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Economic and Social Council

Distr.
GENERAL

TRANS/WP.5/2005/16/Add.8
24 October 2005

ENGLISH ONLY

ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

Working Party on Transport Trends and Economics
(Eighteenth session, 15-16 September 2005,
agenda item 3(b))

MONITORING OF DEVELOPMENTS RELEVANT FOR THE PAN-EUROPEAN TRANSPORT CORRIDORS AND AREAS

Infrastructure bottlenecks and missing links

Transmitted by the Government of Hungary

According to the report on "Infrastructure Bottlenecks and Missing Links in the European Transport Network" bottlenecks can be caused by:

(1) insufficient infrastructure capacity;
(2) low quality of transport infrastructure.

In the same manner, the phenomenon of a "missing link" may be considered as a situation in which the quality of service has extremely low values due to the fact that no direct link exists between two points.

As described in the above-mentioned document, as a simplified method, for individual road categories, one may take the following capacities in terms of number of vehicles as the average daily traffic:

- 4-lane motorway: 40,000 – 60,000 PCU/24 hrs
- roads of 2 lanes: 8,000 – 12,000 PCU/24 hrs

As in the case of roads, there are a great number of factors determining the bottlenecks on a railway line. It is practically impossible to concentrate all elements in a single bottleneck measure. In order to reach practical measures it appeared appropriate to take the following capacity limits:

- Single track main lines: 1 x 60 – 80 trains/day
- Double track main lines: 2 x 100 – 200 trains/day

According to that definition, the bottlenecks regarding the Hungarian TEN road network are described below.

Sector	Corridor No.	Hungarian road number	Type	Section
ROAD	IV	M1	2 x 2 lane motorway	Budapest – Tatabánya
	IV, V	M0	4 lane expressway	Around Budapest
	V	M7	2 + 3 lane motorway	Budapest – Székesfehérvár
	V	M3	2 x 2 lane motorway	Budapest – Hatvan
	IV	1	2 lane main road	Budapest – Bicske
	IV	5	2 lane main road	Kecskemét – Szeged
	V	7	2 lane main road	Budapest – Martonvásár
	V	7	2 lane main road	Balatonföldvár - Balatonszentgyörgy
	V	3	2 lane main road	Budapest – Aszód
	V	36, 4	2 lane main road	Nyíregyháza
	V/C	6	2 lane main road	Budapest – Pécs

According to the above-mentioned definition, the bottlenecks regarding the Hungarian TEN railway network are described below.

Sector	Corridor No.	Hungarian railway number	Section
RAILWAY	IV	1	Budapest – Győr
	IV	100	Budapest – Cegléd
	IV	120	Budapest, Rákos – Újszász – Szolnok
	V	30	Budapest – Székesfehérvár
	V	80	Budapest – Hatvan

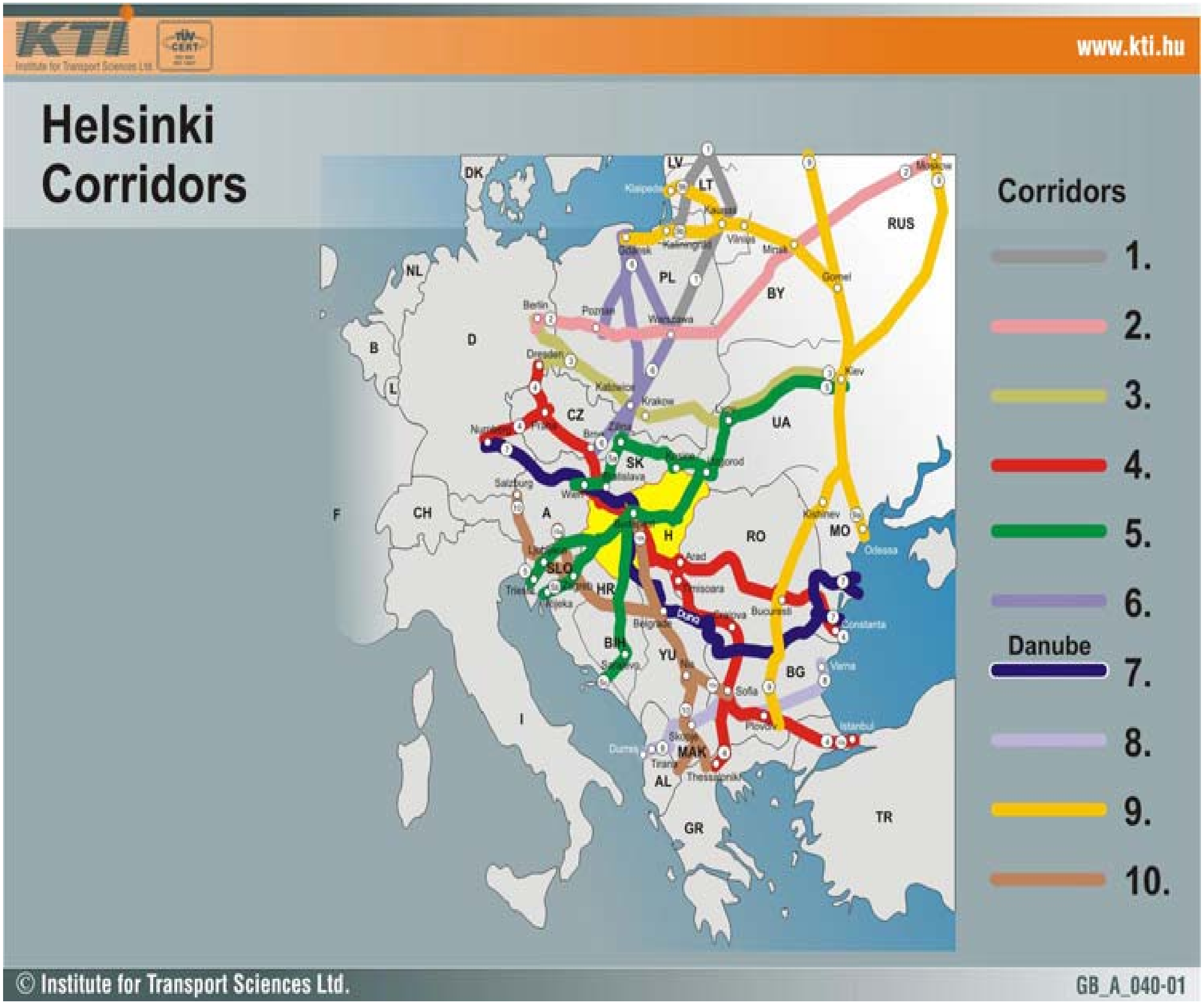
Beyond these sections, there are several sections where the infrastructure capacity does not reach the above-mentioned capacity limit, but the quality of the infrastructure is low, and it can therefore be identified as a bottleneck. It is also valid for the roads and the railways.

The major developments on the Hungarian sections of TEN
in recent years and the main developments until 2015

Sector	Name/section	Type of the development	Length (km)	Helsinki Corridor	Operational by year
ROAD	M3 motorway (Füzesabony-Polgár)	new construction	60	V.	2002
	M3 motorway (Polgár-Görbeháza)	new construction	13	V.	2004
	M3 motorway (Görbeháza–Nyíregyháza)	new construction	48	V	2006 (under construction)
	M3 motorway (Nyíregyháza – Vásárosnamény)	new construction	45	V	2008
	M3 motorway (Vásárosnamény – Barabás, state border)	new construction	19	V	2011
	M7 motorway (Budapest-Zamárdi)	reconstruction and enlargement	93	V.	2002
	M7 motorway (Zamárdi – Balatonszárszó)	new construction	15	V	2006 (under construction)
	M7 motorway (Balatonszárszó-Ordacsehi)	new construction	20	V.	2005
	M7 motorway (Ordacsehi - Balatonkeresztúr)	new construction	26	V	2006 (under onstruction)
	M7 motorway (Balaton-keresztúr – Nagykanizsa)	new construction	36	V	2007
	M7 motorway (Nagykanizsa – Becsehely)	new construction	16	V	2006
	M7 motorway (Becsehely – Letenye)	new construction	9	V/B	2004
	M70 expressway (Letenye – Tornyiszentmiklós)	new construction	19	V	2004
	M5 motorway (Kiskunfélegyháza-Szeged)	new construction	49	IV.	2006 (under construction)
	M5 motorway (Szeged – Röszke state border)	new construction	14	IV.	2006 (under construction)
	M6 motorway (Budapest-Dunaujváros)	new construction	60	V/C	2006 (under construction)
	M0 expressway (Budapest, part of the eastern section)	new construction	13	IV, V	2005 (under construction)

Sector	Name/section	Type of development	Length (km)	Helsinki Corridor	Operational by year
RAIL	Tápiószecső – Újszász	track rehabilitation	39	IV	2007 (under construction)
	Vecsés-Cegléd-Szolnok	track rehabilitation	78	IV	2006 (under construction)
	Mezőtúr – Békéscsaba	track rehabilitation	55	IV	2009
	Szajol – Mezőtúr & Békéscsaba – Lökösháza, state border	track rehabilitation	60	IV	2006 (under construction)
	Budapest, Kelenföld - Érd	track rehabilitation	18	V	2012
	Tárnok – Székesfehérvár	track rehabilitation	43	V	2009
	Székesfehérvár – Boba	track rehabilitation	112	V	2010
	Boba - Zalalövő	track rehabilitation, electrification	83	V	2008 (under construction)
	Zalalövő-Bajánsenye-Hodos	new construction	19	V	2001
	Budapest-Hegyeshalom	modernization	180	IV	2005
	Szolnok – Záhony	track rehabilitation	236	V	2012

Sector	Name/section	Type of development	Length (km)	Helsinki Corridor	Operational by year
INLAND NAVIGATION	Improvement of the navigability on the Danube	water regulation	378	VII	2013
	New border port at Mohács (Schengen criteria)	new construction		VII	2007
	New port basin at Baja	new construction		VII	2015
LOGISTICS & COMBINED TRANSPORT	BILK Budapest Intermodal & Logistic Centre	new building			2003


KTI
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Helsinki Corridors
DK
LV
LT
NL
PL
BY
RUS
B
D
L
CZ
UA
SK
F
CH
A
H
RO
MO
SLO
HR
BIH
YU
BG
I
MAK
AL
GR
TR
Berlin
Dresden
Warszawa
Krakow
Kiev
Moskow
Minsk
Gomel
Kishinev
Odessa
Budapest
Bucuresti
Constanta
Sofia
Plovdiv
Istanbul
Thessaloniki
Skopje
Tirana
Durres
Belgrade
Sarajevo
Zagreb
Rijeka
Trieste
Ljubljana
Salzburg
Wien
Bratislava
Praha
Brno
Zilina
Katowice
Poznan
Gdansk
Kaliningrad
Klaipeda
Kaunas
Vilnius
Arad
Timisoara
Craiova
Varna
Nis
Duna
Corridors
1.
2.
3.
4.
5.
6.
Danube
7.
8.
9.
10.
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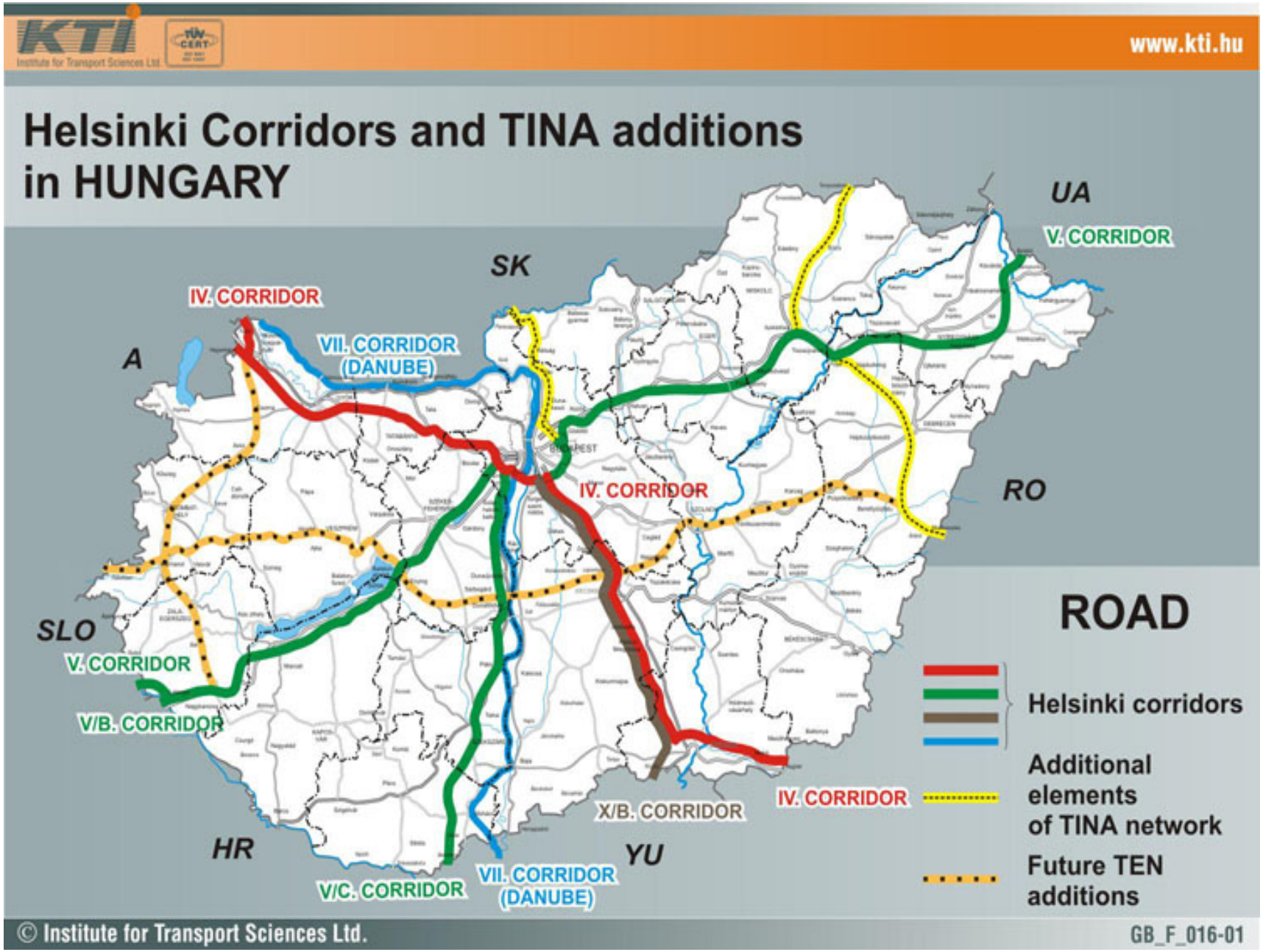
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TÜV CERT
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Helsinki Corridors and TINA additions in HUNGARY
UA
V. CORRIDOR
SK
IV. CORRIDOR
VII. CORRIDOR (DANUBE)
A
IV. CORRIDOR
RO
SLO
V. CORRIDOR
V/B. CORRIDOR
ROAD
Helsinki corridors
Additional elements of TINA network
Future TEN additions
IV. CORRIDOR
X/B. CORRIDOR
HR
YU
V/C. CORRIDOR
VII. CORRIDOR (DANUBE)
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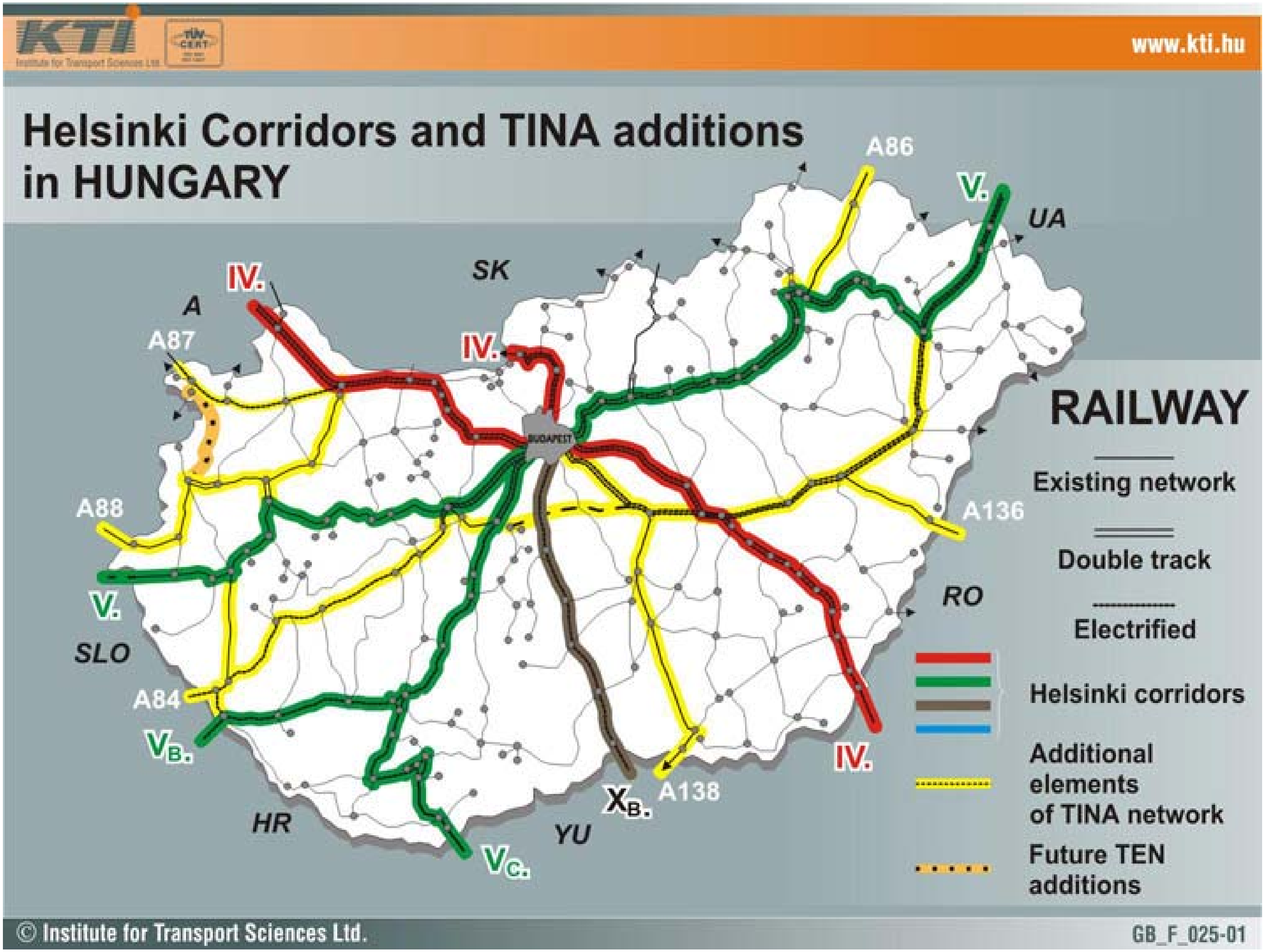
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Helsinki Corridors and TINA additions in HUNGARY
A86
V.
UA
SK
IV.
A
A87
IV.
BUDAPEST
RAILWAY
Existing network
Double track
Electrified
A88
A136
V.
RO
SLO
A84
VB.
IV.
Helsinki corridors
Additional elements of TINA network
Future TEN additions
XB.
A138
HR
YU
VC.
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Future Elements of TEN in Hungary (Airports and Ports)
SK
UA
A
GYŐR-GÖNYŰ
KOMÁROM
BUDAPEST-Ferihegy
DEBRECEN
BUDAPEST-Csepel
RO
SÁRMELLÉK
DUNAÚJVÁROS
SLO
SZEGED
BAJA
MOHÁCS
YU
HR
Airport
Port
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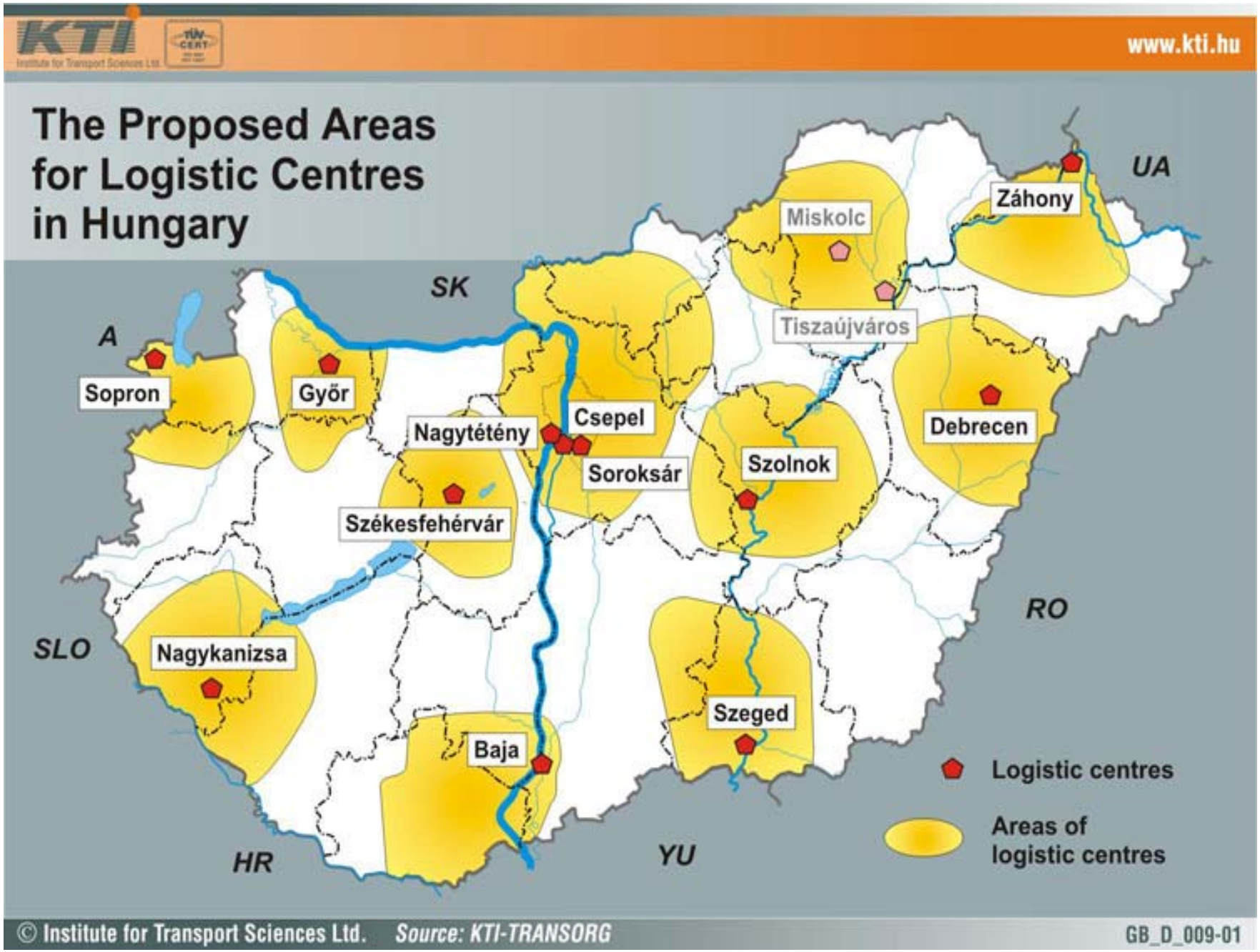
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The Proposed Areas for Logistic Centres in Hungary
SK
UA
A
SLO
HR
YU
RO
Sopron
Győr
Nagytétény
Csepel
Soroksár
Székesfehérvár
Nagykanizsa
Baja
Miskolc
Záhony
Tiszaújváros
Debrecen
Szolnok
Szeged
Logistic centres
Areas of logistic centres
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