



Income and Sales Tax Department
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Hashemite Kingdom of Jordan

JORDAN T&T SYSTEM PRIMARY REQUIREMENTS

DOCUMENT HISTORY

Version	Release Date	List of Changes
1.0	March 1 st .2021	Initial version
1.1	April 30 th 2021	§1.4 added : documentary prevalence §1.6 : Documentation reference update §2.6.1 Section header added "Factory Operations." §3.2 : List of business event requirements updated plus Delivery Note added §3.4 : replace invalid reference to "Sales Order" with "Shipment Note." §3.5 : Transmission constraint for Delivery Note added + information update
1.2	June 26 th 2021	§ 2.7 : section updated to reflect June 2021 discussion regarding last scanning point §3.2 : description of business events updated §3.3 : requirements specification for factory "waste" and "not for sales" product §3.4.4 : requirements specification for returned products updated
1.2.1	September 20 th 2021	§2.9 : endpoint access information updated.
1.2.2	September 30 th 2021	§3.3.24 added : Finished Goods idempotence §3.4.4 updated with further descriptions of returns management §3.4.2 section updated with new pack commissioning requirement for export

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1 BACKGROUND INFORMATION

1.1 INTRODUCTION

This document specifies the key principles and processes for the establishment and operation of a traceability system for tobacco products to be deployed in the Hashemite Kingdom of Jordan. This document is intended to any economic operators involved in the tobacco manufacturing and distribution who will have to implement the solution in accordance with the Jordan regulation. Information communicated in this document sets out the official requirements that apply for the Jordan traceability project and shall prevail over the specifications shared in any other technical documentations provided separately.

1.2 JORDAN T&T REGULATION

ISTD has been exclusively appointed by the Ministry of Finance of the Hashemite Kingdom of Jordan (Government) to implement a mandatory system for volume control and tracking and tracing of Tobacco Products sold in the Territory, pursuant to:

- The Prime Minister's letter No.(13A/11/1/15016) dated on April 3, 2019;

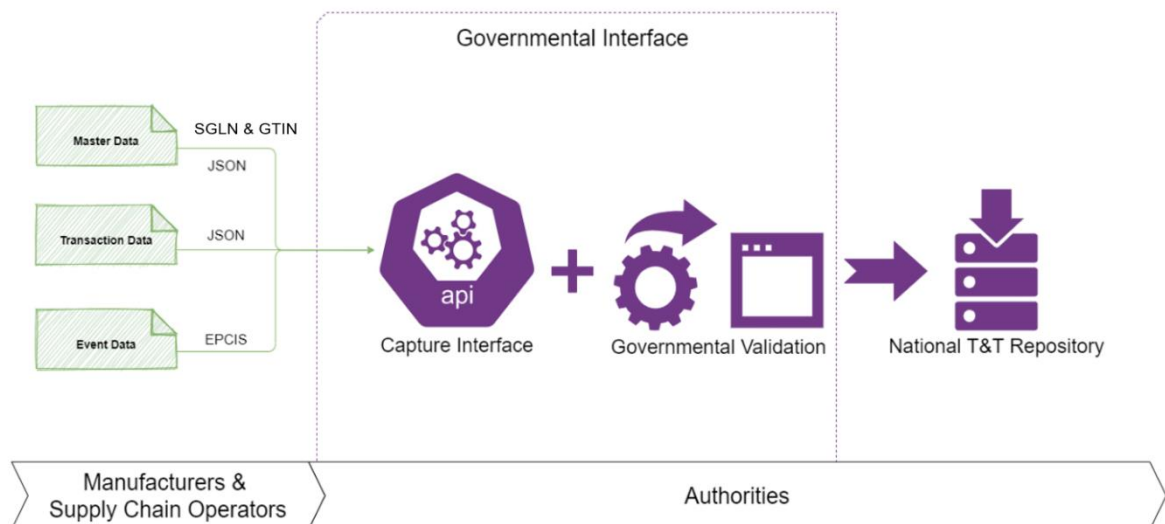
The official statement from His Excellence the Minister of Finance numbered 1/3/2291 dated February 18, 2020.

The traceability system foreseen to address illicit trade of tobacco products in Jordan aims at providing the necessary means to:

- Comply with the Protocol to Eliminate the Illicit Trade in Tobacco Product (ITP) released by the WHO Framework Convention on Tobacco Control (FCTC);
- Implement the provisions of the law: Implementing Regulations No. (8) for 2020.

1.3 KEY PROVISIONS

- a) All unit packs of tobacco products manufactured in and destined for the Jordan market will be required to bear a unique identifier (refers as Jordan unique code in this document) in accordance with the coding recommendations set out in [R1]: Jordan TnT Gov - Digital Pack Coding specifications .
- b) Their movements must be recorded throughout the distribution chain: from the tobacco manufacture up to the last tracking point as specified section §2.7 of this document and [R5] .
- c) All tracking events recorded at the factories and throughout the supply chain will be stored on a central governmental T&T repository administrated and accessible by the Jordan authorities. (The graph below presents data categories reported to the National T&T Repository.)



1.4 IMPORTANT NOTE: DOCUMENTATION PREVALENCE

All information communicated in this document shall prevail over any conflicting technical specifications and requirements set forth in the technical documentation listed in section 1.6.

1.5 GLOSSARY OF TERMS & ABBREVIATIONS

DTV	Digital Tax Verification
DVV	Digital Volume Verification
EPC	Electronic Product Code / Electronic Package Code
EPCIS	Electronic Product Code Information Services
FCTC	Framework Convention on Tobacco Control
GDTI	GS1 Global Document Type Identifiers https://www.gs1.org/standards/id-keys
GZIP	Data compression method
HTTP	Hyper Text Transfer Protocol
ISA-95	Instrument Society of Automation
ITP	FCTC protocol to eliminate illicit trade of tobacco products
SFTP	Secure File Transfer Protocol
SGTIN	GS1 Serial Global Trading Identification Number https://www.gs1.org/standards/id-keys
SGLN	GS1 Global Location Number (with or without extension) https://www.gs1.org/standards/id-keys
SSCC	GD1 Serial Shipping Container Code https://www.gs1.org/standards/id-keys
TMO	Trademark Owner
URI	Uniform Resource Identifier
URL	Uniform Resource Locator
UTC	Coordinated Universal Time
XML	Extensible Mark-up Language
3PL	Third Party Logistic

Definitions

“Activated” State: formalizes for the authorities the legal creation of the tobacco product and the specific point in time where that product is allowed to be sold in Jordan. A product is deemed to be activated by the Jordan authorities if its unique identifier has been generated through the governmental serialization framework, reported, and stored in the Gov Central Information System, as well as successfully “commissioned” during the manufacturing process.

Aggregated packaging: any outer packaging containing more than one unit packet of tobacco product.

Aggregation: A parent-child relationship between two different packaging units that allows, for instance, traceability of pallets without scanning all master cases, cartons, and packs that are inside that pallet.

(Gov) Central Information System: includes all business-related services, processes, and databases, deployed at level 4 in regard to ISA-95 standard, that are administrated by the authorities and required to manage the T&T solution in Jordan.

Commissioning event: tracking event transmitted in the EPCIS format to the National T&T Repository to notify a unit pack has been successfully commissioned.

Data carrier: means of representing a data string in machine readable format.

Distributors & Wholesalers: economics operators in charge of distributing and selling tobacco products.

Economic operator: any legal entity involved in the trade of Jordan tobacco products. This includes, but is not limited to, tobacco manufacturers (local and abroad), distributors, and 3PLs.

Importer: of tobacco or related products is the owner of tobacco or related products that have been brought into Jordan.

INEXTOR suite/software: software services deployed at the factory level and on the production lines that oversee the tobacco pack serialization and code status transmission to the Gov Central Information System.

National T&T Repository: generic term to name the database, controlled and oversighted by the authorities, storing traceability data relating exclusively to the products of a given Manufacturer or Importer or distributor

Product Commissioning: operation performed at the tobacco factory upon product serialization that will prove a unique identifier has been successfully associated, and so applied, to a unit pack of tobacco.

Product Volume Verification: means the secure monitoring and reporting of quantities of packaged excisable fast-moving consumer goods by means of reliably counting packs with a printed code, in compliance with applicable law.

Serialization Repository: generic term to name the database, controlled and oversighted by the authorities, storing all data related to the serialization of the tobacco products and digital volume verification.

Tobacco Manufacturers: legal entity who manufactures or has a product designed and manufactured that is responsible for introducing the tobacco products into the Jordan distribution process.

Unit Pack: smallest individual packaging level of tobacco product that is placed in the Jordan market.

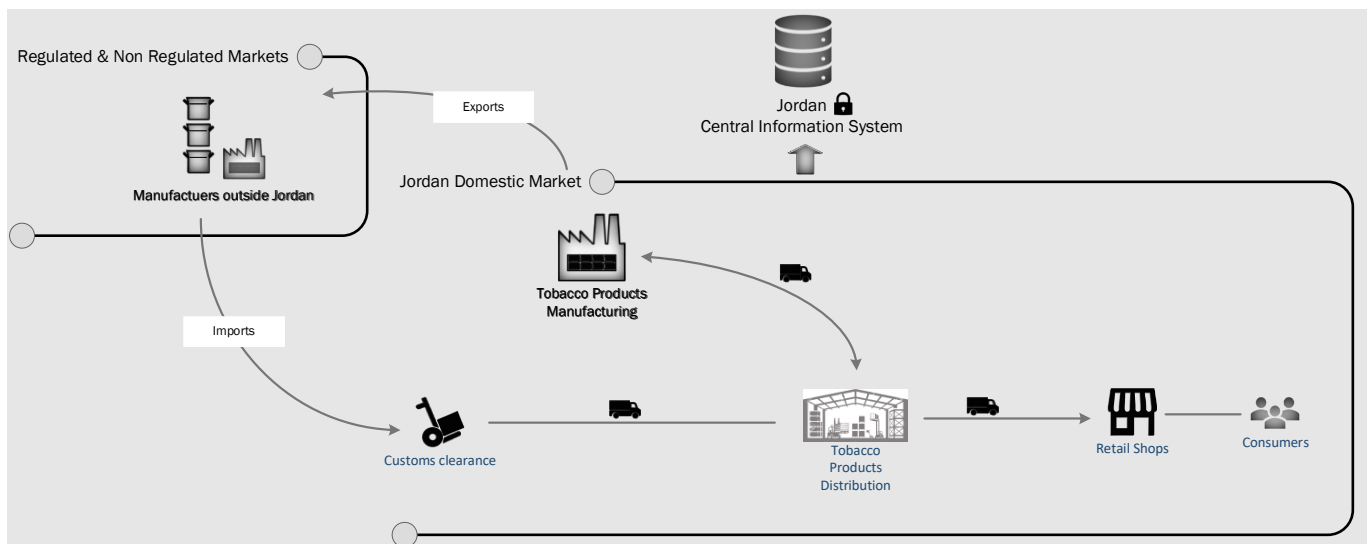
1.6 REFERENCES

Reference	Document	Version
R1	Jordan TnT Gov - Digital Pack Coding specifications	1.3
R2	INEXTO - INEXTOR - Concepts and Workflow	1.0
R3	Governmental Repository Interface	1.5
R4	"NEW Framework specs FINAL September 2019 (shared)"	Not Applicable
R5	Jordan T&T Gov - Last Tracking Point Description	1.2

2 BUSINESS PROCESS OVERVIEW

2.1 THEORY OF OPERATIONS

The data storage model implemented in Jordan aims at centrally storing all production volume information, goods movements and logistic events that are collected by the different economic operators, in a unique central repository controlled by the Jordan authorities. Production and T&T data will be monitored by the authorities to improve the fight against illicit trade activities.



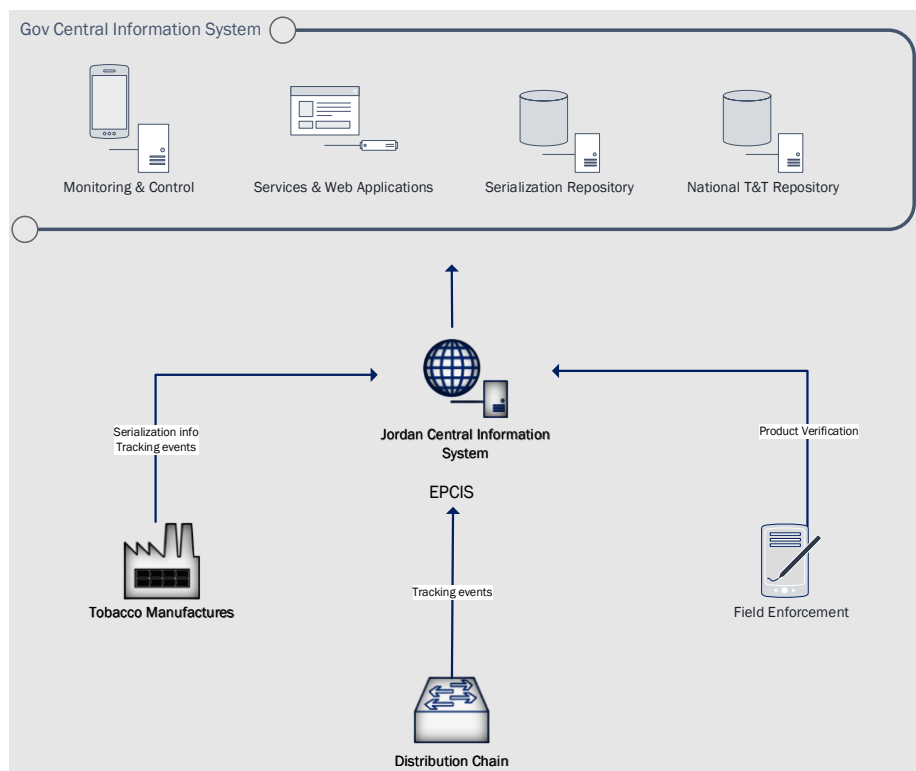
Governance model

1. Registration: tobacco manufactures are registered under the government supervision to the Gov Central Information System during commissioning process. Refer to [R2] §1.4 for more information.
2. Tobacco packs volume verification for DVV: pack unique identifiers (distinctive combination of numbers and letters) for tobacco packs (unit items) are generated at the factory, on the fly on the production line when a production order is manufactured. Unique identifiers for tobacco are compulsorily provided by the INEXTOR code generator as described document [R2].
3. Unique codes applied on the tobacco packs must be commissioned as specified section 2.6 of the document.
4. Production aggregation: tobacco manufacturers are responsible for deploying, through the solution of their choice, the product aggregation (unit packs to bundle and bundles to master case), in order to facilitate the tracking operations on the supply chain.
5. Any products (and thus codes) placed on the distribution chain must have been reported to the Gov Central Information System and successfully commissioned prior leaving the manufacturing plant.
6. Distributors engaged in the wholesale trade are fully responsible of sending information on goods movements and logistic operations during the distribution to the Gov CIS as specified §3.
7. Aggregation, code commissioning, and all mandatory tracking events must be transmitted to the Gov CIS via an EPCIS capture interface exposed by the authorities.
8. All data generated during the manufacturing and distribution operations that is transmitted to the Gov Central Information System is the property of ISTD and can be accessed only by ISTD.

2.2 GOV CENTRAL INFORMATION SYSTEM (CIS)

Jordan Gov CIS hosts all the essential WEB applications, services and databases required to operate the solution and communicate with the T&T infrastructure deployed on the field. In particular, the Jordan CIS is composed of:

1. a serialization repository that contains all production data and the list of unique codes generated and printed at the factory in the context of the production digital volume verification (DVV) of tobacco products.
2. a National T&T Repository established for the purpose of storing all traceability data relating to tobacco products (Full T&T)
3. a National T&T Repository Interface (Web API) for tracking data transmission in EPCIS format to the Gov CIS.



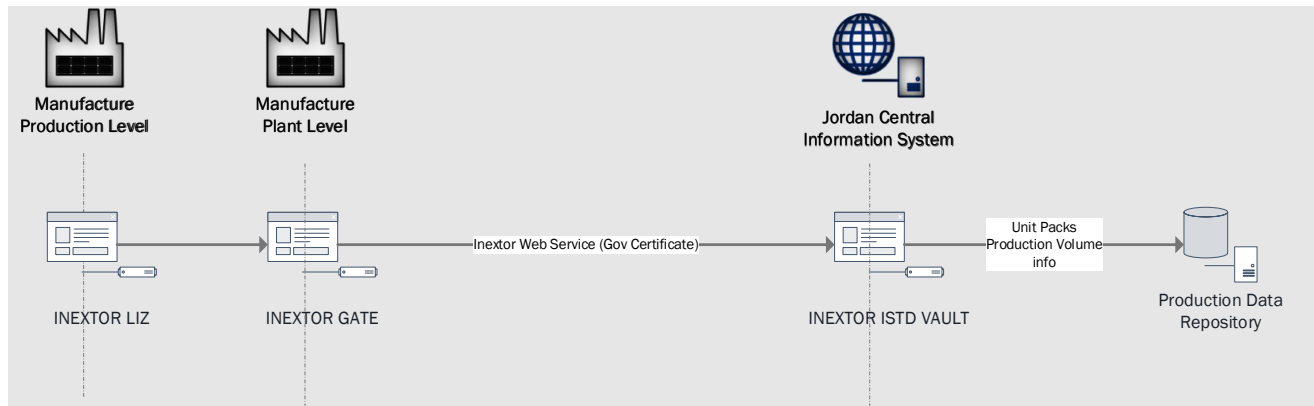
The traceability events are captured at the manufacturing plants and on the supply chain via a standard EPCIS interface and are securely stored in an independent National T&T Repository in compliance with FCTC ITP protocol. Only the Jordan authorities can access these repositories to query and audit the data.

2.3 GENERATION SCHEME OF UNIT PACK CODES FOR DVV

Tobacco manufacturers are required to deploy INEXTOR suite (GATE & LIZ components) at the factory for the serialization of the tobacco unit packs. Specific LIZ configurations may be required to manage export or import from a regulated market (refer to section 3.4). The Jordan unique identifiers for tobacco unit packs are generated on the fly, in real time on the tobacco production line, when a new production order is started by an operator. Refer to [R2] for INEXTOR framework description.

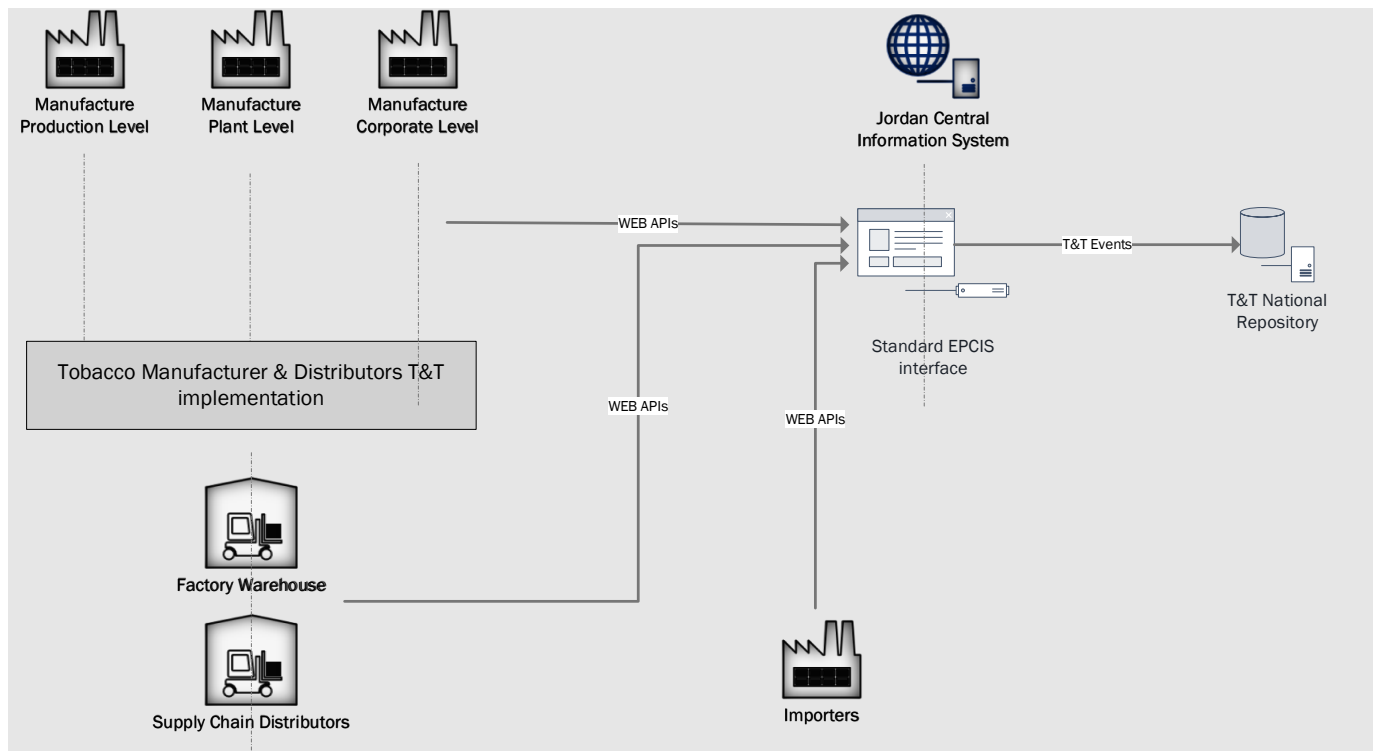
The unique identifiers are not ordered and downloaded in advance from a central web portal. All activities related to the generation of codes that occur at plant level are automatically reported to the Jordan CIS by the INEXOR GATE.

Data flow between infrastructure deployed at the factories for DVV and ISTD CIS is organized as follows:



2.4 TRACKING EVENTS TRANSMISSION TO GOV CIS FOR FULL T&T

Data communication between T&T infrastructure deployed at the factories for Full T&T and ISTD T&T system is organized as follows:



In the context of the Jordan T&T regulation, economic operators will have to obtain the equipment and the T&T infrastructure for recording the tobacco pack commissioning, the product movements, and implement the transmission to the Jordan T&T system by means of the National T&T Repository Interface (EPCIS)

2.5 TOBACCO PRODUCTS MARKING

All tobacco products subject to Jordan T&T regulation must be marked with a unique identifier as specified in [R1] “Jordan TnT Gov - Digital Pack Coding specifications”. This document sets out the data structure authorized to generate the data carrier for the different packaging level and also the symbols that can be used. Tobacco manufacturers are requested to deploy INEXTOR suite at the factory for tobacco pack serialization. Refer to [R2] for the concepts and solution workflow.

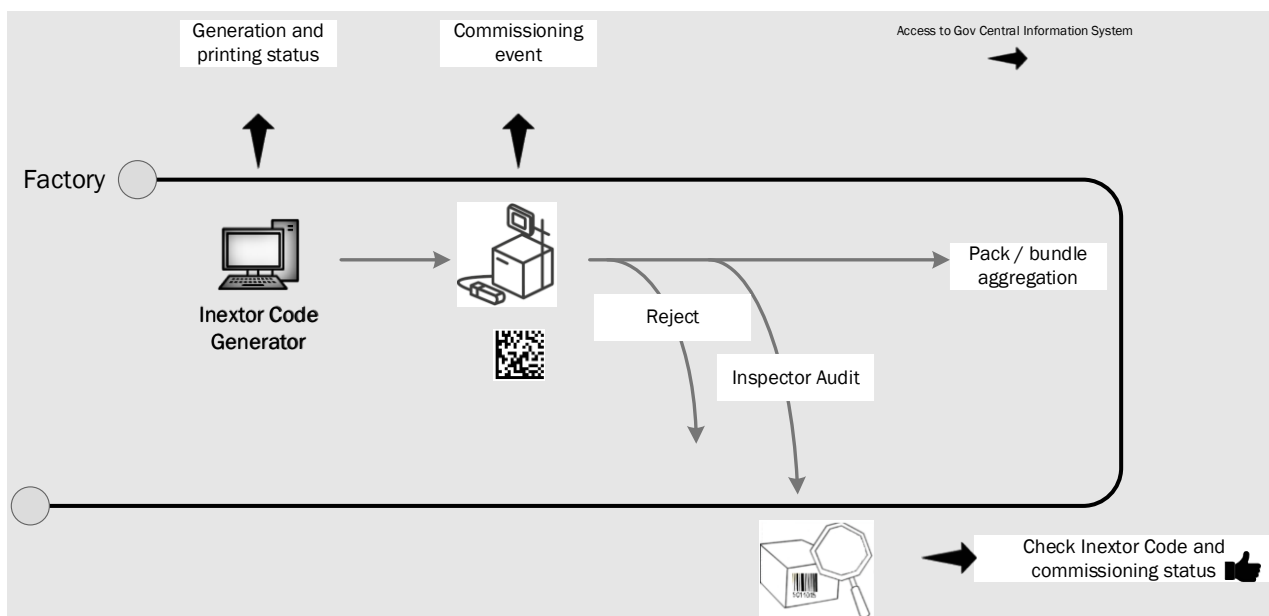
2.6 TOBACCO PACKS COMMISSIONING

2.6.1 Factory Operations

A tobacco pack is considered as activated by authorities and so allowed to be placed on the Jordan market, when its unique identifier has been successfully generated, commissioned, and finally reported to the Jordan Gov CIS. The code commissioning being implemented to ultimately guarantee the data carrier has been successfully applied onto the product.

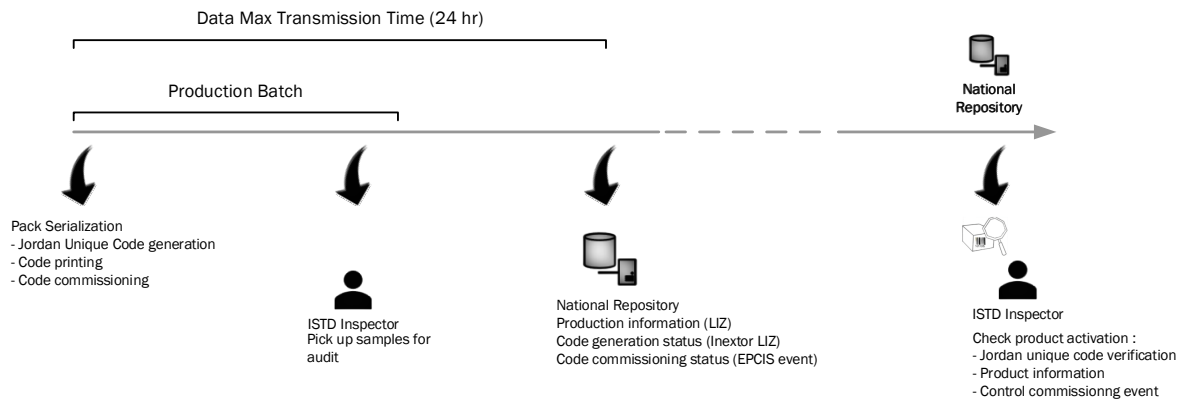
100% of the products must be commissioned during the packs’ serialization operation. This event must be transmitted to the central T&T repository via the EPCIS interface in maximum 24 hours (under normal production and operating conditions) so that a mandated inspector can audit any production in order to control the products activation status. The message structure of the commissioning event is specified in [R3] §2.3.

The figures below describe the scenario associated to the pack commissioning and audit process by the gov authorities.



Tobacco Pack audit protocol:

Local authorities could audit series of tobacco products collected at the factory and check the product activation (code generation status & commissioning status) with a mobile device running a specific verification application connected to the Gov Central Information System.



2.6.2 Deployment Timeline For Product Commissioning

Implementation of the product commissioning, item aggregation and the events transmission to the Jordan National T&T Repository is expected during phase 2 (Full T&T) of the project. Product commissioning is not required and remains optional for phase 1 (DVV): “code generation” or “sent to printer” status generated by INEXTOR LIZ will be used as enforcement evidence. Implementation phases from DVV to Full T&T :

- a) Phase 1, DVV (Volume Control) will be print status based.
- b) Phase 2, Full T&T will be tobacco pack codes commissioning based.

2.7 LAST TRACKING POINT SPECIFICATION

Jordan regulation, in accordance with the FCTC ITP protocol, is requesting for the goods intended to the domestic market, to be tracked by the economic operators up to:

1. the full discharge of the Jordan “Special Tax”
2. the moment when the product is sold to the first non-affiliate customer.

A complete case-by-case analysis for Jordan market is presented in [R5].

2.8 MASTER DATA OF THE SYSTEM

2.8.1 DVV Master Data

Master data related to the codes production of unit packs for Digital Volume Verifications are administrated at the factories using the INEXTOR factory component: INEXTOR GATE. The master data may include certificates, connections to the governmental information system, the GATE identity, the tax levels, various calculated properties, printer drivers, the layouts, and templates.

2.8.2 T&T Master Data

Master data in the National T&T Repository describes products and scanning locations in human-readable format. This gives meaning to the codes received from manufacturers and supply chain operators through the Governmental Repository Interface.

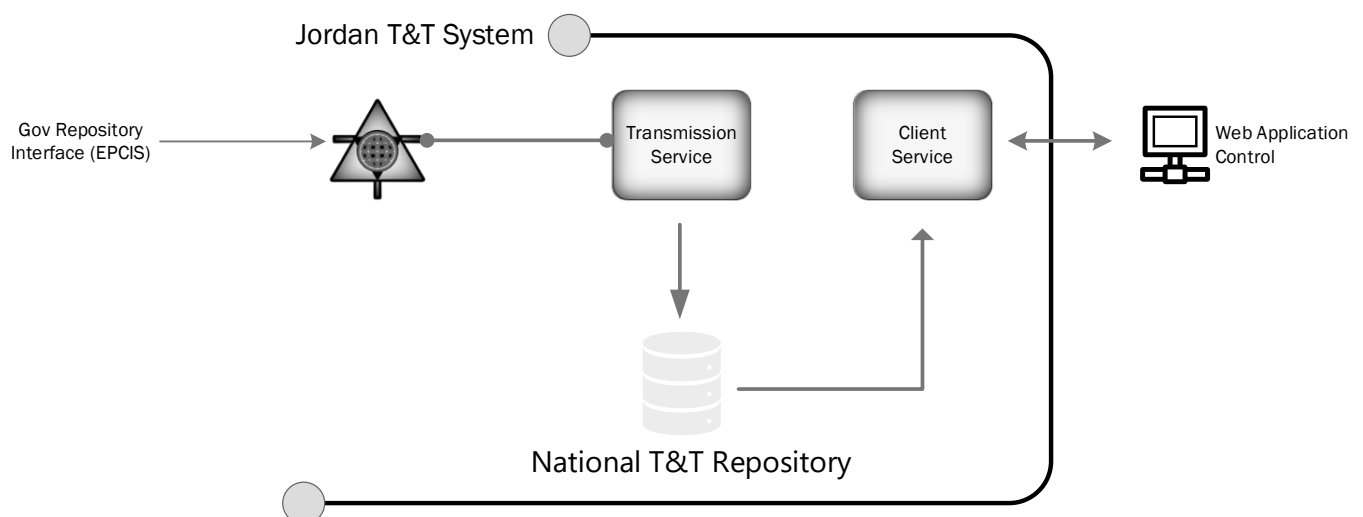
Master data is more static than event and transaction data: The master data for a given product or scanning location changes very slowly (if at all), and the quantity of master data only increases as new products and scanning locations are created, not merely because existing products and scanning locations participate in business processes.

Note that the National T&T Repository validates both products and scanning locations received in event data. That means the master data for a specific product/location must be already inserted with dedicated requests before using that product/location in an event. Otherwise, the National T&T Repository rejects the event with an error. Refer to [R3] for detailed specifications

2.9 EPCIS EVENTS TRANSMISSION

The detailed specifications of the Governmental Repository Interface regarding transmission to the National T&T Repository are available in [R3]. The [R3] documentation provides an exhaustive list of tracking events and transactional documents supported by the Governmental Repository Interface and describes the structure of the EPCIS messages.

However, only messages listed in the following section ("T&T Events Requirements") are required and must be collected in the scope of the Jordan regulated market."



2.9.1 API Endpoint

The national repository service provides a REST endpoint with XML binding over HTTPS.

XML format is to be used to transmit the tracking event to the National T&T Repository while JSON format must be used for master data and documents (transactional information)

2.9.2 Encoding

POST method must be used for event

PUT method must be used for master data and documents

2.9.3 Secured Communication

Any system (e.g., of a manufacturer or importer) reporting data to the National T&T Repository must obtain the following to be allowed to communicate with the Repository:

* **A client certificate.** It is a PFX file protected by a password. The client certificate is a means to authenticate an external system to the Repository and confirm the source of the transmitted data.

* **Ocp-Apim-Subscription-Key.** It's a string that needs to be forwarded in the header (called Ocp-Apim-Subscription-Key) along with each request to the National T&T Repository.

A client certificate and an Ocp-Apim-Subscription-Key must be used to authenticate every data transmission to the National T&T Repository. Without them no communication between an external system and the National T&T Repository is possible.

An external system should request both a client certificate and Ocp-Apim-Subscription-Key to the authorities.

3 TRACEABILITY SYSTEM REQUIREMENTS DESCRIPTION

3.1 INTEGRITY OF AGGREGATION DATA

Code reuse policy: a serialization code generated and applied on an aggregated unit cannot be reused later on, for any reasons, during the manufacturing and distribution process.

Idempotence: the exact same EPCIS event, generated at the tobacco factory or on the supply chain can be transmitted to the Jordan National T&T Repository

Item Aggregation update: the parent-child association established during items aggregation cannot be modified without regenerating a new parent code and retransmitting the new aggregation event to the T&T national repository. For example, a bundle replacement in a shipping case: in that case new shipping case code must be generated and new aggregation event must be reported to the National T&T Repository

Incorrect association: a pack code mistakenly associated several times to a parent item must be detected at the factory and reworked.

3.2 T&T EVENTS REQUIREMENTS

The National T&T Repository aims at providing the authorities with a high-performance tool to monitor the movements of tobacco products during the production and their distribution. In this context, ISTD will expose a standardized interface (refer to R[3]) to enable the data capture and management in a consistent format across all economics operators involved in the operations.

Series of tracking events are mandatory for Jordan market and must be transmitted to the T&T National Repository. This information shall prevail over any conflicting technical specifications set forth in [R3].

Tracking Event	Description	Requirement
Commissioning	associating a unique code to a physical unit tobacco pack	Mandatory
Aggregation	reports parent-child relationship	Mandatory
Disaggregation	removes parent-child relationship (when applicable)	Mandatory when applicable
Shipment	goods shipment to a given location	Mandatory
Receipt	goods reception at a given location	Mandatory
Finished Goods	goods transmission from manufacture area to factory warehouse	Mandatory
Decommissioning	process of terminating a unit-level pack code: damage	Not Required
Importing	Reports the list of products imported	Mandatory when applicable
Tax Registration	Tax payment status	Not Required

Destruction	process of terminating a unit-level pack code: physical destruction	Mandatory when applicable
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On top of these events the following business events are required:

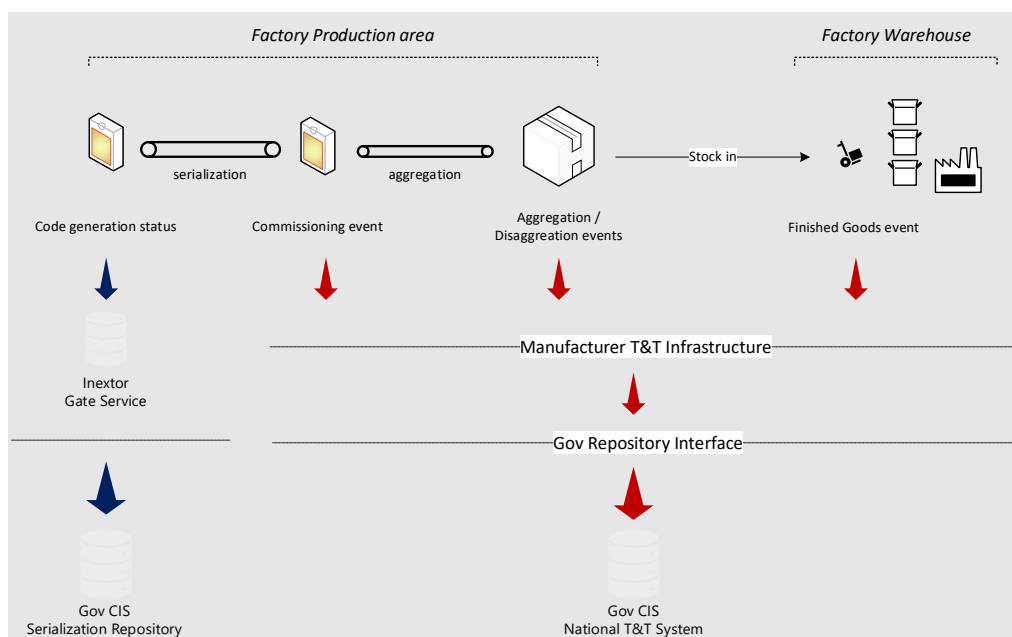
Tracking Event	Description	Requirement
Delivery Note	accompanies shipment of goods: outlines the description, quantity of the goods delivered...	Mandatory
Sales Order	sales order with the final customer who will receive the goods (not an inter-company sales order)	Mandatory
Invoice	describes the seller and buyer information	Mandatory
Payment Receipt	describes the recipient and payer information	Mandatory

Important note 1: status of “Not Required” or “Optional” events will be reviewed by the authorities and is subject to change, once the FCTC protocol to eliminate illicit trade of tobacco product (ITP) is ratified by the Jordan government.

3.3 FACTORY OPERATIONS

3.3.1 Factory Tracking Events

This section focuses on the set of events that must be recorded at the tobacco factory during the manufacturing process in order to comply with the Jordan T&T regulation.



Production event mandatory for DVV implementation:

Event	From System	Transmission to Gov CIS
Code generation status	Generated by LIZ during serialization code production	Automatically transmitted to the CIS (serialization repository) via the INEXTOR GATE

List of tracking events mandatory for Full T&T implementation:

Event	From System	Transmission to Gov CIS
Commissioning	Generated by manufacturer T&T infrastructure as specified in section 2.6 of this document.	Transmitted by the manufacturer to the Gov T&T System via the Gov Repository Interface

Event	From System	Transmission to Gov CIS
Aggregation / disaggregation	Generated by manufacturer T&T infrastructure	Transmitted by the manufacturer to the Gov T&T System via the Gov Repository Interface
Finished Goods	Generated by manufacturer T&T infrastructure	Transmitted by the manufacturer to the Gov T&T System via the Gov Repository Interface

Item aggregation is mandatory for packs and bundles (packs to bundle, and bundles to master case), and remains optional for master cases to pallet.

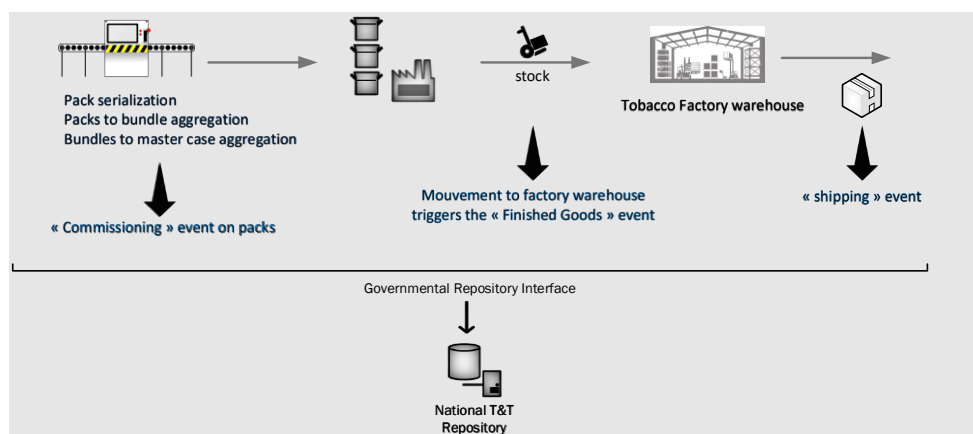
“Finished Goods” event must be sent by the tobacco manufacturer:

- when the goods exit the manufacturing area (usually the secondary area of the factory) to be placed in stock (factory warehouse)
- within a maximum of 72 hours after the commissioning of the unit packs.

3.3.2 Waste Management

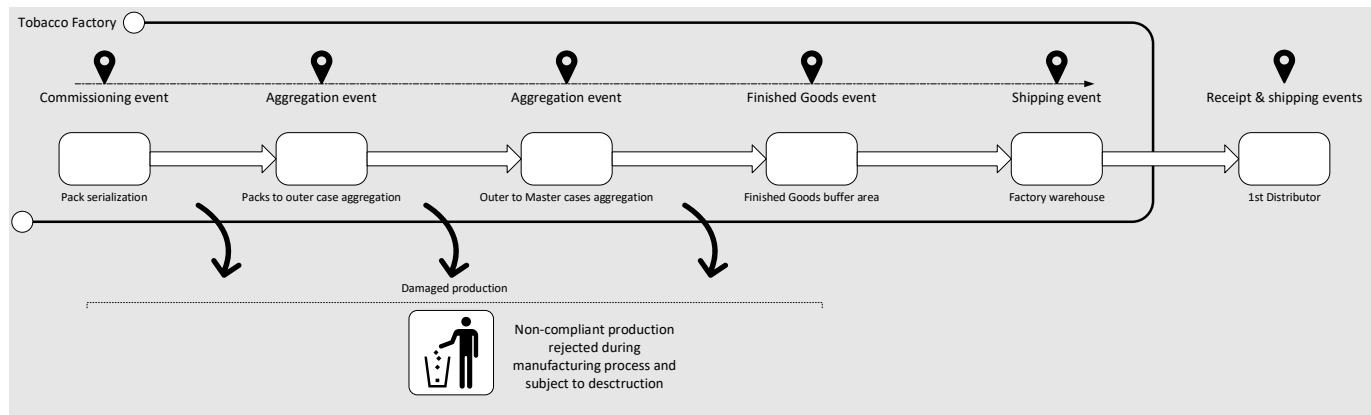
3.3.2.1 Theory of Operations

Production wastage will be determined by the difference between the volume of commissioned packs that have been reported in the Jordan National T&T Repository and the number of product actually exiting the manufacturing area: trigger point for Finished Goods event generation.



Two different scenarios must be considered: pre “Finished Goods” and post “Finished Goods” event transmission.

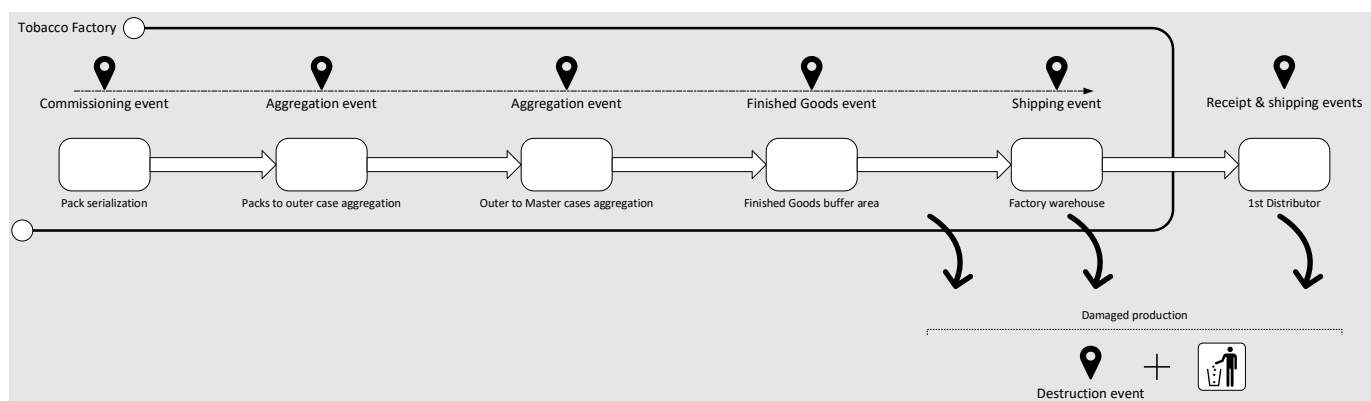
3.3.2.2 Case Post “Commissioning” and Pre “Finished Goods”



In that case no specific tracking event is captured nor returned (e.g., decommissioning) to the National T&T Repository. Cigarettes are unpacked and then tobacco packaging destroyed. The production waste is automatically retrieved from the difference between the actual number of finished goods and the number of pack codes commissioned. This metric is directly computed and extracted from the National T&T Repository.

Important note: production waste is to be closely monitored and analysed during the operations of phase 1 (DVV) to prepare and consolidate the data that will be used by the government (ISTD) as of phase 2 (Full T&T). Series of in-depth analysis will be conducted on different productions during phase 1 to set the key indicators and metrics that will be used as a reference for phase 2.

3.3.2.3 Case Post “Finished Goods”



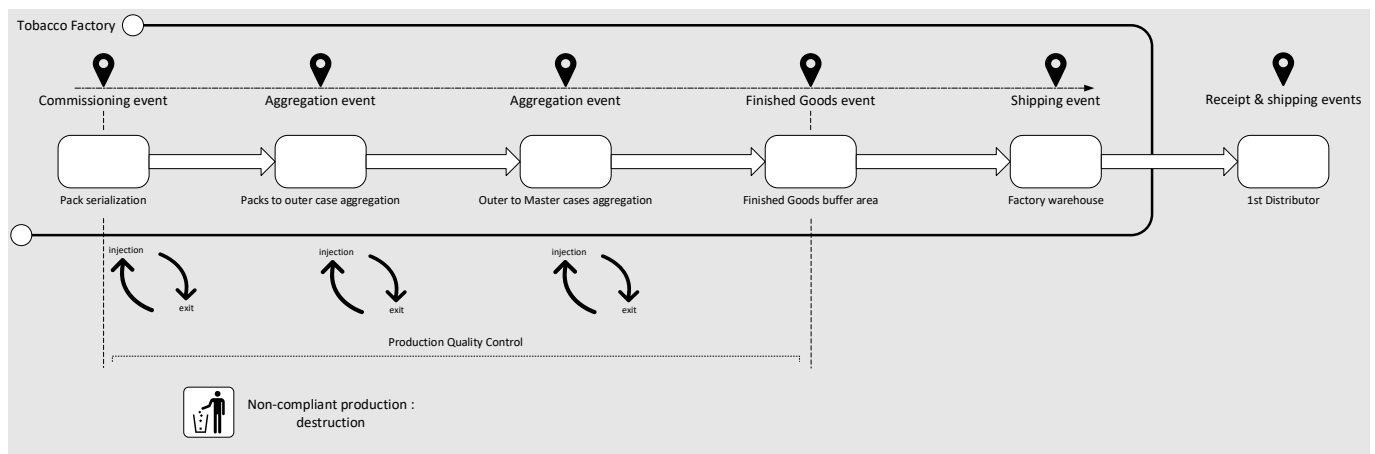
Any production damaged after the transmission of the Finished Goods event must be declared to the National T&T Repository. This operation is reported by means of a Destruction event. It concerns all goods stored in the manufacturers' and distributors' warehouses that are subject to destruction during logistic operations.

3.3.2.4 Finished Goods : Idempotence

The Finished Goods event can be generated several times on the same unit pack codes without any incidence on the National T&T Repository.

3.3.2.5 Factory Quality Control

This category includes all products exited from the production chain and subject to manufacturer quality control. This operation takes place at the manufacture itself and so, products do not leave the factory.

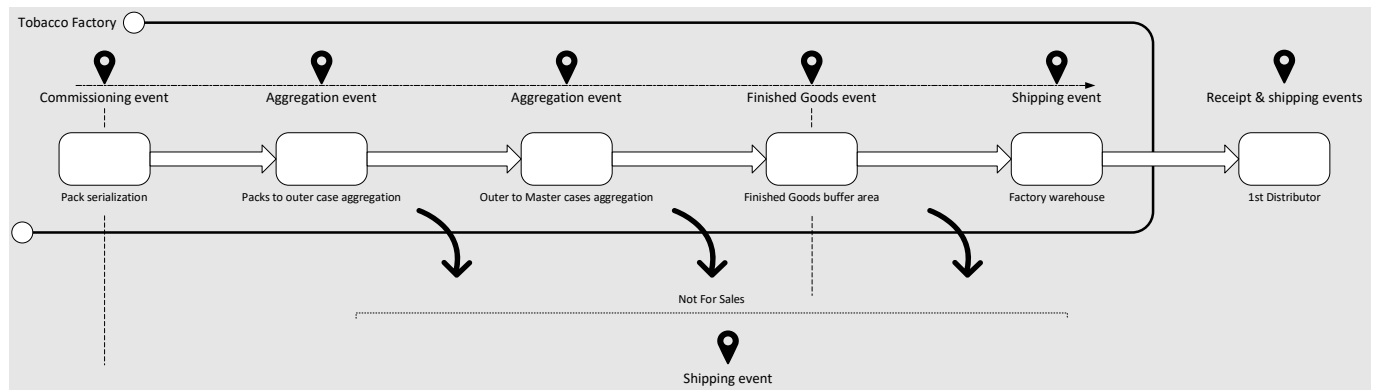


Possible scenarios :

Use case	Event reported	Comment
Compliant Production	none	Product re-injected in production line
Compliant Production QA samples for archives	none	Managed as waste: no declaration §2.1
Non-compliant production	none	Managed as waste: no declaration §2.1

3.3.3 Not For Sales Products

Not for sales products correspond to those leaving the tobacco manufacture but that are not intended to be sold on the Jordan market. This includes, marketing samples, product subject to external audits (authorities, laboratories...).



3.3.3.1 Case Pre-Finished Goods Event

Product can be damaged and removed from the production prior the Finished Goods event is generated. They will be part of the waste production monitored by the authorities. In this case, only the commissioning event must be captured and transmitted to the T&T National Repository for.

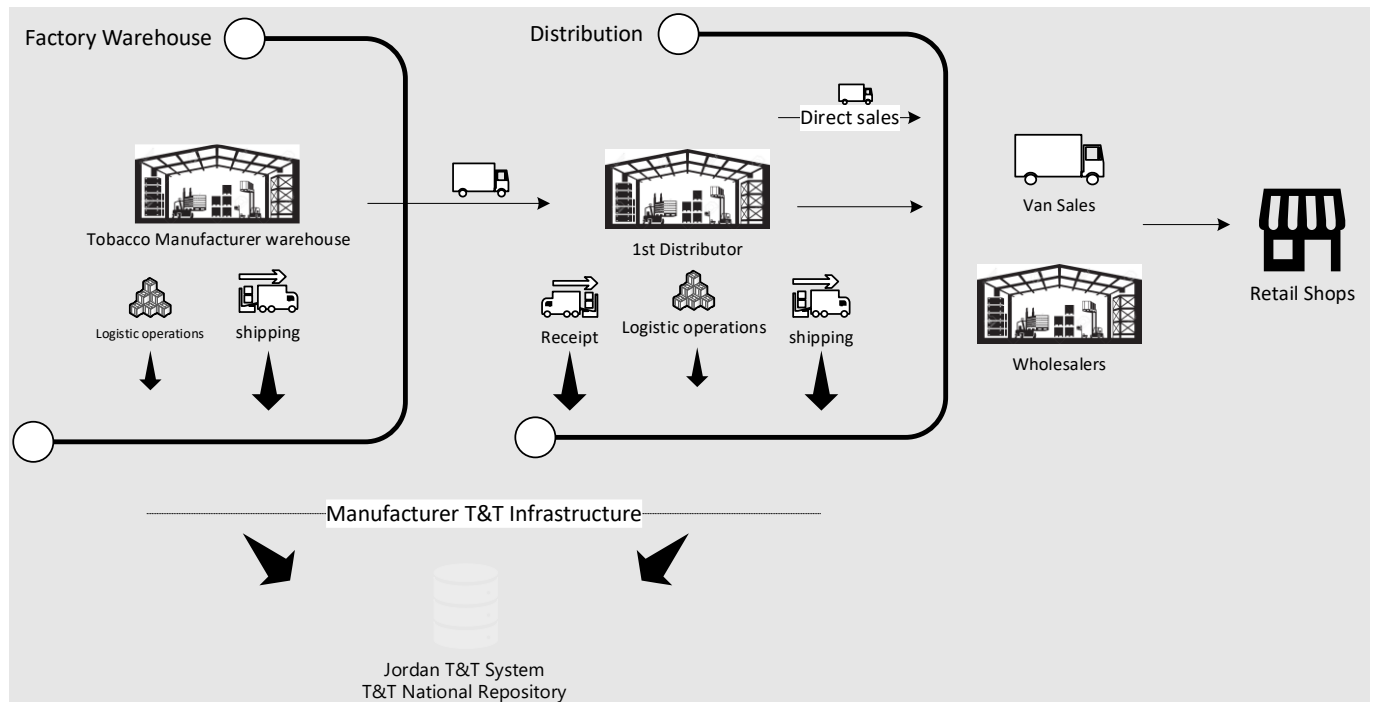
3.3.3.2 Case Post Finished Goods Event

In this case, the manufacturer is requested to send a shipping event to the National T&T Repository to report this operation.

Series of “virtual” business locations will be registered in the system and shall be used to generate the corresponding EPCIS event. This information can be also used to adjust the volume of waste production calculated based on the Finished Goods event. Jordan authorities will so keep track of all product movements outbound from the factory.

3.4 TOBACCO PRODUCTS DISTRIBUTION

Different distribution scenarios have been identified and must be covered by the regulation. The direct distribution, that is fully operated by the tobacco manufacturer, the indirect distribution that involved a local distributor for distributing and selling the product and finally, the import scenario. In all cases, goods will be tracked up to the last tracking point as per section 2.7.



Economic operators are responsible to capture all events during the logistic operations and their transmission to the National T&T Repository.

List of tracking events mandatory for Full T&T implementation :

Event	From System	Transmission to Gov CIS
Aggregation / disaggregation	Generated by economic operator T&T infrastructure	Transmitted by the manufacturer to the Gov T&T System via the Gov Repository Interface
Item aggregation is mandatory for packs and bundles: packs to bundle, and bundles to master case. It remains optional for pallet: master cases to pallet.		

Event	From System	Transmission to Gov CIS
Receipt	Generated by economic operator T&T infrastructure	Transmitted by the manufacturer to the Gov T&T System via the Gov Repository Interface

Event	From System	Transmission to Gov CIS
Shipment	Generated by economic operator T&T infrastructure	Transmitted by the manufacturer to the Gov T&T System via the Gov Repository Interface

Business Event	From System	Transmission to Gov CIS
Delivery Note	Generated by economic operator T&T infrastructure	Transmitted by the manufacturer to the Gov T&T System via the Gov Repository Interface

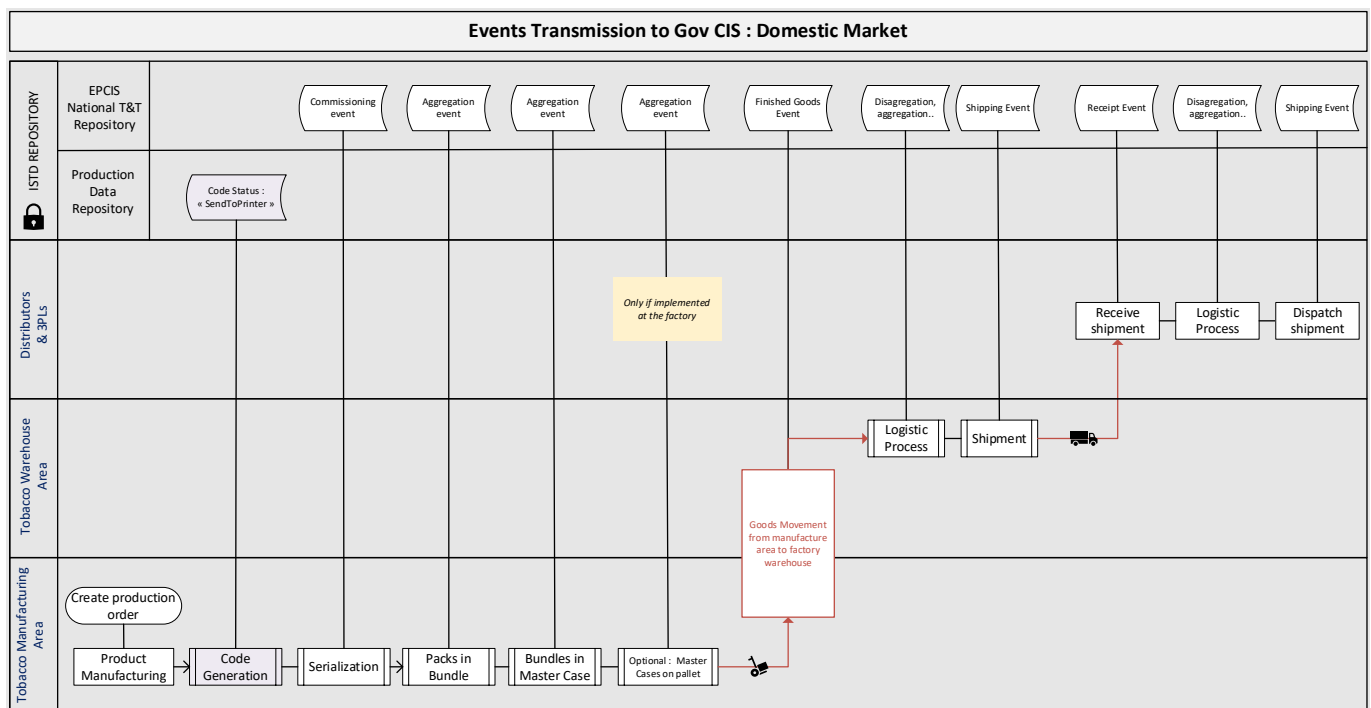
Business transactions

Business Event	From System	Transmission to Gov CIS
Sales Order	Generated by economic operator T&T infrastructure	Transmitted by the manufacturer to the Gov T&T System via the Gov Repository Interface

Business Event	From System	Transmission to Gov CIS
Invoice	Generated by economic operator T&T infrastructure	Transmitted by the manufacturer to the Gov T&T System via the Gov Repository Interface

Business Event	From System	Transmission to Gov CIS
Payment Receipt	Generated by economic operator T&T infrastructure	Transmitted by the manufacturer to the Gov T&T System via the Gov Repository Interface

3.4.1 Domestic Production & Distribution

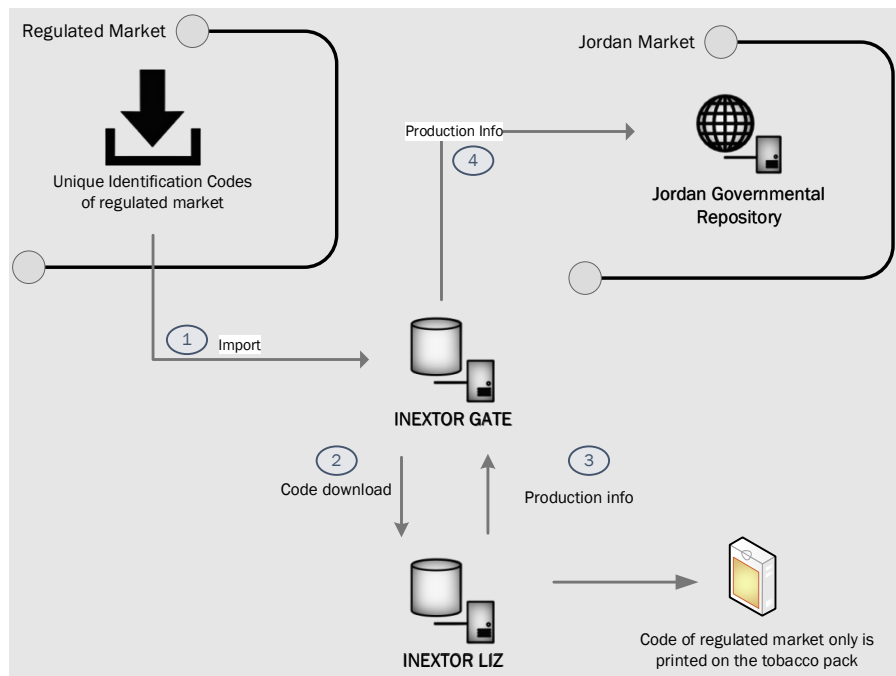


3.4.2 Export Market

The production volumes intended to export market must be reported by the manufacturer to the Jordan authorities. The Jordan regulation does not require all T&T events (aggregation, finished goods etc....) to be communicated to the National T&T Repository. For export market, only the volume of Jordan codes generated (DVV system) and the pack commissioning event must be capture and reported respectively to the serialization and T&T repositories. Two distinct scenarios must be considered for the pack serialization :

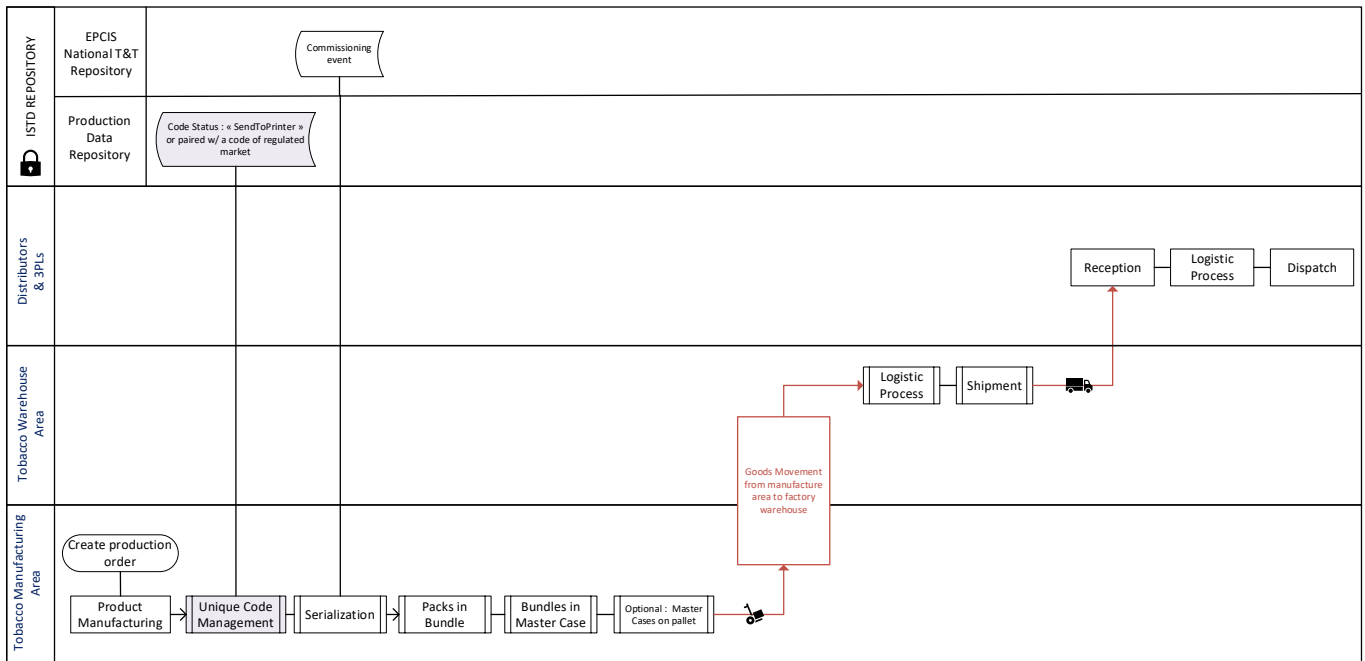
Case non-regulated market: The destination market is not regulated, and no specific requirements have been expressed by the local authorities regarding the tobacco packs serialization. For that case, the Jordan unique codes are generated for export market by the LIZ and applied on the tobacco packs. The production is then automatically reported, via the GATE, to the Jordan National T&T Repository the exact same way it is done for domestic production.

Case regulated market: the destination is regulated, and a specific identification code is to be applied on the tobacco pack to comply with the regulation of intended market. For that case, only the code of the destination market will be applied on the product as per destination market regulation. These codes are handled as external codes by INEXTOR LIZ. The production is then automatically reported, via the GATE, to the Jordan National T&T Repository the exact same way it is done for domestic production.



Production volume information and pack commissioning event are communicated to the National Repositories or export market:

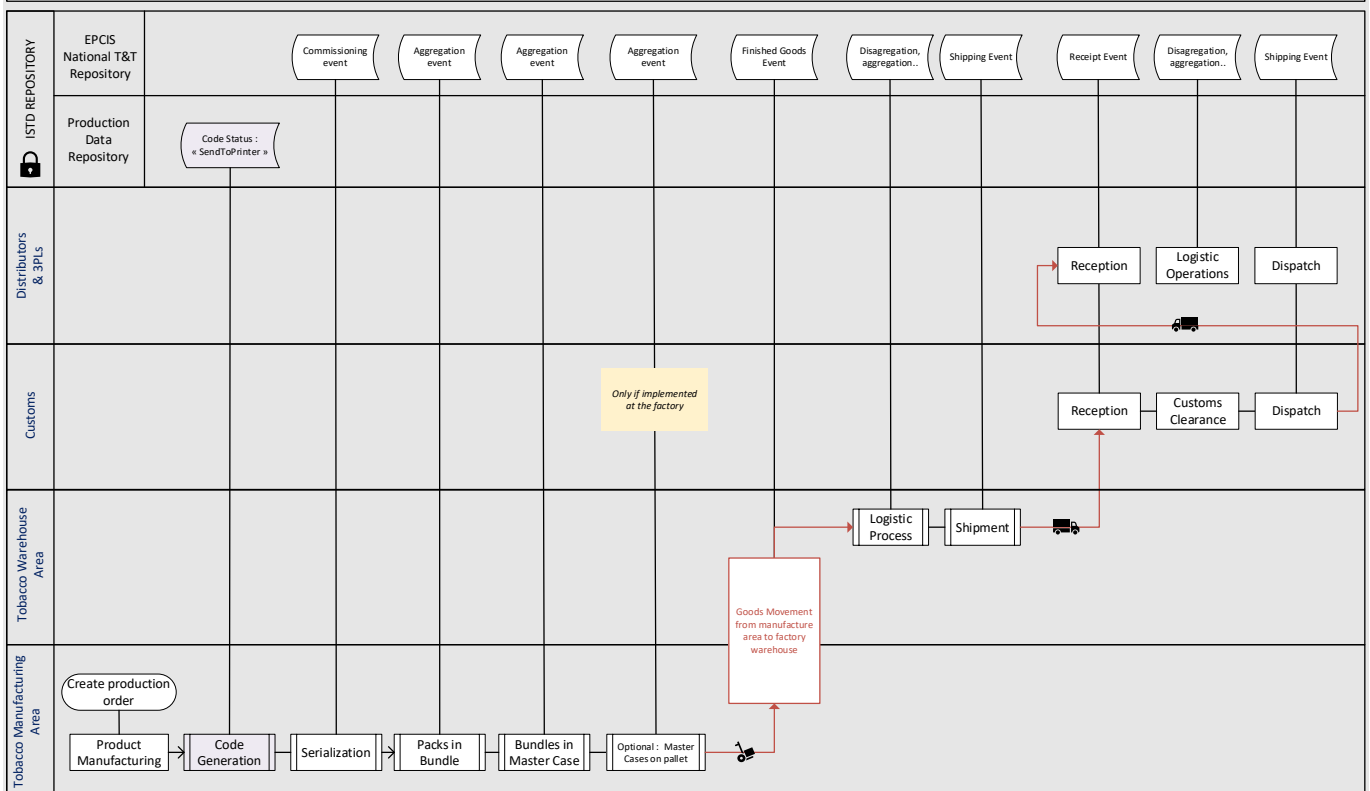
Events Transmission to Gov CIS : Export Market



3.4.3 Import

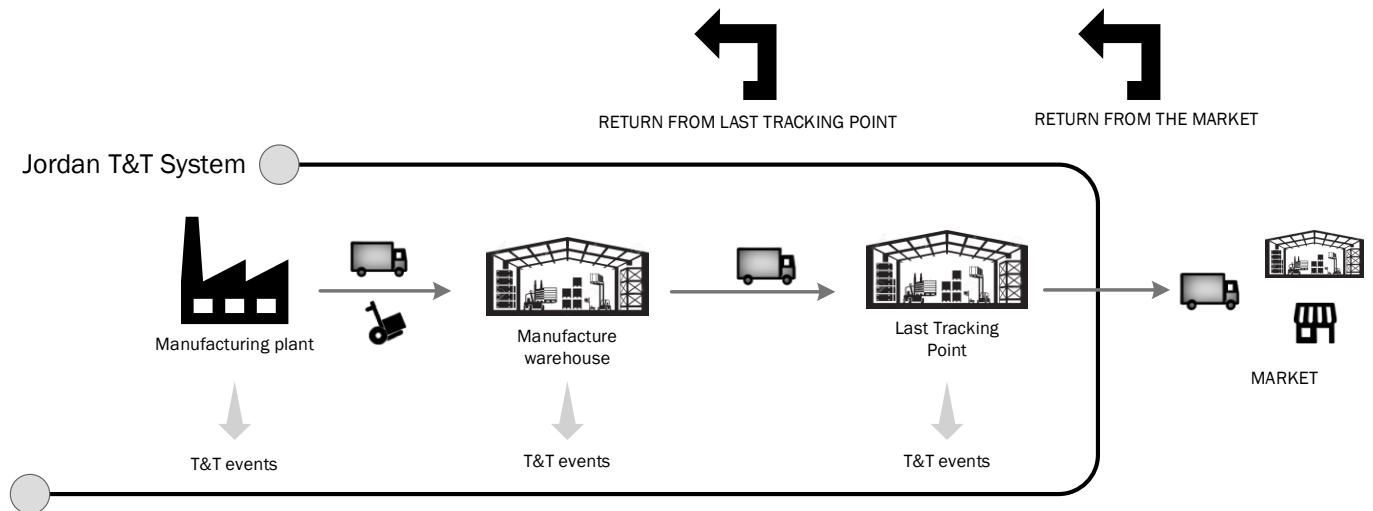
For goods imported, extra tracking operations are required at the Jordan customs.

Events Transmission to Gov CIS : Import Market



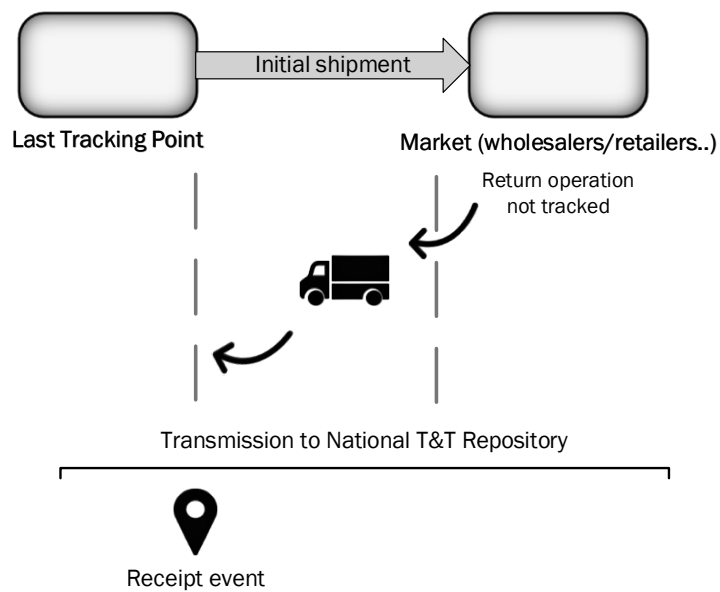
3.4.4 Product Return Process

Under specific circumstances, tobacco products can be returned by an economic operator back to its seller. Returns can potentially happen after or before the goods have been dispatched from the last scanning point.



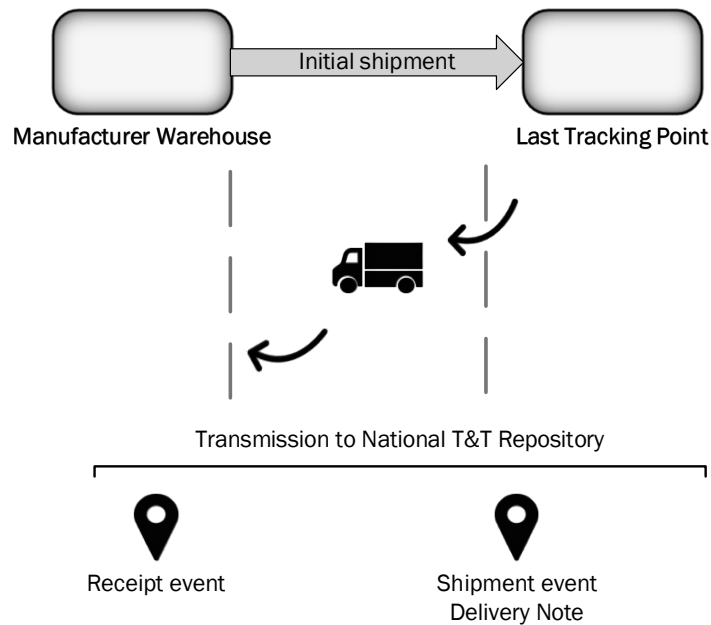
3.4.4.1 Return From The Market to Last Tracking Point

Movements of tobacco products that are returned from the market to the last tracking point must be recorded using a “Receipt” event upon reception only.



3.4.4.2 Return from the Last Tracking Point to the Manufacture

Movements of products that are returned from the last tracking point to the manufacturer warehouse must be recorded with both a “shipment” (from last tracking point) and “receipt” events at goods reception.



3.5 MESSAGE TRANSMISSION TIMING

Economic operators must submit all T&T events to the T&T National Repository in a given timeframe, to guarantee the consistency of the collected data during audits conducted by the authorities. The time window being defined from the moment when the event actually occurs during the operations is specified as follows:

Tracking Events :

Event	Max Transmission Timing	Acknowledgement
Commissioning	+24 hours	with ACK
Aggregation	+24 hours	with ACK
Disaggregation	+24 hours	with ACK
Finished Goods	+72 hours	with ACK
Shipment	+24 hours	with ACK
Receipt	+24 hours	with ACK

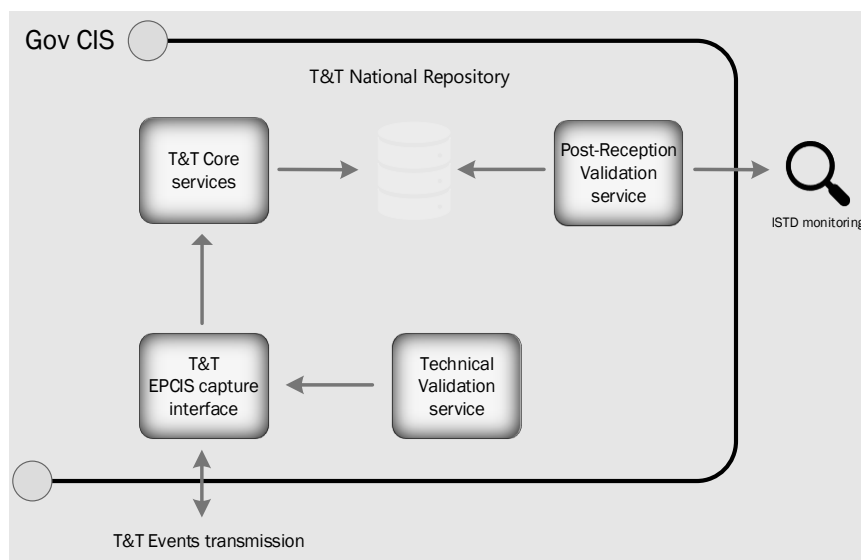
Transactional Events :

Event	Transmission Timing	Acknowledgement
Delivery Note	-24 hours (prior Shipment event)	with ACK
Sales Order	+30 days	with ACK
Invoice	+30 days	with ACK
Payment Receipt	+90 days	with ACK

3.6 EPCIS MESSAGES VALIDATION

The validation principles described in this section only concern the messages sent to the National T&T Repository exposed by the Gov CIS to capture the T&T events.

A Series of validation mechanisms are implemented to ensure the system meets the Jordan regulation requirements and T&T objectives. A two-step verification is performed: a technical validation upon message reception and post-reception validation once the data have been stored in the National T&T Repository. The technical validation will focus on validating whether the message format complies with the National T&T Repository Interface specification as set out in [R3] and check the consistency of received master data with those already registered in the National T&T Repository. The post-reception validation is a monitoring tool to post-control that all business operations are done in accordance with the Jordan T&T regulation. Outcomes of the post-reception validation will be analyzed by the authorities and could possibly be used during the operations to reinforce the T&T requirements in case too many deviations are observed.



1. Message structure validation: checks that all messages sent to the National T&T Repository follow the National T&T Repository interface specifications [R3]

2. Sequencing: no formal technical validation of the transmission sequence will be performed upon message reception. However, a post analysis will be performed later on by the central T&T service to monitor that all expected events have been transmitted.
3. Message timeliness: no formal technical validation of the transmission timing (event time comparison with actual reception time) will be performed upon message reception. It is under the economic operators' responsibility to communicate all T&T events to the Gov Repository Interface in the required timeframe.
4. Product: the system will verify that the "product" information set in the commissioning and aggregation events is indeed registered in the master data of the T&T system.
5. Scanning location: the system will verify that the "scanning location" set in the event is indeed registered in the master data of the T&T system.
6. Item aggregation: the system will verify that the number of items listed in the aggregation event conforms with the production definition (product quantity associated to a packaging level) registered in the master data of the T&T system.

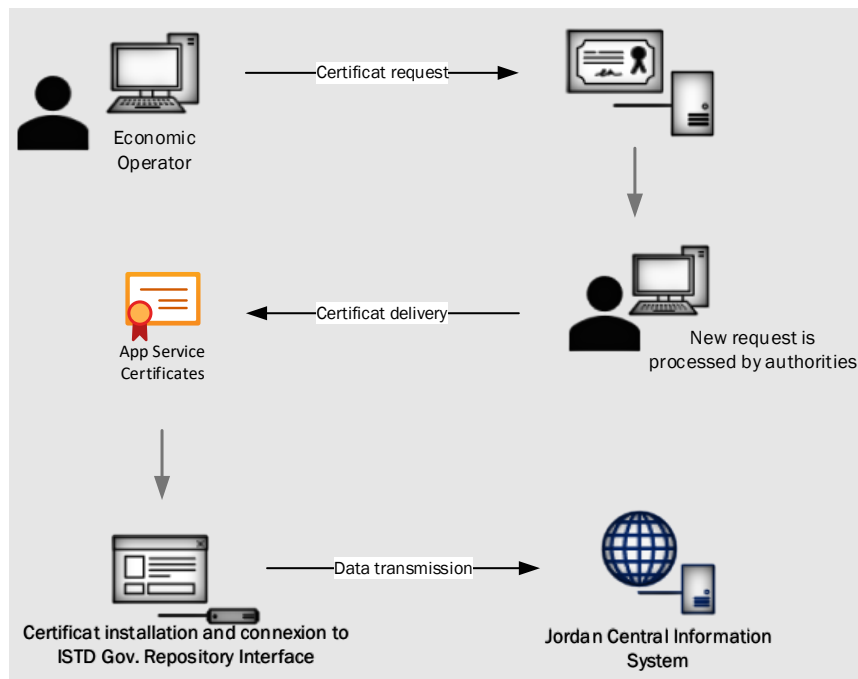
Message validation:

Type	Severity	Events	Validation Type
Message structure	Blocking	All	Technical validation
Message sequencing	Non-blocking	All	Post-reception validation
Message timeliness	Non-blocking warning	All	Post-reception validation
"Product" verification	Blocking	commissioning aggregation	Technical validation
"Scanning location" verification	Blocking	All	Technical validation
"Item aggregation" verification	Blocking	Aggregation	Technical validation

Refer to the detailed specifications of the Gov Repository Interface [R3] for error codes returned on message validation.

3.7 GETTING ACCESS TO THE EPCIS INTERFACE

The economic operators will have to first register through a dedicated web portal to get the client certificate that is required to access and transmit to the tracking Gov T&T System.



4 ANNEX 1 – INFRASTRUTURE REQUIREMENTS FOR INEXTOR FACTORY SERVICE DEPLOYMENT

Components	INEXTOR Gate
Location	Tobacco Factory
Role	Management system that allows the user to control all serialization aspects of product manufacturing from the factory side, including managing system registration and communication with Serializers and central information system
Virtual Environment	HyperV, VMWare and KVM
Operating System	Windows Server 2016 or above Client: Windows 8, Windows 8.1, Windows 10
Database	SQL Server 2016 (database can be installed on remote SQL server)
Architecture	x86, Recommended x64
Platform	.NET Framework 4.5.2 : Inextor v10 .NET Framework 4.6 : Inextor v10.1
Network	1 Ethernet NIC The server should be able to access the different Vaults through MPLS /Internet/intranet Minimal bandwidth: 12.0 Mbit/s, 1.3 Mbit/s
Storage	Minimum 50 GB Recommended : 200 GB+
CPU	3.3 GHz or higher - up to 20 lines : current generation of 4 Core server - from 21 to 30 lines : current generation of 8 Core server - more than 30 lines : current generation of 12 Core server

RAM	Application server: - up to 20 lines : 8 GB - from 21 to 30 lines : 32 GB - more than 30 lines : 64 GB
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Components	INEXTOR LIZ
Location	Tobacco Lines
Role	The software component that generates INEXTOR codes and sends them to the connected printers
Virtual Environment	Not Supported
Operating System	Windows 10
Database	Built-in SQL Server Compact
Architecture	x86, Recommended x64
Platform	.NET F.NET Framework 4.5.2 : Inextor v10 .NET Framework 4.6 : Inextor v10;1
Network	2 Ethernet NICs
Storage	40 GB of free space
CPU	1.5 GHz or higher
RAM	8 GB RAM or higher
Screen Resolution	800x600 high-color 32-bit display

5 ANNEX 2 – INEXTOR COMPATIBLE PRINTERS

Equipment per vendors

	Continuous Ink Jet (CIJ)	Laser	Labeller	Drop on demand (DoD)	Thermal Ink Jet
Domino	A-Series (200, 300, 400) Warning: A420i and Ax550i are not compatible.	D-Series (D320i, D620i)	M-Series		G-Series Gx
MarkemImaje	(9450s partial support)	SmartLase	2000, 2200, SmartDate X40/X60		
Videojet	Excel & Willet families: 1610, 1620, 1620 UHS, 1650, 1710	Altec CO2 (3330, 3340, 3640)	9550 <i>Dataflex 6420</i>	Wolke M600 / M610	
KBA-Metronic	KBA-AlphaJET	KBA-Laser			
Zebra			PAX4 i110 ZT410 ZT610 ZE500		
Logopak		Laser Encoder (LEAP 3)	510 Rotary (LEAP 3), PL3, PL6		
Reajet		REA JET CL Laser		REA JET HR	
Sato			S84ex		