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On Ukraine's Innovation Strategy

The article deals with the issues of Ukraine's international cooperation in the aerospace sector under the conditions of innovation-driven development. It reveals the necessity of integrating intellectual resources as well as research and production potential of different nations, in order to solve global problems, in particular pertaining to the development of air transport.

The advent of global competition has changed the set of the factors supporting economic growth and competitiveness in world markets, and innovation development has turned into a most important factor. These issues are of special significance to Ukraine, because only an innovation development model may lead to a transition onto a new technological level, provide sustainable development, and create new jobs in new research-intensive sectors, which are to facilitate rise in employment and welfare.

The unfolding of the contemporary process of globalisation fosters technical advance due to competition and economic stimuli inherent in the global markets as well as the integration of the world's financial and scientific resources. Therefore, the present-day technological progress acquires quicker pace and is more fundamental by its character. It is just the technological transformations we are currently witnessing, being closely interwoven with globalisation, that are factors shaping the new paradigm of social and economic development of the world.

Under the new conditions of development, competitive advantages of different countries have undergone changes, because intellect, experience, knowledge, and social values are becoming the main factors of competitiveness [1]. The very use of these advantages enables many countries to secure high performance in the global competition. These issues are crucial for every country in the world, and Ukraine is not an exception, as there is a high need in determining and further developing those branches of economy which intensively utilise the above-mentioned factors of global competitiveness.

For Ukraine, as well as for other countries that have performed market-oriented reforms, production autarchy and creation of closed production cycles are becoming nonviable because of the high cost of research and technological equipment, the permanent growth of the amount of vitally needed technologies, and the reduction of amortization terms for high-tech products. Currently in Ukraine, the share of the products manufactured using innovating technologies does not exceed 6 percent in the total value of the marketed products. Consequently, the potential of innovation-driven development of the country remains underemployed.

In this sense, international production and scientific cooperation are efficient tools to distribute the growing expenses and to achieve desired concentration of scientific and technological achievements and qualified labour. Ukraine, due to its possession of actively operating research and technological potentials and production facilities, has all the necessary prerequisites needed to participate in international cooperation.

The intensification of technological development and the introduction of high technologies emphasise for Ukraine the necessity of expanded scientific, technological and production cooperation with other countries. It is also caused by the need to integrate scientific and research potentials, in order to solve the global problems, primarily ecological, water and foodstuffs supply, climate change and other.

Mutual interaction in the aerospace sector belongs to the most important and promising fields of international scientific and technological cooperation. Ukraine has the required scientific and technological potential for this purpose; it is enough to say that the country is among the group of seven nations possessing closed cycles in aircraft production. It maintains versatile cooperation ties in research, technology development and production with foreign partners operating in this field.

Joint research of science workers and producing entities participating in the international Sea Launch consortium and Kosmotras company safeguard provision and dissemination of satellite communication services and digital TV broadcasting on the territory of USA and Latin America, Internet access and data transmission for users in Northern and Central America, Alaska and Hawaii, digital TV broadcasting to Japan and other Asian countries.

Good prospects exist for cooperation of Ukraine with the European Union member-states based on their fixation in the Partnership and Cooperation Agreement as of 1994. It stipulated that the parties were to develop cooperation in the areas of science and technology, including space research which requires creation of a basis for mutual economic, social, financial, civil, scientific and technological, and cultural interaction. The EU-Ukraine Action Plan adopted on February 21, 2005 within the implementation of the European Neighbourhood Policy emphasised the necessity of consultations on possible utilization by the EU of Ukrainian facilities in the area of distant transport carriage and further advance in cooperation in space activities.

On December 1, 2005, important landmarks in the development of international interaction between Ukraine and the EU were set by the signing of the agreement on Ukraine's participation in the European GALILEO Programme of satellite radio navigation extending on the fields of scientific research and development, industrial production, provision of services and development of markets, standardization, certification and frequency control, as well as by the conclusion of the first agreement between Ukraine and the EU in the area of civil aviation providing unobstructed access of European airlines to the Ukrainian market and creating opportunities for Ukraine's accession to the EU's Common Airspace.. The agreements envisage subsequent extension to Ukraine of the European Geostationary Navigation Overlay Service (EGNOS) [2].

Currently, the following principal directions of cooperation between Ukraine and the European Union in the field of aerospace sector may be noted:

- Development of joint projects on restructuring of the aerospace sector in Ukraine within cooperation in high technology areas and industrial conversion.
- Development of a Global navigation satellite system.
- Development of cooperation in the field of aerospace science, life science and microgravitation, exploration of the Earth from the outer space.
- Exchange of information on distance sounding of the Earth in case of emergency.
- Provision of data on space environment control and seismic monitoring.
- Common use of the information received from space vehicles of Ukraine and EU member-states and exchange of information from artificial satellites of the Earth belonging to them.
- Common use of existing terrestrial space infrastructure of Ukraine and EU member-states.
- Participation in conferences, symposiums, seminars on space subject which are held under the EU aegis.

New prospects for EU–Ukraine interaction in the aerospace sector have been opened by the adoption in 2010 of EU’s new innovation development strategy under the title ‘Europe 2020’ [3]. Its key component is the ‘Innovation Union’ initiative [4] targeted, in particular, at integrating research and innovation to solve global problems. In 2012 the European Commission produced the Working Programme for implementation of this Initiative, designed in particular for integration of research and innovation to find solutions of the global problems. The Working Programme 2012 outlines three most important social and economic problems granted priority status in strategic research and innovation: eco-innovation (reduction of carbon dioxide emissions and efficient use of natural resources); security and mobility (optimisation of efficiency and security of the transport system); competitiveness at the expense of innovations.

The implementation of this Programme is to become an important step in the development of air transport and provision of its efficiency and security.

For Ukraine, these priorities have acquired utmost importance in the context of elaboration and preparation for signing of an association agreement between Ukraine and the EU, including creation of a deep and comprehensive free trade area. The text already prepared for signing as well as the currently operating EU-Ukraine Association Agenda to prepare and facilitate the implementation of the Association Agreement provide, inter alia, for full conformity of Ukraine’s’ aviation rules to EU’s acquis communautaire, including the harmonisation with the EU of the legislation pertaining to flight security and adoption, for this purpose, of a new Air Code. This is to become a precondition for Ukraine’s inclusion into EU’s Common Airspace.

Conclusions

Efficient development of high technology industries on the whole and in the aerospace sector, in particular, is viable in the contemporary globalizing world only

under conditions of broad international cooperation, integration, for this purpose, of intellectual, financial, and manufacturing resources.

This necessity reveals itself for Ukraine primarily in the area of the aerospace sector where the country possesses a potential for international competitiveness. The implementation of this potential substantially depends on the development of Ukraine's interaction in the aerospace area with Russia and its integration with the European Union, as well as corresponding adaptation of its internal legislative and regulative system along these lines.

References

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