

# MEASURING REGIONAL BUSINESS ENVIRONMENT IN MOLDOVA

Robert Kičina, Member of the Strategic Board of BAS

**Ability** \* to achieve **sustainable growth** and enhance **prosperity**

- \* of the country
- \* of the company
- \* of the region
- \* of the community



# WHY REGIONAL COMPETITIVENESS

- To reduce economic and social disparities between regions
- To analyze competitive advantages and disadvantages of regions
- To formulate growth strategies for regions

# COMPETITIVE REGIONS – SK PROJECT



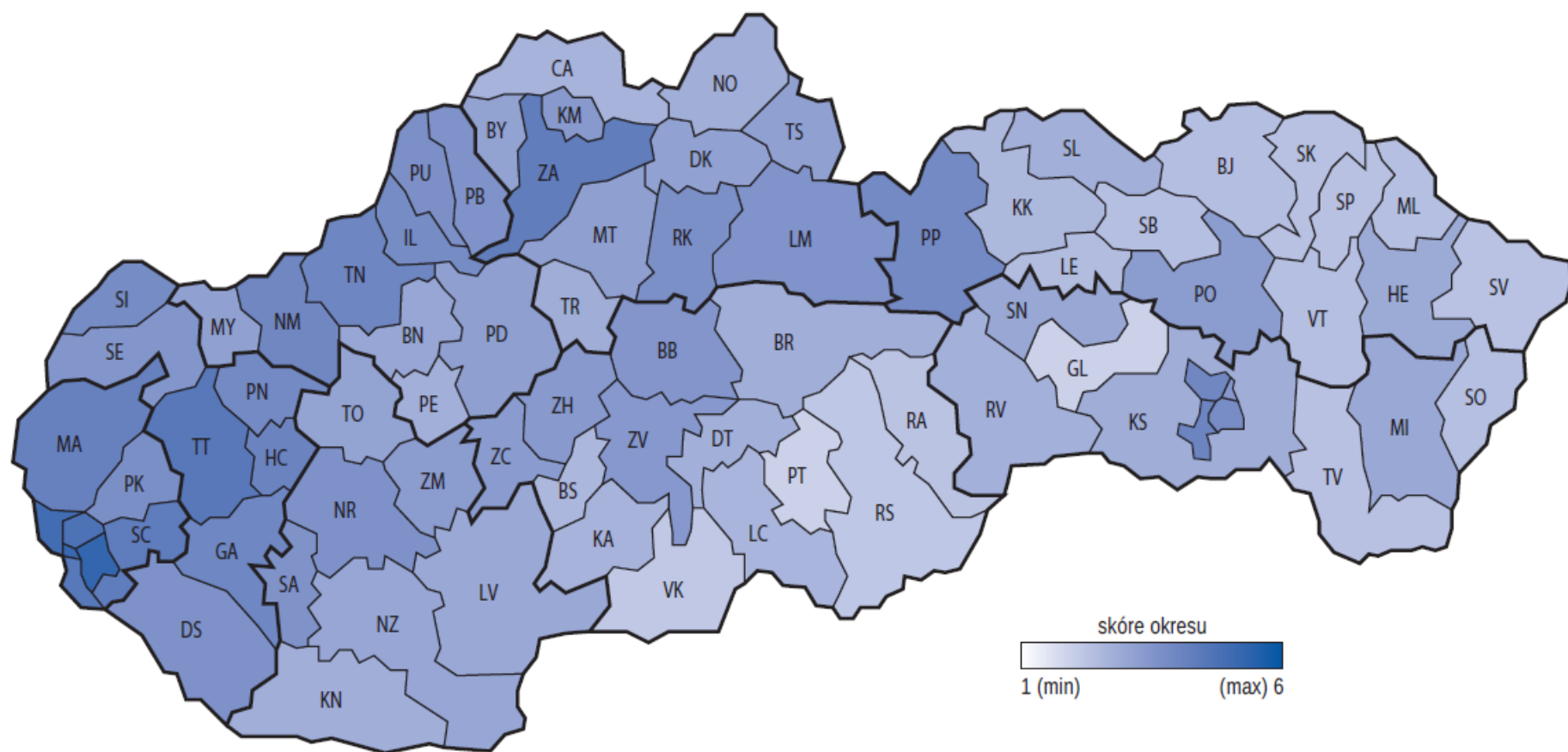
- Project implemented in 2009-2011
- Inspired by international rankings (WEF, IMD)
- BAS developed own mathematic model with 106 indicators to assess regions
  - 47 indicators from the survey among entrepreneurs (5000 respondents)
  - 59 indicators from statistical databases
- Data used to calculate values of Regional business environment index and its eight pillars
- Analyses, comparative tables, regions' profiles and recommendations based on these data

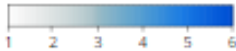
# REGIONAL BUSINESS ENVIRONMENT INDEX



- SUBINDEX I: ECONOMIC ACTIVITY
  - 1st pillar: Economic environment (21 indicators; e.g. population density, employment)
  - 2nd pillar: Economic output (12 indicators; e.g. construction output, ee productivity)
- SUBINDEX II: PUBLIC ADMINISTRATION AND LEGISLATION
  - 3rd pillar: Legislation (12 indicators; e.g. local and other taxes)
  - 4th pillar: Public administration (11 indicators; e.g. efficiency of local authorities, e-communication)
- SUBINDEX III: TECHNOLOGY AND INFRASTRUCTURE
  - 5th pillar: Infrastructure (9 indicators; e.g. availability of banks, density of motorway)
  - 6th pillar: Technology (8 indicators; e.g. FDI inflow, technology level)
- SUBINDEX IV: EDUCATION AND HUMAN RESOURCES
  - 7th pillar: Human resources (20 indicators; e.g. population growth, job vacancies)
  - 8th pillar: Education (13 indicators; e.g. school examination results, secondary enrolment)

# VISUALIZATION OF RBEI RESULTS





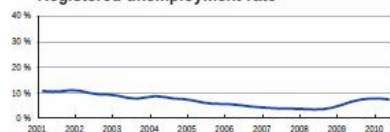


## General information

Abbreviation	PN
Population	64,207
Area	381 km <sup>2</sup>
Population density	169 hab / km <sup>2</sup>
Number of workers	27,986 (43.5 %)
Unemployment rate	7.3 %

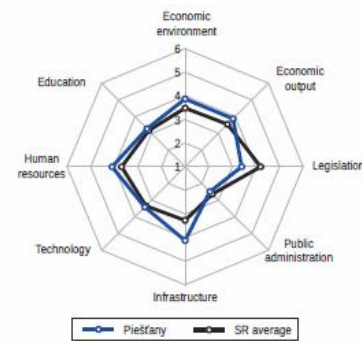


## Registered unemployment rate

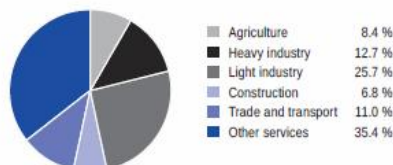


## Regional Business Environment Index (RBEI)

	Rank (1-79)	Score (1-6)	SR
<b>RBEI</b>	<b>16</b>	<b>3.68</b>	<b>3.43</b>
<b>Subindex I: Economic activity</b>	<b>10</b>	<b>3.86</b>	<b>3.51</b>
1st pillar: Economic environment	8	3.86	3.48
2nd pillar: Economic output	15	3.86	3.53
<b>Subindex II: Public administration and legislation</b>	<b>77</b>	<b>2.88</b>	<b>3.32</b>
3rd pillar: Legislation	77	3.39	4.19
4th pillar: Public administration	67	2.48	2.63
<b>Subindex III: Technology and infrastructure</b>	<b>18</b>	<b>3.77</b>	<b>3.30</b>
5th pillar: Infrastructure	8	4.11	3.26
6th pillar: Technology	31	3.41	3.34
<b>Subindex IV: Education and human resources</b>	<b>16</b>	<b>3.79</b>	<b>3.43</b>
7th pillar: Human resources	15	4.08	3.68
8th pillar: Education	22	3.27	3.16



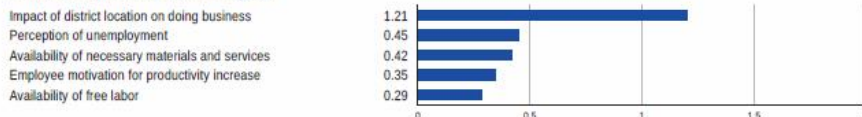
## Structure of the business sector



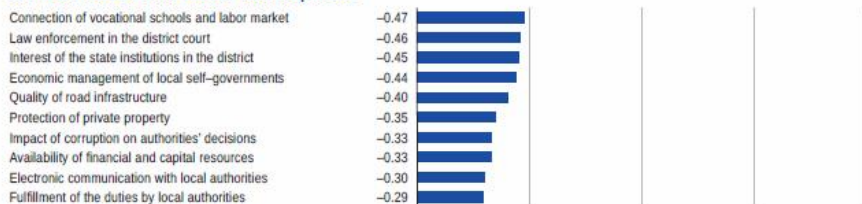
## Top 5 employers

Company name	Number of employees
Slovenské liečebné kúpele Piešťany, a.s.	1,240
FMC – dialyzačné služby, s.r.o.	474
Bodet & Horst mattress ticking, k.s.	430
SEMIKRON, s.r.o.	402
Trnavská vodárenská spoločnosť, a.s.	332

## Main competitive advantages



## Main barriers to business development



## RBEI Indicators

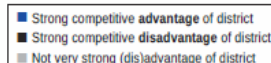
Subindex I: Economic activity		
<b>1st pillar: Economic environment</b>	<b>Rank</b>	<b>Score</b>
1.01 Population density	19	3.22
1.02 Urbanization	20	4.60
1.03 Impact of district location on doing business*	7	4.74
1.04 Impact of natural conditions on doing business*	20	4.73
1.05 Area of agricultural land	13	5.27
1.06 Current business conditions*	11	3.10
1.07 Change of business conditions in recent years*	11	2.68
1.08 Barriers to improving business conditions*	19	2.61
1.09 Impact of the minimum wage on doing business*	42	2.84
1.10 Impact of the informal economy on doing business*	59	2.50
1.11 Level of competitiveness in services*	33	3.70
1.12 Level of competitiveness in industry*	41	3.48
1.13 Reliability of business partners*	14	3.94
1.14 Availability of financial and capital resources*	50	2.79
1.15 Availability of necessary materials and services*	10	4.72
1.16 Development potential of the district*	22	3.32
1.17 Potential for tourism development*	17	4.39
1.18 Economically active population	7	4.79
1.19 Social benefit claims	17	4.18
1.20 Share of foreign companies	9	4.79
1.21 Share of international companies	4	5.81
<b>2nd pillar: Economic output</b>	<b>15</b>	<b>3.86</b>
2.01 Construction output	9	4.23
2.02 Construction of apartments	9	4.49
2.03 Produced added value	45	3.30
2.04 Employee productivity	61	2.73
2.05 Level of industry development	24	4.43
2.06 Environmental friendliness of production	20	4.81
2.07 Air pollution	20	4.84
2.08 Tourism activity	6	5.67
2.09 Tourism attractiveness	5	3.84
2.10 Profitability and productivity of businesses*	9	3.97
2.11 Level of corruption among private businesses*	55	2.84
2.12 Development potential of businesses*	21	3.93
<b>Subindex II: Public administration and legislation</b>	<b>Rank</b>	<b>Score</b>
<b>3rd pillar: Legislation</b>	<b>77</b>	<b>3.39</b>
3.01 Barriers to business development*	16	3.39
3.02 Perception of local taxes*	64	2.67
3.03 Business development prospects*	67	2.48
3.04 Non-construction land tax	76	4.50
3.05 Building site tax	63	5.01
3.06 Housing tax and tax on ancillary facilities	74	2.86
3.07 Agricultural and irrigation tax	79	1.31
3.08 Industrial property tax	77	2.25
3.09 Taxes on buildings for other business	77	3.30
3.10 Apartment and non-residential property tax	76	2.82
3.11 Motor vehicle tax	62	3.10
3.12 Charges for municipal waste	29	5.11
<b>4th pillar: Public administration</b>	<b>67</b>	<b>2.48</b>
4.01 Fulfillment of the tasks by local authorities*	64	2.66
4.02 Bureaucracy and delays in the offices*	10	2.82
4.03 Availability of public information*	42	3.11
4.04 Electronic communication with local authorities*	61	2.51
4.05 Law enforcement in the district court*	63	2.03
4.06 Impact of corruption on authorities' decisions*	69	2.63
4.07 Protection of private property*	65	2.55
4.08 Interest of the state institutions in the district*	59	2.00
4.09 Impact of authorities' activities on doing business*	53	2.56
4.10 Economic management of local self-governments*	76	2.36
4.11 Impact of trade unions on doing business*	18	2.85

## Subindex III: Technology and infrastructure

<b>5th pillar: Infrastructure</b>	<b>Rank</b>	<b>Score</b>
5.01 Availability of banks	18	3.22
5.02 Availability of post offices	24	3.67
5.03 Capacity of medical facilities	33	3.81
5.04 Quality of road infrastructure*	41	2.21
5.05 Density of motorways	3	5.80
5.06 Density of 1st class roads	57	2.03
5.07 Density of 2nd class roads	6	4.22
5.08 Density of 3rd class roads	57	3.72
5.09 Utilization of roads	9	5.96
<b>6th pillar: Technology</b>	<b>31</b>	<b>3.41</b>
6.01 Inflow of foreign direct investments	28	2.06
6.02 Technology level*	19	3.97
6.03 Ability of businesses to use latest technologies*	16	4.64
6.04 Usage of Internet services by businesses*	6	5.69
6.05 Information on the supply of goods and services*	27	4.66
6.06 Usage of personal motor vehicles	74	2.05
6.07 Usage of trucks	49	2.87
6.08 Usage of technical motor vehicles	55	2.37

## Subindex IV: Education and human resources

<b>7th pillar: Human resources</b>	<b>Rank</b>	<b>Score</b>
7.01 Life expectancy	4	4.84
7.02 Natural population growth	41	3.97
7.03 Ageing Index	74	2.09
7.04 Registered unemployment rate	14	3.88
7.05 Perception of unemployment*	16	3.72
7.06 Share of long-term jobseekers	18	5.03
7.07 Age structure of jobseekers	13	4.39
7.08 Availability of free labor*	13	3.47
7.09 Labor market dynamics	15	5.02
7.10 Job vacancies in services	65	2.78
7.11 Job vacancies in industry	44	3.47
7.12 Unskilled job vacancies	47	3.08
7.13 Migration of skilled labor*	19	2.97
7.14 Net migration	18	4.16
7.15 Average monthly wage	24	4.44
7.16 Wage expectations of jobseekers*	58	2.97
7.17 Discipline and diligence of employees*	61	4.03
7.18 Duration of sick leave	24	3.47
7.19 Employee motivation for productivity increase*	4	5.04
7.20 Fairness in employee selection*	24	4.08
<b>8th pillar: Education</b>	<b>22</b>	<b>3.27</b>
8.01 Level of education*	26	3.80
8.02 Knowledge of foreign languages*	11	3.26
8.03 School leaving examination results – Slovak language	31	3.31
8.04 School leaving examination results – Mathematics	52	2.70
8.05 Number of secondary school students	24	4.26
8.06 Scores achieved in Monitor 9 test – Slovak language	22	3.27
8.07 Scores achieved in Monitor 9 test – Mathematics	24	3.95
8.08 Number of primary school pupils	68	3.76
8.09 Connection of vocational schools and labor market*	69	2.22
8.10 Qualification of jobseekers*	40	2.97
8.11 Availability of highly skilled labor	33	3.01
8.12 Availability of skilled labor	21	3.20
8.13 Availability of unskilled labor	12	4.52



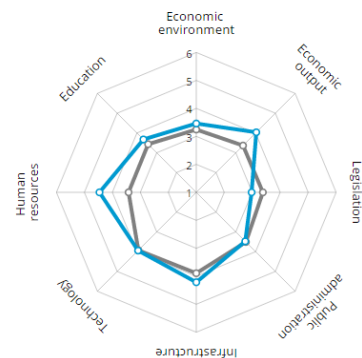
\* Data based on the Survey of entrepreneurs' and municipality representatives' opinions.





## REGIONAL BUSINESS ENVIRONMENT INDEX (RBEI) | OVERALL RANK: 3 OF 35

	Rank (1 - 35)	Score	Country average
<b>Regional business environment index</b>	<b>3</b>	<b>3.78</b>	3.48
<b>Economic activity</b>	<b>5</b>	<b>3.75</b>	3.31
Economic environment	5	3.46	3.25
Economic output	5	4.03	3.37
<b>Public administration and legislation</b>	<b>28</b>	<b>3.28</b>	3.46
Legislation	34	2.98	3.38
Public administration	20	3.48	3.51
<b>Technology and infrastructure</b>	<b>10</b>	<b>4.08</b>	3.91
Infrastructure	6	4.21	3.89
Technology	14	3.94	3.93
<b>Education and human resources</b>	<b>1</b>	<b>4.07</b>	3.43
Human resources	1	4.46	3.42
Education	9	3.67	3.43



## LARGEST COMPETITIVE ADVANTAGES AND DISADVANTAGES

Largest competitive advantages and disadvantages are selected from RBEI indicators based on simple rule. In the first step, benchmark value for each RBEI indicator for a particular region is calculated. For each indicator, this benchmark is for each indicator defined as  $\frac{3}{4} * A + \frac{1}{4} * V$ , where A is average value of a particular indicator among all regions and V is value of the indicator

## ADVANTAGES

Impact of natural conditions on doing business	1.74	<div><div></div></div>
Wage expectations of jobseekers	1.01	<div><div></div></div>
Quality of road infrastructure	0.88	<div><div></div></div>
Impact of district location on doing business	0.81	<div><div></div></div>
Usage of Internet services by businesses	0.74	<div><div></div></div>

itself. In the second step, all indicators are compared with their benchmark and these differences are sorted in descending order. Five indicators with highest positive difference are defined as largest competitive advantages, and conversely, five indicators with highest negative difference are defined as largest competitive disadvantages.

## DISADVANTAGES

Availability of necessary materials and services	-0.85	<div><div></div></div>
Employee motivation for productivity increase	-0.83	<div><div></div></div>
Impact of trade unions on doing business	-0.77	<div><div></div></div>
Barriers to business development	-0.69	<div><div></div></div>
Impact of the informal economy on doing business	-0.50	<div><div></div></div>

## SUBINDICES I, II

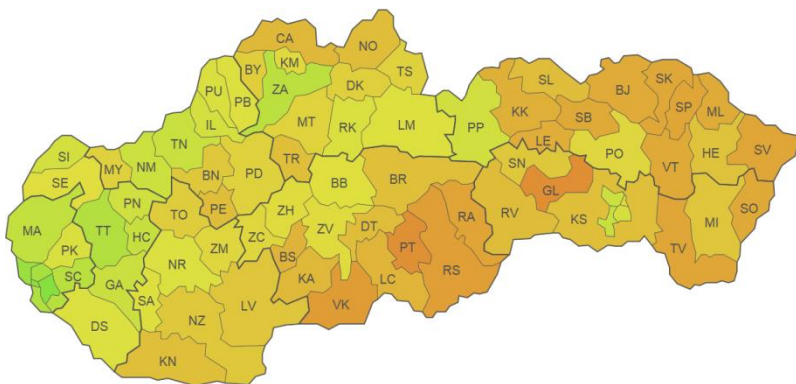
Subindex I: Economic activity			
	Rank	Score	Distance from average
<b>1st pillar: Economic environment</b>	<b>5</b>	<b>3.46</b>	II
1.1 Population density	3	3.09	<div><div></div></div>
1.2 Urban population	28	3.40	<div><div></div></div>
1.3 Share of employees in total population	22	2.97	III
1.4 Density of non-industrial companies	3	4.30	<div><div></div></div>
1.5 Density of industrial companies	3	4.73	<div><div></div></div>
1.6 Impact of the informal economy on doing business*	23	2.58	III
1.7 Level of corruption among private businesses*	16	3.27	I
1.8 Level of competitiveness in services*	12	3.92	III
1.9 Level of competitiveness in industry*	13	3.00	III
1.10 Reliability of business partners*	6	4.08	<div><div></div></div>
1.11 Availability of financial services*	5	3.68	<div><div></div></div>

## SUBINDICES III, IV

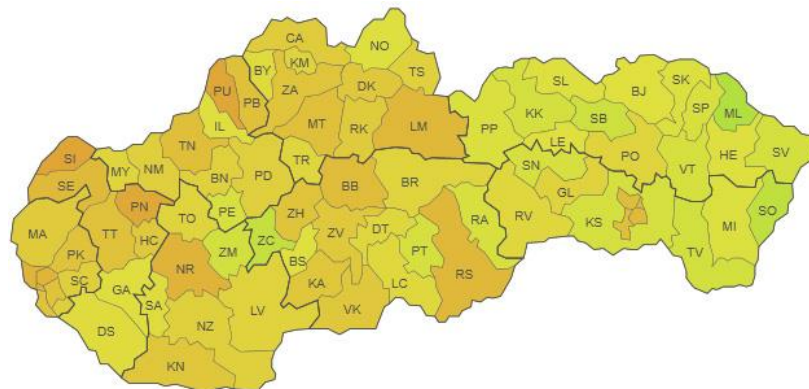
Subindex III: Technology and infrastructure			
	Rank	Score	Distance from average
<b>5th pillar: Infrastructure</b>	<b>6</b>	<b>4.21</b>	III
5.1 Density of national roads	6	4.80	III
5.2 Density of local roads	17	3.52	II
5.3 Usage of national roads	20	4.09	I
5.4 Usage of local roads	30	4.14	III
5.5 Quality of road infrastructure*	5	3.85	<div><div></div></div>
5.6 Usage of fixed phone connections	12	3.71	I
5.7 Availability of banks*	10	4.77	III
5.8 Availability of post offices*	12	4.92	III
5.9 Availability of medical facilities*	12	4.38	II
<b>6th pillar: Technology</b>	<b>14</b>	<b>3.94</b>	I

- Interactive web page
- Contains all data processed during the project
- Weight of parameters to assess the regions can be adjusted to get customized results according to user preferences (maps / rankings)
- Unique tool for all target groups

*RBEI Overall Results Map*

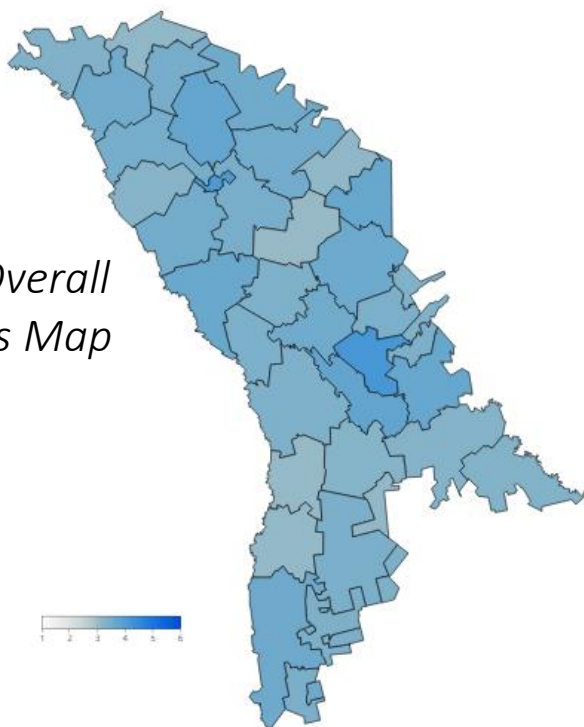


*Public Administration Quality Map*

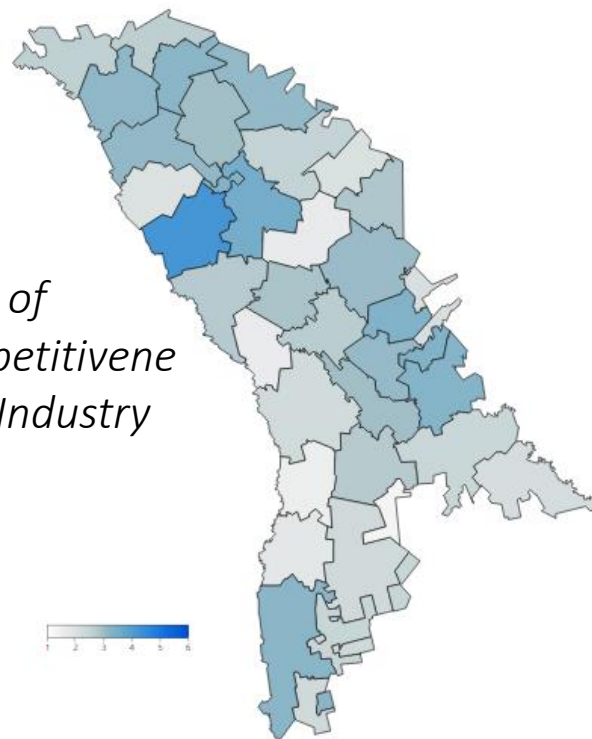


- Interactive web page
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*RBEI Overall  
Results Map*



*Level of  
Competitiveness  
in Industry  
Map*

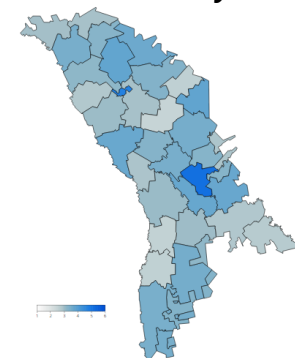


# TARGET GROUPS & USABILITY OF RBEI

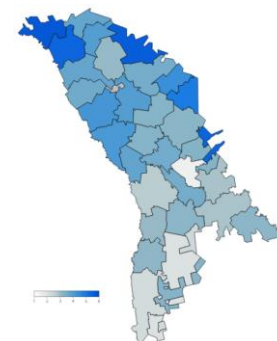
## LOCAL GOVERNMENT

- To learn about strengths and weaknesses
- To formulate accurate local development strategies
- To support arguments in discussion with central government
- To compare among each other
- To present highlights to voters and gain popularity

*Economic activity*



*Density of local roads*



# TARGET GROUPS & USABILITY OF RBEI

## CENTRAL GOVERNEMENT

- To target the regional development policies more precisely
- To scale state aid (incl. investment stimuli) according to the development level of the regions
- To measure the efficiency of regional development policies and regional governments

# TARGET GROUPS & USABILITY OF RBEI

## ENTREPRENEURS & INVESTORS

- To get basic info about quality of business environment in regions
- To support arguments when negotiation w central/local government
- To get specific info for doing business

# TARGET GROUPS & USABILITY OF RBEI

## 1. SELECT YOUR WEIGHT FOR EACH INDICATOR

Adjust the weight of each indicator by clicking the plus or minus button on the right of the indicator name. The weight will be displayed both visually and numerically. Changing the weight of and individual indicator will affect the weight of the whole pillar, changing the weight of the whole pillar will affect weights of all its indicators. Maximum weight for any indicator is equal to 100, minimum weight is equal to 0.01. When you are done, click the "Calculate new rankings" button.

Show or hide indicators of each pillar by clicking the minus button on the left of the pillar name.

Reset weights

Expand

Collapse

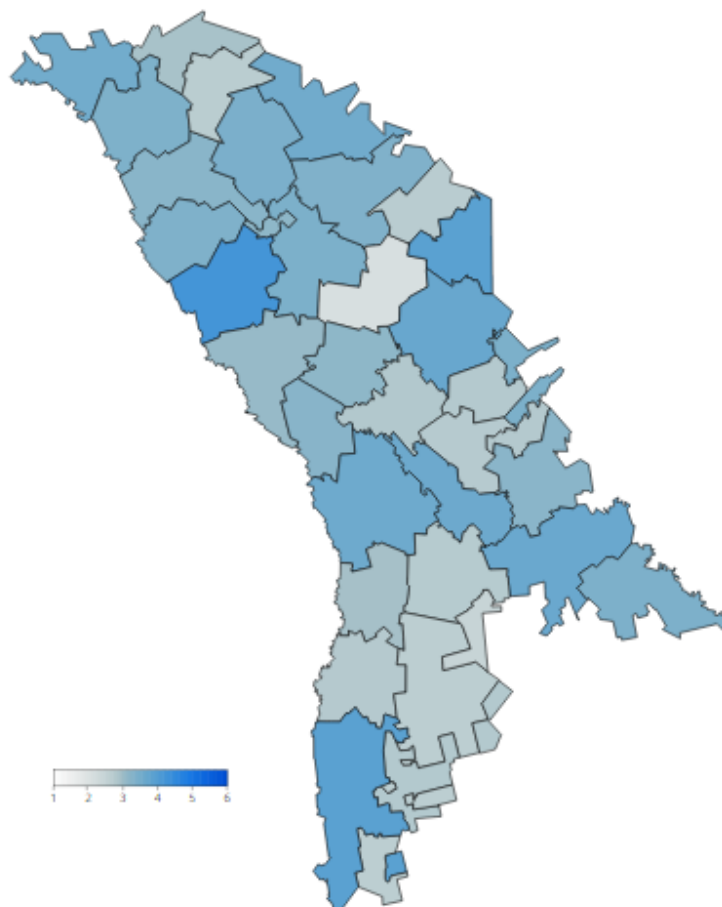
Calculate new rankings

### 1st pillar: Economic environment 16,7

1.2 Population density	0,01
1.4 Urban population	0,01
1.1 Share of employees in total population	0,01
1.3 Density of non-industrial companies	0,01
1.7 Density of industrial companies	0,01
1.5 Impact of the informal economy on doing business*	0,01
1.6 Level of corruption among private businesses*	0,01
1.8 Level of competitiveness in services*	0,01
1.9 Level of competitiveness in industry*	0,01
1.10 Reliability of business partners*	0,01
1.11 Availability of financial and capital resources*	0,01
1.12 Impact of district location on doing business*	0,01
1.13 Impact of natural conditions on doing business*	0,01
1.14 Current business conditions*	100
1.15 Change of business conditions in recent years*	100
1.16 Availability of necessary materials and services*	0,01
1.17 Potential for tourism development*	100
1.18 Multinational and foreign companies*	0,01

## 2. THEN SELECT YOUR DESIRED RANKING

Regional business environment index



Region	Score
1 Falesti	4.28
2 Cahul	3.94
3 Rezina	3.93
4 Orhei	3.73
5 Causeni	3.70
6 Ialoveni	3.66
7 Hincesti	3.63
8 Soroca	3.59
9 Briceni	3.57
10 Drochia	3.45
11 Dubasari	3.43
12 Singerei	3.43
13 Stefan Voda	3.43
14 Edinet	3.41
15 Glodeni	3.39
16 Floresti	3.38
17 Nisporeni	3.28
18 Riscani	3.26

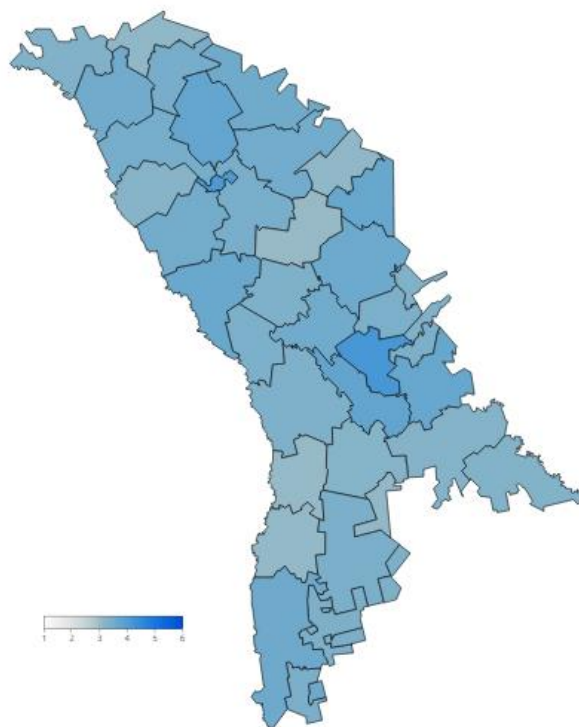
# TARGET GROUPS & USABILITY OF RBEI

GENERAL PUBLIC, THINK TANKS AND NGOs

- To increase pressure on local and central officials to care about regions
- To analyze personal performance of local politicians & municipality reps.
- To measure the impact of central and regional development policies
- To formulate own regional development recommendations



THANK YOU FOR YOUR KIND ATTENTION



Robert Kičina, Member of the Strategic Board of BAS

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