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## TRENDS OF LVIV REGION INNOVATIVE DEVELOPMENT IN THE CONTEXT OF ITS ECONOMY ENERGY-EFFICIENT OPERATION

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*Summary. The subject of the research is the development of Lviv region innovative potential. This article explores the essence and the need for innovative potential development in the region. Structural components of the innovation potential of the region are described: the scientific and technical potential; marketing component; innovative culture. The statistical analysis of the main indicators of*

*Lviv region innovation areas is carried out: analysis of innovation in the enterprises; introduction of innovations; sources of funding; sales of innovative products; research activities; structure of scientific research; costs of R & D activities. SWOT-analysis matrix of Lviv region innovative potential in terms of energy conservation in the context of its components is formed.*

**Key words:** *innovative potential, innovation, scientific and technological potential, innovative culture, innovative activity, energy saving.*

The subject of the research is the development of Lviv region innovative potential. This article explores the essence and the need for innovative potential development in the region. Under the innovative potential of the region is meant the ability of the region as a separate economic unit to create innovations, to receive innovations or interim results from outside in the existing socio-economic and political conditions using its own scientific and technical potential and to bring them to the ultimate user using the available innovative infrastructure in the region and the formed innovation culture.

Structural components of the innovation potential of the region are described: the scientific and technical potential; marketing component; innovative culture.

The statistical analysis of the main indicators of Lviv region innovation areas is carried out: analysis of innovation in the enterprises; introduction of innovations; sources of funding; sales of innovative products; research activities; structure of scientific research; costs of R & D activities.

The results of the analysis showed that among the regions of Ukraine Lviv ranks 14th in terms of the enterprises innovation activity (16,6 %). The most common innovation area is product innovations. The main source of financing the costs of technological innovation is the enterprises' own funds (in 2013, 83,12 % of the total funding for technological innovation). The volumes of innovative products in

2013 amounted to UAH 849,5 million. The volumes of executed scientific and technical work are increasing annually and in 2013 they amounted to UAH 314 million: UAH 135,3 million are basic researches (42,95 %), UAH 82 mln. – developments (21,28 %), UAH 67 mln. – applied researches (26,31 %), UAH 29.8 million – scientific and technical services (9,46 %). Total expenditure on conducting scientific and research work is increasing in average by 4 % per year and in 2013 amounted to UAH 308,1 million.

SWOT-analysis matrix of Lviv region innovative potential in terms of energy conservation in the context of its components is formed. The results of the SWOT-analysis indicate that overcoming the major problems of creating innovative energy saving potential in Lviv region should be referred to:

1. Scientific and technical sphere: introduction of effective scientific management; establishing tight links between universities and manufacturers of energy efficient products and technologies, modernization and updating of curriculum for specialists in energy efficiency; adaptation of scientific researches to implementation; use of technical assistance from international organizations.

2. Marketing sphere: arranging exhibitions / sites for placing information about manufacturers and potential buyers of energy efficient products and technologies; coordination of the activities of the innovation infrastructure existing subjects at regional level; use of public-private partnerships facilities; creation

of specialized agencies-intermediaries (joint-ventures, marketing and advertising agencies, etc.) specializing in energy efficiency.

3. Innovative culture area: promotion of energy-saving innovation at all levels; formation of the consciousness of economical attitude to resources, energy including.

### References

1. Poruchnyk A. (2004) Innovatsiyni potentsial Ukrainy ta yoho realizatsiia v mizhnarodnomu naukovo-tekhnichnomu spivrobitnytstvi [The innovative potential of Ukraine and its implementation in the international scientific and technical cooperation]. Retrieved from [http://kneu.kiev.ua/journal/ukr/article/2004\\_1\\_Poruchnik\\_UKR.pdf](http://kneu.kiev.ua/journal/ukr/article/2004_1_Poruchnik_UKR.pdf) [in Ukrainian].

2. Rehionalna prohrama innovatsiinoho rozvytku Lvivskoi oblasti na 2013–2015 roky [Regional program of innovative development of Lviv region for 2013–2015]. Retrieved from [http://cstei.lviv.ua/upload/pub/Innov/1386629428\\_55.pdf](http://cstei.lviv.ua/upload/pub/Innov/1386629428_55.pdf) [in Ukrainian].

3. Iliashenko S. M. (2005) Problemy upravlinnia innovatsiinym rozvytkom pidpriemstv u tranzytyvni ekonomitsi [Problems of innovative development of enterprises in transitive economy]. Sumy : VTD “Universytetska knyha” [in Ukrainian].

4. The Law of Ukraine «On priorities of innovation activity in Ukraine» Retrieved from <http://zakon4.rada.gov.ua/laws/annot/433-15> [in Ukrainian].

5. Lviv Regional Council, Lviv Regional Administration (2014). Investytsiyni klimat Lvivskoi oblasti [Investment climate of Lviv region]. Lviv.

6. Department of Statistics in the Lviv region. Official Website. Retrieved from [http://database.ukrcensus.gov.ua/statbank\\_lviv/Dialog/Saveshow.asp](http://database.ukrcensus.gov.ua/statbank_lviv/Dialog/Saveshow.asp) [in Ukrainian].

7. Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings.

8. Directive 2010/30/EU of the European Parliament and of the Council of 19 May 2010 on the indication by labelling and standard product information of the consumption of energy and other resources by energy-related products.