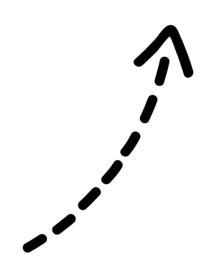
# **FUTURE PUBLIC MOBILITY**

THE NEXT STEP FOR SUSTAINABLE TRAVEL





### **FUTURE PUBLIC MOBILITY**

The next step for a sustainable travel

ISBN 978-91-89407-11-4 Published in 2022 K2 Swedish Knowledge Centre for Public Transport

This report has been produced within the framework of *Rådslaget – sustainable restart,* a K2 initiative with funding from Vinnova, the Swedish Transport Administration and K2.

# **CONTENTS**

Preface	4
Electrification needed – but it is not enough	6
Link the new with the established	8
Vision of a social contract for sustainable freedom of choice	10
Making public mobility a choice for more people	12
A redefined role for public transport	14
Changing forms of organisation and funding	16
New travel habits with more personalised services	18
Reprioritising street space	20
Pricing and payment strategies for public mobility	22
How we can move forward	26
A commission for future public mobility	26
Joining forces in a new industry	27
How we produced the report	28
Advisors	29
Documentation: knowledge summaries	31
Documentation: workshops	31

### **PREFACE**

This report is aimed at decision-makers in parliament and government, or in local authorities and regions. We wrote it because now it is time for the next step in our transition to a society where travel is sustainable. One important element of this is to exploit the potential of public transport. But for that to happen, just doing more of the same will not be enough. We need to think new, we need to think bigger.

In this document, we set out a new vision that takes a broader and bolder approach, linking established public transport with new, shared mobility services. Together, they represent the future of public mobility. This vision and the proposals to achieve it have been developed within "Rådslaget", an initiative launched during the pandemic and involving 80 or so experts working in public transport, new mobility services and urban development. In this work, we have joined forces around a framework that has brought various future horizons into view. We have drawn on research and the collective expertise, experience and ideas of experts. Our work complements other ongoing initiatives by placing greater emphasis on the importance of systemic change. Rådslaget has been implemented as an initiative within K2, the Swedish Knowledge Centre for Public Transport, and with financial support from the Swedish Transport Administration and Vinnova. The conclusions presented in this report summarise the results of a dynamic process involving many parties. The content does not necessarily reflect the views of all experts involved, the K2 partners or the other backers on various issues.

The pandemic showed us that when faced with a major challenge, society is capable of finding new solutions. We should use this insight to develop future public mobility in ways that contribute both to greater individual freedom, and to a society that is sustainable in the long term.

John Hultén Director, K2

Project Manager for Rådslaget

Elias Arnestrand

Elo Anl

Deputy Project Manager for Rådslaget

"We have drawn on research and the collective expertise, experience and ideas of experts"

# **ELECTRIFICATION NEEDED** - BUT IT IS NOT ENOUGH

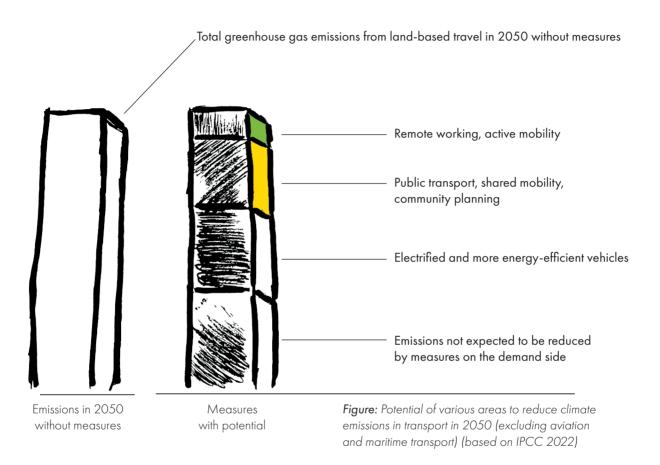
Essentially, mobility is all about accessibility. Mobility allows people to access and contribute to the things that give life meaning and create value for both individuals and society – work, trade, culture, nature, healthcare, sports, education and community. Accessibility gives people freedom. Freedom to travel wherever we want and need to go, but also freedom from having to travel. In the 20th century, mobility developed more than anything else as the number of cars owned increased and streets, cities and society as a whole adapted accordingly. A complex system involving infrastructure, policies, authorities and the automotive industry has emerged, with the private car as a guiding principle for freedom. This development has resulted in greater accessibility for many, but now we know that this has not been sustainable in the long term.

New technologies and new demands are changing car use. Cars are getting smarter – they are becoming electrified and less harmful to the environment, although electrification does not resolve all the problems presented by car use.



"The number of cars has increased by 166%

the last 50 years. At the same time, the population has increased by 28%" (1970,2020. Statistics Sweden) The enthusiastic electrification that is now in progress is needed, but it is not enough. Several studies and a long series of reports (such as IPCC, as shown in the figure below) indicate the need for further action to address the climate impact of transport – while also tackling a number of other major societal challenges. These include air quality and lack of space in cities, shortages of raw materials, congestion, public health, safety and social exclusion in many rural and urban areas.



We can achieve more by scaling up solutions that we know work. This could include energy and resource-efficient public transport initiatives used by many people, and changes in community planning to promote walking and cycling. Such measures are an important part of the work being done by many cities and regions today.

But just doing more of the same is not enough. We also need to harness the potential of new technologies and services in the hope of bringing about a more sustainable future. We are on the brink of a smarter, more connected and autonomous transport system. But development of technology without a clear direction risks reinforcing underlying problems rather than resolving them. Although both public and private stakeholders often have good intentions, new solutions and ambitions often get bogged down in whatever is already in place. That is why we need to create a new basis for the development of sustainable mobility without climate impact in decades to come.

# LINK THE NEW WITH THE ESTABLISHED

A shift in emphasis is needed, with greater diversity of solutions, if we are to meet the societal challenges of the coming decades. This means that more needs to be done to promote sustainable travel by walking and cycling, and that greater attention will be paid to travel-free accessibility. To an extent, it is all about developing forms of shared travel. This needs to be done in ways that link the new shared mobility services, including various forms of car sharing, with established public transport. This is what we mean by future public mobility.

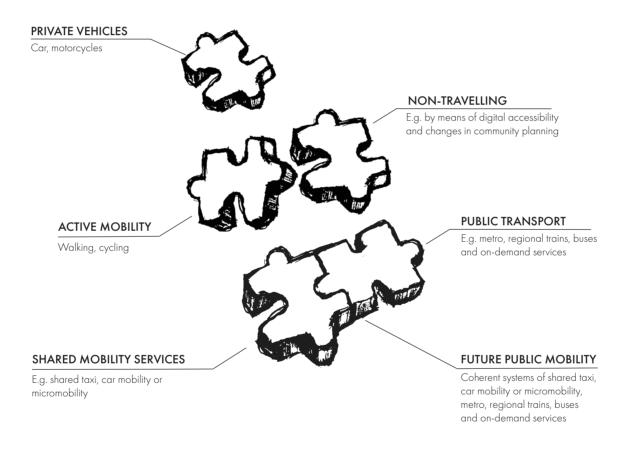
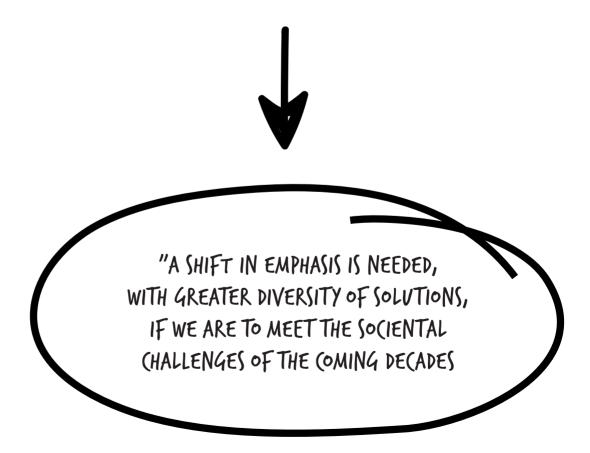


Figure. Accessibility can be achieved in many ways. Meeting climate goals while also tackling other societal challenges demands greater emphasis on active mobility, public transport, shared mobility and travel-free accessibility. Shared mobility services and established public transport need to be linked if they are to become an option for more people. Together, they represent future public mobility.

Future public mobility needs to be developed on the basis of an approach that combines the strength of established public transport to provide travel opportunities for many people in a resource-efficient and often attractive way, with the flexibility and ability of new shared mobility services to offer personalised, on-demand solutions. The car will go on playing an important part in human accessibility, but it will increasingly be part of shared solutions. This is particularly true in growing cities where space is limited.

Together, the services provided by buses, shared micromobility (such as electric scooters and bike sharing), metro, car sharing, trams, taxis, trains, carpooling, ferries, local transport, etc. can create a powerful offering for sustainable accessibility. Rather than competing for the same passengers, the respective strengths of the various shared services should be harnessed in ways that help to achieve increased attractiveness and efficiency.

Such development will not happen all by itself. It needs to be based on a new concept of the role of public mobility in the climate-neutral society of the future.



# VISION OF A SOCIAL CONTRACT FOR SUSTAINABLE FREEDOM OF **CHOISE**

Societal change rarely comes about because of a single decision or event. Instead, the direction of the many decisions and events are what bring about gradual change.

This is why change needs to be supported by a long-term concept of societal development.

In recent decades, the aim of increasing the percentage of public transport has been a high priority for the public transport industry. This has led to a situation where public transport has been pitted against cars in a battle for market share. Capturing market share may be an important goal for an industry, but it is not a vision for people.

We believe that future public mobility should be viewed as a freedom reform. Working on the basis of the demands and criteria of coming decades, we need to focus on freedom of choice in ways that increase people's opportunities for accessibility that is sustainable.

Development should be based on a vision of a new social contract; that is to say, an abstract agreement between society and individuals on what people in Sweden can expect from the transport system – and vice versa. Such a social contract does exist today. It tells us that we should be able to go wherever we want whenever we want, as long as we have access to a private car.

We believe that a change in this social contract needs to be based on making public mobility an option for more people by enabling everyone to get all around cities, as well as to important places outside cities, within a reasonable time and at a reasonable cost without having to own a vehicle.

> "A CHANGE IN THIS SOCIAL CONTRACT NEEDS TO BE BASED ON MAKING FUTURE PUBLIC MOBILITY

an option for more people by...

... ENABLING EVERYONE TO GET ALL AROUND (ITIES, AS WELL AS TO IMPORTANT PLACES OUTSIDE CITIES

within a reasonable time and at a reasonable cost - without having to own a vehicle"

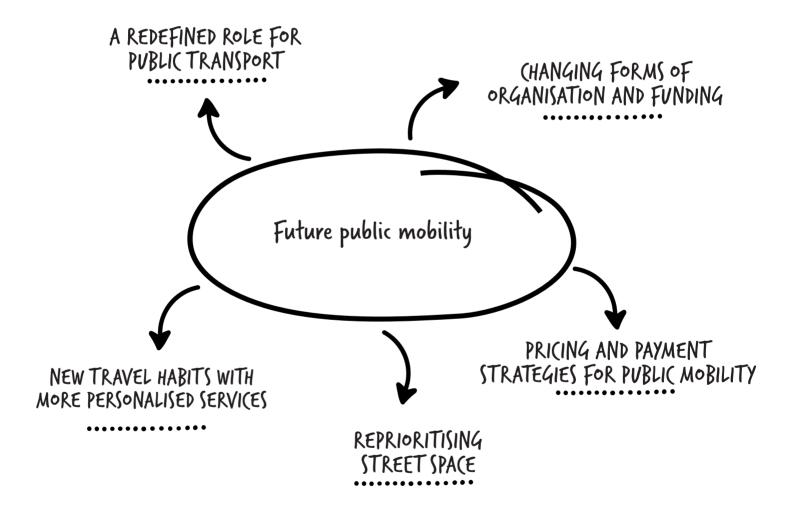
The vision of a new social contract does not mean that private car ownership will disappear, but that sustainable freedom of choice will increase thanks to public mobility that corresponds more accurately to people's unique circumstances and requirements. What constitutes reasonable time and cost may vary in different geographical contexts. To facilitate democratically based discussion at local, regional and national level, methods are needed that follow the evolution of public mobility and people's opportunities to use it.

Swedish transport policy is based on the objective of achieving a socioeconomically efficient transport system for people and businesses throughout the country, in a way that is sustainable in the long term. One important principle of transport policy is that passengers should be given plenty of choice when it comes to deciding how they want to travel. However, people's actual freedom of choice is influenced by the surrounding conditions, such as how cities are designed, what travel options are available, or what established norms are in place in respect of travel. A change in the social contract for public mobility upgrades freedom of choice in Swedish transport policy.



# MAKING PUBLIC MOBILITY A CHOISE FOR MORE PEOPLE

Five areas are of particular importance if future public mobility is to become reality.



"RATHER THAN COMPETING FOR THE SAME PASSENGERS
THE RESPECTIVE STRENGHTS OF THE VARIOUS SHARED SERVICES
SHOULD BE HARNESSED IN WAYS THAT HELP
TO ACHIEVE INCREASED ATTRACTIVENESS AND EFFICIENCY"

# A REDEFINED ROLE FOR PUBLIC TRANSPORT

The public transport of today is characterised by a role that focuses on commuting by bus, train, tram, metro and boat. Activities are characterised by a production and market approach, with public transport competing with cars for market share. Public transport is seen as an attractive option, particularly in cities and on heavily used routes, but it rarely allows people to travel from door to door or meets all travel needs. At the same time, regional responsibility for public transport is characterised by an inherent conflict between providing efficient, competitive travel options in places where a lot of people live and work, and providing travel in more sparsely populated areas as well on the basis of notions of fair and equal access to accessibility. However this is balanced, there is often a disconnect between what people expect of public transport and the resources available to develop and run it.

There are many positive aspects to the role of public transport today. It offers travel options that are often resource-efficient, and in many cases attractive. This role can be developed by building on the strengths of public transport while also identifying the weaknesses. Instead of focusing on public transport as a separate and distinct system, as used to be the case, the vision of the public aspect needs to be opened up with solutions that link established and new mobility services. We need to focus on functions, rather than product and production. The functions are provided by services that may be publicly funded, commercial, non-profit, or a mix of all three.



"This role can be developed by building on the strengths of public transport while also identifying the weaknesses

The vision of a new social contract for public mobility requires a change in the role of established public transport, with a diversified mandate that includes new types of services. These include different forms of shared mobility services, ticket sales in new combinations, combined mobility services driving sustainable behavioural change, and on-demand services, for example. Such services need to be developed in ways that result in more efficient use of traditional public transport. This needs to be done in an integrated system that passengers find easy to navigate and use.



#### TO ENABLE CHANGE, WE NEED:

- Public transport organisations to work on the basis of a changed target scenario, with broader emphasis on accessibility and a new social contract for sustainable freedom of choice.
- Reorganisation of regional public transport authorities into regional mobility authorities with adapted objectives, working methods and instruments.
- Combined mobility services to move away from pilots towards becoming part of the core business of regional mobility authorities in ways that include both public and private stakeholders.

EXAMPLE OF SPECIFIC ACTION:
Initiate a review of the Public Transport Act and make the
necessary changes based on a diversified mandate.



#### **OUTLOOK: INTEGRATED MOBILITY SERVICES IN BERLIN**

Berliner Verkehrsbetrieb, BVG, is Germany's largest municipal public transport company. It has taken on a clear and active role in integrating various forms of shared mobility services as well as providing traditional public transport. The Jelbi service provides Berlin residents with access to the full range of BVG public transport services, as well as services from more than 20 integrated mobility partners, including car and bike sharing, on-demand minibuses, taxis and micromobility. BVG has also established physical sites where various mobility options are gathered together: these are known as mobility hubs. This initiative aims to make the city more attractive and sustainable – for current and future generations.

# CHANGED FORMS OF ORGANISATION AND FUNDING

The organisation and funding of the transport sector shapes the basic prerequisites for people's opportunities to travel both privately and collectively. At present, this takes place with emphasis on long-term planning of infrastructure, but much less emphasis on providing accessibility. Although greater attention has been focused on public transport in recent decades, existing organisation and funding is largely based on private cars as the norm. In today's organisation, problems often arise within and between organisations and authorities at various levels.

The procurement procedures that are used to implement the objectives of increased travel by public transport are characterised by long planning horizons. This creates inertia that can limit the ability to seize new opportunities.



"The organisation and funding of the transport sector shapes the basic prerequisites for people's opportunities to travel both privately and collectively"

The vision of a new social contract for public mobility requires an organisation and funding with clearer emphasis on the functionality to be achieved and more efficient use of existing infrastructure. At the same time, different services need to be linked to community planning at local, regional and national levels. Increased interaction involving several stakeholders, both public and private, for the benefit of passengers and citizens should provide a starting point. Initiatives implemented by different stakeholders need to be synchronised so that they have the most positive impact possible. This requires greater clarity and clearer definition of stakeholders' responsibilities, skills and driving forces.



#### TO ENABLE CHANGE, WE NEED:

- Clearer national responsibility and national competence and analytical ability in respect of public mobility issues, including the necessary digital structures, either through the creation of a new governement agency or through changes to the mandates and funding of existing agencies.
- More stable long-term conditions for funding measures that not only relate to infrastructure but also include other measures and services with shorter time horizones.
- New ways of funding and encouraging public mobility by abolishing of taxation of benefits of combined mobility and new forms of state co-funding, for example.

## EXAMPLE OF SPECIFIC ACTION:

Review the instructions and regulations governing the Swedish Transport Administration's mandate in ways that give the agency the opportunity to take on a more active role in driving and supporting public mobility.



#### **OUTLOOK: THE NORWEGIAN URBAN GROWTH AGREEMENTS-STATE LEVERAGE FOR** LOCAL TRANSFORMATION

One important starting point in the Norwegian urban growth agreements is the "Nullvekstmålet" or zero growth target, which means that car use in urban areas should not increase. Increased travel will involve walking, cycling and public transport instead. The urban growth agreements are a kind of declaration of intent between the state and the major cities. One important part of these agreements involves the management of objectives and outcomes, and the emphasis is on the overall impact of all measures. The state contributes funding for walking, cycling and public transport measures, as well as for reduced fares on public transport. Local road charges (bompeng) are used both for funding and as an instrument for reducing car use. The evaluation of the urban growth agreements shows that are flexible and facilitate improved coordination in transport planning and land use.

# NEW TRAVEL HABITS WITH MORE PERSONALISED SERVICES

How people travel has changed in recent decades on account of new technologies, expanded road and rail systems and socioeconomic development. Factors such as growing environmental concerns and an ageing population have also influenced people's travel habits, which in turn has led to changes in supply and new policies. Travel habits and personal mobility are closely linked to how we identify ourselves. People's decisions on how they travel are not based solely on rational decisions. The norm in respect of privately owned cars remains strong, and cars are still associated with a higher degree of freedom and control. Public transport is not viewed as a realistic option in many contexts. The jigsaw puzzle of life is used as a ready excuse to continue building the norm around private car use. Current plans for the transport system of the future lack confidence in the ability to change travel behaviour. Instead, today's forecasts for the future development of traffic cement the norm around privately owned cars and measures involving more of the same.

There is burgeoning innovation in public mobility, with new services such as electric scooters, car sharing and autonomous vehicles demonstrating that rapid change is possible. To realise that vision of a new social contract, we need to safeguard the foundations of today's public transport while daring to create solutions that will be attractive to more people. There needs to be stronger emphasis on passenger experience and how various stakeholders can work together to make public mobility seamless. In future, the choice of mobility solution will continue to be closely linked with personal identity, which will require a variety of options for public mobility services, private travel, active mobility and lifestyles with more travel-free accessibility.



Making public mobility a natural choice requires attractive services, solutions with greater emphasis on details and a better understanding of what passengers need. This will require new management, a new culture and commitment from people with new skills.



#### TO ENABLE CHANGE, WE NEED:

- A data-driven approach centred on users that leverages information to facilitate more personalised solutions for people with different needs and requirements. Public mobility needs to be a service that people actively choose because it meets their needs.
- New communication and marketing methods that position and diversify the supply of public mobility services to different target groups.
- New ways of understanding, measuring and evaluating people's potential choices, including the option not to travel.

# EXAMPLE OF SPECIFIC ACTION:

Gradually replace national, regional and local targets for increasing the percentage of walking, cycling and public transport with targets for increasing the percentage of walking, cycling and public mobility. In the long term, replace percentage targets with accessibility targets, i.e. targets for how easily people can select different ways of achieving accessibility.



#### **OUTLOOK: ON-DEMAND SERVICES THAT PROVIDE A COMPLEMENT**

Apps and seamless digital interfaces offer new opportunities to provide on-demand public transport. Allowing passengers to book their trips allows traffic to be optimised on the basis of need rather than fixed timetables. One example can be found in Bakersfield, California, where TransLoc has launched the RYDE service on behalf of the public transport authority. This service is attracting new groups of passengers and plugging gaps in the existing public transport offering, particularly in sparsely populated areas. Another example can be found in Choisok in Japan, which is specially adapted for an elderly target group and their needs.

### REPRIORITISING STREET SPACE

Between a third and a half of the total area of cities is made up of streets. Streets have increasingly become pure transport spaces on account of the way in which accessibility for cars has been prioritised in community planning. Road traffic takes up most of the space, and the traditionally slower modes of transport are relegated to smaller, segregated spaces at the fringes of the street. Today's street spaces are generally not flexible or adaptable, and they are ill-equipped to deal with future extreme weather.

"Between a third and a half of the total area of cities is made up of streets"

The vision of a new social contract for public mobility requires reprioritisation of street space. Such reprioritisation needs to take into account the fact that some streets are planned for faster speeds, while others are planned for recreational spaces that require lower speeds if they are to be attractive. The streets of the future need to be designed more on the basis of soft values. This could, for example, involve car-free zones and a reduction in the proportion of surfaced areas. The street needs to reflect a new balance between different functions and between private vehicles, active mobility and public mobility. Spaces for public mobility need to be developed by means of mobility hubs or mobility zones. Urban design has traditionally been based on planning and planning documents, but new ways of working are also needed in an age that requires rapid change in a new direction.



#### TO ENABLE CHANGE, WE NEED:

- Future street spaces to be planned and designed with children in mind, and these spaces to potentially be car-free, particularly in central locations. This will free up space for other kinds of transport while also reducing the proportion of surfaced road.
- More dynamic ways of controlling which types of vehicles are allowed in which street spaces at which times, exploiting the full potential of new technologies such as geofencing.
- Stakeholders joining forces on platforms for common objectives and processes for joint action in respect of street design

EXAMPLE OF SPECIFIC ACTION:

Revise the base speed for urban traffic in ways that adapt the traffic to urban conditions, rather than the other way around.

••••••



#### **OUTLOOK: OPEN STREETS IN MILAN REDUCE PRIVATE CAR USE**

In 2020, Milan introduced the Open Streets (Strade Aperte) strategy, which aims to curb growth in private car use and promote safe, sustainable modes of transport. This strategy includes more zones with significant speed limits and expansion of pedestrian zones and green areas. Milan also has a strategy for what is known as tactical urbanism. This includes quick, scalable measures such as street furniture, flower beds and painted streets in order to explore long-term changes before investing time and resources in permanent solutions.

# PRICING AND PAYMENT STRATEGIES FOR PUBLIC MOBILITY

The current range of public transport tickets and how these are purchased differs between different places in Sweden. There is a plethora of more or less niche ticketing products aimed at different groups of passengers, but the current system is largely designed for people who commute and travel frequently by public transport. The digitalisation of ticketing systems and greater opportunities to customise information for different groups of passengers brings with it greater opportunities for personalised tickets and simplified ticket purchases.



"The digitalisation of ticketing systems and greater opportunities to customise information for different groups of passengers brings with it greater opportunities for personalised tickets and simplified ticket purchases"

Public mobility requires tickets and payments that are characterised by simplicity and flexibility. The perception of what *passengers* are offered needs to be developed.



#### TO ENABLE CHANGE, WE NEED:

- Public mobility to be paid for and priced in ways that support seamless use of various services.
- Passengers to be able to use mobility services without having to predict their travel and think about different tickets, and still feel confident that they will be charged a fair price thanks to cost caps or developed season tickets, for example.
- A system with strong legitimacy which is based on all passengers complying with the ticketing regulations. This needs to be achieved without an extensive control system that hinders passengers.

### EXAMPLE OF SPECIFIC ACTION:

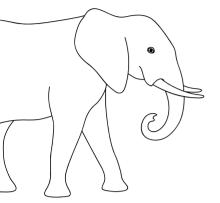
Ensure that public transport tickets can be sold via new channels and by other stakeholders in order to promote new, seamless solutions.





#### **OUTLOOK: TICKETS FOR CUSTOMERS WHEREVER THEY ARE**

Allowing other stakeholders to sell public transport tickets via their channels will make it easier for more people to use public transport. Hotels, event companies or car pools, for example, could offer public transport tickets in their apps. After a long series of tests and pilots, Västtrafik became the first regional public transport authority in Sweden to open up a general offer for digital resellers of public transport tickets in 2022. This decision is based on an ambition to be able to offer tickets to new target groups and to "be wherever customers are". The first services to start reselling tickets were Parkeringsbolaget in Gothenburg and Travis, a travel app developed by Nobina.



### WHO SHOULD PAY?

# If public mobility is to become an option for more people at more times, would this not be very expensive for society?

- The transformation of the transport system will cost money, no matter how it is brought about. Trying to achieve our goals by doing more of what we are already doing is by no means free of charge.
- To be socially efficient, public mobility needs to be designed with cost and resource efficiency in mind; through on-demand solutions where demand is low, by rewarding short trips with micromobility and by providing carpooling incentives, for instance.
- At present, huge sums are spent on private vehicles and the extensive parking and road
  infrastructure that they require. The vision of a social contract for public mobility
  involves gradual reorientation of both individual and societal resources from private
  to shared, from investing in products to paying for services.



"TRYING TO ACHIEVE OUR GOALS BY DOING MORE OF WHAT WE ARE ALREADY DOING IS BY NO MEANS FREE OF CHARGE"

### HOW WE CAN MOVE FORWARD

We are absolutely certain that it is possible to turn development in a sustainable direction that also gives people more freedom of choice. In this report, we have argued that public mobility needs to become a more attractive alternative by developing it on the basis of vision of a new social contract. We are not starting from square one, but we need to gear up and open up in ways that allow public mobility to progress. We need a national assembly with the support of the Swedish government, as well as the industry's stakeholders joining forces, if we are to be able to take the next step.

#### A COMMISSION FOR FUTURE PUBLIC MOBILITY

We propose appointing a commission to develop the proposals submitted here and identify further measures with the potential to accelerate development of future public mobility. Such a commission is needed as the stakeholders that are currently responsible for public transport, new mobility services and urban development, with their existing roles and mandates, are not fully capable of seizing the opportunities, and because there is no national stakeholder with the power to drive change. The commission's approach needs to be characterised by openness, a willingness to change, a broad mix of skills and dialogue with relevant stakeholders. The commission should be appointed by the government along the same lines as electrification of the transport system.



- Analyse the evolution and impact of the areas for action highlighted in the report
- Help to identify and ensure that steps are taken towards future public mobility by identifying opportunities that support progress towards the vision, drawing attention to any problems that will hinder progress and proposing effective measures that will help to turn the vision into reality.

The Commission needs to draw inspiration from and compare developments in Sweden with a selection of countries in Europe and other parts of the world. Ongoing legislative and development work at EU level needs to be taken into account.

"The (ommission needs to draw inspiration from and compare developments in Sweden with a selection of countries in Europe and other parts of the world ongoing legislative and development work at EV level needs to be taken into account"

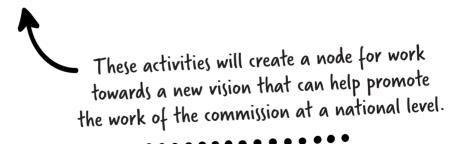
#### JOINING FORCES IN A NEW INDUSTRY

Besides to a national commission, there is a need to join forces in a new industry – the public mobility industry – where stakeholders gather around a strategic innovation programme based on the vision of a new social contract for public mobility.

This work requires a mix of skills and a determined commitment from many stakeholders, such as government authorities, regional public transport authorities, transport companies, local authorities, academia, the automotive industry, civil society and the business community in general. Long-term stability for the funding of research, innovation and development is needed if we are to be able to scale up and benefit from various stakeholders' resources.

#### THIS JOINING OF FORCES MUST:

- Encourage active dialogue on the vision of future public mobility and mobilise stakeholders in the transition process
- Identify the need for new knowledge and skills by identifying and proposing training and courses that create the conditions for change, for example
- Identify and initiate research and innovation activities that can reinforce efforts towards future public mobility
- Encourage collective learning in public and private organisations from the pilots, demonstrations and experiments that are ongoing in cities and regions in Sweden and internationally



### HOW WE PRODUCED THE REPORT

The proposals in this report have been devised within "Rådslaget", an initiative for the renewal of sustainable travel. This initiative stems from the challenges faced by public transport during the pandemic and the window of opportunity that opened up at that time in order to challenge old truths and explore new perspectives.

This work has been ongoing for over a year and has involved 80 or so leading experts in public transport, other shared mobility services, urban planning and research. Existing research has been highlighted and compiled on the basis of five focus areas which were identified by the experts in a process in autumn 2021. Researchers associated with K2 and with links to Lund University, the Swedish National Road and Transport Research Institute, Malmö University, Linköping University and RISE Research Institutes of Sweden have participated in the work.

In parallel, a series of open knowledge-sharing lunches and seminars have been held in order to highlight different perspectives and issues within the five focus areas. The experts have devised ideas, specific action areas and proposals on the basis of this, and via a number of thematic workshops. Their work has been based on the "Three Horizons" method, which is a framework for visualising and discussing the current situation, future horizons and measures for creating change in a desired direction. With this as a basis, the innovation agenda for "Future public mobility – the next step for sustainable travel" has gradually emerged, developed and been refined in constant dialogue within the expert group. The conclusions presented in the report summarise this work.

#### **ADVISORS**

Aako Raoofi

Regional Developer, Transport Infrastructure and Public Transport, Västra Götaland Regional Council

**Adam Laurell** 

Owner/CEO, Mobility as a Service AB

**Anders Roth** 

Mobility Expert, IVL Swedish Environmental Research Institute

**Anders Wretstrand** 

Public Transport Strategist, Skånetrafiken

Anders Yngve-Söderstjerna

Head of Strategy & Business, Skånetrafiken

**Anette Enemark** 

Head of Mobility, Mobilitetsselskabet Movia

Anna Grönlund

Sector Manager and Deputy CEO, Swedish Bus and Coach Federation

Anna Kramers

Researcher, Programme Manager Mistra SAMS,

KTH

Anna Moritz

Business Strategist, Stockholm Public Transport Administration

Arvid Röckert

Director of Strategy, Keolis

**Bawer Coskun** 

Director, Swedish Taxi Association

**Bianca Byring** 

Public Transport Strategist, Region Västerbotten

Björn Öhman

Section Manager, WSP

Björn Wendle

Deputy CEO, Head of Marketing, Trivector

**Bård Norheim** 

Head of Department, Asplan Viak AS

Carl Bergkvist

Business policy expert responsible for infrastructure issues, Stockholm Chamber of Commerce

**Charlotte Lejon** 

Business Developer, Swedish Energy Agency

**Christer Ljungberg** 

CEO, Trivector AB

**Christian Fredricsson** 

Programme Manager, Vinnova

Claes Kanold

Leader Radical innovations, Ruter AS

Claus Hedegaard Sørensen

Senior Researcher, Swedish National Road and

Transport Research Institute

Dan Nerén

Senior Public Policy Manager, Nordics TIER

Mobility

**Daniel Mohlin** 

Nordic Director, Citybike Global

**Daniel Rudmark** 

Senior Researcher, RISE Research Institutes of

Sweden

**Einar Tufvesson** 

Strategist, Swedish Transport Administration

Eric André

General Manager, Director for Sweden, Voi Technology

Eva Tiséus

Director of Marketing and Communications,

Transdev Sweden

**Eva-Marie Wenehed** 

Flowmapper Product Owner, Tyrens Sweden AB

**Evelina Gunnarson** 

Behavioural Economist & Senior Advisor, Ramboll

Fredrik Holm

Senior Advisor, Gröna Bilister

Frida Karlge

Regional Manager, Sweco

Gerhard Wennerström

CEO, Samtrafiken

Göran Smith

Senior Researcher, RISE Research Institutes of

Sweden

**Helena Svensson** 

Senior Lecturer, K2 and Lund University of Tech-

nology

**Helene Lidestam** 

Associate Professor, Linköping University and

Swedish National Road and Transport Research

Institute

Henrik Johannesson

Strategist, Region Skåne/Skånetrafiken

Henrik Modig

CEO and Partner, Bee Analytics

Henrik Nolmark

Administrative Director, Volvo Research and Edu-

cational Foundations

Jan Persson

Associate Professor of Computer Science, Malmö

University/K2

Jens Listrup

Change Manager, Skånetrafiken

Jesper Johansson

CEO/Senior Advisor Sustainable Mobility, Trans-

formo AB

Jesper Sandell

Customer Experience Strategist, Stockholm Public Transport Administration

Jessica Berg

Head of Research, Swedish National Road and Transport Research Institute

Joanna Dickinson

Administrator, Swedish Environmental Protection Agency

Johan von Porat

Business Developer, Sustainability, WSP

Johan Wadman

CEO, The Swedish Public Transport Association

**Johanna Johansson** Administrator, Vinnova

Jonas Friberg

Chairman, Swedish Travelers Association

Karolina Isaksson

Senior Researcher, Swedish National Road and

Transport Research Institute Karolina Pamp Sandgren

Mobility Strategist, AFRY

Katarina Graffman

PhD, Inculture/Uppsala University

Kristina Laurell

Research Secretary, Formas

Lena Heldén

Business Policy Expert/Researcher, Swedish Taxi Association

Lena Winslott Hiselius

Professor, Lund University

Line de Verdier

Regional Developer, Västra Götaland Regional Council

Malin Andersson

Programme Manager, Drive Sweden, Lindholmen Science Park

Maria Schnurr

Senior Researcher, RISE Research Institutes of Sweden AB

Maria Stenström

Behaviour and Mobility Officer, Swedish 2030-secretariat

Mariell Hallenhed

Head of Sales Systems, Skånetrafiken

**Martin Elofsson** 

Regional Developer, Västra Götaland Regional Council

Martin Tunér

Professor, Vice Dean, Lund University of Technology

Mathias Wärnhjelm

Project Manager, Swedish Transport Administration Mats Améen

Senior Traffic Consultant, Trivector Traffic

**Mats Johansson** 

Passenger Transport Manager, Triona AB

**Maximilian Bengtsson** 

Urban Planner, Tyréns Sverige AB

Mårten Rignell

Business Developer, Kraftringen

Niklas Sandgren

Head of Sales Development, Skånetrafiken

**Patrik Engfors** 

Pricing and Business Manager, Skånetrafiken

Per Hasselberg

Chairman, Swedish National Cycling Advocacy

Organisation

Per Norman

Retired, formerly Vinnova

**Peter Nordin** 

City Mobility Director, Volvo Bussar Sverige AB

Rasmus Lehnér

Deputy CEO, Point AB

Roger Vahnberg

Deputy CEO, Västtrafik

Sara Bergendorff

Traffic Strategist, Stockholm Traffic Office

Sara Persson

Head of Marketing Team, Västtrafik

Sara Rhudin

Public Transport and Special Passenger Transport

Expert, SALAR

Siri Brolén

Accessibility Strategist, Stockholm Region

Sofia Malander

CEO, AB Östgötatrafiken

Sölvi Blöndal

Contract Manager, Keolis Sverige AB

Tina Ghasemi Liljekvist

Policy Manager, Voi Technology

**Tobias Persson** 

News Desk Manager, VOI Technology

Tommy Winterskiöld Vestlie

Strategic Advisor Mobility, IUS Innovation AB

Ulrika Bokeberg

Public Transport and Infrastructure Manager

Västra Götaland Regional Council

Project management:

Ebba Wihlborg

Communications Officer

**Elias Arnestrand** 

Deputy Project Manager

John Hultén

Director, K2

#### **DOCUMENTATION: KNOWLEDGE SUMMARIES**

#### Changing travel habits and mobility services,

Eva-Lena Eriksson, Linköping University and Phil Flores, Lund University

#### New models for organisation and funding,

Jens Portinsson Hylander, VTI and John Hultén, K2/VTI.

#### New pricing and ticketing strategies,

Ulrik Berggren, Lund University

#### Reprioritising street space,

Russel Cannon, Jakob Allansson, Lund University

#### A redefined role for public transport,

Göran Smith, RISE Research Institutes of Sweden

#### **DOCUMENTATION: WORKSHOPS**

22 March 2022: Changing travel habits and mobility services,

Process manager: Maria Stenström, Swedish 2030-secretariat

31 March 2022: Reprioritising street space,

Process manager: Karolina Pamp Sandgren, AFRY

26 April 2022: New pricing and ticketing strategies,

Process manager: Christer Ljungberg, Trivector

3 May 2022: New models for organisation and funding,

Process manager: Björn Öhman, WSP

10 May 2022: A redefined role for public transport,

Process manager: Göran Smith, RISE Research Institutes of Sweden



Rådslaget is a K2 initiative, with additional funding from the Swedish Transport Administration and Vinnova