

# **Restructuring of peripheral areas in Central Europe after the political transition and the current situation of Hungary**

**János PÉNZES, PhD**

*Regional Processes of Central and Eastern Europe,  
1990–2015*



University of Debrecen  
Department of Social  
Geography and Regional  
Development Planning

13th Annual Meeting  
of the Hungarian Regional Science Association

International Conference

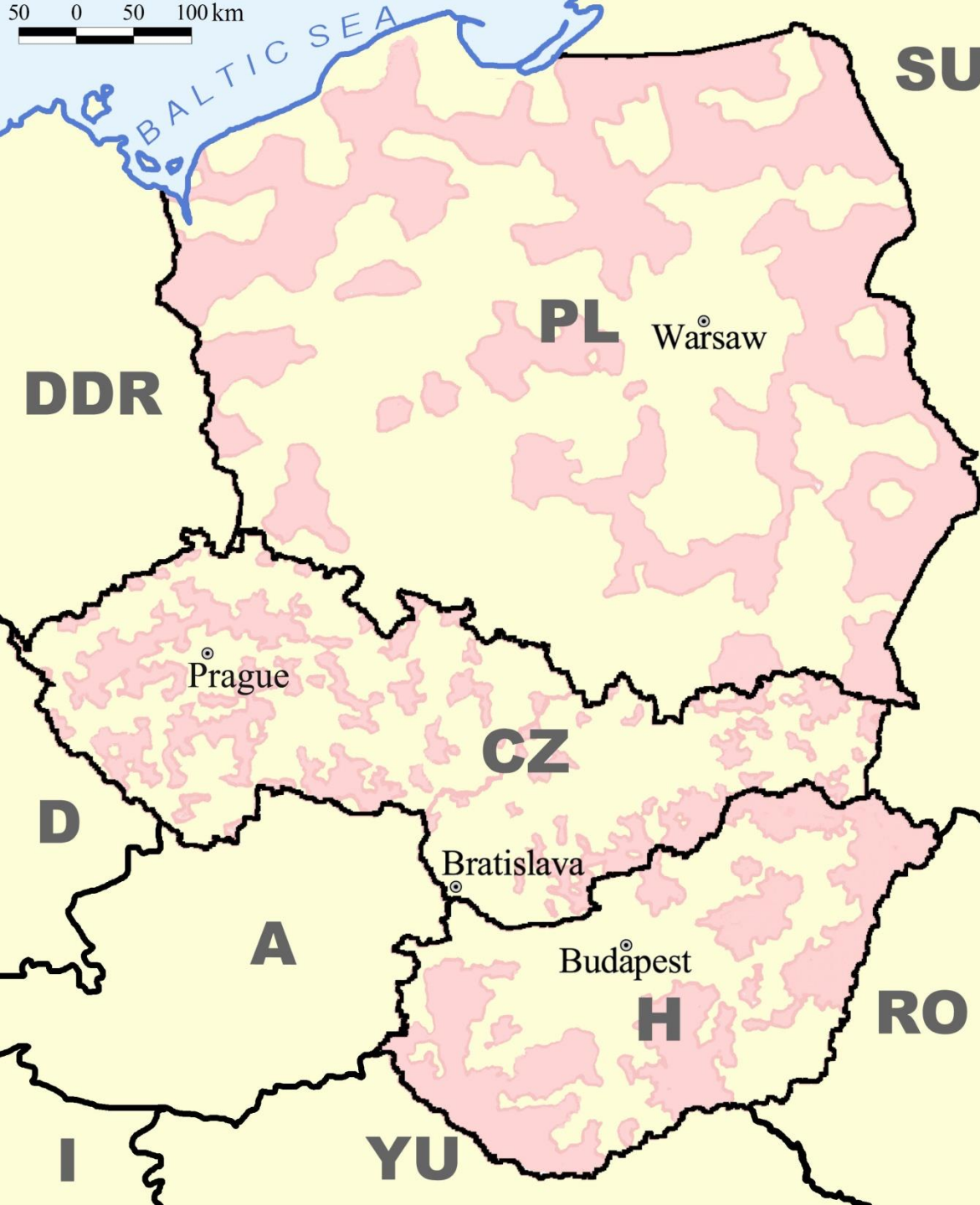
**19- 20 November 2015**

**Eger – Hungary**

## Introduction – obstacles to provide a Central European overview

The comparability problem of the calculations made in each country is due to several factors:

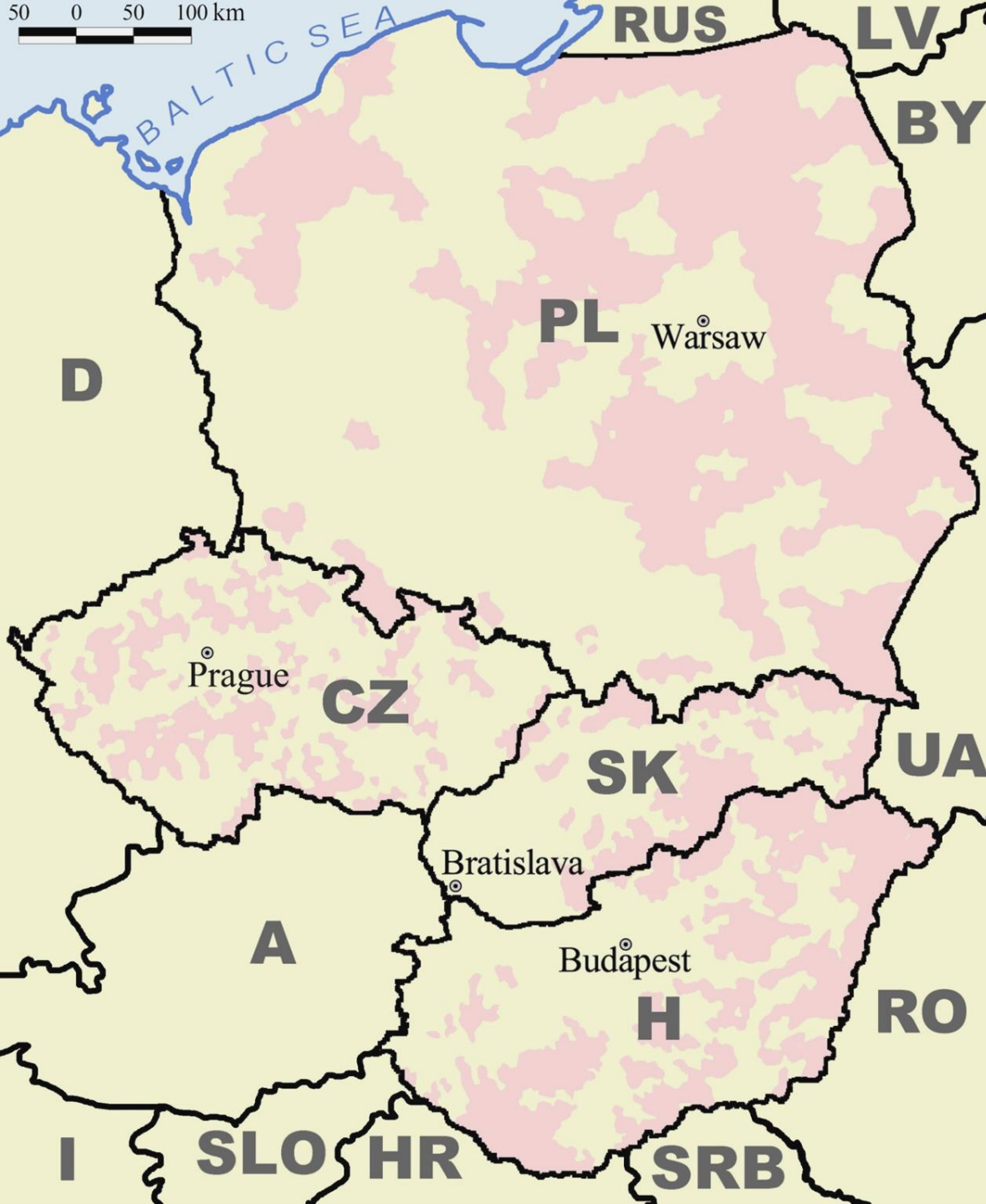
- the available and accessible *datasets are* extremely *heterogeneous*;
- it is almost *impossible* at the various countries to find *same (or similar) spatial splitting* and *same methodology* at the same period;
- *spatial issues* in *different* countries occur in different emphasis;
- *the same indicator* – which usually outlines the peripheral areas well –, because of the spatial characteristics, *may not provide a realistic picture*;
- *calculations can have different results*, none the less, they taken into consideration the similar methods, referring to the same time and same area;
- this can be further complicated by *the issue of temporal comparison*, since the content of the indicators can change in differentiated manner;
- the periphery term is relative;
- those comparative analyses are rarities, which examining the same area for a long-term period from the aspect of peripheral territories.



## Peripheral areas of Central Europe

during the socialist period

Edited by the author by Potrykowska, A. 1985, p. 124.; Ciechocińska, M. 1986, p. 253; Gawryszewski, A. - Potrykowska, A. 1988, p. 91.; Musil, J. - Müller, J. 2006, p. 38.; ŠSR Beluszky, P. 1976, p. 305.



## Peripheral areas of Central Europe

after the millennium

Edited by the author by NSRD 2010, p. 96.; Musil, J. - Müller, J. 2006, p. 38.; Halas, M. - Hurbanek, P. 2008, p. 131. and Faluvégi, A. - Tipold, F. 2012. p. 283.

## Altering spatial pattern – transforming peripheral areas

Most important and spectacular transformations in the spatial pattern:

- each of the countries the *capital city and rural area spatial dichotomy* became stressful;
- increasing role of the large *urban-rural dichotomy* – especially in Poland;
- the *East-West dichotomy* can be detected in some forms in all four countries;
- the increasing spatial concentration of peripheral areas in the Eastern regions:
  - *geographical peripheries along/at the borders;*
  - *internal peripheries* are present;
  - *both traditionally backward areas and territories with structural crisis.*



# Attempt to detect the location and situation of the Hungarian peripheral areas

Methodology of the delimitation of peripheral areas:

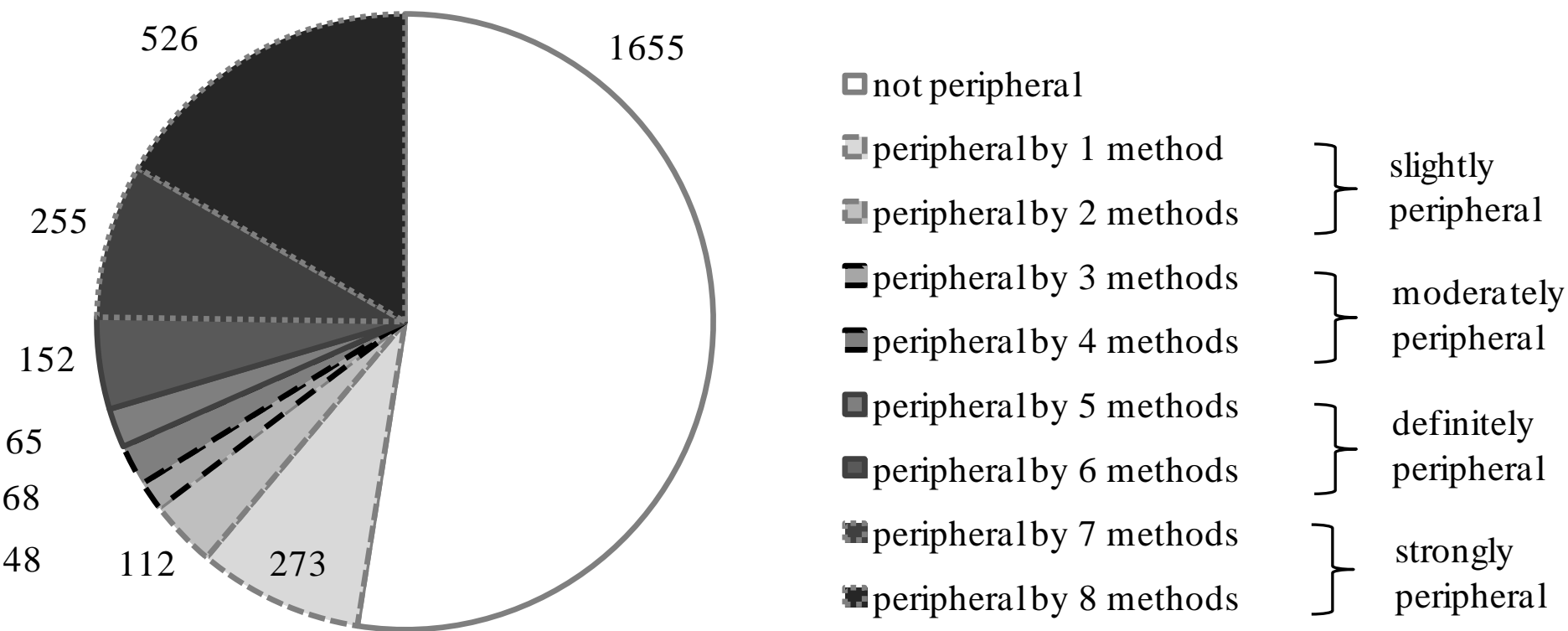
- Collecting of 136 variables → multi steps systematic narrowing;
- Finally chosen 7 variables (from 2012):
  - *Taxable income per capita;*
  - *Ratio of children supported by regular child protection aid;*
  - *Number of inhabitants per dwelling;*
  - *Average housing price;*
  - *Number of respiratory diseases cases per capita;*
  - *Ratio of newly built dwellings;*
  - *Elderly dependency ratio.*

## Attempt to detect the location and situation of the Hungarian peripheral areas

The following multivariate methods were taken into consideration in the case of the seven chosen variables:

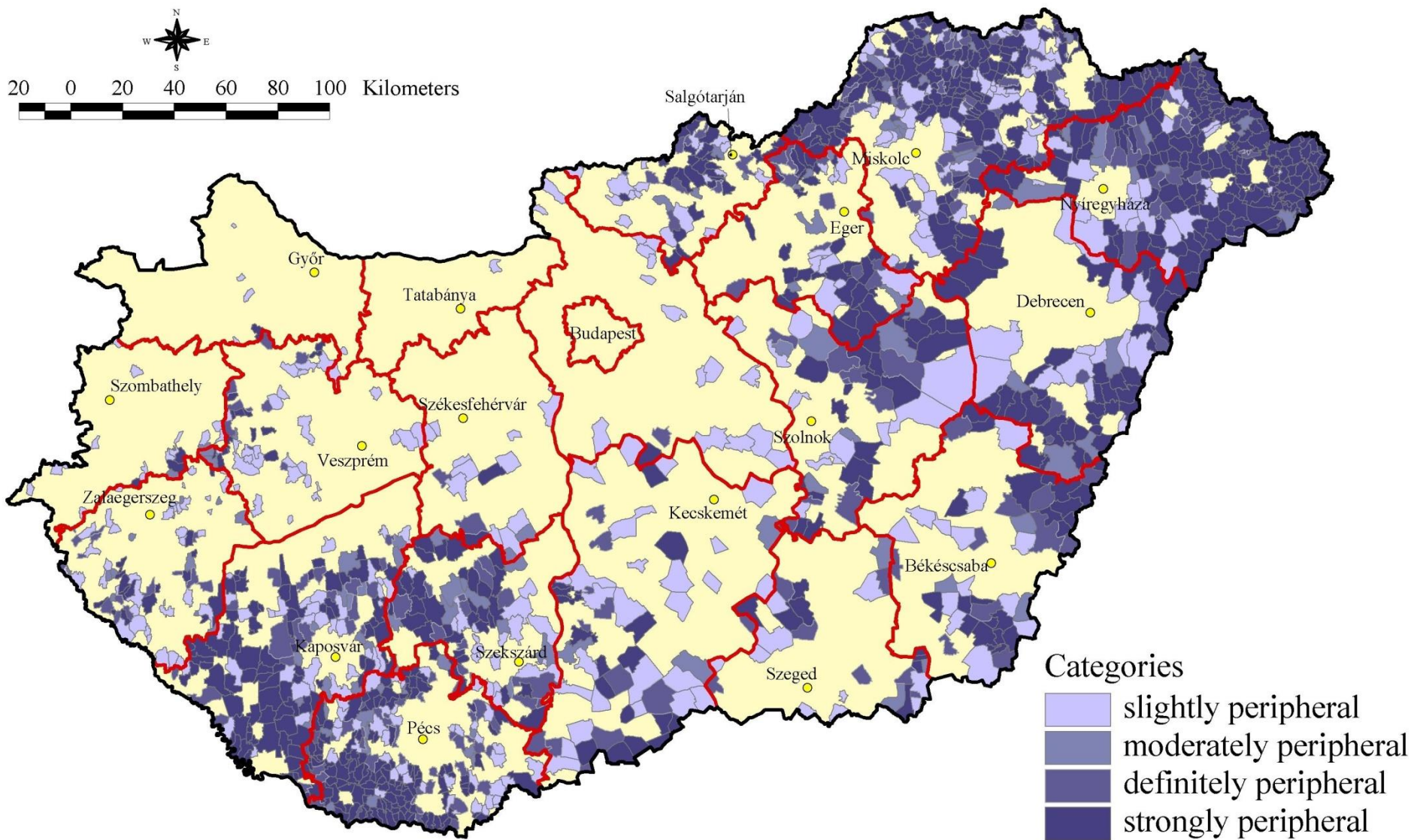
1. ranking;
2. scoring;
3. Bennett-method (transformation into the ratio of maximum value);
4. normalization;
5. standardization;
6. factor analysis with principal component method;
7. cluster analysis with hierarchical clustering;
8. discriminant analysis.

## The distribution of peripheral settlements categorised by the summarized results of delimitations, 2012



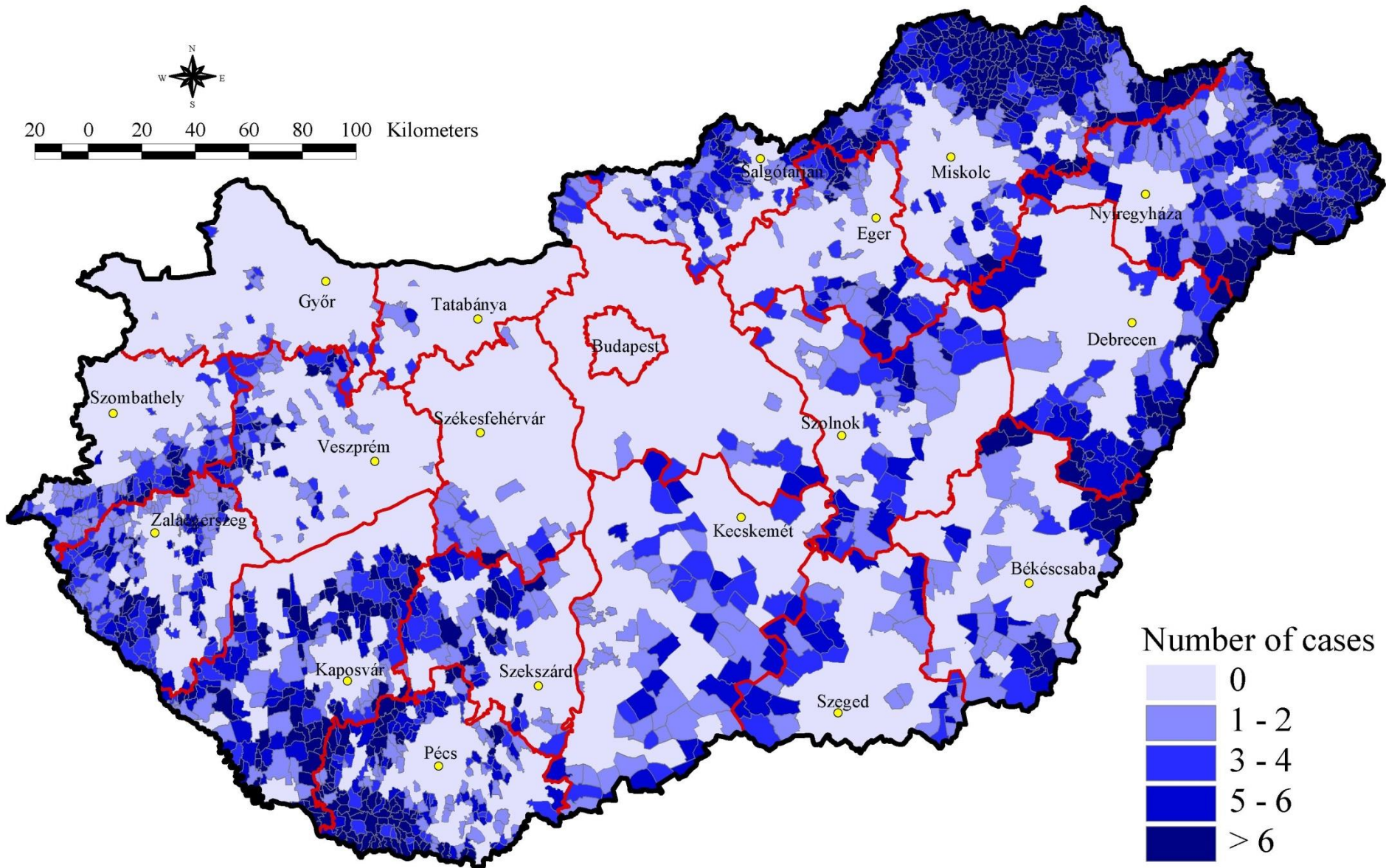


# The spatial pattern of peripheries in Hungary – in the light of the concluded results



Source: own edition by the data from HCSO

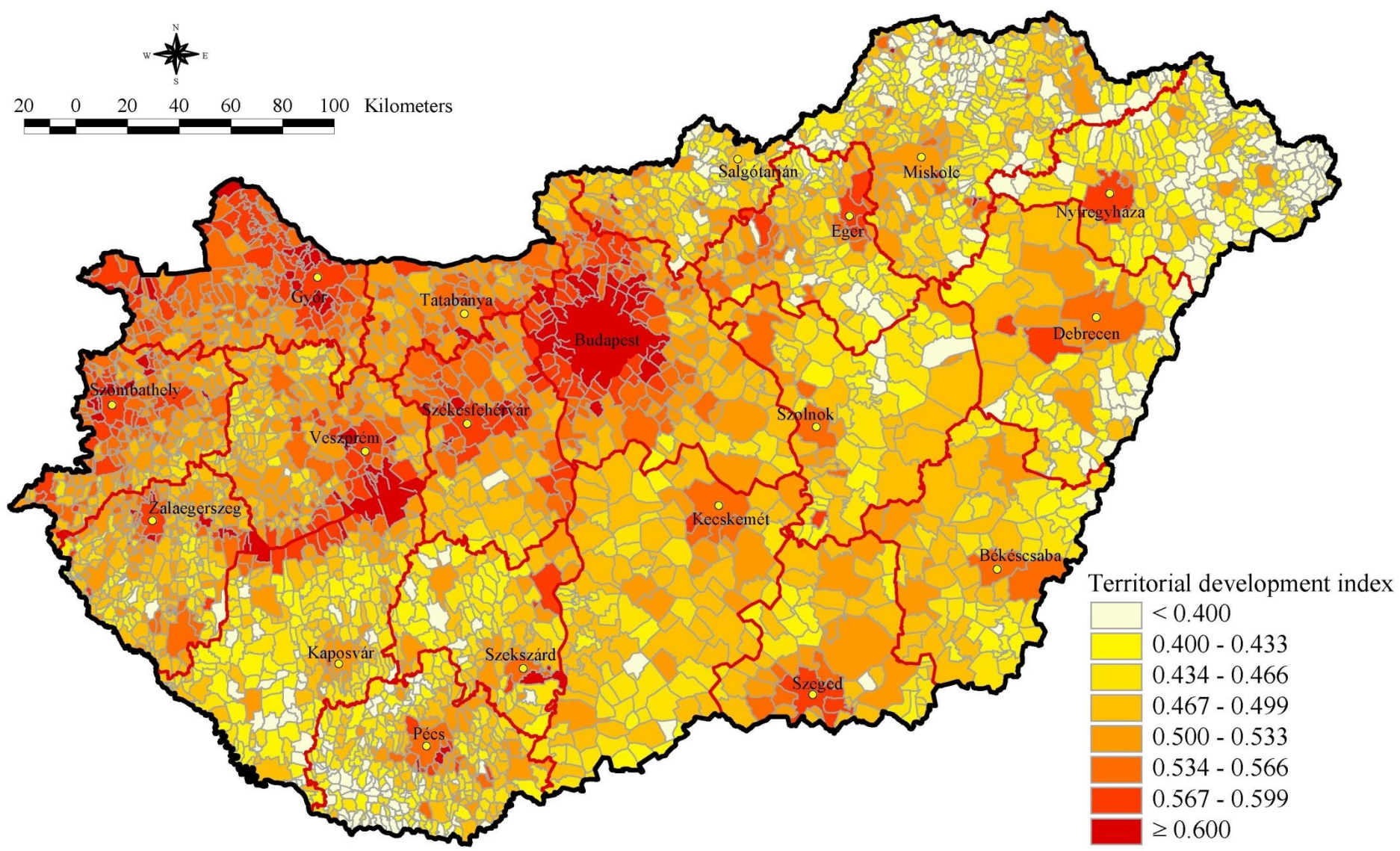
# Favoured settlements of the Hungarian regional policy between 1986 and 2015 by the cases of delimitations



Source: own edition by official measures



# The spatial pattern of Hungary – calculated by the ‘territorial development index’, 2013



Source: own edition by the data from HCSO

## Results from comparative perspective

Correlation matrix for different indeces

	Index of territorial deprivation, 2011	Index of objective well-being, 2011	Territorial development index, 2013
Index of territorial deprivation, 2011	1.000	0.860	0.824
Index of objective well-being, 2011	0.860	1.000	0.826
Territorial development index, 2013	0.824	0.826	1.000

*Source: own edition by the results of the IRS CERS of the HAS (MTA KRTK RKI) and by the data from HCSO*

➤ This three methods and the latest delimitation of the favoured settlements (governmental regulation 105/2015 (IV.22.)) gives the following decomposition after the separating the least developed one third of the settlements:

- 660 settlements (20.9%) was categorised as backward by all of the methods;
- 773 settlements (24.5%) was delineated by 1-3 methods;
- Non of the methods attached 1721 settlements (54.6%).

## Conclusions

- *Peripheral areas transformed in Central Europe during the transition period and there are common elements and factors;*
- *The transformed spatial pattern seems to be 'frozen' in the case of Hungary after millennium;*
- *Different methodologies produced quite similar results and spatial overlapping;*
- *This fact proves the multidimensional backwardness of one fifth of Hungarian settlements;*
- *The development paths of the 'semi-peripheral' settlements will be interesting to investigate in the next few years.*

# Thank you for your attention!

## RESOURCES:

- BELUSZKY P. 1976: Területi hátrányok a lakosság életkörülményeiben – Hátrányos helyzetű területek Magyarország. Földrajzi Értesítő 2-3-4. pp. 301-312.
- CIECHOCIŃSKA, M. 1986: Trends in changes of living standards in Poland, 1960-1981. An attempt at defining regional disparities. Geographia Polonica vol. 52, pp. 249-266.
- FALUVÉGI, A. - TIPOLD F. 2012: A társadalmi, gazdasági és infrastrukturális szempontból elmaradott, illetve az országos átlagot jelentősen meghaladó munkanélküliséggel sújtott települések. Területi Statisztika 3. pp. 278-290.
- GAWRYSZEWSKI, A. - POTRYKOWSKA, A. 1988: Rural depopulation areas in Poland. Geographia Polonica vol. 54. pp. 81-100.
- HALÁS, M. - HURBÁNEK, P. 2008: Identifikácia a klasifikácia periférnych regiónov (pokús o syntézu). – In: Džupinová, E. - Halás, M. - Hornák, M. - Hurbánek, P. - Káčerová, M. - Michniak, D. - Ondoš, S. - Rochovská, A. (eds.): Periférnosť a priestorová polarizácia na území Slovenska, Geo-grafika, Bratislava, pp. 109-136.
- MUSIL, J. - MÜLLER, J. 2008: Vnitřní periferie České republiky, sociální soudržnost a sociální vyloučení. CESES FSV UK, Praha, 52 p.
- NSRD 2010: National Strategy of Regional Development 2010–2020: Regions, Cities, Rural Areas. Ministry of Regional Development, Warsaw, 158 p.
- POTRYKOWSKA, A. 1985: Spatial structure of functional urban regions in Poland. Geographia Polonica vol. 51, pp. 113-126.
- ŠSR - Štatistický úrad Slovenskej republiky
- HCSO; IRS CERS of the HAS