

Terms of Reference (ToR)

Consultancy Support for Technical and Architectural Advisory for the Preparation of X-Road Implementation in Nigeria

1. Background

GovStack is a multilateral initiative co-founded by Estonia, Germany (BMZ/GIZ), the International Telecommunication Union (ITU), and the Digital Impact Alliance (DIAL). It aims to promote accessible, interoperable, and sustainable digital public infrastructure (DPI) through a modular “building block” approach to digital government.

The upcoming EU-funded Team Europe Initiative on Digital Public Infrastructure (TEI DPI) aims to support its partner countries in developing accessible, secure, and sustainable digital public infrastructure. As part of this initiative, Nigeria is exploring the deployment of X-Road to enable interoperability across government services.

This technical assistance assignment is focused on preparing for the deployment of X-Road in Nigeria. While the project’s practical goal is to support implementation of X-Road, the strategic framing is also aligned with the broader GovStack approach to digital public infrastructure (DPI).

The Information Mediator (IM) is one of the core foundational GovStack building blocks. It defines how secure and standardised data exchange should be carried out between government systems and service providers. It focuses on the principles of interoperability, message integrity, access control, auditability, and vendor neutrality.

X-Road, developed and maintained by the Nordic Institute for Interoperability Solutions (NIIS), is a mature, open-source data exchange layer that has been successfully implemented in several countries worldwide. It fulfils the functional and technical requirements of the IM building block and is officially recognised as a reference implementation of the GovStack Information Mediator.

In doing so, Nigeria can benefit from:

- Proven interoperability architecture with modular deployment capabilities
- Standardised interfaces and governance models aligned with international best practices
- Future integration readiness with other GovStack components, such as Identity, Registry, and Messaging
- Scalability for both national and cross-border data exchange in the future.

This assignment will not only help Nigeria prepare for the technical deployment of X-Road but will also ensure that its use is consistent with the GovStack methodology, allowing for future expansion across multiple building blocks and service domains. The goal is to set a foundation that supports both near-term interoperability and long-term DPI maturity.

This assignment will provide essential preparatory technical assistance to align Nigeria’s implementation approach, ensuring readiness for engagement in co-creating the Definition of Action (DoA) and achieving Proof-of-Concept (PoC) milestones in 2026.

2. Objective

This aim of the consultancy is to provide critical preparatory support for the future deployment of X-Road in Nigeria within the framework of the upcoming EU-funded Team Europe Initiative (TEI) on

Digital Public Infrastructure (DPI). The key objective is to ensure Nigeria is equipped with the necessary technical understanding and architecture foundations to actively and effectively participate in writing the Definition of Action (DoA) and to reach a proof-of-concept (PoC) stage in 2026.

The focus will be on providing technical advisory and implementation planning in collaboration with the Ministry of Communications, Innovation and Digital Economy and the Nigeria Data Exchange Centre (NGDXC).

3. Scope of Work

The consultancy will cover following Technical Architecture Assessment and Preliminary Advisory Support:

- Conduct a preliminary analysis of the current interoperability and data exchange ecosystem in Nigeria.
- Assess existing digital platforms, data flows, and institutional roles relevant to data exchange.
- Provide high-level recommendations for adapting the X-Road/Information Mediator BB to Nigeria's context, including federation models, trust frameworks, and security server setup.
- Deliver a high-level technical roadmap with prioritised steps toward implementation.
- Offer preliminary feedback to ensure general alignment between Nigerian needs and TEI DPI programming priorities.
- Support the Ministry and NGDXC with technical advice and inputs for DoA preparation.
- Defining preliminary criteria for selecting the initial services and datasets to be included in the PoC phase.
- Draft a preliminary implementation plan outlining key milestones, roles, and infrastructure components for PoC readiness.

4. Required Profile

- Proven practical experience with GovStack or comparable digital public infrastructure frameworks.
- Proven practical expertise with X-Road deployments.
- Proven experience with multi-stakeholder and government-led data exchange related digital initiatives in Africa.
- Strong stakeholder engagement and technical advisory capabilities.

5. Key Deliverables

- Technical recommendations on X-Road adaptation for Nigeria.
- High-level implementation plan for X-Road PoC.
- TEI-aligned recommendations from Nigerian perspective.

6. Proposal Submission Requirements

Proposal must include:

- Technical proposal, including CVs of lead expert(s) and relevant references or examples of comparable work
- Financial proposal