

# PRELIMINARY PROGRAM - VIA NORDICA 2020

## Wednesday June 10<sup>th</sup> *Plenary sessions*

10.00 - 12.00	Registration is open
12.00 - 13.00	Lunch & Exhibition
13.00 - 14.30	Opening session
	Opening ceremony
	<b>Welcome to Via Nordica</b> Ms Lena Erixon, Director General Trafikverket, Chairmen Nordic Road Association
	Mr Tomas Eneroth, Minister of Infrastructure Sweden
	Mr Pierre Schellekens, European Commission - <i>TBC</i>
	<b>What's the future for the roads?</b> Mr Claude van Rooten, President, PIARC, Mr Jānis Lange, Acting Chairman of the Baltic Road Association, Mr Juerg Roethlisberger President, CEDR
14.30 - 15.00	Coffee & Exhibition
15.00 - 17.00	Plenary session - Future Transport challenges in a climate perspective
	Speaker from Total
	<b>Electrifying transport – energy companies as key players in the sustainable future of transport</b> Mr Marc Hoffmann, CEO E.ON Customer Solutions/ Country Head Sweden
	<b>Geogrids to stabilize unbound aggregates as key element of sustainable roads - the way to reduce negative impact from construction on environment</b> Mr Jacek Kawalec PhD. Eng. Director of Technology for Eastern Hemisphere at Tensar
	<b>Decarbonising the IKEA Transport Supply - together</b> <i>IKEA is committed to become climate positive by 2030, while growing the IKEA business. In line with the overall IKEA ambition, Inter IKEA Transport &amp; Logistics Services has the ambition to drastically reduce the greenhouse gas emissions from every shipment. The transition to climate positive transportation involves a diversified portfolio of solutions to reduce, replace and rethink the use of fossil fuels and by integrating innovations and new ways of working</i> Ms Elisabeth Munck af Rosenschöld, Sustainability manager transport and logistics service, IKEA Transport & Logistics Services develops, plans, purchases and follows up all INTER IKEA transport and logistics services business.
	<b>The Öresund bridge 20 years – A connection in constant development</b> <i>The Öresund bridge is 20 year this year. From a property management point of view the bridge has passing through several different phases. With focus on the present situation and the upcoming digitalization you will hear what has been important during these phases.</i> Bengt Hegart, Property manager
	<b>Scania – Driving the shift towards a sustainable transport system</b> <i>The aim of Scania is to drive the shift towards to a sustainable transport system. Science is clear - we need to act now to decarbonize. Scania is convinced that companies and nations need to act together to reach fossil free transport. Efforts in the transport sector needs to be done here and now both in the Nordic countries and at the global level to reach the Paris agreement.</i> Mr Henrik Henriksson, President and CEO Scania
17.00	End of day 1
18.30 - 18.45	Buses to Luftkastellet from Malmö Live
19.00 - 20.30	Cocktail reception at Luftkastellet
20.20 - 20.40	Buses to Malmö Live

# Thursday June 11<sup>th</sup> Day of the Committees

Theme 08.30 - 10.00	Safe and environmentally friendly transport systems	Quality- and resource-optimal transports	Competent and effective organisations	Innovation and renewal
Committee	Climate and environment	Urban transport and transport planning	Bridges	Tunnels
<b>Titel</b>	<b>Air quality and greenhouse gas reduction - premises for transport development in urban areas</b>	<b>The End of Car Dependency? Nordic Solutions for Sustainable Cities</b>	<b>Artificial intelligence in bridge engineering</b>	<b>New technology, its possibilities and risks</b>
<b>Session outline</b>	The session will highlight environmental challenges and discuss experiences from transport and mobility in Nordic cities. Examples will be given of use of Climate budget as management system and measures in the transport sector to reduce greenhouse gas emissions as well as research and measures for Air quality.	The global sustainable development goals and climate change are shaping the contemporary political agenda in all Nordic countries. Many cities and regions have adopted ambitious goals for more sustainable transport solutions. A shift from personal cars to more energy and space efficient means of transportation is a key policy for achieving such goals. But how sustainable are transportation in Nordic cities in a global comparison and what can be done to improve modal shift and increased sustainability? This session combines a birds-eye view on sustainable transportation with concrete examples of national policies and local solutions.	Session reviews current and potential new applications of artificial intelligence (AI) and digital transformation in the Nordic bridge engineering. The recent explosion in amount of data and strong commercial interest to AI technologies have entered AI to business plans of many engineering companies. Among those, the Nordic ones have solid presence in building information modelling and storing digitalized data to for bridge managements systems. While digital transformation may increase effectiveness and promotes efficient resource usage one need to put special emphasis on reserving the fundamental engineering skills in design, construction and maintenance.	The fact that technology is moving very fast is not a secret, nor that new technology will have a high impact on our facilities, whether we want it or not. Today's rapid technological development such as digitalization, BIM, AI, 5G, ITS etc. will affect technical installations in road tunnels. New technologies will make it possible for us to implement new functions and to solve old problems in more efficient ways, but it will also bring new risks to the table. New technologies will affect our plants in many ways such as how we; design functions, operate and maintain plants, handle tunnel safety as well as how we can bring information to road users. New technologies; are we aware of the consequences?
<b>Session organizers</b>	Climate and Environment Committee by Secretary Ellen M.Foslie	John Hultén	Bridges, Risto Kiviluoma	Harald Buvik, NPRA
<b>Proposed speakers</b>	<ul style="list-style-type: none"> <li>• Heidi Sørensen, Director of Climate Agency in the City of Oslo will talk about a climate budget as a strategic instrument for accelerating greenhouse gas reduction and climate adaptation</li> <li>• Håkan Johansson, Coordinator Climate Mitigation, Swedish Transport Administration, will talk about how we will reach the climate goals in the transport sector</li> <li>• Mats Gustavsson, Senior Researcher at Swedish National Road and Transport Research Institute (VTI) will talk about Road dust and PM10 mitigation in Stockholm, Results and experiences</li> <li>• Päivi Kippo-Edlund, Head of Environmental Protection, City of Helsinki, will talk about Focus on air quality in Helsinki</li> </ul>	<ul style="list-style-type: none"> <li>• Sustainable transportation: Nordic cities in a global comparison Jeffrey Kenworthy, Frankfurt University of Applied Sciences</li> <li>• Adapting cities to climate change Jan Rasmussen, City of Copenhagen</li> <li>• Buses with high level of service - the MEX experience in Malmö Helena Svensson, K2 –Swedish knowledge center for public transport</li> </ul>	<ul style="list-style-type: none"> <li>• Artificial intelligence in bridge engineering Risto Kiviluoma, WSP, Finland</li> <li>• Algorithmic conceptual bridge design Eero Särkkä, Ramboll, Finland</li> <li>• Added value to bridge monitoring investments with holistic approach and alliance mindset Mikko Hyyrynen, Ramboll, Finland</li> <li>• Structural effects of air-content in concrete Mari Niemelä, VTT Technical Research Centre of Finland</li> <li>• Considerations in dynamic vehicle-bridge-driver behaviour in high winds based on full scale monitoring – models and decisions Sebastian Reymert, NTNU Norwegian University of Science and Technology</li> </ul>	<ul style="list-style-type: none"> <li>• Information Security The introduction of new technology and a new political view of warfare has drastically changed the threat scenario towards our facilities. This has led to the creation of the NIS directive and the introduction of new security laws, laws that affect the design and handling of our facilities. <i>Ulf Malmros, AFRY</i></li> <li>• BIM Building Information Model (BIM) has led to 3D modeling, which in turn facilitates planning and design as well as the construction of complex facilities. But what will this entail from an operational and maintenance perspective? <i>Jan-Christian Thorén, Swedish Transport Administration</i></li> <li>• Lessons learned from project E4 Stockholm Bypass The construction of the complex road tunnel system E4 Förbifart Stockholm is ongoing. What lessons can be learned so far from how new technology affects the project and how does the project look at new technology. <i>Henrik Modig, Swedish Transport Administration</i></li> <li>• New ways of detecting incidents Our road tunnels technical and traffical installations are largely passive and designed to handle incidents in a fast and efficient manner. Which places great demands on the fact that incidents can be detected both quickly and correctly. What can new technology mean for incident detection? <i>Jonas Spartan, Trejo, Sweden</i></li> </ul>
<b>Session moderators</b>	Signe Nyhuus, (Head of Environmental Division, City of Oslo) Leader of the NVF Climate and Environment committee will introduce and facilitate a debate on the best solutions	Johan L. Kuylenstierna	Risto Kiviluoma, WSP, Finland	Ulf Malmros, AFRY

# Thursday June 11<sup>th</sup> Day of the Committees

10.00 - 10.30	Coffee & Exhibition			
Theme 10.30 - 12.00	Safe and environmentally friendly transport systems	Quality- and resource-optimal transports	Competent and effective organisations	Innovation and renewal
Committee	Road Technology	Urban transport and transport planning	Design Build contracts (Ad-hoc working group)	Digitalisation
Titel  Session outline	<p><b>Challenges and solutions for modern road networks</b></p> <p>This session will start with a short introduction and a flashback to earlier ViaNordica in 2008 and the challenges seen back then. Following the introduction, three separate presentations will focus on the topics environment, climate contributions and transportation challenges for the road construction. As of now, accelerating focus on climate challenges and changing road systems in our Nordic countries has led to a societal demand to adopt new and heavier vehicles and the use of recycled material and reused resources. The presenters will discuss how to meet the challenges with practical solutions. The session will conclude with a discussion summarizing what we have learned and the foreseen future challenges to be handled and work that needs to be done.</p>	<p><b>Funding urban transformation</b></p> <p>Nordic cities and regions face major challenges as they transform their transportation systems in a more sustainable direction. New funding instruments are crucial in such transformations. Funding instruments are not only necessary for the ability to invest in new infrastructures and services but can also play a decisive role by influencing behavior and the demand for different modes of transportation. The session will present and discuss different approaches to funding in a Nordic context.</p>	<p><b>Experiences with design and build contracts</b></p> <p>From 2017 to 2018 an NVF-based group held 5 workshops to discuss best practice in Design and Build Contracts. The outline was a rapport released in November 2018 with recommendation of best practice. This session will address these recommendation and new aspects.</p> <p><b>Preliminary program</b></p> <p>a. Short presentation with results and recommendations from the workshops (10 min)  b. Talks, Speaker tbc (40 min)  c. Panel discussions with new aspects on Design and Build Contracts and how to further develop this tender form. (40 min)</p>	<p><b>Transport and mobility planning and innovations in Nordics</b></p> <p>While demand of mobility and transport is increasing, the fourth industrial revolution driven by disruptive technologies such as automation and Internet of Things is expected to enhance traffic safety and efficiency, decrease emissions and optimize the use of transport modes and infrastructure. These expectations thrive on innovations, individualized services and knowledge that is born in market with fast service development iterations. This change benefits and challenges the transport planning.</p> <p>The aim of the session is to introduce and engage in discussion of Nordic digitalization real-life services and lessons learned from trials with best practices and challenges in new planning practices. The session will focus on new and more flexible planning practices on different levels in the Nordic countries, including negotiations, conceptual planning, and increased usage of pilots- and tests as a more agile way of planning for future mobility solutions. The session will highlight the latest European framework and collaboration. Examples on public-private collaboration, business and funding models and legal aspects when enabling new services.</p>
Session organizers	Road Technology, Martin Wiström – Chair of the Committee	John Hultén	Søren Andersen Danish Road Directorate, Jörgen Simu, Trafikverket, Jan Eilertsen, Statens Vegvesen	Mr. Ilkka Kotilainen, Finnish Transport and Communications Agency Traficom
Proposed speakers	<p>Åsa Lindgren, Swedish Transport Administration</p> <ul style="list-style-type: none"> <li>How do we secure our road networks to future climate reduction and adaptation demands, in the Nordic countries.</li> </ul> <p>Mads Chr. Fejfer Jegsen, Niras A/S</p> <ul style="list-style-type: none"> <li>Low rolling resistance road surfaces, how to reduce petrol/ diesel consumption for vehicles in use (Miriam project).</li> </ul> <p>Vesa Männistö,</p> <ul style="list-style-type: none"> <li>Finnish Transport Infrastructure Agency - Effects of future means of transport on the road system</li> </ul>	<ul style="list-style-type: none"> <li>The Zero Growth Target in Norway – experiences so far</li> <li>Alberte Ruud, Norwegian Road Administration</li> <li>Plan for land-use, housing and transportation in the Helsinki region 2019-2050</li> <li>Heikki Palomäki, Helsinki Regional Transport Authority (HSL)</li> <li>Funding a local mega-project: The new tram way in Lund.</li> <li>Christian Rydén / Per Eneroth, Lund Municipality</li> <li>Seven perspectives on public transport funding</li> <li>John Hultén, K2 –Swedish knowledge center for public transport</li> </ul>		<ol style="list-style-type: none"> <li>Hamid Zarghampour, Trafikverket <ol style="list-style-type: none"> <li>Mobility solutions to support creating sustainable societies</li> </ol> </li> <li>Daniel Rudmark, Senior Researcher, RISE <ol style="list-style-type: none"> <li>Sharing of multimodal travel information</li> </ol> </li> <li>Erik Olsen, Norwegian Public Road Administration <ol style="list-style-type: none"> <li>NordicWay2 C-ITS cloud communication pilots – Sharing of Safety Related Traffic Information Nordic's</li> </ol> </li> </ol>
Session moderators	Martin Wiström, Ramboll Sweden AB Peter Ekdahl, Ramboll Sweden AB	Johan L. Kuylenstierna		Johan Petersson, ITS Manager, Iterio
12.00 - 13.30	Lunch & Exhibition			

# Thursday June 11<sup>th</sup> *Day of the Committees*

Theme 13.30 - 15.00	Safe and environmentally friendly transport systems	Quality- and resource-optimal transports	Competent and effective organisations	Innovation and renewal
Committee	Traffic Safety and transports	Bridges	Competence	Digitalisation
<b>Titel</b>  <b>Session outline</b>	<b>More cycling and walking – with focus on safety</b>  Traffic safety for vulnerable road users has not improved like safety of vehicle occupants. In this session we will share findings about accidents with cyclists and pedestrians and we will show examples of measures and improvements that can be made to reduce the risk for these road user groups. We wish to share findings and experiences from the different Nordic countries.	<b>Major bridge projects</b>  Session is devoted to recent major bridge projects that are used to solve specific transport needs in the Nordic countries and worldwide. These are characterized by large investment cost and long targeted service life of several hundred years. They often employ the most experienced international project teams and adopt the known best technologies. Aside bridge technology, political and economic challenges local environmental aspects have recently become as a dominant consideration in many projects. Major projects directly and indirectly advance bridge engineering making them useful to learn.	<b>Competence without Borders – Limitless Opportunities</b>  We welcome you to take part in our workshop that focuses on future infrastructure for competence.  Speakers from Microsoft and Atkins will initiate current topics on how digitalization and globalization affect our worklife today and what future challenges they see. Dialogs in groups will follow up each topic.	<b>Road maintenance and traffic planning in future for Cooperative Connected and Automated Mobility</b>  The session introduces latest results of infrastructure and traffic planning in Cooperative, Connected and Automated Mobility (CCAM) in Nordic conditions:  1. Arctic Challenge project – automated driving in snowy and icy conditions 2. Borealis project – ITS technology in demanding E8 winter road 3. Automated driving impacts in tunnel infrastructure 4. H2020 CoEXist project – assessment of AV-readiness in cities
<b>Session organizers</b>	Traffic safety and Transport, Anne Eriksson	Bridges, Risto Kiviluoma	Britt-Marie Majbäck, contact person	Mr. Ilkka Kotilainen, Finnish Transport and Communications Agency Traficom
<b>Proposed speakers</b>	Katrín Halldórsdóttir, Icelandic Road and Coastal Administration, Iceland • Accidents with cyclists in Iceland  Mette Fynbo, Danish Accident Investigation Board, Denmark • Findings and recommendations from in-depth analysis of accidents with electric bicycles  Terje Olav Hafell, Norwegian Public Roads Administration • Campaigns for better safety for vulnerable road users  Suzanne Andersson, City of Gothenburg, Sweden • Geofencing, a new tool for safer streets  Jussi Yli-Seppälä, City of Helsinki, Finland • Safe speeds in Helsinki	• River Barrow Bridge: A long-span extradosed concrete bridge Marcos Sánchez, Arup, Ireland  • Golden Bridge of Slussen Dan Svensson, ELU, Sweden  • Adapting to environmental changes – the bridges on Road no.1 in South Iceland Guðmundur Valur Guðmundsson, Icelandic Road and Coastal Administration  • New Storstrøm Bridge Barbara Boesen MacAulay, Danish Road Directorate  • Floating bridge across Bjørnafjorden Mathias Egeland Eidem, Norwegian Public Roads Administration	• How will BIM and digitalization affect the way we work with and organize infrastructure in the Nordic region? Speaker: Lein-Mathiesen Microsoft, Norway. (TBC)  • Does our Nordic culture involve values that affect the way we build and run infrastructure in the Nordic region? How do we recruit, attract and receive expatriate workforce? Speaker: Managing Director Graham Candy, SNC Lavalin Atkins, Europé.	1. Niklas Fieandt, Finnish Transport Infrastructure Agency a. Arctic Challenge for automated driving in snowy and icy conditions  2. Tomas Levin, Norwegian Public Road Authority a. Borealis project – ITS technology in demanding E8 winter road  3. Johan Olstam, VTI a. H2020 CoEXist 2020 – assessment of traffic impacts of automated vehicles in cities
<b>Session moderators</b>	Anne Eriksson, Danish Road Directorate, Denmark	Risto Kiviluoma, WSP, Finland	Hege Nerås Folkestad, Norwegian public Road Administration	Mr. Ilkka Kotilainen, Finnish Transport and Communications Agency Traficom
<b>15.00 - 15.30</b>	<b>Coffee &amp; Exhibition</b>			

# Thursday June 11<sup>th</sup> Day of the Committees

Theme 15.30 - 17.00	Safe and environmentally friendly transport systems	Quality- and resource-optimal transports	Competent and effective organisations	Innovation and renewal
Committee	Design	Traffic Safety and transports	Tunnels/Climate and environment	Operation and maintenance
<b>Titel</b>  <b>Session outline</b>	<b>More cycling and walking - with focus on infrastructure</b>  Aiming at safe and environmentally friendly transport systems, the session is dedicated to infrastructure related improvements for cyclists and pedestrians, providing insights in planning, design, construction and operations in relation to safety, comfort and accessibility for cyclists and pedestrians, with examples from the different Nordic countries.	<b>Road traffic safe, environmentally friendly and economically viable high capacity transport for the future.</b>  High Capacity Transport can provide socio-economic benefits, environmental benefits and a high level of road traffic safety. The seminar address innovation and development of infrastructure and road freight vehicles to meet future expectations. What can be achieved with automated road freight vehicles will be discussed. Key measures and barriers to decarbonize road freight are addressed.	<b>Zero emissions in the tunnel sector - closer than you think?</b>  Is it possible to achieve net zero emissions of greenhouse gases from heavy industry and heavy transport within a reasonable time? Tunnel construction involves the use of heavy construction machinery traditionally driven by fossil fuels. This can be seen now as battery-powered construction machinery is no longer a utopia. Already in the planning phase, the basis for environmentally-friendly gains can be set during the construction phase, both through requirements and prerequisites for implementation and for building materials.	<b>Innovative solutions for improved maintenance</b>  In this session some examples will be given on measures that have been developed to improve efficiency and quality of maintenance and operations. The measures range from increased collaboration to technical solutions using digitalization.
<b>Session organizers</b>	NVF Design committee, contact: Liv Øvstedal	Finn Bjerremund	Harald Buvik, NPRA	Anita Ihs (contact person)
<b>Proposed speakers</b>	<ul style="list-style-type: none"> <li>• An-Magritt Kummeneje, PhD candidate, Department of psychology NTNU: Risk perception and travel mode choice</li> <li>• Johan Ullberg, Senior Specialist, Swedish Transport Administration: Swedish road surface requirements for bicycle facilities</li> <li>• Anna Niska, Senior Research Leader, VTI / Cykelcentrum: Snow free winter cycling roads</li> <li>• Helge Hillnhütter, Associate Professor, Department of Architecture and Planning NTNU: Walking as part of Public Transport</li> </ul>	<ul style="list-style-type: none"> <li>•Why and how to implement HCT (High Capacity transport) Speaker: Thomas Asp - Sectionschef - Trafikverket</li> <li>•Type vehicle combinations comparison Speaker: Lena Larsson - HCT Project manager Volvo Group Trucks Technology</li> <li>•What is achieved with automated road freight vehicles? Speaker: Mårten Johansson - CTO- Swedish Association of Road Transport Companies</li> <li>•Harmonization of the most relevant rules for special transport Speaker: Thomas Holmstrand, Head of Unit, Transport exemptions for abnormal road transport Swedish Transport Administration</li> </ul>	<ul style="list-style-type: none"> <li>•"Tunneling with zero emissions" Environmentally friendly, user-friendly and economical working with zero emission electric construction machines and equipment. – Realistic or a distant dream? Jörgen Crilén, Sandvik, Sweden</li> <li>•"Environmental accounts as a planning parameter" The pathway selection affects the amount of emissions from road construction sites. How can one plan with a focus on minimizing emissions from a construction site? Will this be a preferred methodology when the largest city projects will be implemented, or will other criteria always trump the emission perspective? Elisabeth Schjøberg, Multiconcult, Norway</li> <li>•"Shotcrete and climate change" How do we meet the challenge of CO2-emissions in tunnel-linings when we use shotcrete. Which instrument, tools and choices, can and needs to be used? Lise Bathen, Statens vegvesen – NPRA, Norway</li> </ul>	<ul style="list-style-type: none"> <li>•Quality and efficiency improvements in maintenance by increased collaboration (example from Finland) Otto Kärki (Trafikverket, Finland), Timo Paavilainen (YIT, Finland)</li> <li>•More value for the money (Example from Skanska Sweden) Jacob Olsson-Wallentin (Skanska, Sweden)</li> <li>•Increased quality for winter maintenance (Example from Denmark) Bo Sommer (Vegdirektoratet, Denmark)</li> <li>•Digital winter - a tool for achieving improved quality and efficiency for winter maintenance Dan Eriksson (Trafikverket, Sweden)</li> <li>•Optimal route planning (Dynamic forecast-controlled winter maintenance Example from Sweden) Anna Arvidsson (VTI, Sweden)</li> </ul>
<b>Session moderators</b>		Mårten Johansson – CTO- Swedish Association of Road Transport Companies	Elisabeth Schjøberg, Multiconcult, Norway	Anita Ihs, VTI
<b>17.00</b>	End of day 2			
<b>19.00 - 00.00</b>	Dinner at Malmö Live			

# Friday June 12<sup>th</sup> Plenary sessions

09.00 - 12.00	<b>Plenary session - New challenges, New technologies</b>
	<b>Minimizing the greenhouse gas emission.</b> Mr Sigurður Friðleifsson, Manager of Orkusetur, Energy Agency Iceland
	<b>Artificial intelligence in the transport sector</b> Ms Amy Loutfi, Professor Information Technology Örebro University
	<b>Experiences of automated transport test environment in arctic conditions – Aurora</b> Mr Sami Luoma Senior Advisor on ITS, Intelligent Traffic Management Finland Ltd <i>Intelligent transportation and automatisisation of traffic are bringing changes to people's mobility and driving. Total of 10 km of instrumented road on the E8 in Lapland has created opportunities for developing automated driving in arctic conditions.</i>
10.00 - 10.30	<b>Coffee &amp; Exhibition</b>
	<b>Electric roads</b> , Dynamic charging of vehicles by using Electrified Road Systems, ERS, can be a perfect solutions for the transport systems to reach their national climate goals. Sweden are testing a number of electric road. Mr Jan Pettersson, Program officer Trafikverket Sweden
	<b>The transition in the transport sector and the availability of minerals</b> Ms Maria Sunér Fleming CEO, Swemin
	<b>Geofencing, a tool for sustainable society</b> Ms Maria Krafft, Director Traffic safety and sustainability, Trafikverket
	<b>Towards a more sustainable future with the world's largest battery ships!</b> <i>ForSea operates a sustainable ferry route, deploying state-of-the art technology to lessen the impact on the environment, while constantly striving to strengthen regional integration around Øresund.</i> Mr Jens Ole Hansen, COO Forsea
	<b>Reducing carbon footprint in road construction</b> <i>There is a considerable potential for reducing greenhouse gas emissions in all phases of road construction. We need to identify and quantify the emissions from current practices, and develop new practices that result in lower emissions.</i> Ingrid Dahl Hovland, Director General, Norwegian Public Roads Administration
12.00	<b>Congress closing</b>