

smartEIZ

Project:

Revitalisation of the Town of Vukovar (part II.);  
Study on identification of competitive and  
collaborative advantages and development potentials  
for the revitalisation of Vukovar's Economy

## **Boosting Vukovar's Economy through Local and Sectoral Production Systems**

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## Study on identification of competitive and collaborative advantages and development potentials for the revitalisation of Vukovar's Economy

- **The purpose of this study:** identification of spatial, social and economic development potentials through recognition of possibilities for revitalization and reindustrialization of the Town of Vukovar
- **Objective:** to contribute to building of healthy economic foundation for sustainable development of the Town of Vukovar established on endogenous development potentials
- **Focus:** on competitive and collaborative potentials of local industries, revival/reuse of industrial property out of function

## 1. Analysis of existing socio-economic resources in Vukovar (Project I. part)

- Survey, interviews and statistical data analysis - natural/environmental resource base, industrial base, spatial development, urban-rural setting, business environment, SWOT of spatial and economic resources

## 2. Establishing competitive advantages in Vukovar (Project II. part)

- Focus groups, interviews and statistical data analysis - Theoretical concept and definition, innovation activities of companies, target markets of prospective industries, value chains, smart specialization policy, SWOT analysis of competitive advantages

## 3. Establishing of collaborative advantages in Vukovar (Project II. part)

- Focus groups and interviews - Theoretical concept and definition, identification of potentials for clusters, triple/quadruple helix, cross-border and transnational economic development cooperation, brownfield renewal initiatives, SWOT analysis of collaborative advantages

## 4. Recommendations regarding development and investment potentials

# Vukovar-Sirmium county

- The most eastern county in Croatia (ca 2500 km<sup>2</sup> surface, ca 200 000 inh.)
- Good geographical position
- Rich with: forests, fauna, natural resources
- Cultural heritage, tourism potential
- Opportunities to develop: water transport, energy efficiency projects, industrial production
- Bordering countries: Bosnia & Herzegovina, Serbia



# Town of Vukovar

- In the North-East of the County, excellent geo position, 39 km from highway, 20 km from the airport Klisa
- Near border with the Republic of Serbia
- Small river Vuka and Danube
- Rich natural resources (water, flatland, fields, wood, gravel, oil and ground gas, clay)
- ca 100,0 km<sup>2</sup> surface, ca 4% of the county surface
- Average population density 276,75 st/km<sup>2</sup>
- Among oldest Croatian towns → rich archaeological and historical heritage, cultural monuments, preserved environment

Demographic trends (CBS, Census 2011)

95,35% of population – in Vukovar urban area

	1991.	2001.	2011.	2015*
Town of Vukovar	46.735	31.670	27.683	24.938

# State of Vukovar economy



- War devastations (Homeland war) left severe negative economic consequences - damages estimated to 605 MEUR
- Biggest direct damages to big industry: Borovo (250 MEUR), Vupik (171 MEUR) and Vuteks (118 MEUR) → basis of Vukovar economy
- Majority of firms have undergone liquidation processes or in the process of privatization (indebted, loss of markets, significant devastation of facilities, outdated equipment, labour suffix, deficit of qualified labour)
- Small number of „healthy” firms → limited number of new jobs
- Need: opening of new firms and attracting investments
- Deficit of free construction parcels (unsolved property-legal rights, lack of free zones, business facilities and highly qualified labour)
- In the last couple of years, increase in number of firms and in number of employed persons

# Industry in Vukovar before and after the Homeland war



## **B E F O R E**

- In the second half on the last century strong industrial development
- From 46.543 inhabitants, 27.634 was employed (59,3 %)
- 56,8 % employed in industry
- Dominance of big economic systems
- Borovo, VUPIK i Vuteks: 84,7% of domestic production of local government unit Vukovar

## **A F T E R**

- Considerable drop of industrial production, employment and productivity
- Change of production structure in favour of micro and small enterprises (98% of businesses)
- Industrial recovery relatively slow
- Big challenge for economic and industrial policy, as well as for regional and local development policy

- Stimulating business environment is needed:
  - Clear, stable and transparent regulatory framework
  - Legal security
  - Shrinkage of unnecessary state bureaucracy
  - Development of infrastructure
  - Promotion of entrepreneurial spirit
  - Decrease of high tax burden
  - Assistance in insolvency issues
- Various measures (tax reliefs, local level measures stimulating business activities, subsidies) currently in place (covered through various Laws, Town of Vukovar and Fund for Reconstruction and Development)



# Initial findings

(Project: Revitalisation of Vukovar, I. part)



- Considerable drop in number of inhabitants
- Education system insufficiently adapted to development needs of Vukovar economy
- Imbalanced supply and demand in the labour market
- Workforce outflow from Vukovar
- Weak productivity of Vukovar industry
- Positive business examples insufficient to realize stronger economic boom
- Institutional shifts at local level: example of Business-innovation centre BIC Vukovar
- Stronger development of spatial-economic resources in Vukovar considerably influenced by implementation of structural reforms at national level

In the analysis of Vukovar's local competitive potentials we have used a combination of theoretical and strategic approaches:

- Porters diamond
- Porters value chain
- Regional competitiveness index
- Survey of innovative activities
- Smart specialization strategy for Croatia
- Interviews, workshops and focus group discussions with representatives of local companies, local public and educational institutions, local CSOs

*...and merged these different approaches into the SWOT analysis creating a unique conceptual framework for assessing local economic development potentials*

# PART II. Seeking for competitive advantages of the local economy



## **Innovativeness of Vukovar's companies** *(survey results, Lj. Božić (2018))*

- Local companies use classic technology that is not up to highest standard, but is used in this particular industry;
- Reliance on outdated technology harms in the long term business development and survival
- Local entrepreneurs recognize the importance of advanced technologies for their business, the importance and need of learning and continuous training, and the increasing importance of innovation, research and development as well as advanced technologies for competitiveness on the domestic and international market
- Clearly, collaboration with scientific institutions can make access to modern technologies and knowledge easier and enable gathering of new knowledge, however this is not sufficiently recognised as only 1/3 of questioned companies conduct sometimes R&D activities

## Reasons for lacking interest in innovative collaborative activities:

- Companies are oriented towards incremental improvements and innovation of lower complexity for which they do not need cooperation with scientists
- Own resources for realization of innovative projects,
- Problems in establishing cooperation with scientific institutions and perception that scientific institutions are not ready for cooperation with businesses.

Continued innovation activities are identified in a very low number of companies in Vukovar, due to: high costs, lack of specialised human resources, and lack of cooperation opportunities with other companies or institutions.

# Seeking for competitive advantages of the local economy



## Innovative companies in Vukovar:

- Innovative companies have primarily worked on the development of new products, but not for a target market
- Half of innovative companies develop/improve existing products for new markets, but not for the company
- $\frac{1}{4}$  of companies have product innovations of highest level, as well as entirely new products developed for the world market
- $\frac{1}{3}$  of companies have modified existing products for existing markets
- $\frac{1}{3}$  of companies have innovated processes within their own business

# Assessment of local competitiveness based on RIK EU 2016.



Elements of the regional competitiveness index	Impact on competitiveness of the local economy 1 – low, 2 – medium, 3 – high	Responsibility N – national level, R – regional level, L – local level or B – businesses
	Vukovar	
<b>Basic factors:</b>	2	N (5), L (3), R (2)
- Institutions	2	N, L
- Macroeconomic stability	2	N
- Infrastructure	2	N, L
- Health	2	N, R
- Elementary education	2	N, R, L
<b>Efficiency:</b>	1,3	N (3), B (3)
- Market size	1	N, B
- Efficiency of the labour market	1	N, B
- Higher education and life-long learning	2	N, B
<b>Innovation:</b>	1,3	B (3), N (1)
- Innovation	1	B, N
- Business sophistication	1	B
- Technological readiness	2	B

# Strengths and weaknesses of Vukovar's competitive advantage



## STRENGTHS

### *Primary activities of entrepreneurs*

- More successful entrepreneurs are focused on the operational part of the production/ service provision e.g. maintenance

### *Supporting activities of entrepreneurs*

#### *a. Small enterprises*

- owners managers directly control quality of products
- human resource management is more direct – learn from older more experienced colleagues

#### *b. Medium sized and big enterprises*

- Borovo & Ministry of science and education – “project of educating shoemakers” (promotion of vocational education)

### *Innovation activities of entrepreneurs*

- Intensification of R&D activities related to local industry
- Borovo – technology development, inclusion of smart materials in production processes, medical footwear – natural materials, comfort wear, antibacterial etc.) – niche in which footwear production can reach higher price and quality



## WEAKNESSES

### *Primary activities of entrepreneurs*

- Weaker companies lack financial resources for employing specialised working force for eg. logistics, marketing, sales
- Inability of companies in financial difficulties to use incentives or funding at special conditions
- Unorganised entrepreneurs (do not use institutions that represent them – chambers, associations of entrepreneurs) – supporting institutions do not have sufficient capacity
- Disorientation of entrepreneurs in the hierarchy of responsibilities
- No development of a positive entrepreneurial environment





## WEAKNESSES

### *Supporting entrepreneurial activities*

- Insufficiently informed about incorrect/insolvent business partners
- Inability to recognise business opportunities
- Insufficient use of EU funding for projects in the field of environmental protection
- Existing labour is not adequately educated
- Outdated technology in existing industry (Borovo), based on traditional production process (most expensive is leather) – work-intensive business – too expensive on the market – outdated IT system in shops

### *Innovative activities of entrepreneurs*

- Low level of innovativeness
- Low productivity of manufacturing industry (higher number of employed in industry realises relatively lower income)
- Special education of labour due to lack on local labour market

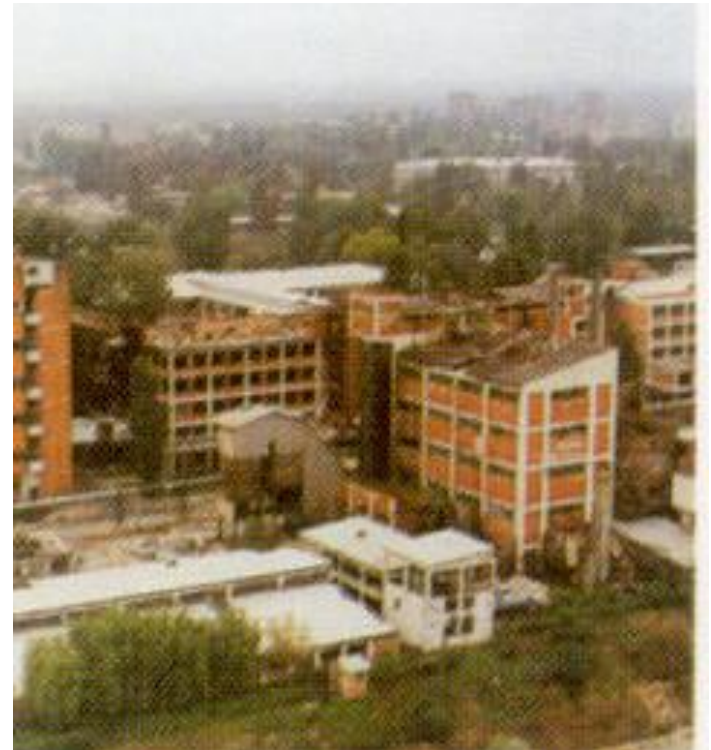
Findings are sorted in accordance with the elements of the Regional competitiveness index for EU regions which incl. the following elements:

- institutions,
- macroeconomic stability,
- infrastructure,
- health,
- elementary education and
- efficiency - market size, labour market, higher education and life-long learning

# Borovo factory – before the war



# Borovo - after the war





# Borovo company - today

- (Still) big business entity
- Main activity: production of leather and rubber shoes, distribution and retail
- 99,9% owned by the Republic of Croatia, 0,01% own shares
- Cca. 600 employees
- Highly indebted – continuous risk of bankruptcy
- Devastated facilities that should be completely demolished, plants that should be renovated, outdated technology
- In search of a strategic partner

## **Strengthening of competitiveness through:**

- Development of IT system
- Re-branding
- R&D centre
- New projects of production and energy efficiency

## **Brownfield site renewal:**

- Renovation and revitalization of industry complex
- Optimization and increase of production, cutting of costs
- Environmental actions
- Economic and socially accepted use of site, buildings and historical values

# Borovo site – ongoing renewal actions



**In place:** Entrepreneurship incubator Vukovar in cooperation with Vukovar business zone: Project of construction of Business innovation centre „BIC – Vukovar“

- Pre-incubator space, business zones for business beginners, laboratories (renewable energy testing), conference room, virtual incubator (opening of 30 SMEs, 120 jobs)
- Main support in ICT, renewable energy resources, biotechnology and metal manufacturing

**To do:** Demolishing of 12 buildings devastated during the war; managing waste generated before and after the war

**There is no comprehensive renewal plan dealing with a large part of the former industrial site!** The local government cannot do much without the owner of the site, the State! The State is focused only on the economic aspect of the company.