

**Proposal for a Technical Collaboration Agreement (TCA)  
Between the National Biotechnology Development Agency (NABDA) and Forric Technologies Ltd.  
For the Deployment of a National Genomics, Biobanking, and AI-Enabled Health Pilot**

**Strategic Overview**

This document proposes the establishment of a Technical Collaboration Agreement (TCA) between the National Biotechnology Development Agency (NABDA) and Forric Technologies Ltd. for the deployment of an AI-powered and genomics-integrated pilot phase within the MeddyPal platform. The aim is to build national capacity for data-driven healthcare infrastructure, biobank development, and precision medicine.

MeddyPal is an intelligent electronic health platform designed to unify core health access services — including digital health identity, insurance comparison, care navigation, and hospital/lab/pharmacy directories — with real-time data collection and machine learning analytics. These capabilities are being leveraged to create a transformative pilot environment under NABDA's institutional leadership.

**Strategic Justification**

The integration of genomics and biobanking into Nigeria's national healthcare infrastructure falls squarely within NABDA's statutory mandate under the National Biotechnology Development Agency Act (2022). NABDA is uniquely positioned to serve as the institutional host for genomic research, public data stewardship, and biotechnology innovation that enhances health system planning.

This proposal aligns with that mandate and enables a technically sound, ethically governed, and nationally scalable pilot framework that integrates:

- Genomic sample collection and processing workflows
- Secure, anonymized biobank creation and governance
- AI-powered analytics and personalized health modelling
- Scalable infrastructure for predictive and precision healthcare

**Deployment Approach**

The proposed TCA would serve as a formal framework for a **joint pilot deployment**, co-executed by NABDA and Forric, with clearly defined responsibilities and oversight.

MeddyPal's core platform — already developed and deployment-ready — will serve as the foundational digital layer for:

- Linking user health profiles to test results
- Routing data securely to NABDA-supervised biobank infrastructure

- Feeding anonymized data into supervised machine learning systems for national health planning and diagnostic advancement

The AI and genomics layers are being integrated into the platform and will be deployed iteratively during the pilot, enabling real-time feedback, user testing, and refinement in preparation for national rollout.

### Public Impact

The pilot phase is designed to reach **500,000 to 1 million Nigerians**, with emphasis on:

- Maternal and early-life genetic screening
- Sickle cell and common inheritable disorder profiling
- Regional diversity in sample collection
- Public health forecasting and early warning systems

This approach allows NABDA to lead the development of a **national biomedical intelligence architecture**—anchored in local data and guided by ethical principles and public interest.

### Modules of Integration

Module	Description
<b>Genomic Sample Collection</b>	Collection kits distributed to users, with routing to certified NABDA or partner labs for sequencing
<b>Digital Biobanking</b>	Secure, anonymized storage of genomic profiles — hosted under NABDA’s governance
<b>Machine Learning Engine</b>	AI infrastructure that learns from biobank and EHR data to flag risks, support triage, and enable early intervention
<b>Public Health Dashboards</b>	Government-facing dashboards for health risk modelling and planning (maternal, regional, predictive care)
<b>Ethical Oversight and Consent Flow</b>	Embedded consent modules and role-based access tied to Nigeria’s data sovereignty principles

### System Architecture Overview

The diagram below represents the architecture of the MeddyPal platform, showing how various components—including patients, healthcare providers; genomic data collection, bio banking infrastructure, and regulatory oversight—interact through the AI-powered health analytics engine:



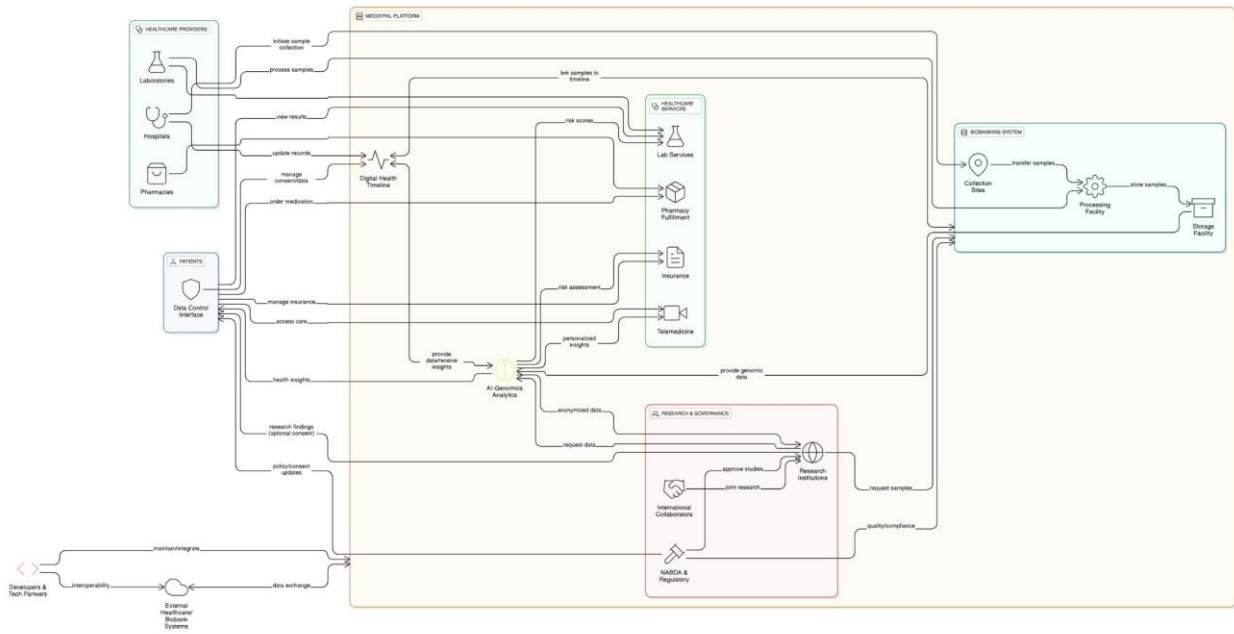


Figure: MeddyPal System Architecture – An integrated framework linking health services, bio banking, AI analytics, and governance.

## Roles and Responsibilities

### NABDA will:

- Anchor the pilot as the public institution of record
- Facilitate access to funding via the MAMA Fund and aligned national initiatives
- Oversee technical compliance, ethical data governance, and genomic infrastructure integration
- Retain public-benefit rights to genomic and analytic outputs for research and national health planning

### Forric Technologies will:

- Provide, maintain, and scale the MeddyPal platform infrastructure
- Integrate and deploy genomics and AI modules within the system
- Manage on-boarding of labs, hospitals, and users during the pilot
- Ensure alignment with regulatory, consent, and interoperability standards

## Funding Framework

This pilot is designed to leverage:

- **Strategic national health funding mechanisms** such as the MAMA Fund
- **Complementary donor and institutional contributions** from partners in genomics, AI, and public health innovation
- **In-kind participation** by health labs, diagnostic partners, and technical institutions

The funding model emphasizes public-good alignment, phased disbursement, and measurable outcomes.

## Request for Collaboration

We respectfully request:

- A formal Technical Collaboration Agreement (TCA) to be initiated and signed
- Mobilization of resources from MAMA Fund and aligned government mechanisms
- Establishment of a Joint Technical Oversight Committee to supervise deployment, ethics, and impact assessment

Sincerely,

**Forric Technologies Ltd.**

