



EU4Digital

EU4Digital: supporting digital economy and society in the Eastern Partnership

Digital Transport Corridor (DTC) Implementation Approach

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This document provides a summary of preparatory actions for DTC implementation between the Baltic Sea and the Black Sea. It summarises the draft report 'Preparatory Actions to pilot a Digital Multi-modal Transport Corridor between the Baltic Sea and the Black Sea' (submitted as a separate document).

The approach is being aligned with national stakeholders in Belarus and Ukraine as well as European Commission representatives. Expected date for finalisation – June 30, 2020.

DTC state of play

EU4Digital assessed the state of play of digital transport corridor development in both EU and Eastern partner countries:

1. Since 2015, EC is assisted by **Digital Transport and Logistics Forum (DTLF)** in the developments related to digitalisation of the transport and logistics sector and fostering a more efficient electronic exchange of information in transport and logistics. Topics of focus - Paperless transport and Corridor freight information systems
2. Two focus areas on EU level:
 - a. Adoption of **Regulation on electronic freight transport information (eFTI)**. Planned to be fully enforced by mid-2025 with 3 intervention objectives: (1) obligation for authorities to accept eFTI; (2) alignment of digitalised processes for regulatory information checks/processing; (3) interoperability of IT systems and solutions (eFTI platforms)
 - b. Developing, testing and validating the **federated network of platforms** - interconnecting existing platforms and harmonising the services they offer (digital transport corridors). Two supporting projects: FEDeRATED and FENIX cover digitized transport document process, planning, monitoring, border crossing services and other areas in more than 40 living labs / pilot sites
3. Eastern partner countries have **varying levels of digitalisation** of the key and supporting logistic documents **on a national level**; cooperation and alignment of required information between different transport modes is not established. Therefore, national conditions for cross-border digital transport corridor need to be established
4. The two countries of focus (in the scope of EU4Digital activity) have **initiated nation-wide initiatives for eLogistics platform** establishment, i.e. Belarus and Ukraine. Countries plan government owned national eLogistics platforms (NeLS)

DTLF <https://www.dtlf.eu/>

FEDeRATED <http://www.federatedplatforms.eu/>

FENIX <https://fenix-network.eu/>

DTC concept

Recommended DTC implementation concept

- Established as a federated network of platforms in Eastern partner countries. It should support information exchange among participating countries while providing different types of services. Firstly, focusing on developing of *visibility-administrative* (storing and sharing key logistics data) and *visibility-physical* (transport progress, location details) services; later expanding to *information, quotation/ marketplace, booking and ordering* services, etc.
- Developed on the planned extensions of TEN-T to Eastern partner countries. The concept that EU4Digital developed for a corridor Baltic Sea – Black Sea complements the extension of North Sea – Baltic TEN-T corridor. The concept could be adapted and implemented to complement extension of other TEN-T corridors in additional corridor Black Sea – Caspian Sea, involving Armenia, Azerbaijan, Georgia and Moldova.
- Built in accordance with EU existing requirements (DTLF, eFTI) and ongoingly adapted based on new specifications. Up to date knowledge is ensured through Eastern partner countries representatives engagement in DTLF (*the format of involvement to be decided*).
- Built on National eLogistics Systems (NeLS) as core components. NeLS are central national platforms facilitating provision of information for authorities and cross-border exchange. NeLS shall perform as eFTI platforms in the long term.
- Established and tested through multiple Living Labs (LL) initiated based on priority logistic documents in Eastern partner countries (data not documents to be exchanged). After Living Labs are tested (piloted) and adjusted from technical, organizational and legal perspectives, they go live and build DTC gradually.
- Connected with EU; no central platform development is planned in EU MSs (i.e. Lithuania), the connection is planned with existing government or private systems.

Impact

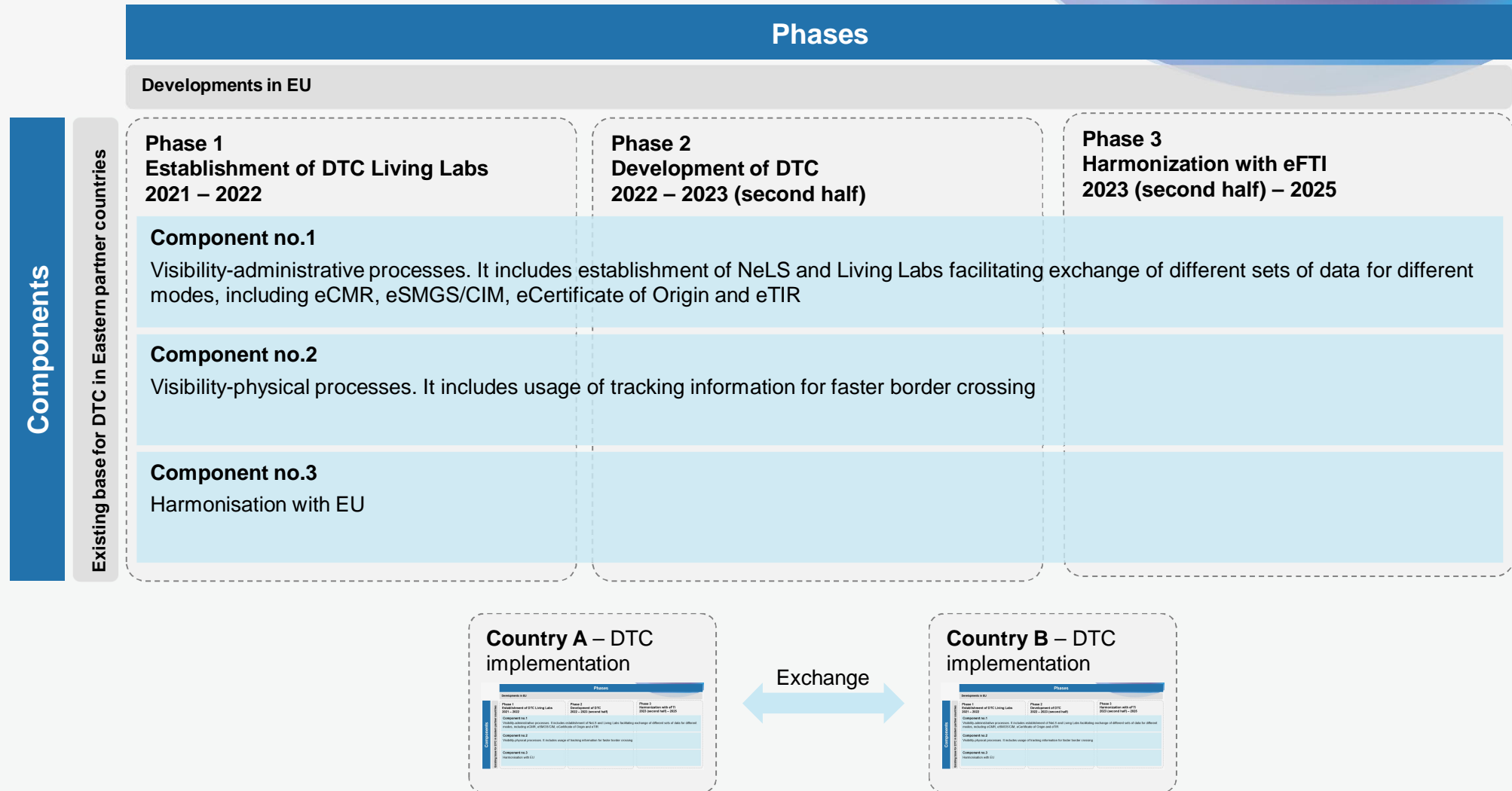
1. Exchange of logistics information is harmonised with EU – simpler, faster and trusted.
2. Increased digital maturity in various transport modes inside Eastern partner countries and cross-border.
3. Living Labs build up a consolidated solution – NeLS (fragmentation avoided).
4. Tested (piloted) and later - live DTC solutions.
5. Gradually created data pipeline.
6. Stronger collaboration and networking between different logistics stakeholders in Eastern partner countries (preparation organisationally).

List of DTC Living Labs

The list of Living Labs provided below was developed taking into consideration the state of play analysis and country workshops in Belarus, Ukraine and Lithuania, interviews with state organizations and business stakeholders and eTrade network workshops involving all Eastern partner countries. The suggested list of Living Labs is considered to be firstly applied in Baltic Sea – Black Sea corridor between Ukraine, Belarus and Lithuania to complement the North Sea – Baltic corridor of TEN-T.

Living Lab	Description
LL 1.1 National eLogistics System	National eLogistics System is a centralized solution for information exchange between private and public entities on a national level as well as cross-border. It provides a single point of truth, enabling entities to submit regulatory information electronically and authorities to access it electronically on a single platform. In LL 1.1, only necessary parties shall be connected and basic modules of NeLS shall be developed to facilitate exchange of information foreseen in LLs 1.2 - 1.5. These modules are related to information security, authorization, data exchange and storage. NeLS implementation is gradual – results of Living Labs 1.1-1.5 shall be expanded later to connect wider range of public and private institutions.
LL 1.2 Cross-border eCMR data exchange	This Living Lab involves the submission and cross-border exchange / access of electronic consignment note (eCMR) as a legal document between exporter, importer, carrier and interested government authorities. The exchange is performed via NeLS.
LL 1.3 eSMGS/eCIM as transit declaration	This Living Lab involves submission and cross-border exchange of rail consignment note (eSMGS, eCIM or eSMGS/CIM) between railway operators and customs where rail consignment note is acknowledged as transit declaration. The type of consignment note (eSMGS/ eCIM/ joint) that will be used a transit declaration is to be clarified at the inception of the Living Lab. The exchange is performed via NeLS.
LL 1.4 Cross-border eCO data exchange	This Living Lab involves submission and cross-border exchange / access of Electronic Certificate of Origin (eCO) between exporter, importer and customs office. eCO can be provided digitally through electronic application, that is completed using digital stamps and electronic signatures of authorized officials, instead of physical document application. The exchange is performed via NeLS.
LL 1.5 Cross-border eTIR data exchange	This Living Lab involves cross-border exchange of eTIR guarantees between exporter, importer and customs office. The exchange is performed via NeLS.
LL 2.1 Usage of tracking data for faster border crossing	This Living Lab involves usage of tracking data by customs offices to facilitate faster border crossing. Customs office can assess in advance the documents and information needed for a vehicle check by information available in advance in tracking system: estimated time of arrival, the route taken, was the container/door of consignment opened during transportation, etc. Customs officers can also review the logistic documents attached in advance and only check their originality upon vehicle arrival.

DTC High-level implementation approach



DTC Implementation approach

Phase 1 – Establishment of DTC Living Labs

Component no. 1: Visibility-administrative processes

Phase 1 begins with the establishment of NeLS (LL 1.1) and implementation of cross-border eCMR data exchange (LL 1.2). Existing platforms shall be used to build up NeLS (currently observed in Ukraine and Belarus).

NeLS core functionalities and modules are developed for testing Living Labs between two EaP countries as well as with EU. NeLS shall be adjusted during phase 1 to function as full solution in phase 2.

After phase 1, the specification for LLs (LL 1.3-1.5) is prepared, NeLS assessment performed (compliance with EU requirements, functionalities that need to be introduced for new LLs, etc.) and recommendations for national regulations are provided to facilitate legal acceptance of exchanged electronic data via NeLS.

Component no. 2: Visibility-physical processes

In parallel to NeLS development and eCMR data exchange, a separate solution for Usage of tracking data for faster border crossing is developed (LL 2.1).

Phase 2 – Development of DTC

Component no. 1: Visibility-administrative processes

During phase 2, NeLS (including LL 1.2) is adjusted for cross-border exchange of eSMGS/eCIM, eCO and eTIR data (LL 1.3-1.5) and to adhere any regulatory changes and EU developments.

DTC is continued to be developed by:

- Development of LL 1.3: eSMGS/eCIM as transit declaration
- Development of LL 1.4 Cross-border eCO data exchange
- Development of LL 1.5 Cross-border eTIR data exchange

Every Living Lab is tested & adjusted during phase 2.

Component no. 2: Visibility-physical processes

The results of LL 2.1 are evaluated and adjusted. If considered successful, tracking data is used for faster border crossing as live solution.

Phase 3 – Harmonisation with eFTI

To facilitate future interoperability of systems in Eastern partner countries and EU Member States, the evaluation of released eFTI requirements and specifications is done during phase 3. Gap analysis is performed and required technical, organisational and legal adjustments of NeLS and Living Labs are made.

To facilitate cross-border exchange with EU countries, NeLS would also take on the functions of eFTI platforms after all eFTI specifications are released.

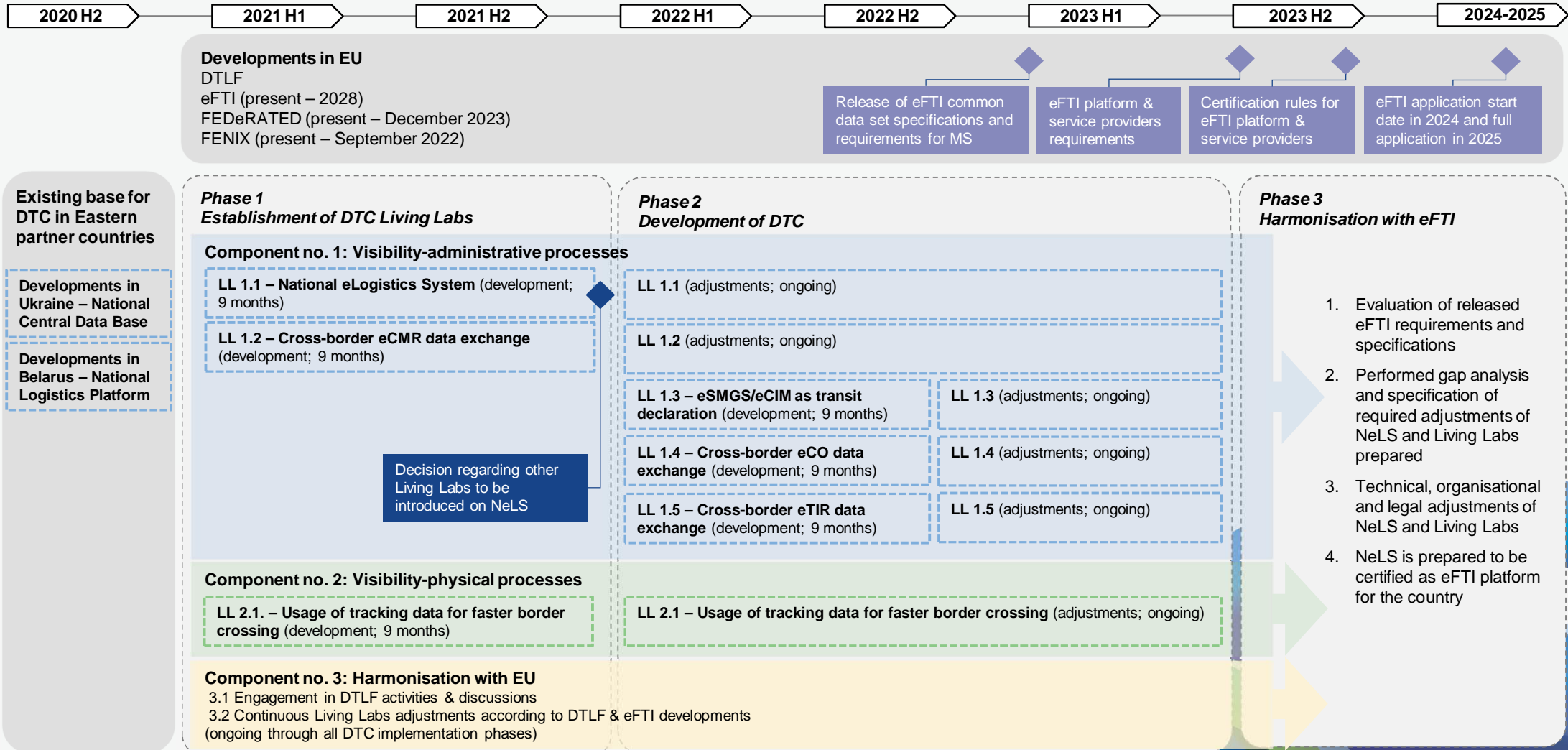
In order to minimize any changes needed, NeLS and Living Labs shall be continuously developed according to DTLF & eFTI as per Component no. 3.

Component no. 3: Harmonisation with EU

During all phases of DTC implementation, representatives of Eastern partner countries participate in DTLF sessions and public events to be informed about developments in EU and facilitate harmonisation in Eastern Partnership.

EaP country representatives shall observe developments of DTLF, FEDeRATED and FENIX network to develop and adjust NeLS accordingly during all phases. Connections could be established and site visits organized through EU4Digital networking activities.

Indicative Roadmap of DTC Implementation



* The start of DTC roadmap implementation is subject to financing of the activities. Developments in EU are also indicative and may change.

** Platforms already being developed in the Eastern partner countries can be used as NeLS if proven to be capable and secure; during living lab functionalities necessary for eCMR should be prioritised.