Comparative-empiric analysis of regional growth patterns

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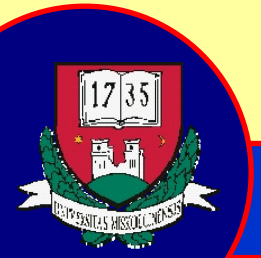


Description of the analysis

Designing and developing an interregional evaluation, planning and visualisation system

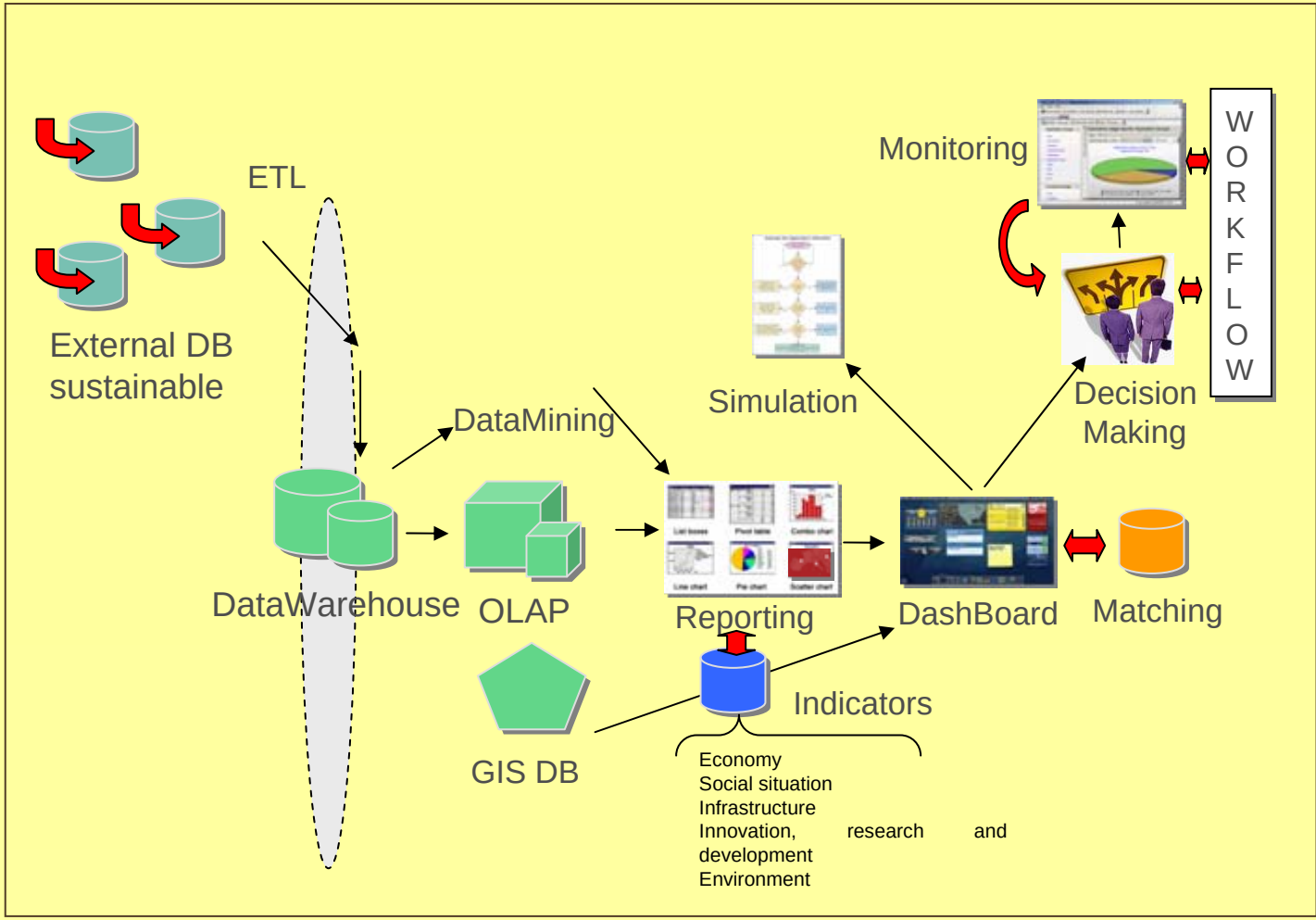
The aim is to develop a sustainable system to permit the analysis, evaluation and validation of public decision-making (policies, strategies, plans and actions) in the knowledge society and measure the effect of economic changes on the territorial units.

In the frame of INTERREG IIIC Project with Italian and Basque partners.

Motive forces of this research

- ***continuous loss of economic weight*** of the county
- economic ***stagnation***, ***lack of the ability for closing up***
- significant internal ***migration form the county*** (almost 4 000 people in 2003)
- ***low level of employment***: 43,5 % (national value: 50,5 %) in 2004
- ***high level of unemployment***: 11,2 % (national value: 5,9 %) in 2004

Technical background



Professional background

Process of the analysis

- an ***interregional database*** with the most important variables and indicators to analyse the socio-economic situations of the regions
- ***univariate and multivariate*** analyses to measure the degree of development within Northern Hungary

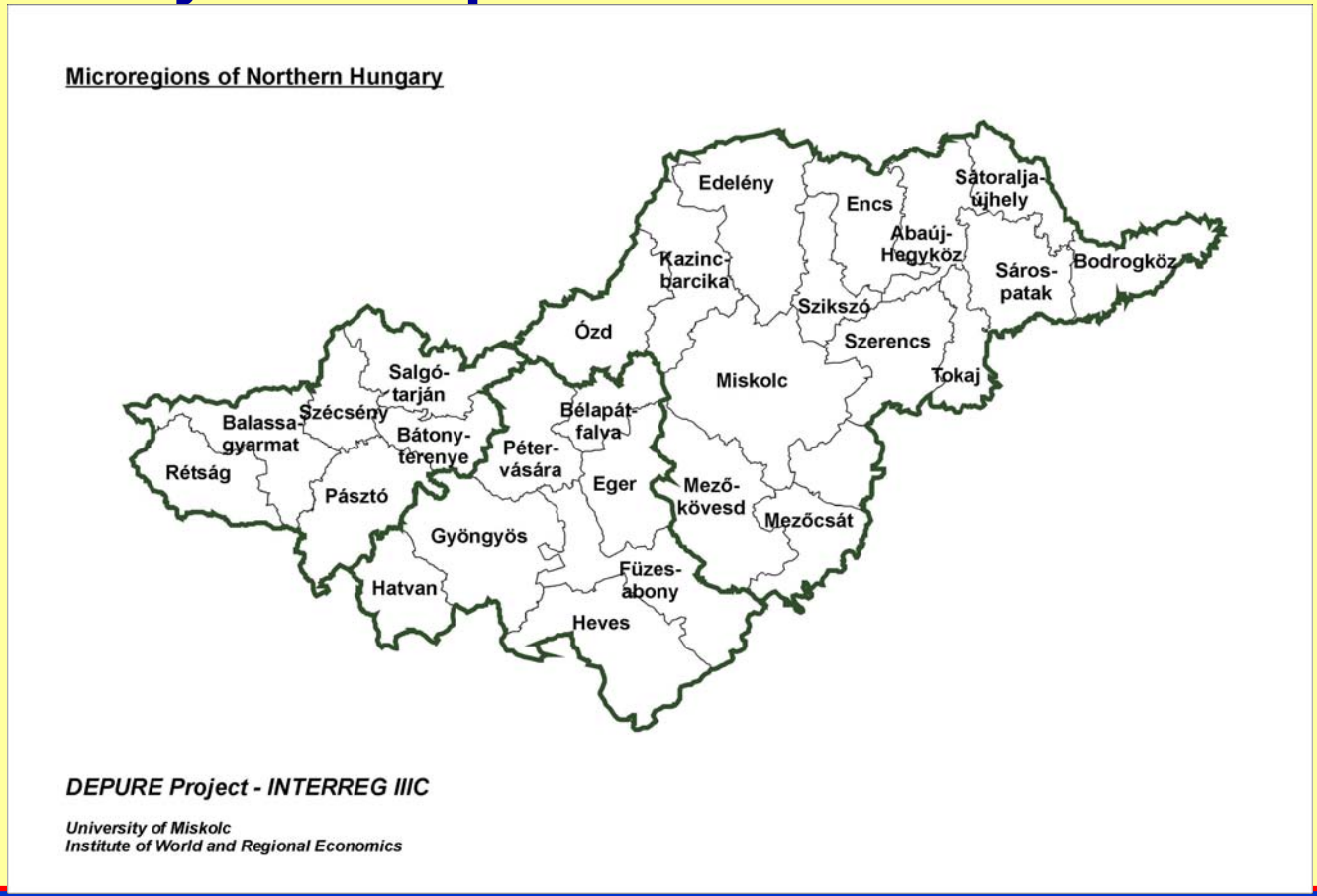
Professional background

Analyses

- more than ***600 territorial units*** (level of settlements – LAU2)
- almost ***200 indicators*** (five main groups)
- used methods: descriptive analysis
  GIS
  factor analysis (Principal Component)

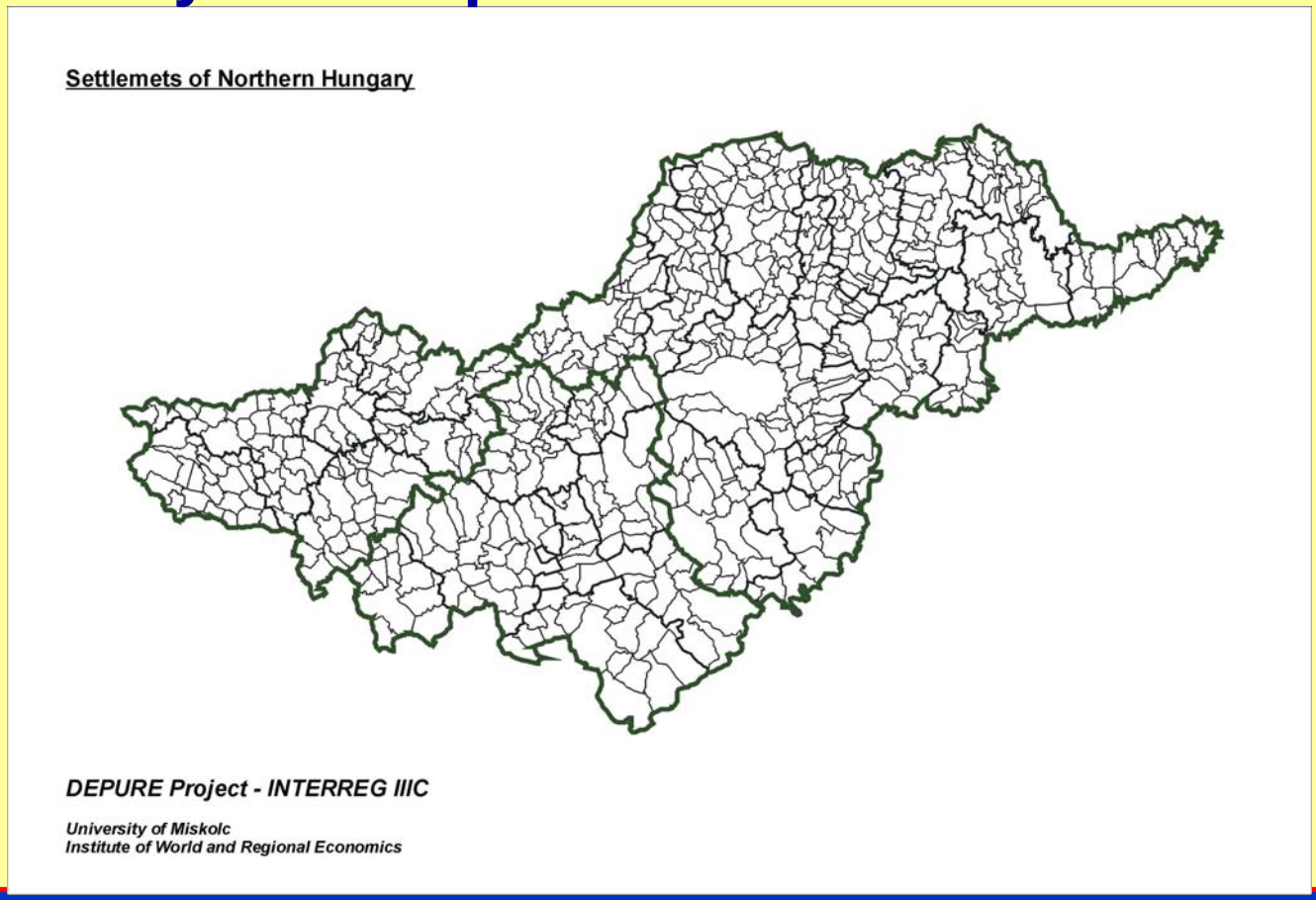
Professional background

Levels of Analysis - Maps



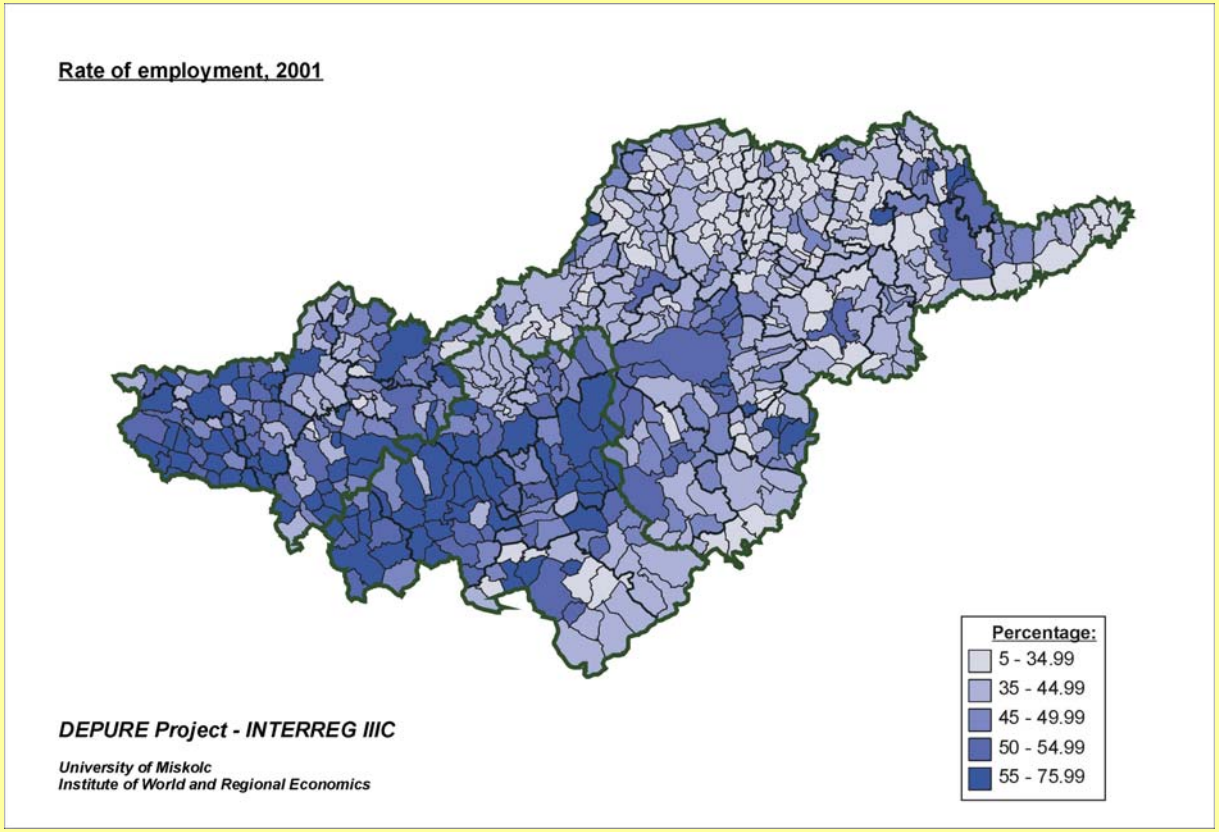
Professional background

Levels of Analysis - Maps



Professional background

Thematic Maps – with GIS Technology



Professional background

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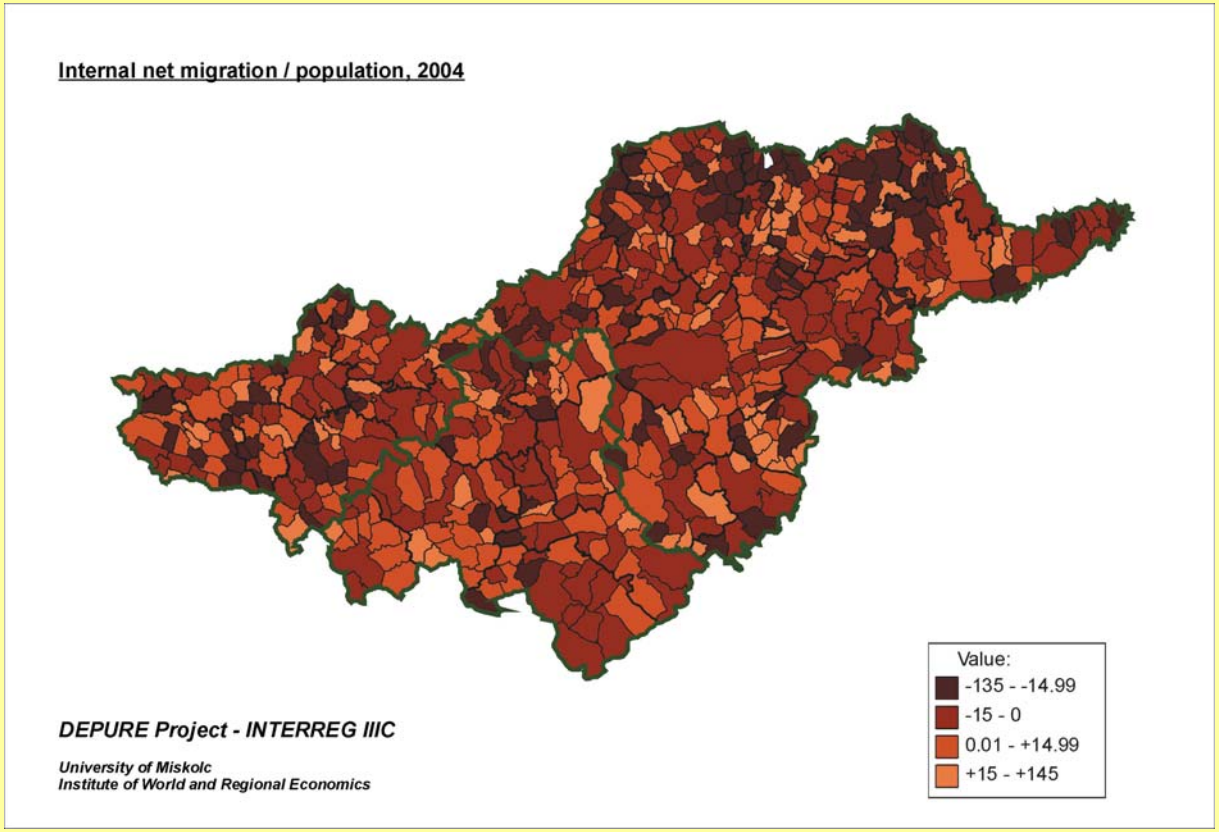

Professional background

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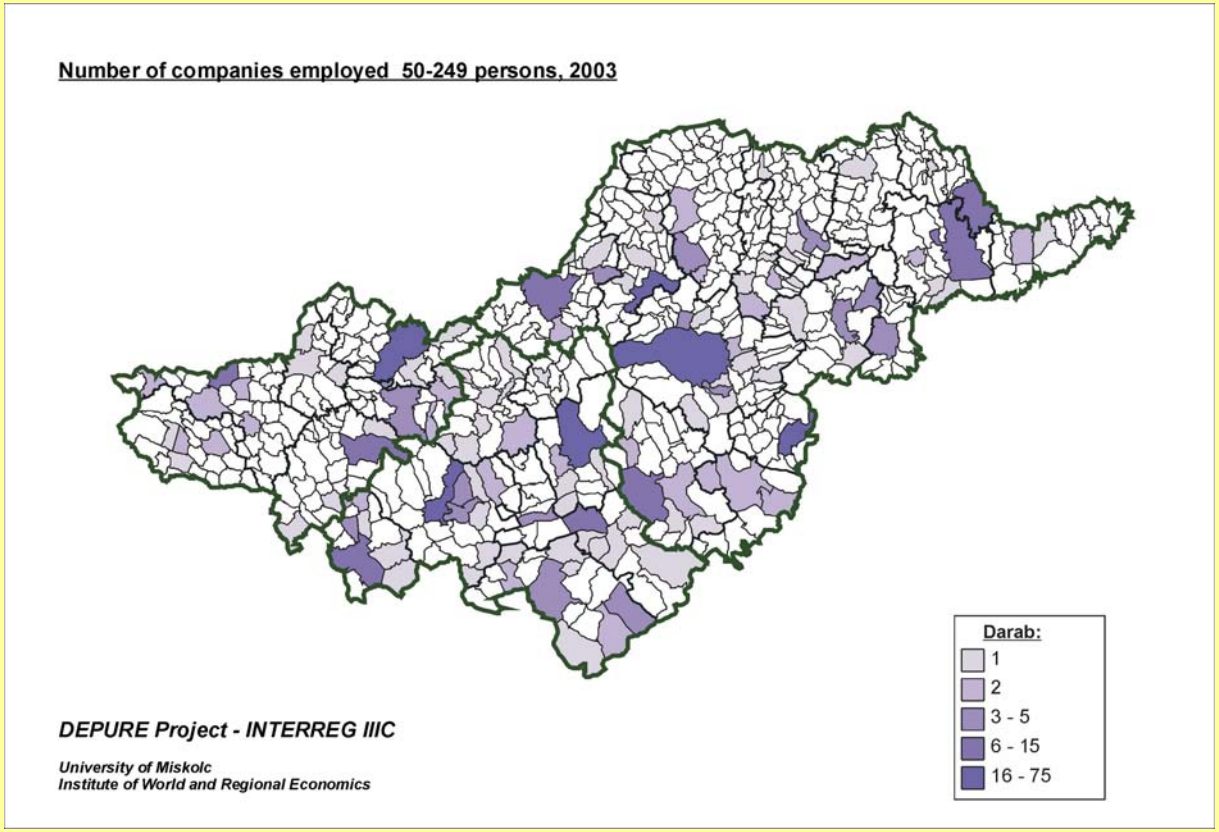

Professional background

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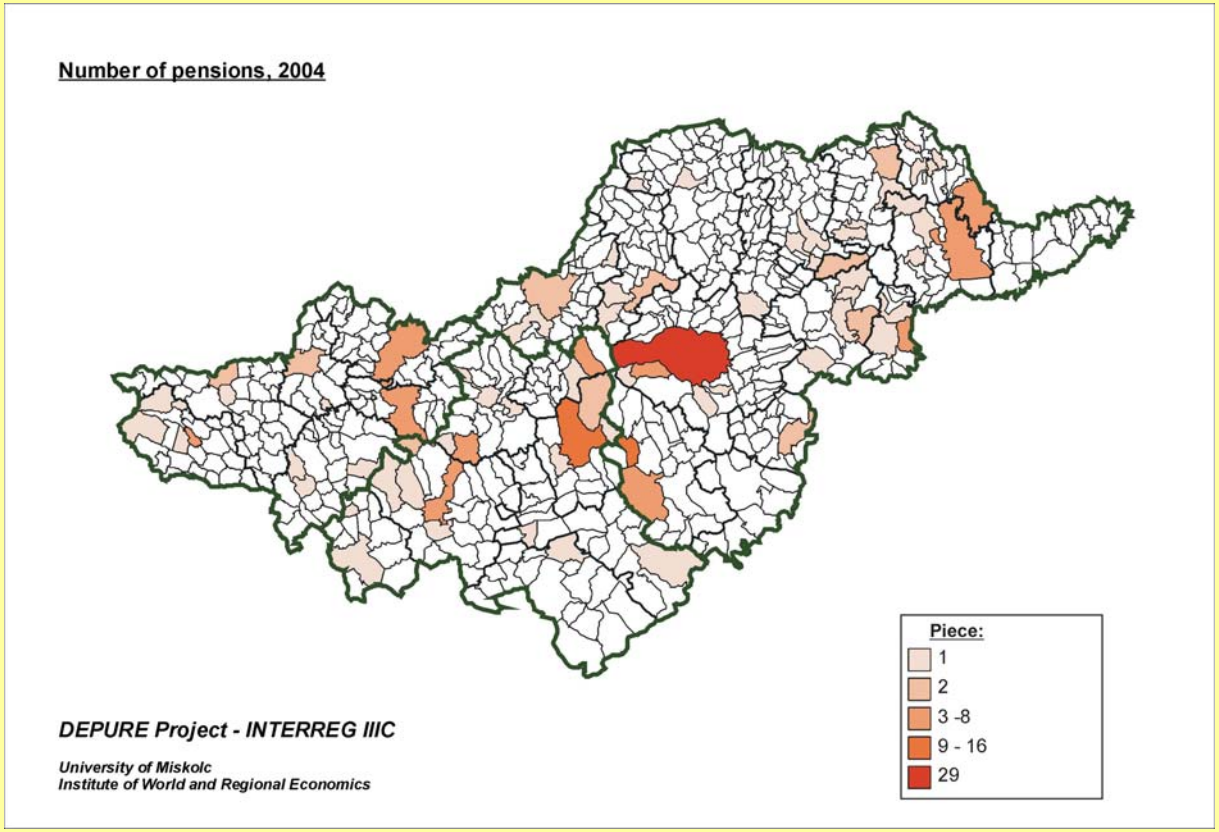


Professional background

Principal Component Analysis

•Resident population – 2004	<ResPop>
•% of population aged 30-59 – 2001	<Pop30_59>
•Live births per 1000 inhabitants – 2004	<LiveBirths>
•Internal net migration per 1000 inhabitants – 2004	<IntNetMig>
•*Ageing Index – 2004*	*<AgeingInd>*
•Rate of employment – 2001	<RateEmp>
•% of employed persons in the tertiary sector – 2001	<EmpTert>
•Average number of completed school years – 2001	<AveNumSchYe>
•% of population (aged 16-x) with tertiary education – 2001	<EduTert>
•*Ratio of new home-building – 2001*	*<NewHome>*
•Attributes of the stock of dwellings – 2001	<AttStoDwe>
•Telephone main lines per 1000 inhabitants – 2004	<TelMainLin>
•% of households connected to gas-supply system – 2001	<GasSupply>
•*Average domestic consumption (electricity) – 2001*	*<AveDomCons>*
•Number of cars per 1000 inhabitants – 2001	<NumCars>
•Number of retail units per 1000 inhabitants – 2001	<NumRetUni>
•Density of companies – 2001	<DensComp>
•Number of tourist establishments per 1000 inhabitants – 2001	<TourEstb>
•% of companies active in the secondary sector – 2003	<CompSecSec>
•Average income per taxpayer – 2002	<AveIncome>
•*Average revenue of self government per 1000 inhabitants – 2004*	*<SelfGovRev>*

Professional background

Principal Component Analysis

	Component			
	1	2	3	4
AttStoDwe	,879	,062	,032	,077
AveNumSchYe	,874	,301	,055	-,112
RateEmp	,827	,264	-,200	-,077
AveIncome	,789	-,067	-,018	,137
Pop30_59	,746	-,081	-,140	-,206
GasSupply	,734	-,090	-,060	,124
EduTert	,724	,142	,513	,065
NumCars	,710	,440	-,087	-,010
TelMainLin	,021	,876	-,016	-,041
TourEstb	-,103	,730	,143	,020
LiveBirths	-,258	-,619	,255	,186
DensComp	,517	,583	,175	,095
NumRetUni	,041	,565	,254	,314
EmpTert	-,203	,035	,740	-,078
ResPop	,338	-,002	,576	,079
CompSecSec	,333	-,127	-,427	,103
IntNetMig	,023	,022	-,090	,920

Professional background

Principal Component Analysis

Factor 1: *Human and infrastructure* (Income, Welfare, Education, Infrastructure)

Factor2: *Services* (Tourism, Telephone)

Factor 3: *Hierarchy of Settlements* (Population, Employment)

Factor 4: *Migration* (Immigration / Emigration).

Professional background

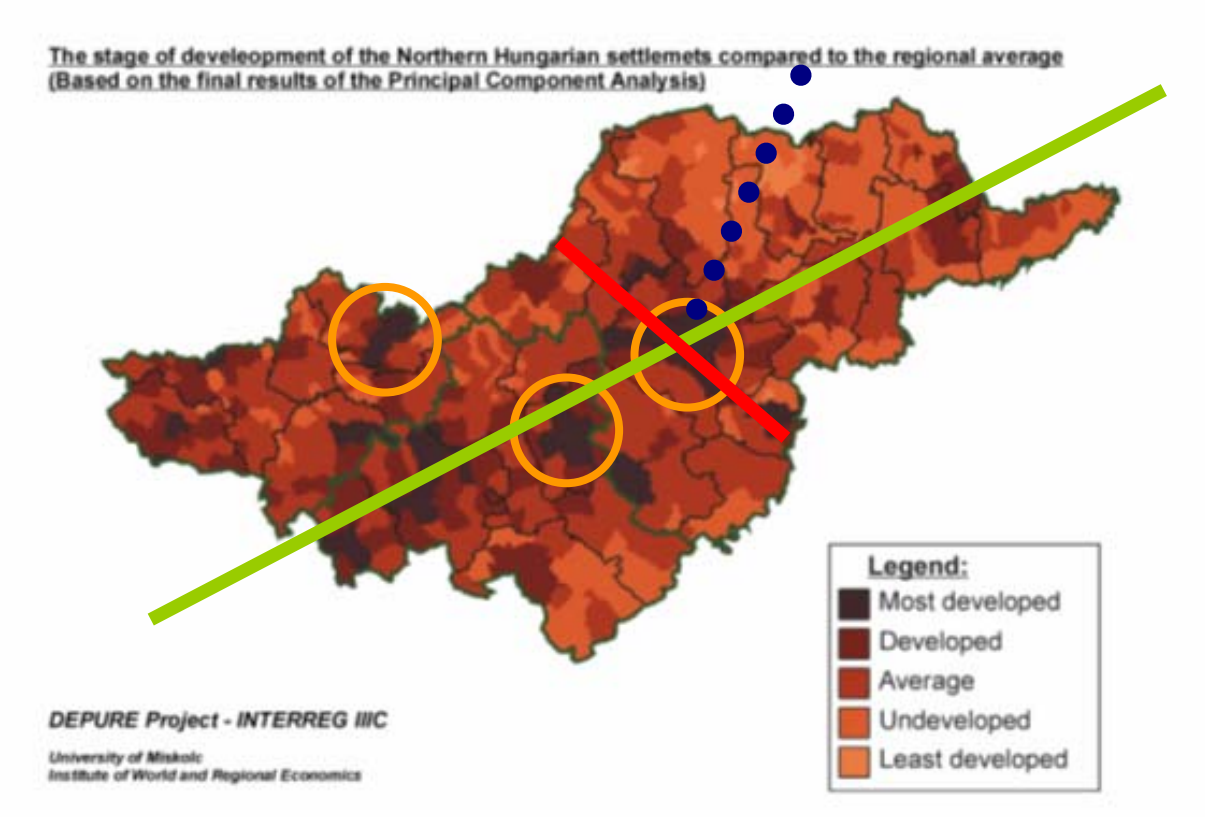
Principal Component Analysis

Rank based on factor1

Rank	Name of the settlement	Factor1
1	Miskolc	3,6988
2	Eger	3,1404
3	Tiszaújváros	2,9116
4	Parádsasvár	2,7040
5	Gyöngyös	2,4312
6	Rétság	2,2972
7	Sajóörös	2,2932
8	Sajószöged	2,2624
9	Mályi	2,0800
10	Balassagyarmat	2,0679
11	Hatvan	2,0662
12	Salgótarján	2,0641
13	Gyöngyössolymos	2,0448
14	Ostoros	2,0381
15	Kazincbarcika	2,0367
16	Andornaktálya	1,7992
17	Felsőzsolca	1,7302
18	Markaz	1,7260
19	Arnót	1,7231
20	Nagyréde	1,6971
21	Kistokaj	1,6797
22	Szendehely	1,6710
23	Bánk	1,6364
24	Szirmabesenyő	1,6312
25	Nyékládháza	1,6168
26	Egerszalók	1,6071
27	Pásztó	1,6027
28	Gyöngyöshalász	1,5785
29	Mezőkövesd	1,5530
30	Szécsény	1,5456

Professional background

Principal Component Analysis – the result



The Conclusions

- strengthening the innovation potential of the area
- advancing the networking among the economic actors (clusters)
- improving the main economic branches: mechatronics and chemical industry
- better the labour market position of the county
- decreasing the social-economic disparities in the county
- infrastructural improvements

Thank you for your attention!

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