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Report from 10th Baltic–Adriatic Transport Corridor Forum (19 to 20 October 2023)

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On 19 to 20 October 2023, representatives of the Mazovian Office of Regional Planning in Warsaw took part in 10th Baltic–Adriatic Transport Corridor Forum in Budapest. The event was organised by the Association of Polish Regions of Baltic-Adriatic Transport Corridor, together with Honorary Consulate of Hungary and EIT Urban Mobility (initiative of the European Institute of Innovation and Technology), in connection with the extension of the Baltic-Adriatic Transport Corridor zone in 2024 (part of the TEN-T network) to Hungary. The forum's panels, which took place on 19 October, addressed the important and timely topics of transport decarbonisation, as well as smart urban transport and its role in the TEN-T. The meeting of partners concluded on 20 October with a study visit to the logistics terminal in Győr-Gönyű.

The first panel of the forum focused on decarbonisation in freight and urban transport. An introduction was given to the assumptions of the main European level documents, including: the Paris Agreement, the European Green Deal, the Sustainable and Smart Mobility Strategy, the REPowerEU Plan, the Fit for 55 Package and the Fuel EU Maritime Regulation. These documents include ambitious targets for achieving climate neutrality for EU countries by 2050 through transport decarbonisation and transformation of the European energy system. The transport sector has an opportunity to play a major role with this regard, since it is the source of 25% of European total greenhouse gases emissions. The largest contributor to this is road transport, which accounts for 75% of greenhouse gases emitted from transport in the EU. Rail contributes much less to total transport emissions, with 0.4% of emissions coming from rail. Despite the high costs, many businesses, operating in the logistics sector, are making investments consistent with EU guidelines. During the ongoing discussion, invited experts spoke on the steps being taken to reduce carbon dioxide emissions, increase the use of renewable and low-emission fuels, as well as leading trends in the rail and port industries. A way to reduce emissions from rail transport is its electrification. One speaker stated that 43% of rail transport in Hungary has been electrified, including as much as 93% of TEN-T corridors. Work to implement other low-emission solutions is also underway in Poland and Hungary, including such aiming to use hydrogen-powered vehicles on a wider scale. Such attempts, in terms of replacing diesel-based solutions with hydrogen-fuel solutions, have already been undertaken in rail transport, but it has not been green hydrogen.

Besides rail transport, freight shipping was also an important topic of discussion. 70% of international trade takes place by sea, with 11% of emissions coming from this sector. Challenges in this sector of transport are the ageing of seagoing vessels (e.g. the average age of ferries is 25 years) and the transition to renewable and low-emission fuels. Currently, the most commonly used propulsion system is an engine utilising liquefied natural gas (LNG). A hybrid (electric/gasoline) propulsion system is also used. Consistent with EU guidelines, investments in ports are to focus on increasing the use of green Energy and improving energy efficiency, e.g. in the port of Gdańsk the number of electrically powered devices is increasing. Solutions are being implemented to increase the port's competitiveness, including: the so-called Port Community System (PCS), which is a comprehensive IT solution for managing: processes, information and work organisation, as well as artificial intelligence (AI) and lorry notification systems (reducing congestion in the port). Further development of the port is planned for, among others, the construction of offshore wind farms, which are an opportunity for green hydrogen production. The floating LNG terminal will be a quantum leap. It will enable the off-take of liquefied natural gas delivered by sea, and its subsequent transmission to the National Transmission System. During the session it was found that there was a need to find an optimal level of transport costs that would be acceptable to customers. Customers are pushing to use green energy, but at the same time they are not ready for the associated increase in costs. In the future, ship operators sailing in EU waters will be forced to buy carbon dioxide permits. The cost of their purchase is likely to be passed on to customers.

Following the discussion, an update on changes to the TEN-T Regulation was presented. Expanding the core network, as per objective, by 2040 is a major challenge. New requirements need to be met in terms of rail infrastructure (full electrification, speeds of 100–160 km/h, ability to handle 740 m long freight trains), multimodal transport terminals, and the arrangement of alternative fuel infrastructure. An important element is also the integration of maritime transport with road and rail transport. Next, Anne Jensen, coordinator of the Baltic-Adriatic Transport Corridor, spoke about the management of the corridor and the importance of taking a comprehensive view of the processes involved. Meetings with partners and the exchange of experience are an important element of cooperation. The speaker pointed out the increased role of Poland and Hungary in transport corridors following the outbreak of war in Ukraine. In the speaker's opinion, all the development goals of the Baltic-Adriatic Transport Corridor will be achieved by 2030 and any delays will be negligible. The panel also addressed the Amber Rail Freight Corridor, connecting Poland, Slovakia, Hungary and Slovenia. The southern end of the transport corridor reaches the port of Koper on the Adriatic Sea in Slovenia, while the northern end runs through Warsaw to the Polish-Belarusian border in Terespol. Attention was paid to the impact of this corridor on transport in the Baltic-Adriatic Transport Corridor. The Amber Corridor strengthens rail links between eastern Poland and eastern Slovenia. It also plays an important role in providing support to Ukraine and is a reinforcement for the military mobility of NATO members from north to south of Europe.

During the following panel, Hungary's role in TEN-T transport corridors and international supply chains was outlined. Hungary, located at the crossroads of corridors (north-south, east-west), is an integral part of the TEN-T. Its geographical location provides access to global transport routes and key European markets, making it a good distribution point for goods from east to west in Europe and, via the "New Silk Road", for trade with Asia. The most important intermodal terminals of this country include, among others, the port of Győr-Gönyű and Záhony. Hungary also performs an important function in international supply chains, with Audi, Mercedes-Benz, Opel and Suzuki, among others, manufacturing in Hungary. Goods imported into Hungary include machinery and equipment, chemical products, raw materials and fuels. In contrast, export from the country is dominated by vehicles and their components, machinery, as well as pharmaceutical and agricultural products.

A panel on intelligent urban transport and its role in the TEN-T addressed the prospects for urban mobility, in the context of EU policies. Cities will play an important role in the move towards climate neutrality: by 2030 one hundred of them are expected to achieve climate neutrality, and by 2025, all large and medium-sized urban centres that are urban hubs on the TEN-T corridors will have Sustainable Urban Mobility Plans (SUMP). The European Union also plans for at least 30 million cars and 80 thousands lorries to be zero-emission by 2030. The urban assumptions are also related to automated mobility, multimodal transport and the replacement of paper tickets with electronic ones. Urban nodes perform an important function in the TEN-T core network (there are 14 in the Baltic-Adriatic Transport Corridor). The presentation outlined the state of the rail infrastructure within the urban nodes along the corridor, as well as the types of activities carried out in them. Particular attention was paid to the development of public transport on the example of the Poznań metropolis. Public transport in the functional urban area of the city of Poznań is based on city buses, trams and the metropolitan railway. Key to the efficient organisation of passenger transport was also the creation of 53 interchanges integrating as many means of public and individual transport as possible, while allowing to leave the car or bicycle behind. A common ticket has been launched to make it easier for passengers to use these means of transport. The panel also addressed the challenges facing cities in terms of urban mobility and the role of urban self-governments in shaping public transport. Mobility trends, e.g. green technologies, 15-minute cities, smart cities, must be taken into account when planning development. However, self-governments should be cautious in their implementation. This carries risks, because city investments in this regard tend to be long-term, while technologies and ideas are constantly changing. In a competitive environment, however, these trends cannot be ignored. Urban self-governments, having a limited budget, bear the costs of, e.g. purchasing a public transport fleet. Hydrogen-powered buses are several times more expensive than those powered by fossil fuels. On top of this, the cost of operating them has to be taken into account. An example was given of the Upper-Silesian Metropolitan Union, which withdrew from a contract for hydrogen-fuelled rolling

stock due to maintenance costs. Attention was also brought to the changing priorities of city dwellers: what used to be important to them were parking spaces, now it is urban greenery. It was suggested that it would be a great help for local self-governments to implement innovations if they could be assisted by government authorities, e.g. through financial support and assistance with the storage and transport of hydrogen fuels. A way to reduce the risks associated with implementing new technologies is also to learn from the experience of other self-governments.

On 20 October a study visit in the logistics terminal in Győr-Gönyű was held, during which staff from the facility explained its operation. It is one of three publicly accessible ports on the Danube in Hungary, covering an area of approx. 123 ha. The terminal is equipped with twelve berths, one of which is suitable for handling dangerous goods. Infrastructure of the facility allows the handling of bulk goods (e.g. grain), containers and Ro-Ro (roll-on/roll-off) vessels in a horizontal handling system. The terminal is state-owned and managed by the General Directorate of Water Management. It is located in the vicinity of the Vienna-Budapest motorway, national road No. 1 (Győr-Budapest) and the Vienna-Budapest railway. A separate branch line leading to the terminal was routed from the aforementioned railway line. Using EU funds, a dam was created on a tributary of the Danube to manage the water level in the river and thus in the port at the terminal. At the same time, this investment contributed to the protection of the natural environment in the surroundings of the city of Győr, which was threatened by low water levels caused by the construction of a dam in Slovakia and a hydroelectric power plant system in Austria. By continuously monitoring the water level and flow, over time it is planned to automate the dam in terms of controlling the amount of water discharged further downstream on the Danube.

The first two photographs are taken by Sławomir Lewandowski. The photographs come from the collection of the Association of Polish Regions of the Baltic-Adriatic Transport Corridor (www.bac.pl). Tomasz Wardak is the author of the third photograph.

Photograph by S. Lewandowski

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Photograph by T. Wardak

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