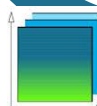
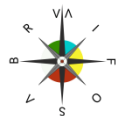


ATTRACTIVE DANUBE PROJECT – TERRITORIAL ATTRACTIVENESS ANALYSIS OF THE DANUBE REGION

PhD, MBA Ljiljana Živković, spatial planner
Ministry of construction, transport and infrastructure
Belgrade, Serbia, liliana.zivkovic@gmail.com

BA Blaž Barborič, geographer
Geodetic Institute of Slovenia
Ljubljana, Slovenia, blaz.barboric@gis.si



ZAVOD ZA PROSTORNO UREĐENJE
KOPRIVNIČKO-KRIŽEVAČKE ŽUPANIJE



Bosna i Hercegovina
Federacije Bosne i Hercegovine
Federalno ministarstvo prostornog uređenja



- Introduction
- ATTRACTIVE DANUBE project
- Territorial attractiveness definition
- Methodology
- Territorial attractiveness analysis - results
- Conclusions

INTRODUCTION

- Project platform
 - EU Regional –cohesion- policy 2020
 - Europe 2020 strategy & TA 2020
 - TA indicators (core)
 - EUSDR
 - Goals and objectives
 - ESPON 2013 programme
 - Applied research
 - ATTREG project
 - Scientific platform
 - INTERCO project
 - Targeted analysis
 - KITCASP project
 - INSPIRE programme
 - Metadata and dataset standards and definition
 - National policies, regulations and standards



ATTRACTIVE DANUBE PROJECT

ABOUT PROJECT

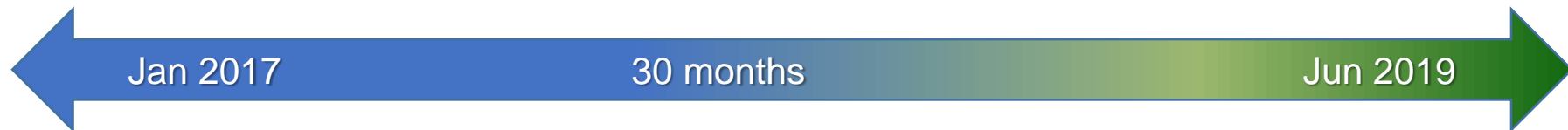
- The 1st Call of DTP
 - Priority: *Well-governed Danube Region*
 - Specific objective: *Improve institutional capacities to tackle major social challenges*
- Project duration: January, 2017 – Jun, 2019
- Total budget: EUR 1,860,000.00
- 11 Danube countries with 12 financing PPs
 - Slovenia (Geodetic Institute of Slovenia – LP)
 - Hungary (Lechner Ltd., EMFIE)
 - Czech Republic (CENIA)
 - Slovakia (TUKE)
 - Germany (aifora GmbH)
 - Bulgaria (BIFORUM)
 - Romania (URBASOFIA)
 - Serbia (IAUS)
 - Croatia (KCKZZ)
 - Montenegro (ISSP)
 - Bosnia and Herzegovina (FMPU)



AIM & OBJECTIVES

- Project aim
 - To strengthen multilevel, cross-sectoral and transnational governance and institutional capacities of the policy planners involved in territorial development of the Danube Region
- Project objectives
 1. To make TA territorial data available to TA policy planning stakeholders
 2. To improve and strengthen multilevel and cross-sector territorial development planning
 3. To increase the skills, knowledge and capacities of TA policy planning stakeholders

PROJECT STEPS WITH DELIVERABLES



Building of 11 national TAMP

Output 1.1 ✓
 Training for project partners on development of national TAMP

Output 1.2 ✓
 11 national TAMPs built

Output 1.3 ✓
 Established participatory planning process for national TAMP building

Establishing transnational CO-TAMP)

Output 2.1 ✓
 Transnational TAMP established

Output 2.2 ←
 TA atlas of the Danube Region prepared

Capacity building for TA policy planners

Output 3.1
 Handbook for policy planners on TAMP utilisation prepared

Output 3.2
 Capacity building programme for promoting TAMP prepared

Output 3.3
 National memorandums for sustaining national TAMPs signed

Policy integration process establishment

Output 4.1 ←
 Transnational TA policy coordination workshops held

Output 4.2
 TA policy recommendations and capitalisation action plan adopted

Output 4.3
 Transnational memorandum for sustaining CO-TAMP signed

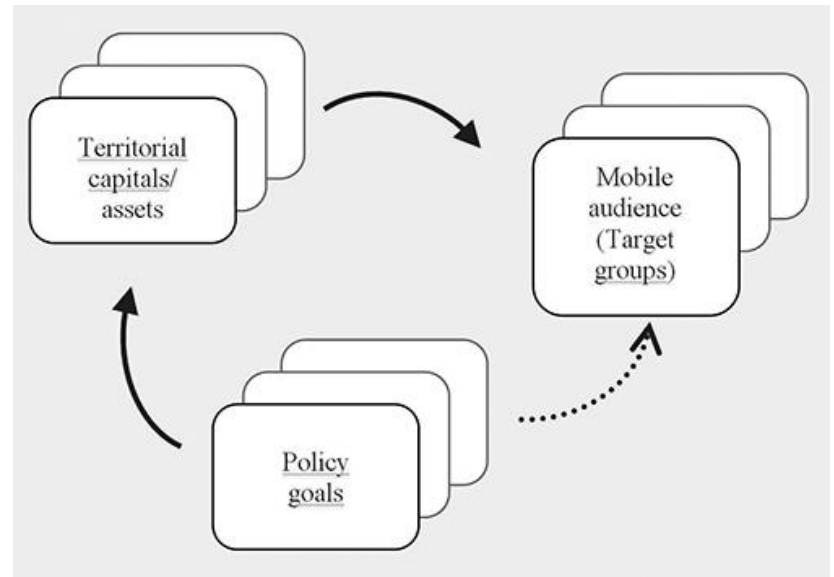
TERRITORIAL ATTRACTIVENESS DEFINITION

TERRITORIAL ATTRACTIVENESS DEFINITION AND INDICATORS

- Definition of TA for the Attractive Danube project relies on
 - ESPON's ATTREG
 - SEE Programme Attract-SEE
 - Europe2020 and TA2020 goals

- and it describes

“territorial attractiveness (as) capacity of certain Territorial Capitals and Assets to attract and retain target groups (tourists, residents, migrants and companies/investments) by already existing or developed advantages (environmental, economic and human, anthropic, socio-cultural, and institutional), imposed by relevant policies and their goals.”



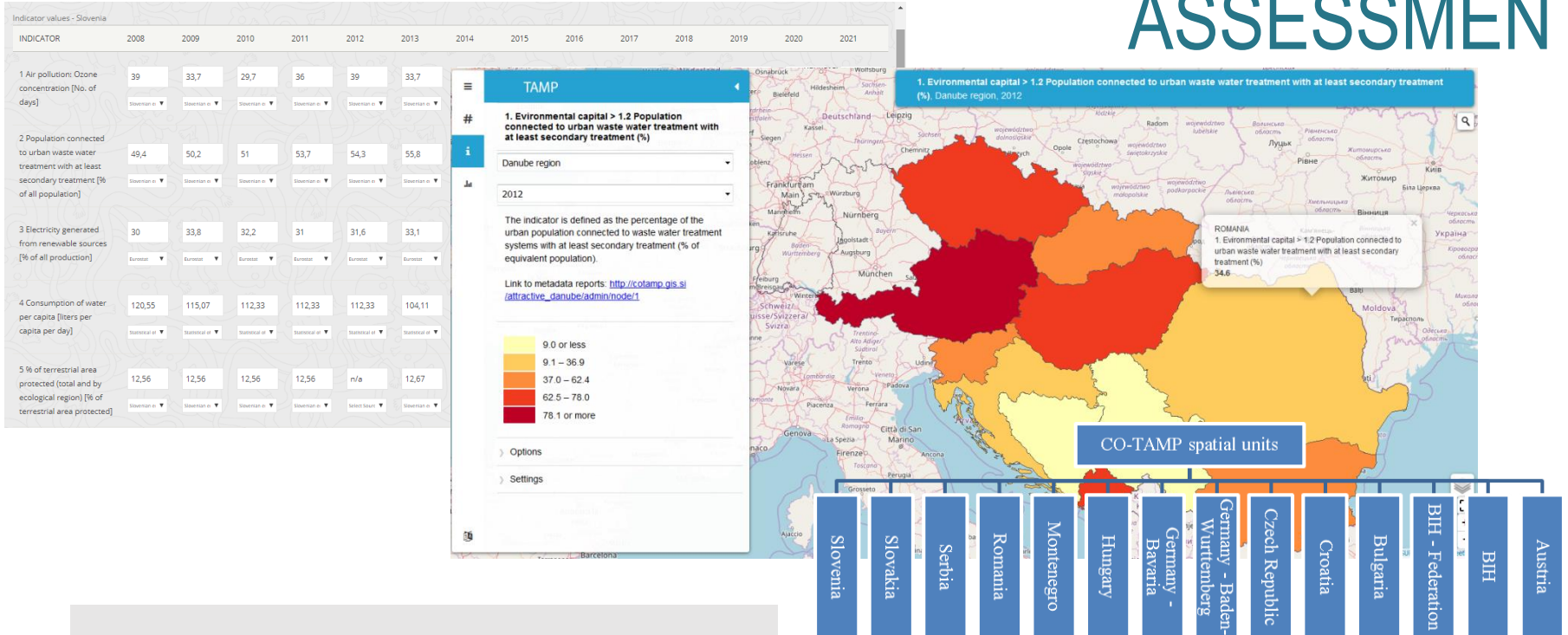
No.	Territorial asset	Indicator	Target group
ENVIRONMENTAL CAPITAL			
1	Environmental quality	Air pollution: Ozone concentration	Tourists, Residents, Migrants
2		Population connected to urban waste water treatment with at least secondary treatment	
3	Natural resources and energy	Electricity generated from renewable sources	Companies/Investments, Residents
4		Consumption of water per capita	
ANTHROPIC CAPITAL			
5	Landscape quality	% of terrestrial area protected (total and by ecological region)	Tourists, Residents
6	Infrastructures	Population (or households) with accessibility to high-speed broadband (1 Mbit/second up and down)	Companies/Investments, Tourists, Residents, Migrants
SOCIO-CULTURAL CAPITAL			
7	Culture	European cultural sites on the Unesco World Heritage List, 2010	Tourists, Residents, Migrants
8	Quality of life	Life expectancy at birth by sex (Europe 2020 indicator)	Companies/Investments, Tourists, Residents, Migrants
9		Gross disposable household income	
10		People at risk of poverty or social exclusion (Europe 2020 indicator) or % in risk of poverty	
ECONOMIC/HUMAN CAPITAL			
11	Knowledge & Innovation	Population aged 25-64 with tertiary education	Companies/Investments, Residents, Migrants
12		Research & Experimental Development expenditure as % of GDP (Europe 2020 indicator)	
13	Employment	Employment rate 20-64 years by sex [%] (regional) (Europe 2020 indicator)	Companies/Investments, Residents, Migrants
14		Youth unemployment rate	
15	Specializations / Key sectors	Share of employment by sector	Companies/Investments
16	Tourism	Number of overnight stays of tourists per capita per year	Companies/Investments, Tourists
17		Share of tourism related employment in total employment	
18	Investment Promotion	% of GDP of foreign direct investment	Companies/Investments, Migrants
19	Population	Population growth rate	Residents, Migrants
20		% of population in age 20-64 years	
21		Ageing index	
INSTITUTIONAL CAPITAL			
22	International relations	Number of <u>foreign students and/or professors</u>	Companies/Investments, Migrants

METHODOLOGY



Danube TA data collection

TA DATA COLLECTION AND QUALITY ASSESSMENT



TA data assessment

- Collected TA data quality and integrity assessment per common TA indicator

- TA disparities and trends in the Danube Region in period 2008-2016
 - Linear regression (R^2) of minimal annual values (Min)
 - Linear regression of maximal annual values (Max)
 - Linear regression of average annual values (Avg)
 - Linear regression of standard deviation of average annual values (StDev)
 - Linear regression of sigma convergence or coefficient of variation of annual values (CV)
- Ranges for TA cohesion trends determination in the Danube Region in period 2008-2016

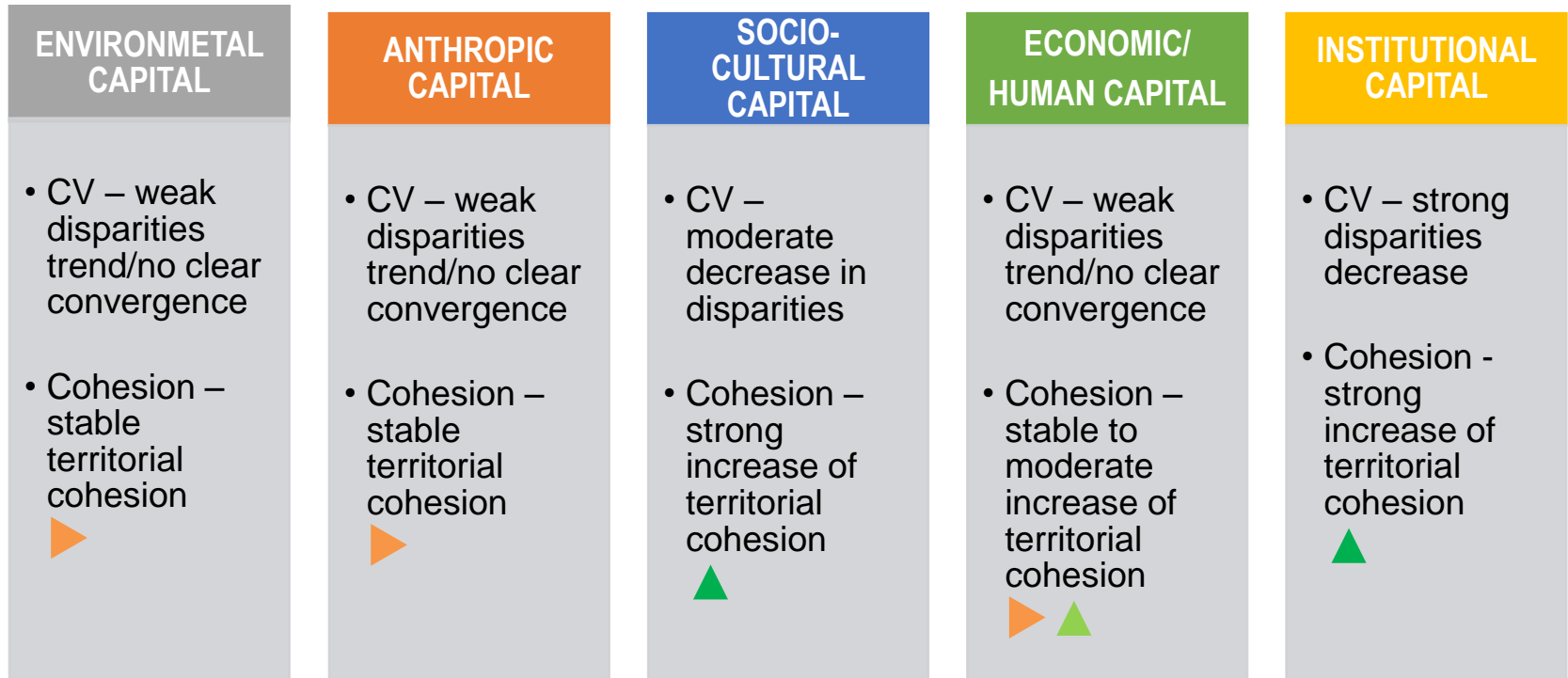
TERRITORIAL COHESION EVALUATION

Scale	Territorial disparities/convergence trend	Label	Territorial cohesion trend
$-0.5 < R^2 < 0.5$	weak disparities trend/no clear convergence	▶	stable territorial cohesion
$R^2 = 0.5 - 0.75$	moderate increase in disparities	▼	moderate decrease of territorial cohesion
$R^2 = -0.5 - -0.75$	moderate decrease in disparities	▲	moderate increase of territorial cohesion
$R^2 > 0.75$	strong disparities increase	▼	strong decrease of territorial cohesion
$R^2 < -0.75$	strong disparities decrease	▲	strong increase of territorial cohesion

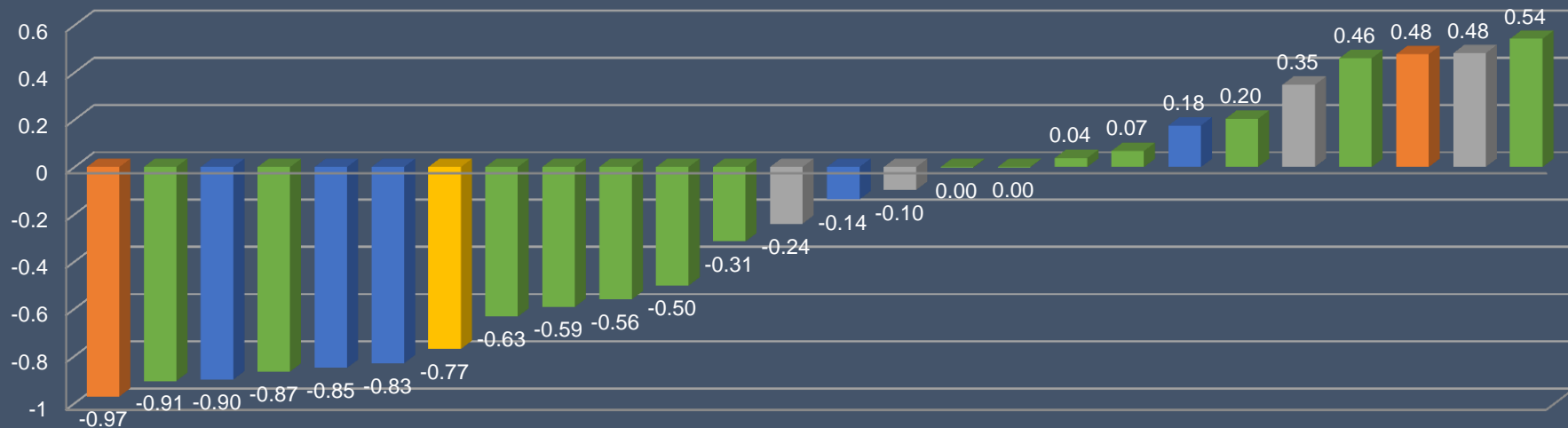
TERRITORIAL ATTRACTIVENESS ANALYSIS - RESULTS

No.		INDICATOR	TRENDS (R ²) 2008-2016						
ENVIRONMENTAL CAPITAL			Data complet.	Min	Max	Avg	StDev	CV	Cohesion
1		Air pollution: Ozone concentration	73.81%	-0.0308	0.0375	-0.0317	0.3609	0.3477	▶
2		Population connected to urban waste water treatment with at least secondary treatment	71.43%	0.2651	-0.2863	-0.3041	0.0002	0.4814	▶
3		Electricity generated from renewable sources	81.75%	-0.1598	0.6445	0.2620	0.0479	-0.0964	▶
4		Consumption of water per capita	71.43%	-0.7918	-0.4928	-0.8604	-0.6202	-0.2403	▶
ANTHROPIC CAPITAL			Data complet.	Min	Max	Avg	StDev	CV	Cohesion
5		% of terrestrial area protected (total and by ecological region)	74.60%	0.0000	0.8118	0.6875	0.9065	0.4773	▶
6		Population (or households) with accessibility to high-speed broadband (1 Mbit/second up and down)	92.06%	0.6175	-0.0560	0.9807	-0.9521	-0.9711	▲
SOCIO-CULTURAL CAPITAL			Data complet.	Min	Max	Avg	StDev	CV	Cohesion
7		European cultural sites on the Unesco World Heritage List, 2010	99.21%	0.3000	0.0000	0.9030	-0.8601	-0.8998	▲
8		Life expectancy at birth by sex (Europe2020 indicator) - male	85.71%	0.9683	0.0005	0.6819	-0.7629	-0.8309	▲
		Life expectancy at birth by sex (Europe2020 indicator) - female	84.92%	0.9942	0.4464	0.6119	-0.8333	-0.8500	▲
9		Gross disposable household income	78.57%	0.3633	0.9409	0.8360	0.6656	0.1760	▶
10		People at risk of poverty or social exclusion (Europe2020 indicator) or % in risk of poverty	69.05%	0.8602	-0.0176	-0.0222	-0.0614	-0.1372	▶
ECONOMIC/HUMAN CAPITAL			Data complet.	Min	Max	Avg	StDev	CV	Cohesion
11		Population aged 25-64 with tertiary education	84.92%	0.3138	0.7167	0.9125	0.0122	-0.8656	▲
12		Research & Development expenditure as % of GDP (Europe 2020 indicator)	80.16%	0.0538	0.0962	0.4774	0.1607	-0.5924	▲
13		Employment rate 20-64 years by sex [%] (regional) (Europe 2020 indicator) - male	93.65%	0.0599	0.4703	0.0093	0.2807	0.4601	▶
		Employment rate 20-64 years by sex [%] (regional) (Europe 2020 indicator) – female	93.65%	0.5616	0.9490	0.2166	0.4577	0.5426	▼
14		Youth unemployment rate	93.65%	0.2281	0.0084	0.2671	0.0330	-0.3149	▶
15		Share of employment by sector - I	87.30%	-0.0231	-0.3399	-0.3137	-0.7853	-0.5017	▲
		Share of employment by sector - II	85.71%	-0.7758	-0.8769	-0.6024	-0.0823	0.0682	▶
		Share of employment by sector - III	85.71%	0.8115	0.3543	0.8615	-0.9096	-0.9058	▲
16		Number of overnight stays of tourists per capita per year	89.68%	0.8679	0.5800	0.9203	0.8897	-0.0031	▶
17		Share of tourism related employment in total employment	72.22%	0.4407	0.7873	0.9091	0.4851	-0.0013	▶
18		% of GDP of foreign direct investment	76.98%	-0.2314	0.0589	0.1116	0.4424	0.2038	▶
19		Population growth rate	93.65%	0.0069	-0.1297	-0.2044	-0.0174	-0.5607	▲
20		% of population in age 20-64 years	94.44%	0.5655	0.0875	0.5442	-0.6333	-0.6331	▲
21		Ageing index	89.68%	0.8693	0.0353	0.1809	0.1312	0.0375	▶
INSTITUTIONAL CAPITAL			Data complet.	Min	Max	Avg	StDev	CV	Cohesion
22		Number of foreign students and/or professors	66.67%	0.5983	0.9785	0.8618	0.0845	-0.7701	▲

TA COHESION TRENDS IN DANUBE REGION



- TA indicators with the highest disparity trends (in decreasing order)
 1. Employment rate 20-64 years by sex [%] (regional) (Europe 2020 indicator) – female (0.54)
 2. Population connected to urban waste water treatment with at least secondary treatment (0.48)
 3. % of terrestrial area protected (total and by ecological region) (0.48)
 4. Employment rate 20-64 years by sex [%] (regional) (Europe 2020 indicator) – male (0.46)
 5. Air pollution: Ozone concentration (0.35)
 6. % of GDP of foreign direct investment (0.20)
 7. Gross disposable household income (0.18)
 8. Share of employment by sector – II (0.07), and
 9. Ageing index (0.04)



CONCLUSIONS

TA ANALYSIS CONCLUSIONS

Technical solution



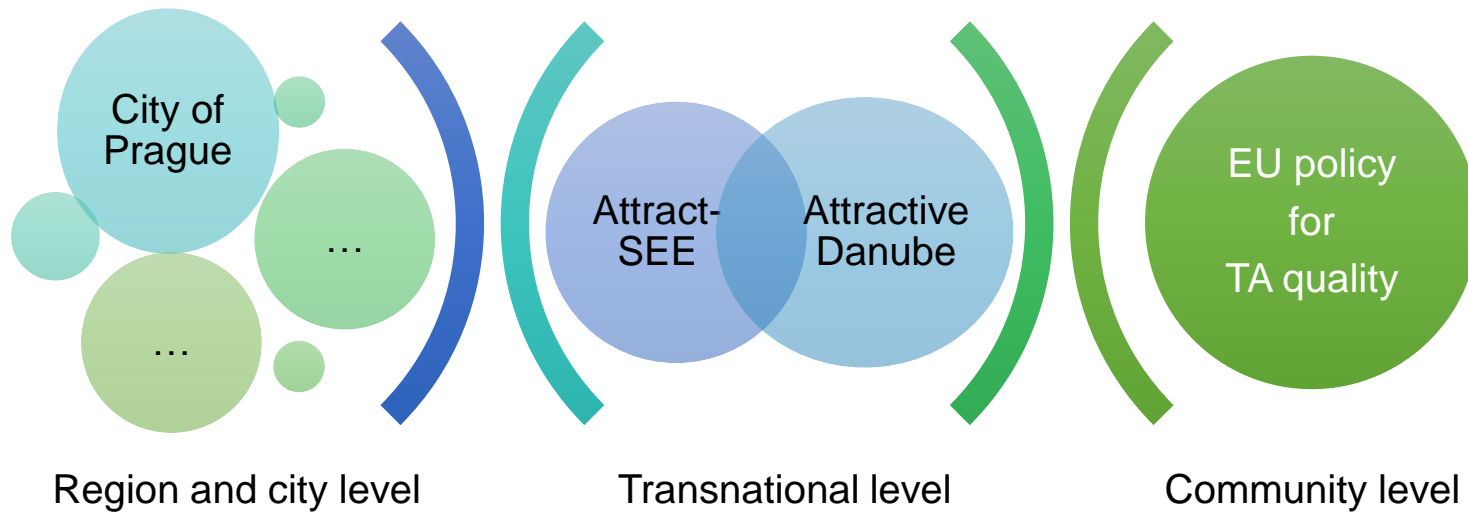
- Standardised and documented solution
- Interactive, on-line and shareable content
- Scalable solution with user-friendly functionalities
- Adequate geovisualisation model with indicator fact sheet and MD
- General lack of data
- Collected data methods inconsistency between countries
- Lack of existing TMS initiatives durability

Project goals



- Comparability of results, including benchmarking possibility
- Tool for decision-making and TA policy management capacities
- Better understanding, retaining and improving TA assets within the Danube Region
- Limited reliability and quality of statistical analyses results interpretation and conclusions, due to data incompleteness and omissions

ATTRACTIVE DANUBE – NEXT STEPS OF TA TMS





THANK YOU FOR ATTENTION!

DTP: <http://www.interreg-danube.eu/approved-projects/attractive-danube>

Facebook: <https://www.facebook.com/InterregCENIA/>

Twitter: <https://twitter.com/attractdanubesi?lang=en>

LinkedIn: <https://www.linkedin.com/in/attractive-danube-546509140/>