Georgian Railway
EST. 1872



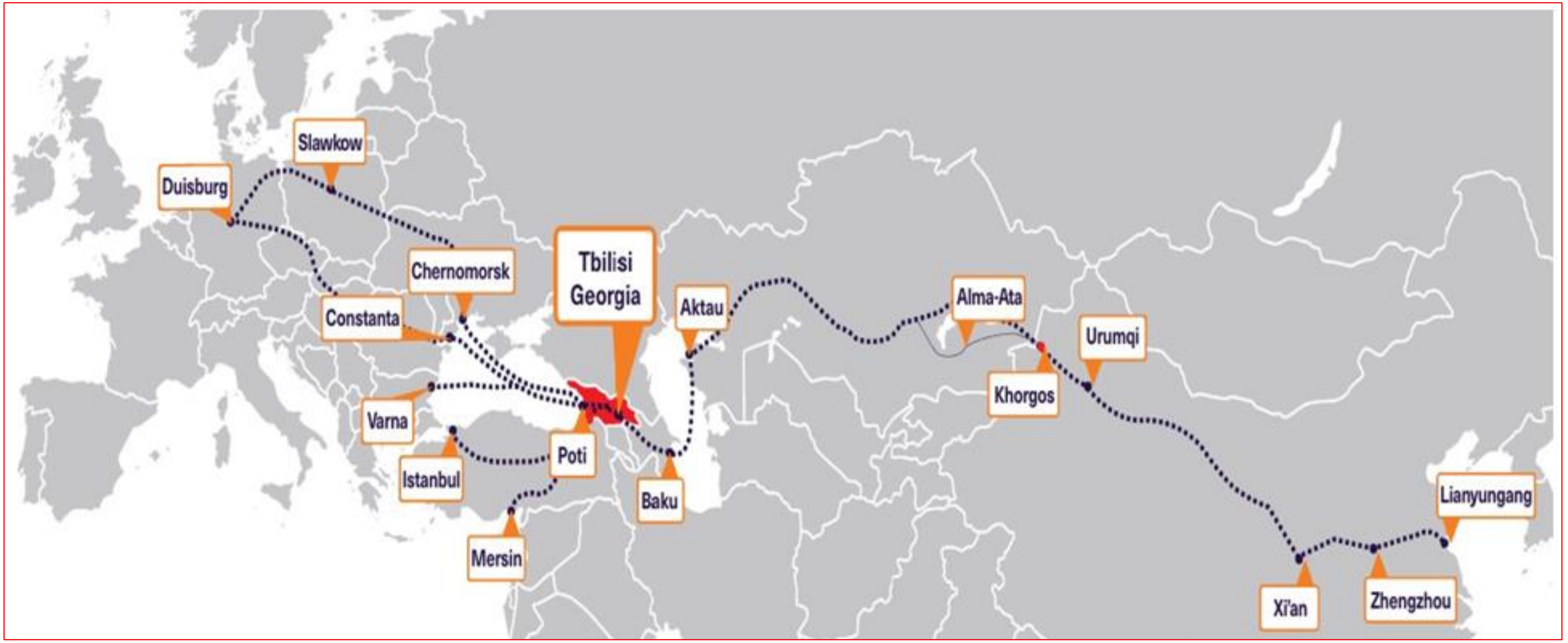
Digitalization strategy of Georgian Railway

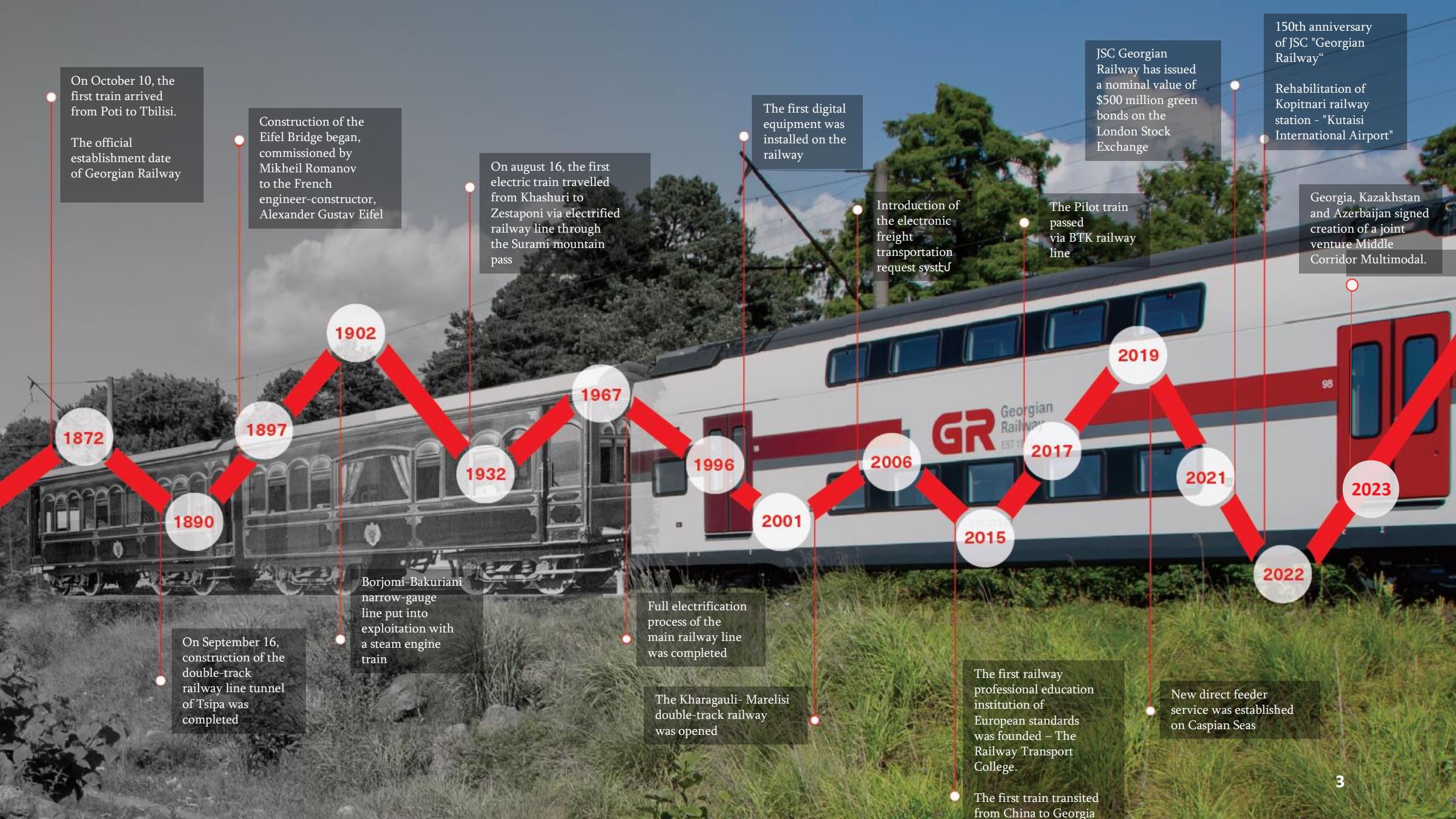
UNITED NATIONS ESCAP
Economic and Social Commission for Asia and the Pacific

High-Level Meeting on Deepening Digitalization of International Rail Transport in Asia-Pacific 13 - 15 May 2025,
Xi'an, China

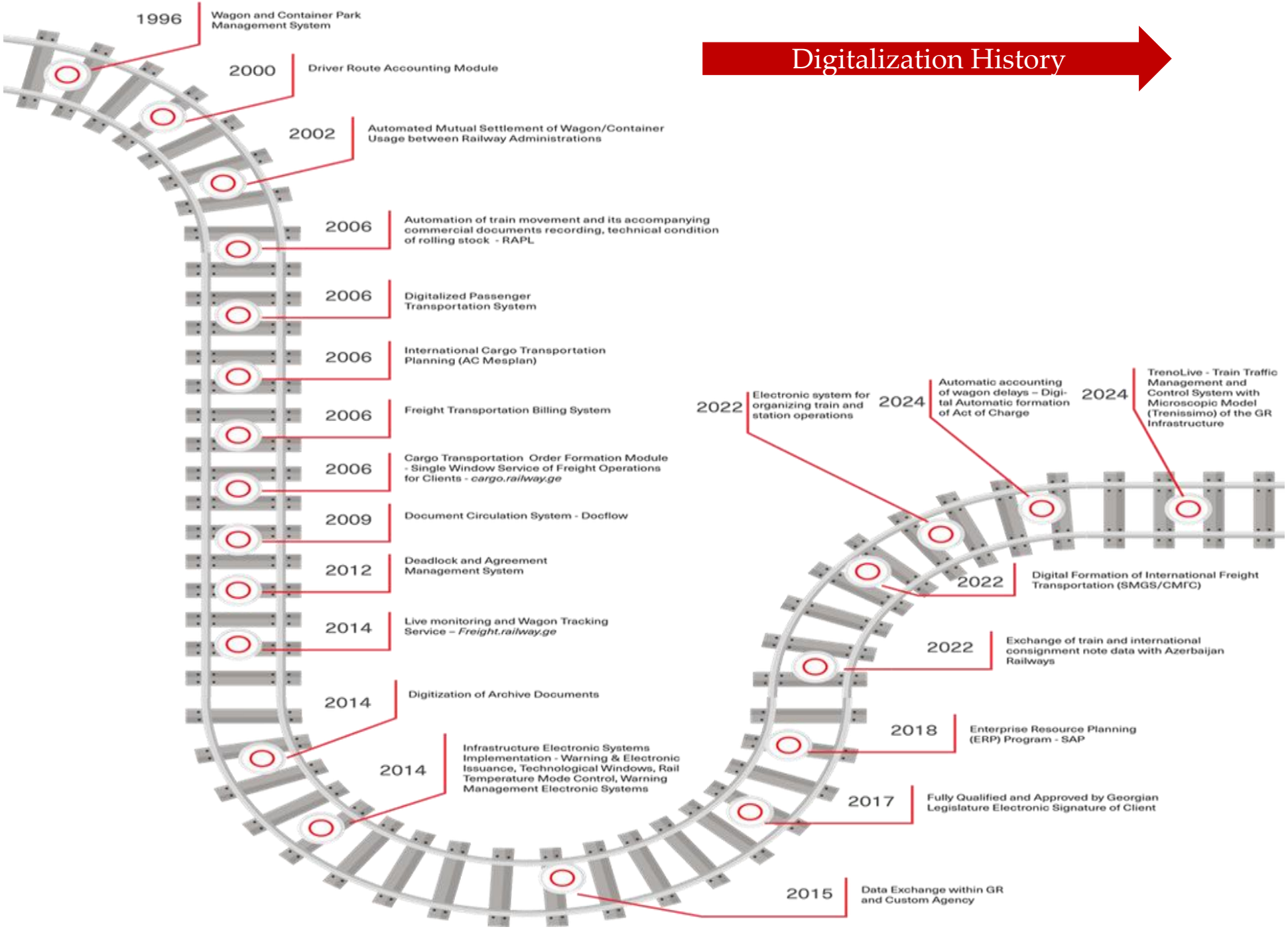
WBS
WORLD BUSINESS SOLUTIONS

Georgia's Strategic Location




1872
On October 10, the first train arrived from Poti to Tbilisi.
The official establishment date of Georgian Railway
1890
On September 16, construction of the double-track railway line tunnel of Tsipa was completed
1897
Construction of the Eifel Bridge began, commissioned by Mikheil Romanov to the French engineer-constructor, Alexander Gustav Eifel
1902
Borjomi-Bakuriani narrow-gauge line put into exploitation with a steam engine train
1932
On august 16, the first electric train travelled from Khashuri to Zestaponi via electrified railway line through the Surami mountain pass
1967
Full electrification process of the main railway line was completed
1996
The Kharagauli- Marelisi double-track railway was opened
2001
The first digital equipment was installed on the railway
2006
Introduction of the electronic freight transportation request system
2015
The first railway professional education institution of European standards was founded – The Railway Transport College.
The first train transited from China to Georgia
2017
The Pilot train passed via BTK railway line
2019
JSC Georgian Railway has issued a nominal value of $500 million green bonds on the London Stock Exchange
2021
New direct feeder service was established on Caspian Seas
2022
150th anniversary of JSC "Georgian Railway“
Rehabilitation of Kopitnari railway station - "Kutaisi International Airport"
2023
Georgia, Kazakhstan and Azerbaijan signed creation of a joint venture Middle Corridor Multimodal.

Digitalization History





Georgian Railway's digitalization high-level view:

- Paperless operations within the national territory
- Facilitate Middle Corridor freight transportation with data exchange flexibility
- Develop GR's Digitalization Strategy for the coming 3-5 years



Paperless operations:

- ✓ Freight Transportation Operational System
- ✓ Online Single Window Service for the clients

✓Online Single Window Service for the Clients - Local Freight Operations

- Electronic Rail Consignment Note
- Memo of Receiver-Sender
- General Form act
- Charge act

PAPERLESS

- Formation of local freight transportation documents
- Submit transportation documents
- GR Electronic Acceptance
- Fully qualified and approved by Georgian Legislature Electronic Signature of Client



✓Formation of Electronic Rail Consignment Note for International Freight Transportation (SMGS/СМГС)

- ✓ Fully based on the international rail freight transportations rules
- ✓ Online submission of the documents
- ✓ Fully Qualified and approved by Georgian Legislature Electronic Signature on PDF File
- ✓ Live document status monitoring

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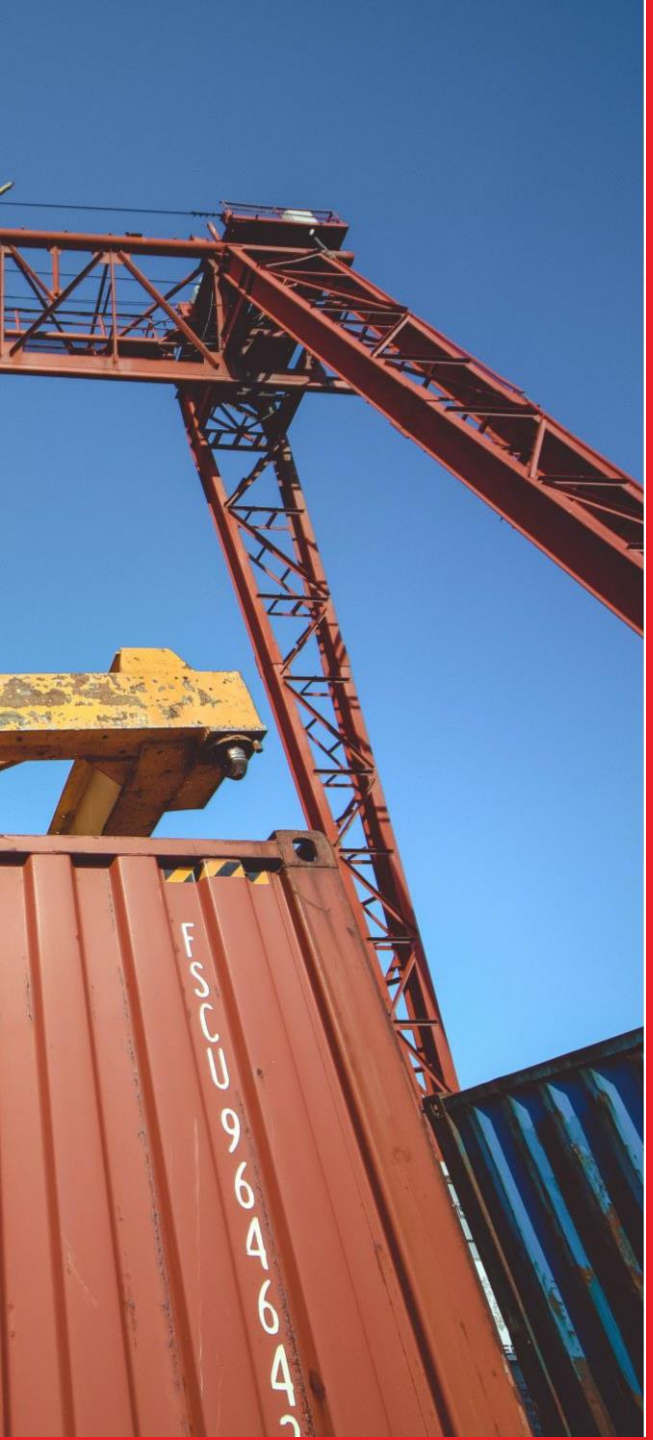
Facilitate Middle Corridor freight transportation with data exchange flexibility

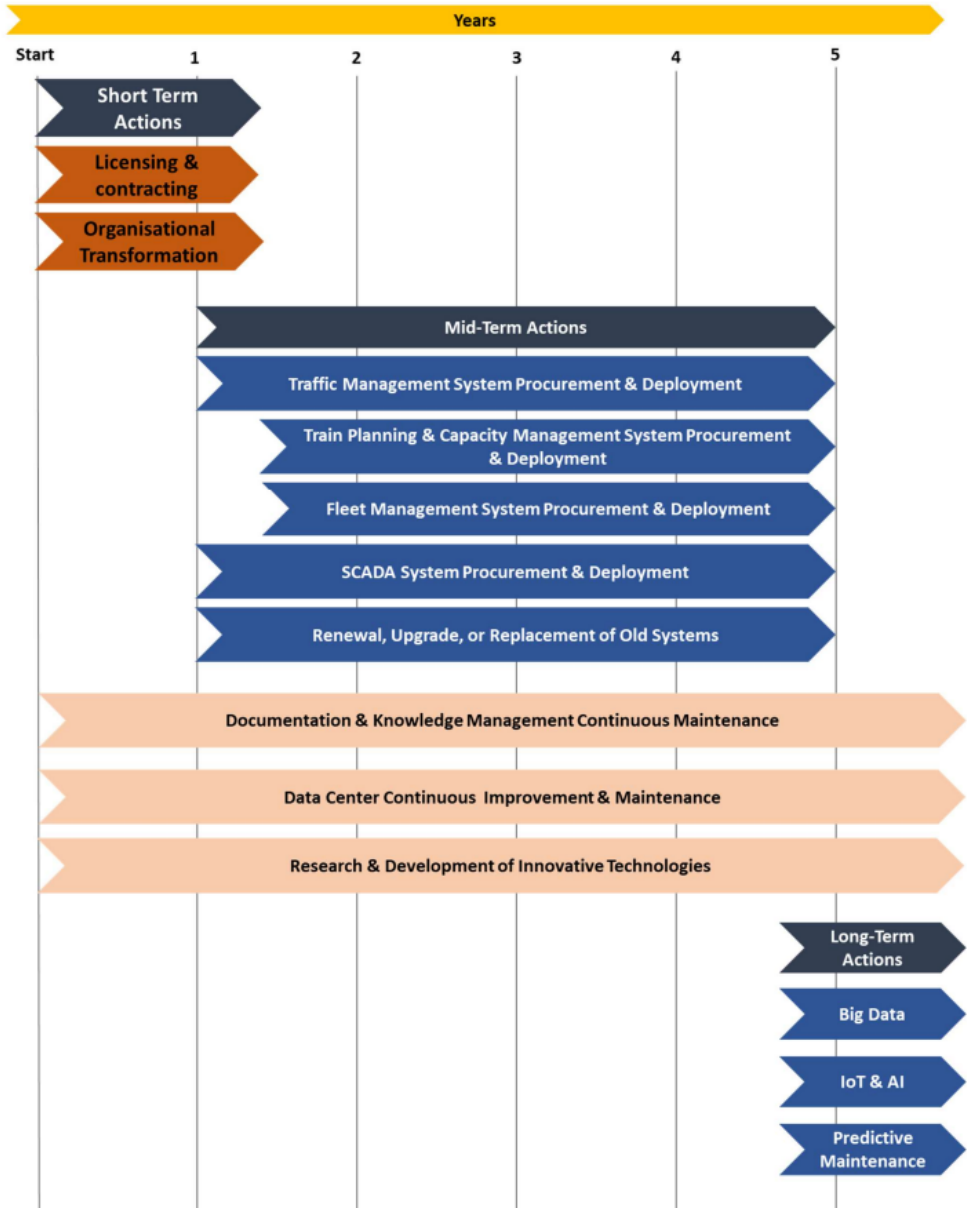
- ✓ Services ready for data exchange
- ✓ Structured data from SMGS document
- ✓ Already in testing mode



eCIM/SMGS consignment note pilot project TRACECA

- ✓ Services ready for data exchange
- ✓ Structured data from CIM/SMGS document
- ✓ Integration of internal IT systems of railway operators for exchange of eCIM/SMGS
- ✓ Already in testing mode

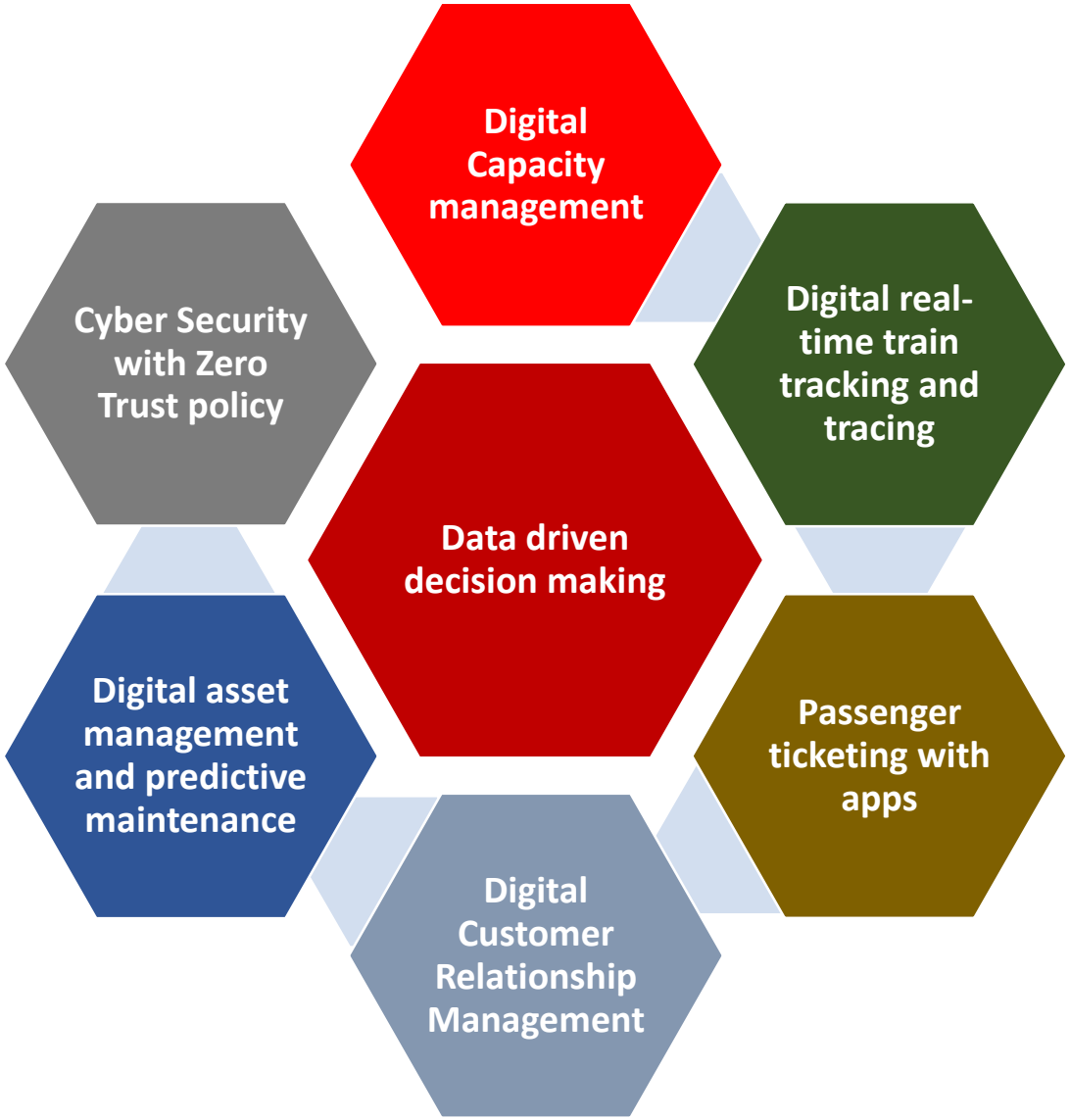
DIGITAL TRANSFORMATION STRATEGY AND ACTION PLAN



The project "Digital Transformation Strategy and Action Plan for Georgian Railway" was carried out by Civitta, with the support of the EBRD.

- ✓ Short-term actions, which are the highest priority and risk the failure of major system;
- ✓ Medium-term actions, mostly focused on the modernisation of train operations and planning procedures;
- ✓ Long-term actions, those beyond the first 5 years, the final steps towards Georgian Railway achieving its overall digitalization goals.

STRATEGIC VISION



KEY BENEFITS

- ✓ Improved Operational Efficiency;
- ✓ Enhanced Passenger Experience;
- ✓ Increased Safety and Security;
- ✓ Cost Reduction;
- ✓ Data-Driven Decision Making;
- ✓ Sustainability;
- ✓ Predictive Maintenance;
- ✓ Enhanced Communication and Collaboration;
- ✓ Increased Revenue Opportunities;
- ✓ Compliance and Reporting;
- ✓ Improved Asset Management

Develop GR's Digitalization Strategy for the coming 3-5 years

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Next Stage – under development

- Full data exchange with Middle Corridor countries and neighboring railway administrations
- Normalization of electronic signature legal aspects with neighboring countries
- Sensor-based deep data analysis and preventive maintenance planning

  SAP EAM (Enterprise Asset Management);
- Fully paperless GR
- AI-based customer care and digital services for passenger transportation

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Thank You

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