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Vision and recommendations for an optimal governance model for the development of low-emission waterborne transport in the administrative territory of the city of Riga

Summary

Analysis of the governance models

Water transport services are provided in many cities in the European Union (EU), connecting city districts and serving other user needs. Ferries are effective means of expanding mobility and creating additional capacity for congested city streets. To assess the potential and viability of water transport services in the city of Riga, it is necessary to evaluate many aspects - expected demand, development of coastal areas, urban and suburban residential areas, land transport network capacity, connections to land PT, technical possibilities, climatic constraints, and others. In this study, three possible governance models are evaluated from different aspects: i) the municipality-funded model, ii) the private operator initiative model, and iii) the public-private partnership (PPP) model.

The framework for the development of water transport services in the city of Riga is defined by the EU regulation, national regulatory enactments, and valid development planning documents. In Latvia, the owner of inland public waters, including waterways, is the state. A local government is the possessor of inland public waters within its administrative territory and is entitled to act on behalf of the owner.

In the municipality-funded model, all the main parties involved in governance are municipally owned entities. The functions are assigned as follows:

- The municipality creates the infrastructure and is the owner of the infrastructure;
- Municipality / local authority / municipal enterprise manages the infrastructure;
- The municipal company provides water transport services as PT service.

The municipality-funded model is suitable in situation when water transport service is integrated into the local public transport (PT) system (as in Gothenburg, Amsterdam, Hamburg, etc.).

In the private operator initiative model, the municipality is still the possessor of inland public waters and the owner of the water infrastructure, while the infrastructure manager, developer, and the operator are private companies. In this model, the private operator shall obtain the lease rights for the use of the water infrastructure through an open tender procedure and obtain a permit to carry out commercial passenger transportation. The regulatory framework allows a private operator to make its own investments in infrastructure necessary for the provision of a particular service. The municipality is responsible for monitoring the concluded lease agreements and issued permits. This governance model is in the interests of private entrepreneurs but may neglect the municipality's interest in expanding mobility opportunities.

The public-private partnership model may have different variations:

- The municipality can attract a private entrepreneur for the construction of infrastructure, management, and provision of services;
- The municipality can use the PPP model only for the construction and management of infrastructure, but separate the provision of water transport services;
- The municipality can attract private entrepreneurs to create and manage infrastructure, the infrastructure can be used by both commercial operators and PT service providers.

In the PPP model, the private entrepreneur is partially limited in its operation, as its discretion is bound by the PPP contract.

Several structural units of Riga City Council are currently involved in management of water infrastructure and passenger transport services. Transport Structures Maintenance Unit of the

Transport Infrastructure Division within the Department of Transport (DoT) is responsible for management of technical means for water traffic organization. Management of solid structure berths is responsibility of the DoT, but the open structure berths are managed by the Housing and Environment Department.

The established inter-institutional body - the Commission for the Lease of Public Waters - reviews the received applications for leasing berths. To lease public waters for the construction of berths, such permitted use must be provided in the spatial plan of the municipality. Existing berth lease agreements are valid until 2024. Under the terms of the contract, the leased berths shall not be used by other operators for commercial passenger transportation. This condition can place constraints on potential commercial passenger carriers limiting use of existing berths.

The Passenger Transport Division within the DoT is responsible for the elaboration of shipping regulations. The Public Transport and Commercial Passenger Transport Division is responsible for licensing commercial transport services.

In accordance with Section 48.1, Paragraph two of the Maritime Administration and Maritime Safety Law, the city council has the right to issue binding regulations in its administrative territory regarding additional conditions for the traffic of vessels in the inland waters of Latvia.

The requirements for the organization of navigation and compliance with safety requirements remain the same regardless of the chosen governance model. It is the responsibility of the operator to meet these requirements, but supervision is performed by the control services: i) State police (accidents on the water); ii) Riga municipal police (control and supervision); iii) Port police (in the territory of the Freeport of Riga).

One of the key aspects of the successful operation of waterborne transport services is their integration into the existing PT system. EU regulations allow to provide regular ferry services as public services on defined routes if the private operator is unable to do so in accordance with its commercial interests and the level of service required.

Before the commencement of regular passenger transportation, the routes and schedules must be coordinated with all involved parties, including the Freeport of Riga Authority which is the possessor of Daugava River and its banks in the territory of the Freeport of Riga.

By creating convenient and time-saving water transport routes, it is expected that the share of private road transport and land PT would decrease, thus reducing CO2 emissions in the city. The chosen governance model will not have a direct impact on reducing emissions, but water transport services integrated in urban PT system will allow to achieve greater environmental benefits. Electric passenger ferries are well-suited for providing urban water transport services. Due to the relatively short distances between the stops, the batteries can be charged in a short time at the berth, at the same time as passengers disembark and embark. The choice of ferry type is determined by various factors, including economic and functional ones. In the case of a municipality-funded model, that decision is made by the municipality. In the private initiative model, the decision is made by the merchant, but the municipality that authorizes commercial passenger transportation has the right to set restrictions on the use of ferries, considering environmental protection requirements and the use of energy resources.

Water transport services contribute to the development of the waterfront of the neighbourhoods involved. The creation of an attractive infrastructure together with the flow of passengers, which also stimulates the supply of goods and services in the vicinity of berths, adds value to the surrounding areas and creates an incentive for economic activities. This is especially important for neighbourhoods that are further away from the city centre and are currently less developed.

The establishment of mobility (or transfer) points in the vicinity of berths is essential for effective integration of waterborne transport into the urban transport system. At such mobility points, it is worthwhile to ensure the widest possible range of modes of transport - in addition to land PT services, shared use means of transport (cars, electric and conventional bicycles, electric

scooters, etc.) are also desirable. Cooperation with commercial operators is possible in all three governance models.

When planning transport services, it is important to integrate all available modes of transport and to have interconnected route network. In many European cities the mobility planning and management model integrates all available modes of PT including water transport. Usually, the planning function is performed by a unit within the city council or some local institution (agency). Waterborne transport services can be fully integrated into the PT network, can be performed as a commercial service, or can co-exist as both commercial transport and PT. While PT planning is a municipal function, informative support can be provided by the municipality, the service developer, and the service provider. The availability of information helps users to navigate through the range of services available and choose the most appropriate solution.

Development of waterborne transport services is a major challenge in any governance model, as it requires formation of a new structure and big initial investments. It is important to assess and plan all the resources required, including human resources, the size of the fleet, the investment costs, and the expected operating costs in a timely manner. In any of the government models it is necessary to ensure investments for appropriate infrastructure and the purchase of vessels.

Vision and recommendations

The strategic planning documents of the city of Riga emphasize the need to develop water transport services as a part of PT system. The spatial vision of the mobility of the Riga metropolitan area also envisages the use of waterways for the internal and external accessibility of the area.

Water transport services should become an integral part of Riga transport system. It is in the public interest to create regulatory enacted, municipally supported and supervised water transport services for both passenger and vehicle transportation to achieve the following goals:

i. Improve connections between different neighbourhoods in the city
ii. Expand mobility opportunities according to the needs and capabilities of different user groups
iii. Unload the land transport network in the city
iv. Reduce the negative impact of vehicles on the environment and climate change
v. Stimulate economic development.

The introduction of ferry services benefits the society, the private sector, and individual users. From a public point of view, the use of waterways helps to reduce congestion on city streets. Modern ferries are more environmentally friendly than most land vehicles still in use. Waterways are created by nature; therefore no additional space is required in the city's territory. The investments are necessary mainly for construction and adaptation of coastal infrastructure. Waterborne services have a lower risk of disruption due to various accidents (e.g., traffic accident, accident in utilities networks), but may be affected by climatic conditions (severe winter, strong winds).

The benefit to the private sector is stimulated economic development - improved mobility opportunities and well-arranged coastal infrastructure promote the development of residential and commercial premises in the area around the berths. For individual users, the ferry is a pleasant, convenient, safe, and fast mode of transport.

The ferry connection can be a great alternative to engineering structures at the planned Northern Crossing of the Daugava. Successful operation of water transport services requires coordinated planning of the transport network in the municipality, including planning of transport infrastructure development, modes of transport and route network.

Undoubtedly, water transport services are also an important element in the implementation of the energy and climate sustainability vision for the city of Riga, and the development of these services must be included in the Sustainable Energy and Climate Action Plan until 2030. The introduction of low-emission water transport services will reduce the negative impact of vehicles on the environment and climate change by reducing road traffic in the city. It is therefore necessary to implement the following measures:

- Introduce ferry service in the Northern Transport Corridor ensuring the possibility for trucks to cross the Daugava River without passing through the city centre;
- Integrate waterborne transport services into the local PT system in order to promote the use of PT, increase the share of low-emission vehicles and reduce the use of private cars.

The choice of the governance model depends on the objective to be achieved through the development of waterborne transport services. Introducing these services, it is possible to solve the following problems identified in the Transport Development Thematic Plan[1]:

- Accessibility of the city centre and accessibility between neighbourhoods,
- Decrease in the speed of land public transport and other vehicles,
- Lack of an integrated PT system,
- The Riga Northern Transport Corridor has not been built, […] as a result of which the city streets are hindered by freight transport, creating traffic jams and environmental pollution,
- Increased length of freight transport route through Vecdaugava, Vecmīlgrāvis and Vecāķi neighbourhoods, creating additional load on surrounding streets and increased environmental pollution,
- The streets of the Bolderāja neighbourhood are congested with unsuitable truck traffic.

In order to successfully address both passenger and freight flows, it is advisable to develop different governance models for passenger and truck waterborne transport services. Once the regulatory framework is improved, the quickest way to start passenger transportation is at the initiative of a private operator. In the long run, it would be useful to integrate waterborne passenger transport services into the local PT system, creating a municipality-initiated governance model based on multi-stakeholder cooperation. In turn, the most appropriate model for the provision of truck ferry services would be the partnership model between the municipality and the private operator.

In the governance model based on private initiative, the private entity is responsible for the following:

- Obtaining the necessary permits,
- Acquisition of lease rights for construction and operation of berths,
- Obtaining a license for commercial passenger transport (new regulations required for commercial passenger water transport services),
- Purchase, registration, and operation of a vessel,
- Construction and operation of berths,
- Attracting the necessary personnel (vessel's crew),
- Compliance with all applicable safety, navigation, environmental and other requirements,
- Coverage of costs related to economic activities.

The municipality, as the possessor of public waters, has the following functions:

- Ensure clear regulation on the use of inland waters,
- Organize an auction of lease rights,
- Issue a license for commercial passenger waterborne transport (no legal regulation yet),
- Supervise water traffic (according to the developed regulation).

To foster city development, to create an attractive living and working environment, and to improve mobility, it is recommended to integrate water transport services into the overall urban transport network by creating infrastructure connecting waterways and land transport, as well as including passenger transport in the local PT system. The partnership between the municipality and the private sector is the most suitable governance model aimed at the development of an integrated and sustainable city.

[1] The Thematic Plan of Transport Development approved by Riga City Council Department of City Development in 2017 within the framework of the Riga Spatial Plan until 2030.

In the partnership model, the main functions of the municipality as the possessor of public waters and the owner of transport infrastructure are:

- Planning of water transport services,
- Creation of coastal infrastructure,
- Monitoring of agreements with private operators as service providers.

To develop water transport services in the city of Riga, it is important to consider the following:

1) The implementation of water transport services requires the support of leading politicians and the management of the city council.
2) The development of the bank of Daugava River and water transport services must be included in the strategic planning documents (helps to attract funding).
3) Those involved in the management of the urban transport system are advised to put greater emphasis on the attraction of investment and involvement of entrepreneurs, and thus promote the development of the local economy and job creation.
4) A number of stakeholders (politicians, municipal entities, the Freeport of Riga Authority, private entrepreneurs) needs to be involved in the planning of services in order to gain a broader view of what the service should look like and what impact it could have in the long run.
5) Attention must be paid to the branding and marketing of the service, as transport services form the image of the city.
6) The system of water transport services is more flexible compared to land transport. It can develop gradually, following the demand and development of the city.
7) The use of water transport services can be facilitated by the following factors:
   - Convenient access to the service,
   - Satisfactory level of service,
   - Integrated route network (connected to the land PT network),
   - Convenient transfer points (multimodal points),
   - Unified ticketing system for all PT modes,
   - Availability of information.
8) Before introducing new services, it is necessary to strengthen the capacity of the municipal administration for planning transport infrastructure and PT system. Possible options include:
   i. Capacity building of existing units,
   ii. Redistribution of functions between Riga City Council structural units,
   iii. Creation of a new unit for more efficient management.
9) Until 2024, new operators will not be able to use the leased municipal berths for commercial passenger transportation according to the concluded lease agreements. It limits the municipality's ability to plan and develop waterborne transport services on the Daugava River. This can become an obstacle to the successful integration of waterborne transport into the city's PT system.

Factors that would promote the development of low-emission water transport services:

- Interest of the leading politicians and senior management of the city council to develop water transport services to achieve the goals set in the development planning documents - create a comfortable, safe and pleasant urban environment in Riga and become a climate-neutral city by 2050.
- Municipal support for private initiatives to develop waterborne transport services aimed at reducing road traffic intensity and reducing air pollution in the city.
- Binding regulations approved by the municipality on the conditions for navigation of vessels in inland waters.
- The strengthened capacity of Riga City Council structural units to plan and manage the city’s transport system.
- Revision of the public transport route network, linking land transport routes with berths.