
# Strategic Plan (Updated 2025)

# National Information Center for Science and Technology

## 2025-2027

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**June 2025**

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# 1. Introduction

Information and knowledge form the foundation for planning, policy development, and right decision-making across the public and private sectors. They directly contribute to increasing production, enhancing productivity, and innovating new services and products that improve quality of life—ultimately reflecting positively on economic growth. In an era marked by globalization, digitization, and openness, the volume of available data and information has increased exponentially, along with the demand for them. Data has become a critical input for the analytical and developmental processes shaping the modern world. Big Data now provides reliable insights and indicators, which some estimates suggest represent up to 50% of sustainable development indicators.

To realize the full potential of data and information, there is a growing need for a comprehensive national information system, supported by institutional frameworks that coordinate relationships between data producers and users. Such a system would also strengthen institutional capacities and develop knowledge derived from accurate, evidence-based data—serving as a core resource for decision-makers in ministries, public institutions, and the private sector.

The establishment of the **National Information Center for Science and Technology (NICST)** came in response to a clear knowledge gap in the fields of science and technology. It aims to support the goals of the **Higher Council for Science and Technology (HCST)** by contributing to national economic and social development, while also supporting Jordanian researchers abroad and fostering connections with their counterparts at home in service of research, development, and innovation.

Figure 1 illustrates NICST's role within Jordan's national knowledge and information ecosystem. It demonstrates the center's position in linking data producers—such as the Department of Statistics and various ministries—with the strategic transformation of this data into usable, actionable knowledge. The model also highlights the layered structure of the ecosystem, from raw data to wisdom and policymaking.

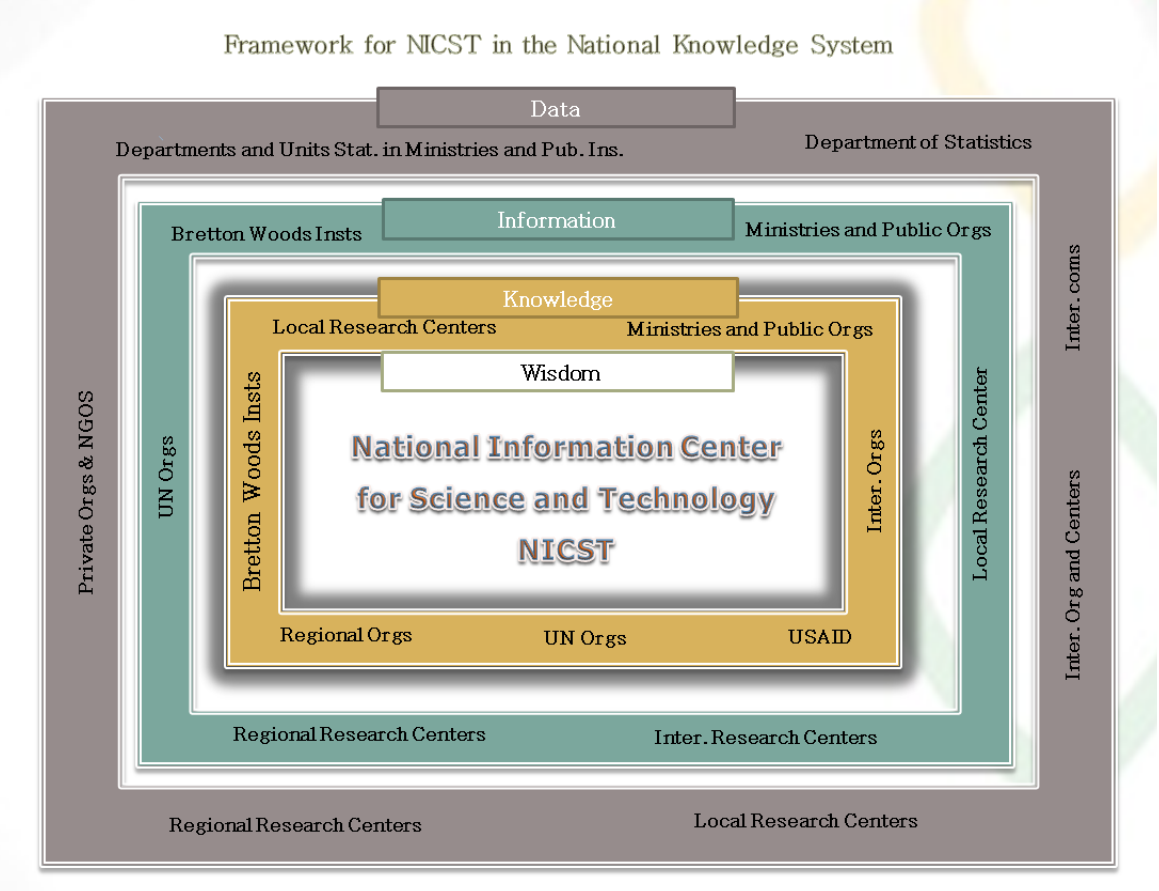


**Figure 1: The Center's Position within the National Knowledge Map**

This model reflects the Center's philosophy of building a participatory knowledge ecosystem rooted in institutional integration, data-driven governance, and the linkage between analysis and decision-making. It embodies the Center's vision of becoming a national intelligent platform that transforms Jordan from fragmented data practices into integrated, knowledge-based policymaking.

In this context, the **National Information Center for Science and Technology (NICST)** was established to address the knowledge gap in the science and technology sector and to contribute to achieving the goals of the **Higher Council for Science and Technology (HCST)** in pursuit of economic and social development. The Center was also tasked with supporting Jordanian scientists and researchers abroad and fostering intellectual connections between them and their counterparts at home, in service of research, development, and innovation.

To institutionalize its role, the Center adopted a strategic plan for 2023–2027, outlining a roadmap to develop a specialized information system for science and technology. The strategy covered the preparation methodology, key pillars, a SWOT analysis, and stakeholder analysis to define roles and needs. It also detailed the Center's vision, mission, objectives, main activities, and mechanisms for monitoring, evaluation, and governance.

In light of accelerating national and global changes—and the appointment of a new administration at the Center in 2025—the strategy was updated to respond to opportunities in digital transformation and the challenges of modern knowledge ecosystems. The most notable additions include:

- **Jordan Science, Technology, and Innovation Platform (JSTIP):** An advanced digital platform that enables scientific research and provides high-performance computing and data processing tools.
- **National Research Intelligence System (NRIS):** An AI-driven analytics system designed to assess national research output and support evidence-based science policy.
- **JLexAI – Smart Legislative Analytics Platform:** An intelligent system that supports the Legislation and Opinion Bureau and other government entities in the analysis and monitoring of legislation.
- **National Capacity-Building Initiative:** A comprehensive training program targeting staff in ministries and public institutions, focusing on data governance, artificial intelligence, and data management.

These projects and initiatives mark a qualitative transformation in the Center's role and reflect its evolving direction in meeting Jordan's national needs in digital transformation, data governance, and evidence-based policymaking.

## 2. Methodology for Developing the Strategic Plan of the NICST (Updated)

The strategic plan for the National Information Center for Science and Technology was built on a solid scientific and operational foundation, incorporating legal and institutional reviews, environmental analysis, international benchmarking, and a study of national trends in administrative and digital modernization.

Preparatory steps began after the issuance of Regulation No. (63) of 2021 in the Official Gazette, which established the legal framework for founding the Center. The methodology followed several structured stages:

1. **Reviewing the legislative and regulatory framework** of the Higher Council for Science and Technology (HCST), particularly Law No. (3) of 1987 and Regulation No. (63) of 2021 pertaining to the Center.
2. **Examining key foundational documents**, such as the Center's roadmap and the address by His Royal Highness Prince El Hassan bin Talal emphasizing the priority of establishing a comprehensive national information system.
3. **Analyzing the national environment** through reviewing:
    - The National Strategy for Statistics,
    - The Government Reform Matrix (2018–2024),
    - The Public Sector Modernization Plan (2022),
    - And the Economic Modernization Vision.
4. **Benchmarking with international models**, including national information centers, open data initiatives, and research and knowledge computing platforms around the world.
5. **Assessing the state of scientific research and its economic role** in Jordan based on studies issued by the HCST.
6. **Engaging stakeholders** from the public and private sectors and academic institutions through consultative meetings and presentations.
7. **Drafting the initial version of the strategy** and presenting it to the Center's Board of Directors through multiple sessions held between 2021 and 2023, followed by updates based on the feedback received.

In 2025, under the leadership of the new administration, the strategy underwent a comprehensive update to reflect the launch of three key national projects and a wide-reaching capacity-building initiative. As such, the strategic plan was extended to cover the years 2025–2027, incorporating new digital and knowledge-based axes aligned with:

- Jordan's digital transformation goals;
- The state's commitments to achieving the Sustainable Development Goals (SDGs);
- Global advancements in artificial intelligence and Big Data analytics;
- The need for smart legislation and centralized databases for research and legislation.

The updated methodology emphasized national stakeholder engagement, reinforced collaboration with universities, and established partnerships with international organizations and funders to support the implementation of the strategic projects. Figure 2 presents the conceptual foundations upon which the strategy was built. These foundations include:

- Building upon past achievements in the data and information sector,
- Focusing on the science and technology sector,
- Establishing institutional partnerships,
- and ensuring structured follow-up and implementation.
- These pillars represent the practical and operational framework that guided the planning and update process.

## 3. SWOT Analysis

The SWOT analysis (Strengths, Weaknesses, Opportunities, and Threats) serves as a central tool for assessing the strategic position of the National Information Center for Science and Technology. It facilitates the diagnosis of internal capabilities and challenges, as well as external opportunities and threats.

This analysis was based on a review of the Center's legal and operational realities, alongside the broader national context of digital transformation and scientific research. It was updated in 2025 to reflect emerging trends, including the three strategic national projects (**JSTIP, JLexAI, and NRIS**) and the **National Capacity-Building Initiative**.


**Figure 2: Foundations for Strategy Development and Implementation**

## Strengths

- **Robust Legal and Regulatory Framework:** The Center operates under the umbrella of the HCST Law and its dedicated Regulation of 2021, providing it with a clear and solid legal foundation.
- **High-Level Institutional Support:** The Center operates under the direct support and leadership of His Royal Highness Prince El Hassan Bin Talal, who chairs the

Board of Directors, comprising representatives from both academic and governmental sectors.

- **Launch of Flagship National Projects:** The official adoption of projects such as JSTIP, NRIS, and JLexAI represents a significant leap in the Center's role in innovation and digital transformation.
- **Capacity-Building Initiatives:** The National Training Initiative offers real opportunities to equip government personnel and promote a data-driven culture.
- **Connections with Universities and Research Centers:** Advisory committees and academic partnerships enhance the Center's knowledge value and credibility.

## Weaknesses

- **Limited Specialized Human Resources:** The Center faces a shortage of highly skilled professionals, particularly in data analytics, artificial intelligence, and data governance.
- **Lack of Sustained Financial Resources:** Despite initial support, the absence of stable, recurring funding remains a significant barrier to implementing programs and projects.
- **Incomplete Technical Infrastructure:** Key components such as data centers and network connectivity still require comprehensive technical development.
- **Weak Data Integration Across Institutions:** There is no unified regulatory mechanism yet for effective national database integration and interoperability.

## Opportunities

- **Alignment with the Economic Modernization Vision (2022) and Digital Transformation Agenda:** National strategic explicitly call for the development of a unified national information system.

- **Availability of International Funding for AI and Capacity-Building Projects:** Strong opportunities exist for collaboration with international donors and UN organizations to expand the Center's scope of work.
- **Growing Demand for Institutional Knowledge Analytics:** Ministries and public entities increasingly require data and analysis to support evidence-based policymaking.
- **NICST's Role as a Connector Between Local and International Researchers:** Projects like JSTIP and NRIS offer real platforms for cross-border collaboration and research networking.

## Threats

- **Multiplicity of Data Stakeholders Without Unified Governance:** Overlapping mandates and lack of coordination may lead to duplication of efforts and diluted impact.
- **Weak Institutional Culture Around Data:** In many entities, data is still perceived as a secondary or non-strategic asset.
- **Cybersecurity Risks:** The rising importance of data makes security a critical concern, especially given the limited technical capabilities of some partner institutions.
- **Bureaucratic Delays in Talent Recruitment:** Slow administrative procedures hinder the Center's ability to expand its technical teams at the pace required to keep up with advanced projects.

## Detailed Analysis of the Internal Environment

| Axis | Strengths | Weaknesses |
|---|---|---|
| **Legislative, Regulatory, and** | - Presence of governing legislation: HCST Law | - Absence of a coordinating regulatory framework |

| | | |
|---|---|---|
| **Administrative Framework** | and NICST Regulation (2021) | among institutions working with data |
| | - Board of Directors includes representatives from public and private institutions | - Need for a general policy and actionable work plan |
| **Qualified Human Resources** | | - Shortage of qualified staff |
| | | - Weak analytical expertise |
| | | - Limited understanding of market needs |
| **Financial Resources** | - Initial financial support allocated by HCST yearly | - Insufficient funding to cover proposed projects |
| **Infrastructure and Equipment** | - Approval granted to procure equipment and transportation | - The need to complete technical facilities, infrastructure, and support services. |

## Analysis of External Environment – Opportunities and Threats

| Axis | Opportunities | Threats |
|---|---|---|
| **Legislative and Regulatory Framework** | - Growing demands to establish specialized data institutions.<br>- Support from international and academic organizations for the Center.<br>- The Economic Modernization Vision calls for a unified national data system. | - Multiple stakeholders involved in implementation without unified coordination<br>- Difficulty securing full funding on time<br>- Potential delays in execution |
| **Open Data** | - Official direction toward launching a national open data platform.<br>- Potential to use the platform for sector-specific analytical studies. | - Absence of a clear legislative framework for open data<br>- Challenges in funding and sustainability |

| | | |
|---|---|---|
| **National Data** | - Partial data provision by the Ministry of Digital Economy and Entrepreneurship. | - Difficulty in achieving comprehensive access to data<br>- Lack of trust due to multiple intermediaries and sources |
| **External Funding and Support** | - Availability of international funding opportunities | - Difficulty in securing sustainable funding sources |
| **Infrastructure and Software** | - Potential to utilize existing government IT infrastructure | - Challenges in coordinating and integrating systems with data-supplying entities |
| **National Human Capital** | - Availability of outstanding academic talent<br>- Increasing demand for technical specializations | - Gap between educational outputs and market needs, especially in artificial intelligence and related fields |
| **Political Factors** | - Completion of Royal Committee outputs on political and administrative reform | - Need for financial and human resources to implement strategic recommendations |
| **Economic Factors** | - Current government priorities support data and knowledge sectors | - Economic pressures may reduce investment in the data sector |
| **Technological Factors** | - E-government programs and advanced national digital infrastructure | - Multiple data sources may lead to inconsistencies<br>- Weak institutional integration in data sharing |
| **Environment and Climate Change** | - Growing need for accurate environmental data | - Rapid environmental changes require specialized skills and advanced capabilities |
| **Regional Studies and Projects** | - Opportunity to implement strategic regional initiatives | - Lack of funding and specialized expertise may hinder effective implementation |

## 4. Stakeholder in the Field of Science and Technology

The success of the NICST relies on building strategic and integrated partnerships with stakeholders across different sectors to support a unified national data and knowledge ecosystem. Stakeholders include entities involved in scientific knowledge development,

data analysis, and evidence-based decision-making from government, higher education, private sectors, and civil society.

### A. Government Institutions

This includes:

- Ministries and official institutions concerned with planning and public policy, such as the Ministry of Digital Economy and Entrepreneurship, Ministry of Higher Education and Scientific Research, Ministry of Planning and International Cooperation, Ministry of Health, Ministry of Energy, and others.
- National bodies responsible for data governance, such as the Department of Statistics, the Legislation and Opinion Bureau, and the Telecommunications Regulatory Commission.
- Specialized governmental centers: such as King Abdullah II Design and Development Bureau (KADDB), and the Energy and Minerals Regulatory Commission.

Expected roles:

- Providing qualitative and sectoral databases.
- Participating in advanced analytics and strategic planning.
- Providing legislative and regulatory support for the Center's activities.

### B. Universities and Research Centers

This includes:

- Public and private universities.
- Independent or university-affiliated research centers.

Expected roles:

- Collaborating in the analysis of research data.
- Developing joint research projects through the JSTIP platform.
- Contributing to knowledge management within the NRIS project.
- Providing experts to serve on the Center's advisory committees.

### C. Private Sector

This includes:

- Information and data technology companies.
- Large industrial companies.
- Providers of digital transformation and artificial intelligence services.

Expected roles:

- Supporting innovation and offering technical and technological solutions for the Center.
- Partnering in the implementation of AI and infrastructure-related projects.
- Contributing to or sponsoring the Center's projects financially.

### D. International and Regional Organizations

Such as:

- UNESCO, World Bank, ESCWA, the European Union, JICA, GIZ, and others.

Expected roles:

- Providing funding and consulting expertise.
- Supporting capacity-building and training as part of national initiatives.
- Facilitating NICST's access to global knowledge and data repositories.

### E. Civil Society and Media Institutions

This includes:

- Professional unions and associations (e.g., Engineers Association, Computer Society).
- Think tanks and community-based research centers.
- Scientific and technological media outlets.

Expected roles:

- Disseminating knowledge and raising public awareness on the value of data.
- Covering national achievements in the knowledge sector.
- Supporting public dialogue on developmental and legislative issues.

### F. Jordanian Scientists Abroad

Engaged through platforms such as JOSTA and JOIP.

Expected roles:

- Offering global expertise and contextualizing it for local use.
- Supervising analytical and research projects.
- Building connections with international research institutions.

The relationship with these stakeholders forms a cornerstone for the implementation of the Center's new projects, especially:

- JSTIP, as a collaborative national platform.
- NRIS, which depends on research data and institutional integration.

As an illustrative model of role integration, Figure 3 presents a stakeholder map surrounding NICST's national strategy. It highlights how the roles of the Center's leadership, ministries, statistical institutions, data users, supporting entities, and media organizations interconnect. This interactive model reflects the participatory nature of successful strategy implementation and embodies the philosophy of an "Integrated Knowledge Ecosystem."


**Figure 3: The Partnership Ecosystem for Implementing the Strategic Plan**

## 5. NICST Operational Framework

The NICST operates through an integrated and systematic framework that emphasizes data analysis, knowledge production, and decision-making support. This approach enhances scientific governance, fosters innovation, and contributes to national development outcomes. The framework is structured around a comprehensive cycle that links data to insight and decision-making, consisting of the following stages:

### 1. Identifying National Priorities and Needs

In coordination with ministries and national institutions, NICST identifies key issues and studies that require in-depth knowledge-based analysis through:

- Reviewing national plans and public policies.
- Consulting with stakeholders from both public and private sectors.
- Leveraging outputs from NICST projects such as the **NRIS Observatory** and the **JLexAI Platform**.
- Diagnosing study topics based on indicators, surveys, and international benchmarks.

### 2. Data Collection and Classification

NICST collects data from various sources, including:

- Government and institutional databases.
- National research outputs.
- Local and international open data.
- Legislative and descriptive data.

The data is then classified and structured to enable meaningful analytical processing.

### 3. Data Analysis and Knowledge Generation

Advanced analytical tools—such as artificial intelligence, statistical analysis, and machine learning—are used to transform structured data into actionable knowledge. This process aims to extract patterns and insight-driven indicators to better understand realities, identify gaps, and interpret key national phenomena across various sectors.

The outputs of this stage include:

- Analytical reports,
- Interactive dashboards,
- Predictive models,

hese serve as core resources for evidence-based policymaking and national-level strategic planning.

## 4. Policy and Scenario Development

This stage involves translating knowledge into effective policy options through:

- Developing policy papers, analytical briefs, and presentations.
- Proposing data-driven policy alternatives.
- Evaluating options based on impact and relevance to produce clear, evidence-backed recommendations.

## 5. Decision-Making and Follow-Up

- Generated insights empower decision-makers to select optimal policies.
- Predictive modeling and simulation tools support the decision-making process.
- This stage includes institutional follow-up and performance evaluation to assess the effectiveness of adopted decisions.

## 6. Feedback and Continuous Improvement

- Receiving feedback from partners and beneficiaries.
- Enhancing analytical models in light of technological and institutional developments.
- Strengthening organizational learning and continuously updating data inputs and processes.

## 7. Quality Assurance and Standards

- All data and outputs are subject to rigorous review by internal quality and control units.
- International standards for data and analytics (e.g., ISO 8000) are adopted.

- Periodic audits and inspections are conducted on platforms and digital models.

### 8. Networking and Collaborative Governance

- Managing institutional relationships at both national and international levels.
- Activating collaborative platforms such as **JOIP**, **JOSTA**, and **JSTIP**.
- Establishing multi-disciplinary sectoral advisory committees.
- Collaborating with media and civil society to disseminate knowledge and raise awareness.

This flexible and institutionally integrated model strengthens NICST's capacity to play a central role in supporting planning and development, ensuring sustainable knowledge, and promoting the principle of "evidence-based decision-making."

## Supporting Models and Illustrative Mechanisms

### 1. The Knowledge Observatory

The Knowledge Observatory serves as the analytical engine that drives the implementation of the National Information Center for Science and Technology's (NICST) strategic plan. It plays a central role in building a national knowledge base in science and technology.

The Observatory systematically collects and analyzes a wide range of evidence sources, including:

- Books and academic studies
- Policy papers
- Research publications and articles
- Master's and doctoral theses
- Public opinion surveys
- Among others

Its role extends to conducting in-depth studies on economic and social issues in collaboration with local and international experts, drawing on outcomes of conferences and workshops to diagnose public challenges and propose strategic solutions.

Additional responsibilities of the Observatory include:

- Providing researchers and academics with data and information to enable impactful applied research.
- Offering technical and training support for Jordanian researchers.

- Monitoring and connecting Jordanian scientists abroad with the national research community.
- Launching priority research initiatives and offering incentives for outstanding studies, particularly those based on open data.

## 2. The Knowledge Production Cycle

This cycle represents the operational foundation through which NICST generates knowledge for decision-makers and society.

It begins with the identification of national priorities, followed by systematic data collection and analysis, and culminates in the production of actionable insights and policy-relevant knowledge.

This process is fully integrated with quality assurance and feedback mechanisms to ensure continuous improvement and alignment with the Center's strategic priorities.

## 3. The Evidence-Based Policy Cycle

This model provides a comprehensive framework for generating high-quality public policies based on data and evidence.

It guides decision-makers through four main stages:

1. **Issue Diagnosis**
2. **Scenario Development and Policy Formulation**
3. **Evaluation of Options**
4. **Informed Decision-Making**

As illustrated in Figure 4, the Knowledge Observatory plays a critical role in this cycle by continuously supplying analytical insights in collaboration with national experts and stakeholders.

This integrative approach ensures the relevance, effectiveness, and quality of public policy by grounding it in robust data and advanced knowledge analytics.

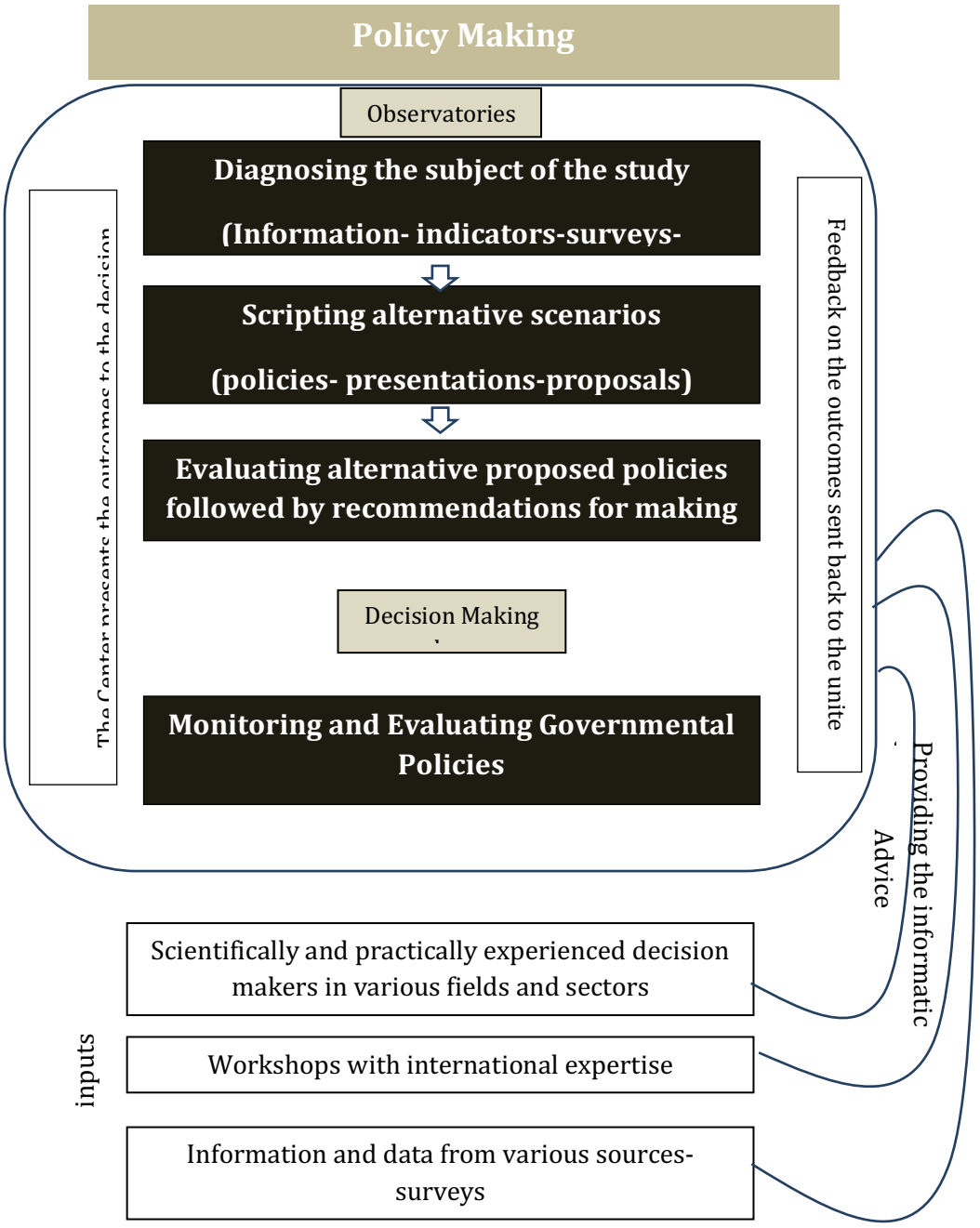


**Figure 4: Evidence-Based Policy Development Model**

## 6. Strategic Orientation

The strategic orientation of the National Information Center for Science and Technology is centered on building an integrated knowledge ecosystem that enhances the use of data in national policy development, empowers scientific research, and enables a digital transformation driven by artificial intelligence and advanced analytics. This orientation aligns with Jordan's national priorities for administrative and economic modernization, as articulated in the Economic Modernization Vision and the Public Sector Modernization Plan, while also complementing the role of the Higher Council for Science and Technology.

### A. Vision

*To provide the most reliable and timely information and knowledge to support development and innovation.*

### B. Mission

*To develop a comprehensive national system for data and knowledge in the fields of science and technology that provides a robust foundation for policymakers, empowers researchers, and supports evidence-based decision-making aligned with international standards and sustainable development goals.*

### C. National Objectives

- Contribute to building a competitive Jordanian knowledge economy.
- Enable national institutions to access accurate and up-to-date data.
- Enhance the efficiency of scientific research through intelligent analytical tools.
- Develop a legislative framework that supports governance and digital policymaking.
- Build national capacities to use data in planning and decision-making processes.

### D. Strategic / Institutional Objectives

Based on Article (4) of Regulation No. (63) of 2021 governing the Center, and in line with its latest updates, the Center seeks to achieve the following goals:

i. Collect qualitative and specialized data in the fields of science, technology, legislation, and institutional analysis.
ii. Analyze data and transform it into knowledge-based indicators that can be used in national policies and planning.
iii. Manage data and knowledge to ensure their integration, quality, and continuous updating.
iv. Provide comprehensive information systems that meet the needs of institutions and decision-makers.
v. Connect Jordanian researchers at home and abroad through digital platforms such as JOSTA, JOIP, and JSTIP.
vi. Develop intelligent analytical platforms, including:
    - A national research platform that enables multidisciplinary analysis.
    - A smart research system for analyzing scientific output and guiding funding.
    - An intelligent legislative analysis platform to support legal governance.
vii. Build national capacities in data and governance through specialized training programs.

## 7. Activities and Areas of Work (2025–2027)

Based on the Center's strategic orientation and in accordance with Regulation No. (63) of 2021, and considering the national projects and the capacity-building initiative launched in 2025, this section has been updated to include eight core domains that reflect the essence of the Center's work for the upcoming period. These domains align with national priorities related to digital transformation, knowledge economy development, and policy analysis using artificial intelligence (AI) and big data.

### A. Developing the Digital Infrastructure for the Science and Technology Sector

- **Description:** Establishing an integrated technical environment to enable the management and analysis of scientific, legislative, economic, and social data by linking national databases and providing advanced processing and

analytical tools. The **JSTIP** platform is a central initiative under this program and serves as the analytical and service backbone for scientific research.

- **Key Components:**
  - Developing and linking national databases into a unified information network.
  - Activating JSTIP as a central digital infrastructure for research and innovation.
  - Leveraging the infrastructure of the Ministry of Digital Economy and Entrepreneurship and integrating with the government cloud.

## B. Launching the Jordan Science, Technology, and Innovation Platform (JSTIP)

- **Description:** A national technological project within the broader digital infrastructure, aimed at providing a secure, open environment for researchers to access and execute data and models in an integrated cloud-based analytical system.
- **Main Activities:**
  - Establishing a unified portal that includes modeling tools, dashboards, and data repositories.
  - Providing high-performance computing (HPC) services and AI tools to support research.
  - Organizing national research competitions and scientific discussion forums.

## C. Building and Operating the National Research Intelligence System (NRIS)

- **Description:** An AI-powered system for analyzing national research performance and guiding research funding in alignment with national priorities.
- **Main Activities:**
  - Collecting and analyzing over 110,000 research publications across 333 disciplines.

- Creating analytical dashboards for academic and research performance by institution.
- Developing indicators to measure the scientific, social, and economic impact of research.

## D. Developing the Intelligent Legislative Analysis System (JLexAI)

- **Description:** An AI-based platform for analyzing legal texts, identifying contradictions, and harmonizing legal interpretation.
- **Main Activities:**
  - Integrating JLexAI with the Legislation and Opinion Bureau and the Official Gazette.
  - Developing a legal summarization and extraction engine.
  - Enabling ministries to conduct semantic legal research.

## E. Establishing a Specialized Knowledge Observatory

- **Description:** Aggregating and publishing national and international studies and supporting policymaking with scientific evidence.
- **Main Activities:**
  - Creating a knowledge repository that includes academic theses, national reports, evaluation studies, and policy briefs.
  - Publishing periodic knowledge bulletins on key sectors.
  - Supporting researchers and graduate students in accessing open data.

## F. Implementing the Capacity-Building Initiative in Data and Governance

- **Description:** A comprehensive national training program targeting staff from ministries and institutions in the following areas:
  - Government data management
  - Data governance and legal compliance
  - Data analysis tools and AI applications
- **Main Activities:**
  - Conducting specialized training workshops in collaboration with international experts.

- Preparing a reference guide for data governance in government institutions.
- Issuing data maturity assessments for target institutions.

### G. Supporting National and International Research Networking and Collaboration

- **Description:** Developing effective communication channels between researchers and institutions both locally and internationally.
- **Main Activities:**
  - Activating platforms such as JOSTA (for Jordanian scientists abroad) and JOIP (for innovators).
  - Supporting Jordanian participation in international research collaboration programs.
  - Organizing networking events and scientific conferences.

### H. Producing Knowledge Outputs and Interactive Tools for Policymakers

- **Description:** Translating complex data into reports and analytical dashboards to support policy development.
- **Main Activities:**
  - Developing dynamic dashboards for high-priority sectors.
  - Publishing international comparison reports and analyzing sustainable development indicators.
  - Using predictive analytics tools to support foresight and strategic planning.

## 8. Networking, Collaboration, and Sustainable Financing

Effective networking, institutional collaboration, and sustainable financing constitute one of the core pillars for ensuring the continuity of the National Information Center for Science and Technology and achieving its strategic goals. To fulfill this role, the Center relies on three integrated mechanisms:

## First: Local and International Networking

The Center is committed to building high-quality partnerships with entities inside and outside Jordan through:

- Establishing official communication channels with ministries and public institutions to exchange data and expertise.
- Strengthening partnerships with universities and research centers to bridge academic analysis with policymaking.
- Enhancing cooperation with the private sector, particularly with technology and digital transformation companies.
- Expanding international cooperation networks with global and regional organizations such as UNESCO, the World Bank, ESCWA, JICA, GIZ, and the OECD.

The successful launch of projects such as **JSTIP**, **NRIS**, and **JLexAI** is a direct result of such trusted and knowledge-based collaboration.

## Second: Building Knowledge and Innovation Alliances

- Activating electronic networking platforms such as:
  - **JOSTA** to connect Jordanian scientists abroad with national projects.
  - **JOIP** to support innovative ideas and knowledge transfer.
- Organizing conferences and scientific forums that bring together decision-makers, researchers, and practitioners.
- Engaging Jordanian and international experts in permanent advisory committees for major projects.

## Third: Securing and Sustaining Financing

The Center seeks to diversify its funding sources through a sustainable model that includes:

- **National Funding:**
  - Allocations from the Higher Council for Science and Technology.
  - Partnerships with ministries and relevant institutions on joint projects.
- **International Funding:**
  - Submitting funding proposals to donors under programs for innovation, digital transformation, and scientific research.

- Leveraging open project financing mechanisms and global competitive opportunities.

- **Alternative Resources:**
  - Corporate sponsorship programs.
  - Providing paid knowledge services to private entities within legal boundaries.
  - Marketing institutional and legislative analytics models as national products.

**Institutional Recommendation:**

It is recommended to establish a dedicated **Networking and International Funding Unit** within the Center's organizational structure, responsible for:

- Developing a database of international funding opportunities.
- Overseeing the preparation of project proposals and grant applications.
- Coordinating donor relations and partnership efforts.

## 9. Implementation Plan and Timeline

### A. Immediate Phase – Establishment and Preparation (Second Half of 2025)

**Objective:** Complete the infrastructure setup, appoint key personnel, and launch the new strategic projects.

| Activity | Implementing Entity | Partners | Timeframe |
|---|---|---|---|
| Recruit specialized talent in AI, data, and legal analytics | NICST | Legislation and Opinion Bureau + Universities | Q3 2025 |
| Prepare project proposal for **JSTIP** | NICST | Ministry of Digital Economy and Entrepreneurship | Q3 2025 |
| Compile and validate preliminary research data for **NRIS** | NICST | Universities + Academic Libraries | Ongoing |
| Develop prototype of **JLexAI** platform | NICST | Legislation and Opinion Bureau | Q3 + Q4 2025 |
| Design and launch a national training plan for capacity building | NICST | Ministry of Public Sector Modernization + International Partners | Q4 2025 |

## B. Short-Term Action Plan (2025–2026)

**Objective:** Launch operational activities for the four flagship projects and expand national partnerships.

| Activity | Implementing Entity | Target Completion Rate per Year |
|---|---|---|
| Operate **JSTIP** platform and connect 10 universities and research centers | NICST | 2025: 50% — 2026: 100% |
| Issue first analytical reports via **NRIS** | NICST | 2025: 40% — 2026: 90% |
| Launch **JLexAI** for pilot use in 5 ministries | NICST | 2025: 50% — 2026: 100% |
| Conduct 10 training workshops for capacity building | NICST | 2025: 60% — 2026: 100% |
| Develop analytical dashboards for national sectors | NICST | 2025: 30% — 2026: 80% |
| Organize national conference for knowledge networking and innovation | NICST | 2026 |

## C. Mediumand Long-Term Action Plan (2027)

**Objective:** Strengthen sustainability, institutional expansion, and transition toward a national advisory role in knowledge and evidence-based policymaking.

| Activity | Implementing Entity | 2027 Outputs |
|---|---|---|
| Expand **JSTIP** to include the health, medical, and agricultural sectors | NICST | 10+ additional institutions onboarded |
| Develop national performance indicators through **NRIS** | NICST | 3 analytical sectoral reports published |
| Integrate **JLexAI** with the full fficial gazette and legislative database | NICST | Unified legislative platform operational |
| Institutionalize data training as a mandatory career track in ministries | NICST + Civil Service Bureau | Unified national training system |

| | | |
|---|---|---|
| Launch institutional accreditation program for knowledge governance | NICST + Ministry of Planning | 5 targeted government entities certified |
| Leverage international funding to implement a regional project | NICST | Multi-country funded project launched |

**D. Proposed Additional Activities for 2028**

Below is a list of strategic activities proposed for inclusion in the 2028 implementation plan:

- Implement a **Predictive Geographic Information System (GIS)** project in collaboration with the Royal Geographic Center to support planning through spatial foresight tools and resource analysis.
- Establish a **Regional Knowledge Observatory** to support regional projects in areas such as water, energy, and climate change, in partnership with international organizations.
- Conduct specialized **national studies** on topics such as multidimensional poverty, alignment of education outcomes with labor market needs, and the relationship between big data and sustainable development.
- Develop **community-based digital dialogue platforms** to empower citizens to participate in public discussions on policies and legislation.
- Produce **multimedia knowledge content**, including videos, data dashboards, and simplified reports targeting both policymakers and the general public.

## 10. Monitoring, Evaluation, and Quality Assurance

The monitoring and evaluation (M&E) system forms a core component of the center's operational framework. It aims to ensure that all activities and projects are implemented according to the planned timelines and frameworks, achieve the desired institutional and knowledge impact, and adhere to the highest standards of quality and governance.

The M&E activities are carried out within a comprehensive methodology based on three main pillars:

**First: Institutional Performance Monitoring**

- The **Internal Audit Unit** is responsible for:
    - Reviewing progress in the implementation of projects and initiatives according to approved plans.

- Issuing quarterly performance reports to be submitted to the Center's Director and then to the Board of Directors.
- Tracking the compliance of operational units with set indicators and standards.

- The **Monitoring Mechanism** includes:
  - Regular field visits to project sites.
  - Evaluation surveys for beneficiaries and partners.
  - Use of electronic performance dashboards for real-time tracking.

**Second: Quality Assurance and Technical Standards**

- The **Quality Assurance Unit** is responsible for:
  - Preparing standardized procedural manuals for all platforms and projects (e.g., JSTIP, NRIS, JLexAI).
  - Establishing unified standards for data quality and analytics aligned with best international practices such as **ISO 8000**.
  - Verifying the accuracy and reliability of knowledge outputs prior to external publication.
- **Established Practices** include:
  - Periodic reviews of analytical code and AI models.
  - Full documentation of analysis stages to ensure transparency and traceability.
  - Conducting validity tests on digital platforms before public launch.

**Third: Impact Evaluation and Effectiveness Measurement**

A national system of **Key Performance Indicators (KPIs)** is being developed for each strategic area, including both quantitative and qualitative metrics, most notably:

| Monitoring & Evaluation Indicators | Project / Area |
|---|---|
| Number of connected institutions, number of digitized research projects, monthly usage rate | **JSTIP** |
| Number of published analytics, accuracy of research forecasts, satisfaction of decision-makers | **NRIS** |
| Number of legal texts reviewed, number of detected conflicts, legislative improvement reports | **JLexAI** |

| | |
|---|---|
| Number of trainees, improvement rate in pre-/post-assessments, application of skills in the workplace | **Training Initiative** |
| Number of published materials, number of accesses and uses, impact of outputs on national policies | **Knowledge Observatory** |

**Institutional Recommendations:**

- **Adopt a comprehensive annual evaluation model** to be presented to the Board of Directors and published in the Center's General Performance Report.
- **Form an independent external evaluation committee every two years** to review the strategic plan and provide improvement recommendations.
- **Link the institutional performance of the Center to the achievement matrix** within the National Digital Transformation Plan.

## 11. Organizational Structure

**In line with Regulation No. (63) of 2021 and the growth of digital and AI-driven projects**, the Center must adopt a flexible and specialized organizational structure. This structure will align analytical functions, governance, and digital operations to strengthen the Center's role as a national platform for knowledge and decision support.

**Proposed Structure (Main Levels):**

*i.* ***Board of Directors:***

- Supreme policy and governance authority.
- Composed of representatives from: Government ministries, the Higher Council for Science and Technology, the academic sector, and the private sector.

*ii.* ***Director General of the Center:***

- Chief Executive Officer.
- Oversees strategic planning, national and international relations, governance, and quality assurance.

*iii.* ***Deputy Director and Department Heads:***

- Coordinate and supervise the work of operational units.

***iv. Core Administrative and Specialized Units:***

- To be detailed in the subsequent sections, including departments for data analysis, legal intelligence, platform operations, training, quality assurance, and international cooperation.

| Unit / Directorate | Core Responsibilities |
|---|---|
| **IT Directorate** | Development and operation of digital infrastructure, technical support, programming and development, electronic publishing, and information security. |
| **Information and Knowledge Directorate** | Data analysis, database management, indicator preparation, and knowledge output production. |
| **Cooperation and Coordination Directorate** | Partnership coordination, training, networking and communication, preparation of joint studies and projects. |
| **Administrative and Financial Affairs Directorate** | Human resources management, public relations, administrative services, procurement, and financial affairs. |
| **Director's Office** | Direct administrative support, coordination of senior management affairs. |
| **Quality Assurance Unit** | Reviewing the quality of operations and outputs, applying performance standards. |
| **Internal Audit Unit** | Administrative and financial oversight, risk management, and ensuring compliance with regulations. |

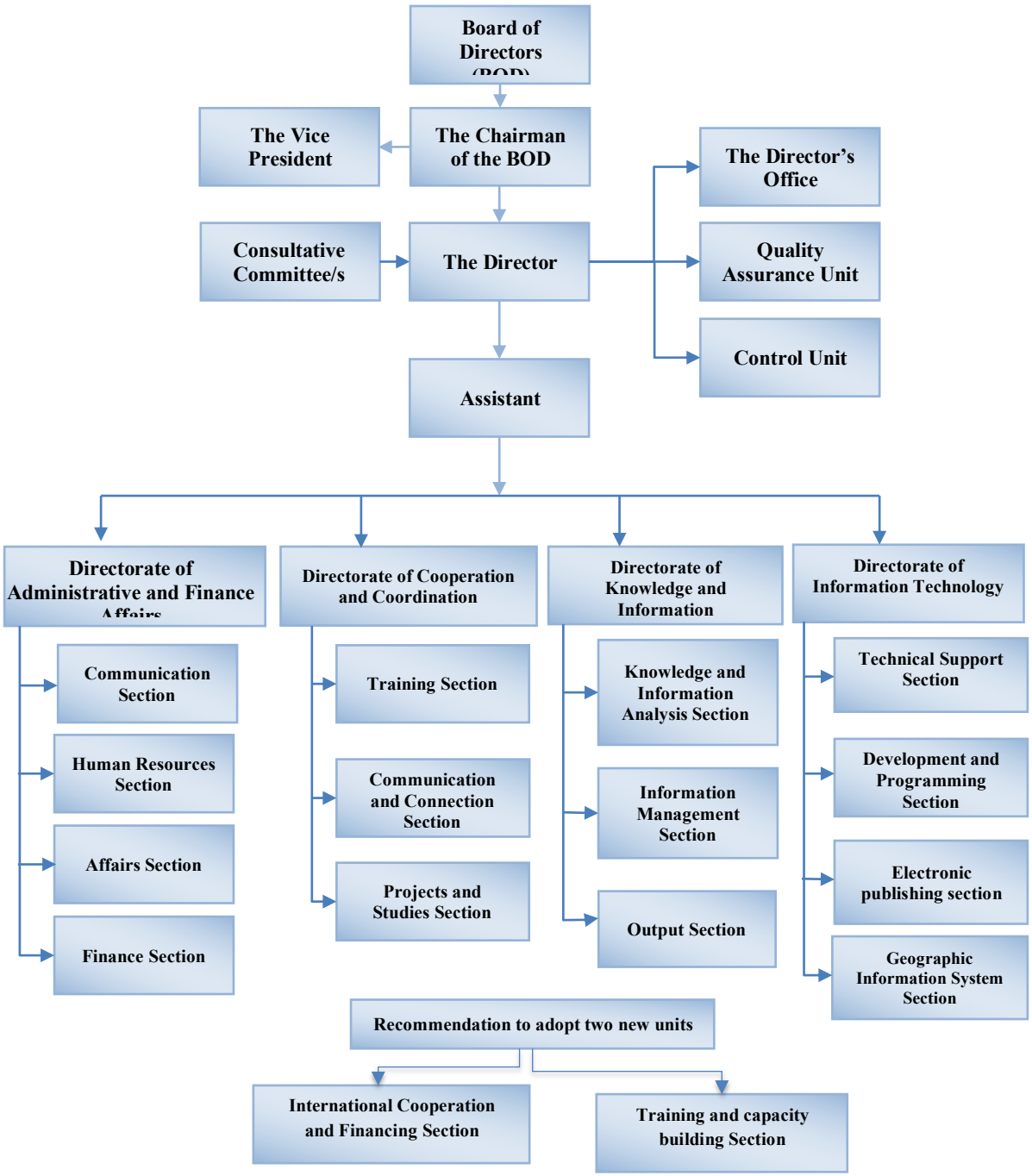


Figure 5: The Organizational Structure of the Center

**Interactive Functional Structure:**

This organizational structure can be presented through:

- A printable **visual hierarchical chart (Organizational Chart)**.
- An **interactive digital board** on the Center's official website.

**Recommendation:**

Formally adopt the following two **new units** within the Center's organizational framework:

a. **Training and Capacity Building Unit**

b. **International Cooperation and Funding Unit**

These units should be supported with specialized human resources and independent budgets, due to their **direct impact on the sustainability of the projects** and the **implementation of the national strategy**.