Recommendations
on minimum requirements for the equipment of checkpoints

Activity number 7.8 *of the Action Plan for 2022-2026: Development of minimum requirements for the equipment of checkpoints; Recommendations; PS IGC TRACECA, Authorized bodies of the MLA member states.*

TRACECA routes that connect Europe, the Caucasus and Asia are characterized by movements across several countries and changes of mode of transport. At some of the border crossing checkpoints and seaports along TRACECA routes inordinate delays happen due to different inefficiencies that may include lack of well-developed infrastructure, shortage of adequate equipment, multiple complex regulatory formalities, frequent controls with high examination rates etc.

In endeavor to facilitate international transport of goods and passengers TRACECA countries continuously work on improvement of infrastructure of border crossing checkpoints and simplification of border crossing formalities. At the same time, border control authorities have to respond to the challenges for maintaining and improving capacities for security controls and revenue collection. Operational efficiency of border control authorities could be supported by use of modern technologies and equipment, effective risk management and increased intelligence capacities.

Number of technologies are available for border control authorities to control cargo, transport means and people moving across borders. Various scanners (including X-ray) and detectors as well as other inspection and surveillance equipment are being used by border control authorities to protect society, economic security and combat cross-border crime. Use of such modern technologies and equipment could also streamline cross border movement of legitimate trade. Equipment used at checkpoints supports effective border crossing control and as well as trade facilitation by ensuring a balance between control and compliance.

This document outlines recommended equipment for the checkpoints along TRACECA routes. The main part of recommended equipment is aligned with the equipment, infrastructure and systems identified in TRACECA Methodology of evaluating check points. Additionally optional use of other roadside infrastructure for introduction of digital corridor concept, as well as equipment supported by new disruptive technologies are noted.

Use of modern technology in inspection equipment is one of the standards identified with World Customs Organization (WCO) SAFE Framework of Standards to Secure and Facilitate Global Trade that recommends use of non-intrusive inspection equipment to support inspection (X-ray or gamma ray equipment). Several WCO tools (Guidelines, Compendiums, Studies) relevant for deployment of scanning/NII equipment, risk management, single window, new disruptive technologies are noted in this document.

For some of the systems recommended to be used at checkpoints there is available detailed information elaborated by international organizations (e.g., with regard to systems for processing electronic (paperless) Customs transit declarations such as eTIR and NCTS). Such relevant sources have been indicated in this document.

Detailed minimum requirements for roadside infrastructure operating under Digital Corridor are given in the annex 1 of this document.

Recommendations given in this document are targeting checkpoints located on TRACECA routes as identified by TRACECA methodology. It should be noted that every checkpoint has its own characteristics that have to be considered when developing infrastructure and employing equipment for each particular checkpoint. Recommendations provide only a guidance that could be considered when planning infrastructure development and purchasing equipment of the checkpoints.

Development of infrastructure and equipping of checkpoint is usually done on individual country level (since joint border crossings are not very common in the region). Regardless, some level of harmonization among neighboring countries could be highly recommended since in addition with harmonization of cross-border control measures it will be beneficial to consider harmonization of minimum requirements for the infrastructure and equipment employed at checkpoints.

The recommendations from this document have been developed for consideration of TRACECA countries to support their efforts in employment of efficient equipment and systems at checkpoints in harmonized manner that could facilitate information exchange and interoperability. Such harmonization could support seamless movement across the borders of persons, transport means and goods, while necessary border controls are duly conducted.

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Recommended Equipment of Checkpoints
(Including related infrastructure and systems)

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1. Road infrastructure and facilities for organization of traffic lanes segregation (including horizontal and vertical signalization equipment, barriers, etc.) that enables use of fast-track lanes (green truck lanes) for the carriers with advanced electronic cargo information (e.g., eTIR, TIR-EPD, NCTS, and other Customs and transport documents in digital format – use of digital corridor);

   More details on Minimum requirements for Special Dedicated Lanes (Fast Track Lanes) operating under Digital Corridor Concept are given in Annex 1 of this document.[1]

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[1] Excerpt from Technical Recommendations and Minimum Technical Requirements associated with phase 1 "Digital Corridor's Basic Elements." Developed by Toll Service Zrt (27 November 2022) (Part 11)

2. Sufficient and adequate road infrastructure and facilities (including horizontal and vertical signalization equipment, barriers, etc.) at <u>control lanes (control areas)</u> that correspond to the actual flow of traffic, including peak hours.

3. Sufficient <u>parking space</u> (including horizontal and vertical signalization equipment, barriers, etc.) with capacity that corresponds to the actual flow of traffic, including peak hours.

4. <u>System of vehicles' treatment and disinfection</u> consisting of devices providing for mechanical treatment, washing and disinfection of vehicles, collection of surface special solutions for further disinfection.

5. <u>System of decontamination of quarantine products</u>, which consists of technical facilities and premises providing for decontamination of quarantine products imported through the check points from quarantine objects (quarantine hazardous organisms).

6. <u>Customs control technologies for inspection of goods (customs inspection complexes)</u> that include advanced facilities (e.g., x-ray scanners and optionally other control equipment for non-intrusive inspection and/or for unloading /loading of cargo) allowing to perform inspection of a vehicle and bulk cargo in a short time for the examination of their contents.

   Use of modern technologies in inspection equipment (non-intrusive detection equipment such as large-scale X-ray machines and radiation detectors) is one of the standards recognized by World Customs Organization (WCO).[2] Additional information modern technologies is provided with WCO Technology Network (TeN) [3] and WCO Guidelines for the procurement and deployment of Scanning/NII Equipment (October 2016).[4]

7. <u>System of electronic booking of a check point entry</u> that includes support for electronic queueing of the vehicles at the road check point exiting across the state border of the country, booking the time for the vehicle to be processed at the check point, as well as operation at waiting areas located at vicinity of the checkpoint. Having online system with virtual queuing for cargo vehicles (before actual arrival at the checkpoint) is preferred option rather than only a system for electronic ticketing upon physical arrival at the checkpoint.

   More details on electronic booking systems and check points are given in TRACECA, 2022, Electronic Queue System Guide.

8. <u>System for processing electronic (paperless) Customs transit declarations</u> that enables implementation of fully electronic (paperless) Customs transit declaration (without requirement for systematic submission of paper-based

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[2] WCO Safe Framework of standards – Pillar 1 Customs to Customs; 2.3 Standard 3 – Modern Technology in Inspection Equipment

[3] https://ten.wcoomdpublications.org

[4] https://www.wcoomd.org/-/media/wco/public/global/pdf/topics/facilitation/instruments-and-tools/tools/safe-package/nii-guidelines.pdf

documents); and allows processing of Customs transit procedure without paper-based Customs transit declaration. Having international Customs transit procedure (e.g., eTIR,[5] NCTS,[6] etc.) is preferred option rather than only a system for processing national / union Customs transit procedure.

9. <u>System of radiation control</u> that enables to exercise control over observance of radiation safety standards and main sanitary regulations of radiation protection and other sources of ionizing radiation, as well as acquisition of the information on the radiation environment of a vehicle.

10. <u>System for identification of prohibited / restricted goods to be carried</u> that enables to identify prohibited goods (forbidden to be carried) and restricted goods (allowed to be carried only under certain conditions and specific licences/permits) under Customs transit procedure (international, national / union) with embedded list of prohibited / restricted goods within the Customs transit system.

11. <u>System of electronic payment</u> which allows electronic payments.

12. <u>Risks assessment system</u> which enables submission of advance notification (e.g. preliminary information, entry/exit summary declaration etc.) and/or advance declaration before the arrival of goods to the physical border. That allows to present and collect advance information on goods, vehicles, and participants in customs operations, study of the information, and results with risks assessment, defining measures on risks mitigation and ways of their application, risks identification, risk treatment, as well as monitoring and analysis of the impact.

    More information on risk management is available from WCO materials.[7]

13. <u>Single Window system</u> which enables interdepartmental automatic collection, storage and processing of the information in all types of foreign trade operations on the border.

    More information on building single window environment is available at WCO guidelines.[8]

14. <u>Other roadside infrastructure for introduction of digital corridor (*optional*), including system of automatic identification of weight and size specifications:</u>

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[5] More information about eTIR is available at: https://unece.org/transport/etir

[6] More information about Common Transit Procedure and NCTS is available at: https://taxation-customs.ec.europa.eu/customs-4/customs-procedures-import-and-export-0/what-customs-transit/union-and-common-transit_en

[7] https://www.wcoomd.org/en/topics/enforcement-and-compliance/activities-and-programmes/intelligence-and-risk-management-programme.aspx

[8] https://www.wcoomd.org/en/topics/facilitation/instrument-and-tools/tools/single-window-guidelines.aspx

a. Gantries (static metal frames with special equipment) that may include: uninterruptible power supply (UPS), communication cabinet, information board, traffic intensity and composition sensor, gantry (the frame)

b. Mobile Units (cars with special equipment)

c. Tablet

d. Automatic Number Plate Recognition (ANPR) cameras and classification equipment,

e. High-Speed Weigh-in-Motion stations

f. Low-Speed Weigh-in-Motion stations

g. Static measuring scales. Type 1, bridge

h. Static measuring scales. Type 2, underground installation

i. Monitoring and control room

j. Use of electronic seals.

More details on Minimum requirements for roadside infrastructure operating under Digital Corridor.[9]

15. Equipment supported by new disruptive technologies (*optional*)

a. Systems supported by blockchain and distributed ledger technology (DLT) that facilitate the sharing of information and interoperability; development of international Single Window interconnectivity; ensuring proper validation of certificates; information sharing on authorized economic operators (AEOs); ensuring access to logistics-related information in view of tracking and tracing goods along global supply chains.

b. Internet of Things (IoT) that provides internetworking of physical devices ("connected devices" or "smart devices") such as control equipment embedded with electronics, software, sensors, actuators, and network connectivity which enable to collect and exchange data. It could be used in relation to X-ray scanners, CCTV cameras, automated container code recognition and license plate recognition devices; under vehicle inspection systems; QR code and barcode document readers and electronic seals (e-seals).

c. Systems supported by big data, data analytics, artificial intelligence (AI) and machine learning (ML) with data mining for intelligence purposes and risk management to improve risk-based targeting of shipments or individuals and analyze data during inspection of shipments at checkpoint. It could be used in risk management and automated targeting systems; analysis of container images made by X-ray scanners to

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[9] Excerpt from Technical Recommendations and Minimum Technical Requirements associated with phase 1 "Digital Corridor's Basic Elements." Developed by Toll Service Zrt and disseminated to MLA Parties (letter 02/23/130 dated 23 May 2023)

improve the efficiency of cargo inspection; logistics monitoring; augmented/mixed-reality glasses for detecting contraband and counterfeit goods; etc.

d. Systems supported by biometrics for identification of individuals crossing the border and accessing or operating in restricted control areas at border crossing checkpoints.

e. Drones, unmanned aircraft or ship guided by remote control or onboard computers, that could be used for surveillance and monitoring purposes (e.g., at checkpoints, port area or potential informal border crossings) to combat smuggling and provide aerial assistance during arrests.

f. Virtual, augmented and mixed reality devices that either create a fully simulated world or add digital artefacts to the physical world; which can be used for Customs training purposes or to project visual assistance in the physical world, e.g. when doing a physical inspection (direct warnings by connected system to the officer wearing such device or assistance by someone who can see what the Customs officer sees, in real time).

More details on use of disruptive technologies in Customs are available in WCO/WTO Study Report on Disruptive Technologies (June 2022).[10]

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[10] https://www.wto.org/english/res_e/publications_e/wco-wto22_e.htm