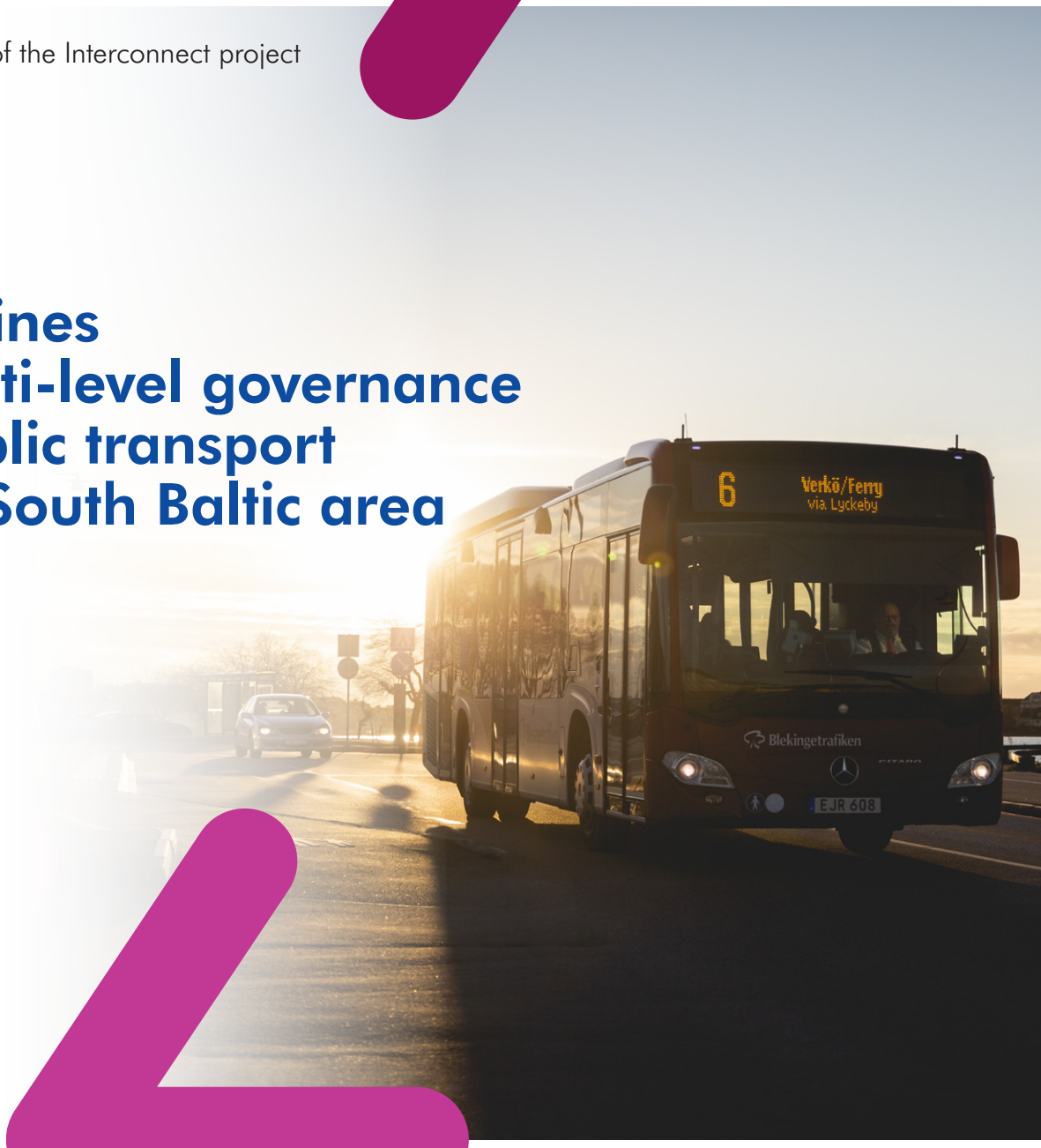
Final report of the Interconnect project

Guidelines on multi-level governance for public transport in the South Baltic area



INTER CONNECT

REGION BLEKINGE

Interreg South Baltic

EUROPEAN UNION

European Regional Development Fund

Author: Wiktor Szydarowski

TABLE OF CONTENTS

FOREWORD

This final report summarizes the activities within the Interconnect project. During the project, the debate in society and the focus on sustainability have increased. All in all, there is much to be said for public transport in this perspective. A well-developed network of local and regional public transport provides value in the form of time efficiency. When public transport also becomes cross-border, it makes a strong contribution to European cohesion. Our suggested way forward is to create a formal structure for sustainable transport in the macro-region. The most suitable governing organization is the Euroregion Baltic, as shown in this final report.

For the residents of Blekinge, the Buss-TV infotainment system will be a lasting outcome of the project. The system provides our travellers coming from Poland with information in their mother tongue. This is one example of solutions for cross-border public transport. Several additional solutions are presented in this report. We also look forward to further increasing the opportunities for our residents to travel without a car between Blekinge and our directly adjacent partners in the future.

As you all know, the world was hit by Covid-19 in early 2020. The pandemic had an immediate impact on public transport and also on the activities within the project. Among other things, the project's final conference was held digitally instead of in Gdansk as planned. Some solutions that have been developed within the project have not been implemented; however, there is a great commitment among the partnership to continue the collaboration in different ways.

We want to thank John Hultén, K2 and Ulf Wikström, Interact for valuable input while reviewing this report.

Anna-Lena Cederström

Head of department Regional Development

ABOUT INTERCONNECT

The European Union Strategy for the Baltic Sea Region (EUSBSR) flagship project INTERCONNECT addresses the challenge of curbing the car-reliant mobility trend in the South Baltic (SB) area through user-adjusted and more sustainable public transport services for regional and cross-border travels. The current public transport offer hardly meets customer expectations for easiness and attractiveness of regional and cross-border journeys, with a scarce range of integrated ticket options for multimodal rides, dif cult access to one-spot passenger information and no clear benefits for users when choosing public transport over a car.

To enhance car-independent mobility in the SB area, the partnership consisting of nine project partners and 10 associated partners from six countries have carried out joint capacity-building, pilot demonstration and advocacy actions. These will tackle three dimensions of public transport in serving regional and cross-border travels – the demand, the supply and the governance.

PURPOSE OF THE REPORT

The Interconnect project arranged an extensive dialogue between the project partners, the associated organisations and the predefined target groups to discuss more systematic cooperation on public transport across the state borders in the South Baltic area. One of the project's ambitions has been to explore an institutional dimension of public transport systems in serving regional and cross-border travels.

Outcomes of the cross-sectoral and cross-border dialogue have set a foundation for this report.

The report departs from outlining the challenges in managing cross-border public transport services in the South Baltic area, including the policy response to date.

The report recalls conclusions from a series of stakeholder seminars arranged in several locations to define a vision of sustainable public transport in the South Baltic area. The project managed to grasp the current sustainability status of public transport services across the administrative borders and the desired state of the future. Using the backcasting method, it then connected the future with the present state with attention given to practices and solutions that might be transferred from one to the other public transport system. In addition, the project identified performance strengths and replicable solutions of the public transport systems in the project partner areas.

Looking at the managerial side of the envisioned transformation process, the report introduces the reader to a concept of multi-level governance and presents some illustrative examples of such arrangements in the cross-border public transport services. Based on that, it discusses feasible options for setting up and maintaining institutional collaboration between public transport agencies in the partner areas after the project termination.

In the 'Way forward' chapter, the report sets a proposal for the structure, the composition and the cooperation priorities of the collaborative body on the coherent cross-border public transport services in the South Baltic area. Finally, the report presents ideas for embedding the cross-border public transport dimension on the political agenda.

CHALLENGES IN MANAGING CROSS-BORDER PUBLIC TRANSPORT SERVICES IN THE SOUTH BALTIC AREA

The document of the South Baltic Cross-Border Cooperation Programme 2014-2020 took note of common challenges faced by local and regional stakeholders in achieving good quality and environmental sustainability of transport services in the South Baltic area. A predominant car-based mobility pattern, with a high reliance on cars and trucks in interregional travels, was argued to result, among others, from the insufficient performance of public intermodal services when moving across borders. This was exemplified by:

- incompatible ticketing systems,
- the lack of or hindered access to combi-tickets,
- non-harmonised timetables,
- the unavailability of information about public transport services in transfer sites and,
- the lack of shuttle services between passenger terminals and city centres or railway stations.

This snapshot description of unsatisfactory cross-border connectivity laid the foundation for the Interconnect project. Its partnership took up an issue of improving public transport services for regional and cross-border travels by concentrating on four common problem areas for the involved partners.

1. The mismatch between public transport offer and customer expectations.

This problem area results from no clear benefits of choosing public transport over a car for longer trips by communities of all coastal regions in the South Baltic Programme area. This is due to:

- The shortage of tickets allowing multimodal rides (e.g. bus-ferry-train) across the borders,
- Difficult access to one-spot passenger information, and
- The lack of tailor-made products.

Those obstacles are particularly visible on ferry links (e.g. between Rostock and Gedser), which see a steadily growing number of cross-border car travels due to customised services and price packages for motorised passengers, while the market segment of foot passengers remains marginal.

2. Insufficient knowledge for decision-making.

Public transport authorities in South Baltic area look for in-depth knowledge about regional and cross-border mobility needs in their communities – both now and in the future – and need deeper expertise how to match them with sustainable solutions. The usual planning and management tools, market incentives and promotion campaigns in the regional communities to change the travel behaviour tend to fail, as they are usually not preceded by mapping of no-car travel preferences.

Although many interesting public transport services and products in the South Baltic area have been developed locally, the experience is very scattered, and the good practice has not been effectively exchanged at the region-to-region level so far. In addition, many South Baltic regions lack capacities to manage cross-border public transport services, focusing rather on ensuring satisfactory service for connections to and between main urban centres within the region's boundaries.

3. Untapped growth potential.

User-adjusted and more sustainable public transport services for regional and cross-border travels have a large potential to stimulate socio-economic growth in the South Baltic area, e.g. by contributing to more competitive labour markets and tourism. This potential is, however, untapped because of weak understanding of wider benefits brought by regional and cross-border travels and a lack of cross-sectoral dialogue. This challenge is shared by all South Baltic regions, even though some of them test an open approach to shaping mobility policies.

4. Lack of adequate policy response

The role of public transport services across regional and state borders in delivering sustainable mobility and regional growth is practically unscaled in policy documents at any level. The EU White Paper* envisions a genuine Single European Transport Area and encourages policy actions in that regard by stating that the quality, accessibility and reliability of transport services will gain increasing importance in the coming years, inter alia due to the ageing of the population. Therefore, there is a need to promote public transport.

Ensuring seamless door-to-door mobility would require high service quality as illustrated by attractive frequencies, comfort, easy access, reliability of services, intermodal integration, on par with the availability of information over travelling time and routing alternatives. Still, the cross-border dimension of public transport services is left unnoticed in the strategic policy documents of the countries and regions in the South Baltic area – even though barrier-free mobility across borders can be one of the possible drivers for socio-economic convergence processes and more internationalised labour markets.

* *White Paper – Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system, COM(2011) 144 final*

VISION OF SUSTAINABLE AND FUEL-INDEPENDENT PUBLIC TRANSPORT IN THE SOUTH BALTIC AREA

Planning for any societal system to develop towards sustainability includes many complicated steps and is usually arranged via forecasting – by making predictions of the future based on past and present data and, most commonly, by an analysis of trends.

However, one other method to achieve that is through backcasting. By this method:

- Visionary statements on the desired state of public transport services are created in a joint process, with due attention to the service sustainability dimension;
- The current reality of regional and cross-border public transport is jointly outlined;
- Possible solutions connecting the reality with the vision are formulated.

The Interconnect project partners engaged with public transport stakeholders in the partner regions to define the three components as above.

The vision below presents a comprehensive outlook of a coherent cross-border public transport system in the South Baltic area on track towards sustainability for the year 2040. It is built based on both commonly agreed insights at the dedicated seminars and individual contributions gathered through surveys.

Public transport is the most competitive way of travelling across the regional and state borders. It is safe, convenient, available when needed (based on demand), trustworthy, fast, flexible, and affordable. It is powered by green energy, emits little or no noise and is well-integrated with other transport modes (like rail, air, boat) at interchange points, including the park and ride system. It is easy to utilise for everyone and everywhere by means of a universal carrier for tickets (e.g. a mobile phone or an ID card) and a user-friendly passenger information system. New flexible transport solutions (e.g. autonomous vehicles, taxis on-demand, helicopters and drones, car sharing, e-bike service) are available in less populated and rural areas and supplement the mass public transport system.

BASELINE FOR PUBLIC TRANSPORT SERVICES IN THE SOUTH BALTIC AREA AND POSTULATES FOR CHANGE

On the other end of the path to the accomplished vision of sustainable and fuel-independent public transport in the South Baltic area lies the perception of the present situation (the baseline).

The baseline below captures current mobility patterns as perceived by public transport stakeholders attending the dedicated Interconnect events and responding to enquiries by the project. It also contains their judgment to what extent the public transport services as of today are attractive to mobility users in the partner regions. For the easiness of reading, they are presented in snapshots.

- Fossil fuels dominate the mobility sector, but public transport is powered mostly by renewable fuels (buses, boats) and electricity (trains). Electricity for public transport is sourced by either renewable or non-renewable energy (such as coal), or their mix – depending on the country and the region. In some parts of the South Baltic area, the share of greener sources of energy is low. This impacts people's health and the environment.
- Public transport service in the major cities is more and more available but is poor in rural areas.
- Public transport service is hindered at the regional and national borders. Jurisdictional aspects hamper collaboration between public transport operators. Tourists and non-residents find it difficult to use public transport due to many different systems and operators, different tariffs and currencies, lack of information at hand and language barriers (for foreign users). Ticketing and customer services development is hindered by failures, poor data security, too complicated services, and lack of integrated information.
- City planning is still car-focused and allocates too much space to parking lots, which challenges public transport to fit into the newbuilt environment. Parking fees are still too cheap, and there are still too many parking spaces to otherwise inspire people to choose public transport.
- Spatial planning tools are not effective and rather conform to the current urban form, which leads to the inflexibility of the mobility system. Not all parts of a city are equally well connected. The development of retail services in the city outskirts and population sprawl to suburban areas and satellite towns cause larger traffic volumes and longer travel (commuting) time.
- Coordination in land development and mobility measures between municipalities is still lacking. Decision-makers focus on short-term goals and don't dare make the necessary yet unpopular decisions.

The stakeholders in each Interconnect partner region subscribed to the so-called 'signature' issues – found of particular relevance and importance to work with on the sustainability path for the public transport services (Tab.1).

All regions addressed the issue of behavioural aspects in encouraging mobility users to shift from cars to public transport. In addition, "Legal aspects for cross-border cooperation between organisers of transport and operators of ticketing platforms" was raised as another signature issue in the Pomorskie region.

Tab. 1. Signature issue per region

Signature issue	Blekinge	Guldborgssund	Klaipeda	Pomorskie	Rostock
Urban-rural linkages					x
Cross-border solutions	x			x	
Ticketing	x		x	x	
Information system			x	x	
Renewable energy	x	x			
Infrastructure and technical facilities			x		
Behavioral aspects	x	x	x	x	x
Business models				x	
Organizational structures				x	
Management schemes				x	
Polity/financial incentives	x				

Source: Boren S., Ny H., 2018, Interconnect project. Summary of activity 3.2: Workshops on sustainable paths for public transport. http://www.interconnect.one/works-results

In the analysis of signature issues, some improvement measures (postulates for a change) were suggested for policymakers and managers of public transport systems in the partner regions to walk the sustainability path. These include:

- Reduce the need for transport in general through effective spatial planning, increasing work from home, decentralisation of basic services, and through increased broadband capacity (for virtual meetings).
- Phase out fossil fuels and increase the share of vehicles using recycled/abundant materials (the life-cycle perspective) and powered by electricity produced in a sustainable way.
- Increase the share of human-powered transport (walking/biking) and electric (battery/fuel cells) road (and rail) transport while improving access to charging facilities.
- Redesign the network layout for public transport (a denser network of lines, expanded geographical coverage). Combine planning for the built environment and public transport.
- Improve coordination between the public transport modes and the integration of biking infrastructure.
- Improve speed, comfort (security, reliable timetables) and cleanliness of public transport.

- Support the travellers to meet their need of being productive onboard and have a safe, comfortable and fast trip that can compete with travelling by car.
- Implement the dynamic traffic management to support, e.g. journey planning, traffic regulation, variable message signs and incident management.
- Make it simple for the traveller to buy tickets – work out international (at least EU) standards and establish a common e-ticketing system for the entire South Baltic area to include all public transport operators and private initiatives (e.g. flights, ferries, carpools), and with the most favourable mobility cost.
- Improve partnership/collaboration between public transport stakeholders to increase efficiency.
- Coordinate early stages of planning and decision-making with all relevant actors.
- Make a conscious choice of locations for new production and service facilities so that the sites are/may be served by public transport.
- Share visions of a desirable transport system with the broader public to get their support for transformation plans.

KEY SOLUTIONS TO PROGRESS

The Interconnect project has succeeded in clinching a number of key solutions to help the public transport services in the South Baltic area progress towards the set vision by, among other things, addressing the postulates for change.

Some of those are already being practiced in one or a few regions and require replication in other territories. Some others have been identified elsewhere and would need a testing stage before a full deployment.

Their common feature is the positive changes induced in the share of public transport rides and the growing number of registered public transport users, either within the city limits or on the lines connecting the city and its suburban areas and rural surroundings. In effect, they managed to help reverse the negative trend of dependency on individual motorisation.

An overview of the solutions below is structured per origin.

The successive chapter outlines the success stories of the partner regions in walking the challenges-to-solutions path.

Tab. 2. Overview of key public transport solutions already implemented in the Interconnect partner areas

Solution	Description	Category	Further information
Solutions already practiced (performance strengths of the public transport systems in the South Baltic area)			
Integration of public transport – Traffic Association Warnow, Rostock area, Germany	The Traffic Association Warnow (VVW) is an association of the five main local and regional public transport providers in Rostock and its surrounding district. It optimises and coordinates the entire public transport network, with its timetables, network connections and tariffs. This includes a single-ticket system valid for all different modes of public transport and up-to-date and clear passenger information. Also, VWW coordinates traffic with adjacent regions.	Organisation and management	Interconnect Deliverable 3.1 report
Open tenders for public transport services, Klaipeda area, Lithuania	In the region of Klaipeda, all carriers providing public transport services are selected under open tender procedures, which has been assessed as an appropriate instrument for shaping effective public transport. The increase in competition between carriers leads to the rationalisation of public transport operational expenses (as it offers the best price on the market) and contributes to reducing the volume of subsidies from public funds. Further, it raises the quality of standards and services.	Organisation and management	Interconnect Deliverable 4.1 report
Market research studies, Pomorskie region, Poland	In the Pomorskie region, representative marketing research is carried out regularly by operators of public transport. As a result, the inhabitants' travel behaviour and preferences are studied, which helps adapt the public transport offer to their needs and expectations. This enables avoiding pitfalls originating in decision-maker errors and implementing effective, sustainable mobility policy.	Organisation and management	Interconnect Deliverable 4.1 report

Solution	Description	Category	Further information
Better timetables in the Blekinge County, Sweden	Several groups of stakeholders are involved in working out optimal bus route solutions and timetables based on multi-criteria decision analysis for various alternatives.	Organisation and management	Interconnect Deliverable 4.3 report
Demand-responsive public transport, Guldborgsund municipality, Denmark	A demand-responsive public transport is available within the Guldborgsund municipality, serving this low population density area and targeting, in particular, passengers with special needs (e.g. people with disabilities). The solution helps increase the effectiveness and profitability of public transport through services provided only when the demand is made.	Business models	Interconnect Deliverable 4.1 report
The InterCombi ticket	A single cross-border ticket between Rostock (Germany) and Nykøbing Falster (Denmark) that is valid across different modes in Rostock (tram, bus and city train), the ferry over the Baltic Sea and the bus between Gedser and Nykøbing Falster.	Cross-border solutions	Interconnect Deliverable 4.1 report
Use of alternative fuels to power the fleet of public transport vehicles, Blekinge region, Sweden	A growing number of restrictions on natural environment protection and accepted liabilities regarding the reduction of greenhouse gas emissions require changes in the applied technologies for powering the public transport fleet of vehicles. At present, the producers of the bus fleet of vehicles are working on developing hybrid, electric, hydrogen and gas power technologies. In the region of Blekinge, 96% of public transport vehicles are powered by renewable fuels. Therefore, the fleet of public transport vehicles operating in Blekinge belongs to the top European fleets regarding its friendliness to the environment.	Energy sources	Interconnect Deliverable 4.1 report
Methods for accelerated transition to sustainable energy and transport, Blekinge Institute of Technology, Sweden	The Blekinge Institute of Technology (BTH) developed a simulation-supported method to mobilise stakeholders around accelerated transition to sustainable transport and energy systems. It originates from the completed Sweden's electromobility projects and addresses politicians, decision-makers and (PT-) planners in public and private organisations from national, regional or municipal levels. The method is based on a framework for strategic sustainable development (FSSD) and involves a joint setting of a vision, a definition of the current reality, solutions, scenarios and roadmaps within a broad strategic perspective.	Behavioural aspects	Interconnect Deliverable 3.1 report
Suburban communication in Dywity Municipality, Warminsko-Mazurskie region, Poland	The urban-rural public transport system arranged between the Dywity Municipality and the Olsztyn Municipality for suburban users and public transport operators. It comprises six bus lines a fully integrated tariff in combination with a dynamic passenger information system and the 'Telebus' (Bus on phone) innovative feature.	Infrastructure and tools	Interconnect Deliverable 3.1 report
Sustainable mobility tools for the Elbląg's citizens, Warminsko-Mazurskie region, Poland	The tools comprise a ticketing and information system as well as infrastructural updates to improve the connections in the public transport network. The contactless Municipal Card serves as an electronic wallet for single-use, season- as well as parking tickets. Key components of the new information system are traffic information digital boards at railway stations and tram stops, the tracking technology used in the urban transport management and a free-of-charge smartphone application providing information on, e.g. traffic and weather conditions. The information technology helps give priority to the public transport vehicles at some intersections.	Infrastructure and tools	Interconnect Deliverable 3.1 report
Marketing activities supporting an integrated public transport system, Olsztyn municipality, Warminsko-Mazurskie region, Poland	The municipality carried out a public transport system modernisation project for better urban-rural linkages, and more modern ticketing and information systems. This included infrastructure for reintroduced tramway lines and separate bus lanes. To support the changes, a communication campaign was launched to encourage the residents to use more public transport (particularly the new trams) and to accept trips with interchanges. It succeeded in reaching a high level of public transport user satisfaction (over 70%) as per the survey.	Behavioural aspects	Interconnect Deliverable 3.1 report
Solutions available elsewhere			
Dutch OV Chipkaart	A nation-wide multimodal smart card ticket solution for all modes of public transport, such as buses, trams, metros, ferries and trains, in the Netherlands	Infrastructure and tools	Interconnect Deliverable 3.1 report
Annual season ticket: 365 days of mobility for EUR 1 a day/Vienna, Austria	The annual ticket valid on all means of Vienna's public transport (in the core zone) from the first day of a selected month for 365 days, with no travel frequency limit. In comparison to peer European capital cities, the annual ticket is twice as cheap, and its introduction resulted in a strong growth of public transport users.	Behavioural aspects	Interconnect Deliverable 3.1 report
Free fare public transport in the Tallinn area	From the beginning of January 2013, Tallinn is the first capital in the EU to provide free public transport and guarantee mobility to all city residents. Apart from promoting the shift from private cars to public transport, the city authorities intended thereby to increase the mobility of unemployed and low-income groups and stimulate the registration of inhabitants as residents of Tallinn and hence to increase the municipal income tax. Introduction of the free-fare public transport in the Tallinn area was preceded by a referendum.	Behavioural aspects	Interconnect Deliverable 3.1 report

Source: Deliverable 4.1 – Quality analysis of the public transport systems. Report by Innobaltica. http://www.interconnect.one/works-results

REGIONAL SUCCESS STORIES

PILOT CASE BLEKINGE-POMORSKIE

The Pomorskie Voivodeship and Region Blekinge identified three areas with a potential to improve public transport operations: information to passengers, improvement of timetables and the ticketing system. The underpinning weakness of the entire system is the multitude of transport organisers and carriers (12 subsystems of public transport, 67 regional bus carriers and two regional railway operators, and each has its own ticket tariff). In addition, the transport ticket distribution network is diffused. Depending on the city and the carrier, the rules for the sale and validation of tickets differ. Sometimes tickets are sold as single tickets, and sometimes in multi-journey tickets. Some tickets must be validated in mechanical validators, others are valid for travel only by the nearest means of transport of the carrier and do not require validation. The rules are unreadable both for residents and, even less so, for tourists. The latter also suffer from lack of passenger information in English and paper tickets printed only in Polish.

The transport network in the Pomeranian Voivodeship has the backbone of railway lines to which passengers are transported by bus, trolleybus and tram lines. Thus, travelling requires changes in modes and vehicles during a single journey. The unsynchronised timetables bring no comfort to passengers who often have to wait a long time for the next means of transport, which discourages multimodal travel, even in the main transport corridors. To address these challenges, the public transport organisers, operators and carriers do not have professional tools enabling or facilitating their co-operation. They use a variety of public transport management applications. These applications have a closed programming code and thus cannot freely exchange data without significant investment in the software owned. This complication and fragmentation of the public transport system made it immensely unmatched with the system in the Swedish counterpart region of Blekinge at the start of the project. Still, the latter one, even if deemed well-organised, is not free from performance problems.

The regional organiser of public transport in Blekinge had to overcome a challenge to communicate and interact with customers/passengers. The only way to reach them was via traditional commercial channels as papers and advertisement at local bus stops. Also, priority was put on improving the passenger added value by providing a more pleasant and smoother travelling experience – as a factor to succeed with increasing the number of passengers. For that reason, it was decided to streamline passenger information via a **dedicated infotainment system** onboard the busses (Buss TV), designed in co-operation with Blekinge municipalities. The procured system is composed of

260 screens installed in 130 busses. It also offers Wi-Fi connection onboard the vehicles. Content for passengers is partly produced inhouse and partly bought from external suppliers. The exchange of information, which was not provided by Blekingetrafiken before, helps guide passengers when changing bus lines, making the travel easier and more efficient. This is very appreciated by the passengers as the new way to communicate the travel offer. The infotainment system also supports cross-border passengers as the information in the Polish language is given when the bus is leaving the ferry terminal in Karlskrona. In parallel, it was realised that public transport tickets for tourists must be easy to purchase and preferably together with other services required for the trip.

For the Karlskrona-Gdynia connection, the ferry ticket it the most expensive part of the trip and should be topped with tickets for the first and last mile. Thereby, by integrating them in the booking system of Stena Line, the entire car-free travel can be encouraged. The technical dialogue was held between the parties to investigate how the new ticketing system launched for south Swedish regions could correlate with the Stena Line plans to introduce a new ticket booking solution. The latter turned out, however, to be delayed and feasibility of some temporary solutions, including vouchers, was put on the meeting agenda. Meanwhile, in Pomorskie, a political decision was made to set up a modern **electronic ticket and passenger information system** in the voivodeship, which would enable data exchange and co-operation on building timetables with foreign partners in the South Baltic area. The task was entrusted to the company InnoBaltica, in which the regional and local authorities acquired shares. Thereby, a new integrator function was created in the voivodship, responsible for the development and implementation of a system to integrate transport data and enable the combination of tickets into one virtual electronic ticket. The individual local governments secured funds in their budgets to annually cover InnoBaltica's cost for the construction and maintenance of this modern IT system, thus providing stable financial conditions for implementing the task.

Through some pilot actions in testing available technologies and the transfer of experience from Blekinge, the system architecture was conceived for the regional and cross-border travels in Pomorskie. It comprises, among others, the elements below under further testing and verification:

- a cloud service, which automatically integrates public transport data from the two cooperating regions (schedules, station / stop geographical data, real-time data on vehicle locations, and departures from specific stops). In addition, the service currently integrates schedule data from 20 actual public transport service providers in two regional transport corridors in Pomorskie, including data from all major cities (Gdansk, Gdynia, Słupsk), smaller towns, metropolitan train and inter-city rail schedule data.
- a cloud service for automatically finding multimodal connections based on Open Trip Planner (OTP), complemented by geolocation search engines, integrated with transport data service described above. This trip-planning and geolocation system allows the user to search for addresses and points of interest (POIs) in Pomorskie and Blekinge regions, and find (in real-time) multimodal connections between user-specified points (and for a specified date and time).
- a web portal for public transport providers, allowing them to store, edit and import transport data, analyse and optimise their transport network, passenger streams, and synchronise their routes with routes of other providers.

- an intelligent BLE vehicle-installed beacon network, broadcasting information which identifies vehicles via Bluetooth, as well as their GPS positions via a cellular network.
- a web portal and mobile applications for passengers.
- a Traveller card management portal, including a mobile app for validating travel cards (with an electronic ticket) stored in passengers' mobile applications.

For the purpose of full integration of the regional public transport systems, the parties in this pilot case signed, in connection to the Final Conference of the project in October 2020, an agreement to continue co-operation for another five years. Parallel outcomes of the system test and verification done in the Interconnect project will be fed into the launching of the full-scale electronic ticket and passenger information system in Pomorskie. The value of this investment project, co-funded by the EU, is estimated at 135 million EUR.

PILOT CASE KLAIPEDA AREA

As in other post-Soviet European cities, explosive suburbanisation hit Klaipeda in the 2000s. The city's population fell from 200,000 to 150,000, largely due to emigration and the negative birth/death balance. Also, more than 10,000 former residents of the city, predominantly young upper-middle-income families with children, moved to the nearby Klaipeda district municipality. As the suburbs do not have sufficient social infrastructure and workplaces, this has resulted in daily commuting trips of suburban residents to and from the city. The problem of excessive car traffic in Klaipeda became apparent to local city politicians as early as in 2010. Initially, the political debate in the city focused on more road lanes and larger parking spaces for cars. However, Klaipeda Public Transport Authority took the initiative to prepare an alternative plan for the development of public transport to the region, approved in 2011, to balance mobility priorities of both city and district politicians and manage specific development interests. The first integrated regional routes (feeder lines) were launched in 2011-2012 (currently, there are 20 feeder lines), and the principles of system management and financing have not changed since then:

1. **Management.**

   At the operational level, the regional system is managed by the Klaipeda Public Transport Authority, which contracts the carriers, manages routes, timetables and the ticketing system. In addition to the representatives of Klaipeda city, the Board of the Authority has one representative of Klaipeda district.

2. **Financing.**

   The district government pays compensation for the carriage of its preferential passengers and compensates for route losses. Klaipeda city government contributes to the financing of the system by setting flexible zonal ticket prices, which encourage to continue travel by city buses upon arrival.

3. **Principles of route geography.**

   The suburban feeder lines are connected to city transfer hubs which offer interchange with urban routes, express buses and shuttle taxis. At the same time, no feeder lines are traced to the city centre.

4. Ticketing system

The purpose of modernising the available ticketing system was to decrease time losses for vehicles in traffic when buying tickets with cash from the bus drivers. Ticket price there depended on the distance the passenger was travelling, so pre-printed tickets were not an option.

The main aim for action in the last three years was to offer a reliable and fast ticketing solution/payment method, starting from combined zone periodical (monthly) ticket. An issue to still be resolved is better pricing for young commuters outside the city and more flexible and easier ticketing. Another direction was a fast solution for single rides through contactless Klaipeda travel card with a check-in/out transaction.

PILOT CASE ROSTOCK-GULDBORGSUND

The efforts to improve public transport services along the Rostock–Guldborgsund route are part of a long term and comprehensive development strategy between the regiopolis of Rostock City and Guldborgsund Municipality. Instead of accepting the periphery location in relation to their capital regions, both Rostock and Guldborgsund Municipality have instead defined themselves of being located in the favourable triangle of Copenhagen, Berlin and Hamburg and in the South Baltic Sea with a wealth of international co-operation opportunities.

One such opportunity is the north-south transport corridor that goes between Scandinavia and southern Europe. Another, for Guldborgsund Municipality, is the corridor linking Øresund Region with the metropolis region of Hamburg; to be completed with the Fehmarn-Belt fixed link.

Early in Rostock-Guldborgsund co-operation, the so-called Y-strategy was developed: the two axes coming from Berlin and from Hamburg meet in Guldborgsund and continue toward Copenhagen. The transport connections are in this respect transformed into a growth driver, and transport is used as a tool for regional co-operation to fuel the development.

The Y-strategy underpinned earlier Interreg projects between the two partners. The Interface project helped decrease the total connection time and travel convenience between Nykøbing Falster and Rostock City by more fitting bus-ferry-bus/public transport time plans, dedicated bus shuttle service to ferry terminals, improved passenger travel information and the InterCombiTicket, a single ticket for the entire bus-ferry-bus route.

The Interface+ project expanded the service by establishing the real-time passenger information system for the cross-border route of Nykøbing to Rostock City and its region. This system covering different travel modes and crossing two countries was probably the first of its kind in the world and different from the limited real-time systems seen in large cities on only one transport mode and one service provider.

The BSR TransGovernance project expanded the understanding of transport needs by focusing not only on "means to go" but also on "reasons to go". It managed to show how multi-level governance contributes to a better alignment of transport policies and general cross-border development. The project was finalised with a city twinning agreement between the Rostock City Council and Guldborgsund City Council and the two mayors.

The two-digit million Euro support from the TEN-T Programme to the Nykøbing bypass road for heavy traffic and the ferry harbour investments in Gedser and Rostock is a separate part of this long-term development on the Rostock-Guldborgsund axis.

Against this background, the Interconnect project became an important instrument for Rostock and Guldborgsund Municipality to further improve the common transport connection and expand the cooperation. The five main solutions developed and launched in the project were:

- **Promotional campaign for the cross-border public transport connection.**

  It targeted both old (German tourists making day trips to Guldborgsund and weekly commuters from Germany and Poland working in Denmark) and new target groups to increase the very low share of foot passengers between the two urban centres and further along the transport corridor towards Copenhagen and Berlin, respectively.

  The campaign covered both the "means to go", i.e. the public transport offer and service on the Rostock-Guldborgsund axis, and the "reasons to go", i.e. better cross-border knowledge and connections between citizens on both sides of the Baltic Sea. The former was addressed through flyers in Danish and German languages, a short film to promote the two destinations and the public transport connection, and city-light posters. The latter involved more than 15 exchanges, with roughly 300 representatives of educational institutions and schools, culture and tourism associations and business organisations from Rostock and Guldborgsund.

- **Upgrading of the booking system for the InterCombiTicket**

  The InterCombiTicket (ICT), an all-in-one ticket between Rostock and Nykøbing Falster, was launched in 2010. A new, easy and less costly booking system was required to ensure its further availability. The original separate booking system for the ICT had very high administration cost and was not sufficiently visible and used friendly – developed when digital payment methods and smartphone apps were not widely used.

  The solution was to integrate the ICT with the existing booking system of Rostock public transport, Verkehrsverbund Warnow (VVW) and updating the mobile ticketing app of VVW. Furthermore, bar codes were added on mobile tickets to be readable for scanners in the Scandlines ferry terminal. A specific task was to change the complete ICT administration and accounting between VVW, Scandlines and Movia. Finally, the ICT website was updated regarding booking information and FAQs.

  This has ensured availability, reduced costs and added an easy app-booking facility. Still, some issues need further attention. The ICT can only be booked via the app, and no "classic" alternative (e.g. ticket shop) exists, which might not be so attractive for certain segments of customers (e.g. senior residents and travellers).

- **A new bus service between Gedser and Marielyst (Guldborgsund)**

  A summer bus service between Gedser Ferry Harbour and Marielyst Tourism Resort has long been expected by local tourism actors and local and regional tourists crossing the Baltic Sea. This large and popular summer cottage area and beach resort for many Danes and Germans had no direct bus line from the Gedser ferry terminal and required changing to local bus in Nykøbing F or walking along the country road (there are no local taxis in Gedser).

The new bus service was thus thought to improve accessibility to the tourism resort for, in particular, international guests using the Rostock–Gedser ferry connection and trigger more foot passengers across the border. It was launched in summer 2019, with the route, location of stops and timetable agreed with local citizens and the tourist organisation.

The six weeks of tourist peak season in July and August 2019 saw only 1050 passengers, equalling 3,5 passenger per round trip. It was expected that for the year 2020 the summer bus would be well known and attract many passengers. However, the COVID-19 pandemic changed that totally. Hopefully, the summer bus test period will be continued next year.

- **Catalogue of cross-border bicycling routes**

  In the Rostock area and the Guldborgsund Municipality, there are active bicycle associations working in close cooperation with tourist organisations on bicycle routes. Despite the well-known Copenhagen-Berlin Bicycle Trail crossing the Baltic Sea, there is no framework to support local cross-border bicycling. The Interconnect project brought together two local bicycle associations to make a catalogue of ten one-day bicycle routes on both sides of the Baltic Sea. It contains descriptions of each route and options for overnight stays, eating places, shopping, bicycle renting and attractions.

  It is expected that this initiative, called Bicycle Flower (https://cykelblomsten.dk) will increase the cross-border bicycling tourism and the number of car-independent travels and holidays but requires further efforts to promote cross-border bicycle tourism.

- **Catalogue with solutions for better rural hinterland mobility**

  Residents of rural areas in the Guldborgsund Municipality are in need of suitable mobility solutions to the interchange points on the north-south transport corridor. The municipal administration, a mobility consulting company and local citizens from the three pilot areas teamed up in a dialogue to identify and select feasible options. These ranged from the improved public transport bus service, the improved facilities for bicycling – up to car-sharing opportunities.

  Some of the proposed mobility solutions have already been implemented, most recently the summer bus Gedser–Marielyst–Nykøbing servicing, in particular, the cross-border passengers at the Rostock–Gedser ferry.

Even though the five introduced solutions were met with positive feedback, further measures are needed to increase the share of public transport in the travels between Rostock and Guldborgsund. At the completion of the Interconnect project, the share of foot passengers is still low (less than 10%). As the two urban centres lie on the international transport corridor with long-distance traffic, it is necessary to look at the larger market to influence the travel mode choice. The FLIX-bus between Copenhagen and Berlin is one example of comfortable public transport as an alternative to private cars.

Consolidation of the public transport offer and information campaigns is still vital, including specific service offers like the InterCombiTicket and the regular adjustment of booking systems to consumer behaviour.

APPROACHING THE CROSS-BORDER INSTITUTIONAL COOPERATION ON PUBLIC TRANSPORT SOLUTIONS

In a decision-making environment, to implement the policies effectively, the governments need to interact with several other bodies. Multilateral agreements, co-funding schemes and shared responsibilities gradually emerge as solutions to challenges related, e.g. to sustainable regional growth.

Multi-level governance, instead of applying rigid rules, promotes stakeholder interaction in order to reach decisions in a concerted manner. It is a systematic way to organise the cooperation vertically – between the authorities with decision-making power, like the EU, national states, regions and municipalities (and in some cases also sub-regional and sub-municipal levels) – and horizontally – across the administrative borders and including social and economic partners.

Multi-level governance allows groupings of various organisations to find a solution to a common problem – regardless of nationality, legal competence and hierarchical position. On that basis, it facilitates the planning and implementation of development strategies, programmes, projects and measures.

Multi-level governance utilises the competences of the players by adding a mixture of reasoning, knowledge, responsibility, awareness, incentive and action. It is a flexible and efficient model, in contrast to rigid conventional decision-making structures where – due to the focus on institutions and regulatory frameworks – the unexpected option and the unforeseen impact are frequently neglected.

In a multi-level governance arrangement, the participating partners create a form of interactive cooperation network, with a leader, iterative communication and information exchange and a consistent track of activities. Such a scheme generates added value to conventional bilateral or multilateral agreements drawn between (usually) the authorities responsible for making decisions and financing investments. Exemplary benefits are the following:

- The network becomes a meeting place and an arena for continuous learning and exchange of knowledge between various groups of interest;
- The thematic scope in the decision-making process gets broader and multi-sectoral;
- The spatial dimension covers a wider area, not limited to administrative boundaries of the given governmental institution;
- The decision is optimised by harmonising transport investment needs with necessities of socio-economic development on the ground.

Also, multi-level governance structures are supportive in facilitating the desired behavioural changes.

Certain procedures need, still, to be installed to prevent the threat that the networks may exclude some stakeholders and that strong actors dominate the course of action. The networks may also cause problems with accountability between levels and not at least in relation to the credibility towards citizens.

For that reason, a formal structure is thought to better ensure an efficient coordination mechanism of individual stakeholder interests on a given territory. Its format should be defined in an early planning stage for the cooperation, to best fit for purpose in the specific legal, operational and financial conditions of the partners concerned.

The multi-level governance experience accumulated in various cooperation networks suggests a chain of approaches that enable optimising of planning and development decisions across the administrative borders. They include, in the chronological order:

- setting a vision (what kind of results shall be achieved by working together?);
- establishing of solid and credible personal contacts and relations among top-level decision-makers;
- identification of relevant public and private stakeholders and their needs for knowledge and best-practice exchange;
- organising regular multilateral working sessions in various setups (high-level groups, coordination and technical working sessions, best-practice seminars) to enable the presentation of different view-points, find common interests and build consensus around large-scale transborder benefits;
- involving representatives of higher-level administrative bodies for advice;
- establishing of a stakeholder platform with representatives of all involved parties;
- developing and adoption of a binding cooperation framework (e.g. agreements with clearly specified commitments or an action plan with clearly specified responsibilities, financial plan and time frame);
- consistent presentation of the shared strategic goals across governance levels and towards national programmes/plans of the involved countries (using windows of opportunities, e.g. public consultation procedures for draft programme documents, calls for proposals etc.);
- developing specific projects eligible for EU-funding and supporting the preparation of real-life business cases stimulating the interest of strategic market players; in that respect, the financial contribution of the regional/local level to the targeted transport investments creates more favourable conditions for the high-quality dialogue with the national governments;
- launching of expert platforms/observatories to supervise the technical preparation of projects/investments and optimisation of final solutions (e.g. in case of critical cross-border and environmentally sensitive sections).

FEASIBLE OPTIONS FOR SETTING UP AND MAINTAINING COLLABORATION

The multi-level governance practice shows that cross-border cooperation networks are kept together by certain forms of agreements. These set a framework for the desired stakeholders' meeting place and the way to communicate within and outside the cooperation structure to convey stakeholders' interests.

The desk investigation and surveys carried out a few years ago in the BSR TransGovernance project, co-funded by the Interreg BSR Programme 2014-2020, helped identify a few principal reasons for setting up the cooperation across the administrative levels and state borders.

Usually, a **loose coalition network or alliance** would be an immediate action by the local/regional level authorities to lobby for a specific infrastructural investment that was not in the decision pipeline at the European or national level or its implementation was viewed as delayed or inadequate. Thus, setting an alliance or network seems a reasonable measure to put together individual interests and priorities and to exert more pressure on the decision-making entities at a higher tier of governance. Such bottom-up initiatives tend, however, to lose momentum while the commitment of the stakeholders and understanding of the common interest may gradually fade away. This may result in putting the objective, mission and activities of the initiative into question.

For that very reason, a **formal structure** may ensure an efficient coordination mechanism of individual stakeholder interests. A membership agreement, cooperation contract, formal executive positions (board, commission/s, secretary, director etc.) are important elements in setting up the cooperation to give all interested and relevant actors an opportunity to carry out dialogue and develop harmonised viewpoints towards higher decision-making levels.

The multi-level governance practice, again, provides arguments for keeping such a management structure as lean as possible. Therefore, a **joint association** has been a customary choice for a legal form to organise a joint transport planning and management on a cross-border territory. This outcome may have to do with rather well recognised operational features and capacities of such a structure.

It is worth noting, though, a trend to transform an association-type of cooperation into a more formal framework of European Grouping of Territorial Cooperation (**EGTC**).

EGTC is a cooperation body envisaged in the EC Regulation No. 1082/2006 and has a goal to facilitate and promote territorial cooperation in the EU.

EGTC has a legal personality, and it involves public authorities of the EU member states on equal footing (private actors may receive an associated status), does not replace any existing administrative level but may assume implementation of cross-border, transnational, interregional activities. This implies that EGTC may manage a territorial cooperation programme/project or may take up several functions (e.g. governance of a cross-border territory or managing a thematic network).

The main argument raised in favour of EGTC as a desirable cooperation/management structure has been a low quality of dialogue with the national authorities encountered by the several initiatives. It was felt that lobbying/advocating activities were lengthy and less efficient if national governments were not part of the process (e.g. a joint Interreg project). In some other cases, low involvement of the national authorities and instability due to frequent political changes at the national level used to generate problems and slowed down the cooperation process, thereby making it difficult to pursue the ambition of improving sustainable growth conditions for the cross-border area.

Despite no automatic access to EU funding and legislative barriers in setting up such a structure between the respective EU member states, EGTC is perceived as a flexible tool to help react to changing needs and challenges. It is expected to intensify the cooperation at the planning, strategic and project level; to make the joint work more effective and successful; to ensure a deeper identification and involvement of the members (as all EGTC members have an equal status); to enhance visibility (one strong voice) and to offer a legitimate negotiation position towards international financing institutions.

The ESPON CPS project (2017-2018) brings interesting insights into delivery practices of **cross-border public services** (CPS) in European border regions, including the ones on public transport – also across the maritime border (through ferry lines). The report claims that such services do not generally require interstate agreements and may easily build on cross-border cooperation experience and tradition. These CPS often demonstrate 'small-scale' solutions offering, for instance, cross-border transport connections and joint tourism information. However, interstate agreements are more often needed for encompassing an integrated service provision and – then – are based on a spatial development plan or a dedicated action plan for the border region.

Based on a number of stakeholder surveys, the ESPON CPS project report emphasises that a joint cross-border governance body may be an effective measure to overcome several **legal and administrative obstacles** in delivering public services in a border area. These obstacles include, in particular:

- asymmetric or unclear competences or responsibilities of policy actors;
- incompatible domestic legislation;
- language barriers (cultural divides);
- one-sided scarce budgetary resources (economic discontinuity); and
- mental barriers (socio-cultural divides).

Another significant obstacle mentioned was the lack of a common strategy, or the political will or interest to engage in cross-border activities. This could result in a risk that opportunities for integrated regional

development in a cross-border context would be missed, thereby possibly hampering future regional development potential of the border area.

The report outlines that the main motivation for setting up a cross-border governance body for public services in transport has been an interest in joint ticketing systems and harmonisation of time schedules. These were thought to stimulate cross-border flows and enhance regional development by means of cross-s-border tickets for tourists or costless bike transport by rail. Still, a closer cross-border transport integration through, e.g. the setting up of cross-border public local transport managing authority is not a frequent case.

THE WAY FORWARD.
THE MOST SUITABLE GOVERNANCE BODY

As organising public transport services across the state borders is usually a non-compulsory task of authorities of border regions, it requires political commitment to drive the process and the institutional capacity in terms of knowledge required, personal resources and time to set aside for that purpose. Without **commitment**, the INTERCONNECT initiative and its outcomes may lose momentum.

Attending to the set goal of enhancing car-independent mobility in the South Baltic area through influencing three dimensions of public transport in serving regional and cross-border travels – the demand, the supply and the governance – requires a **formalised cooperation structure** with its own legal personality.

The other key factor besides commitment, which is the **capacity**, determines choosing an existing cooperation forum rather than investing in a new structure. The long cooperation record, the networking competence and the geographic area of action favour in that regard **Euroregion Baltic**.

Euroregion Baltic (ERB), established in 1998, involves both local and regional authorities, private and public sectors, and NGOs from eight regions of Denmark, Lithuania, Poland, Russia and Sweden in a long-lasting cross-border political cooperation to strengthen sustainable development in the south-eastern part of the Baltic Sea.

The Euroregion Baltic statue envisages three types of activities:

- Lobbying activities in order to represent and promote common interests;
- Implementation of strategic initiatives and projects complementing the local and regional agendas of the member organisations; and
- Exchange activities, to seek a collaborative approach to common challenges and to progress in innovation and operational efficiency of the cooperation.

The recent bi-annual ERB Action Plan 2020-21 builds upon the ERB 2030 Agenda adopted in 2018, which sets the long-term goals and priorities for the ERB cooperation. Among those is the ambition to continue working towards easing and removing, if possible, administrative, cultural, economic and institutional obstacles for a fully functional cross-border region.

Based on that, the Action Plan points at the importance of supporting and promoting cross-border cooperation through specific projects, like Interconnect. This includes active engagement in delivering the final project conference.

PUTTING CROSS-BORDER PUBLIC TRANSPORT ON THE ERB AGENDA

The ERB Joint Development Programme and the ERB Strategy adopted in 2005 contain a number of strategic areas for joint activities.

One of those is the **transport infrastructure** as a means to facilitate the trade and improve the competitiveness of industry and services – as well as to help develop tourism in the region. Good transport infrastructure is deemed fundamental for the integration of the economies and regions in the South Baltic Sea area. It makes commuting possible in larger regions and will thereby increase access to, e.g. higher education and work opportunities.

The ERB strategic documents emphasise the need for joint actions by the ERB regions to improve the transport infrastructure and ease the access to main TEN-T transport corridors. The cross-border dimension of public transport services that might be enabled by the efficient transport infrastructure is missing, though. The only reference is given in a regional context – underlining the importance of fast and convenient public transport connections between the cities and the airports in the South Baltic Sea area.

This leaves room for the Interconnect project to fill in the strategic discussion agenda of the ERB member regions and the partner organisations with cross-border public transport challenges, feasible solutions and work organisation schemes.

In the latter case, the ERB 2030 Agenda envisages **task forces** for specific assignments given by the Executive Board. As stated in the document (page 6), 'the Water Core Group will continue, and the task force for project development will be revitalised.'

In that regard, a **task force on cross-border public transport** could be a viable body to take over outcomes of the Interconnect project and develop joint communication exchange, development and investment measures. The Task Force should strive to involve additional competent organisations from the area outside the geographical scope of the ERB (based on the Interconnect partnership of formal and associated organisations) to even further strengthen the rationale for the measures proposed by the task force. The measures would be submitted for approval by the Executive Board as part of the Action Plans and prepared for co-funding, e.g. from the upcoming Interreg South Baltic Programme.

The proposal below outlines the topics documented by the Interconnect project, which could be considered for the task force agenda. Through the exchange of public transport experience of the individual

partner regions, the shared strategic goals for better public transport services across the regional and state borders may be developed, while preparing specific project proposals for EU funding.

Tab. 3. Agenda topics suggested for a prospective Euroregion Baltic task force on public transport

DIMENSION	TOPIC
Exchange of experience	• Trends affecting public transport and sustainability change directions of the local and regional transport systems in the South Baltic area. • Impact of public transport operational models (subsidies or commercial basis) on stakeholder involvement. Top-down vs bottom-up planning approaches for public transport services. • Stakeholder groups weakly involved in the local/regional mobility planning. • Public transport planning vs strategies by private operators (e.g. ferry companies). • Means to achieve mutual trust in the planning process; the agile approach. • Account-based e-ticketing systems and contactless cards.
Shared challenges	• Access to cross-border PT services for rural and more remote areas. • Low knowledge/awareness of leisure time attractions on 'the other shore.'Language barrier. • No information on PT passenger obligations (e.g. validation of tickets).
Joint solutions	• 'Low-hanging fruits' (new or enhanced methods, services or products developed and/or applied in the Interconnect project and demonstrating a high replication potential) – cf. Annex to this report. • Cross-border perspective of public transport in the local and regional strategic documents.
Impact on other sectors	• Building cultural bridges in a cross-border functional region. • B2B facilitation.

Source: own elaboration based on the overview of the Interconnect work

The Task Force should even see an extended representation of Interconnect partners as some project organisations are located outside the ERB geography. Their long experience in planning, organising and managing cross-border public transport services and related actions in other socio-economic policy fields would provide a value-added for developing a coherent cross-border public transport offer in the ERB area.

In addition to the five replicable solutions developed in the pilot case between Rostock and Guldborgsund and described earlier in this report, the **Hanseatic City of Rostock** adopted an innovative approach to public involvement in designing and implementing the urban mobility policies. This includes online participation, a Future Forum, a few expert boards, technical working groups with community representatives as well as theme and future dedicated workshops – all set on the process timeline with four stages (consult, involve, cooperate and authorise).

In that respect, some principles for public involvement in Rostock were developed based on the prerequisite that the city administration provides binding information about the city's plans and the planned citizen participation. Those principles were:

- Equal opportunities for all citizens to participate;
- Early involvement;
- Easily accessible and transparent information;
- Clarity about the objectives and framework conditions of the participation;

- Commitment and comprehensibility in dealing with participation results and political decisions;
- Appreciative dialogue at eye level.

The **Viimsi Municipality in Estonia** partnered with the Interconnect project with the purpose of transferring its own and City of Tallinn's experience in setting up regional and cross-border ticketing systems for public transport. It may offer valuable reflections related to policy considerations and implications for service quality as a contribution to the ERB agenda in that field.

The city of Tallinn introduced fare-free public transport on 1 January 2013 in an effort to improve accessibility and mobility for its residents. Prior to 2013, urban transport was subsidised by up to 75 percent, but the city now claims to turn an annual surplus of €20 million compared to the previous model of subsidised fares, thanks to a boost in its population after the free public transport was introduced. Every municipality in Estonia receives an average of €1,000 from the national annual tax revenue for each citizen registered. Since Tallinn made this registration one of the main requirements to qualify for free public transport, the city's population has increased by 27,000 in the past seven years. Through the tax revenue for each new resident and the fare revenue from tourists and non-residents (€4.5 million a year), the city claims it is able to sustain the service quality.

1 July 2018, 11 of Estonia's 15 counties introduced free public transport on county buses. Still, in the Harju County which surrounds the City of Tallinn, including the Viimsi Municipality, free rides are offered to residents under 20 years and over 63 years old as well as some socially fragile groups (e.g. disabled persons) and not to all residents – as municipal decision-makers were not assured that the national allocation would cover the cost of the additional capacity required to match the increase in the number of passengers.

The common regional ticketing system, combined with fare discounts to various natural and cultural sites, the coordinated and line network and traffic schedules and the involvement in an ongoing project on better interoperability between the electronic ticketing systems in Estonia and Finland (Central Interreg project called 'E-ticketing') is the further knowledge capital to be shared with the public transport stakeholders in the ERB area.

www.interconnect.one