Result package

TRANSPORT FLOWS

Central Baltic 2014-2020 project results that support the development of transport corridors and transport nodes in the in Central Baltic region

The project SMART E67 increased efficiency and safety of passenger and cargo mobility in the Central Baltic region by introducing Intelligent Transport Systems (ITS) on a key transport corridor in Estonia and Latvia.

Interreg Central Baltic

EUROPEAN UNION
European Regional Development Fund

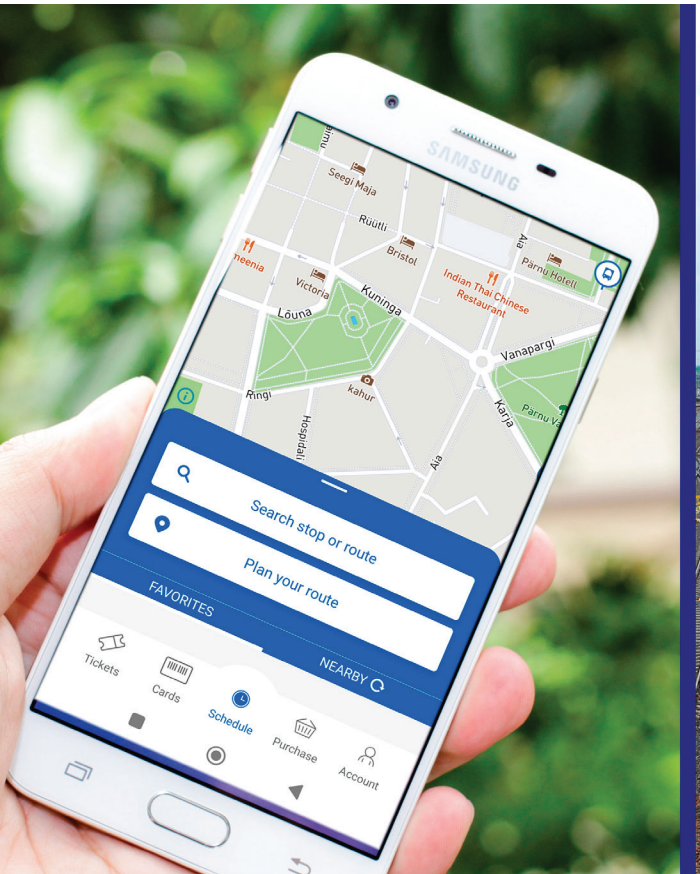
What are result packages?

Result packages are part of the 2014-2020 programmes' capitalisation strategy. They promote programme achievements in logical entities by providing summaries of results and examples of good practices. They are all structured in the same way.

In total, there are 10 packages that summarise different thematics addressed by the Central Baltic programme. The themes of the different packages are:

- Export
- Labour market
- Sustainable management of the coastal and marine areas
- Vocational education
- Sustainable tourism
- Integrated urban planning
- New business development
- **The development of transport corridors**
- Small ports development package

Project E-ticketing developed a mobile app called Pilet 2020 that acts as a single portal to public transport tickets in Tallinn, Tartu, Helsinki and Pärnu.



Contents

Scope of the package

This capitalisation package contains information about Central Baltic 2014-2020 programme results of the projects developed transport corridors or transport nodes to improve transport flows in North – South and East – West directions in Central Baltic region. Projects were implemented under the Specific Objective 3.1: Improved transport flows of people and goods.

The aim of the SO was to develop services or new solutions for integration of different transport modes to reduce time in transportation of both passengers and cargo, that would lead to the reduction of CO2 emissions.

11 projects were financed under the SO 3.1. 60 different transport corridors and/or nodes were developed and improved and as a result the travel time of passengers or transport time of goods has been decreased by 1% - 6,3%, depending on project.

Background

Transportation is a backbone of modern economy as movement of goods and people is essential for the economic development. At the same time transportation has a huge negative impact because of continuous increase of traffic volumes causing congestions and CO2 emissions. To mitigate negative impacts there are many solutions, incl. improvement of transport corridors to make transport flow smoother, to promote modal shift to more environmentally friendly transport fleet, to develop smart solutions for traffic and logistics management, to make public transport more attractive by developing transport nodes and making switch from one transportation mode to another as comfortable as possible.

Projects implemented form the Central Baltic Programme 2014-2020 were supposed to work on these challenges and produce results improving transportation of goods and people in our region.

Timeline

Transport corridors' development projects were funded from 5 calls of the Central Baltic programme 2014-2020 and were implemented between 2015 and 2022.

Timeline of projects

Achieved results and effect

During the programme period 10 projects worked on improving 60 different transport corridors or transport nodes. In some nodes and corridors, the smoother transport flow and efficiency was achieved right after the project implementation and investments, in others it will be achieved later when proposed new solutions will be implemented by the relevant stakeholders.

Projects worked on improvement of transport flows can be generally divided into three groups:

- **projects developed new digital and IT solutions to support transport and logistics management to improve the flow of goods and passengers along existing corridors or supporting modal shift in important transport nodes**
- **projects investing in technical solutions to improve the traffic management and safety.**
- **projects mainly focused on analysing current situation and proposing solutions for further implementation as well as conducting feasibility studies to evaluate the potential and sustainability of planned new transport corridors**

Digitalisation and development of smart solutions are essential to improve efficiency of traffic, cargo and passenger flow. Mobile apps may be good tools for end-users and citizens to take an advantage of modern technology. Project EfficientFlow developed Port Activity App what is used by port operators and vessels to follow the situation with cargo handling in ports and planning just-on-time arrival to ensure efficient ship traffic. It will improve traffic on maritime corridors as well as helps for the efficient modal shift on land. Project E-Ticketing worked on developing joint public transport tickets and developed mobile app Pilet.ee2020 that allows to use the same tool for purchasing tickets in Helsinki, Tallinn, Tartu and Pärnu. These projects demonstrate clear value of the cross-border cooperation having results impacting everyday life of travellers or operations of transport companies.

Estonian and Latvian Road and Transport Administrations developed together two North-South direction transport corridors. So far, each national administration was focused on improving roads in their own country and there wasn't much contacts with each other. During joint projects partners started to develop smart traffic control systems, including installation of road weather stations, digital information boards and traffic signs, variable speed limit signs, etc. Cross-border cooperation was essential to achieve planned results in improving traffic conditions on main transport corridors through two countries. It required also some changes in national legislation to implement new technical solutions. As a result, the transport flow became smoother and traffic safety was improved. Drivers value the solutions that allows to regulate speed according to the real weather and traffic conditions. The reduction of CO2 emission was also achieved by using these solutions.

Two projects worked on analysing potential of creating new connections between Estonia and Finland to open new possibilities for movement of goods and passengers. One of them studied the potential of opening new ferry connection between Kunda and Loviisa to have functioning sea corridor in Eastern parts of two countries. Another project conducted feasibility studies about potential fixed link between Tallinn and Helsinki: to have a railway tunnel under the Finnish Gulf. In addition to studies, both projects resulted with good cooperation between relevant stakeholders on

both sides and working groups were established to continue the work. For the Tallinn – Helsinki tunnel project the strong political commitment was given as well.

Experiences and lessons learned

Cross-border cooperation and working on joint solutions across borders demonstrated the importance of harmonised legislation regulating transport and logistics sector. Some projects faced challenges in developing and taking into use new joint developed solutions, e.g. implementing joint ticketing system, start using digital traffic regulation tools or improving border crossing procedures. In some cases project partners were able to initiate needed national legislation changes to be able to implement planned activities and take the new solutions in use.

From some projects it appeared that the transportation sector and related entrepreneurs (especially SMEs in road cargo transport) are quite conservative and it's difficult to initiate them to start using modern digital solutions in their operations. Some external support is needed to motivate them. It may mean some financial support but also cooperation and communicating with each other is valuable.

Some projects had some additional value compared with originally planned results. ADAPT project, for example made hydrographical surveys to propose more efficient routes for ferries and commuter boats in Stockholm and Åland archipelagos. As a side result quite many unknown cliffs or rocks were discovered very close to current ferry routes. Needed adjustments were made and maritime traffic became more safe, in addition to planned efficiency improvement.

Development after the project ended

Some project results will be integrated into strategic transport and regional development policy planning documents of participating regions. Municipalities along the corridors will benefit from projects results, for example the cooperation between municipality and transport planners, transport and traffic companies and other stakeholders will continue.

Swedish Maritime Administration will continue using results from previous projects in their every day operations as well as will continue cooperation with existing partners to develop new joint projects.

Work with different innovation projects will continue as developed new smart solutions need further updates and continuous improvement to be competitive in the market.

The work towards Helsinki-Tallinn railway tunnel will continue.

Participating projects

- Smart E67, developing smart traffic solutions on via Baltica road to decrease transportation time, to improve road safety and to decrease CO2 emissions (http://database.centralbaltic.eu/project/33)
- FinEst Link, feasibility studies about possible tunnel connection between Helsinki and Tallinn (http://database.centralbaltic.eu/project/59)
- FinEstSmartMobility, developing smart solutions in ports of Tallinn and Helsinki to improve mobility flows in major transport nodes of two capitals as well as to ensure smooth connection to the Helsinki Airport (http://database.centralbaltic.eu/project/60)
- ADAPT, delivered hydrographical surveys in Stockholm and Åland archipelagos to propose adjustments in 46 routes to make them more efficient and safer (http://database.centralbaltic.eu/project/31)
- SmartLog, developing new IT solution based on Blockchain technology helping logistic and transportation companies to improve and make their supply chains more efficient (http://database.centralbaltic.eu/project/52)
- REFEC, feasibility studies about ferry connection between Loviisa (FIN) and Kunda (EST) to improve transport flow in Eastern Finland - Eastern Estonia corridor (http://database.centralbaltic.eu/project/80)
- EfficientFlow, improving flow of goods and passengers on two transport corridors (Gävle-Rauma and Stockholm-Turku) by implementing the Sea Traffic Management concept and developing Port Activity App™ for ensuring ships' just-in-time arrival and departure (http://database.centralbaltic.eu/project/96)
- Baltic Loop, developing and proposing tools for improving modal shift and improving services along the 3 East-West transport corridors: Örebro - Turku - St. Petersburg, Örebro - Tallinn - St.Petersburg and Örebro - Riga - St. Petersburg (http://database.centralbaltic.eu/project/106)
- E-TICKETING, developing joint ticket solutions for public transport in Helsinki, Tallinn and Tartu (EST) (http://database.centralbaltic.eu/project/91)
- SMART E263/E77, developing smart traffic solutions to improve road safety and decrease CO2 emissions (http://database.centralbaltic.eu/project/129)

Improving roads of the seas

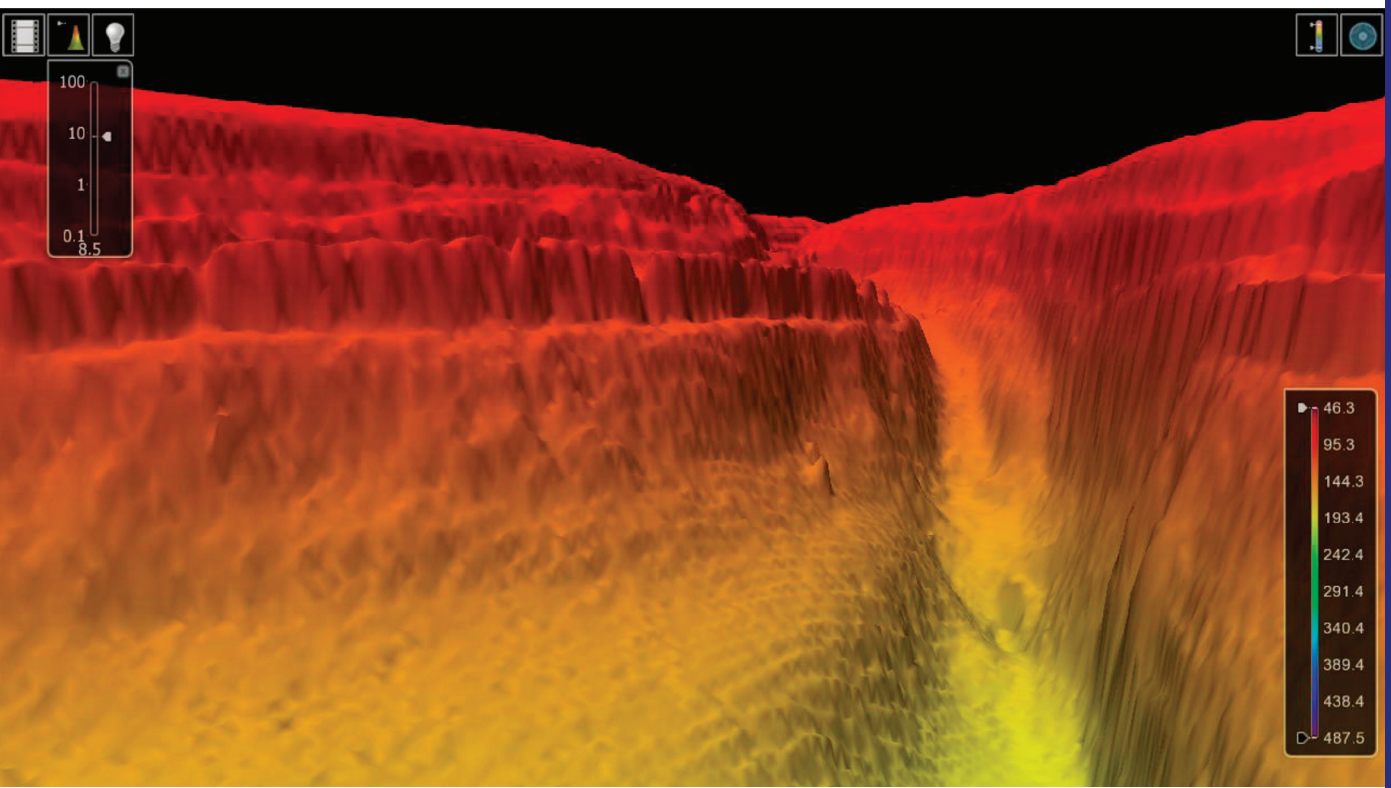
Ferries are perhaps not the first you think of when you hear or read “public transportation”. But in the unique archipelago of Stockholm and Turku and on the Åland islands, the ferries are the lifeline, the “roads” at sea. However, there are challenges in offering a safe, timesaving and fuel-efficient public transportation.

The project ADAPT (Assuring Depth of fairways for Archipelago Public Transportation) improved the flow of people and goods. ADAPT was a cooperation between the Swedish Maritime Administration (SMA), The Government of Åland and Stockholm City Council. With its focus on waterborne public transportation and transport routes in the archipelago, the project is closely linked to the programme objective for a well-connected region with improved transport flows of people and goods.

- To reach the project results with an improved maritime transport system and reducing its environmental impact, new and updated hydrology is needed, Linda Blied informed us in 2017, project manager for the Lead Partner, the Swedish Maritime Administration.

- The smaller sea fairways have not been updated in years, so the knowledge of where new and shorter routes could be used has to be ensured. The modern multibeam laser scanning of about 340 km2 seabed has provided a lot of detailed and important hydrographic information. In Åland, 104 km2 fairways have been sea measured.

An example of three dimensional seafloor mapping. Photo by Royal Navy/MOD.



According to Linda all these new and updated sea charts are necessary, and this EU funding made it possible, enabling safe and state of the art navigation.

This was the main reason for the project, but there has been a lot of nice spin offs such as knowledge exchange, mutual experience sharing, improved working methods and inspiring new contacts for the project partners.

The main beneficiaries of a more effective public transport are the passengers, as well as the communities and businesses on the islands depending on tourism and visitors. Leisure boaters are also favoured when safe, time-saving and fuel-efficient routes are developed.

Evaluation of the effects of implemented measures and results of the project's improvements will be carried out at intermodal nodes regarding travel-time savings for people and goods. For example, on Åland a more sustainable intermodal transport system will be implemented in the south-eastern part of the archipelago. This is achieved by shortening ferry routes (in general decreasing travel times to < 60 min) and by increased integration with land-based transport. This reduces overall travel times for passengers by 10% when using public transportation in the archipelago. Results of improvements are measured in reduced CO2 -and NOx emissions.

Ian Bergström, the project manager at The Government of Åland, concludes:
- I am most proud of the cooperation and the results. I have valued the openness of sharing knowledge between partners. And it is always inspiring to implement, to increase the safety in our fairways and lower our costs. We have also got a new toolbox for public transportation planning in the archipelago, which facilitates our processes as it has challenges of its own.

ADAPT
Programme Priority: P3 Well-connected region
Duration: 01.03.2016 - 30.11.2019
ERDF: €1 636 075
Main results:

240 km2 laser scanned seabed
46 ferry routes can improve efficiency or safety
Updated sea charts > increased safety
Improved, safer and shorter routes with lower CO2 emissions
Toolbox for efficient seaborne public transportation management

This story was adapted from the original published in the programme project database.