



TENTacle

Connecting the Baltic Sea Region



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Creating a trans-European network

The TENTacle Baltic Sea Region INTERREG project focuses on the relation between transport and regional development. It seeks to capitalise on the major EU investment in transport infrastructure that is creating a trans-European network called TEN-T.

„Capitalising on TEN-T core network corridors for growth and cohesion“ Implementation period: 2016-2019

In the final conference of the BSR TransGovernance project led by Region Blekinge in Sweden the participants adopted a joint resolution that urged the partnership to further investigate the impact of the then new instrument of the EU transport policy, namely the “Trans-European Transport Network” TEN-T.

TEN-T is a European Commission policy directed towards the implementation and development of a Europe-wide network of roads, railway lines, inland waterways, maritime shipping routes, ports, airports and rail-road terminals.

Focussing on the TEN-T core network corridors partners from Denmark, Estonia, Finland, Germany, Latvia, Norway, Poland and Sweden establish a project that aims to intensify the impact of TEN-T in order to foster accessibility and sustainable growth in the Baltic Sea Region.

“TEN-T is intended to **boost mobility, cohesion and economic development** – key factors that are also vital for the development of rural regions of Northern Europe. The TENTacle project is about raising awareness amongst stakeholders about

the potential benefits to be gained by connecting places between these networks.” (Cliff Hague, Prof. E. h. of Planning and Spatial Development, Heriot-Watt University, Edinburgh)

Through interfacing with the target groups - local/regional authorities, business companies and their clusters, entrepreneurship groups, NGOs, cross-border networks and others – TENTacle partners will deliver replicable products, including action, transport and investment plans **for regional growth and development.**



Prof. E. h. Cliff Hague



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One Project - Seven Regional Showcases

1. Denmark/Germany: Fehmarnbelt Fixed Link

“Mobilise business and public players”

Once completed, the Fehmarnbelt fixed link will be an important part of the Scandinavian-Mediterranean TEN-T core network corridor. It is envisaged that the planned tunnel for road and rail transport reduces the transit time between Rødby on Lolland in Denmark and Puttgarden on Fehmarn in Germany to seven minutes by train and ten minutes by car.

2. Poland/Sweden:

Westpomerania-Skåne cross-border case

“Achieve effective stakeholder interaction”

This pilot case is dedicated to boosting development opportunities of the Polish-Swedish territory along the last stretch of the Baltic-Adriatic Corridor and its functional extension via the Motorway of the Sea links. The coming infrastructure investments are expected to provide pre-requisites for changing the Odra River waterway into an eco-friendly blue corridor linked to the West European waterway network.

3. Poland – Gdynia:

Core network corridor and urban transport node

“Exploit the TEN-T potential for prosperity”

The pilot case establishes a cross-border (Gdynia-Karlskrona) city-port community group to address transport challenges and work out solutions to the issues resulting from but not reflected in the BAC corridor implementation. The partners will provide know-how to policy and business stakeholders on how to build adequate public investments and efficient city-port logistics models for the purpose of sustaining the competitive transport gateway and node position in the global, the Baltic and the local/ regional contexts.

4. Sweden - Region Blekinge: Revised transport plan

“Making the most of transport development”

TENTacle has two pilot showcases launched in corridor catchment areas - areas located in a close distance to one or a few Core Network Corridors. One is the revised transport plan for Blekinge Region. Trade flows via Blekinge have increased rapidly for many years. Trade volumes are still small in relation to the transport flows through Germany, but projections indicate that the eastern flows may be in the same extent as the "traditional" western flows, in less than 10 years. However, the region suffers from low accessibility indices. Therefore, more knowledge on how to utilise its proximity to all three TEN-T core network corridors (CNC) in the area is needed. This will help to overcome the

disadvantageous development standings and reconcile the needs of the labour market mobility and international transport functions in a sustainable way.

5. Latvia – Vidzeme: Regional Mobility Investment Plan

“For better infrastructural & functional connection”

The second pilot showcases launched in corridor catchment areas is the mobility investment plan 2030 for Vidzeme. It will address the decline processes in the predominantly rural and remote area of Vidzeme accompanied by negative business development trends. The aim is to find measures for a better infrastructural and functional connection of the region to the North Sea-Baltic TEN-T core network corridor and to the Baltic Sea ports to utilize its territorial capital. Combining this with recommendations on land use and traffic solutions as well as suggestions on sites for logistic centres is expected to help investors deciding to start or expand business in Vidzeme.

6. Norway/Sweden - Central Scandinavia Borderland: Prosperity and Growth Strategy Karlstad Region (PGS)

“Improve the access to the two national capitals”

Central Scandinavia borderland is situated on both sides of the Norwegian-Swedish border, covering a substantial part of the area between Stockholm and Oslo. The Scandinavian-Mediterranean corridor includes one link from Stockholm to Örebro, but the stretch from Örebro to Oslo is excluded. This limits the opportunities for the region to attract investments and growth. The pilot case aims to include the corridors Oslo-Örebro and Gothenburg-Karlstad in the Scandinavian-Mediterranean corridor network to mobilise public and market stakeholders to improve the access to the two national capitals, integrate public transport services and connect the local industries in the borderland area of Värmland and Ostfold to international networks.

7. Finland - Lahti – Regional Council of North Karelia:

Carbon neutral corridor

„Better access to the core network corridors”

This pilot case focuses on a carbon neutral “corridor number”, which includes highway number 6, Karelian railway track and Saimaa deep waterway towards Scandinavian-Mediterranean corridor. The main idea for this action plan is to enhance this corridor and make it carbon neutral to reach TEN-T network. Taking into account interoperability, labour markets, technology and system innovations partners in North Karelia aim to improve business confidence and stimulate private Investments in the local/regional manufacturing and Service industry.



Wiktor Szydarowski

“I would dream of seeing that the project helps the Baltic Sea Region community develop better public policies and business strategies which would capitalise on the core network corridors.”

Region Blekinge leads the project and owns a pilot case. **TENTacle Project Manager Wiktor Szydarowski** explains why this project is of such importance for Region Blekinge in Sweden.

TENTacle project leading Region Blekinge owns a pilot case to demonstrate how to improve the competitive position of the region as **a gateway in-between the three core network corridors**.

“The accessibility situation of Blekinge is one of the lowest among south Sweden’s regions. We do not have a core transport infrastructure and therefore smooth and seamless connections to the corridor hubs on Scandinavian-Mediterranean, Baltic-Adriatic and North Sea-Baltic corridors are of utmost importance to our transport and logistics companies. Therefore **the connections to the TEN-T core network are essential** to improve this situation.”

By working together with port authorities and researchers from the Blekinge Institute of Technology, Wiktor Szydarowski and his team are going to create a specification of corridor-connecting investments in the regional transport infrastructure for which they will be seeking funding both in and outside the regional budget.

The specification and the argumentation on why such investments are needed for the better prosperity, sustainable growth and territorial cohesion will be annexed to the **Regional Transport Plan 2018-2029**. So, it will be part of the formal document that will **guide future transport investments in the region**. It will also present clear public spending intentions of the regional public authority towards the business stakeholders to help them align their market strategies and logistics models to the plans.

The project has gradually moved from pure analytical stage to the stage where can discuss interim findings with the public and market stakeholders in all pilot cases and also at the macro regional level. We are getting clear signals that **there is a need for more information on the core network corridors** so that the public and market actors can better understand what kind of consequences the corridor investments bring for the development in various parts of the Baltic Sea Region. For that reason, we currently arrange a lot of stakeholder meetings and seminars to collect the information needs and expectations to the project that we can fulfil our project work.

Guldborgsund Municipality has a strong traffic agenda. Using the concept and network of the TENT-T core networks brings Guldborgsund in contact with European project partners and potential investors.

“We want to expose our local and regional businesses.”

- Frede Danborg

Guldborgsund Municipality is part of the TENT-Core network. It is located on the crossing of two North–South transport corridors: (1) Scandinavia–North West Europe and (2) Scandinavia–East and Central Europe.

Frede Danborg, International Coordinator for Guldborgsund Municipality explains they joint TENTacle: “We want to expose our **local and regional businesses** to the **benefit** that they can develop and obtain from being close to two large transport corridors.”

The purpose of Guldborgsunds agenda is to ensure that **municipal citizens have maximal benefits from public transport services and infrastructure**, that the local and regional business can benefit from our corridor location and that the transport flows are handled with limited congestions and traffic accidents and with minimized pollution, emission and noise. A specific agenda is to use the cross-border infrastructure to increase international cooperation and joint development, e.g. in close dialogue with the twin City of Rostock.

“Our expertise is planning and development work on traffic infrastructure and business development. And we bring-in cooperation with our Business Support and Advisory Operator: Business Lolland-Falster. We also sub-contract external expert service regarding traffic prognosis etc.”

To what extent do you think your region will benefit from this project?

“Thanks to TENTacle we will benefit from better/more precise traffic prognosis and reports with more data and analyses regarding investment potentials in various traffic infrastructure and business infrastructure. And we will develop and strengthen relations to local and regional stakeholders on business development and transport and logistics.”

What did you achieve so far?

„Guldborgsund has now obtained a better traffic prognosis. Also the municipality has now narrowed down its plans for a specific business development location along the transport corridor, so they can now focus on four identified business potentials. We have identified strong local and regional traffic infrastructure stakeholders and established relations / re-established relations.”

In the long term, what are your expectations on this project?

“That we can develop one to three traffic/business development infrastructure locations based on the plans from the project and based on private and public investments.

This will expand the local/regional business companies and provide better services to the transport sector using the transport corridors going through our municipality.”

The Westpomeranian Region in Poland is the area where international and national transport routes cross in the north-south and east-west direction.

.Szczecin, the capital of the Westpomeranian Region, is a node of the TEN-T network, and a crossing point of road, rail, water and air connections, used for the transit of goods between southern Europe and Baltic Sea countries. The Westpomeranian Region has been entrusted with carrying out analyses of the north-western part of the Baltic-Adriatic Corridor, connected with the southern part of the Swedish Skåne region through ports in Szczecin and Świnoujście and the functioning sea motorways. Taking into account the main objectives of establishing cooperation with the Skåne Region, such as improving the competitive position of the regions, and developing sea and river transport, the Region's perception of development is not limited to the north-southern perspective based on the potential of partner regions.

Marta Ciesielska, Senior Advisor in the Marshal's Office of the Westpomeranian Region, explains, why the region joined the TENTacle project: "The Westpomeranian Region is consolidating its activities aimed at strengthening its position in the Baltic Sea region. By way of cooperating with neighbouring countries, which are more developed in economic and

technological terms, the Region intends to **contribute to strengthening the economy, increasing the competitiveness and accelerating the development of an intermodal transport network in the Baltic Sea regions**. The Region's participation in the TENTacle project will make it possible to achieve these goals. "

The Baltic-Adriatic Corridor is one of the few European corridors, which do not include inland waterways, except for the section between Szczecin and the crossing with the Oder-Havel Canal. It is expected that the planned infrastructure projects will provide conditions for changing the waterway on the Oder River into an environmentally friendly blue corridor connected to the waterway network of Western Europe. "In addition to rail transport enhancements and better access to the ports included in the work plan for the Baltic-Adriatic Corridor, the project will increase the already intensive flow of goods in imports and exports to and from the countries of the continental Europe."



"The project will increase the already intensive flow of goods in imports and exports to and from continental Europe." (Marta Ciesielska)

The action plan will be based on the needs and priorities of the major entities participating in the transport process and will encourage stakeholders to develop a smart and more environmentally friendly logistics network between Scandinavia, Poland and other parts of Europe.

“We intend to enable stakeholders to get better insight in the new logistics opportunities.”

- Marta Ciesielska

To what extent can the Westpomerania benefit from TENTacle?

“We intend to enable the stakeholders to get a better insight in the new logistics opportunities flowing from the Baltic-Adriatic Corridor and supplementary investments in inland waterways. This exchange needs to be supported by other Baltic Sea regions experienced in implementing innovative, smart and environmentally friendly transport solutions.”

What did you achieve so far?

“The trade exchange between Sweden and Poland can be supported by developing intermodal transport infrastructure and by improving the operation of rail transport. The general increase in the use of containers in logistics chains reduced transport costs, at the same time increasing transport effectiveness and a positive impact on the environment. An opportunity for the Baltic-Adriatic Corridor, and, in broader terms, for trade connections between Poland and Sweden, is the construction of an intermodal terminal in Świnoujście and upgrading inland intermodal infrastructure both on the Polish and Swedish side. Including sea connections in the TEN-T network will contribute to an increased flow of goods through the corridor, which is why the European Commission needs to analyse this solution.”

In the long term, what are your expectations on this project?

“Treating inland navigation in Poland, and maritime connections between Sweden and Poland, as a priority by the European Commission will contribute to developing intermodal transport and to implementing state-of-the-art transport solutions. This will enable a more optimum use of transport infrastructure for economy and environment in the Western Poland macro region. Restoring full transport functions on the Oder will make it possible for Poland to implement the European Transport Policy, and the environmentally friendly and economically viable transport of goods. It will enhance flood safety, enabling the retention of water for the needs of the population, industry, agriculture and environment, and facilitate the development of water tourism. **Due to the project’s implementation, the Region will have an opportunity to prepare comprehensive and innovative solutions**, as well as business models for sea and river transport, which in the future will become pilot projects along the TEN-T network sections.” Supporting the extension and upgrading of transport infrastructure and introducing innovative solutions within the TEN-T programme is, therefore, of **key importance for the inclusion of the Westpomeranian Region in the development processes taking place in Europe.** “



Connectivity is important

This pilot case of North Karelia in Finland is about carbon neutral “corridor number 6”, which includes highway number 6, Karelian railway track and Saimaa deep waterway towards the Scandinavian-Mediterranean corridor.

„Viewing transport issues from a different angle is very refreshing“ Jukka Hasu, TENTacle coordinator for North Karelia

The main idea is to enhance this corridor and make it carbon neutral to reach TEN-T network. Jukka Hasu, graduated logistics engineer and project coordinator for the Regional Council of North Karelia knows, knows why TENTacle is significant for the future of this region: “The connectivity to and from North Karelia is very important for the development of this region and viewing it from a different angle (TEN-T) is very refreshing. “

To what extent do you think your region will benefit from this project?

Thanks to TENTacle North Karelia will gain more information about the overall TEN-T ideology and how North Karelia can focus on accessibility development plans to lean more towards TEN-T corridors. It gives a good opportunity and hint that in the future we should seek the closest and easiest access to CNC areas and focus on that direction. So in the future North Karelia region will be able to use the full potential of building and development of these core network corridors.

What did you achieve so far?

“The overall idea of TEN-T networks has come clear. Regions should keep in mind and focus on own traffic infrastructure development projects so they are in line with connecting to TEN-T core network corridors.”

In the long term, what are your expectations on this project?

“To get full cooperation with regions which are located closer to core network corridors when looking from North Karelia.”



For Vidzeme transportation and mobility issues have always played a significant role as main cornerstones for the region’s development and well-being.

To join the TENTacle project was a logical step for Vidzeme Planning Region since it understood the importance of being well connected internationally and making use of its strategic geographical location. Therefore.

As other regions Vidzeme is not directly crossed by core network corridors and is more of a catchment area, which can still benefit from being relatively close to the core network. Being a regional authority, Vidzeme Planning Region is responsible for the planning, organization and implementation of territorial development policies in a regional scale - including transport issues - as well as being a middleman between local and national level.

Andzejs Stepancuks, Spatial Planning Expert for Vidzeme knows, why the region can benefit from this project:

“We will develop a regional mobility investment plan 2030 for Vidzeme to find measures for a better infrastructural and functional connection to the North Sea-Baltic TEN-T core network corridor and to the Baltic Sea ports to utilize its territorial capital. There is also great benefit of learning from project partners and their experience.”

What did you achieve so far?

“We have developed first version of our mobility investment plan and presented it to our stakeholders and decision makers. The feedback showed us, out that they are impressed with current situation analysis.”

In the long term, what are your expectations on this project?

We hope that the regional mobility investment plan 2030 will be actively used when planning further investments in transportation infrastructure as well as planning soft measures for improving mobility and road safety. It is also expected to help potential investors to start or expand business in Vidzeme.

Why are connections to the TEN-T core network important for your country?

Historically, Latvia has been one of the main transit points for trade flows. Nowadays little has changed, Latvia still sees its role as a significant place in European crossroads and recognises the development of an effective, secure, multi-modal, balanced, environmentally-friendly and competitive transport system. Being connected to the TEN-T core network provides more organised support for achieving aforementioned priorities.



“The project will increase the already intensive flow of goods in imports and exports to and from continental Europe.” (Marta Ciesielska)





“Activities interact and reinforce each other, that is why activities must be performed parallel in all areas to get the results we want.” (Leif

Fast and frequent transport to Örebro, Oslo, Stockholm and Gothenburg as well as a transport system with Self Driving Vehicles are necessary for the growth of Karlstad.

Karlstad, the largest municipality in the region, has a population goal of 100 000. Statistics Sweden forecasts that Karlstad will have 94 000 citizens in 2030, so far from the goal. To change the population curves, Karlstad must take the lead and qualify. The population goal must be at least 150 000 citizens. This is minimum if Karlstad wants to become an attractive city, which creates its own growth through a diversified economy and become an engine for Värmland county. This means an increase of 60 000 people and 50 000 new jobs.

According to that goal, Leif Lendrup and Urban Hermansson have formulated a tentative vision, which must have several driving forces in place to be fulfilled. Besides improving the business environment as well as fast fiber and wireless networks they also focus on transport issues. Fast and frequent transport to Örebro, Oslo, Stockholm and Gothenburg as well as a transport system with Self Driving Vehicles (SDV) which is being introduced in Karlstad City, are necessary for the growth of the town.

“To achieve this vision, we suggest and discuss initiatives related to the areas in the figure. Activities interact and reinforce each other, that is why activities must be performed parallel in all areas to get the results we want. “

In May 2017 Leif Lendrup and Urban Hermansson presented a basic report in the Transnorden Sweden project “Prosperity and Growth Strategy Karlstad Region”. The report has two main parts as platforms for the strategy proposals:

- ❖ Contemporary conditions and future courses with focus on effects on Karlstad Region
- ❖ Evaluation of Karlstad Region in a forty years historical perspective with reference some hundred years back benchmarked against Umeå Region and Växjö Region

Potential means, there are possibilities for Karlstad Region to grow if strategic efforts are taken.

Innovation Circle Network brings in the expertise on city development and regional development - rural areas in particular as network members have worked with such during two decades.

The Innovation Circle Network involvement is in the Central Scandinavian Borderland, one of the seven TENTacle case studies. The international border has impacted negatively on the economic development of this region. Østfold benefits from its proximity and relatively good accessibility to the Oslo metropolitan area. In contrast, across the border, Värmland is closer to Oslo than to Stockholm, but has poor transport connections to both capitals, and is less prosperous. "TENTacle gives these two regions the opportunity to explore and advocate for the benefits that could come from an integrated, cross-border approach to transport and economic development", says ICN member and planning expert Cliff Hague.

ICN is very concerned about the smaller towns connections to major hubs and main transport networks. **"Disadvantages will increase for many places if they are poorly connected"**, says ICN general secretary Alf Johansen.

To what extent do you think your region will benefit from this project?

"In the Central Scandinavian Borderland we focus on roads and railways, as both were poor. Gradually the road E18 has become more upgraded and on the Norwegian side of the border the situation has improved very much in the last decade. **From TENTacle we managed to get a better focus on the cross-border connections.**"

Why are connections to the TEN-T core network important for your country?

"Scandinavia has to prosper. We need sustainable growth and Norway should become ready for the days after the oil age. Excellent connections by railroad should be given a higher priority than it has today. We promote the establishment of a Scandinavian Express Railway between the three capitals."



Alf Johansen

"We entered this project because it is another opportunity to promote the need for big innovations on the field of transportation across Europe and the Baltic and Nordic countries."

What did you achieve so far?

"We managed to establish a good cooperation with the Nordic Council and a transport group has been established by ten Nordic cross-border councils. We also managed to analyse the needs and possibilities for development of better cross-border transport structures. And we are still working on the conclusions and recommendations."

In the long term, what are your expectations on this project?

"My expectations are that TENTacle among other projects shall move the minds of decision makers and others towards greener and more efficient transportation all over Europe."

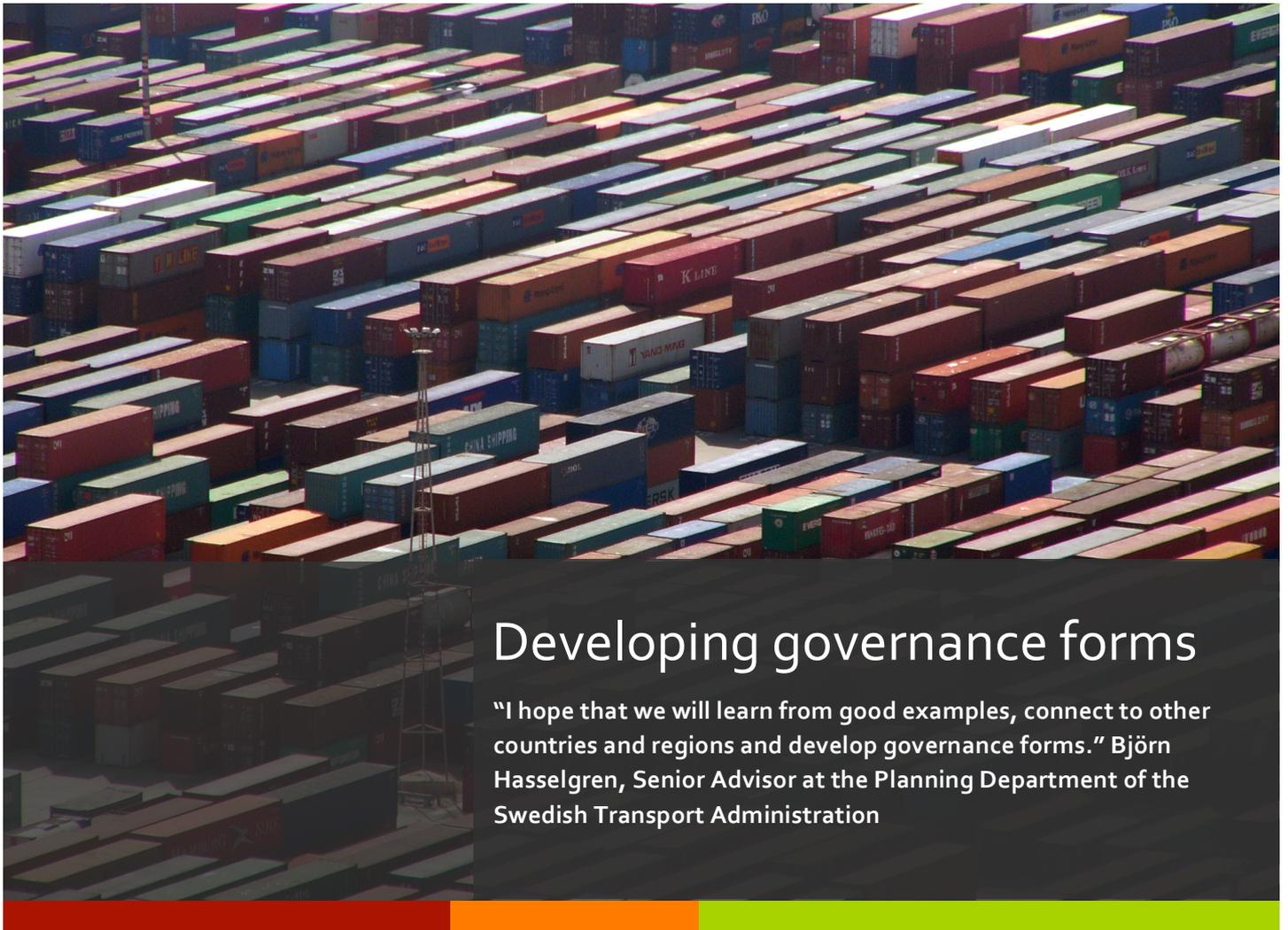
Why is TENTacle important for the BSR?

"The BSR should be well connected but so far it is not the leading region in terms of modern infrastructure. In particular the railroads are of low quality and without sufficient capacity for transportation of goods and people. We need better ideas, more competence and more investments in modern infrastructure, not only reparation of the more than 100 years old structures. Sometimes it is easier to skip some steps in the development ladder and just jump to the top stage and introduce modern railways, as they do in China, Cambodia, Kazakhstan and elsewhere."



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Developing governance forms

“I hope that we will learn from good examples, connect to other countries and regions and develop governance forms.” Björn Hasselgren, Senior Advisor at the Planning Department of the Swedish Transport Administration

The Swedish Transport Administration is involved in the planning of cross-border transportation links in the Nordic region, the Baltic Sea Region and the wider EU in many different ways.

“It is important that the Administration has a number of different channels to get information from other actors in this field of cooperation and that we support the development of effective cooperation and the development of governance structures that facilitates non-bureaucratic cooperation”, says Björn Hasselgren, Senior Advisor at the Planning Department. In his eyes **TENTacle offers good opportunities for learning and development in these fields.** “That is why it is a prioritized activity for us.”



Björn Hasselgren - Senior Advisor at the Planning Department of the Swedish Transport Administration



Connectivity is important

Valga by its character is a shrinking city. Planning of such cities is supported by sustainable mobility. Therefore Valga invested in studies to provide suggestions for improving mobility.

As Vidzeme is bordered by Valga-Valka, Valga's actions are connected to Vidzeme's mobility plan. The main focus is on two feasibility studies. Investigating on to get to Valga.

Since Valga and Valka are joined and act as a twin city, the aim of the study was also to point out mobility solutions that enhance this connection. The study was completed in May 2017 and it approached mobility from different aspects and scales - from international to inner city level. Mobility was analysed both from the perspective of current mobility, but also from the point of view of potential mobility.

Firstly, different functions and distribution of population in the urban space were mapped – this provided basis for the following analyses. The mapping for Valga was detailed, the mapping for Valka included most important destinations.

Analysis of the main streets in Valga and Valka revealed areas of different density and different need for street-crossing. The drawing of detailed solutions for the streets should take into account the type of the street as indicated in the analysis.

The car usage needs were analysed on different scales in Valga and Valka and also revealed different needs for different streets. The results of the analysis should be taken into account, also in cases when the driving speed and space for

driving is reduced or when other traffic pacification methods are applied. Both border crossing statistics and mobile positioning data provided insight and were used for assessing the needs of car traffic in Valga and Valka.

The main conclusion drawn from the study is that Valga is a compact city, where the distribution and distance of different functions and population promotes sustainable mobility and thus the city streets should be designed to support sustainable modes of mobility. The suggestions given in the study follow the lead of other successful applications in other cities and take into account the local context in Valga and Valka.

The most important aim should be developing Valga into walkable and bicycle-friendly city, concentrating on the streets pointed out by the analyses.

In order to enhance connection between Valga and Valka it is important to connect the urban centres with walkable and bicycle friendly streets, since the short distance between the centres promotes both walking and cycling.

TENTacle Project – Innovation Circle Network

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