

Towards multimodality along the Hungarian-Ukrainian border:

the case of the East-West Gate Intermodal Terminal

Dr. Klára Czimre – assistant professor
Zsófia Szaniszló – PhD student

*Department of Social Geography and
Regional Development Planning*



-
- Visegrad Fund
-
-



Sources

- National Road Network Information Scoreboards (February 2021)
- Special Report 09/2020: The EU core road network
- CSO statistics on transport
- Data from the National Tax and Customs Administration
- In-depth interview with the CEO of the TrInvest (Owner 1 of the East West Gate Terminal)
- In-depth interview with the Terminal Manager of the East West Gate



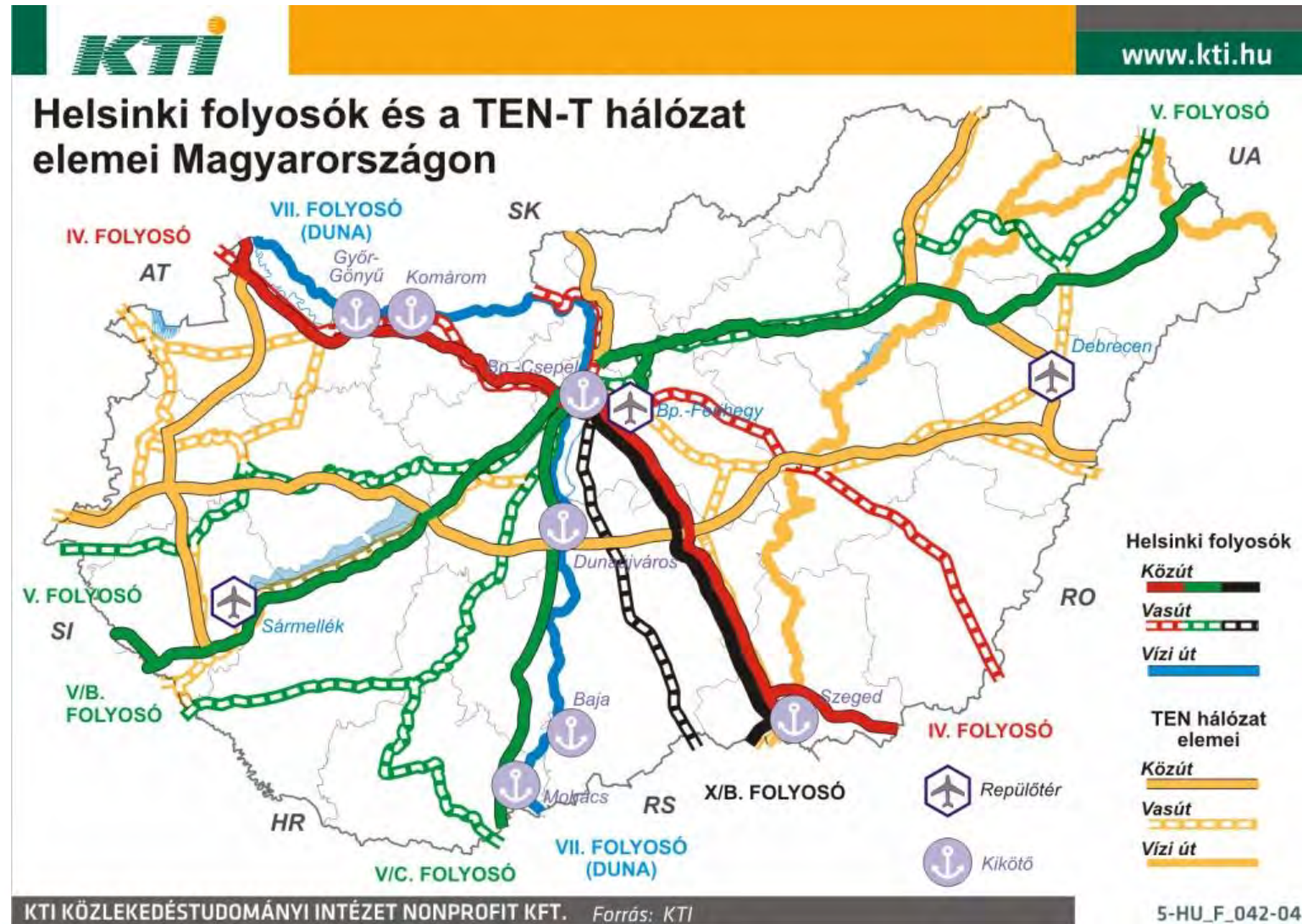
UNIVERSITY of
DEBRECEN



- <https://www.mlszkszh.hu/nott-az-intermodalis-fuvarozas-volumene-tavaly-de-nem-elegge/?v=35b5282113b8>
- <https://trans.info/hu/novekedes-az-intermodalis-aruforgalomban-278381>
- <https://www.napi.hu/magyar-gazdasag/aruszallitas-kereskedelem-kozut-vasut-aruforgalom.768531.html>
- <https://www.zaol.hu/helyi-kozelet/2021/09/letettek-az-metrans-kontenerterminal-alapkovet>
- <https://www.kozlekedesvilag.hu/ujsgag/navigatorvilag/metrans-5/>
- https://www.containercenter.hu/mcc_csepel/bemutakozas/iranyvonat_projektek/index.php
- https://www.containercenter.hu/mcc_csepel/bemutakozas/barka_projektek/index.php
- https://www.scmonitor.hu/webgalamb/files/download/33/Supply_Chain_Monitor_2022_november.pdf
- <https://www.scmonitor.hu/cikk/20190808/a-csepeli-terminal-sikertortenet>
- https://www.containercenter.hu/mcc_csepel/bemutakozas/forgalmi_adatok/index.php

• Visegrad Fund

Transport networks connecting Hungary with Ukraine



UNIVERSITY of
DEBRECEN

• Visegrad Fund

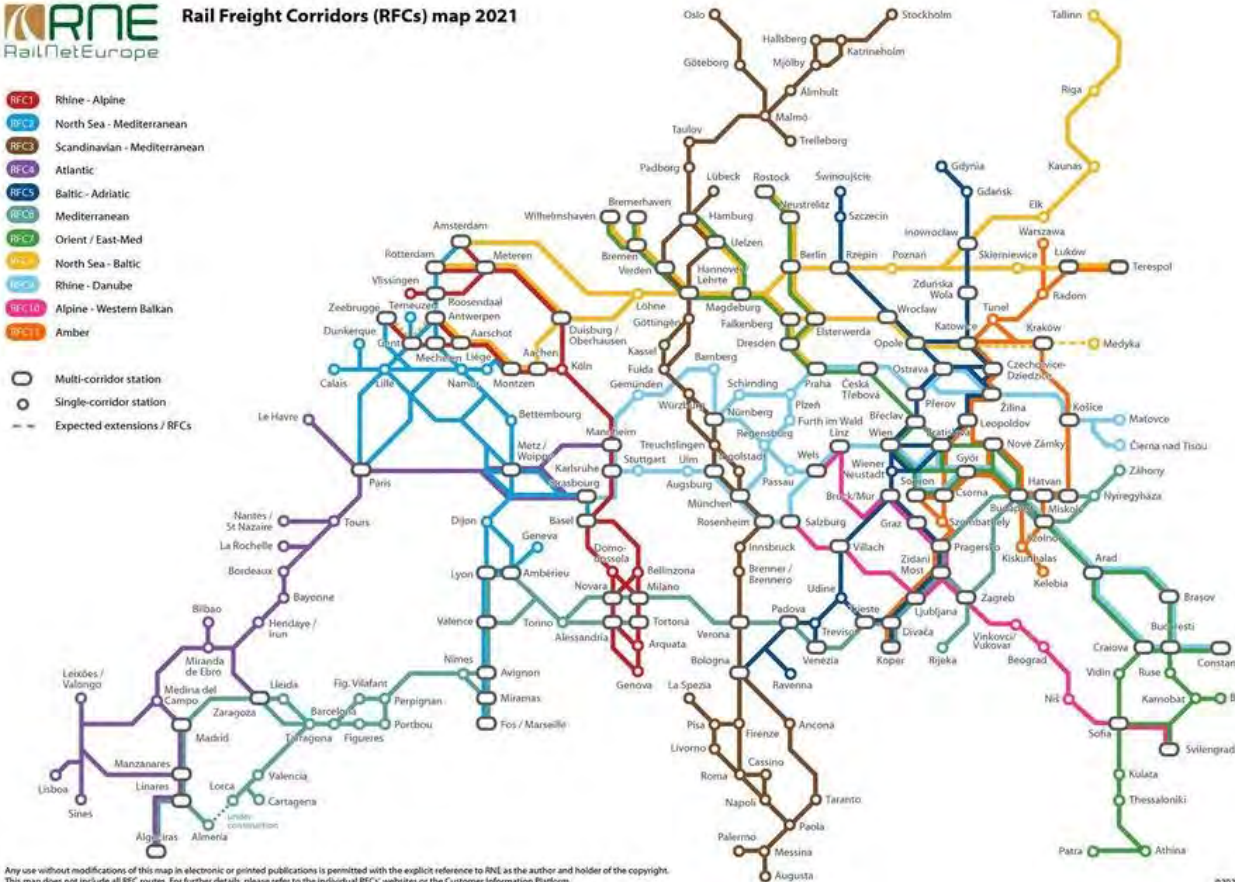
Railway networks connecting Hungary with Ukraine



Rail Freight Corridors (RFCs) map 2021

- RFC1** Rhine - Alpine
- RFC2** North Sea - Mediterranean
- RFC3** Scandinavian - Mediterranean
- RFC4** Atlantic
- RFC5** Baltic - Adriatic
- RFC6** Mediterranean
- RFC7** Orient / East-Med
- RFC8** North Sea - Baltic
- RFC9** Rhine - Danube
- RFC10** Alpine - Western Balkan
- RFC11** Amber

- Multi-corridor station
- Single-corridor station
- Expected extensions / RFCs

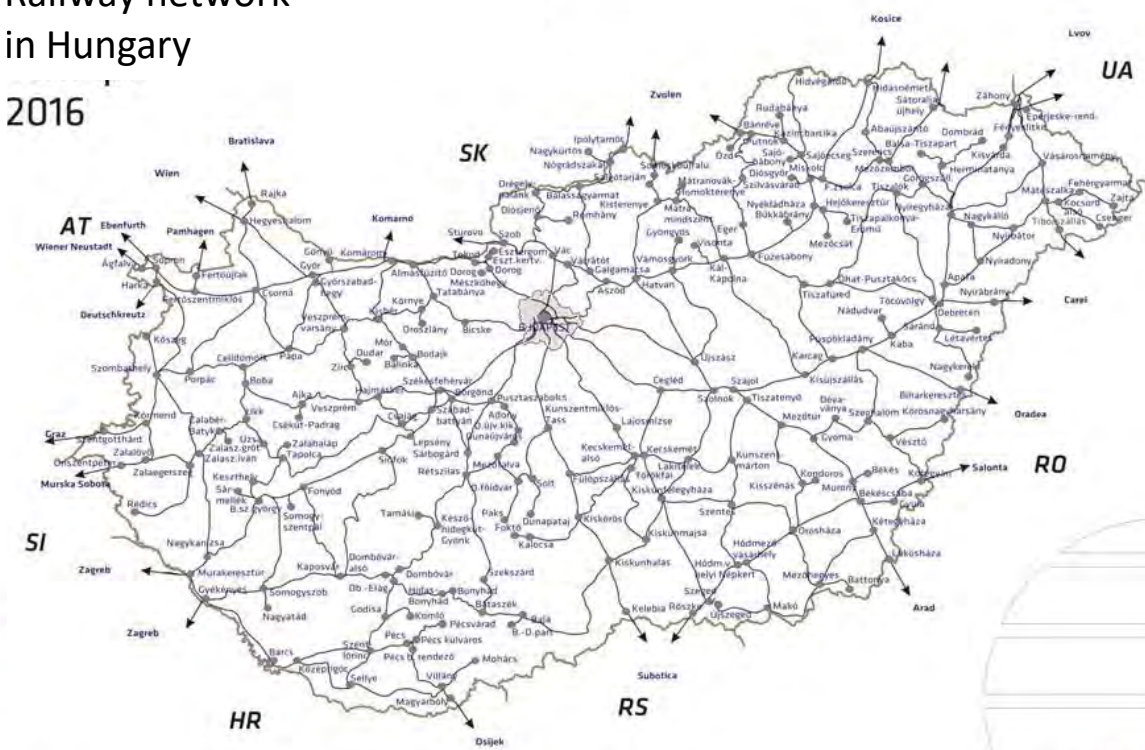


Any use without modifications of this map in electronic or printed publications is permitted with the explicit reference to RNE as the author and holder of the copyright. This map does not include all RFC routes. For further details, please refer to the individual RFCs' websites or the Customer Information Platform.



Railway network in Hungary

2016



Forrás: KTI - 2016



UNIVERSITY of DEBRECEN

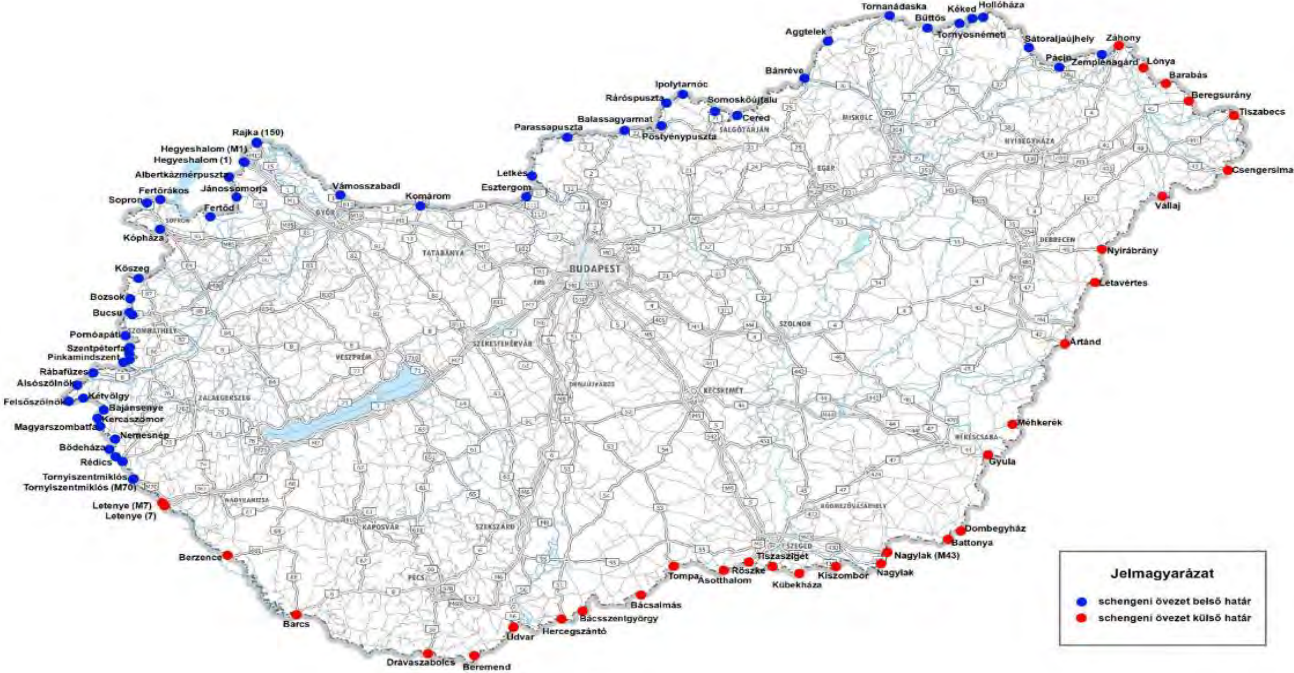


• Visegrad Fund

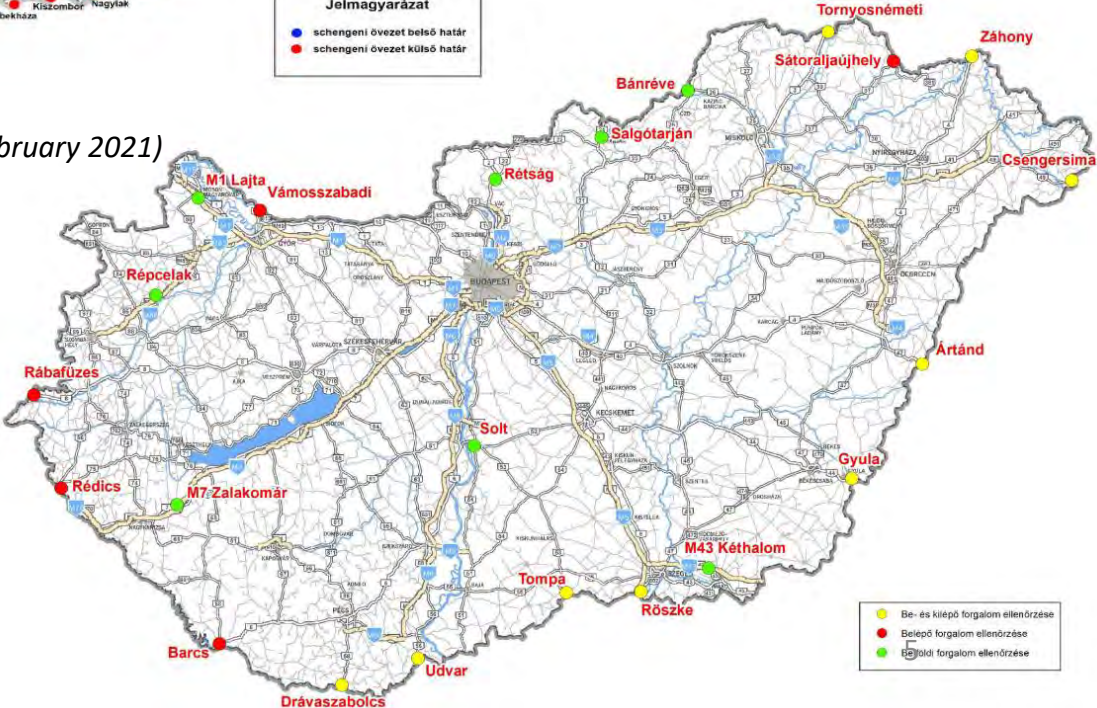
Transport network: public road network and border crossings along the borders of Hungary

border crossings
five road checkpoints
two railway checkpoints

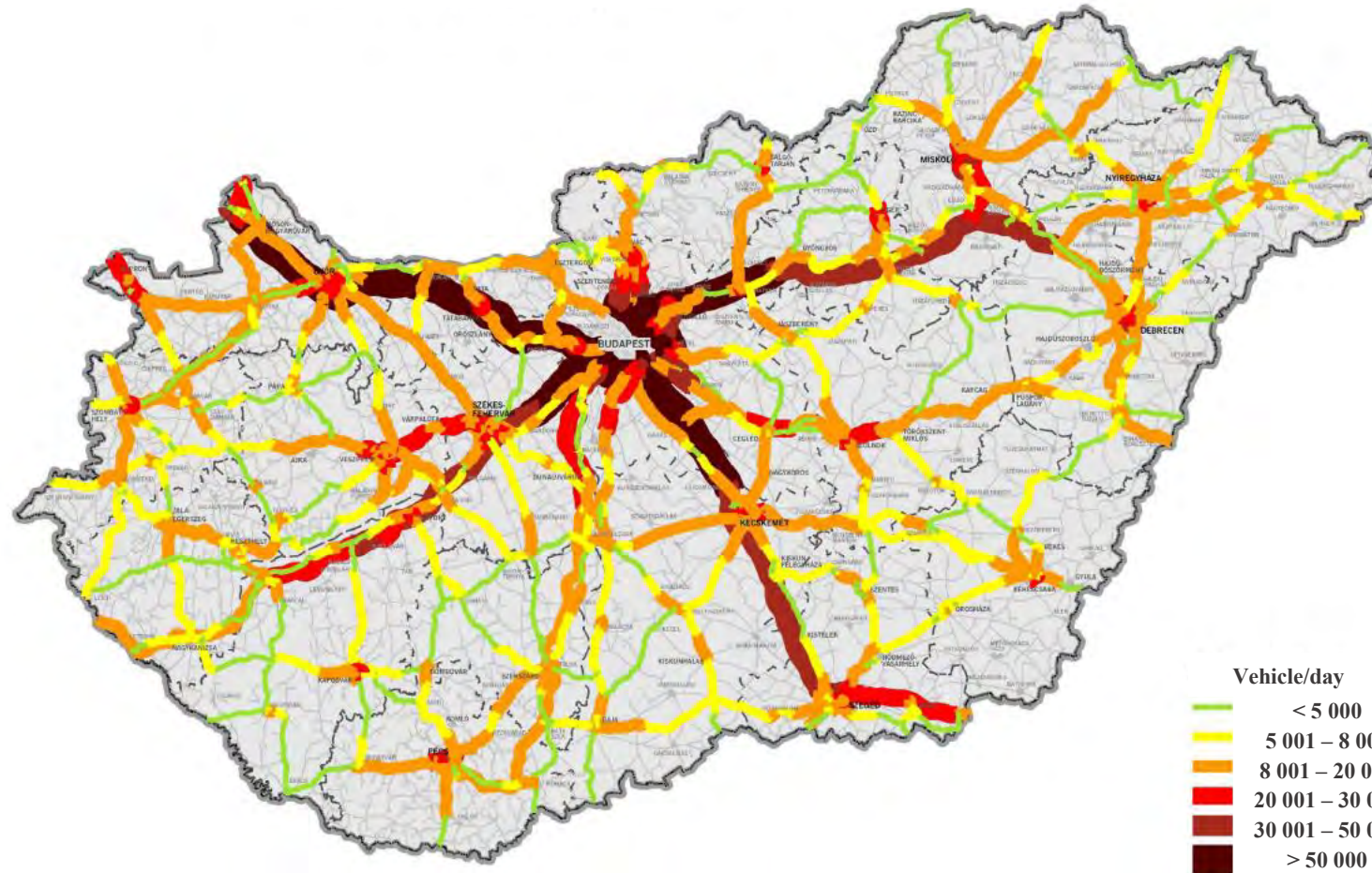
weighingscale points
Záhony: in both directions



Source: National Road Network Information Scoreboards (February 2021)



Vehicle traffic on main roads and motorways in Hungary (2019)

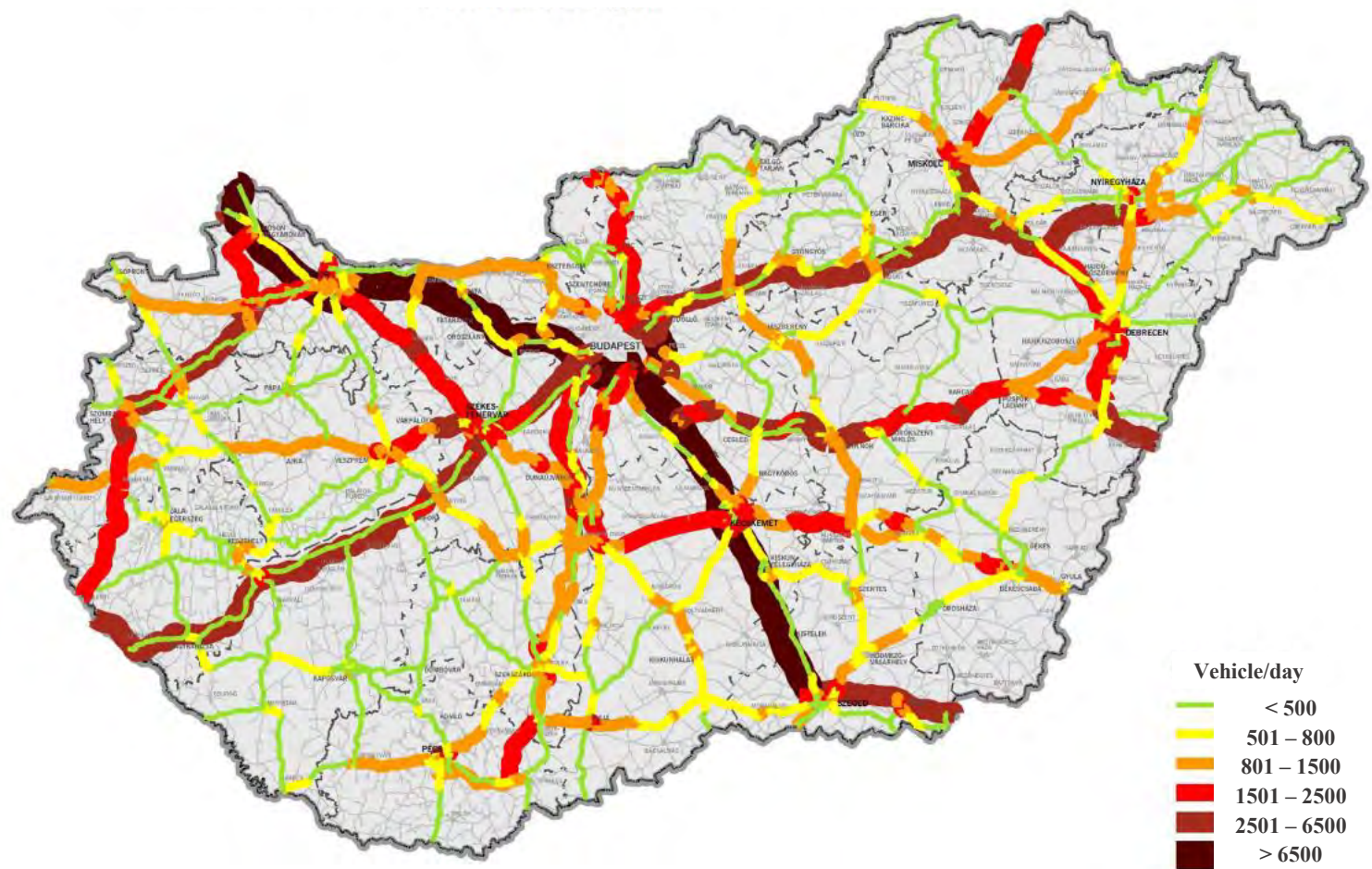


UNIVERSITY of
DEBRECEN

Source: National Road Network Information Scoreboards (February 2021)

• Visegrad Fund

Heavy vehicle traffic on main roads and motorways in Hungary (2019)

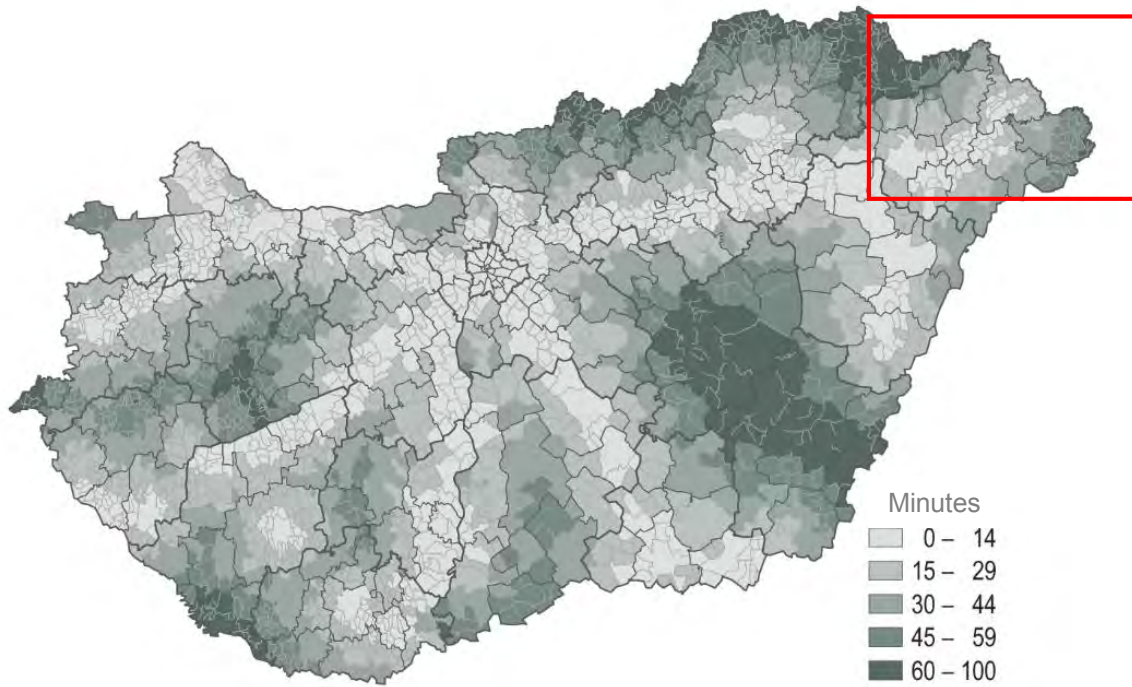


Source: National Road Network Information Scoreboards (February 2021)

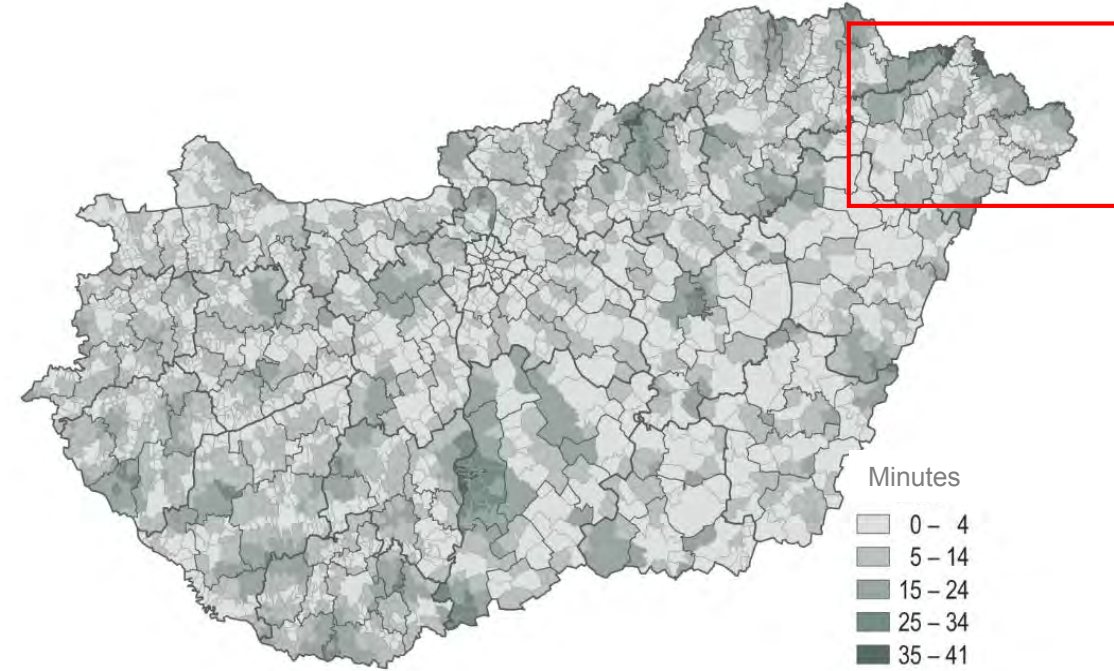


UNIVERSITY of
DEBRECEN

• Visegrad Fund



Road access time to the nearest motorway interchange on the fastest route, 2019



Road access time to the nearest train station by the fastest route, 2019

Data source: National Spatial Development and Planning Information System (TEIR)

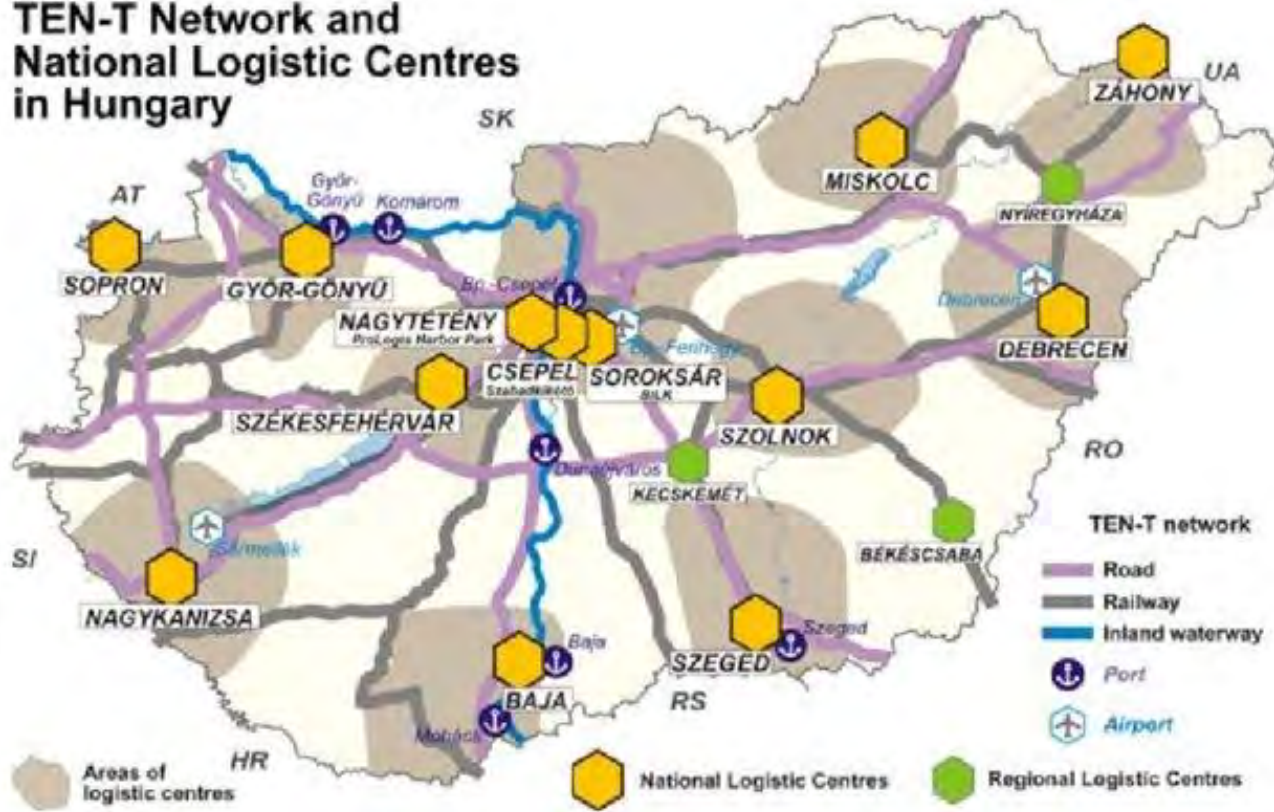


**UNIVERSITY of
DEBRECEN**



• Visegrad Fund

TEN-T Network and National Logistic Centres in Hungary



Source: KTI-Institute for Transport Sciences

- **net turnover** of the logistics service providers: **3 400 billion HUF (9.19 billion euro)** (nearly 5% of the total net turnover of the national economy)
- **40 thousand logistics companies** (mostly small and medium-sized enterprises)
- **employees: 259 thousand** (which is 6.5% of the total employment)
- logistics sector: accounts for **6.3% of the Hungarian gross domestic product (GDP)**
- World Bank's Logistics Performance Index: **31st place (2016)**

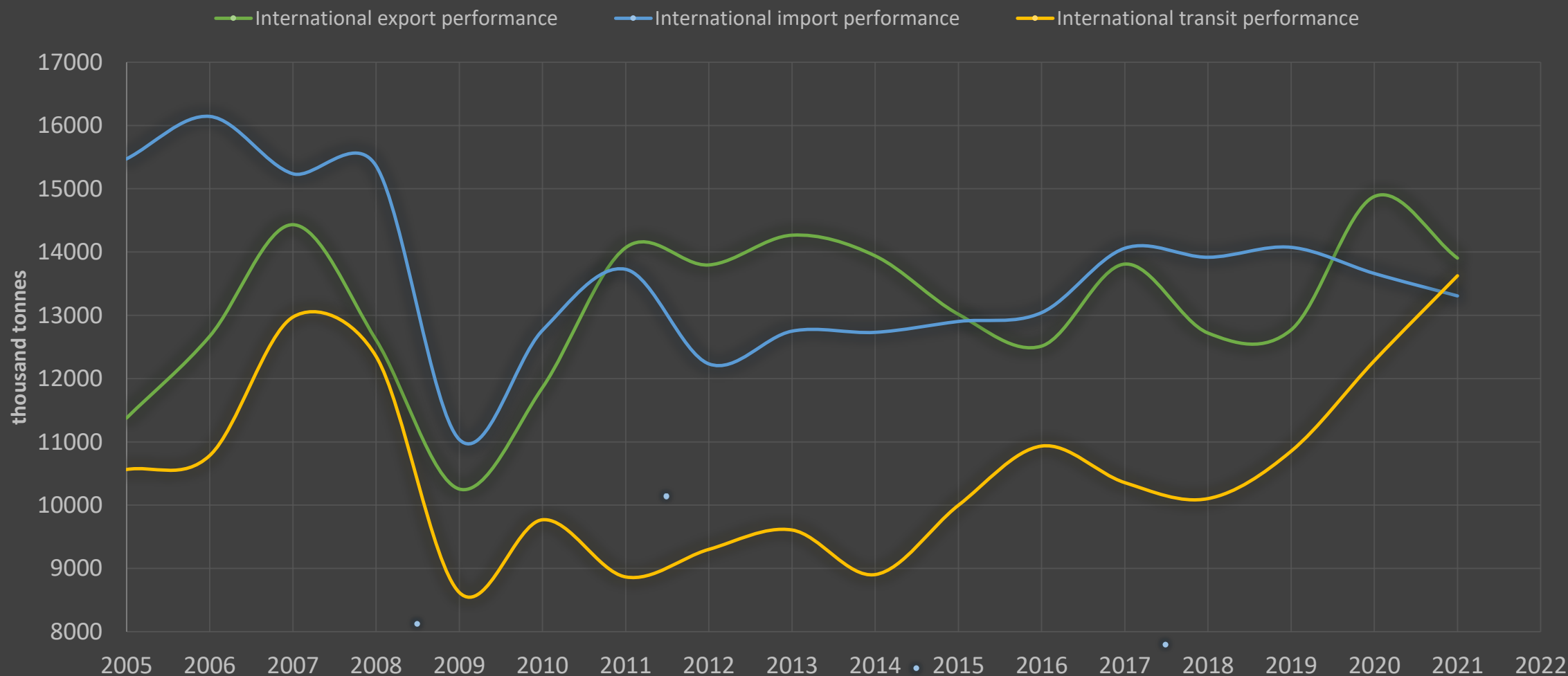


**UNIVERSITY of
DEBRECEN**



• Visegrad Fund

Rail freight transport by direction of traffic in Hungary - weight of goods carried



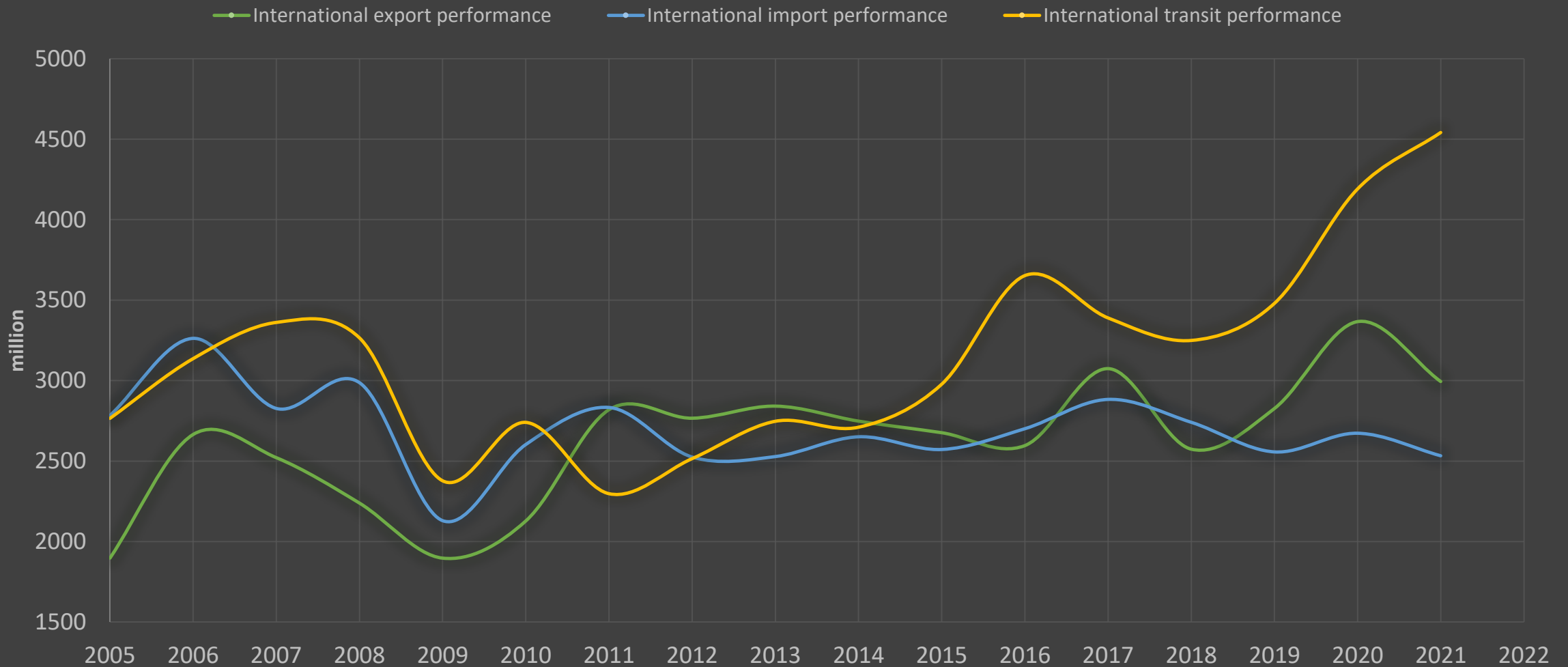
Source: based on CSO data



UNIVERSITY of
DEBRECEN

• Visegrad Fund

Rail freight transport by direction of traffic in Hungary - freight tonne-kilometres, million



Source: based on CSO data



UNIVERSITY of
DEBRECEN

• Visegrad Fund

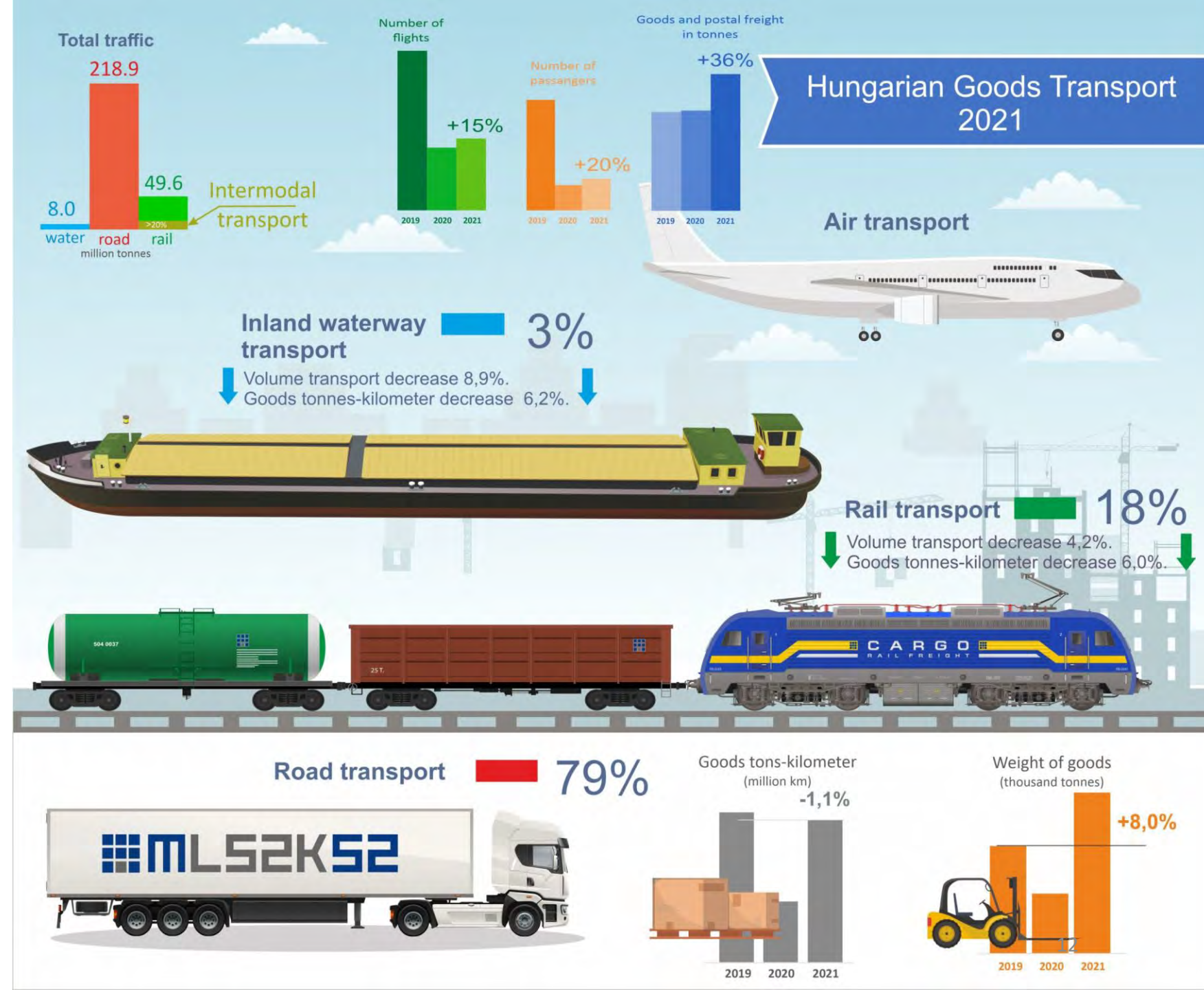
- Visegrad Fund



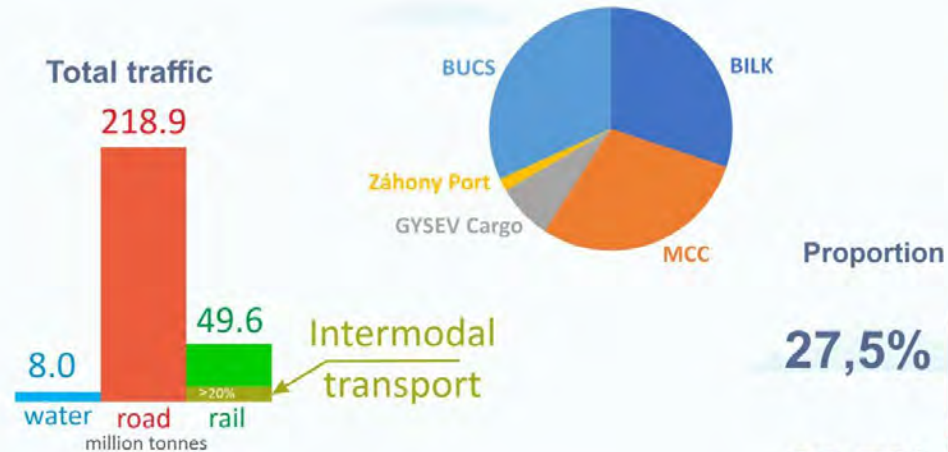
General features of intermodal transport in Hungary - 2021



UNIVERSITY of
DEBRECEN

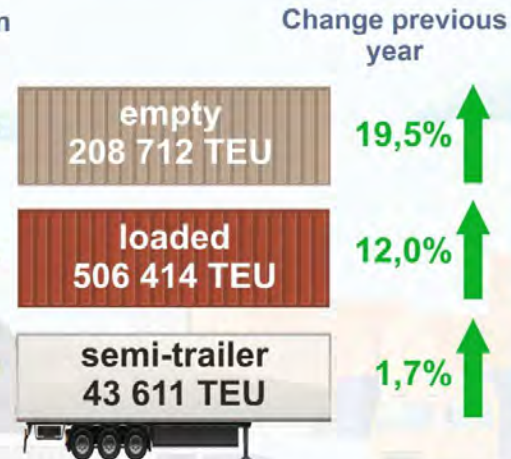


General features of intermodal transport in Hungary - 2021



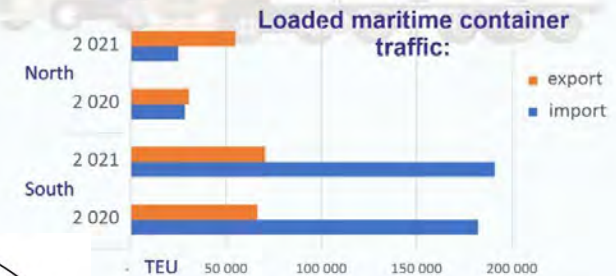
ML52K52

Hungarian Intermodal Transport 2021



Intermodal transport

13,3% ↑

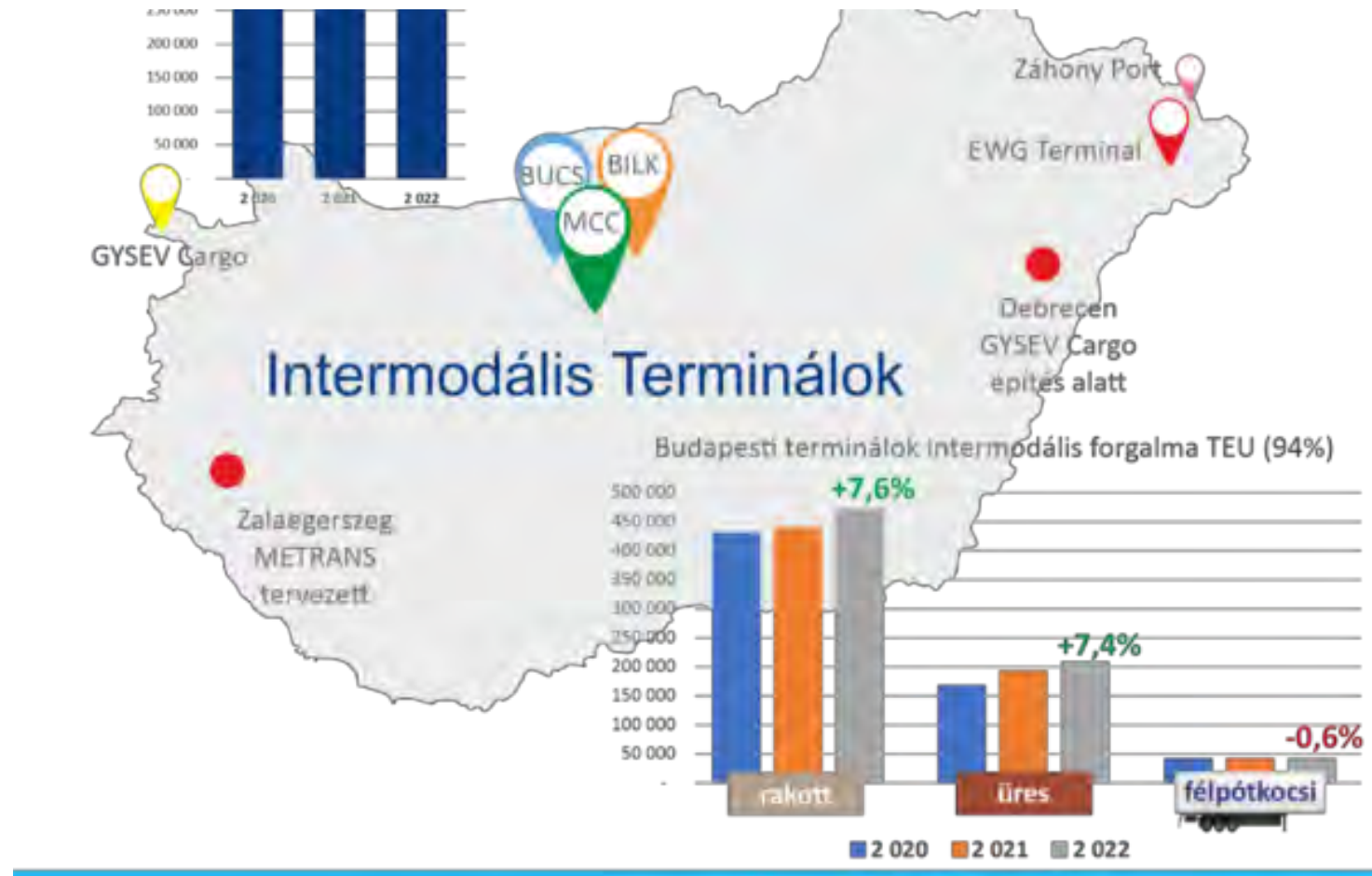


UNIVERSITY of
DEBRECEN



• Visegrad Fund

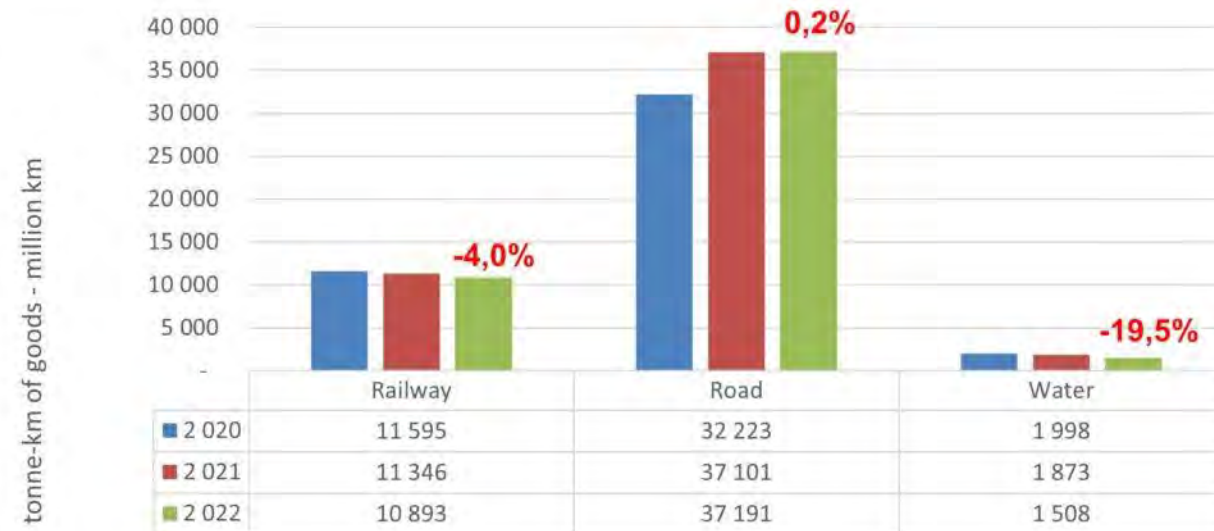
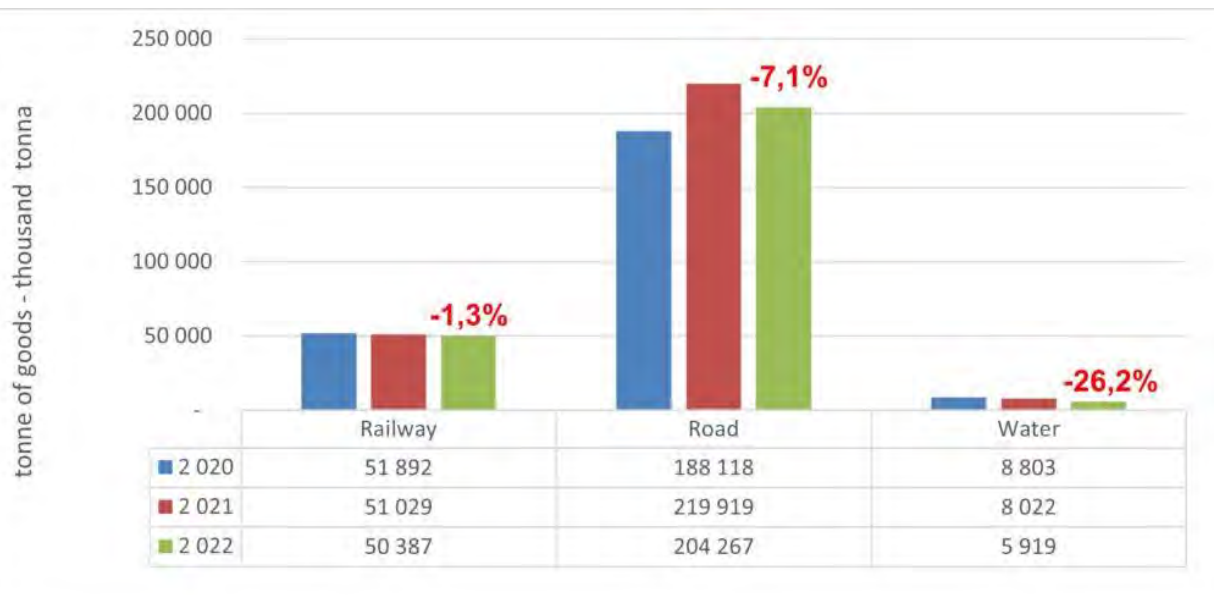
General features of intermodal transport in Hungary - 2022



UNIVERSITY of
DEBRECEN

- Visegrad Fund

Total Hungarian goods traffic output per tonne transported in 2022



Total Hungarian goods traffic output per tonne-km of goods in 2022

Source: Central Statistical Office (CSO) and Association of Hungarian Logistics Service Centres (AHLSC)

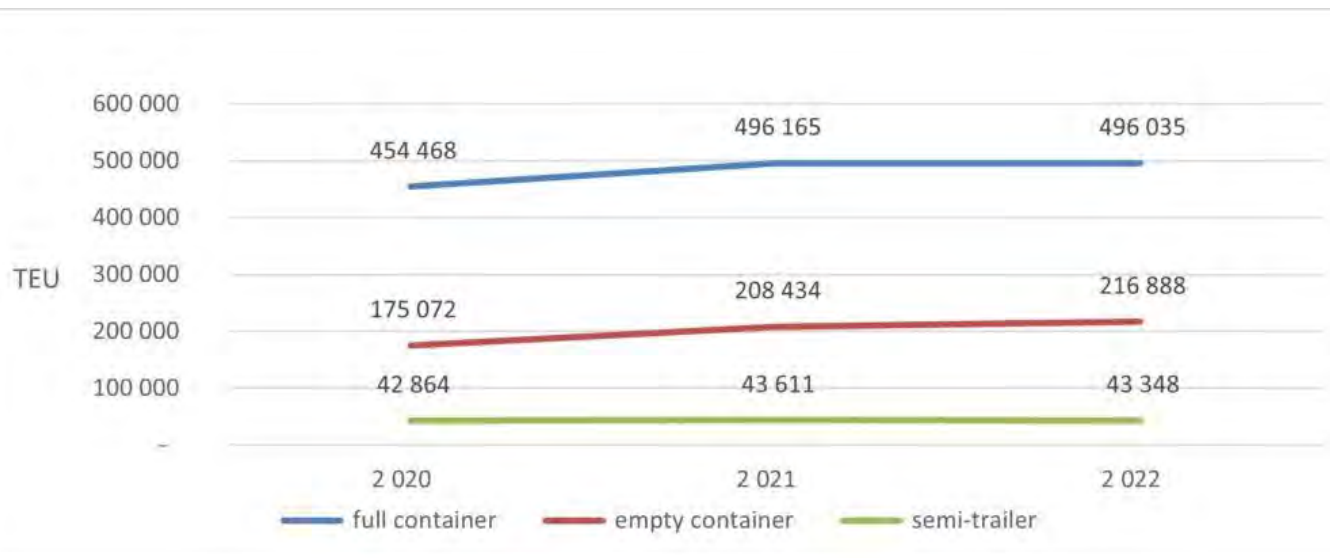


UNIVERSITY of
DEBRECEN



• Visegrad Fund

Subsector changes in total Hungarian intermodal traffic in 2022



- further expanded after its growth in 2021
- carried more than 750 thousand 20 feet TEU
- mainly railway-road
- traffic decreased at the rural terminals
 - Záhony: Russian-Ukrainian war
 - Sopron: restructuring of traffic
- Budapest terminals contributed to intermodal traffic growth
 - BILK
 - BUCS
 - MCC



UNIVERSITY of
DEBRECEN



• Visegrad Fund

Budapest Intermodal Logistics Center (BILK)



- handling of combined transport consignments
 - from rail to road and vice versa
- has a separate exit from the M0 motorway, close to the intersection of all major international destination and transit routes
- water and flight connections are also available within 20 km (Csepel Freeport, Liszt Ferenc International Airport)
- more than 207,000 m² of warehouse and office space
- 25-building warehouse base operated by professional facility management is a refrigerated, tempered, ADR, cross dock, high and normal warehouse developed with high technical content, as well as a property with direct siding connection covering the all modern logistics needs



UNIVERSITY of
DEBRECEN



• Visegrad Fund

The map illustrates the METRANS rail network in Central Europe, showing terminals and connections between 2010 and 2015. The network is centered around major hubs like Hamburg, Berlin, Poznań, and Prague (Praha). Key terminals include:

- METRANS HUB TERMINAL:** Represented by a solid dark blue square.
- METRANS TERMINAL:** Represented by a solid dark blue square.
- COOPERATING TERMINAL:** Represented by an open square.
- INLAND TERMINAL:** Represented by an open circle.
- SEAPORT TERMINAL:** Represented by a solid dark blue circle.

Connections are shown as lines:

- REGULAR RAIL CONNECTION:** Represented by a solid line.
- RAIL CONNECTION ON REQUEST:** Represented by a dashed line.

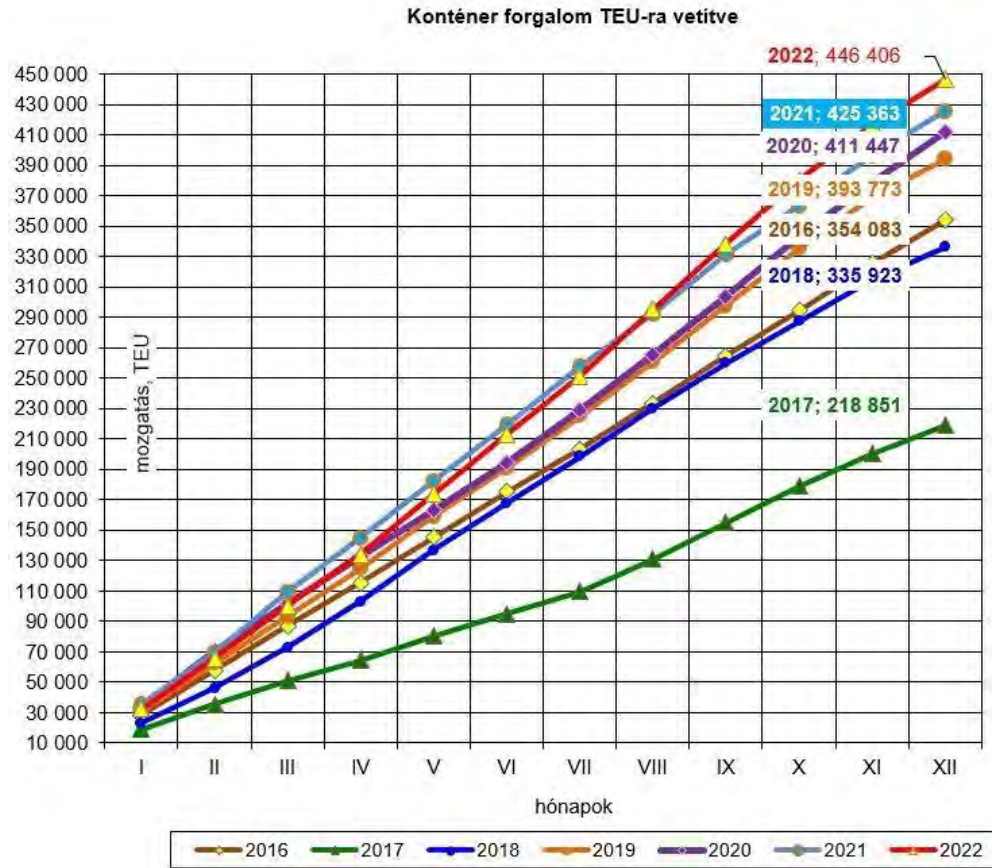
Key locations and connections include:

- Hamburg:** A major hub connecting to Bremerhaven, Wilhelmshaven, Berlin, Poznań, and various inland terminals like Leipzig and Nürnberg.
- Berlin:** A central hub connecting to Hamburg, Poznań, and various inland terminals like Usti nad Labem and Plzeň.
- Poznań:** A major hub connecting to Berlin, Warszawa, and various inland terminals like Wrocław and Ostrava.
- Prague (Praha):** A major hub connecting to Berlin, Poznań, and various inland terminals like Plzeň and Brno.
- Budapest:** A major hub connecting to Prague, Vienna, and various inland terminals like Zalaegerszeg and Arad.
- Warszawa:** A major hub connecting to Poznań and various inland terminals like Brest / Malaszewce and Olsztyn.
- Rotterdam:** A major hub connecting to Hamburg and various inland terminals like Maasvlakte and Antwerpen.
- Other locations:** Gdynia, Gdańsk, Wrocław, Ostrava, Zlín, Olomouc, Brno, Košice, Dobruša, Zalaegerszeg, Arad, Constanța, and Istanbul.

- Visegrad Fund



MAHART Container Centre (MCC)



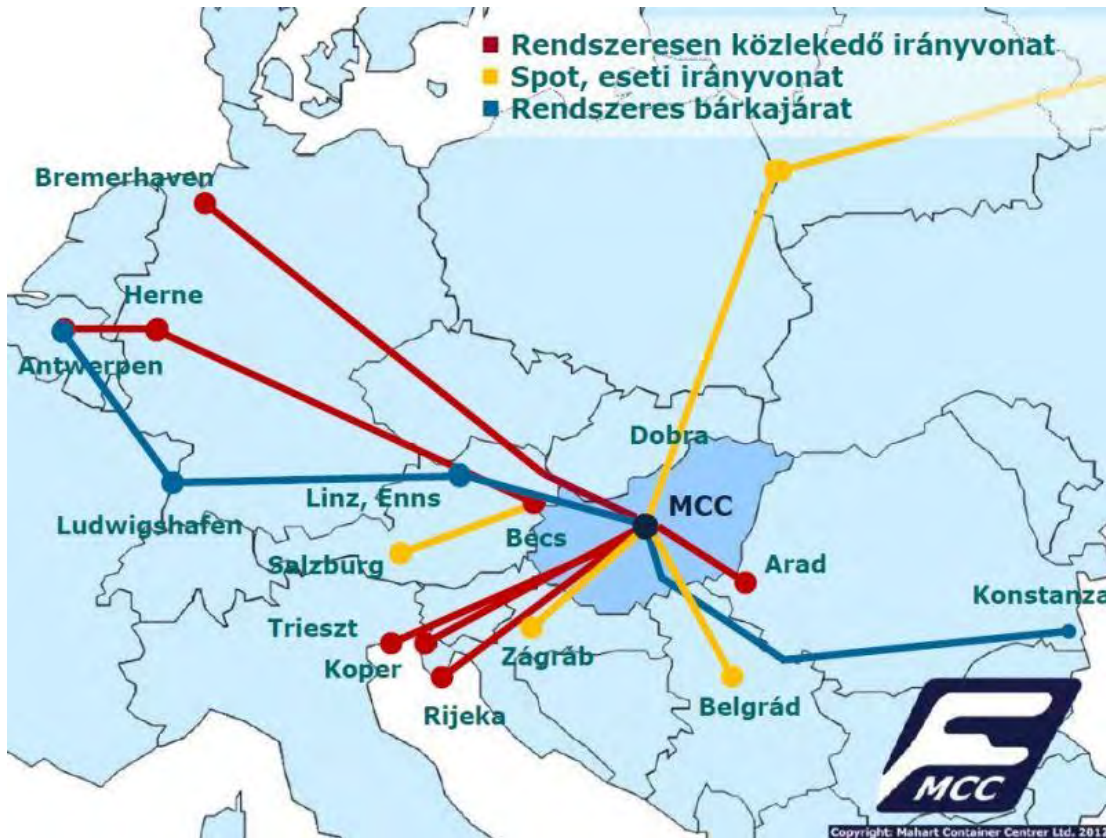
UNIVERSITY of
DEBRECEN



- trimodal distribution centre for intermodal transport processes
- provides transshipment, storage, repair and other ancillary services for its customers
- has been in operation for some 40 years
- since its establishment, MCC has been a Hungarian, privately owned, neutral, open terminal, independent of rail companies and shipping lines
- 12.7 ha total area (127 000 m²)
- 10.9 ha storage area (109 000 m²)
- 2×690 m + 3×300 m loading track, 220 m loading quay
- 1 container gantry crane (30 t), 6 telescopic handlers (Kalmar, 45 t), 4 telescopic empty container handlers (Kalmar, 10 t), 3 Kalmar terminal tractors, 74 electrical connections,
- services: repair workshop, dangerous (ADR/RID) containerised goods storage area, container customs inspection, transshipment area
- statistics for 2022:
 - 228.000 TEU container turnover
 - 446.400 TEU container handlings
 - 2.360 container blocktrains
 - 59.7% loaded containers
 - 40.3% empty containers

• Visegrad Fund

MAHART Container Centre (MCC)



- the terminal manages a wide range of train projects across Europe through the rail operator companies it works with
- from Mahart Container Center, through the rail operator companies cooperating with the terminal, there are closed express trains to
 - on a regular basis
 - Trieste
 - Koper
 - Rijeka
 - Hamburg
 - Bremerhaven
 - Herne
 - Cologne
 - Rotterdam
 - on an occasional basis
 - Salzburg
 - Linz
 - Paskov
 - China



**UNIVERSITY of
DEBRECEN**



• Visegrad Fund

Hungarian-Ukrainian border



- Socialist years: transshipment hub in the Záhony area – a good alternative for transport
- After change of regime: in Hungary both the railways and Eastern Hungary were devalued

- Summer 2020
 - Záhony Logistics and Industrial Belt
 - CECZ Central European Ltd.

Aim: to join the Chinese government-backed Belt and Road Initiative and create a logistics, rail and freight hub



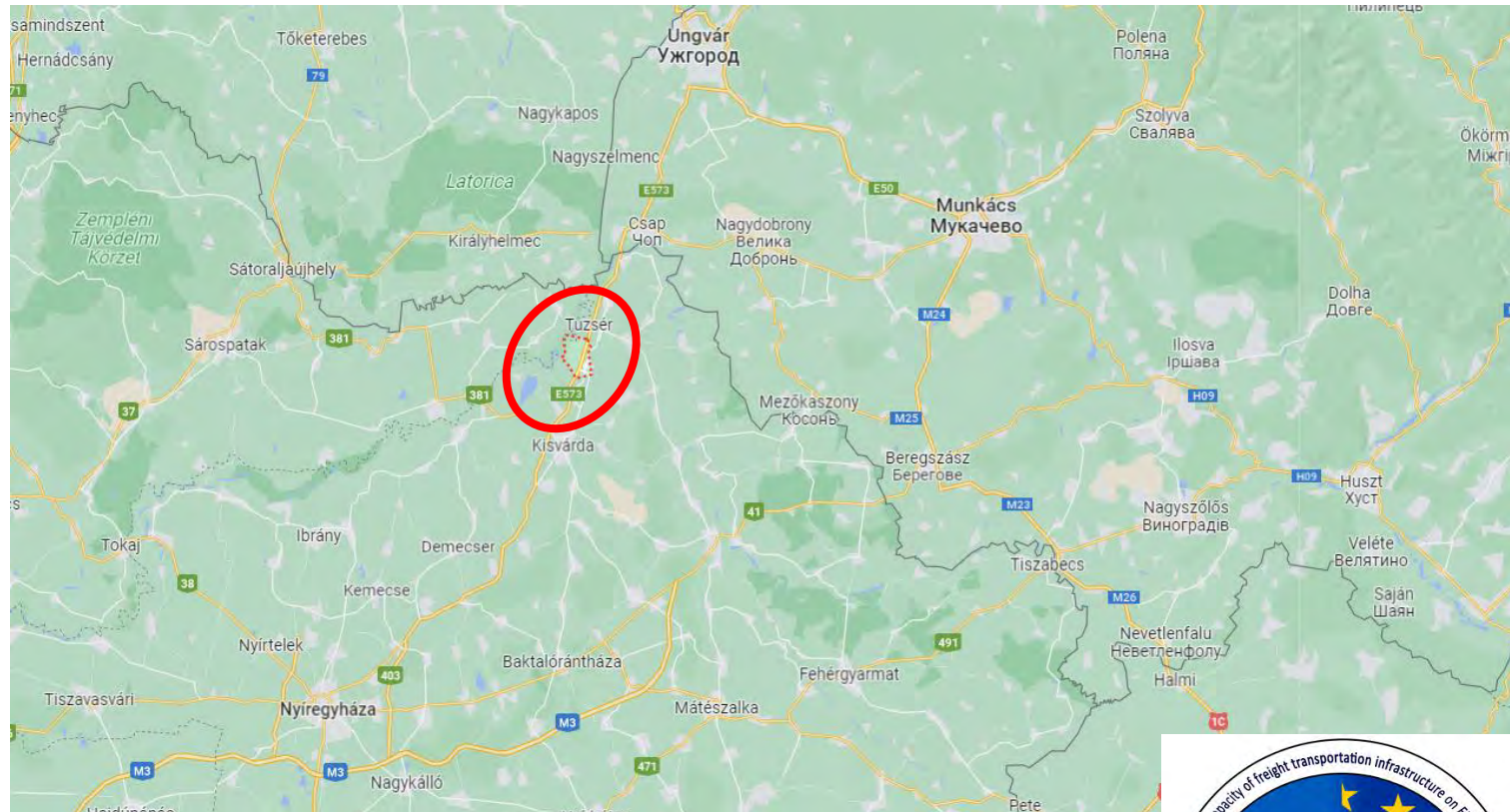
- Visegrad Fund

Fényeslitke: the largest intermodal terminal in Central Europe



EAST-WEST GATE
INTERMODAL TERMINAL
HUNGARY

www.eastwestil.com



<https://www.napi.hu/magyar-vallalatok/east-west-gate-ewg-intermodalis-terminal-east-west-intermodalis-logisztikai-szolgáltato-zrt-fenyesslitke-logisztikai-kozpont-vasuti-fejlesztes-logisztika-atrako.742547.html>



**UNIVERSITY of
DEBRECEN**



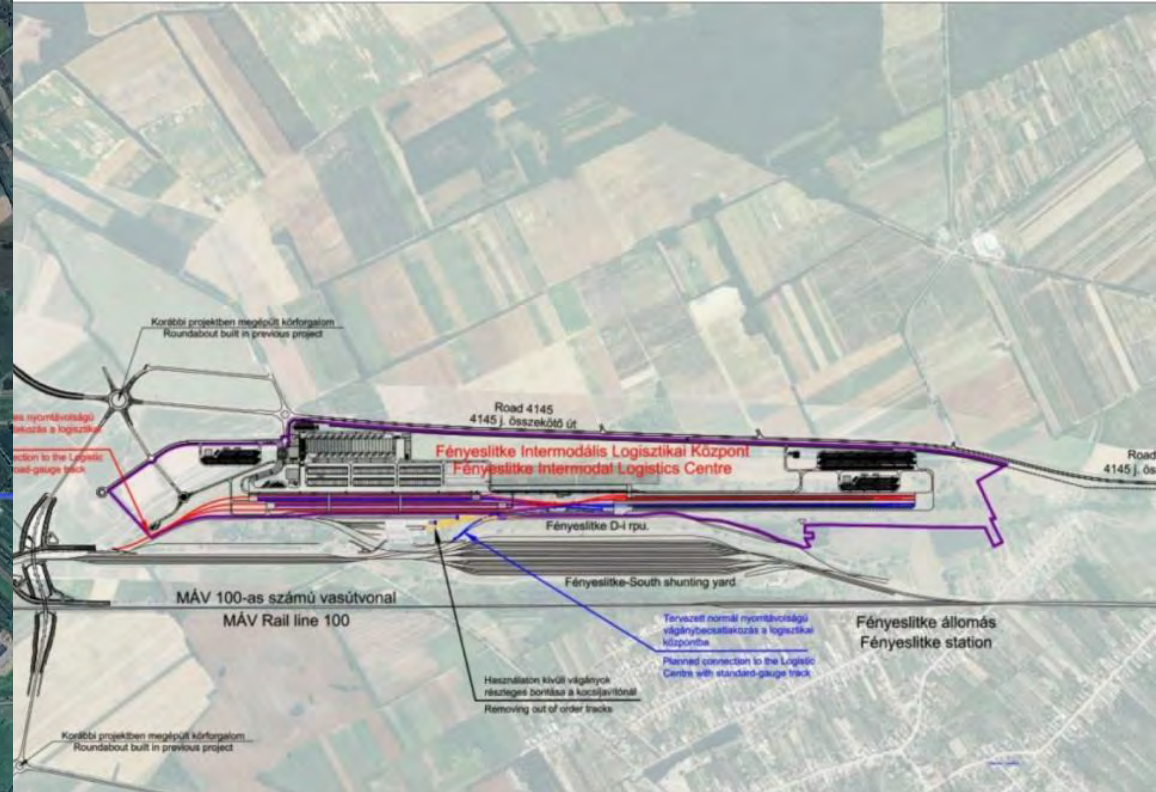
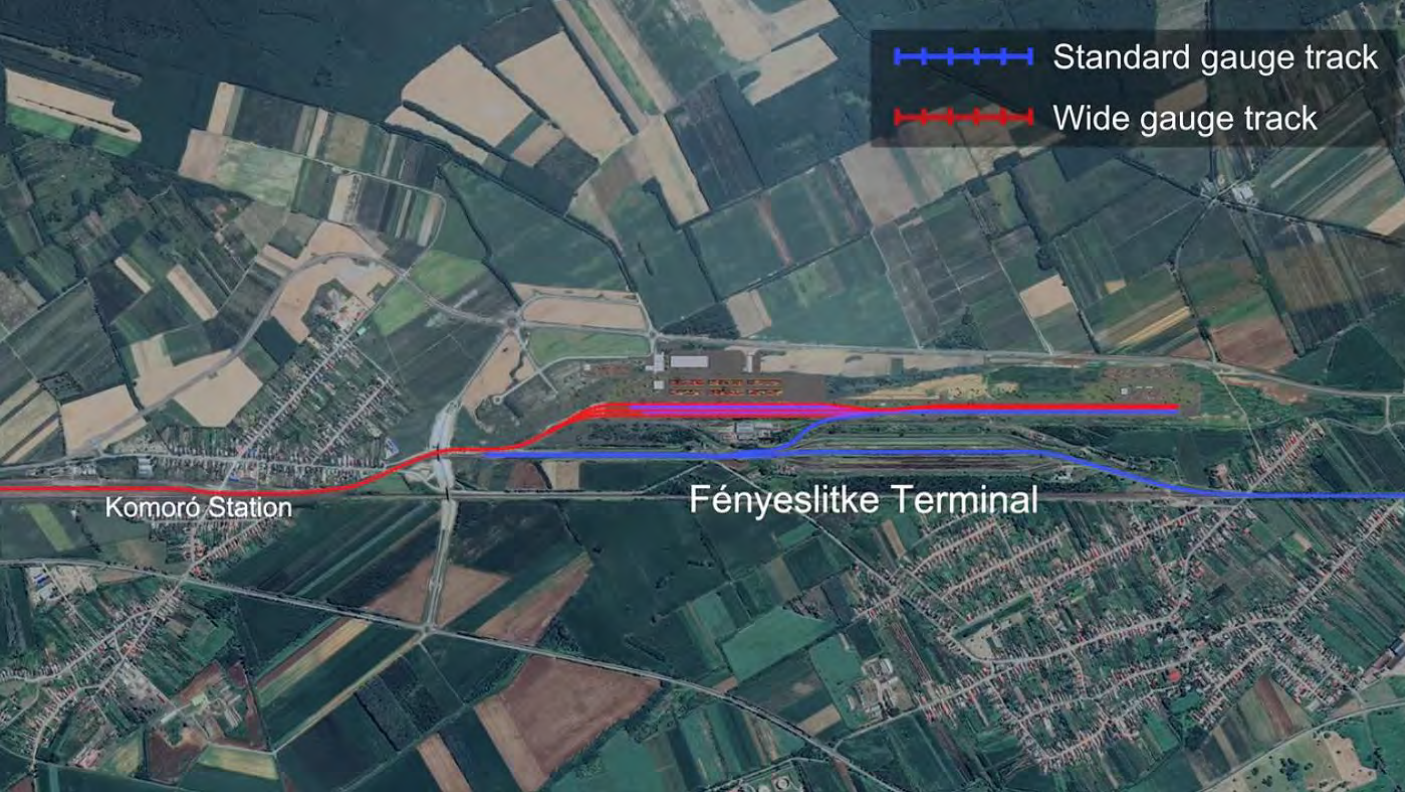
• Visegrad Fund

- Area: 85 hectare
- Grain, crude cooking oil, fertilisers
- **From** where? China, Japan, South Korea and Central Asian countries
- Where **to**? Europe, Germany, Italy, Austria, Croatia and Slovenia



UNIVERSITY of
DEBRECEN





Competitive advantages of the intermodal terminal:

- (1) use of state-of-the art technology
- (2) provides unique services that other terminals cannot: special materials, such as gas container tanks and chemicals can be transferred
- (3) the terminal is suitable for loading conventional road semi-trailers on rails
- (4) in the industrial park next to the terminal area there is an opportunity to construct warehouses and even plants

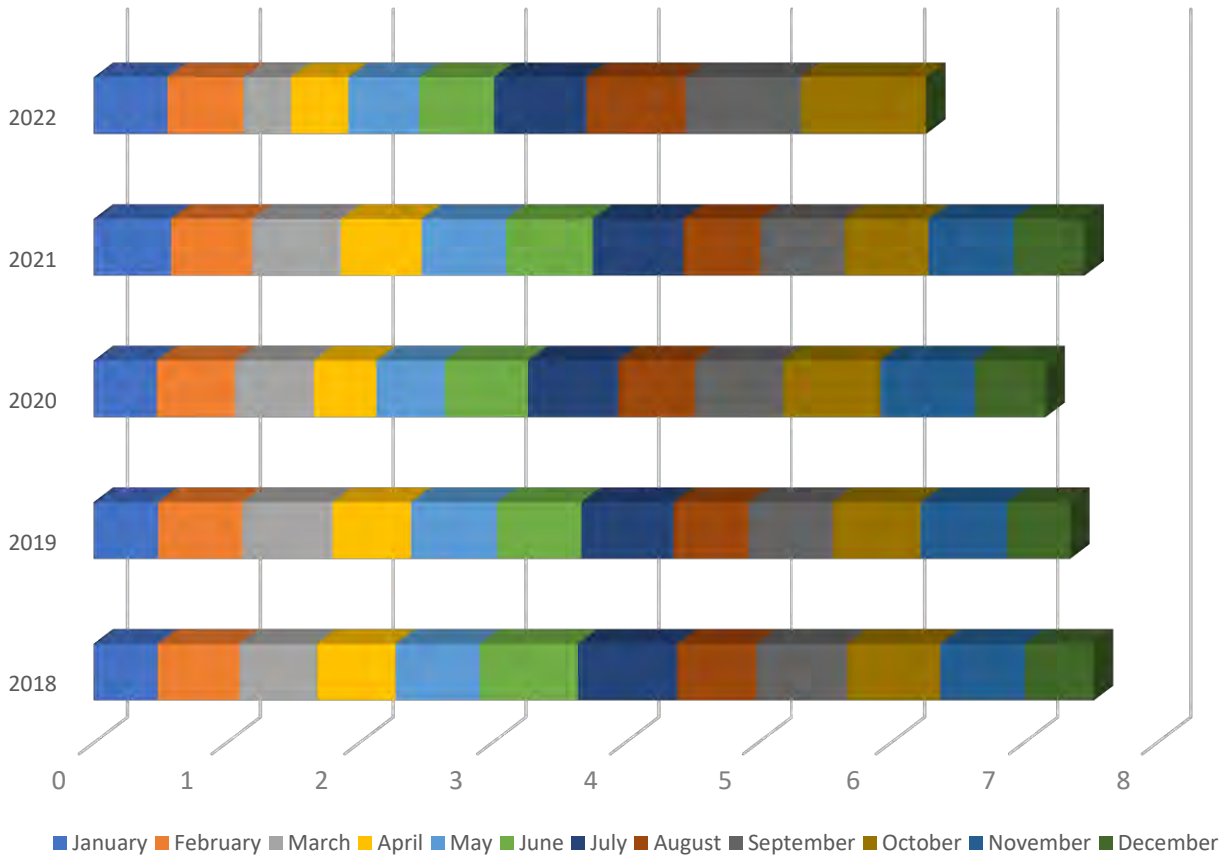


UNIVERSITY of
DEBRECEN

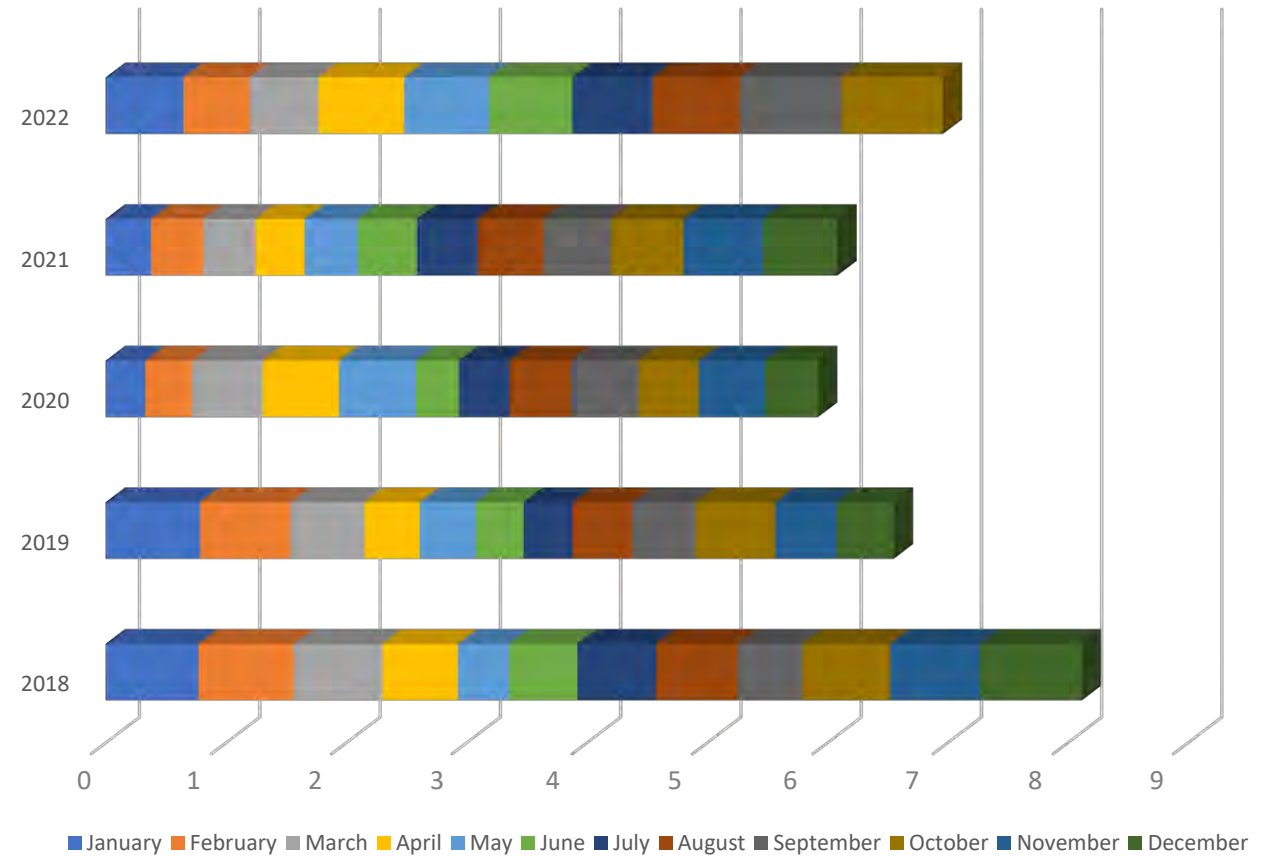


• Visegrad Fund

Road transport:
trend of import- weight of goods



Rail freight transport:
trend of import- weight of goods



Source: based on data from National Tax and Customs Administration

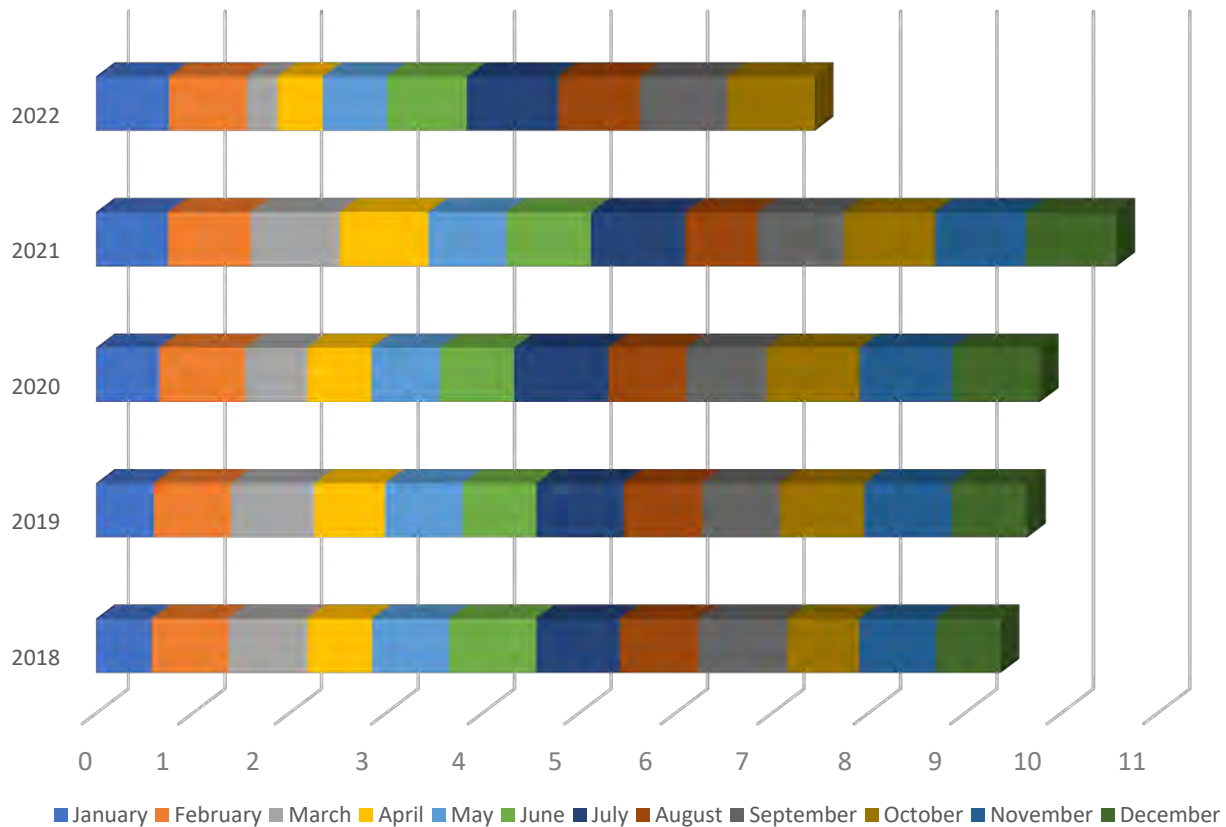


UNIVERSITY of
DEBRECEN

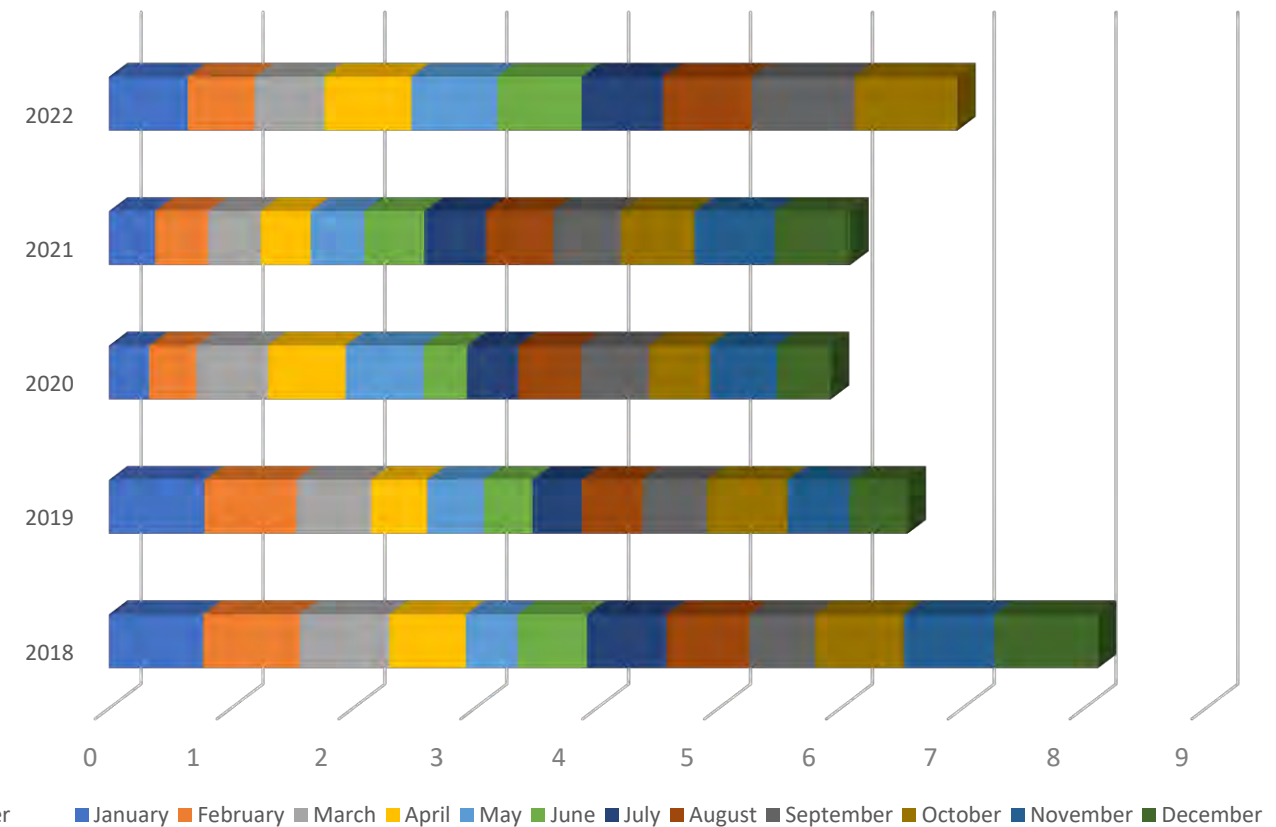


• Visegrad Fund

Road transport:
trend of export- weight of goods



Rail freight transport:
trend of import- weight of goods



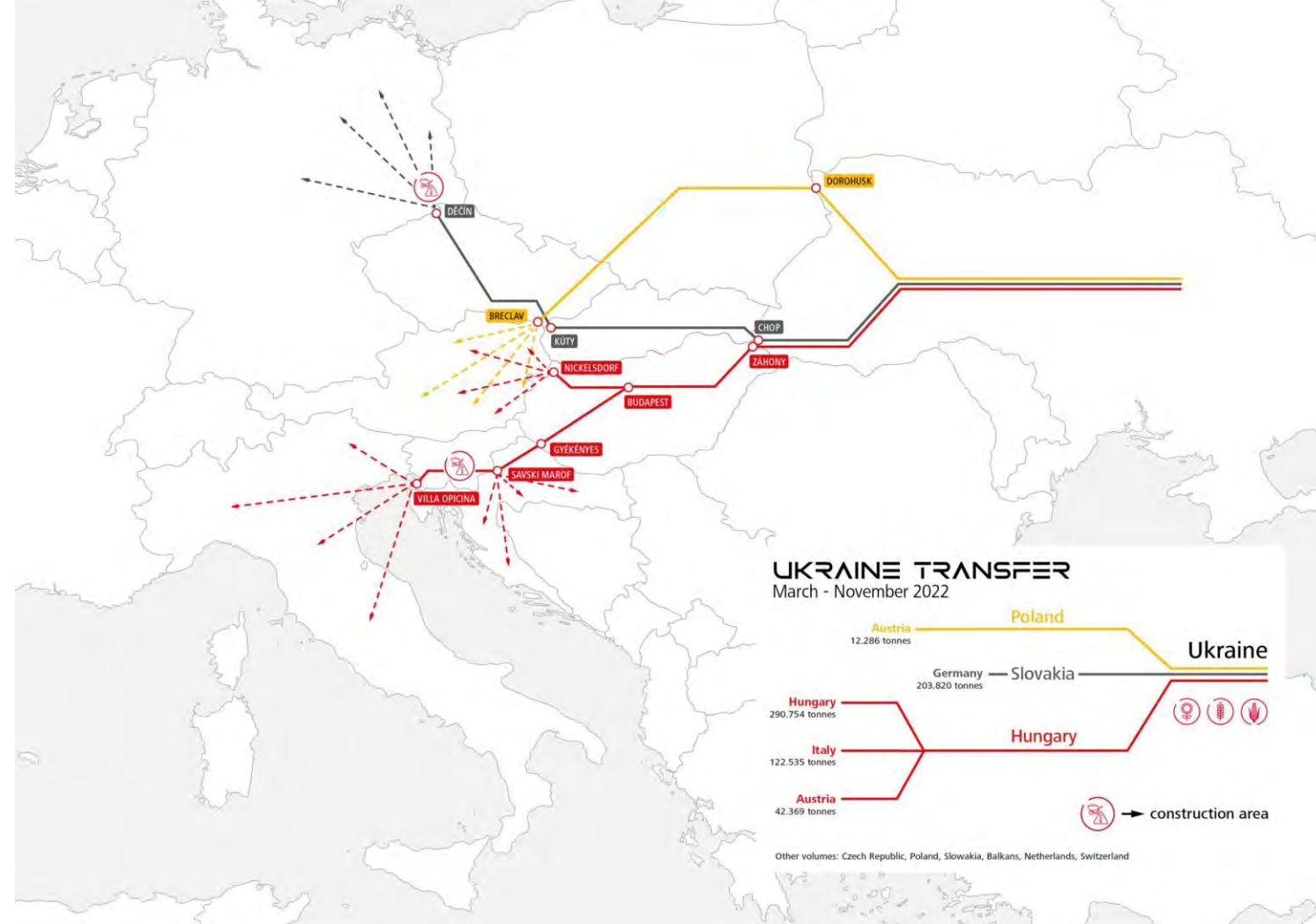
UNIVERSITY of
DEBRECEN



Source: based on data from National Tax and Customs Administration

• Visegrad Fund

„Since the outbreak of the war in Ukraine, RailCargoGroup has transported between 100,000 and 150,000 tonnes of agricultural cargo from Ukraine to Europe. What used to be a dominantly ocean-driven supply chain is now partially transiting to Europe by rail, with Hungary as the main transit country for the Austrian operator.” (20 December 2022)



**UNIVERSITY of
DEBRECEN**



• Visegrad Fund

Conclusion: a new economic opportunity for the eastern border region?



- World economic events
- Modern investment – a good example (best practice)
- Debrecen, surrounding background logistics
- Industrial park – establishment of Eastern companies

- Pandemic
- World economic events
- World political events
- Construction of agricultural fields and green areas
- Pollution



UNIVERSITY of
DEBRECEN



• Visegrad Fund

Thank you for your attention

Dr. Klára Czimre – assistant professor
Zsófia Szaniszló – PhD student
*Department of Social Geography and
Regional Development Planning*



-
- Visegrad Fund
-
-

