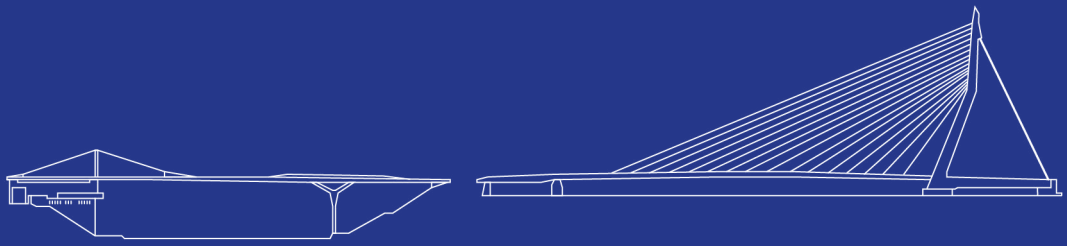
Propelling Sustainable Mobility



Conversations with policy makers from the Eurodelta

Around the lower reaches of the rivers Rhine, Meuse and Scheldt lies the highly urbanized megaregion of the Eurodelta. Its 45 million inhabitants could potentially reach each other within three hours of travel. Clean and fast connections between the megaregion's towns and cities would not only strengthen its function as a global hub of goods, services and knowledge, but also considerably improve people's quality of life.

Together with ten local and regional authorities from the Eurodelta, the European research programme ESPON conducted a study on the potential for more sustainable mobility in the area. It outlines four effective policy packages. Now it is time to explore what role stakeholders can take in implementing these. This booklet aims to help pave the way for this exploration. Following a summary of the study, you will find five conversations with decision makers on different levels of power in the Eurodelta. Each of them reflects on the study's findings and identifies opportunities and attention points for putting the measures into practice.

— Watch an introduction video on the research

Better Connectivity, Fewer Emissions

The STISE research in a nutshell

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— Luuk Boelens is senior full professor spatial planning at the University of Ghent, director of the Centre of Mobility and Spatial Planning and editor of several magazines both at home and abroad.

The Eurodelta needs to move more towards greener mobility that contributes to the European sustainability goals, and therefore to more attractive and sustainable urban regions. Business as usual will not be sufficient to reach such a goal. The baseline scenario in the STISE study (Sustainable Transport Infrastructure in the Strategic urban region Eurodelta) confirmed that without any intervention in the policies, sustainability will not be reached.

Pursuing bold policy choices is required to (help) achieve the targets set in European agendas. The four policy measures – as they are scoped in this study – have been studied for a first time at the scale of this region. These policy measures can affect the entire Eurodelta area and/or its border crossings, including better connections in or between its (major) cities for the better.

Aviation shift on short/mid-range distances

The aviation shift measure in the STISE study concerns a policy ban of all the regular aviation services on short and mid-range distances (< 500 km to 700 km) within, to and from the Eurodelta, to high-speed rail. At the moment this short- and midrange aviation concerns some 25 million passengers to, from and within the Eurodelta, each year, although there is a sufficient HST alternative with even, sometimes even less travel times.

This shift will have a major impact on the CO2 and noise reduction in and around the four relevant airports in the Eurodelta (Schiphol, Zaventem, Düsseldorf and Köln/Bonn). It will give a boost to HST and it will possibly double or even quadruple the volumes of HST travel on the existing tracks. Furthermore, it could also have a major impact on domestic and short-range travel within the Eurodelta and lead to a shift form car to train. This policy measure is becoming even more realistic, given the aviation impact for several airports of the current nitrogen discussion.

Zero Emission Zones in all major Cities in the Eurodelta

This measure concerns the implementation of harmonized Zero Emission Zones (ZEZs) in all major cities (> 100.000 inhabitants) located in the entire Eurodelta for passenger cars, Light Duty Vehicles (LDVs) and Heavy Duty Vehicles (HDVs), by 2035. Harmonising ZEZs could gain substantial efficiency and societal benefits, but specific population groups and economic actors could be adversely impacted if no accompanying measures are implemented.

Although at first sight it might seem difficult to harmonize access criteria due to the subsidiarity principle and the absence of institutional frameworks to carry out such a process at Eurodelta level, but harmonizing ZEZs would gain maximal green impact, due to the high number of cars involved. An appropriate forum for policy dialogue should be set up to assess political feasibility, options for harmonization and their impacts. If areas for consensus are identified, a structured concertation process involving national and local authorities needs to be launched to design, plan and implement the harmonization process.

Enhancing the potential of MaaS

In the STISE study, this measure explores Mobility as a Service (MaaS) with focus on passenger transport. Perhaps this measure needs to be combined with the above, since the raw materials might be insufficient to realize a complete greening of the existing car stock in the Eurodelta and beyond.

Nevertheless, we have investigated both measures separately, in order to mark each impact. The preconditions for new technologies have been looked into, including accompanying measures of the authorities to realize this benefit.

The measure shows a huge potential in realising more sustainable transport. But this needs to be linked to the position public authorities take and the necessary investments in both digital and physical infrastructure to facilitate a larger modal shift. This being said, the prerequisites as defined (regarding standardisation and sharing of data and information) are no-regret measures that can be started immediately.

Improving the regional cross-border public train transport

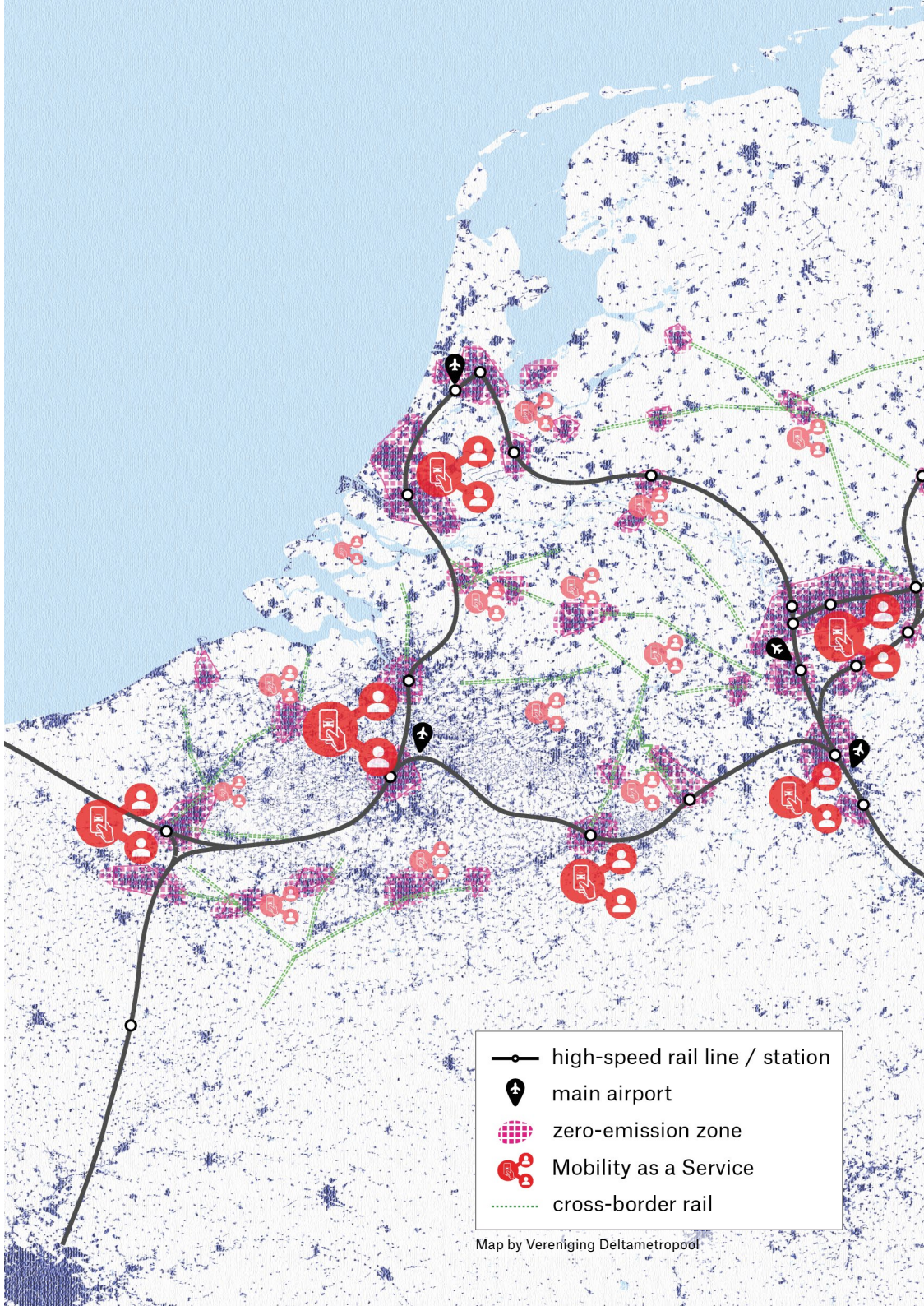
This measure focuses on the improvement of regional cross-border public train transport in the three STISE project corridors Rhine-Waal, Rhine-Scheldt and Lille-Brussels. The goal of this measure is to enhance rail transport for regional cross-border passenger travel. The study shows that in essence there is sufficient demand to operate profitable rail services, provided the cross-border connections are well integrated with the national rail and bus services and passenger-friendly services are present.

The measure has the potential to contribute to more sustainable transport and is in line with the European Green Deal. However, compared to the overall emissions in transport, the potential emission reduction of this measure is limited. Nevertheless this policy should be seen in the broader context of a shift from road to rail, contributing to the further integration of the Eurodelta reducing the barriers of its four internal national borders as well.

Policy roadmaps

The study concludes with four policy roadmaps for the immediate, mid- (2030) and long term (2050). These roadmaps are now being discussed by the respective local, regional and national authorities, towards conclusive arrangements on the Eurodelta level.

— Read the report of the STISE research



Map by Vereniging Deltametropool

Conversations with Policy Makers

Build a common basis, while respecting regional differences

Filip Boelaert & Fons Verhelst

— Filip Boelaert is Secretary-General of the Flemish Department of Mobility and Public Works, board member of the Belgian rail operator NMBS and visiting professor Architecture & Engineering at Ghent University.

— Fons Verhelst is currently working on the implementation of the Flanders Mobility Vision 2040 as Transition Manager at the Flemish Department of Mobility and Public Works.

In July 2022, the Flanders Mobility Vision 2040 was formally approved. Boelaert sees a lot of parallels between the measures set out in the Mobility Vision and the recommendations in the STISE report, as well as concerning the underlying objectives – reducing emissions being a principal one. For the Flemish Region, Low Emission Zones (LEZ) are essential to reduce air pollution and improve traffic safety, while Mobility as a Service (MaaS) forms an essential tool to ensure “smooth and seamless” traffic. Digitalisation plays a major part in these policies, first of all to inform people and to enforce measures, but also to ease cross-border coordination.

Because of its focus on Flanders, both geographically and regarding political competences, the Mobility Vision does not address aviation or rail. For international matters, Flanders grafts its projects onto

EU policy, TEN-T in particular. For Boelaert, the fundamental alignment of strategies between different policy-making levels, e.g. between the Belgian federal state and the regions, is up to politicians. Most cross-border collaboration is driven by urgencies on specific issues and depends on the importance of economic relations. Hence, the closest contacts of the Flemish Region are with the Netherlands and with North Rhine-Westphalia.

"For measures as the ones proposed by the STISE research to be put in practice on a Eurodelta level," Boelaert thinks, "three aspects need to be addressed: policy, funding and collaboration." He doubts whether all noses are already pointed in the same direction. "We will need all policy levels, from the EU to municipal councils. Even for measures that are implemented locally, such as the Low Emission Zones, coordination at a higher level would be appropriate." The Flemish LEZ are already being coordinated with other regions and countries in order to standardise and harmonise norms and methods. Boelaert calls for further collaboration on EU level, considering that greater support for measures like these is only possible with clear and transparent cross-border communication.

"If you want to take steps forward, it is preferable that a structure that already exists and is recognised today can help pull the cart."

—Filip Boelaert

Boelaert believes the EU is the appropriate body to take up the promotion of the STISE recommendations. An approach similar to the one applied for the Sustainable Urban Mobility Plans (SUMP) may serve as inspiration for the Eurodelta: first identify the right stakeholders, bring these around the table to agree on shared objectives and jointly draw up solutions. This provides the common basis on which each stakeholder can then take action, at their own level and within their own powers. The SUMP method allows common ground to be found while respecting differences between e.g. urban and rural regions. Who should initiate such a process in the Eurodelta? That, for Boelaert, remains an open question.

Air to Rail

A mobility strategy for Eurodelta is within reach

Erik Pasveer

— Erik Pasveer is head of strategy of the Directie Ruimte en Duurzaamheid at the City of Amsterdam. Amsterdam is a member of the SURE network (Strategic Urban Region Eurodelta) and currently hosts its secretariat.

The STISE research and its outcomes are embraced by the city of Amsterdam. Pasveer notes that the city is developing policy on all four topics put forward by the study. However, Pasveer continues, the measures themselves vary widely in tangibility, investment level and time scale. The measures roughly cover two ends of a spectrum. The air to rail shift and regional cross-border rail are relatively difficult to grasp, for they are about large investments and more long term oriented. The implementation of Zero Emission Zones and Mobility as a Service on the other hand are pretty down-to-earth, less about big infrastructural investments and more short term oriented. Pasveer sees a gap in between. This gap can be closed by adding two additional fields of intervention. Together, they will allow to organize strategic partnerships, formulate an effective mobility strategy and create synergies between the measures.

The first additional measure that Pasveer identifies, is about enhancing regional transport systems around the larger cities of the Eurodelta, e.g. Amsterdam. This would create a larger catchment area around main international train hubs, thereby enabling an increase in the frequency of these trains which, in turn, makes the transition from air to rail more viable. An improved regional transport system could also reduce car use since it offers a convenient alternative. This contributes to the goal of reducing transport emissions in cities and their surroundings, thus helping Zero Emission Zones to become reality. In the case of Amsterdam, the robustness of the regional transport system would increase a great deal by extending the North-South metro line towards Schiphol, completing the metro ring and reinforcing the public transport corridors to Zaandam en Almere. These infrastructures are also to be connected to 'mobility hubs' that are part of the metropolitan region's MaaS (Mobility as a Service) strategy.

The second additional measure is to improve interregional rail connections. Pasveer imagines a Eurodelta-wide network of train services at an intermediate level between regional/intercity trains and high-speed trains. By operating current stock and infrastructure service upgrades can be done relatively quickly. Without requiring major investments or large infrastructural projects (often the result of lengthy all-or-nothing discussions), an 'Intercity+' strategy allows the current network to organically grow into a new, improved mobility system. An example of this intermediate scale is the 'Intercity Direct' service between Amsterdam and Rotterdam/Breda. According to Pasveer, this service is a great success. It connects the north and south wing of the Randstad, thereby adding value through integrating, optimising and expanding markets for labour, housing and amenities. This concept could also be implemented along other lines, linking city regions to each other which allows to generate economies of scale. In this way, the market for public transport could be gradually enlarged and more regions, not only those with a high-speed train station, would become owner of the policy, creating a broad coalition and in the end resulting in a new range of international public transport nodes.

"STISE has given us clear evidence on the way to go. Let's build a comprehensive strategy to get there step by step."

— Erik Pasveer

Zero Emission Zones

Mobility, energy and resources require coordination

Audrey Masquelin & Benoit Wiatrak

— Audrey Masquelin is an architect, head of the Transport Policies Service and is head ad interim of the Direction de Mobilité of Métropole Européenne de Lille (MEL).

— Benoit Wiatrak is project manager on smart mobility and mobility management at the Direction de Mobilité of MEL.

The European Metropolis of Lille is currently finalizing its new Sustainable Urban Mobility Plan (SUMP). A wide array of policies should guide the mobility behaviour change towards a new modal split in 2035, in which the part of the private car decreases in favour of walking, cycling and collective modes of transport like car-sharing, car-pooling and public transport. The plan aligns with MEL's climate action plan (Plan Climat Air Energie Territorial) that has the reduction of greenhouse gas emissions at its core.

In Masquelin's view, Lille's mobility policy converges towards the STISE recommendations, particularly on Zero Emission Zones and Mobility as a Service. In order to lower down pollution and greenhouse gas emissions as well as to accelerate the modal shift, a Low Emission Zone (LEZ) will be in effect as from 2025. Unlike

LEZs in other countries, the one in Lille will not (yet) be progressive, but is set to be evaluated and adjusted over time, taking into account the electrification of the vehicle fleet but also feasibility for and acceptance by inhabitants, visitors and businesses. Masquelin points out that by 2040, when sales of combustion-powered vehicles are to be ceased EU-wide, LEZs will naturally turn into Zero Emission Zones.

The roll-out of the LEZ needs to go hand in hand with the gradual introduction of Mobility as a Service (MaaS). MEL has recently launched this process by first focusing on the data architecture. Standards for all transport modes are currently being developed on a national level. MEL takes up an intermediary role, pushing all operators active on its territory, both public and private, to adopt the national standards. This step of harmonization aims at streamlining information to users. Simultaneously, a 'mobility ID', similar to the Dutch OV-chipkaart or the Belgian MOBIB, is under way in a number of regions in France. Masquelin and Wiatrak expect both developments to be brought together in the future, so that integrated reservation and payment functionalities can be added to the MaaS data infrastructure and multimodal 'packs' can be offered to users, as is already the case in cities like Helsinki. Masquelin hopes for a domino effect to happen, for a MaaS system ideally covers an entire functional urban area. In the case of Lille, this stretches beyond the MEL territory, not only into the so-called Mining Basin in the south, but also into Belgium.

"The territories should reflect and act together on the issues of mobility, user services and the reduction of greenhouse gases by promoting less emissive and more shared modes of transport with a view to energy sobriety."

——Audrey Masquelin

The railways do not belong to MEL's responsibilities. They are within the powers of the French State and the Hauts-de-France Region. The star-shaped rail network constitutes the backbone of the public transport service between Lille, the metropolitan municipalities served by the TER network – 34 stations and stops within the MEL – as well as a set of urban centres on a regional scale, including cross-border connections to Belgium. The total area comprises 3.8 million inhabitants, including 1.2 inhabitants within the MEL and one million in Belgium.

For MEL, the interregional links provided by the rail network have to be enhanced, with a reinforced level of service. To guarantee smooth connections for users, the regional rail and the metropolitan public transport networks also have to be well calibrated. That is why MEL is collaborating closely with the State, the Region and the national railway infrastructure manager. A major project named Service Express Métropolitain is being prepared, doubling the frequency of trains, thus transport capacity. The project includes eight railway branches, reaching from Dunkirk to Valenciennes and from Lens to Kortrijk.

In initiating structural international collaboration on mobility in the Eurodelta, Masquelin sees an important role for networks of local and regional authorities like the Eurometropolis Lille-Kortrijk-Tournai and SURE. They should be the most apt level to think in terms of the functional urban areas they represent or bring together. That doesn't mean other levels of power can remain on the sidelines. On the contrary, they will have to collaborate for the resource and energy transitions facing the Eurodelta and on which transport policy is becoming increasingly dependent.

Mobility as a Service

Cross-border networks and institutions create mutual trust

Dominik Elsmann

— Dominik Elsmann is head of the Euregional Coordination Office at the Aachener Verkehrsverbund, the transport authority of the Aachen district (Germany). In this function, he is responsible for all cross-border public transport issues and has lead several international public transport projects with a focus on innovation and digitalisation.

"These are interesting times for mobility in Germany," Elsmann starts. "The '9 euros ticket' [giving access to all German public transport for a month] is being implemented and a new application enabling digital ticketing for our region is going live." In this context, the Aachener Verkehrsverbund (AVV) is working on its mission to enhance the comfort, speed and accessibility of public transport within the Aachen district, thereby focusing on Mobility as a Service (MaaS). For Elsmann, MaaS is about "mobility in a single account; everything for you as customer is provided by one hand." This means that a customer can, at any moment, book, pay for and get information about any type of transport through a single app. This is more complex than it might seem, since very different Public Transport Operators (PTOs) have to provide access to their systems and align themselves to be integrated into one system.

To achieve this, two innovations have recently been implemented. On Aachen city-level, the local PTO created

a system that integrates all its services ranging from providing access to public transport to renting shared cars, bikes and e-steps. In the wider Aachen district, the territory of the Verkehrsverbund, an app called Naveo incorporates not only the current services of the local Aachen PTO and the other PTOs in the area. AVV is now moving a step further by also including PTOs on the Dutch side of the border in the province of Limburg. Although the German and Dutch authorities have developed their own MaaS-app, both are functional at either side of the border, because they link the respective back-office systems of every PTO.

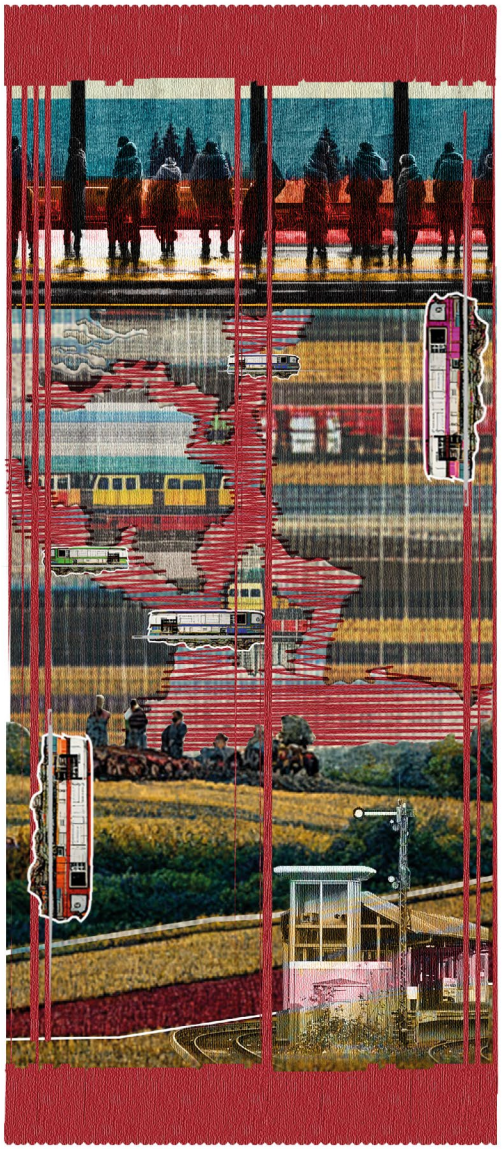
Although AVV focuses foremost on MaaS, Elsmann emphasises that this is just one piece of the puzzle for a truly sustainable cross-border transport infrastructure. Developments regarding MaaS need to be linked to measures such as the implementation of Zero Emission Zones in cities. MaaS is about removing as many barriers as possible for people to make the shift from the private car to collective transport modes.

To coordinate policy or extend a local MaaS infrastructure across the border, perhaps even to take it to the scale of the Eurodelta, political support in all of the involved regions is key. Elsmann praises the decision by the Dutch province of Limburg to formally involve AVV as member of an assessment committee in a PTO tender process. This allowed the Verkehrsverbund to impose certain requirements and gave it a stronger negotiation position, also domestically. However, this type of cross-border cooperation is still relatively far-reaching and therefore rare. A good first step is to build acquaintance and trust between cross-border counterparts. This makes it easier for parties to invest in certain infrastructure, since they know their counterparts are investing in the connection as well, thereby ensuring that the investment is worth it. Contact with parties across the border can differ strongly. With the Netherlands, for instance, tight relations have been created over time. Elsmann hopes that a similar dynamic can be established with his counterparts in the Walloon Region.

“In order for MaaS to contribute to a change in mobility behaviour, it must go hand in hand with an improvement in service provision.”

—Dominik Elsmann

To fund cross-border infrastructural projects, the EU offers funding, in particular through Interreg. However, these are not destined for infrastructure development. Therefore, funding usually still have to come from (local) governments, stressing even more the importance of mutual trust across borders. In the area around Aachen, the Meuse-Rhine Euroregion helps in a significant way, facilitating cross-border communication and offering an institutionalized environment for policy makers and other stakeholders to get in touch and align initiatives.



Regional Cross-border Train Transport

STISE places lingering issues in a whole new light

Frans Weekers

— Frans Weekers is deputy secretary general of the Benelux Union, executive director of the European Bank for Reconstruction and Development (EBRD) and former state secretary of Financial Affairs of the Netherlands.

Since its foundation, it has been the goal of the Benelux Union to enhance the internal market between its three member states: The Netherlands, Belgium and Luxembourg. Consequently, mobility and transport issues appear on the Union's agenda very regularly. More recently, two other themes for cooperation were added to its portfolio: sustainability and security, of which the first obviously also relates to mobility. For all these reasons, Weekers deems Benelux perfectly equipped to assist wherever possible to work on the recommendations of the STISE research.

The Benelux Union's role is twofold. Its first role is an initiating one, focused on tackling unwieldy systems and differences in regulations. The second role is about coordinating solutions that all parties, foremost the member states, can agree to. Both roles often overlap. With regard to the four policy measures put forward by the STISE research, Weekers explains

that Benelux deems them all important, but that some are better suited than others for Benelux to be involved in. Benelux willingly facilitates discussions and negotiations on all mobility topics, but it's the member states that decide whether they want to invest time and effort in it.

For obvious reasons, border regions are of particular interest to Benelux. It has called repeatedly for better cross-border rail connections. Weekers considers that all existing rail capacity is needed to facilitate mobility in a sustainable way, particularly in areas close to national borders, where alternatives to the private car are scarce. However, when large investments and core interests of the member states are at stake – and that is often the case when it concerns rail – Benelux can only do so much.

In the field of Mobility as a Service (MaaS), Benelux is very active. Currently there are multiple MaaS pilots in different regions throughout the member states of which only one is cross-border (i.e. Aachen/Limburg). To create more integrated cross-border MaaS-systems within the territory of Benelux, multiple obstacles need to be overcome: differences in payment systems, privacy laws, different standards etc. Benelux is currently looking into these obstacles with the help of experts, to first determine the obstacles and then to find ways to overcome those.

"Only together we can do this. Benelux mainly works with national governments, but is open for collaboration with other levels of policy-making."

—Frans Weekers

Regarding Zero Emission Zones (ZEZ), the situation is quite different. Even if the topic fits very well in the structure of Benelux since it is mostly about coordinating negotiations on standardizing regulations and technologies, discussions are hibernating. Having revealed the major impact of ZEZs on emission reductions however, the STISE research might be a 'wake-up call' to reinvigorate the topic. For Weekers, this illustrates the importance of external parties pointing out issues that have to be addressed. While national governments are still often internally oriented and not always aware of restrictions posed by differences in regulations, local authorities, grassroots organisations and research institutes play a significant role in raising awareness on effects and in proposing solutions.

Invitation to participate

The STISE study has been delivered. For the first time, we have a cross-border picture of the climate impact of transport in our densely populated delta. In recent months, we, the SURE Network (Strategic Urban Region Eurodelta) together with ESPON and Vereniging Deltametropool, have organised a series of meetings. Stakeholders from all corners of the Eurodelta entered into discussion about the results of the study and, even more importantly, about how to put the recommendations into practice.

With the STISE study, the recipes are on the table for a more sustainable mobility in the Eurodelta. Besides mobility, we of the SURE Network also explore other spatial and economic themes that are relevant for the sustainable development of the Eurodelta. Would you like to know more about our work and how you can contribute yourself? Please look at our website sure-eurodelta.eurometrex.org or contact us at info@sure-eurodelta.org.

Notes

Colofon

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