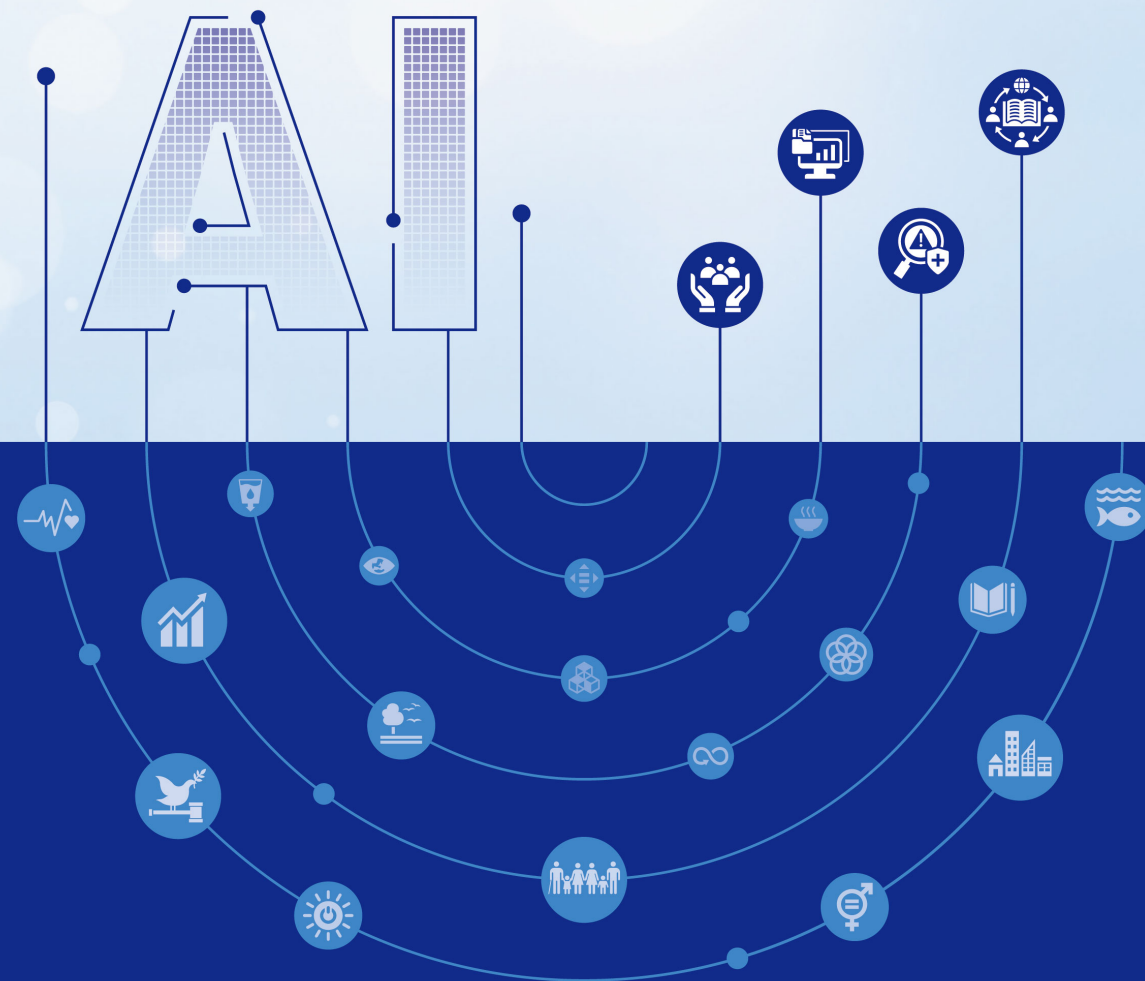


AI Empowerment of Public Development Financial Institutions

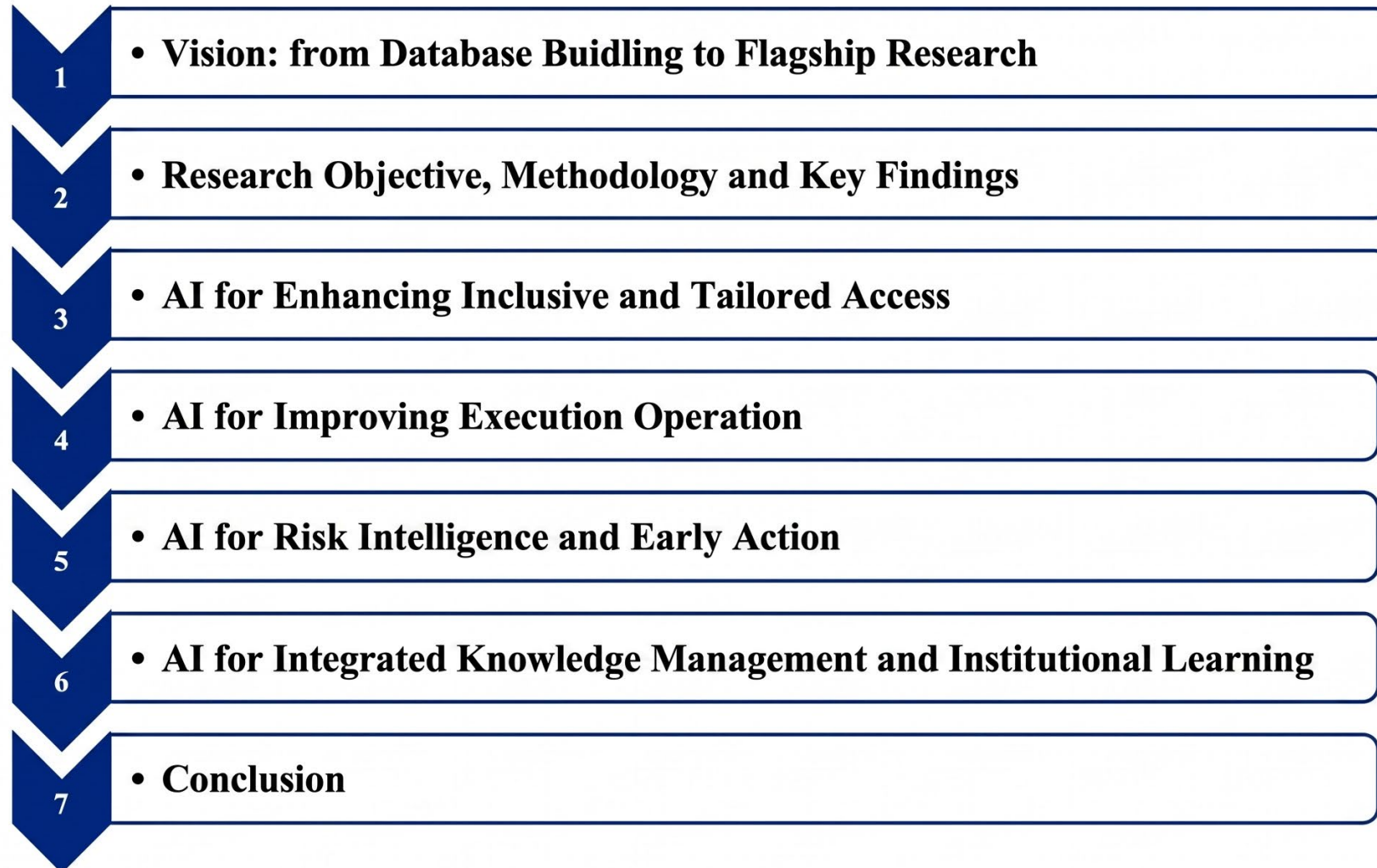
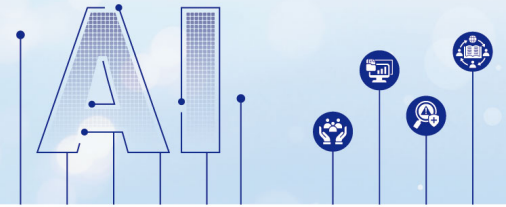
Jiajun XU

EDB Annual Meeting & Business Forum

26 June 2026



Presentation Roadmap

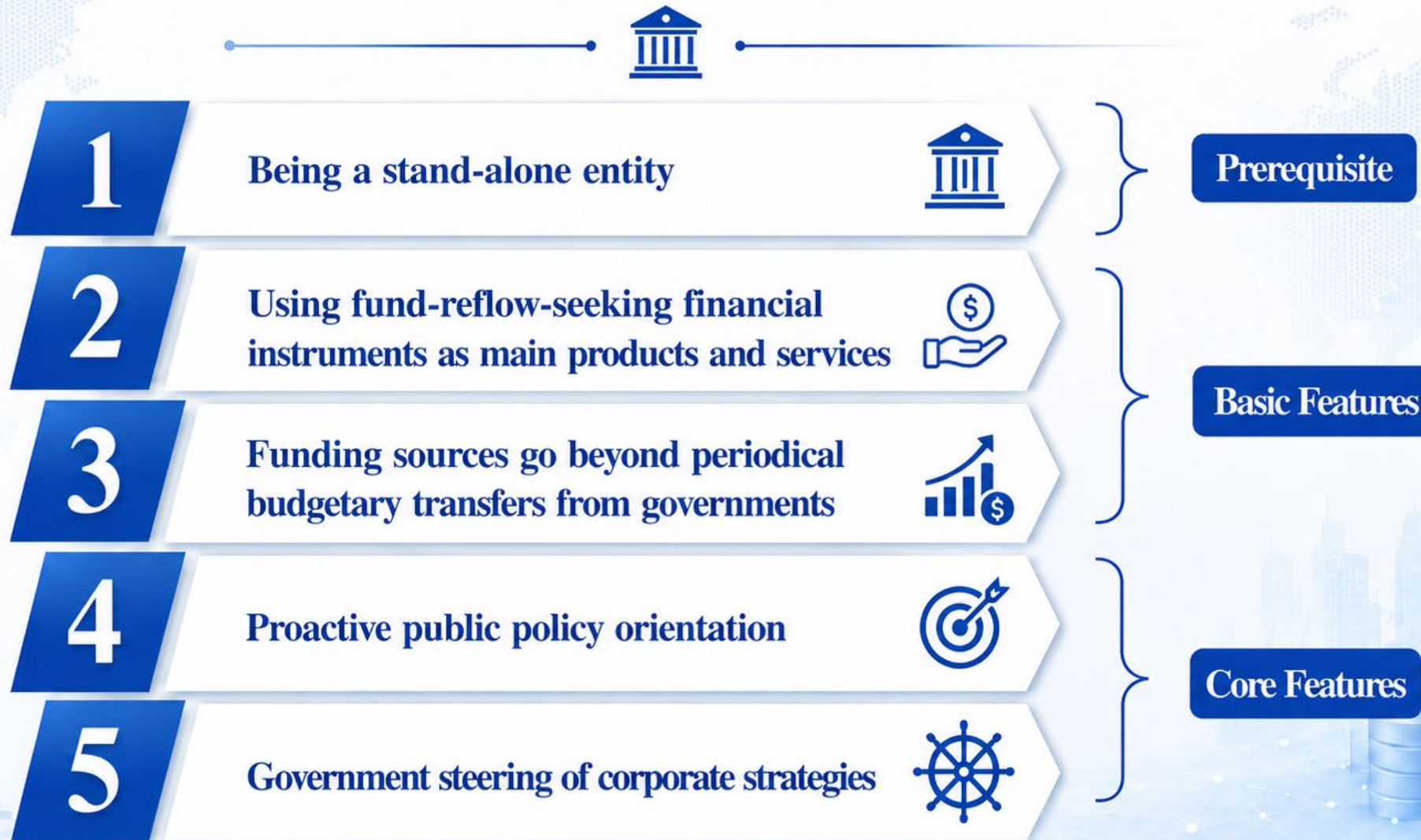




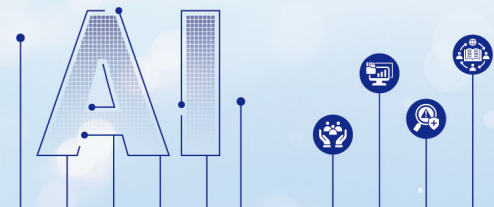
01 **Vision:** **from Database Building to Flagship Study**

1.1 The Cornerstone of Database:

Five Qualification Criteria of PDFIs (PDBs&DFIs)



1.2 Key Highlights of the Database



557+

PDBs and DFIs



155+

Countries and Economies



\$23 trillion

Total Assets



10%

Annual financing of PDBs
and DFIs as a % of total
world investment

Foster the Formation of the PDB Coalition (FiCS)

“

*This ground-breaking database acts as
the benchmark for defining the boundary
of the Finance in Common Coalition.*

— RÉMY RIOUX, Chairman of the FiCS

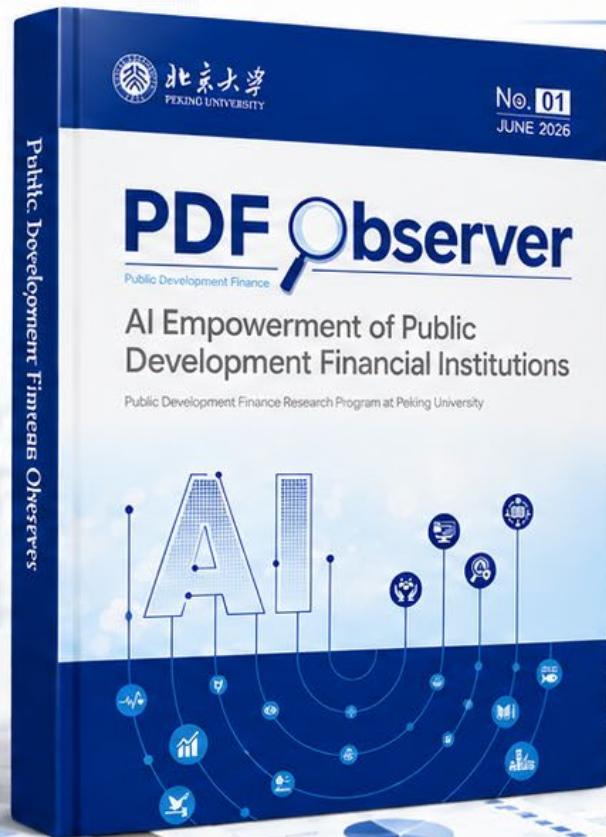


1.3 The Inaugural Issue of Public Development Finance Observer



About the Public Development Finance Observer

A flagship intellectual product for public development finance



The Public Development Finance Observer is designed for



Researchers



Practitioners



Policymakers

The Observer aims to:



Latest Developments



Piloted Solutions



Common Challenges



From latest developments to practical solutions for common challenges



A flagship intellectual product of the Public Development Finance Research Program at Peking University



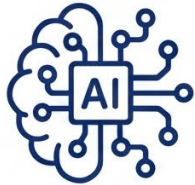


02 / Research Objective, Methodology and Key Findings

2.1 Research Objective



The Impact of AI



Reduces information processing costs and unlocks complex, nonlinear relationships across unstructured data.



Research Gap



Focuses heavily on commercial banking, primarily for retail credit scoring and high-frequency trading.



Pioneering PDFI Focus



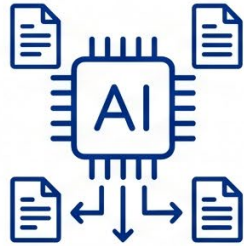
Explores how PDFIs deploy AI as an instrument to fulfill public policy objectives

Identifies patterns of use, problem-solving mechanisms, and related governance challenges.

2.2 Methodology & Data Sources



Step 1: LLM-Assisted Screening



Scans official PDFI news disclosures to identify initial AI deployment signals.

Data scope: Q2 2025 - Q1 2026

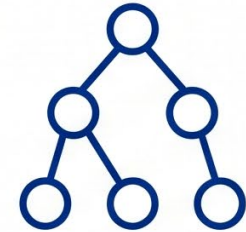
Step 2: Manual Validation



Filters out general digitalization to retain concrete operational AI applications.

Result: 20 institutions (5 multilateral, 15 national)

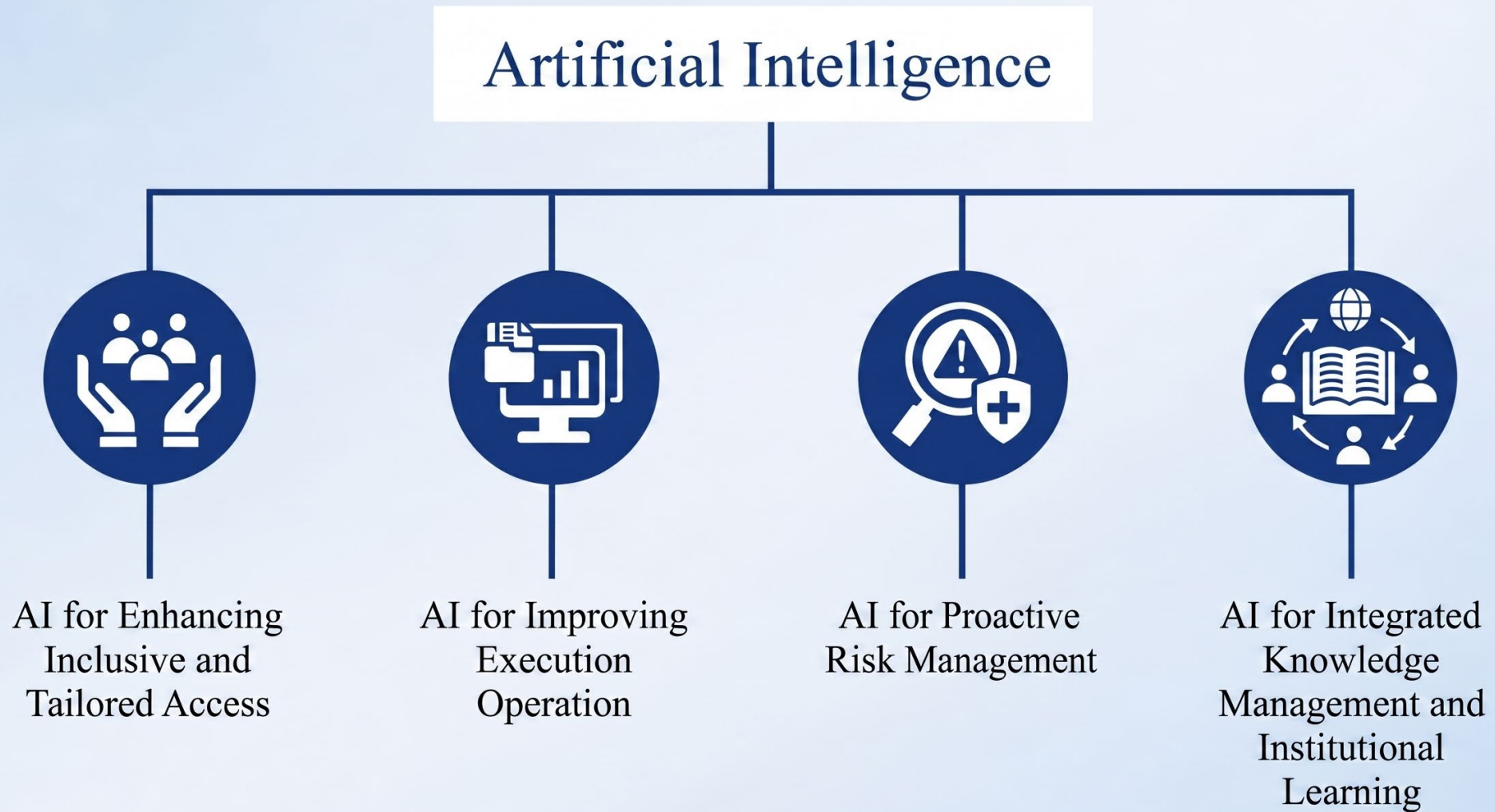
Step 3: Classification & Analysis



Categorizes applications into four analytical domains to select representative cases.

Focus: Internal functions, public interfaces, core workflows

2.3 Key Findings





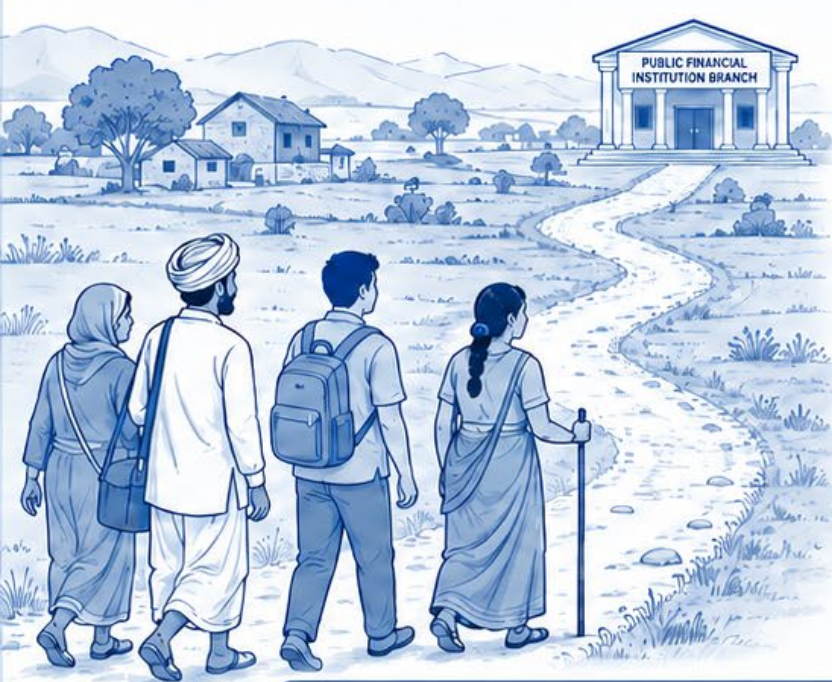
03

AI for Enhancing Inclusive and Tailored Access

3.1 Access Challenges



REACHING THE BRANCH: MANY OBSTACLES



Long distance
and travel time



Weak
connectivity



Low digital
literacy



Language
constraints



Complex
application
forms



SERVICES ARE AVAILABLE, BUT HARD TO NAVIGATE



- Services may formally exist but remain hard to use.
- Barriers include distance, weak connectivity, low digital literacy, language constraints, and complex procedures.
- The real challenge is last-mile inclusion.



PDFIs must turn formal service availability into practical and tailored usability.

3.2 AI Pathways for Inclusion



3.3 Case 1: Multilingual AI Voice Agents for Rural Users



**National Bank for
Agriculture and
Rural Development**

Ownership:
National

Official Mandate:
Rural and Agricultural
Development

1 The Access Problem

Rural users face language, literacy, digital interface, and procedural barriers.



2 AI-Enabled Response

NABARD pilots multilingual AI voice agents for balances, alerts, and loans.



3 Why the Case Matters

AI changes the interaction layer, driving meaningful participation.



3.4 Case 2: AI-Supported Opportunity Mapping for Entrepreneurs



Institutional Context

Ownership:
Multinational

Official Mandate:
General Development

1 The Access Problem

Youth and women entrepreneurs struggle to find clear pathways to skills, finance, and markets.



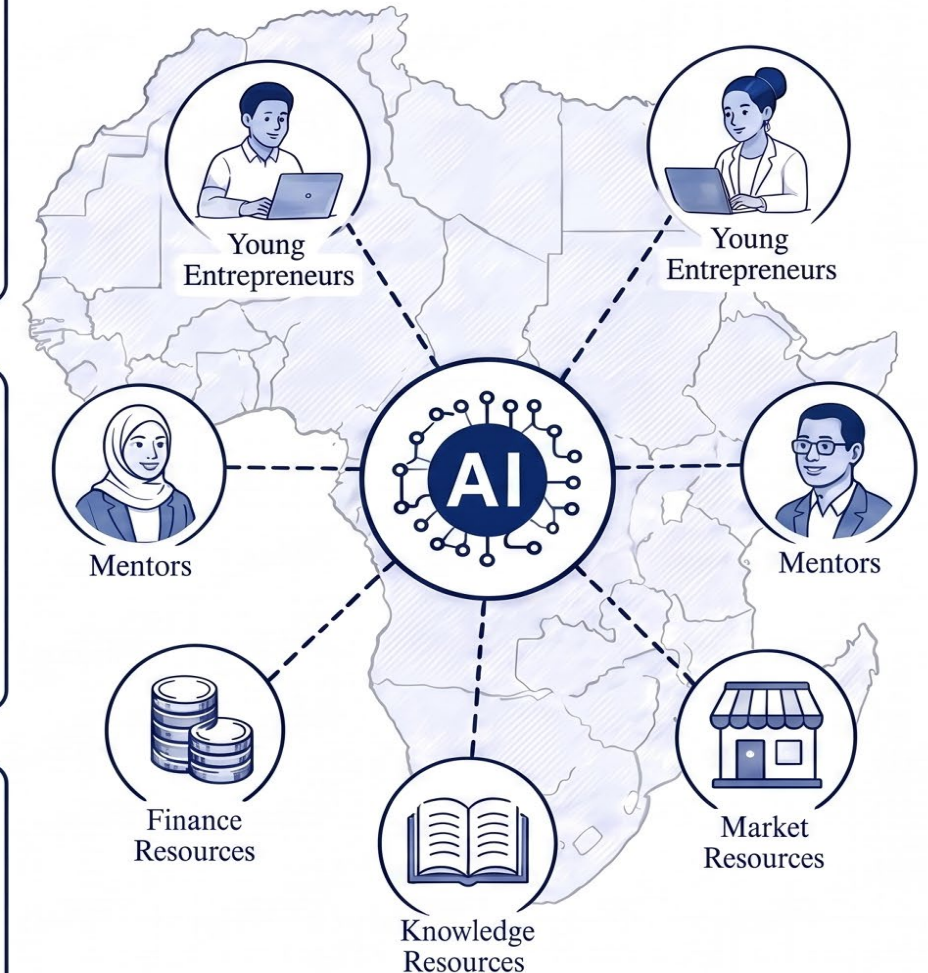
2 AI-Enabled Response

ENNOVA acts as a hub, aggregating 1400+ support organizations and 300+ business resources.



3 Why the Case Matters

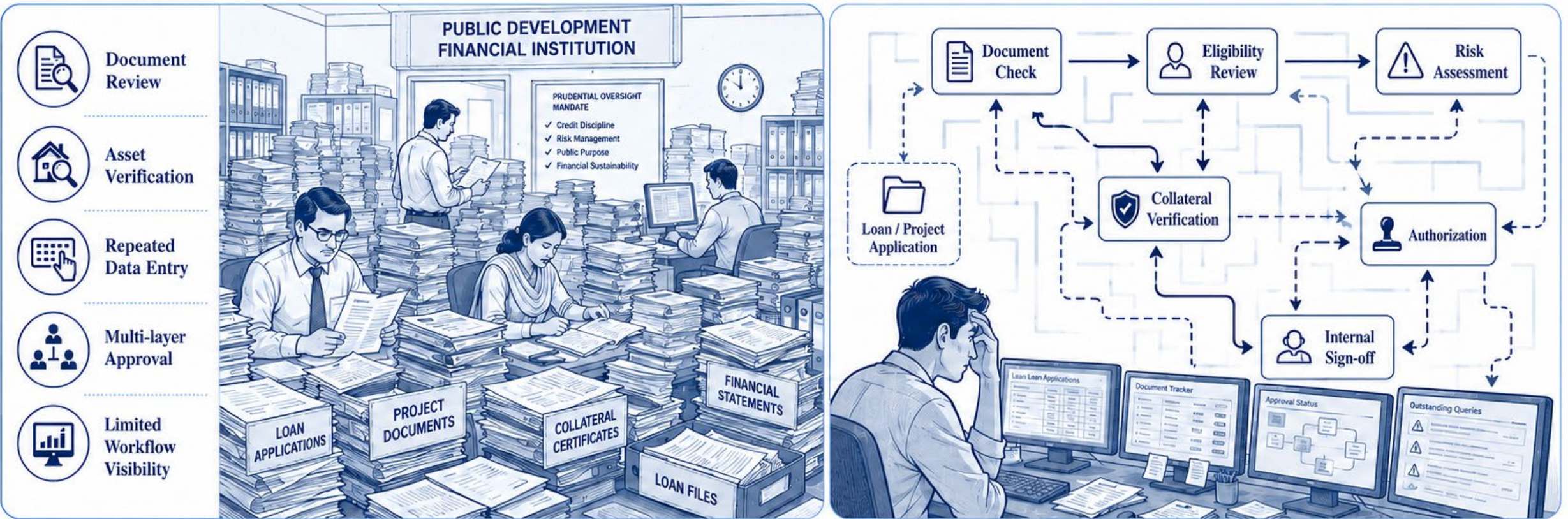
AI opportunity mapping turns fragmented information into actionable ecosystem pathways.





04 / AI for Improving Operational Execution

4.1 Operational Challenges



Manual verification
raises transaction costs



Fragmented workflows
extend approval cycles



Low visibility
weakens accountability

PDFIs need to preserve prudential oversight while *reducing* redundant loops and unnecessary delays.

4.2 AI Pathways for Execution

1. Document Processing and Asset Monitoring

AI can process documents and monitor assets more efficiently.



OCR



Intelligent Document Processing



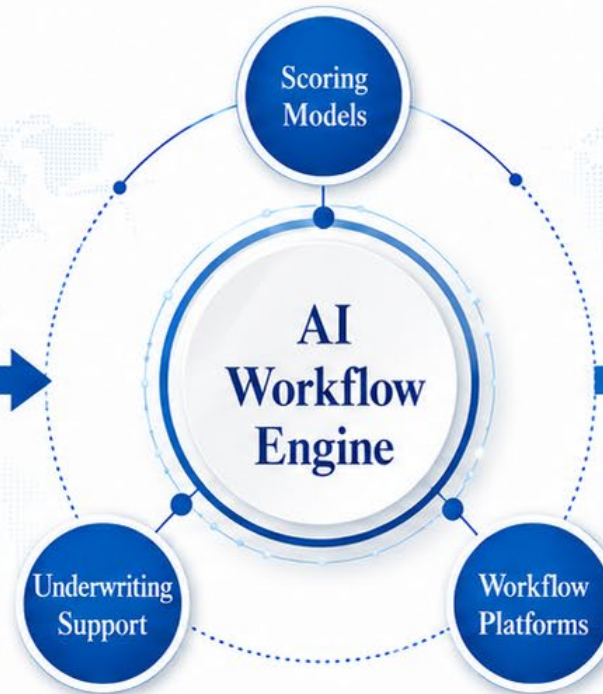
Computer Vision



Automated Valuation Systems

2. AI Workflow Coordination

AI can connect information across the workflow.



AI improves operational execution by making processes more structured, traceable, and timely while preserving expert validation for high-risk cases.

4.3 Case 1: AI for Assessment and Data Foundation



Freddie Mac 	
Ownership:	National
Official Mandate:	Social Housing

Bottleneck: Cumulative friction in complex mortgage assessments.



AI-Enabled Response: Loan Product Advisor, Income Calculator & Asset Modeler.



Value: Compresses high-friction nodes while preserving human prudential review.



Korea Housing Finance (HF) 	
Ownership:	National
Official Mandate:	Social Housing

Bottleneck: Dispersed historical data and slow cross-system retrieval.



AI-Enabled Response: AX Strategy 2026-2028 (Unified big-data platform & AI agents).



Value: Reduces data-access time by up to 80%, turning data into execution capacity.



4.4 Case 2: Smart Digital Cloud Counter



Institutional Context



Ownership/Nature:
National



Official Mandate:
Rural and Agricultural
Development



The Bottleneck

Redundant manual data entry
across disconnected systems.
Fragmented authorization
processes.



AI-Enabled Solution

Distributed architecture using
AI models.
Voice interaction &
digital-human functions.



Operational Value

Visible, coordinated, and
traceable approval workflows.
Frees staff for higher-risk
transactions.

A transaction can continue across channels without repeated data entry.





05

AI for Proactive Risk Management

5.1 Risk Management Challenges



 PDFIs need pivot to anticipatory action enabled by early warning systems.

1. Wider Public Consequences



PDFIs address risks with profound socioeconomic externalities.



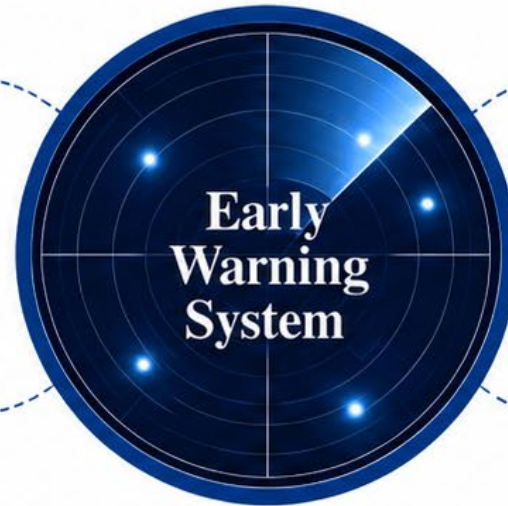
If institutions react only after vulnerabilities materialize, socioeconomic costs compound exponentially.



Climate risk



Social risk



Macroeconomic volatility



Project operations

2. Fragmented Risk Signals

PDFI risk frameworks often rely on:



Siloed databases



Static appraisals



Manual project reviews



Isolated loan files

Such frameworks make it difficult to capture interactions across sectors and interconnected systems.

3. Why Mispricing Happens



Localized drought



Food price inflation



Civil unrest



Project disruption

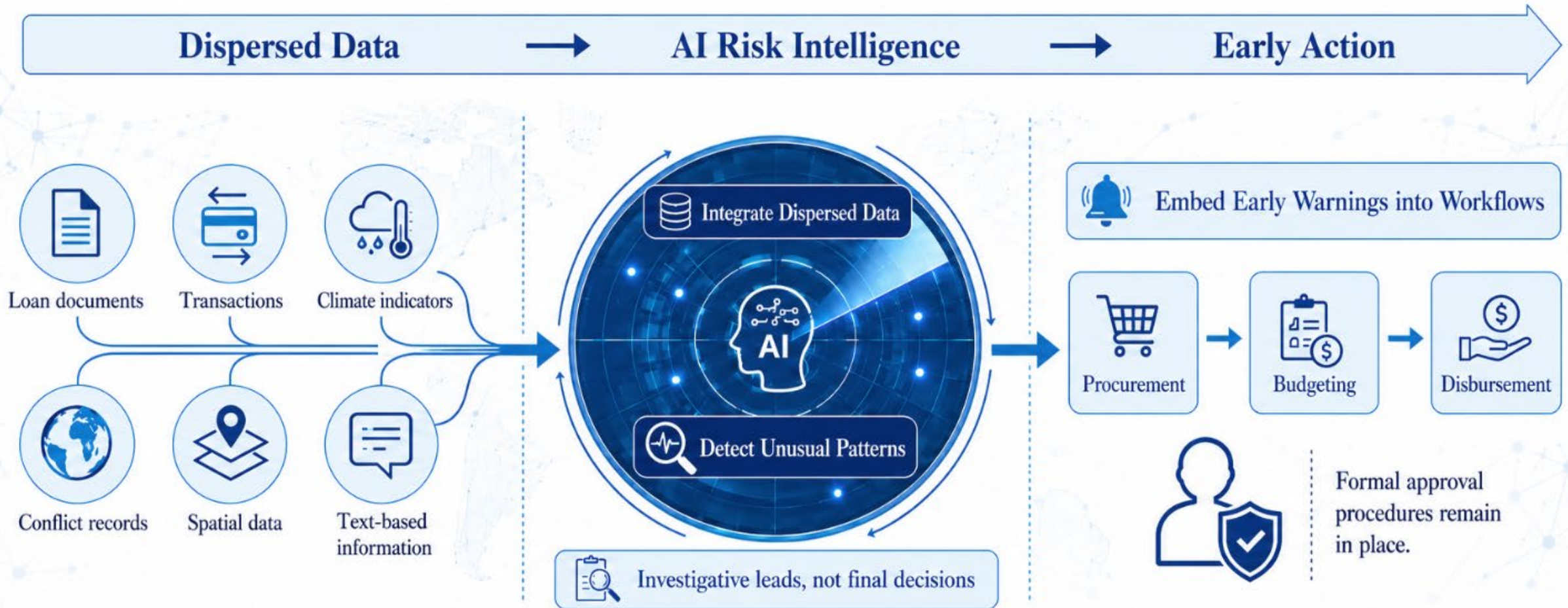


Cash-flow stress



By failing to synthesize cross-sectoral signals in real time, risks may be mispriced.

5.2 AI Pathways for Proactive Risk Management



AI shifts work from reactive case handling to proactive screening and earlier action.



5.3 Case 1: Detecting Mortgage Fraud Before Losses Enter the Portfolio

Institutional Context



Fannie Mae®

Ownership:	National
Official Mandate:	Social Housing

The Risk Bottleneck



- Lender self-reporting
- Manual forensic audits
- Data silos
- Difficulty identifying nonlinear anomalies across massive, multisource document pools



Transaction records



Property valuations



Loan application files



Behavioral indicators

AI-Powered CDU Crime Detection Unit (CDU)



Scans for anomalous patterns

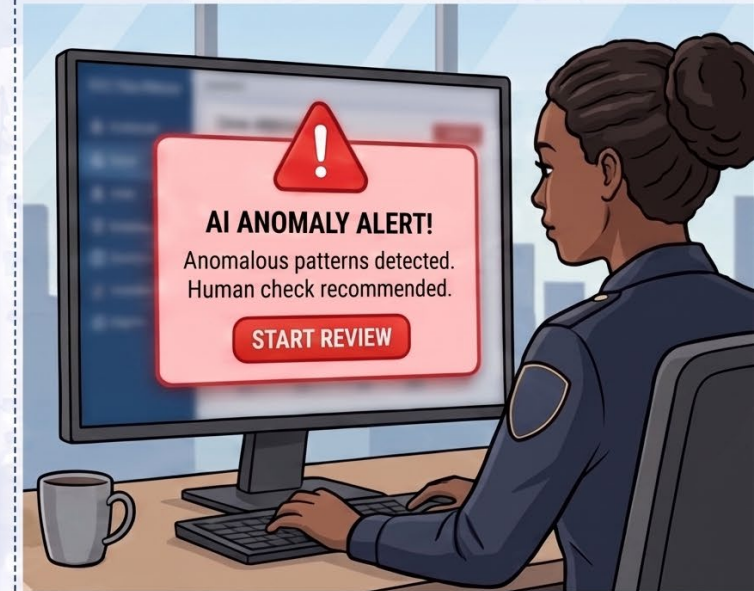
Priority Cases
for Review



a simple display
of cases

AI flags anomalies

Human investigators decide
whether to act.



Efficiency Gains

- 4 historical loan files
- 2 months (manual review)
- 10 seconds (by AI)



Governance

- Human-in-the-loop
- AI flags anomalies
- Humans decide whether to act



AI can search for hidden relationships across large datasets and flag priority cases before losses enter the portfolio.

5.4 Case 2: World bank :Turning Forecasts into Anticipatory Action



Institutional Context

Ownership

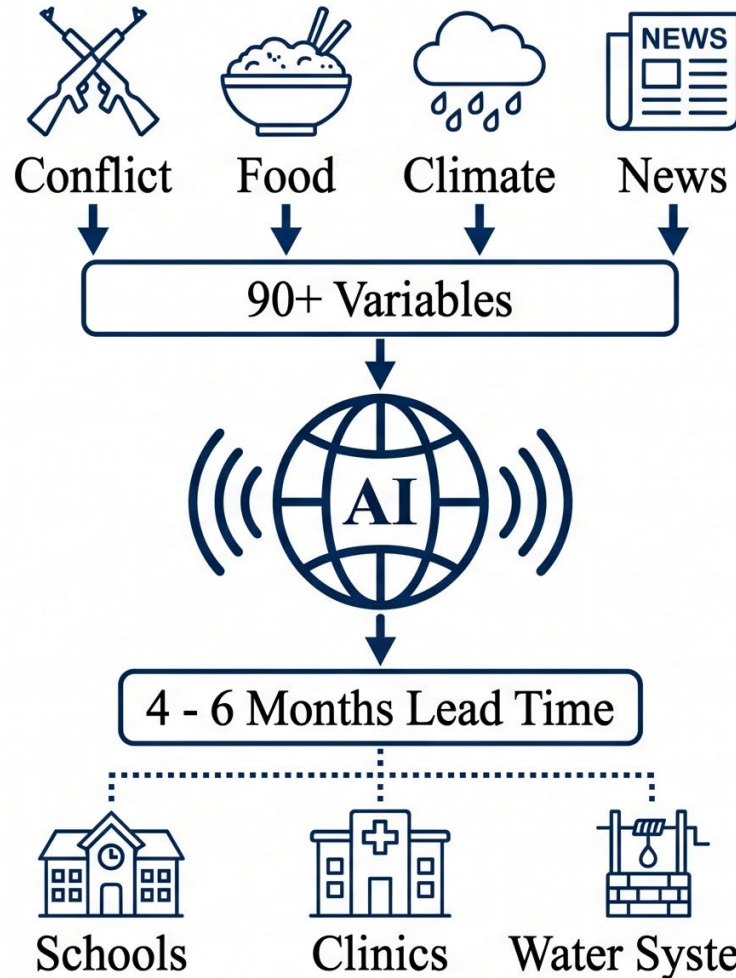
Multinational

**Official
Mandate**

General
Development

The Challenge

- Reactive funding thresholds detect pressure only after it emerges.
- Large inflows strain local schools, clinics, and water systems.



Validation Benchmark

- Accuracy > 80% (Historical data 2014-2023)
- 120-day horizon for DRC (9.2% error)
- 180-day horizon for South Sudan (12.1% error)

Governance

- The model generates risk information, not automatic.
- Forecasts require local financing and implementation capacity to create value.

Forecasts create value only when linked to response systems.



06

AI for Integrated Knowledge Management and Institutional Learning

6.1 Knowledge Challenges

PDFIs produce and store large volumes of documents, but knowledge often remains fragmented.

Fragmented Knowledge Assets



Key Challenges

-  Dispersed internal systems
-  Static reports and evaluations
-  High search and verification costs
-  Institutional memory depends on individuals

Decision Desk Waiting for Evidence

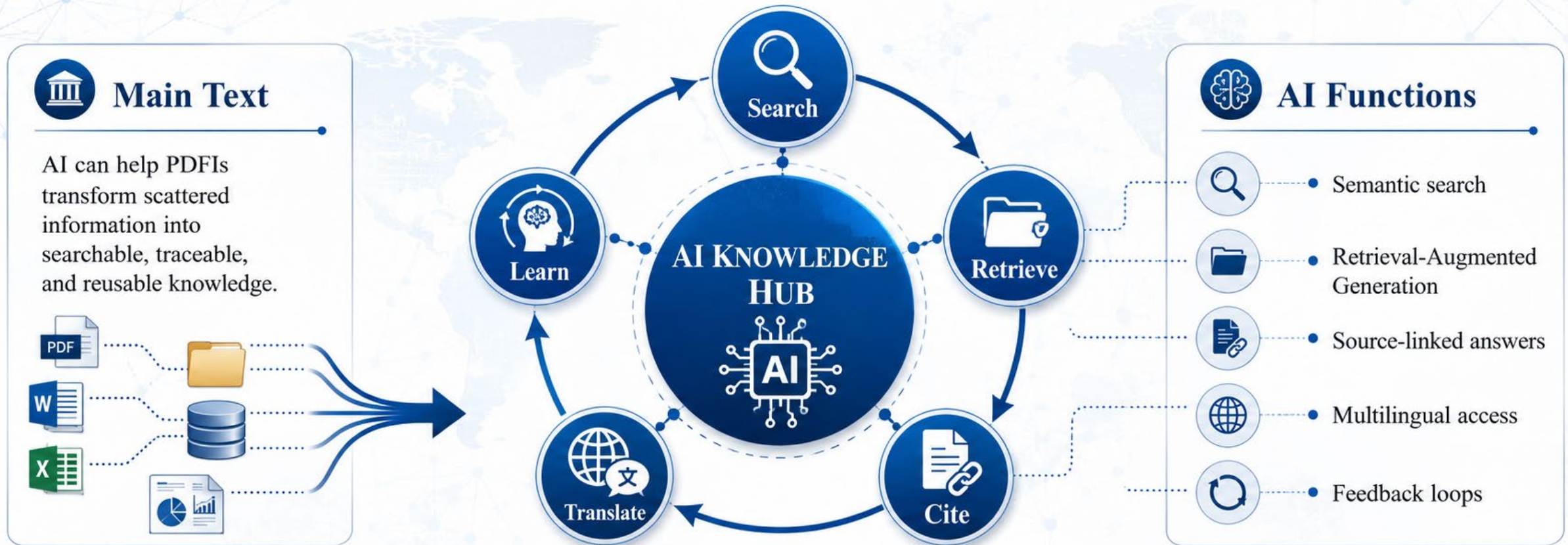


The challenge is not producing more knowledge, but making existing knowledge usable before decisions are made.

6.2 AI Pathways for Knowledge Management



From Documents to Institutional Memory



Key Message

AI reduces the cost of finding and verifying evidence, but professionals remain responsible for interpretation.



6.3 Case 1: Improving Internal Knowledge Management



BPF

Institutional Context

Ownership:	National
Official Mandate:	General Development

The Bottleneck

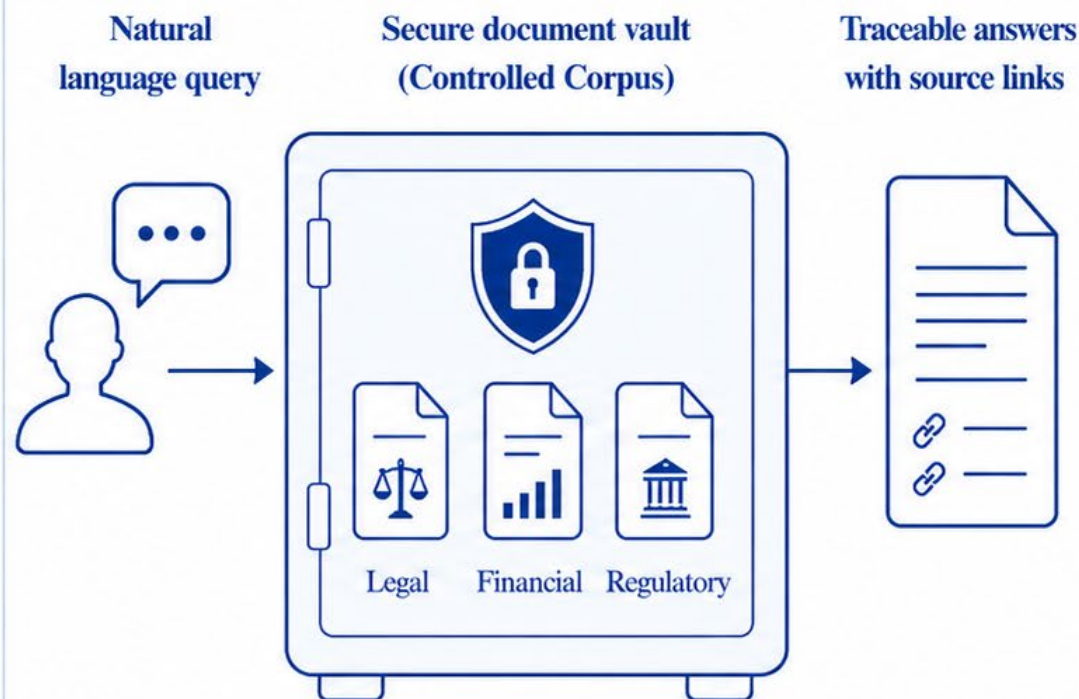


Fragmented information across 24 applications.



High search costs, version inconsistencies, and weakened institutional memory.

Controlled RAG System



Fomento.AI Platform



Semantic search with generative AI.



Controlled environment for privacy and security.



Phased rollout starting with power users.

Governance



Assistant does not replace staff judgment.



Employees must verify answers against original documents.

Internal AI tools preserve institutional memory and reduce dependence on individual experience.

6.4 Case 2: World bank: Verified Knowledge for Decision Making



Institutional Context

Ownership:	Multinational
Official Mandate:	General Development

The Bottleneck

- Development research is abundant but hard to find in time.
- Policymakers face information overload and language barriers.



Research Reports



AVA Assistant



Policymakers



Project Teams



Learning Tools

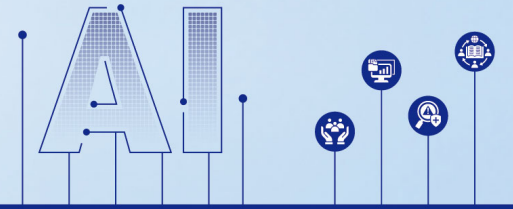
AVA Assistant Features

- Domain-bounded RAG architecture.
- 4,000+ curated materials in 60+ languages.
- Citation verifiability & reasoned abstention.

Initial Result & Governance

- Saves users 2.4 to 3.9 hours per week.
- Does not replace policy judgment; professionals remain responsible.

AVA does not replace policy judgment; it makes evidence easier to find, verify, and use.

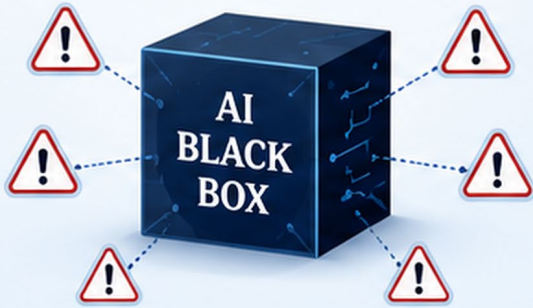


07 / Conclusion

7.1 Responsible Governance Is the Central Condition



AI Can Also Create
Public Risks If Poorly
Governed



Algorithmic bias



Opaque decisions



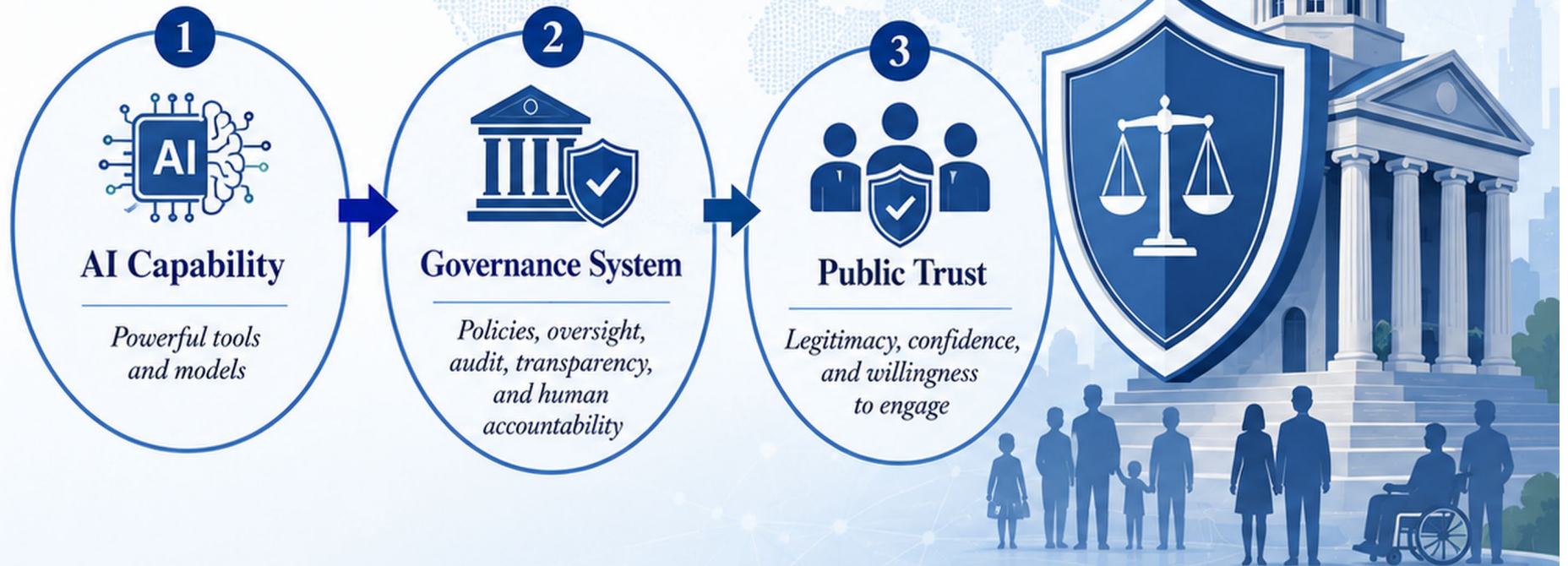
Data and privacy risks



Vendor dependence



Exclusion of
vulnerable groups



For PDFIs, responsible AI is not an add-on. It is part of institutional accountability.

7.2 From AI Pilots to AI-Enabled Institutional Capability



PDFIs need to move beyond isolated pilots and build institution-wide capability.



FINAL MESSAGE

The future question is not how fast PDFIs adopt AI, but whether AI strengthens inclusion, accountability, and public trust.

Welcome Your Feedback!

Email: jiajunxu@pku.edu.cn



北京大学
PEKING UNIVERSITY

