2016

Development of entrepreneurship in Eastern Poland – the impact of support provided under the Operational Programme Development of Eastern Poland 2007-2013

Wrocław, 2017

Fundusze Europejskie Polska Wschodnia

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Unia Europejska Europejski Fundusz Rozwoju Regionalnego

OBJECTIVE OF THE STUDY

Evaluation of the impact of support provided under Operational Programme Development of Eastern Poland 2007-2013 on the development of entrepreneurship in five voivodeships in which it was implemented.

Evaluation of measures under priority axis I of the Programme:

I.1 “Infrastructure of universities”

I.2 “Supporting the establishment and co-financing of financial engineering instruments”

I.3 “Supporting innovativeness”

I.4 “Promotion and cooperation”

OBJECTIVES OF PRIORITY AXIS I OF THE OP DEP

	Measure 1.1	Measure 1.2	Measure 1.3	Measure 1.4
	Infrastructure of universities	Supporting the establishment and co-financing of financial engineering instruments	Supporting innovativeness	Promotion and cooperation
	PLN 1,8 billion	PLN 0,2 billion	PLN 3,3 billion	PLN 0,2 billion
measures	Construction and providing equipment for educational infrastructure	Services provided by loan and guarantee funds. Measures providing information about and promoting the opportunities for the use of the offer of loan and guarantee funds	Support for the purchase of equipment, development of innovation centres, preparation of investment areas, creation of R&D facilities	Preparation and implementation of an Economic Promotion Project for the five voivodeships located in Eastern Poland Creation of a cooperation network of investor support centres (ISC) Development of regional development policy Creation and development of clusters
effects	Preparation of universities for an active participation in the creation of a competitive economy	Improvement of the entrepreneurs' access to external sources of financing at the early state of a company's operation and the improvement of the investment readiness of SMEs	Improvement of the conditions for conducting business activity – development and diffusion of innovative projects.	Increase of the interest in the economic offer of Eastern Poland and creation of a permanent platform of cooperation between the regions of Eastern Poland

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PRIORITY AXIS I OF THE OP DEP AND OTHER PROGRAMMES

The value of projects and co-financing of projects supporting entrepreneurship implemented in Eastern Poland

	Total project value	Value of co-financing
Axis I	PLN 5,4 billion	PLN 4,3 billion
Axes II-VI	PLN 10,1 billion	PLN 6,8 billion
OP DEP (total)	PLN 15,5 billion	PLN 11,0 billion
Funds from national OP supporting entrepreneurship spent in EP	PLN 9,9 billion	PLN 5,0 billion
Funds from ROP supporting entrepreneurship spent in EP	PLN 131,9 billion	PLN 76,7 billion
TOTAL	PLN 157,3 billion	PLN 92,7 billion

The per capita value of co-financing to support innovation and competitiveness was higher in the macro-region as compared to the country's average. The average value of co-financing from EU funds per 1 resident in the area of innovativeness and entrepreneurship in Eastern Poland was noticeably higher (PLN 1,316) than in other voivodeships (PLN 1,123). According to the report *Wpływ funduszy europejskich perspektywy finansowej 2007-2013 na rozwój społeczno-gospodarczy Polski Wschodniej* (The impact of European funds provided under the financial perspective 2007-2013 on the socio-economic of Eastern Poland).

METHODOLOGY

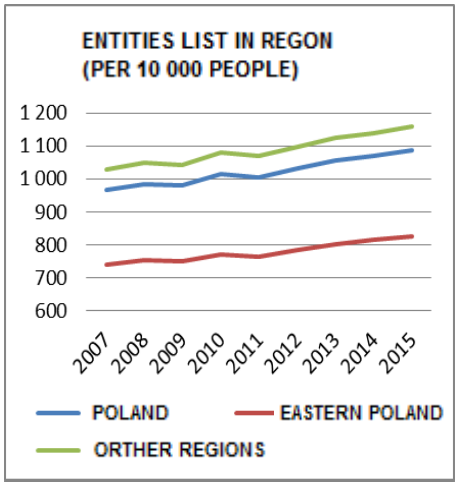
THE METHODOLOGY USED

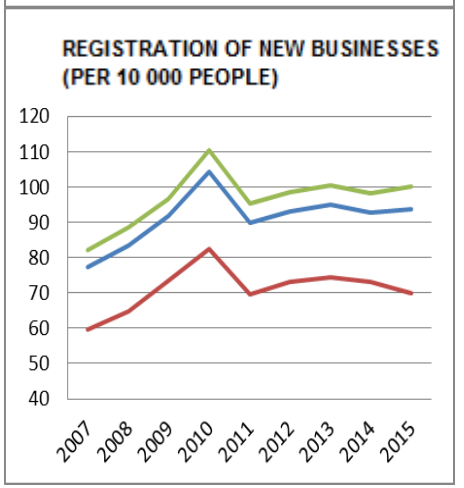
- Analysis of the existing data *(desk research)*
- Analysis of statistical data
- IDI with MA and IB OP DEP
- IDI with LGU
- ITI with beneficiaries
- Counterfactual analyses
- Econometric modelling
- Analysis of the net effect of interventions
- Systematic review
- Expert panel
- CAVI/CATI with final beneficiaries

EFFECTS OF THE OP DEP

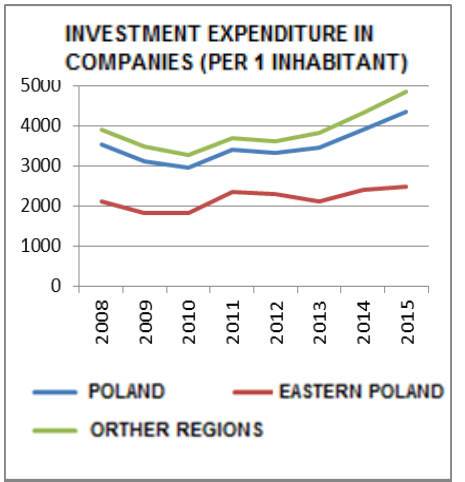
CHANGES OF KEY INDICATORS

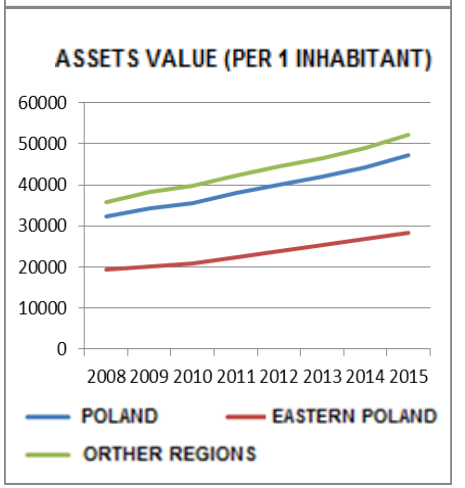
Business (economic operators)



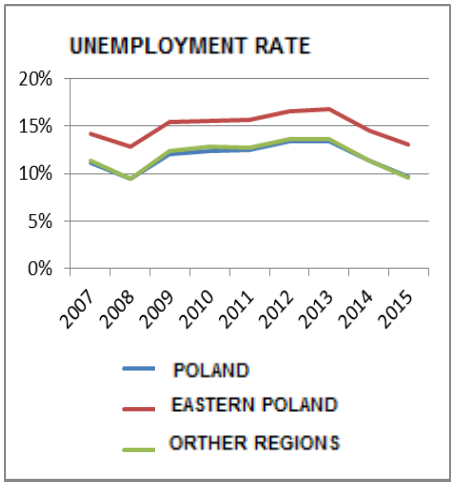


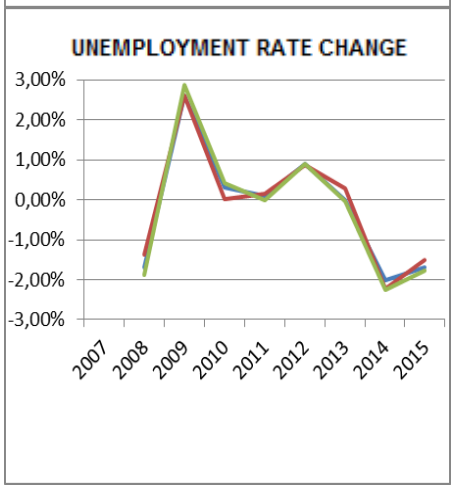
Investments and fixed assets





Labour market





NET EFFECT

NET EFFECTS (COUNTERFACTUAL ANALYSIS)

The net impact of disbursement of PLN 1 million from Axis I OP DEP for selected indicators concerning economic operators and the labour market based on SPSM i PSM models (mean annual change of the indicator for the years 2008-2014). Results of analyses carried out at poviat level, averaged over the entire macro-region.

	Indicator	The impact of Axis I with regard to total national and regional funds	The impact of Axis I with regard to total national and regional funds
		SPSM	PSM
Business	Entities newly registered in the REGON register per 10 thousand of population	0.07	0.03
	Natural persons pursuing economic activity	0.01	0.01
	Balance of newly registered entities and entities de-registered from the REGON register per 10 thousand of population	0.13	0.00
Investment expenditure	Investment expenditure in enterprises per 1 resident (PLN)	-6.73	0.17
	Gross fixed assets of enterprises per 1 resident (PLN)	-54.69	2.14
Labour market	Registered unemployment rate (%)	0.02	0.00
	Total number of employed persons	43.20	-1.22

In the analyses, the impact of Axis of the OP DEP was calculated as the difference of the impact of other EU funds and the funds from Axis I of the OP DEP

COMPARISON WITH ECONOMETRIC METHODS

Counterfactual analyses	Econometric methods
Business	
Axis I of the OP DEP had a **positive impact on the systematic increase** in the level of entrepreneurship. The net impact was relatively small.	A **correlation** was observed between the level of resources involved from the Axis I of the OP DEP and the increase in the number of entities **registered in the in the REGON register** at the level of voivodeships and sub-regions. The **value of ROP projects per capita** was of **key importance** for the value of the synthetic indicator of business climate for the development of enterprises in gminas in EP (twice as high as in the case of Axis I of OP DEP).
Investments and fixed assets	
The picture is **ambiguous**. In SPSM analyses, the net effect was negative, which means that other resources constituted a better tool for increasing company investments and assets. The results of PSM analyses are different.	A statistically significant impact **on investments** in the micro and small companies sector was observed. However, of key importance was the impact of the **financial result** of the sector in the previous year. The increase in the gross value of **fixed assets per capita** was mainly due to **ERDF support provided outside the OP DEP**.
Labour market	
Axis I of the OP DEP **had a very limited positive impact on the labour market** (SPSM) or had no impact at all (PSM).	**No statistically significant impact of Axis I of the OP DEP on the number of persons employed** in micro, small, medium and large enterprises was observed as compared to the number of population in voivodeships.

DIFFERENTIATED IMPACT

NET EFFECTS BY POVIAT SEGMENTS

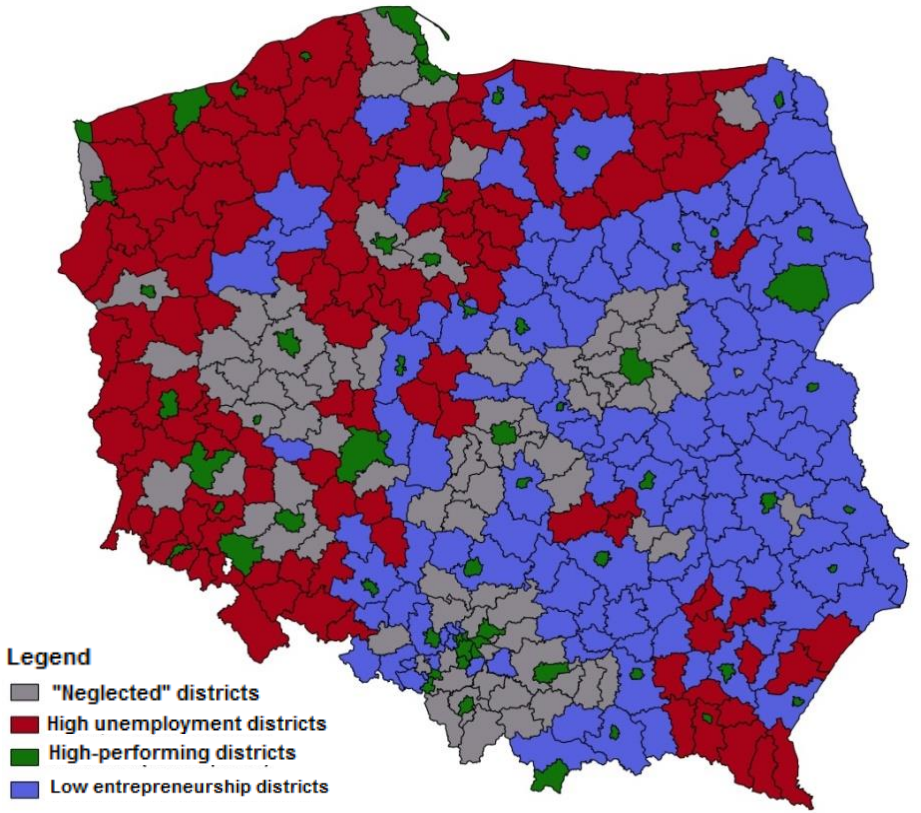
- **“Forgotten” poviats** – grouped around large cities and aglomerations. Characterised by a slightly smaller than average area and a slightly lower population density than an average poviat in Poland.
- **Poviats with a high level of unemployment** – high rates of unemployment, above average area and low population density.
- **Poviats with a low level of entrepreneurship** – the largest poviats with low population density (not as low, however, as in the case of poviats with a high level of unemployment). The unemployment rate in these poviats was average, more or less the same as in the entire country.
- **Sound urban poviats** – urban poviats connected to agglomerations. Characterised by a small area, high population density, low unemployment level and high percentage of employed persons. These poviats recorded the highest number of newly registered entities (however, this is also where the highest number of entities are deleted from the register); also, the proportion of natural persons conducting business activity is the highest in these poviats.

NET EFFECTS BY POVIAT SEGMENTS

Net effect of Axis I of the OP DEP compared to other national and regional resources	Forgotten	Sound – urban	With high unemployment level	With low level of entrepreneurship
Businesses (newly registered entities and balance of new and de-registered entities)	negative or negligible impact of interventions	negative, but small impact of interventions	relatively high negative impact of interventions	**positive impact on the level of entrepreneurship**
	IN TOTAL, the intervention **was effective in poviats with a low level of entrepreneurship**.			
Investments and fixed assets (investment expenditure, the value of gross fixed assets)	small positive impact on investment expenditure negative impact on the value of fixed assets	positive, small impact of interventions	relatively high negative impact of interventions	**positive impact on investment expenditure** negative impact on the value of fixed assets
	IN TOTAL, the intervention was effective primarily in urban poviats. Negative impact was observed in poviats with high unemployment level.			
Labour market (the number of persons employed)	IN TOTAL, the intervention **was effective only in poviats with a low level of entrepreneurship**. In the remaining three types, the impact was undistinguishable compared to other resources			

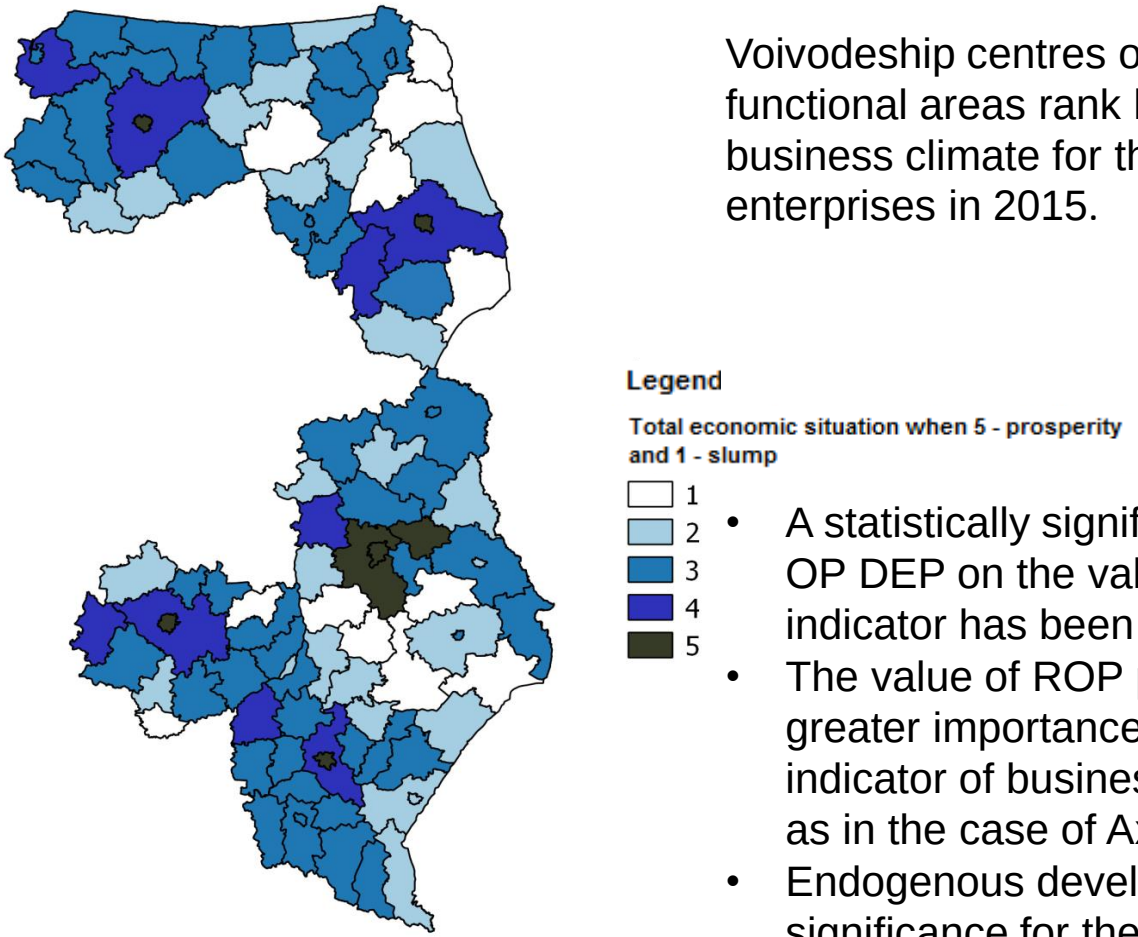
OP DEP VS. ENTREPRENEURSHIP AND THE LABOUR MARKET

- Support provided under Axis I of the OP DEP was most effective in the case of the largest group of poviats in EP – i.e. poviats with a low level of entrepreneurship – as it responded to their most urgent needs related to entrepreneurship and the labor market.



Poviats with a low level of entrepreneurship featured a more favourable level of labour market indicators (lower unemployment rate, higher number of persons employed) than, e.g., poviats with a high level of unemployment in which the intervention was ineffective. Therefore, the effectiveness of the intervention **could be determined by the endogenous resources of the poviats**.

THE BUSINESS CLIMATE FOR THE DEVELOPMENT OF ENTERPRISES IN POVIATS LOCATED IN EASTERN POLAND IN 2015



Voivodeship centres of Eastern Poland and their functional areas rank highest with regard to the business climate for the development of enterprises in 2015.

- A statistically significant impact of Axis I of the OP DEP on the value of the business climate indicator has been observed.
- The value of ROP projects per capita was of greater importance for the value of the indicator of business climate (twice as high as in the case of Axis I of OP DEP).
- Endogenous development is of fundamental significance for the development of entrepreneurship.

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THE IMPACT OF OP DEP ON THE BUSINESS CLIMATE INDICATOR

The econometric model at the level of gminas has shown that endogenous development is of fundamental significance for the development of entrepreneurship, and not external support. The highest value of the KKRP indicator was recorded in the case of the following gminas:

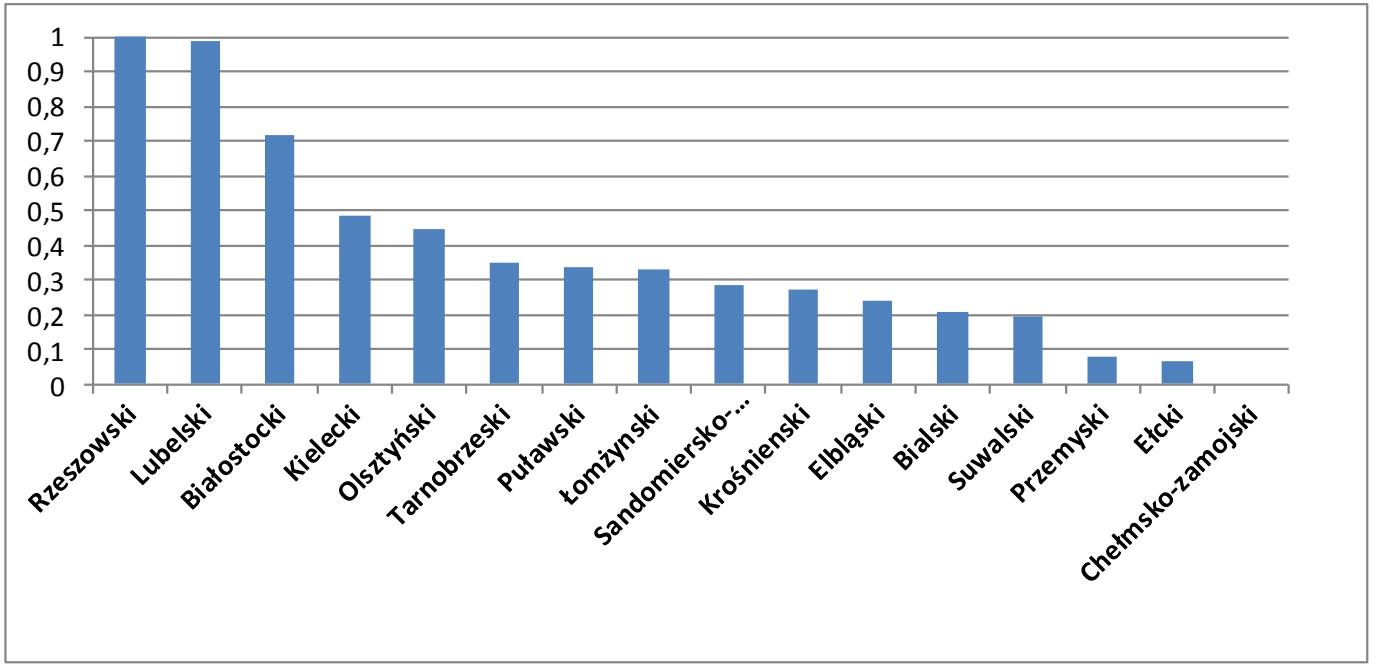
- with a **higher dynamics of the employed population** 2015/2007 in the gmina, where the importance of this variable was almost three times as high as the value of ROP support, which in turn was twice as high as the support provided under Axis I of the OP DEP;
- with higher per capita revenues from personal income tax (PIT) and agricultural tax compared to Poland's average in 2007, which defines the **level of wealth** (income) of the population and natural persons conducting economic activity at the beginning of the period of support;
- with higher revenues from the corporate income tax (CIT) affecting legal entities as compared to Eastern Poland's average, which defines the **financial health of companies** (although the importance of this factor was lower than the importance of the revenues from personal income tax).

DIFFERENTIATED IMPACT OF THE OP DEP AT THE LEVEL OF SUB-REGIONS

	GDP growth rate per capita 2013/2007 [percentage points]			Synthetic indicator of the business climate 2015			New entities registered in the REGON register per 10,000 population 2015		
Sub-region	residuals from the model	effect from Axis I of the OP DEP	Net efficiency*	residuals from the model	effect from Axis I of the OP DEP	Net efficiency*	Residuals from the model	Effect from Axis I of the OP DEP	Net efficiency*
Rzeszowski	3.38	25.59	**28.97**	0.08	0.25	**0.33**	-0.28	27.96	**27.68**
Lubelski	-4.72	33.04	**28.32**	0	0.28	**0.28**	-1.77	31.46	**29.69**
Białostocki	3.2	16.98	**20.18**	-0.01	0.17	**0.16**	5.01	19.32	**24.33**
Olsztyński	3.16	13.66	**16.82**	-0.08	0.11	**0.03**	-1.39	13.07	**11.68**
Kielecki	-1.55	16.94	**15.39**	-0.05	0.11	**0.06**	6.93	12.75	**19.68**
Tarnobrzeski	1.01	11.01	**12.02**	0	0.09	**0.09**	-3.45	10.4	**6.95**
Łomżynski	8.1	2.95	**11.05**	0.04	0.04	**0.08**	-4.53	4.27	**-0.26**
Puławski	1.86	7.77	**9.63**	0.02	0.08	**0.1**	-1.78	9.43	**7.65**
Bialski	4.08	3.19	**7.27**	-0.04	0.05	**0.01**	-5.8	5.98	**0.18**
Krośnieński	2.44	2.37	**4.81**	0.08	0.02	**0.1**	2.58	2.69	**5.27**
Elbląski	1.09	3.36	**4.45**	-0.02	0.03	**0.01**	5.34	3.52	**8.86**
Suwalski	-1.54	2.07	**0.53**	-0.03	0.04	**0.01**	-1.1	4.3	**3.2**
Chełmsko-zamojski	-8.49	5.36	**-3.13**	-0.08	0.04	**-0.04**	-3.44	4.92	**1.48**
Ełcki	-3.58	0.31	**-3.27**	-0.02	0.01	**-0.01**	-3.94	0.61	**-3.33**
Przemyski	-6.04	1.83	**-4.21**	0.01	0.02	**0.03**	0.48	2.64	**3.12**

EFFICIENCY OF THE USE OF RESOURCES

Synthetic efficiency indicators



The highest net efficiency of the support provided under Axis I of the OP DEP was recorded in the Rzeszowski and Lubelski sub-regions which outdistanced the sub-regions with voivodeship centres on further places in the ranking, namely the Białostocki, Kielecki and Olsztyński sub-regions.

Efficiency here is understood to mean enabling better results than what is provided for in the estimated model, that is, the net efficiency of Axis I of the OP DEP shall mean the impact of not only the amount of support but also the efficiency of its use in a given territorial unit.

SUMMARY

- The counterfactural analyses have confirmed the occurrence of the net effect of the intervention under Axis I of OP DEP on the indicators determining the economic development of Eastern Poland; however, this effect was relatively small at macro-regional level.
- The stated impact turned out to be differentiated by type of poviat to which the intervention was addressed – the greatest impact has been recorded in the the most represented (52%) group of poviats located in Eastern Poland – the poviats with a low level of entrepreneurship.
- Econometric methods has shown that at the further stages of analyses – i.e. at the level of sub-regions, poviats and gminas – it can be demonstrated that a statistically significant impact of Axis I of the OP DEP resources on the indicators of socio-economic development of these territorial units exists.

SUMMARY

- The starting position of analysed territorial units (i.e. their potential prior to the provision of support) was the fundamental factor determining the impact of Priority Axis I of the OP Development of Eastern Poland on the changes in the key entrepreneurship indicators at the local level (of poviats and gminas).
- The highest effectiveness of interventions and at the same time efficiency of support has been recorded in voivodeship centres and their functional surrounding.

"75% of resources flowed into these big cities. We received – pardon my language – only the so-called leftovers. If billions are used to fund road construction in Lublin, and I can't get 20 million for the construction of a part of a small ring road, then we can hardly speak of cohesion."

If there is a measure, than it should be accompanied by subsequent measures. If a measure is related to the infrastructure of universities, than we should also be able to ensure economic zones, business environment, incubators, etc. Everything should be arranged concurrently, and this only happened in Lublin. Which means Lublin took all the building blocks that started to harmonize at some point."

RECOMMENDATIONS

- To ensure a more even absorption of resources (leading to more evenly distributed effects at a later point), support instruments in programmes such as the OP DEP should be:
- (1) designed individually (adapted) for beneficiaries with different potentials; **or**
- (2) appropriated by way of separate competitions, to which sometimes access would be granted to entities with greater potential and at other times – to entities with lower potential; **or finally**
- (3) in joint competitions preference would be given to “peripheral” entities (units).

THANK YOU FOR YOUR ATTENTION!

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