

## ABOUT THE AUTHORS

**VICTORIA TETYORA,** Private Sector Specialist, joined IFC in 2008. She works with several trade and competitiveness projects in Europe and Central Asia, leading knowledge-management and stakeholder-relations activities.

**IRINA SHEMSHENYA,** Private Sector Specialist, joined IFC in 2004 and leads the Trade Logistics component of the Belarus National Quality Infrastructure (NQI) and Business Regulation project. She also coordinates activities supporting the Belarus NQI system, including improving the public-private dialogue on technical regulations, market surveillance, and accreditation systems to enhance the competitiveness of Belarus businesses.

**ALIAXSANDR ABRASHKEVICH,** Research and Policy Analyst, started working for IFC as a consultant in 2009. He leads research activities of the Belarus NQI and Business Regulation project.

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## APPROVING MANAGER

Lisa Kaestner, Practice Manager, Trade and Competitiveness Global Practice, Europe and Central Asia.

# SmartLessons

*real experiences, real development*

## Innovation by Design: Conducting a Border-Crossing Time-Release Study in Belarus

*In 2015, the World Bank and IFC conducted a border-crossing time-release study (TRS) at three points on the Belarus border. The joint team customized a standard survey methodology to gather a wider range of data as well as to overcome time and other resource constraints. This SmartLesson describes the team's efforts to fit the TRS to the particular context in Belarus to ensure accurate and actionable data.*

### BACKGROUND

Belarus is a landlocked Eastern European nation that shares borders with five other countries: Russia, Ukraine, Poland, Lithuania, and Latvia. The country serves as an important trade and transit point between Europe and the Eurasia Economic Union (EEU). To be sufficiently competitive in attracting companies trading between Europe and the EEU, Belarus needs to ensure that its cross-border processes are highly efficient.

The World Bank Group has been assisting the government of Belarus in improving its strategic position via its Transit Corridor Improvement project (since May 2015), which supports modernization of the M6 Minsk-Grodno motorway transit corridor, and via an IFC Investment Climate advisory project (since June 2014) to streamline regulatory procedures and facilitate trade. Under the auspices of both projects, a border-crossing TRS<sup>1</sup> was launched at key crossing points on both sides of the Belarus borders with Poland and with Lithuania.

<sup>1</sup> A TRS is a monitoring and research tool that measures different aspects of operational border-management procedures related to the processing of goods at international borders and inland clearance terminals.

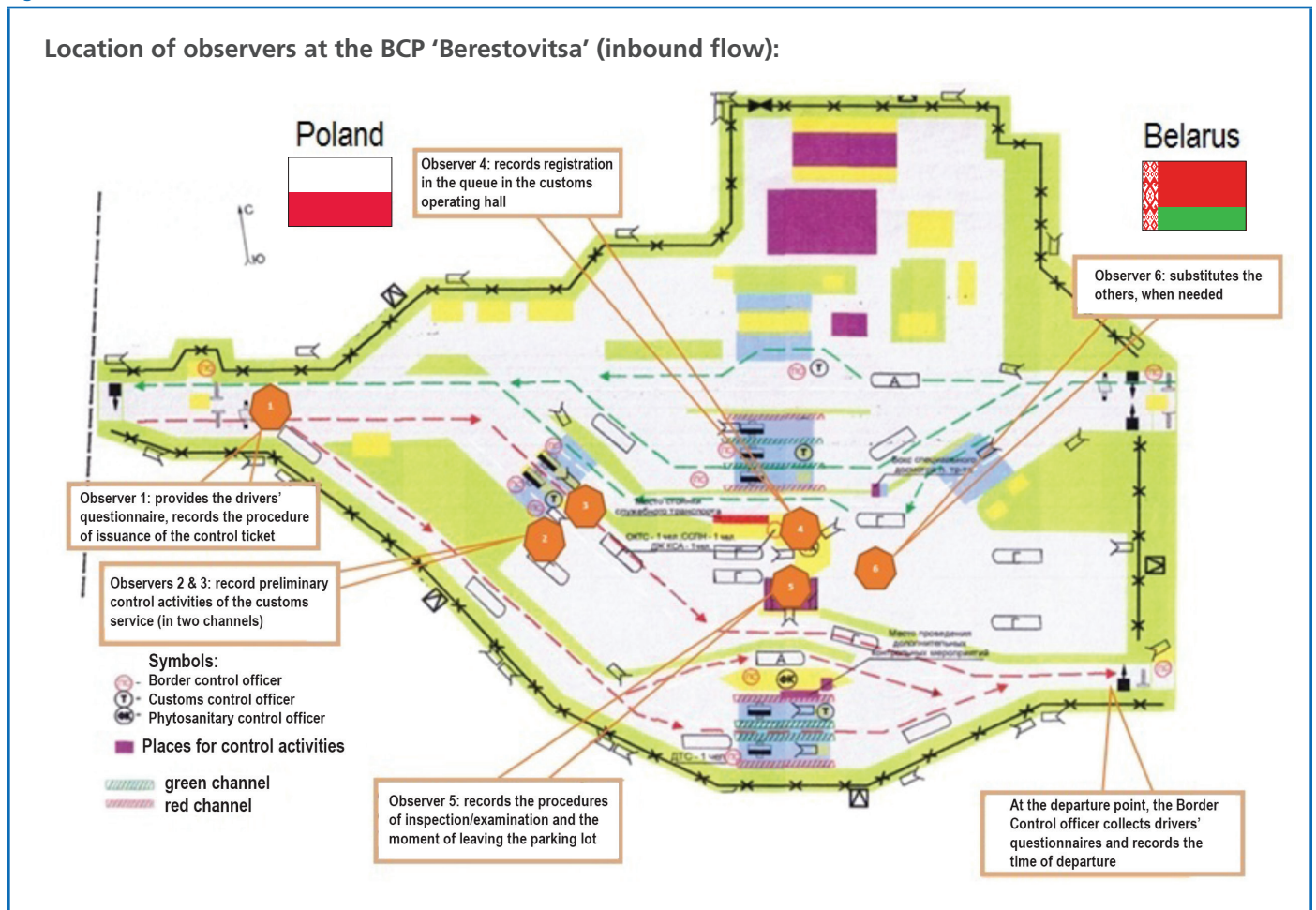
The aim of the study was to measure the interval between arrival of trucks at a border-crossing point (BCP) and their release into the entry country—and how that interval might be broken down into smaller intervals, according to the controls undertaken by border agencies, and their duration. Results from the study will serve as a baseline of border agency performance, and a follow-up TRS will occur once the modernization of the Minsk-Grodno transit corridor is complete. The Investment Climate project has already begun using the results of the study to advise the government of Belarus on necessary changes to border-crossing regulations. (See Figure 1.)

### LESSONS LEARNED

***Lesson 1: A methodology is just a tool—adjust and adapt it to suit your context and goal.***

The World Bank Group team, in cooperation with the Belarus State Customs Committee and Belarus State University's Center for Sociological and Political Research (a project contractor), designed a study methodology based on Laufzettel's survey (see Method 1 in Box 1) but incorporating additional data-gathering functions: the placing

Figure 1: Observation and Data Collection at BCPs



of observers at BCPs and conducting a brief survey with drivers. The study was thus designed to enable information-gathering from a three-dimensional perspective—weekends versus weekdays, two sides of each BCP, and the incorporation of nearby locations in Lithuania and Poland as well as Belarus—to provide a comprehensive, grounded, and realistic picture of how trucks move across three BCPs (two on the Belarusian-Polish border, and one on the Belarusian Lithuanian border).

The study recorded the waiting time before entering a BCP and the time spent in actually crossing during peak and off-peak times of the week. The study also aimed to capture additional border-management procedures, such as the duration of the physical examination, sampling procedures, and the time between the arrival of the truck in the examination zone and the start of the actual examination. (See Box 1.) Separate checklists and datasheets were completed for outbound (Belarus into the European Union) and inbound (from the European Union into Belarus) commercial truck flows.

These adjustments to the standard methodology worked well for the purpose of this study. They yielded additional data sets that could not have been obtained by just using a driver's checklist. These adaptations enabled time- and cost-effective completion of the exercise as well as subsequent initiatives involving the Belarus Customs Committee. Moreover, the more diversified set of data offered the team more avenues to pursue reforms in trade logistics and border management.

***Lesson 2: The devil is in the details; there are no shortcuts to success.***

Thorough preparation was critical to successful implementation of the study, especially in view of the team's intention to cover weekends and weekdays, both sides of a BCP, and two neighboring countries in addition to Belarus. The preparation phase was the most time consuming and demanding, in part because of the number of moving parts involved in carrying out the exercise: extensive communication, sometimes hourly, between study participants, which comprised the Customs Committee, the contractor, border-crossing personnel, the

### Box 1. Changes to the Methodology Made by the Belarus Team

The methodology of the Belarus TRS consisted of the following three data-gathering methods:

- **Method 1: A short checklist** given by the observer to the driver on entering a border-crossing point. At each stage of the crossing procedure, the driver gives the checklist to the BCP employee, who makes appropriate records (usually start and end times of the control activities) and returns it to the driver, who hands back the filled-in checklist to the observer or border guard at the border exit.

This is the standard TRS method based on the Laufzettel approach. The Belarus Customs Committee uses it for periodic checks. The Belarus team augmented the methodology to provide added value by using the Customs Committee's questionnaire as a starting point for developing a checklist for the study that would collect additional data.

- **Method 2: A specially developed datasheet** used by observers placed at specific positions within the BCP to track the types and number of controls the truck goes through and their duration. Each observer oversees a particular stage of the border-crossing process (weighing, putting on electronic queue) and uses the datasheet to record truck movements.
- **Method 3: One-question interaction** with the driver. The team added this method to explore the queuing process and how it influences the overall border-crossing process (how long drivers have to wait before entering the BCP). To overcome the unpredictability of queue lengths and the frequency and speed with which they can change within a short time frame, the team double-tasked the first observer (standing at the entry point of the BCP), getting him or her to question the drivers, as they enter the BCP, on how much time they have spent waiting in the queue.

The team defined queuing time as from the driver's arrival at the queue of trucks until the first control procedure at the BCP. (Note: "Release" time may reflect only one component of the "clearance" process, requiring measurement at various sites/times.)

embassies of Poland and Lithuania, and the inspection agencies placed on the border (for example, the veterinary and phytosanitary agencies). Also critical were detailed assessments of border-crossing configurations, site visits, and training to enable observers to carry out their responsibilities.

One detail that the team overlooked in its preparation was the need to synchronize the watches of observers with the time registered in the computer network used by BCP employees, given that in a time-based study, especially one tracking five- or ten-minute processes, even seconds are significant. This discrepancy was discovered after the first day of fieldwork, when the data from the first filled-in checklists and datasheets were cross-checked by the research coordinator. The study's

contractor immediately informed the rest of the observers involved in the study about the oversight and instructed them to synchronize watches with BCP personnel before the start of any fieldwork.

Another crucial action in the preparation process was the need to physically visit each BCP and assess its location, infrastructure, and layout at the time of methodology development. The various data-gathering methods required the use of many observers, which is not something the team could afford. Consequently, during the preparation process, the team visited each BCP to check its design and layout for optimal placement of a limited number of observers.

Site visits also allowed identification of other factors with the potential to distort study findings, such as when and where drivers take rest or meal breaks, which increase transit times. They also enabled establishment of rapport with border personnel, an advantage in securing buy-in and eliciting advice during the study's implementation.

### **Lesson 3: Treat contractors as equal partners in the process. Their knowledge and expertise are crucial.**

Allowing strangers extended access to border security and customs points, internal documentation, and other non-public information presents a security risk. The team took great care in choosing a contractor and consulted with the Customs Committee before selecting Belarus State University's Center for Sociological and Political Research through an open competitive process. Although the team had successfully worked with the Center before on several investment-climate surveys, this study had different technical, methodological, political, and security requirements.

The team saw the contractor as a partner in the endeavor—the "brains" that would develop and apply the methodology. The Center also brought genuine interest in the work as a way to develop its institutional knowledge and add a new research competence to its portfolio. The team had a limited budget



and yet wanted to complete a more complex study than a typical TRS, but the Center was sufficiently price competitive to complete the study within budget.

Given the lack of experience with time-release studies in the Belarus market, the contractor was expected to be willing to take an immersive approach, be ready to learn, and experiment “on the fly.” The following were the Center’s key value additions to the process:

- Effective organization and management of the entire process of conducting the study. This involved 1) selection of observers, their training, monitoring, and quality check of their performance, and 2) pilot testing of the study to check how the process worked and make adjustments to the methodology and process. The Center piloted the study at the smallest border-crossing point before moving to a larger one.
- Successful development of the methodology for data gathering (together with the project team).
- Successful development of approaches to data analysis. The Center was instrumental in proposing ways of aggregating various types of data received from three different sources into one database for further analysis. The Center’s research and scientific background was valuable, offering the most appropriate solution for documenting the aggregated data from different sources.

#### ***Lesson 4: A “triple helix”<sup>2</sup> coalition of academia, industry, and government was indispensable to carrying out the TRS.***

The Belarus team effectively applied the triple-helix collaboration model of “academia-industry-government” to design and perform the study, coordinating this collaboration at national (government agencies, customs authorities, academia, and the private sector) and international (customs offices and the embassies of Poland and Lithuania) levels. The team’s goal was to ensure that each party involved in the process knew its role and had been properly briefed about the progress and next steps.

Academia was represented by the Center for Sociological and Political Research of the local university contracted to design and carry out the study—a win-

win for the project and the university, as noted in Lesson 3 above.

Industry was represented by the local hauler association, which influenced the methodology of the study by providing industry knowledge. The association’s advice on peak loads and general bottlenecks in the border-crossing process were essential in designing the study. For instance, the team chose Tuesdays, Saturdays, and Sundays to incorporate peak, medium-peak, and off-peak times into the study, based on the association’s advice.

The public sector was represented by the State Customs Committee of Belarus, the Border Guard Service, and other relevant technical inspections involved in border-crossing control, such as sanitary and quarantine, veterinary, and phytosanitary. Moreover, the Customs Committee provided all necessary information, including details on layouts of BCPs and its own methodology for measuring release times. The embassies of Poland and Lithuania were fully aware of and involved in the study. Through these embassies, the team worked with the Customs and Border Guard Services of Poland and Lithuania to implement the study.

Such collaboration between government, industry, and academia were critical success factors. Each sector brought its own expertise and organization, and the blend of expertise and resources meant problems were anticipated and dealt with rather than stumbled upon. For example, one day on the Polish side of the border, customs officials refused to allow the nominated observer to do his job. A few quick calls between triple-helix partners soon removed the obstacle, and work resumed. The positive collaboration opened chains of communication and access to hierarchy and command that, in a non-collaborative environment, would have brought the whole study to a halt.

#### ***Lesson 5: Selecting the unique identifier of a vehicle and “cleaning” data prevented complications and discrepancies in data analysis.***

Using multiple sources of data collection entailed thorough consideration of the process of bringing data together and preparing them for analysis. Since movements of a particular truck at the BCP were recorded in up to eight separate data sources, the team needed a meaningful way to match records from those sources. In other words, the team needed

<sup>2</sup> [http://triplehelix.stanford.edu/3helix\\_concept](http://triplehelix.stanford.edu/3helix_concept)

to find an attribute suitable for unique identification of each observed truck. If every observer completed a required field with the truck's identifying attribute before making a new record, then the data contained in this field could be used to match the records from multiple sources. The Belarus team selected vehicle license plates as a unique identifier. A relational database was created with data from separate documents (checklists, datasheets) linked to the truck's license-plate number.

However, there was still scope for human error in the form of "typos" in recording the license plates. The contractor provided a staffer to cross-check, double-check, and clean the data and make it easier for the team to conduct its analysis.

## CONCLUSION

The results of the study were captured in the joint action plan signed by the project team and the Customs Committee. The project has also led to improved interagency coordination at the Customs agency and enhancements to the risk-based system. There are plans to hold a joint event to discuss how to improve the exchange of customs data among Poland, Lithuania, and Belarus.

The team's initial assumption when designing the study was that delays in time-release procedures would primarily be due to bottlenecks related to procedural constraints, such as onerous paperwork, poor transparency and service delivery on the part of BCP staff, or redundant

administrative steps. In fact, the team did observe that agencies do not coordinate as well as possible, and that there is some duplication of roles.

The study also confirmed that some of the controls currently performed at the border can be moved inland without compromising the integrity of the control process. This is an important complement to the Belarus Investment Climate project's other work streams focused on risk management and market surveillance. The World Bank's Transport project also obtained insights into better design of the border-crossing infrastructure.

Yet there also were surprises in the results. The study suggested that a number of other factors influence traffic and cause delays, such as Germany's ban on truck movement during weekends, or that fuel can be brought duty-free into the EU via Lithuania but not via Poland. To avoid duty costs, truck operators fill up their tanks with the cheaper fuel in Belarus and take a longer route through Lithuania, rather than proceeding directly from Belarus to Poland. The team believes that, in addition to helping improve the border management process in Belarus, the study will help the relevant countries examine these issues and consider their environmental and economic costs.

The methodology developed by the Belarus team is now informing the design of similar studies in the Balkans and Central Asia.



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