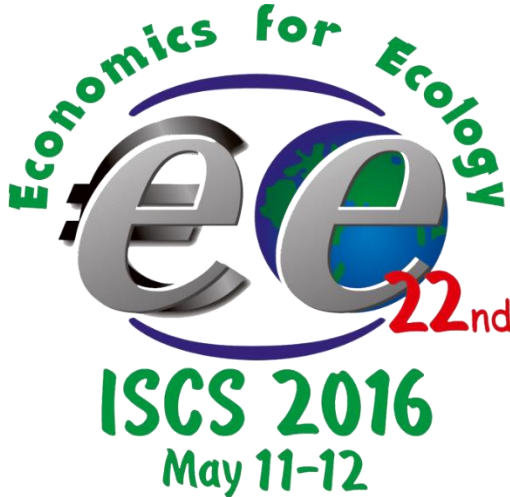


Ministry of Education and Science of Ukraine
Sumy State University
Oleh Balatsky Academic and Scientific Institute of Finance,
Economics and Management

22nd International Scientific Conference
"Economics for Ecology"
ISCS'2016



Економіка для екології

Матеріали
XXII Міжнародної наукової конференції
(Україна, Суми, 11–12 травня 2016 року)



Суми
Сумський державний університет
2016

the excessive deterioration of social relations with the environment and amplification of the resource and ecological crisis in almost all regions of the world [3].

Moreover, exacerbation of political, national, social and economic contradictions between countries and nations regarding the use of resources of the biosphere is another significant reason. In future this problem is able to generate unpredictable global social and international conflicts and potential disasters.

In general, depletion of natural resources' potential, reduction of minerals, entail a negative impact on the ecosystem. Owing to this, the strategic task for the whole world, of how to settle ecological problems, should be the development of approaches that will be built upon adequate and effective mechanisms of regulation of sustainable development. For the further, all activities of the society should not contradict natural laws, in order not to lead to irreversible processes in the ecosystem.

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**INNOVATION ECOSYSTEMS
FOR SUSTAINABLE DEVELOPMENT**

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Among the main issues we face today dynamics of changes and unpredictability of transformation trajectories should be definitely mentioned. As a result of even just these two our own lives are faster and working conditions are more and more demanding. From personal micro-level to socio-economic macro-level we can see human creativity and its innovative outcomes. And at all that levels different socio-economic

systems obtain more and more self-organising potential. In addition, having much less material limits both intelligence and creativity are very promising in the context of sustainable development in times of our “information age” and “knowledge society”.

We can consider the industrial sector of Sumy Region and dynamics of its “innovativeness” as an example (see Figure 1). Two common and very simple statistical indicators that can show a lot: share of industrial enterprises which were involved in so called innovative activities and the ones which implemented innovations. First obvious conclusion is that in this century less than a quarter of industrial enterprises are involved in obtaining and/or implementing innovations. Second less obvious assumption is that self-organisation of local industry in Sumy Region may be analysed in more detail as the shares of enterprises involved in obtaining and implementing innovations are very close year by year and varies from less than 5% to more than 20%.

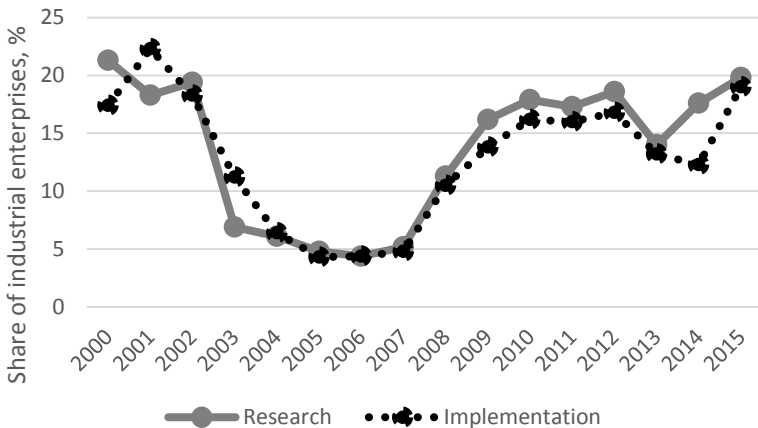


Figure 1 – Innovation Intensiveness in Industry, Sumy Region

In the sustainability context we also need to take into account along with general innovation activity indicators the way natural resources are preserved and used. According to our assumption it may be sufficiently determined by the direction and intensity of the intellectual and innovative activities within regional economy (corresponding socio-eco-economic system).

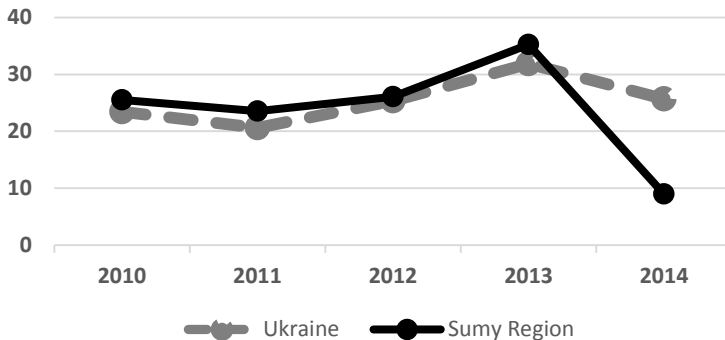


Figure 2 - Resource-saving technologies implemented, %

In case of Sumy Region (see Figure 2) we can see that only about one of three or even four new technological processes implemented in local industry sector is resource-saving. Also in 2010 - 2013 it is a bit higher than Ukrainian level and in 2014 it drops much lower. Innovation activity intensiveness in times of crises is separate topic of great interest. But in mentioned above sustainability context environmental state of the region indicators and their dynamics may be added to form complex evaluation instrument for intellectualisation process in the region and local innovation ecosystem potential.

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