Atterfors

ing and a way to explore how the core ambitions of Mistra SAMS connect with municipal planning and decision making. Researchers and municipal planners discussed how a broad notion of "accessibility" can help strengthen municipal capacity to plan for just and sustainable accessibility.

The workshops concluded that a broader notion of accessibility is highly relevant for strategic municipal planning, but that there are challenges in operationalising it.

In discussions based on Tripple Access Planning (physical mobility, spatial proximity and digital connectivity), planning for digital accessibility proved harder to concretise compared with planning for spatial proximity and physical mobility

Socially sustainable public transport

A workshop was also held for civil servants from regional and municipal authorities together with public transport suppliers. The topic was socially sustainable public transport; Presenting results from the SAMSAS shuttle and discussing how such a service could contribute to social sustainability and what the next step could be to support accessibility for a diversity of user groups.



Reduced car travel:Urgent targets for transport

Substantial changes in car travel are necessary according to research.

Calculations by Mistra SAMS researchers, Hampus Berg Mårtensson, Mattias Höjer and Jonas Åkerman, highlight the need for large and rapid changes in the vehicle fleet. In six scenarios they illustrate how a 70% reduction of green house gas emissions by 2030 manifest itself. Their focus is on electrification, shared cars and biofuel use.

In all six scenarios, car driving is significantly reduced. It is concluded that a reduction of car use is needed, even in scenarios with rapid electrification. The researchers also conclude that it is hard to see how the targets could be met without urgent reduction of sales of fossil fuel cars and an increase in the scrapping of such cars.

Without a quick reduction of fossil car use, there is a significant risk that even greater changes in travelling habits will be required in the near future, as climate change hits the economy.

Indirect emissions and resources for substitution

Car travel causes both direct emissions from driving and indirect emissions from the production of fuel, electricity and vehicles. A lot of hope is put on electrification as a way to be able to sustain high levels of car use.

However, the scenarios show how high amounts of electric cars result in such large emissions from production that EU regulations on emissions from industry would be hard to reach, since it would require that the automotive industry takes an increasing share of the EU's emission allowance, thus reducing the room for other industrial production.

Calculations also demonstrate how Swedish passenger cars could make considerable claims to battery use, in comparison with global per capita use. In a global transition where resources are limited, it is important to consider limitations to substitution strategies and identify strategies for efficient use. The size and weight of cars and batteries are also important for how limited resources are used. In the study, the authors developed and applied a metric for efficient battery use, which was tested on the scenarios.



Policy advice

Based on the findings of the research paper, the authors wrote an opinion piece where they offered the following four tips to the government:

1. Reduced car travel: The government needs to require the Swedish Transport Administration to include reductions in car travel in its planning documents, and to develop methods to see how these reductions can be distributed across the country.

2. Smaller batteries: Policy instruments are needed that reward purchase of electric cars with low energy consumption, which allows for smaller batteries.

3. Transport-efficient solutions such as car sharing need to be encouraged. Car sharing in itself reduces emissions, but it mainly also contributes to better car availability when car ownership decreases.

4. Solutions for the climate impact of passenger car traffic need to include both the direct emissions from driving and the emissions produced indirectly from manufacturing of the cars.



Photo: Annika Johansson

Local co-working hub to reduce traffic

More vibrant town centres make it worth investing in work hubs.

Establishing a work hub in the suburbs has many benefits for the individual, who thus avoids commuting and reduces everyday stress.

Reduced travel is in turn positive for the climate and reduces crowding in public transport and on the roads. An increased daytime population in the neighbourhood creates a better basis for services and contributes to a safer environment and also more people who can visit local businesses. Those who use a work hub can create new networks and get to know new people in the area.



Many employers today offer a more flexible working life, and often pay for a high-standard home office for remote work. But for people who find it difficult to work from home undisturbed, or may not have room for a good and ergonomic workplace at home, a workplace in the neighbourhood can then be an effective solution.

Collaboration between municipality and business

The pilot project has shown that employers or municipalities should preferably pay for work hubs to make them attractive for employees to use. A municipality can also play a unifying role in showing companies the social value of locating workplaces closer to the employees' homes. Companies could also include an investment in work hubs in their sustainability report.

The location of the hub is crucial. Proximity to other services such as preschools, lunch restaurants, gyms, etc. add value to the hub. Furthermore, mobility solutions such as electric bike pools or car pools, can be offered together with work hubs.

"With the pandemic, we as a society got used to working digitally"

says Mistra SAMS program director Anna Kramers.

The hub needs to be visible and easy to access. In Tullinge the entrance was unfortunately positioned towards the "back" of the town centre and the hub was located a couple of floors up; passers-by were unable to see the hub and thus get drawn in.

The conclusions from the pilot project mean that the municipal administration does not find potential for developing a large-scale work hub in Tullinge at present, but that there may be advantages to the work hub concept and the municipality is looking for potential ways forward.

Work hubs in remote areas take time to establish. A startup period of two years is not uncommon. It also requires targeted, concentrated and continuous marketing via social media, mailings, posters, publications in newspapers, etc. The pilot project in Tullinge lasted one year, which is actually too short a time for establishing the concept. Interest increased in the autumn, i.e. only towards the end of the project.

Understanding how to design a work hub

The pilot project explored how a local co-working hub can be established, along with suitable business model designs. The aim has been to evaluate the hub as a self-sustaining business operation and to better understand the demand among Tullinge residents and the local business community. The final research results were published in 2023.

International Scientific Advisory Panel meeting

In June 2023, there was a two-day meeting (hybrid-format) with the Mistra SAMS International Scientific Advisory Panel (ISAP).

ISAP contributes to the scientific assessment of Mistra SAMS, evaluating research height and innovation.

At the meeting, we discussed ongoing work in the programme, presented research findings underway, and gathered input on draft papers from the ISAP members.

The ISAP showed great interest in our ongoing research on ways to retrofit semi-urban areas for sustainable mobility and accessibility, and provided generous input to all different parts of the programme. Specifically, they emphasised the importance of the increased focus on social equity as a key dimension for sustainable mobility and accessibility.

When it comes to the remaining final year of the programme, the ISAP recommended us to develop the links and connections across different parts of the programme, to make sense of the results on a broader systems level, and to make sure to reach out to decision makers.

Open seminar: Shaping sustainable and inclusive mobility systems

As part of the ISAP meeting, Mistra SAMS also arranged an open seminar with the theme "Shaping sustainable and inclusive mobility systems – the critical role of transport and land use planning, digital technology and active user engagement". The talks were given by ISAP members. Sampsa Hyysalo gave a presentation on "A taxonomy of users' active design engagement in the 21st century". Jackie Klopps' presentation was on "Popular Transport and Digital Commons in an age of Climate Change" and Glenn Lyons gave the presentation "TAP-SWOT in a box – a serious game".

Building sustainable mobility systems that creates access

Jackie Klopp combined the meeting with a two-week re-



Open seminar with the ISAP. Photo: Karolina Isaksson search visit in Stockholm. While she visited us, she <u>shared</u> <u>her reflections on Mistra SAMS in a short interview</u>, explaining that Mistra SAMS is an important research program in the face of climate change. And that the innovating living lab approach makes for very interesting research.

" Building sustainable mobility systems that creates access is very important for our lives and for the planet, "

says Dr. Jacqueline Klopp.

The International Scientific Advisory Panel

The members of Mistra SAMS International Scientific Advisory Panel (ISAP) are:

- Professor Sampsa Hyysalo, University of Aalto,
- Dr. Jackie Klopp, Columbia University,
- Professor Glenn Lyons, Mott MacDonald and the University of West England,
- Professor Marianne Ryghaug, Norwegian University of Science and Technology.

Upcoming research

As Mistra SAMS enters its final year of operation, questions about the transport system's climate and sustainability transition are more urgent than ever.

In society, there are no ready-made answers as to exactly how this transition should take place.

Important research in the face of climate change

In the next few years, many decisions will have to be made under conditions characterised by uncertainty, changeability and value conflicts. We are confident that the broad research approach of the Mistra SAMS program, with its focus on co-creation and learning across disciplines and perspectives, is an important asset in tackling these major and profound societal challenges.

Anthology to communicate key findings

Mistra SAMS researchers will write a joint anthology with short chapters to communicate key findings.

Special Issue

Another key activity for 2024 is the production of a special issue for international publication. The publication will be focused around one of the cross-cutting themes from the Mistra SAMS programme, namely, experiences and insights from carrying out transdisciplinary, experimental, and interactive research on sustainable mobility and accessibility services.

Future Search Workshop

In April 2024 Mistra SAMS will host a workshop around the theme "How to ensure successful realization of sustainability objectives in ways that can also be widely supported?".

We have invited a broad scope of experts and representatives from academia, civil society, business and the public sector, to develop ideas on ways forward for building a broad public support for a sustainable mobility transformation. This is with the aim of achieving climate- and sustainability goals by 2030 and beyond.

Closing conference

September 10 is the date for the final conference, where

Mistra SAMS researchers and partners will present the main results from the research programme! The conference will be a digital event, and everyone will be invited to discuss these findings and explore the links to some of the major challenges that our society is facing.

New research projects funded from strategic reserve

Five new research projects will be carried out with funds from the Mistra SAMS strategic reserve:



• "KollTid - Timetabling Practices in Public Transport and its Socio-spatial Effects" is a qualitative sociological examination into the process of developing time tables, building upon interviews with regional transport planners.

- "The political' as point of conflict, an obstacle and a catalyst for change a study of transformative political leadership in local transport planning" is a qualitative investigation of the role of politicians and political leadership in the transformation of the transport system.
- "Future visions in service of sustainable transitions" aims to provide insights into what sustainable transport systems based upon principles of sufficient mobility might look like and what role visions can play in transition processes. It also includes creating a work of art.
- "Consumption-based greenhouse gas emissions negotiations regarding emission goals, control measures and steering in the interface between expertise and politics" aims to examine how consumption-based emission targets have been investigated and integrated into national climate policy. The project also intends to analyse Sweden's climate objectives in an international context.
- "Indirect rebound effects of increased use of virtual reality" investigates how an increased usage of virtual services influence how money and time are spent, including the identification of potential rebound effects and how these can be counteracted.

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Impact, News & media

The media impact by Mistra SAMS researchers in 2023.

1 January 2023: Anders Gullberg publishes an <u>opinion</u> <u>piece in *Dagens Nyheter*</u> and points out that climate effects must be reported honestly.

28 March 2023: Jonas Åkerman participates in <u>the Swed-ish TV series Klimathoppet, about climate and transportation</u>.

4 April 2023: Karolina Isaksson participates in <u>the</u> <u>Swedish TV series Klimathoppet, about climate and</u> <u>transportation</u>.

2 May 2023: Malin Henriksson is interviewed in P4 Södertälje about the SAMSAS shuttle: <u>"KTH-forskare erbjuder pendlare nya sätt att ta sig till jobbet"</u>.

1 July 2023: In an opinion piece in *Göteborgs-Posten*, published by Karolina Isaksson together with Frances Sprei and Lisa Göransson from Chalmers, Niklas Harring, Göteborg University, Anders Roth, IVL and Eva Lövbrand, Linköping University, the authors comment on the Swedish government's climate meeting in mid-June, and missing perspectives that deserve more attention in the preparations for the next national climate strategy: <u>"Många</u> <u>avgörande frågor saknas i regeringens klimatpolitik"</u>

20 September 2023: Mistra <u>writes about</u> the political interest in Living Lab Riksten.

1 October 2023: Karolina Isaksson is interviewed on the Swedish Radio show Godmorgon världen, about reducing car traffic in cities **"We are facing an enormous challenge and it** *is important that we can manage this,"* she concluded. **"We** *must reduce the transport demand."* The radio show: <u>"Går det</u> <u>att minska biltrafiken i städerna?"</u> **16 October 2023:** Article in *VTI aktuellt* about Mistra SAMS and the SAMSAS shuttle: <u>"Skjutstjänst motverkar transport-fattigdom"</u>.

12 October 2023: Hampus Berg Mårtensson, Mattias Höjer and Jonas Åkerman publish an <u>opinion piece in Aktuell</u> <u>Hållbarhet</u>, arguing that the Swedish transport target is impossible to reach without reducing car travel, based on the

research study "Low emission scenarios with shared and electric cars: Analyzing life cycle emissions, biofuel use, battery utilization, and fleet development".

24 October 2023: The Swedish environment news site Supermiljöbloggen writes about the Hampus Berg Mårtensson, Mattias Höjer and Jonas Åkerman research study in the article <u>"Elbilar och biobränsle inte</u> tillräckligt för att nå Sveriges klimatmål".

26 October 2023: Mattias Höjer is interviewed in <u>SVT Örebro,</u> on the research study "Low emission scenarios with shared and electric cars.."

28 November 2023: Karolina Isaksson in an opinion piece together with researchers from Uppsala University, Linköping University and Örebro University: <u>"Klimatpolitiken behöver</u> <u>långsiktiga blocköverskridande uppgörelser</u>" in *Sydsvenskan*.

1 December 2023: The magazine *Taxi idag* writes about the Mistra SAMS study trip to Copenhagen and about the report Tjänsteskjuts, in which Anna Kramers and Karolina Isaksson participated as experts.

3 December 2023: Karolina Isaksson participates in the TV show <u>Agenda Special: Klimatutmaningen</u> and discusses how to gain political legitimacy for a transition in the transport sector.





Mistra SAMS impact on websites and social media

Mistra SAMS and Living Lab Riksten have been well publicised throughout the year. Research results have been spread on several websites and LinkedIn pages.

Distributed through several channels

Mistra SAMS news often get a wide spread in the partners' channels as well as other media. The research program has a high visibility on the channels of the Swedish National Road and Transport Research Institute (VTI), The Swedish foundation for strategic environmental research (Mistra) and the Riksten Friluftsstad project.

When, for example, Mistra SAMS researcher Mattias Höjer wrote a comment on the government investigation into the <u>Swedish government's climate action plan</u>, together with Göran Finnveden, from the Mistra SAMS board of Directors, it became widely distributed. First posted on the KTH Climate Action Centre webpage, then lifted by the KTH newspage. In addition to Mistra SAMS' own channels it was then also shared on LinkedIn by KTH, Cities at KTH, Energy at KTH, and Mistra.

" At the beginning of next year, the Climate Policy Council will evaluate whether the action plan is sufficient to achieve the set goals. Meanwhile,

global temperatures continue to rise, " the researchers conclude in their commentary.

High interest in co-researchers' experience

Great interest was also generated in social media, for an <u>article on the KTH central web</u> about the challenge that the co-researchers of Living Lab Riksten took on, when they signed up to try to cut their car trips by half.

Growing LinkedIn page

Mistra SAMS presence in social media, such as LinkedIn, increases our outreach. At the beginning of the year we had around 230 LinkedIn followers and by the end of 2023 that number had risen to 365. But what is important is also **who** follows us and who we reach with the channel, among which



are urban planners, traffic planners, environment strategists, and leaders within sustainable mobility.

Mistra SAMS on Instagram

In the autumn of 2023 Mistra SAMS started an Instagram account, to increase the outreach even more. The account conveys the visual dimension of Mistra SAMS' research and news. Among the followers are actors within the area of climate- and transport policy, such as Cykelfrämjandet, Förbundet Agenda 2030, Svenska Cykelstäder, Skjutsgruppen and many more.

During the year a film about Mistra SAMS' research in a time of Climate change was produced for our Youtube channel. And the production of a new film about the Living Lab Riksten was started.

Workshop on communicative messages

Aiming for an even greater impact, Mistra Sams researchers held a workshop producing sharp communicative messages to provoke new ideas among different stakeholders.

A year of visibility

Throughout the year Mistra SAMS researchers have appeared in newspapers, TV and Radio, produced several opinion pieces and shared their research in different media.

Lectures & presentations

Participation at conferences, events, and workshops.

- **Karolina Isaksson** participated in the panel of the digital <u>Transportforum conference</u> **17-18 January**. The main topic of the conference was Energy and transportation.
- **2 February**, **Karolina Isaksson** held her professors inauguration lecture "Transformativ kapacitet i transportpolicy och transportplanering: Idéer, praktik och politik".
- On **February 10th**, **Claus Hedegaard Sørensen** gave a presentation for the political committee responsible for public transport in the Danish Regions.
- **23 March**, **Malin Henriksson and Mia Hesselgren** gave the presentation "Resvanor som social praktik: Hållbart resande i Living Lab Riksten" for the Drive Sweden seminar <u>"The collective mobility of the future - what are the</u> <u>obstacles and what new services are required?</u>".
- Anna Kramers and Mia Hesselgren took part in the panel discussion <u>"After the car society"</u>, <u>about the film Life</u> <u>on Wheels</u>, **28th of March** at Tekniska museet.
- Anna Kramers held her docent inauguration lecture on the 28th of April, with the title "The collective mobility of the future where are the knots and what new services are needed?"
- **Karolina Isaksson** participated as a speaker at the International Transport Forum (ITF) Leadership Summit in Leipzig **24-26 May** with the presentation "Transformative capacity for Building transformative capacity in strategic transport planning", built on research by Karolina Isaksson, Jacob Witzell (main author), Malin Henriksson, and Maria Håkansson.
- Mistra SAMS <u>open seminar "Shaping sustainable and</u> <u>inclusive mobility systems"</u>, with Glenn Lyons, Sampsa Hyysalo and Jackie Klopp, was held **21 June**.
- Almedalen, June 28: Karolina Isaksson participated in the session <u>"Klimatomställningens glömda möjligheter"</u>, arranged by Mistra.
- **Mattias Höjer** gave the presentation "Backcasting sustainable transport futures for Sweden 2035", at the International conference for Industrial Ecology in Leiden July 2-5 2023.
- Anna Kramers participated in the <u>DI Mobilitet E-mo-</u> <u>bility summit</u> on the transition of the transport sector, September 27th.
- On September 27th, Karolina Isaksson participated in a panel discussion about <u>Transport efficiency – business</u> <u>benefit or sacrifice?</u>, as part of the Fair for fossil-free transport eComExpo.
- Claus Hedegaard Sørensen gave a presentation regarding a national mobility strategy in Denmark, at a seminar by the climate think tank Concito, 13th of October: "Mellem planetære og sociale grænser – respons på CONCITOs overvejelser".

- October 16th, Greger Henriksson and Jessica Berg talked about the mobility and citizenship challenges that the Living Lab Riksten co-researchers have been working on, in the presentation <u>"Everyday mobility and sustainable citizenship - A living lab approach", at the 12th Annual Swedish Transport Research Conference.
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- October 17th, Hampus Berg Mårtensson, Mattias Höjer and Jonas Åkerman gave their presentation <u>"Tensions,</u> <u>Mobility Services and MaaS", at the 12th Annual Swedish</u> <u>Transport Research Conference</u>.
- Malin Henriksson participated at a round table discussion in the seminar <u>"Grøn transport, teknologi og</u> <u>diversitet</u>", held at the University of Copenhagen on October 25.
- Mistra SAMS and K2 research seminar: "How to achieve 'avoid' and 'shift' in the transport sector" was held on October 25.
- On November 15th, Claus Hedegaard Sørensen gave the presentation <u>"Is it possible to gain legitimacy for policies</u> of less and slower mobility?", at the MIRAI conference "Creating resilient and sustainable societies", Umeå University.

Citizen dialogue to reduce emissions

The University of Copenhagen uses citizens' dialogues with interested researchers, teachers and students, to find appropriate measures to reduce its CO2 emissions. Mistra SAMS researcher Peter Arnfalk is invited as an expert to the citizens' dialogues in the field of "Travel and Mobility".

" Reducing CO2 emissions from academic travel is a difficult dilemma and it is probably a good idea to involve both staff and students in this process, "

says Peter Arnfalk.

Kitchen talks

6-8 times per year, the Mistra SAMS network is invited to informal lunch webinars in which researchers and partners present actual and relevant research results. A diversity of topics within Mistra SAMS' research fields have been discussed over the year, including citizen participation, co-creation of sustainable transport systems and practices, why innovation projects are difficult for municipal administrations, and the relationship between strategic planning and experimental governance.

Scientific publications

Scientific articles, reports and chapters.

- Adshead, D., Akay, H., Duwig, C., Eriksson, E., Höjer, M., Larsdotter, K., Svenfelt, Å., Vinuesa, R. & Fuso Nerini, F. (2023), <u>"A mission-driven approach for converting</u> research into climate action", in NPJ Climate Action, 2(1)
- Berg Mårtensson, H.; Larsen K. & Höjer, M. (2023), <u>"In-vestigating potential effects of mobility and accessibility services using the avoid-shift-improve framework"</u>, in Sustainable cities and society, vol. 96 Pages 104676-104676
- Berg Mårtensson, H.; Höjer M. & Åkerman, J (2023), <u>"Low emission scenarios with shared and electric</u> <u>cars: Analyzing life cycle emissions, biofuel use,</u> <u>battery utilization, and fleet development"</u>, in International Journal of Sustainable Transportation, DOI: 10.1080/15568318.2023.2248049
- Erlandsson, J., Bergmark, P. & Höjer, M. (2023), <u>"Establishing the planetary boundaries frame-</u> work in the sustainability reporting of ICT companies – A proposal for proxy indicators", in Journal of Environmental Management, Volume 329
- Göransson Scalzotto, J. (2023), Report <u>"Gig resistance -</u> <u>delivery regulations and grass roots initiatives: Insights</u> <u>from Spain"</u>
- Hansson, L.; Hedegaard Sørensen, C. & Rye, T. (2023), <u>Public Participation in Transport in Times of Change Vol:</u> <u>18</u>, Emerald Publishing
- Henriksson, M., "Planering handlar om liv och död': tre forskarröster om mobilitet och rättvisa", in Henriksson, M; Joelsson, T & Balkmar, D (2023), in <u>Rättvist resande?:</u> Villkor, utmaningar och visioner för samhällsplaneringen
- Henriksson, P. (2023), Report <u>"Resvanor och tillgänglighet för boende i Riksten, Botkyrka kommun: en</u> före-studie"
- Hesselgren, M. (2023), "Designerly living labs for shaping and exploring sustainable mobility practices", in conference proceedings SCP23, July 5-8, 2023, Wageningen, Netherlands
- Isaksson, K.; Eriksson, L. & Witzell, J. (2023), "Discursive power dynamics affecting how climate targets are framed and integrated in national transport planning: The case of Sweden", in Discourse Analysis in Transport and Urban Development: Interpretation, Diversity and-Controversy, Hickman, R. & Hannigan, C. (Eds.) Edward Elgar Publishing Ltd Pages 39-51
- Lange, S., Santarius, T., Dencik, L., Diez, T., Ferreboeuf, H., Hankey, S., Hilbeck, A., Hilly, L., Höjer, M., Kleine, D., Pohl, J., Reisch, L., Ryghaug, M., Schwanen, T. & Staab, P. (2023), <u>Digital reset: Redirecting technologies for the</u> <u>deep sustainability transformation</u>, Oekom Verlag, ISBN: 978-3-98726-022-3

- Olsson, L. E., Friman, M. & Lättman, K., "Upplevd tillgänglighet som nytt analysverktyg", in Henriksson, M; Joelsson, T & Balkmar, D (2023), in <u>Rättvist resande?:</u> <u>Villkor, utmaningar och visioner för samhällsplaneringen</u>
- Reinhardt, A. (2023), Master's thesis <u>"Accessibility, how it</u> is understood by planners and experienced by citizens: Planners' and citizens' perceptions of how Demand Responsive Transport can increase accessibility in suburban areas"
- Santarius, T. et al. (2023), <u>"Digitalization and Sustain-ability: A Call for a Digital Green Deal"</u>, in Environmental Science and Policy, vol. 147 Pages 11-14
- Santarius, T., Bieser, J. C., Frick, V., Höjer, M., Gossen, M., Hilty, L. M., Kern, E., Pohl, J., Rohde, F. & Lange, S. (2023), <u>"Digital sufficiency: Conceptual considerations</u> for ICTs on a finite planet", in Annals of Telecommunications, 78 (5-6), 277-295
- Santarius, T., Dencik, L., Diez, T., Ferreboeuf, H., Jankowski, P., Hankey, S., Hilbeck, A., Hilty, L., Höjer, M., Kleine, D., Lange, S., Pohl, J., Reisch, L., Ryghaug, M., Schwanen, T. & Staab, P. (2023), "Digitalization and sustainability: A call for a digital green deal", in Environmental Science & Policy, 147, 11-14
- Sjöman, M. (2023), PhD Thesis <u>Living the change: Design-</u> erly Modes of real-life Experimentation
- Witzell, J. & Oldbury, K. (2023), <u>"Embedding Re-search-led Urban Experiments? Institutional Capacities and Challenges in Mundane Planning Settings"</u>, in Nordic Journal of Urban Studies, 22 December 2023, 21-27

New guest researcher

Marie-Curie postdoc Dr. Simon Elias Bibri, from the Swiss Federal Institute of Technology (EPFL) in Lausanne, was awarded the Mistra SAMS International Young Research Grant, for a three months visit at the KTH Department of Sustainable Development, Environmental Science and Engineering (SEED). With his project "A Novel Model of Smarter Eco-City Brain, Metabolism, and Platform: Unlocking the Linchpin Potential of Artificial Intelligence of Things for Advancing Environmental Governance.

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