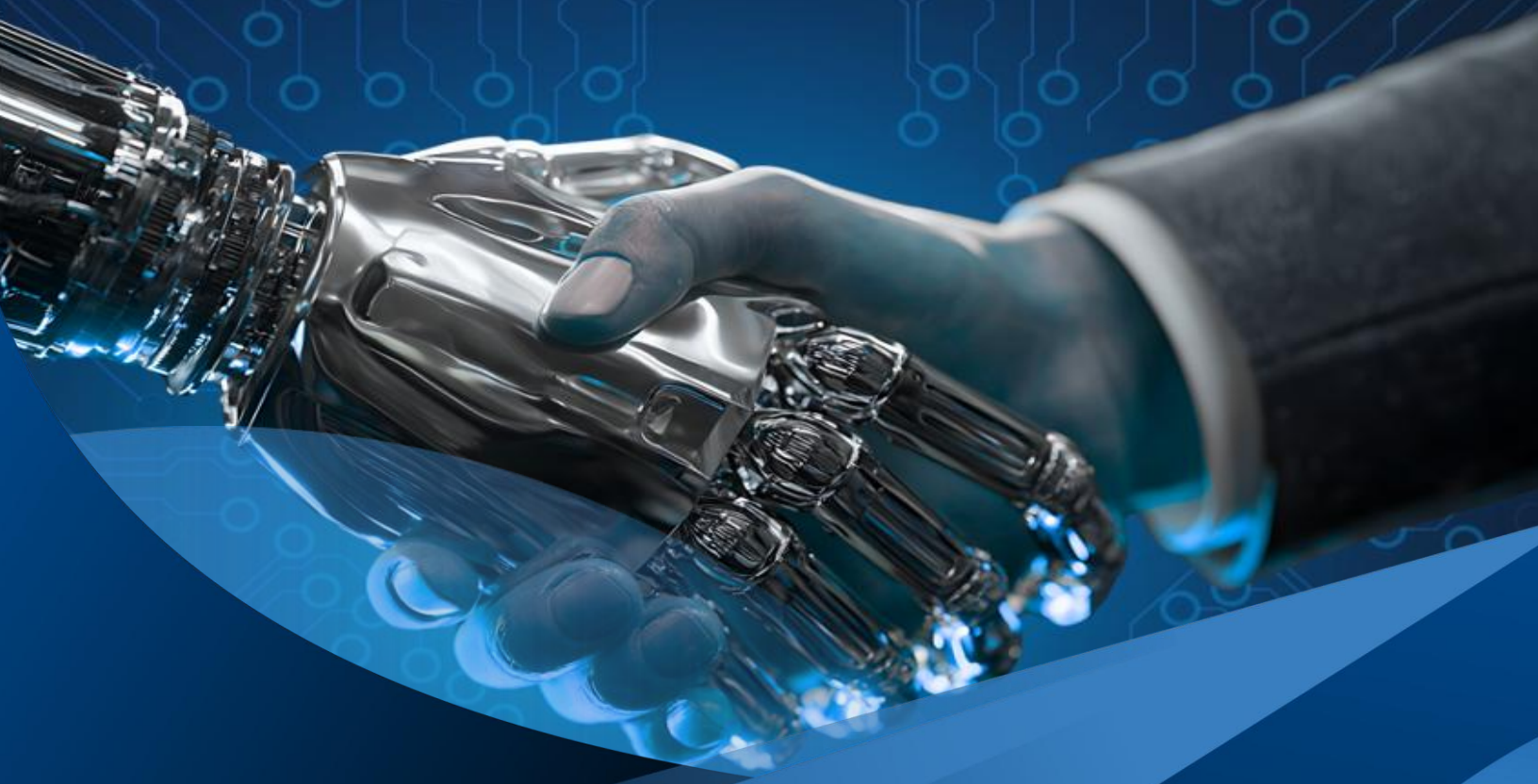
المجلس الوطني للتطوير الاقتصادي والاجتماعي

National Economic & Social Development Board



White Paper: A Unified AI Governance Framework To Bridge the Digital Divide and Accelerate Libya's AI Adoption

1. Introduction:

The global digital landscape is currently defined by a "Great AI Divergence." While advanced economies rapidly integrate artificial intelligence to optimize GDP and public services, many developing nations risk being relegated to permanent digital consumers. For Libya, the transition to AI is not merely a technological upgrade but a sovereign necessity. In an era where data is the new primary resource, failing to establish a national framework means ceding control over the nation's digital future, economic competitiveness, and social data to external platforms.

The Middle East and North Africa (MENA) region is already demonstrating the high stakes of this transition. With digital transformation spending expected to average 9.8% of revenues through 2030, regional leaders are utilizing AI to leapfrog traditional development hurdles. Libya, possessing a young, resilient population and significant untapped resources, has the potential to move from its current "infancy stage" of AI development to a regional leadership role. However, this requires a shift from sporadic, fragmented initiatives or localized logistics pilots toward a cohesive, high-level strategic vision.

Beyond economic growth, the AI imperative in Libya is deeply tied to institutional rebuilding. Following years of instability and infrastructure challenges, AI offers a "digital fast-track" to restore state capacity. By embedding AI into the core of a broader national digital transformation strategy, Libya can foster an environment of transparency, automate bureaucratic inefficiencies, and provide the evidence-based decision-making required to ensure long-term stability and prosperity.

2. Unified AI Framework Premises:

The key premise for the "Unified AI Framework" is to be inclusive and multi-stakeholder governance framework to form a national unified RoadMap, across all sectors, ensuring that AI development strengthens Libya's economy, reshape government , enhance services , and reflect Libya's culture and serve all Libyan people. In addition, the proposed AI framework is to fully support Integrating all stakeholders in Libya – i.e., government, various sectors , private institutions, and organizations through a coordinated and unified framework centered on shared governance, unified data infrastructure, and systematic cross-sector collaboration. A key attribute of the proposed framework is flexibility and scalability - recognizing each sector has its own focus and unique needs.

The "Unified AI Framework" will provide a strategic platform for seamless integration, knowledge-sharing, aligning disparate initiatives, ensuring consistent standards, and enabling scalable AI ecosystem. The unified framework is designed to "Bridge the AI Divide",

empowering Libya to harness the power of AI across the county for innovation, economic growth, job creation, and prosperity.

In order for the proposed “Unified AI Framework” to be effective and realize its intended purpose, commitment and investment in the following foundational pillars are critical:

a) Competency– AI success depends on digital literacy and advanced skills and Libya’s digital skills are considered basic compared with advanced countries.

b) Connectivity – Reliable internet access is key to AI deployment and implementation.

c) Resources– AI’s transformative power depends on computing resources and robust infostructure.

d) Context and Local focus– AI must reflect Libya’s unique culture, aspiration and challenges.

Unified AI Framework Components:

The following components are the key pillars for the proposed “Unified AI Framework”

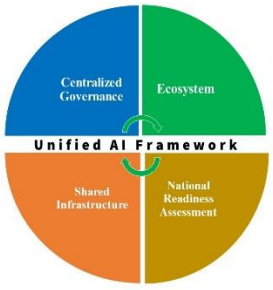


Figure 1. Libya’s Unified AI Framework

2.1 The Three-Pillar Governance Model

To ensure stewardship and scalability, the "Unified AI Framework" establishes a centralized governance structure led by a Dedicated Coordinating Body (Advisory Council). This body will oversee three primary roles:

1. **Government as an Enabler:** Establishing the "Enabling Environment" through policies that support local AI startups and foster public-private partnerships.
2. **Government as a User:** Modernizing public service delivery and internal institutional efficiency through AI-driven decision-making and data-to-policy navigators.
3. **Ethical Oversight:** Ensuring all AI deployments respect human rights and national sovereignty, as outlined in the **UNESCO Recommendation on the Ethics of AI**.

2.2 Ecosystem:

The goal is to encourage public-private partnerships, establish AI labs and pilot zones, and create a supportive environment for AI startups and research. To successfully harness AI and overcome AI implementation a Multi-stakeholder ecosystems " need to be established to foster multi-stakeholder collaboration across all sectors , identify needs and priorities for relevance- A robust ecosystem is essential for fostering AI and adoption and development. The need for a collaboration platform is critical for AI journey success. Since AI is a cross-border technology, no single sector or organization can address potential opportunities and risks alone. The "unified framework" will have well-defined process for collaboration, knowledge transfer and to enable and facilitate effective communication, share experiences, and technological expertise. The unified framework is scalable and built on Local context and global standards premise - tailoring AI to each sector while maintaining alignment with national transformation roadmap.

2.3 The National AI Readiness Assessment

To transition from vision to implementation, Libya will adopt the **UNDP Artificial Intelligence Landscape Assessment (AILA)** as its primary diagnostic tool.

- **Evidence-Based Mapping:** By utilizing the AILA methodology, Libya will move beyond generalities to identify specific gaps in data interoperability, specialized talent, and "Green Computing" infrastructure.
- **Three-Pillar Analysis:** The diagnostic evaluates Libya across three critical areas:
    - **AI Ecosystem:** Measuring the foundations of innovation, including data quality, specialized talent, and computing infrastructure.
    - **AI for Government:** Assessing the leadership and digital systems needed to enhance public service delivery and policymaking.
    - **AI Regulation & Ethics:** Evaluating the legal frameworks required to safeguard human rights and ensure accountability.
- **Strategic Baseline:** This assessment provides a data-driven roadmap to ensure that AI investments are targeted toward high-impact sectors like energy, logistics, and public administration.

2.4 Shared Infrastructure:

AI systems rely heavily on high-quality, accessible data. Agencies should work to break down data silos by modernizing data architectures (e.g., secure cloud storage, data lakes, and APIs) and creating common standards for data quality and accessibility. Consolidating technical infrastructure can prevent duplication and ensure broader accessibility". A scalable and integrated infrastructure is required to support the development of a successful "Unified AI Framework" initiative.

3. Ethical Standards and Risk Management

Libya will adopt a "Safety-by-Design" approach to AI. By referencing global benchmarks like the **NIST AI Risk Management Framework**, Libya will implement a "GOVERN-MAP-MEASURE-MANAGE" cycle. This ensures that as AI tools are deployed in sensitive sectors like education or healthcare, they remain aligned with Libyan values and the "highest level of ethical standards".

- **Adopting Global Ethics:** The framework incorporates the **UNESCO Recommendation on the Ethics of Artificial Intelligence**, emphasizing human oversight, transparency, and the prohibition of AI for mass surveillance or social scoring.
- **Operationalizing Risk:** To manage technical vulnerabilities, Libya will utilize the **NIST AI Risk Management Framework (AI RMF 1.0)**.
- **The "GOVERN-MAP-MEASURE-MANAGE" Cycle:** This structured process will be used to identify and mitigate algorithmic bias and ensure that AI systems are valid, reliable, and safe throughout their entire lifecycle.

4. Talent and Human Capital

Recognizing that Libya's digital skills are currently basic compared to advanced nations, the framework prioritizes "Capacity Building Readiness". Libya must address the digital divide by transforming its workforce.

- **Specialized Workforce:** Investing in local talent through training programs to build a workforce capable of managing complex AI programs.
- **Inclusive Awareness:** The "AI for Everyone" program will serve as a national self-learning platform to raise basic AI literacy across all sectors of society. Libya should prioritize national training programs to help citizens utilize AI technologies and be able to provide explanations for AI-driven outcomes.
- **Specialized Education:** Establishing dedicated AI programs and research centers to develop homegrown talent in machine learning and data science. This should be a coordinated effort and include all relevant stockholders such as Ministries of

education, the General Information Authority, The Communication and Information Technology Authority, and the Libyan National of Scientific Research Authority.

5. Performance and Continuous Monitoring

To prevent the 70% failure rate common in digital transformations, the framework institutes a **Continuous Monitoring and Evaluation mechanism**. This involves:

- **Sector-Specific KPIs:** Defining quantitative metrics such as operational performance and qualitative metrics like user satisfaction and impact on decision-making.
- **Trust through Transparency:** Using performance data to proactively identify risks and build public confidence in AI systems.

7. Concluding Remarks

Libya's path to a bright and promising future depends on its ability to master the tools of the fourth industrial revolution. Through the Unified AI Framework, Libya can bridge the divide, moving from a position of "lagging behind" to one of "visionary stewardship". By grounding this journey in systematic readiness assessments and ethical governance, the nation ensures that AI serves as a catalyst for a stable, prosperous, and sovereign Libya.

Key References

1. **GSMA Intelligence (2025):** MENA Digital Transformation Report.
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4. **NIST (2023):** AI Risk Management Framework (AI RMF 1.0).
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