CROSS-BORDER COOPERATION PROGRAMME
POLAND-BELARUS-UKRAINE 2007-2013

Thematic handbook no. 5

BORDER CROSSINGS INFRASTRUCTURE DEVELOPMENT
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n the modern world, cross-border cooperation is an integral part of the implementation of potential possibilities and increase in foreign economic activity of the border regions of different countries. Improper use of the potential of cross-border cooperation and non-compliance of the infrastructure development with the needs of border regions create the necessity to study the possibility of joint development and use of infrastructure, and finding ways to ensure the increase of infrastructure in border regions. All of this, in terms of intensification of cross-border regional cooperation, becomes significant.

Considering the importance of infrastructure integration between border regions in a single space within European regions, attention should be paid to the development of common infrastructure that will serve as an important tool not only to organise the chaotic relations between border regions and deepen collaboration in cross-border cooperation, but also to promote raising socio-economic development of the border regions. The presence of integration links between cross-border regions forms the basis for the increase of infrastructure provision between such regions and, given the specialization of each region, determines the need for the joint development of cross-border infrastructure.

It should be noted that currently, issues related to a number of problems of cross-border infrastructure and to the importance of providing cross-border infrastructure to enhance cross-border cooperation in particular, and also issues concerning studies of infrastructure implementation of cross-border cooperation are not sufficiently explored.

The subject of this study is the development of cross-border infrastructure on the Polish-Belarusian and Polish-Ukrainian borders.

It is the purpose of this study to analyze the methods of developing cross-border infrastructure, which were selected by the Cross-border Cooperation Programme Poland-Belarus-Ukraine 2007-2013 (the Programme) to meet the demands of border regions of Poland, Ukraine and Belarus.

Research for this paper was done independently by the author. Ten infrastructure projects (listed in Annex 1) realised under the Cross-border Cooperation Programme Poland-Belarus-Ukraine 2007-2013 were analyzed in this paper. For the sake of objectivity and impartiality the materials used either from cited literature or from documents provided by the administration of the Cross-border Cooperation Programme Poland-Belarus-Ukraine 2007-2013, or from the interview of representatives of the projects or received from statistical database available on-line.
Border crossing at Dolhobyczów constructed within the project IPBU.02.02.01-06-003/09 “Construction of road border crossing at Dolhobyczów – 4 buildings”.
THEORY

What does the development of cross-border infrastructure influence?

We will start from the concept of “infrastructure”. The World Bank defines “infrastructure” as the ‘basic framework for delivering energy, transport, water and sanitation, and information and communication technology services to people’ which ‘directly or indirectly affects people’s lives everywhere.’ Recent studies of the World Bank\(^1\) show that infrastructure is a key element of the enabling environment for economic growth. In addition, infrastructure is an important facilitator of structural changes in economy.

Susanne Trimbath defines\(^3\) that infrastructure is a fundamental tool of modern economic activity. We found that different researchers identify different sectors or components of infrastructure. For example, the above mentioned author separates infrastructure only for 3 components (energy, transportation and water). Norman V. Loayza and Rei Odawara\(^4\) examine the following major sectors of infrastructure: electricity generation, transportation, telecommunication, and water and sanitation. Such an approach can be explained by different objectives of the studies. In general, key infrastructure sectors can be divided into the following sectors: transport, energy, information and communication technology, and irrigation, drinking water and sanitation.

In order to achieve economic growth and to promote socio-economic development, currently there is great support of many regional cooperation programmes and cross-border projects, including projects focused on cross-border infrastructure, at the global level. However, even though cross-border infrastructure has played an important role in the expanding global economy, this link is not analysed deeply by researchers.

The cross-border infrastructure sector is a focus area for the research in this article. Thus, we would like to find the answer to the question about influence of cross-border infrastructure and benefits from its development.

First of all, the development of cross-border infrastructure influences international integration processes. Even though today the international trade route with the very poetic name ‘Silk Road’ is a part of our past, we have many witnesses of that period of time – the time of flourishing of interstate relations. Interchange of cultures, ideas and achievements of the world brought together and wrote the pages of history that preceded the present time. The Silk Road is perhaps the biggest and oldest example of development of infrastructure, since the regional markets on its way were facilitated by growing infrastructure. In terms of this, the following statement has

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to be emphasized: “cross-border infrastructure links nations and shapes the regional integration process”.

Cross-border infrastructure has certain specific features of its development since it is aimed at enhancing cooperation between regions on both sides of the border. Cross-border infrastructure is related mostly to and depends on the following factors (Povh G., 2011):

1) the border: the presence of border can be a significant obstacle to cooperation between the actors of cross-border cooperation;
2) management of infrastructure development: differences between the levels of decentralization of infrastructure development on both sides of the border can be a cause for consideration and approval for infrastructure provision in the various administrations of government;
3) economic development: there are differences in the development of regional economies on both sides of the border, in connection with which there can be various opportunities for the development of infrastructure;
4) legislation: the differences in the current legislation on cross-border cooperation can complicate joint decisions;
5) additional funding – the possibility of obtaining funds from external sources in various different parties, but it provides additional prospects for cross-border area infrastructure development.

Therefore, the development of the border infrastructure provision should be aimed at the development of service industries that provide economic cohesion of the border area, increasing the level of economic activity and high level of development of business and competition. Moreover, the development of cross-border infrastructure indirectly influences the stability of relationships between objects and actors of cross-border cooperation, eliminating the border as a separation line, and also removing the differences in the current legislation and levels of economic development of different countries.

The Organisation for Economic Co-operation and Development (OECD) estimates\(^7\), cross-border infrastructure can increase trade, improve security, save money, strengthen natural resource management, address the needs of landlocked countries and build on national and regional comparative advantages, among other benefits.

Infrastructure can connect countries, borders and regions. In the context of our research, taking into account that transport infrastructure is a very important factor for national economic development, we can state that developed cross-border infrastructure facilitates access to economic and social services and enhances the production and trade potential of local, regional and national economies.

One of the most important factors of why it necessary to improve cross-border infrastructure is the fact that cross-border road infrastructure significantly influences the economies and trade within the region.

Edmonds and Fujimura (2006) studied\(^8\) key empirical relationships between cross-border road infrastructure development and trade on the basis of economies of the Greater Mekong Sub-region. In the result of the analysis, authors concluded that the development of cross-bor-


The development of cross-border infrastructure indirectly influences the stability of relationships between objects and actors of cross-border cooperation.

Under road infrastructure in the GMS had a positive effect on regional trade. Thus, according to C. Edmonds and M. Fujimura, more developed cross-border transport infrastructure fosters increased trade.

Warr, Menon and Anshory Yusuf (2009) tried to observe regional economic impacts of cross-border infrastructure improvements. Their analysis was focused on the economic benefits from the Second Mekong International Bridge between Mukdahan Province in Thailand and Savannakhet Province in the Lao People’s Democratic Republic. They found short-run and long-run results. The short-run results suggest that “the kind of transport cost reductions that are consistent with the improvement of inter-regional transport facilities will produce a modest increase in inter-regional trade volumes in both directions”. The long-run results differ and according to them, “the benefits to both regions are much larger, as investors respond to the changed structure of incentives with new capital investments and as workers move to regions of greater return to their labour”.

In contrast to some positive effects of the cross border infrastructure development, Puga (2008) argues that cross-border infrastructure is more likely to increase than to decrease inequalities between and within regions.

Srinivasan (2012) emphasizes regional cooperation and integration through cross-border infrastructure development in South Asia. Moreover, Srinivasan found that cross-border infrastructure, by reducing transportation/trade costs, increases trade and FDI flows in the region, leading to efficiency in production and growth, and hence poverty reduction.

Fujimura and Adhikari (2010) summarise studies on the impact of cross-border infrastructure in Asia at the macro and micro level. If at the macro level, cross-border infrastructure has a positive effect on trade and further on growth, at the micro level the following effects were highlighted as positive: reduced travel time and transport cost; increased traffic; expanded trade; induced investments; enhanced tourism; enhanced movement of people and income opportunities; increased income and improved living standards of households; growth in border cities and towns; agglomeration effects, etc. Among the negative outcomes of cross-border transport infrastructure were: increased road accidents and casino businesses in border areas, smuggling, spread of communicable diseases, especially HIV/AIDS, human and drugs trafficking, illegal logging and deforestation.

The geographical location of the cross-border region within the Programme determined its role as a transit road area: it is at the crossroads of major transport routes linking Western Europe with the East, Black Sea regions with the countries of the Baltic Sea. The infrastructure of the border region can be divided into the following types:

- transport infrastructure of international and national levels;
- border trade infrastructure supporting trade in the border area;
- border security infrastructure needed for border agencies for efficient coordination of preventive and operational measures to combat illegal immigration, for making decisions on the acquisition or termination of Ukrainian citizenship, for registration and accounting of individuals, for provision of documents to enter or exit the country, and for monitoring compliance with the rules of the passport system;
- customs infrastructure – the core of infrastructure of the border region.

The border infrastructure could not be analysed without detailed evaluation of transport infrastructure within the cross-border area.

Transport infrastructure is one of the most important factors that form the basis of socio-economic development. The transport path greatly depends on the availability of this territory, which contributes to increasing its competitiveness in terms of its ability to attract investment and export competitiveness.

A number of international transport corridors pass through cross-border region:
1. Pan-European Transport Corridor II (East – West) Berlin – Poznań – Warsaw – Brest – Minsk – Smolensk – Moscow – Nizhny Novgorod. This transport corridor is defined by the European Union as a top priority of the trans-European transport corridors, taking into account the importance of passing through it the trade flows between the East and West. Traffic in some sections of the road reaches 8500–10000 vehicles per day.
2. Pan-European Transport Corridor III, with the route Berlin – Wrocław – Lviv – Kyiv and a length of 1640 km.

13. Kalnitska M.A. Upgrading of infrastructure of national and international value in the border region (based on the materials of the Transcarpathian region). Thesis for receiving the scientific degree of candidate of economic sciences, specialty 08.00.05 – the development of productive forces and regional economy. – State Higher Education Establishment "Uzhgorod National University", Uzhgorod, 2010. Retrieved from https://www.google.com.ua/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0CB4QFjAA&url=http%3A%2F%2Fwww.irbis-nbuv.gov.ua%2Fcfgi-bin%2Firbis...nbuv%2Fgirbis...54.exe%3FC2%COM%3D%26%7B1%7B%3D%3DARD%26%7B1%7B%3D%3DARD%26%7B2%7B%3D%3Dimage...name%3DDOC%2F2010%2F10kimannoz.iop%26IMAGE...FILE...DOWNLOAD%3D%3D1se+PngkWkebM-bqyOP834HdW&usg=AFQjCNGIXywUlwbIw4C9EOqEtTLTs5zVwAs6sig2=rm5yapP9QQJ70BnAcDR5gvA
3. Pan-European Transport Corridor V, which links Trieste and Lviv via Ljubljana, Budapest and Uzhhorod with a total length of 1595 km,
4. Gdańsk – Odesa International Transport Corridor, with a length of 1816 km and passing through Poland and Ukraine.

One of the key elements of the transport infrastructure, in the context of international contacts, is a network of border crossing points, and their logistics infrastructure.

Within the analysed area, there are 11 border crossing points between Poland and Belarus, as well as 12 points between Poland and Ukraine (the detailed list is presented in Annex 2). The general indicators of the transportation infrastructure within the Polish, Ukrainian and Belarusian borders could be characterised by the following data (Table 1):

<table>
<thead>
<tr>
<th>BORDER TO</th>
<th>LENGTH OF THE BORDER, KM</th>
<th>NUMBER OF HARD ROADS</th>
<th>PART OF BORDER ON HARD ROAD</th>
<th>NUMBER OF ROAD BORDER-CROSSING CHECKPOINTS</th>
<th>NUMBER OF BORDER-CROSSING RAILWAYS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belarus</td>
<td>407.47</td>
<td>14</td>
<td>29.1</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Ukraine</td>
<td>526.23</td>
<td>11</td>
<td>47.8</td>
<td>8</td>
<td>5</td>
</tr>
</tbody>
</table>

Source: Borko, H.14, own research

Today, the Polish-Ukrainian border has 12 cross-boundary points, including five rail points. Half of them are located in the Podkarpackie Voivodeship (Poland), three automobiles: Korczowa, Medyka and Krościenko and three railway: Przemyśl, Krościenko and Werchrata. Podkarpackie border crossing points are characterised by the largest and growing dynamics of border traffic. In 2011, the three largest border crossings “Carpathians region – Lviv” – Korczowa, Medyka and Krościenko sent more than 10 million vehicles.

Border crossing Korczowa-Krakivetz (automotive) – day-and-night passenger and cargo border crossing on the border with Ukraine is the only Podkarpackie Voivodeship border crossing on the border with Ukraine, having the full range of control: sanitary, phytosanitary and veterinary. However, the passenger-cargo-pedestrian border crossing point "Medyka-Shegini" plays an important role and will play such a role in the nearest future.

Cross-border cooperation should develop social, information and industrial infrastructure, joint efforts in the economic sphere, construction and modernisation of border infrastructure, development of the transport network, scientific and cultural cooperation, environmental protection, exchange of experience between the competent bodies of executive power and local self-government, fight against crime and illegal immigration.

Within the framework of the whole region, in 2012, the highest number of border crossings was in points such as Korczowa – Medyka – Przemyśl in the Podkarpackie Voivodeship (7.3 million people.), which are located on the important international highway E-40. At the same time 4 points of boundary movement, located in the Lublin Voivodeship (Kukuryki-Terespol, Dorohusk, Zosin and Hrebenne) served together 38.5% of the total boundary traffic on the eastern border of Poland, which put Lubelskie Voivodeship first among other regions of the Programme.

In general, border infrastructure is developing and this can be illustrated by the following information (Table 2).

### Characteristics of cross-border infrastructure

<table>
<thead>
<tr>
<th>INDICATORS</th>
<th>POLAND-BELARUS BORDER</th>
<th>POLAND-UKRAINE BORDER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2003</td>
<td>2012</td>
</tr>
<tr>
<td>Crossing the border by indiv. persons (thousand).</td>
<td>4,958.1</td>
<td>4,255.2</td>
</tr>
<tr>
<td>Including foreigners (%)</td>
<td>92.0</td>
<td>87.7</td>
</tr>
<tr>
<td>The average number of persons to be processed on 1 border crossing point (thousands of people).</td>
<td>1,239.5</td>
<td>1,063.8</td>
</tr>
</tbody>
</table>

*Source: Strategy of cross-border cooperation of Lublin region, Lviv, Volyn and Brest regions for 2014-2020*

However, the number of border crossings and the quality of cross-border infrastructure is insufficient; in particular, taking in consideration the significant and growing traffic at the borderland, this factor makes it very difficult or even hinders the development of cross-border cooperation, as well as cross-border socio-economic relations.

The cross-border crossing points must be improved due to highly growing economic relations between Poland, Ukraine and Belarus. For instance, current economical aspects of cross-border cooperation between Ukraine, Poland and Belarus are presented in the table 3.

Taking into consideration the opinions of Polish, Ukrainian, Belarus experts and our own research, we can formulate the main problems of cross-border crossings:

1) Insufficient capacity of border crossings on international transit roads is the same sensitive problem, as well as the absence of small border checkpoints, including checkpoints for pedestrians, which serve local border traffic. Therefore, it is needed to develop existing crossings and create new crossings on the borders.

2) The general weakness of the transport infrastructure. The most important restrictions should include: relatively rare road network, lack of motorways and express roads, poor
The dynamic of the trade in goods of Poland with Ukraine and Belarus, bln USD

<table>
<thead>
<tr>
<th>INDICATORS</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>POLAND-UKRAINE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Import</td>
<td>1.15</td>
<td>1.82</td>
<td>2.79</td>
<td>2.55</td>
<td>2.22</td>
</tr>
<tr>
<td>Export</td>
<td>3.43</td>
<td>3.92</td>
<td>4.69</td>
<td>5.28</td>
<td>5.72</td>
</tr>
<tr>
<td>Trade balance</td>
<td>2.28</td>
<td>2.1</td>
<td>1.9</td>
<td>2.73</td>
<td>3.5</td>
</tr>
<tr>
<td><strong>POLAND-BELARUS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Import</td>
<td>0.82</td>
<td>0.84</td>
<td>1.36</td>
<td>0.99</td>
<td>0.78</td>
</tr>
<tr>
<td>Export</td>
<td>1.21</td>
<td>1.61</td>
<td>1.86</td>
<td>2.01</td>
<td>2.43</td>
</tr>
<tr>
<td>Trade balance</td>
<td>0.39</td>
<td>0.77</td>
<td>0.5</td>
<td>1.02</td>
<td>1.65</td>
</tr>
</tbody>
</table>


roads quality that are not adapted to the intensity of the movement, as well as the poor condition of the road surface.

3) Essential underinvestment of the modern airports of the region (Lublin, Rzeszów, Lviv, Brest). It is necessary to modernise the Brest Airport and the launch of Lutsk Airport, which could be supplemented by a network of airports in the analysed territory.

The main problem to be solved for air transport development is to convince the carriers to open new lines of communication with the use of airports in the analysed territory. Moreover, it is necessary to develop the infrastructure of air cargo.

New infrastructure in Vysotsk (Ukraine) created in the scope of the project IPB.U02.02.01-70-001/09 “Development of modern Border Guard Sections Infrastructure”.

PHOTOGRAPH: ADMINISTRATION OF THE STATE BORDER GUARD SERVICE IN UKRAINE
Brief analysis of the projects targeted at border crossings infrastructure development implemented within the CBC Programme Poland-Belarus-Ukraine 2007-2013

Officer at the border crossing at Krakivetz (Ukraine) covered by the project IPBU.02.02.01-70-007/09 “Creation of the functional module “Border crossing point filter” in the international automobile border crossing point (IABCP) “Rava-Ruska”, providing with equipment and facilities of the border crossing points “Krakivetz”, “Shegini” and “Yagodyn.”

PHOTOGRAPH: JTS
Within the analysed projects, the biggest group is Large Scale Projects (LSPs) (9 out 10). LSPs have their own specificity, first of all due to their importance for the countries within the Programme. Common distinctive features of large-scale projects can be described as follows:

- LSPs are crucial for the development of the part of the Programme area;
- LSPs have a clear cross-border impact;
- LSPs have an investment (infrastructure) character;
- LSPs are coherent with national/regional development strategies;
- LSPs have the support of national/regional level authorities on both sides of the border;
- LSPs have outcomes of a sustainable character;
- LSPs are compliant with the criteria defined by the Programme, applicable rules and procedures: cross-border partnership, size of grant, eligibility of the applicant, eligibility of the action, eligibility of costs, etc.;

Beneficiaries are clearly identified as the only one being able to implement the LSPs. An approximate funds allocation among partners within the analysed projects can be described by the following graph:

**Fund allocation within thematic category among countries of the Lead Partner**

<table>
<thead>
<tr>
<th>Country</th>
<th>Funds Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>UA</td>
<td>19 262 584,33</td>
</tr>
<tr>
<td>PL</td>
<td>20 572 247,20</td>
</tr>
<tr>
<td>BY</td>
<td>14 833 333,33</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>54 668 164,86</strong></td>
</tr>
</tbody>
</table>

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15. According to article 2 (7) of Commission Regulation (EC) No.951/2007 of 9 August 2007 setting out the implementation of rules for cross-border cooperation programmes financed under Regulation (EC) No.1638/2006 of the European Parliament and of the Council setting out general provisions establishing a European Neighbourhood and Partnership Instrument, Large Scale (strategic) Projects are ‘projects comprising a set of works, activities or services intended to fulfill an indivisible function of a precise nature pursuing clearly identified objectives of common interest for the purposes of implementing cross-border investments’. According to article 4 of Implementing Rules large-scale cross-border investment projects are not selected through calls for proposals, but are identified jointly by participating countries, in agreement with the European Commission. Article 4 provides that these projects shall be specifically mentioned in the programme or be selected at a later stage by the Joint Monitoring Committee provided that they are consistent with the programme’s priorities and measures and that there is a budget specifically for this purpose. Source: [http://pl-by-ua.eu/en/3,38](http://pl-by-ua.eu/en/3,38)

16. Source: [http://admin.interact-eu.net/downloads/2301/Presentation_LSP_Direct_Award.pptx](http://admin.interact-eu.net/downloads/2301/Presentation_LSP_Direct_Award.pptx)
The analysed projects were focused on the following four main elements needed for improvements: roads, buildings, equipment and trainings. The results of the analysed cross-border cooperation projects can be grouped as shown below. As a consequence, for efficient and secure borders, through the framework of the CBC Programme Poland-Belarus-Ukraine 2007-2013, such results are obtained:

**Analysed Projects**

- **Enhanced cooperation between the services of countries**
  - LSP 9, IPBU.02.02.00-06-618/11

- **More effective border guarding**
  - LSP 1

- **Decreasing level of border-zone crimes**
  - LSP 1, LSP 8, LSP 9, IPBU.02.02.00-06-618/11

- **Increased contacts and cooperation between border-zone communities**
  - LSP 3, LSP 9

- **Increased amount of international passenger and goods transportation**
  - LSP 2, LSP 3, LSP 5, LSP 6

- **Improved working conditions of officials**
  - LSP 1, LSP 2, LSP 3, LSP 4, LSP 5, LSP 6, LSP 7

**Efficient and Secure Borders**

- **Roads**

- **Equipment**
More efficient and effective customs clearance procedures
LSP 4, LSP 5, LSP 7, LSP 8, LSP 9

Detecting stolen vehicles
LSP 1, LSP 6, LSP 7

Detecting document falsification
LSP 1, LSP 6

Preventing smuggling and illegal migration
LSP 1, LSP 2, LSP 5, LSP 6, LSP 7, LSP 8, LSP 9, IPBU.02.02.00-06-618/11

Accelerating and smooth control of procedures at the BCP
LSP 1, LSP 5, LSP 7, LSP 8, LSP 9

Improved social conditions for all users of the BCP
LSP 3, LSP 4, LSP 9

Implemented modern control standards
LSP 1, LSP 3, LSP 6, LSP 7, LSP 8, LSP 9
Technical re-equipment

- vehicles and other transportation means
- surveillance equipment
- communication equipment
- office equipment
- software
- furniture and other equipment
- protective building
- X-ray scanning system
- equipment for passport control
- IT systems installation
- purchase of equipped vehicles for traffic police
Hence, partially such results are related to trade logistics (LSP 2, LSP 3, LSP 4, LSP 5, LSP 617), trade facilitation (LSP 7, LSP 9) and efficiency at the border crossings (LSP 1, LSP 8, PBU.02.02.00-06-618/11).

In general, benefits from the analysed LSP projects implementation can be grouped as follows:

1. **Reduced Travel Time and Transport Cost.** An immediate outcome of building cross-border transport infrastructure is reduction in travel time and transport cost. This is very valid in the case of Poland-Ukraine and Poland-Belarus borders. The waiting times between Ukraine and the EU are the longest of all the other border crossing points. The average waiting time at Poland’s border crossing points ranges from almost 6 hours in Medyka to almost 5 hours in Zosin. As a result of the LSP projects, this problem will be mostly solved. For example, due to IPBU.02.02.01-06-003/09-00 project realisation, it is expected that the average waiting time will be reduced by 35 % in Korczowa, 25 % in Medyka and 10 % in Krościenko.

2. **Increased Traffic.** Reduced transport costs generate increased traffic. For instance, in the project IPBU.02.02.01-20-002/09 the infrastructure for goods and pedestrians and passengers control will have daily throughput in both directions: 200 trucks up to 7.5 t; 2000 car; 50 buses. Works within project IPBU.02.02.01-06-003/09-00 significantly increased border crossings’ capacity in vehicles – now it is 5000 vehicles per day. Moreover, new road border crossing in Budomierz (project IPBU.02.02.01-18-004/09-00) handles approximately 8000 people, 3000 passenger cars, and 80 buses.

3. **Expanded Trade.** Increased traffic is explained by the expansion of regional trade due to the reduced transport costs, implementation of new techniques and skills of the guard services improving.

4. **Induced Investments.** Improved cross-border transport infrastructure induces investments for new economic activities.

5. **Enhanced Tourism.** Part of the increased traffic volume is related to the increased number of visitors and tourists.

6. **Increased Income and Improved Living Standards of Households.** Evidence is emerging on increased income and improved living standards of households under the influence of cross-border transport infrastructure projects.

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17. See Annex 1
7. Growth in Border Cities and Towns: Agglomeration Effects. As the movement of goods and people across borders becomes easier, the diversity of resource endowments among neighbouring countries tends to magnify agglomeration effects in which entrepreneurs exploit new arbitrage opportunities and combine resources with varying competitive advantage across borders. While it is still too early to detect the extent of agglomeration effects attributable to specific projects, one can safely associate noticeable developments at border areas at least partly with the progress in cross-border infrastructure, in terms of both physical infrastructure and accompanying institutions and regulatory arrangements.

However, Polish, Belarusian and Ukrainian experts agree in their opinions that the low communication availability of cross-border regions and operation on its territory of two segments of external borders of the European Union – is one of the main obstacles in the development of this region.

The strategic SWOT analysis for the communication and the boundary infrastructure is shown below:

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**SWOT analysis for the communication and boundary infrastructure**

<table>
<thead>
<tr>
<th><strong>STRENGTHS</strong></th>
<th><strong>WEAKNESSES</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>● location of the modern airports (Lviv, Lublin, Rzeszów),</td>
<td>● low level of road infrastructure development, particularly in the border zone,</td>
</tr>
<tr>
<td>● expansion of the existing border crossing points, which is providing them with appropriate technical level,</td>
<td>● low level of railway infrastructure development, particularly in the border zone,</td>
</tr>
<tr>
<td>● cross-border cooperation of institutions and organisations related to transport and expedition</td>
<td>● poor use of rail lines that do not require changes in track width (Chełm-Kovel, Zamość-Rava-Ruska)</td>
</tr>
<tr>
<td></td>
<td>● small number and lack of diversification of the crossing points (no hiking tourist crossing points),</td>
</tr>
<tr>
<td></td>
<td>● poor use of airports,</td>
</tr>
<tr>
<td></td>
<td>● lack of cargo airports,</td>
</tr>
<tr>
<td></td>
<td>● presence of the visa regime.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>OPPORTUNITIES</strong></th>
<th><strong>THREATS</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>● transit location between Western and Eastern Europe,</td>
<td>● strengthening of the EU’s external border,</td>
</tr>
<tr>
<td>● the possibility of increasing external transport accessibility through better use of air infrastructure,</td>
<td>● increase the transit value of competitive transport routes, particularly in the south of Poland (A4), and Europe,</td>
</tr>
<tr>
<td>● increasing transport safety and improving the care of road accidents victims,</td>
<td>● increase of cross-border crime.</td>
</tr>
<tr>
<td>● the possibility of financial support for investments made within the TEN-T network, using the funds of the EU.</td>
<td></td>
</tr>
</tbody>
</table>
The external border of the EU, which is a spatial barrier with low permeability, both in the physical and technical aspect (border crossings), as well as in the formal legal (visa), creates one of the most important obstacles to cross-border cooperation.

The development of border guard units’ infrastructure and using modern border guard equipment will create the equal resources and opportunities of border guarding on both sides of the Polish-Ukrainian and Polish-Belarusian border. It will allow conducting joint planning, meetings, patrolling and operation on the same level of efficiency on both sides of the border.

It will influence enhancing the effectiveness of border protection and prevention of trans-border crimes. As a result, staff will be able to carry out professional duties properly; we can expect the increase of capacity in detection and preventing smuggling, trafficking, illegal migration and other offences of the cross-border character.

Thus, prevention of cross-border crimes will have a great impact on the local inhabitants’ way of living, as it will create a positive influence on the economic growth in this region, the level of trade and produce turnover, the development of the services sphere, as well as decreasing the criminal situation. Therefore, the enhancement of border security will enable to increase safety of local inhabitants on both sides of the border.

To improve the situation in this area, the following activities should be implemented:

- improving the permeability of the Polish-Belarusian and Polish-Ukrainian border by opening new border crossings points, including walking and tourist routes,
- improving road access to border crossings points,
- extension of the zone of small border traffic,
- revitalization of cross-border rail infrastructure,
- support for airports in the way of new directions opening, including cross-border routes.
The border regions are the active zones, which play an important role in the convergence of national and global economy, since they are on the verge of national and global economic space. Therefore, cross-border cooperation is a mechanism that enables starting the process of rapprochement from the border regions with subsequent spread of experience across the national territory.

The vast majority of researches, devoted to studying the linkage between the development of infrastructure and growth, support and confirm the idea that the development of infrastructure has a positive effect on growth and, in particular, on trade.

In this paper we observe cross-border cooperation through the prism of regional cooperation between Belarusian, Polish and Ukrainian border regions, and for that reason we analysed ten projects of cross-border infrastructure development which are considered regional-specific of each mentioned country. Although the analysed projects fully satisfy current demands of the border regions and their inhabitants, the new time demands, new approaches, new experience and practice are bringing constantly novel modernised solutions and innovative technologies for solving emerging problems. That is why long-term perspective and trends of modernisation should be kept in mind with the intention of forming the base for future types of cross-border regional cooperation.

Cross-border infrastructure can help realise the full potential of growth in trade only if there are complementary improvements in trade logistics and trade facilitation and efficiency at
CONCLUSIONS AND RECOMMENDATIONS

the border crossings. That is why the mentioned aspects should be among the ways of further cross-border cooperation in the regions that are under our observation. In this context, it has to be underlined that programmes of regional cross-border cooperation such as Poland-Belarus-Ukraine 2007-2013 are a very important tool for realising cross-border infrastructure development.

**Types of further cross-border infrastructure development in respect to improvements in trade logistics.**

In the global economic space the modernisation of infrastructure of national and international importance can be solved by establishing international logistics systems and creating logistics centres. The significant transit potential of border regions of Poland, Ukraine and Belarus requires the co-ordinated efforts for managing the free movement of goods, capital, labour and infrastructure itself, which, according to the requirements of the times, must be modernised repeatedly. Currently, the priority development of the terminal warehouses in the border regions of Poland, Ukraine and Belarus can be a catalyst of the border trade recovery, and can attract additional traffic volumes and increase the export potential of industrial enterprises. Thus, further cooperation should be developed towards creating trade and logistics centres of cross-border trade as a tool for effective use of the geographical potential of boundary areas.

**Types of further cross-border infrastructure development in respect to improvements in trade facilitation.**

Today, it is not enough to focus on the reconstruction and new equipment of border infrastructure. New technologies and innovative approaches for successful and effective implementation of control procedures at the border (electronic environment, electronic control, switching to paperless technology, the introduction of modern information technologies for information exchange between border and customs services of the partner countries) must be introduced. Modern methods of control should be aimed at improving the electronic document, implementation, among others, of the “single window”, when electronic trade information and documents necessary for state control of import, export or transit are introduced only once. However, for the implementation of such innovations the comprehensive modernisation of the IT infrastructure has to be executed.

**Types of further cross-border infrastructure development in respect to efficiency at the border crossings.**

Continuous improvement of the transport infrastructure near the crossing points, in particular, roads reconstruction towards crossing points is significant.

To reduce the time of customs clearance, to improve the quality of checks, to reduce transport delays, border crossings have to be equipped by modern high-tech equipment such as inspection observation systems for nonintrusive checks of means of road or railway transport and large containers.
The problem of development and implementation of information technologies in the systems of management and control of movements of vehicles and goods using satellite navigation channels is highly important. In order to ensure reliability and improve safety during the transit of goods it is crucially necessary to develop and implement an automated system for managing the transportation process based on Global Navigation Satellite Systems, Radio Frequency Identification technology and Global Positioning Radio System.

Border crossing at Budomierz (Poland) which was improved within the project IPBU.02.02.01-18-004/09 “The construction of the exit as part of the construction of the road to border crossing Budomierz – Hruszew”.
### Annex 1

**Analysed projects realised under the Cross-border Cooperation Programme Poland-Belarus-Ukraine 2007-2013**

<table>
<thead>
<tr>
<th>No.</th>
<th>Name of the Project</th>
<th>Country of Lead partner</th>
<th>Total budget, Euro</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSP 1</td>
<td>IPBU.02.02.01-70-001/09 Development of modern Border Guard Sections Infrastructure</td>
<td>Ukraine</td>
<td>8 842 447,87</td>
</tr>
<tr>
<td>LSP 2</td>
<td>IPBU.02.02.01-20-002/09 Infrastructural development of the Polowce – Pleszczatka road border crossing – Stage III (Polish-Belarusian border) – powiat of Hajnowka RP – Brest district RB</td>
<td>Poland</td>
<td>4 933 213,43</td>
</tr>
<tr>
<td>LSP 3</td>
<td>IPBU.02.02.01-06-003/09 Construction of road border crossing at Dolhobyczow – 4 buildings</td>
<td>Poland</td>
<td>5 549 542,01</td>
</tr>
<tr>
<td>LSP 4</td>
<td>IPBU.02.02.01-18-004/09 The construction of the exit as part of the construction of the road to border crossing Budomierz – Hruszew</td>
<td>Poland</td>
<td>5 764 688,76</td>
</tr>
<tr>
<td>LSP 5</td>
<td>IPBU.02.02.01-18-005/09 Construction and instrumentation of the road border checkpoint “Peschatka” – stage III</td>
<td>Belarus</td>
<td>12 111 111,11</td>
</tr>
<tr>
<td>LSP 6</td>
<td>IPBU.02.02.01-70-006/09 The reconstruction of international automobile border crossing point (IABCP) “Ustylug”</td>
<td>Ukraine</td>
<td>5 487 022,59</td>
</tr>
<tr>
<td>LSP 7</td>
<td>IPBU.02.02.01-70-007/09 Creation of the functional module “Border crossing point filter” in the international automobile border crossing point (IABCP) “Rava-Ruska”, providing with equipment and facilities of the border crossing points “Krakivets”, “Shegini” and “Yagodyn”</td>
<td>Ukraine</td>
<td>2 213 731,87</td>
</tr>
<tr>
<td>LSP 8</td>
<td>IPBU.02.02.01.66-008/10 Construction of relocatable X-ray scanning control system of vehicle on the road checkpoint «Bruzgi»</td>
<td>Belarus</td>
<td>2 722 222,22</td>
</tr>
<tr>
<td>LSP 9</td>
<td>IPBU.02.02.01-70-009/10 Development of IT Infrastructure of Ukrainian Customs and Border Guards Services at Ukrainian – Polish Border</td>
<td>Ukraine</td>
<td>2 719 382,00</td>
</tr>
<tr>
<td>IPBU.02.02.00-06-618/11 Together for safety of Lubelskie Voivodeship and Volyn district</td>
<td>Poland</td>
<td>4 324 803,00</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>54 668 164,86</td>
</tr>
</tbody>
</table>
### Cross-border points within the Programme area

<table>
<thead>
<tr>
<th>Polish border town</th>
<th>Neighbouring town</th>
<th>Border</th>
<th>Type of border crossing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Budomierz</td>
<td>Grushiv</td>
<td>Poland – Ukraine</td>
<td>Passenger, Goods</td>
</tr>
<tr>
<td>2 Dorohusk</td>
<td>Yagodyń</td>
<td>Poland – Ukraine</td>
<td>Passenger, Goods, Railway</td>
</tr>
<tr>
<td>3 Dołhobyczów</td>
<td>Uhryńiv</td>
<td>Poland – Ukraine</td>
<td>Passenger, Goods</td>
</tr>
<tr>
<td>4 Hrebenne</td>
<td>Rava-Ruska</td>
<td>Poland – Ukraine</td>
<td>Passenger, Goods</td>
</tr>
<tr>
<td>5 Hrubieszów</td>
<td>Volodymyr-Volynskyi</td>
<td>Poland – Ukraine</td>
<td>Railway</td>
</tr>
<tr>
<td>6 Korczowa</td>
<td>Krakivetz</td>
<td>Poland – Ukraine</td>
<td>Passenger, Goods</td>
</tr>
<tr>
<td>7 Krościenko</td>
<td>Smilnucyja</td>
<td>Poland – Ukraine</td>
<td>Passenger, Goods</td>
</tr>
<tr>
<td>8 Krościenko</td>
<td>Huriv</td>
<td>Poland – Ukraine</td>
<td>Railway</td>
</tr>
<tr>
<td>9 Medyka</td>
<td>Shegrini</td>
<td>Poland – Ukraine</td>
<td>Passenger, Goods</td>
</tr>
<tr>
<td>10 Przemyśl</td>
<td>Mostyska</td>
<td>Poland – Ukraine</td>
<td>Railway</td>
</tr>
<tr>
<td>11 Werchrata</td>
<td>Rava-Ruska</td>
<td>Poland – Ukraine</td>
<td>Railway</td>
</tr>
<tr>
<td>12 Zosin</td>
<td>Ustylug</td>
<td>Poland – Ukraine</td>
<td>Passenger</td>
</tr>
<tr>
<td>13 Białowieża</td>
<td>Pieraroŭ</td>
<td>Poland – Belarus</td>
<td>pedestrian (touristic)</td>
</tr>
<tr>
<td>14 Bobrowniki</td>
<td>Bierastavica</td>
<td>Poland – Belarus</td>
<td>Passenger, Goods</td>
</tr>
<tr>
<td>15 Czeremcha</td>
<td>Vysokalitoušk</td>
<td>Poland – Belarus</td>
<td>Railway</td>
</tr>
<tr>
<td>16 Kukuryki</td>
<td>Kazłovičťy</td>
<td>Poland – Belarus</td>
<td>Goods</td>
</tr>
<tr>
<td>17 Kuźnica</td>
<td>Brzhi</td>
<td>Poland – Belarus</td>
<td>Passenger, Goods</td>
</tr>
<tr>
<td>18 Kuźnica</td>
<td>Hrodna</td>
<td>Poland – Belarus</td>
<td>Railway</td>
</tr>
<tr>
<td>19 Potowce</td>
<td>Piaśčatka</td>
<td>Poland – Belarus</td>
<td>Passenger</td>
</tr>
<tr>
<td>20 Rudawka</td>
<td>Liasnaja</td>
<td>Poland – Belarus</td>
<td>Seasonal waterway (touristic)</td>
</tr>
<tr>
<td>21 Siemianówka</td>
<td>Svislač</td>
<td>Poland – Belarus</td>
<td>Railway</td>
</tr>
<tr>
<td>22 Stawatyckie</td>
<td>Damačava</td>
<td>Poland – Belarus</td>
<td>Passenger, Goods (up to 7,5 t.)</td>
</tr>
<tr>
<td>23 Terespol</td>
<td>Brest</td>
<td>Poland – Belarus</td>
<td>Passenger, Railway</td>
</tr>
</tbody>
</table>
Projects’ data as of January 2015.

The opinions expressed in this publication are those of the author only and should not be considered as representative of the European Union or the CBC Programme Poland-Belarus-Ukraine 2007-2013 official position.

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