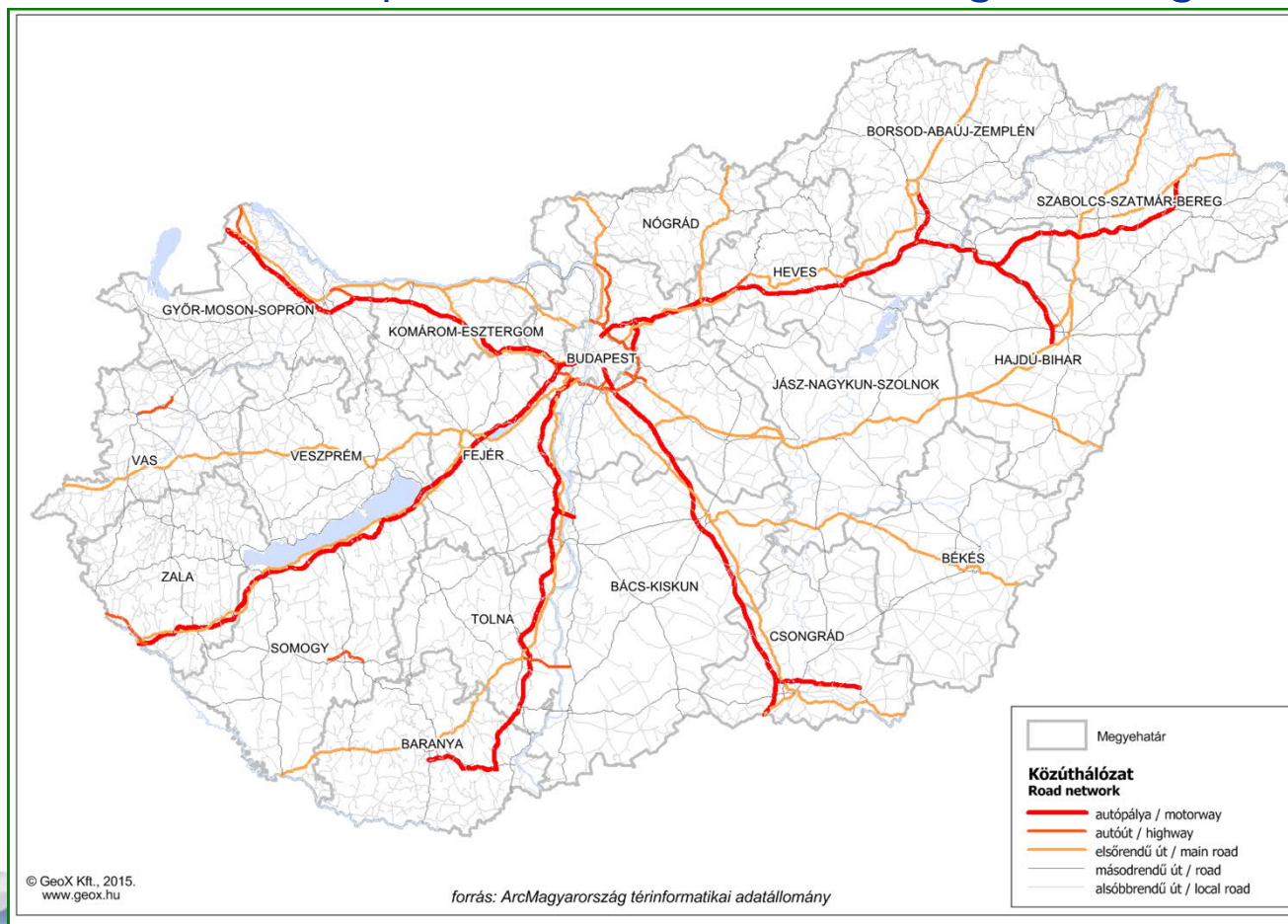

Hungarian roadmap on integrating ecological aspects in spatial planning policy contains: key areas for building capacity and inter- sectoral dialogue

András Weiperth

Hungarian University of Agriculture and Life Sciences, Institute of Aquaculture and Environmental Safety, Department of Freshwater Fish Ecology

ecologist, hydrobiologist

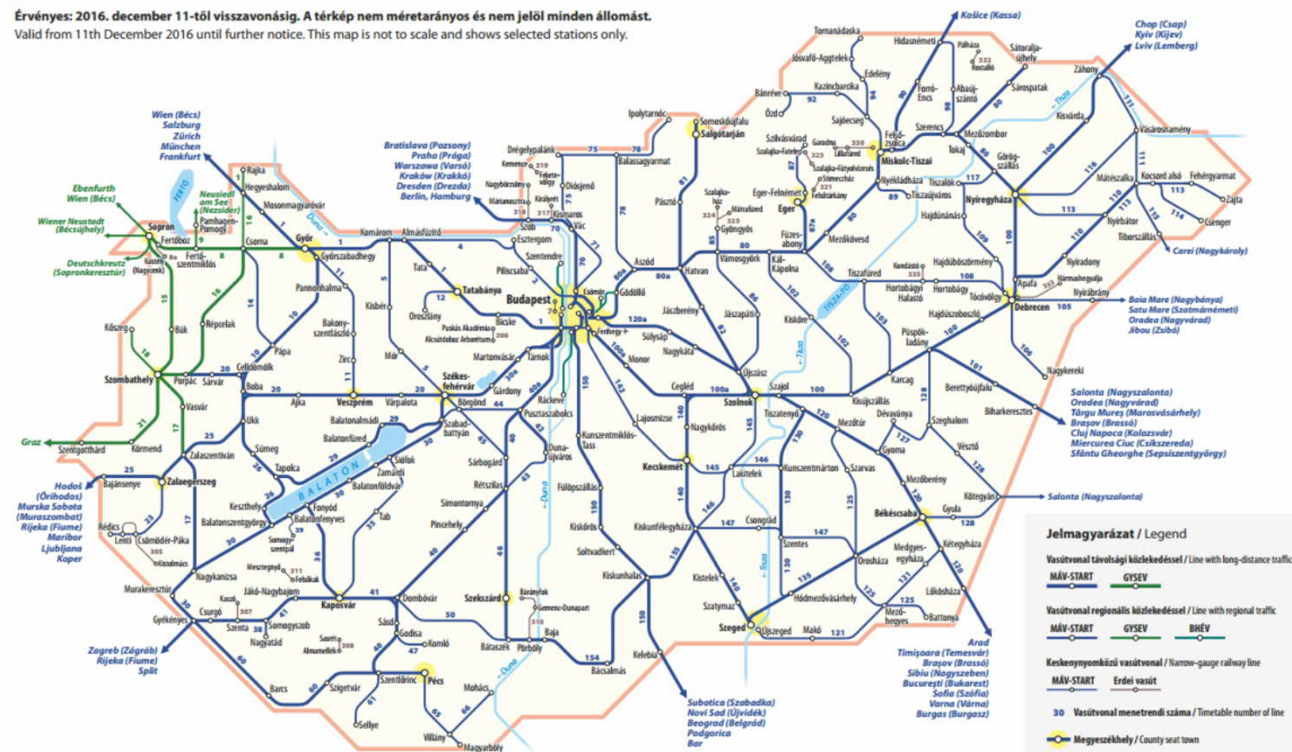
Introduction: the present status of the Hungarian highways



Introduction: the present status of the Hungarian railway network

Magyarország vasúti személyszállítási térképe Railway passenger transport map of Hungary

Érvényes: 2016. december 11-től visszavonásig. A térkép nem méretarányos és nem jelöl minden állomást.
 Valid from 11th December 2016 until further notice. This map is not to scale and shows selected stations only.



Jelmagyarázat / Legend

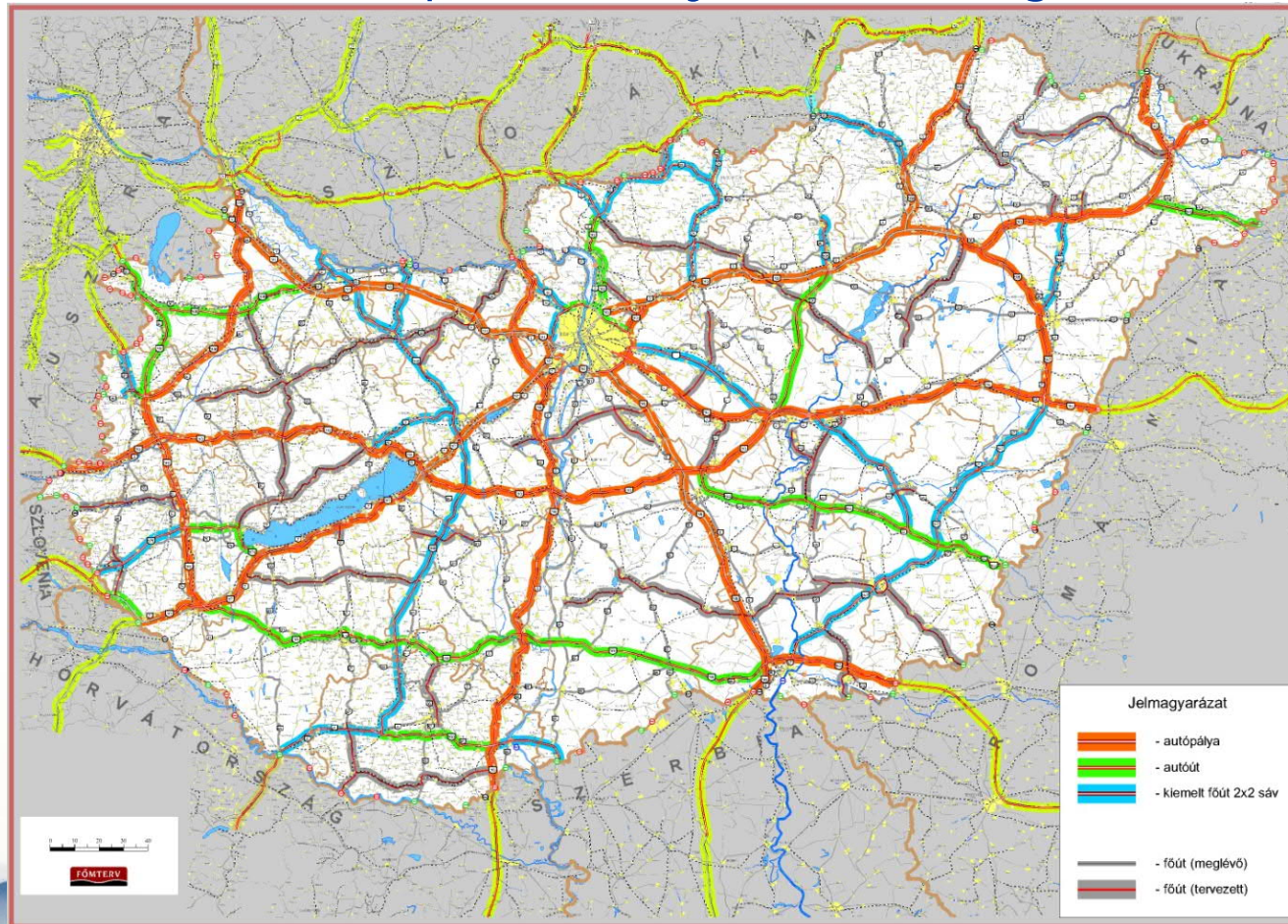
Vasútvonal távolsági közlekedéssel / Line with long-distance traffic
 MÁV-START GYSEV

Vasútvonal regionális közlekedéssel / Line with regional traffic
 MÁV-START GYSEV BHEV

Keskeny nyomközű vasútvonal / Narrow-gauge railway line
 MÁV-START Erdei vasút

30 Vasútvonal menetrendi száma / Timetable number of line
 Megyei központosított / County seat town

The future vision(s), idea(s), plan(s) only for the Hungarian road network



Effect of the linear infrastructure network to the wildlife in Hungary: road kill, without exact numbers....



Effect of the linear infrastructure network to the wildlife in Hungary: road kill, without exact numbers

- Danube mayfly (*Ephoron virgo*): traffic lights as ecological traps
- What can be the real effects of the linear infrastructure elements to the biodiversity?
- More and more questions, without exact answers.....



Photo: György Kriska

Some results of research programs: European UVC study

- 194 million birds and ~29 million mammals may be killed each year on European roads (Girlo et al. 2020)
- For ungulates alone, over half a million wildlife-vehicle collisions (WVC) are recorded annually in nineteen European countries (Linnell et al. 2020), with estimates for Europe as a whole exceeding 1 million per year.
- Collisions with ungulates and other large mammals represent a major source of direct anthropogenic non-hunting wildlife mortality and socioeconomic costs associated with human injury, death and vehicle damage (Niemi et al. 2017)

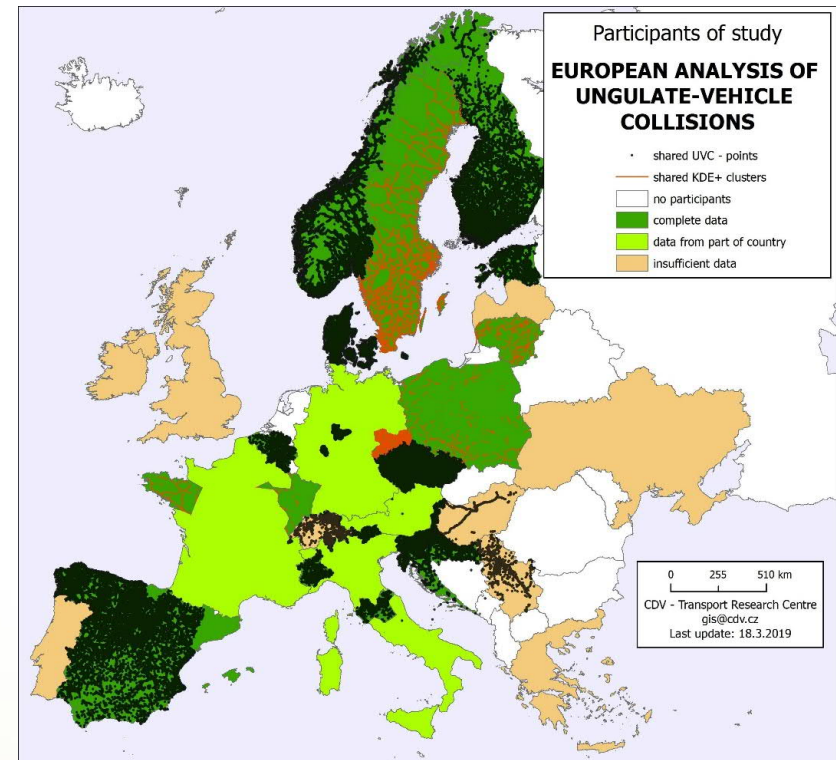
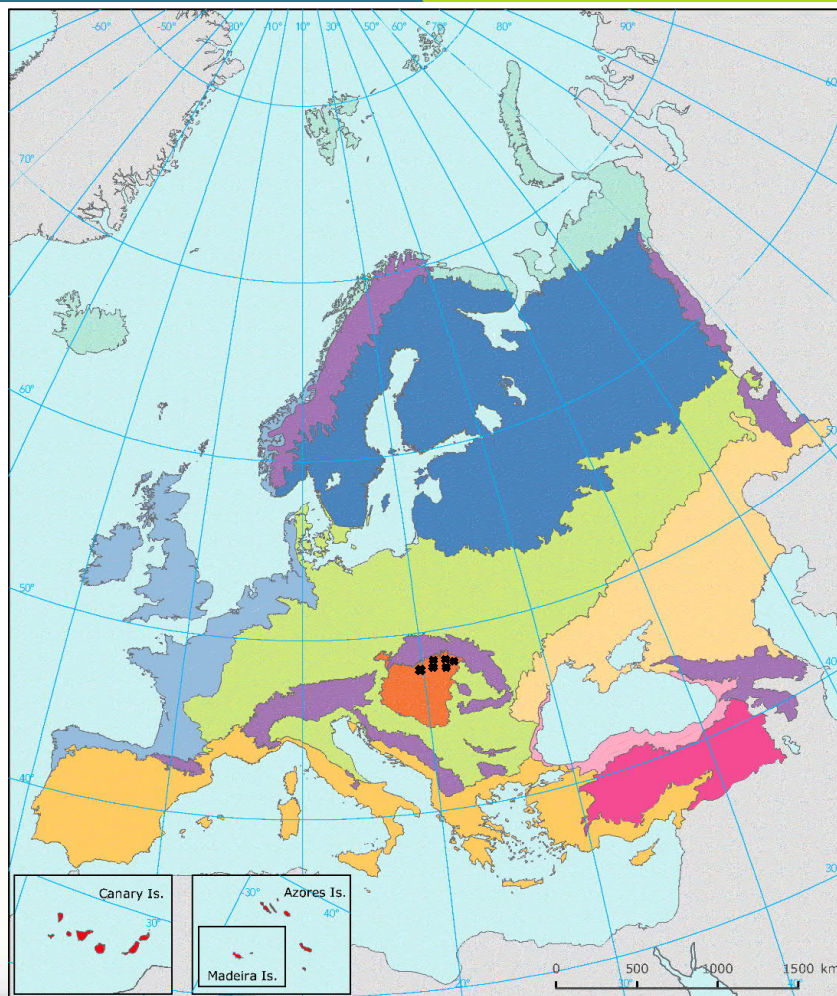












Figure 1: European countries and regions where data were (not) available in a form of raw data or KDE+ clusters.

Personal experiences of the Interreg DTP GREEN projects – we are a bit odd-one-out



Indicative map of the European biogeographical regions, 2005

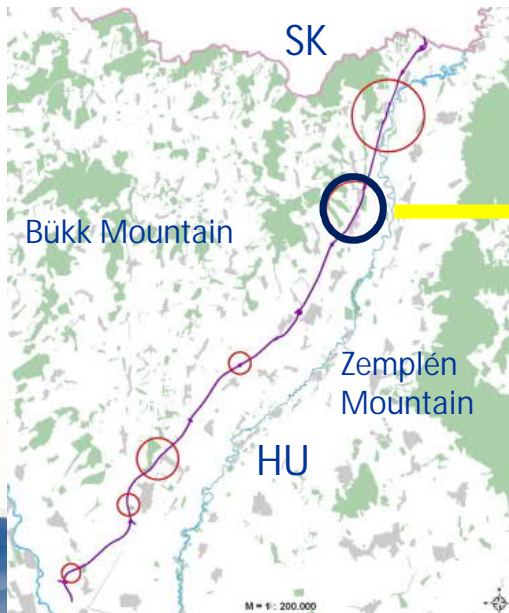
	Alpine
	Anatolian
	Arctic
	Atlantic
	Black sea
	Boreal
	Continental
	Macaronesia
	Mediterranean
	Pannonian
	Steppic
	Outside data coverage

Several types of roads:

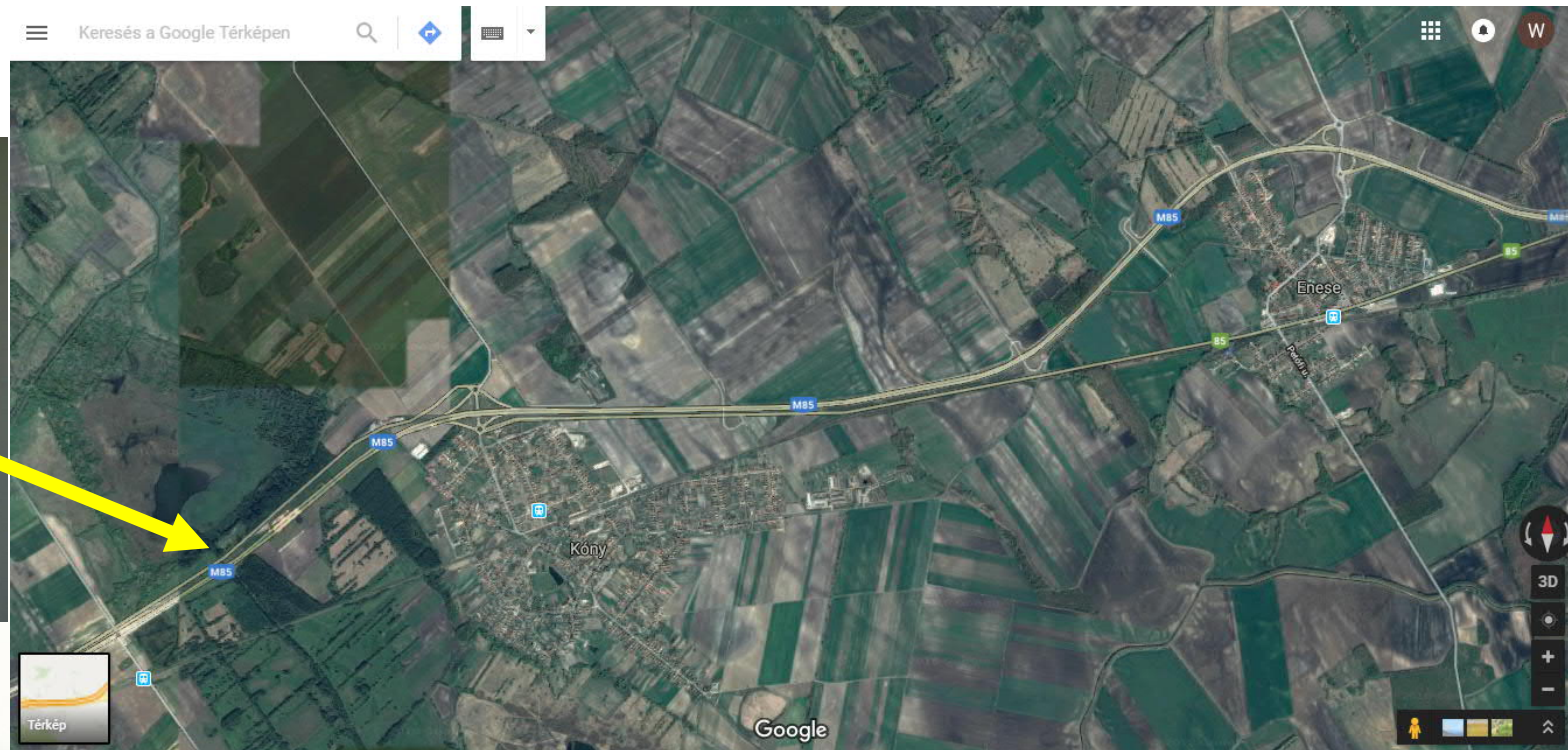
- different habitats
- different questions/problems
- different answers/solutions
- double bottle-neck effect in the PA of interreg-DTP GREEN projects

To solve or create new conflicts: complex effects of different types of roads:

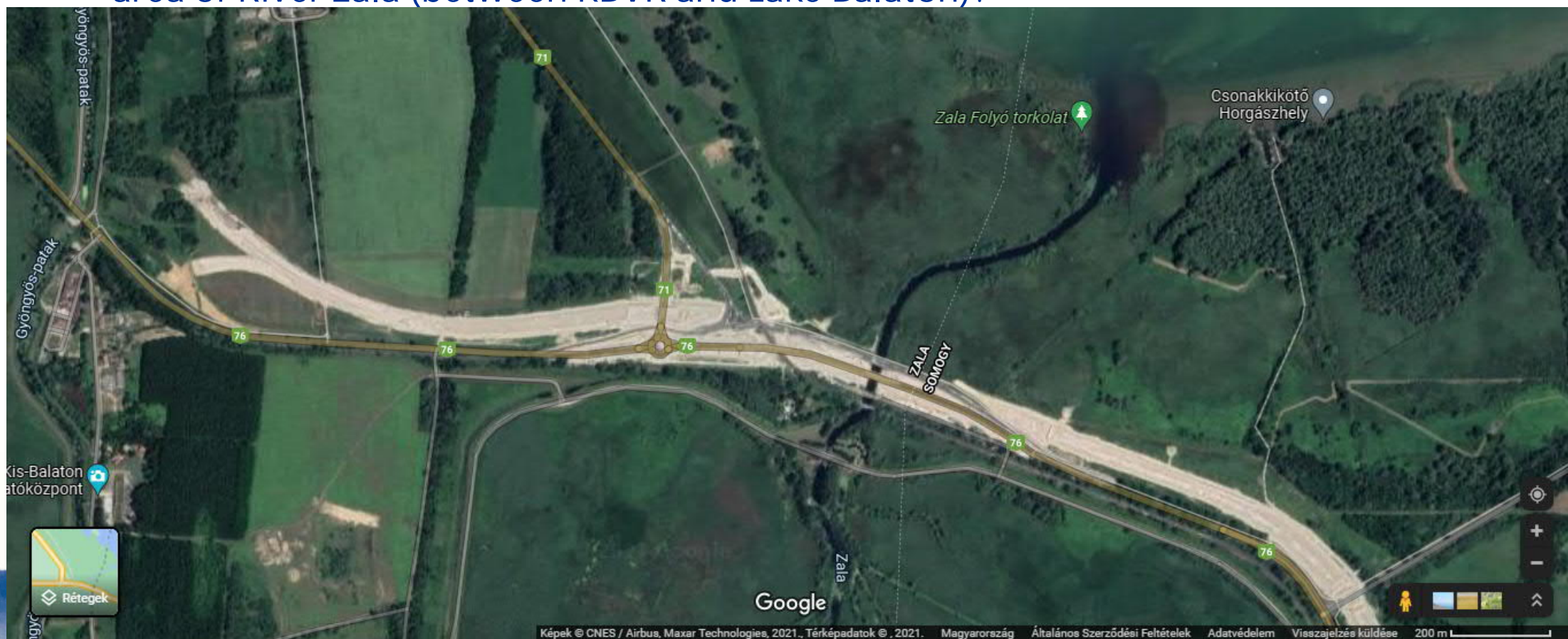
- TransGREEN: M30 (HU-SK): parallel with one 1+1 lane road start to built a new 2+2 lane road in the valley of River Hernád
- Same problem: r.n. 85 – M85, r.n.2 – M2, r.n.76 – M76.....



To solve or create new conflicts: complex effects of different types of roads:
Barbacs-channel in crossing zone of M85 and m.r.85
Bad concept and desing: lost of several ecological function and high number of road



Tipmix: How many different linear infrastructures can you count in the estuary area of River Zala (between KBVR and Lake Balaton)?



The results of the Interreg-DTP GREEN projects: Enhancing cross-sectoral cooperation at regional Carpathian level and beyond can work

- Is it possible or only a dream? The cross-sectoral conflict is a huge problem in all country!
- The sources of the main conflicts came from the school desks.
- The results of the cross-sectoral conflicts, lack of knowledge, lack of communication can be measure in Billion of Euro, Forint, Lei and number of collision, number of road killed animals, etc.
- In the last decade the law regulation changed well in Hungary: evolution or revolution.....



Vision on EIA process changes and expected results for Hungary

Main focuses:

- cross sectoral knowledge transfer: lifelong learning - learn and use the new methods
- sectoral conversation starting immediately
- sectoral consensus
- change/update/delete the EIA directive
- change the EIA law and national regulation:
 - 345/2012. (XII. 6.) Korm. rendelet (Government decree)
 - 382/2016. (XII. 2.) Korm. rendelet (Government decree)
 - 531/2017. (XII. 29.) Korm. rendelet (Government decree)
- change the practises: planning, design, maintenance and monitoring

Thank you for your
attention!



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https://www.researchgate.net/profile/Andras_Weiperth

Projekt: www.interreg-danube.eu/connectgreen

Protected Areas – Cornerstones of Ecological Connectivity in the Carpathians and Beyond

International Conference, Visegrád, Hungary, 28-30 September 2021 - Project co-funded by European Union Funds (ERDF, IPA)