



EMERGING GLOBAL TRENDS IN AI GOVERNANCE

World Bank

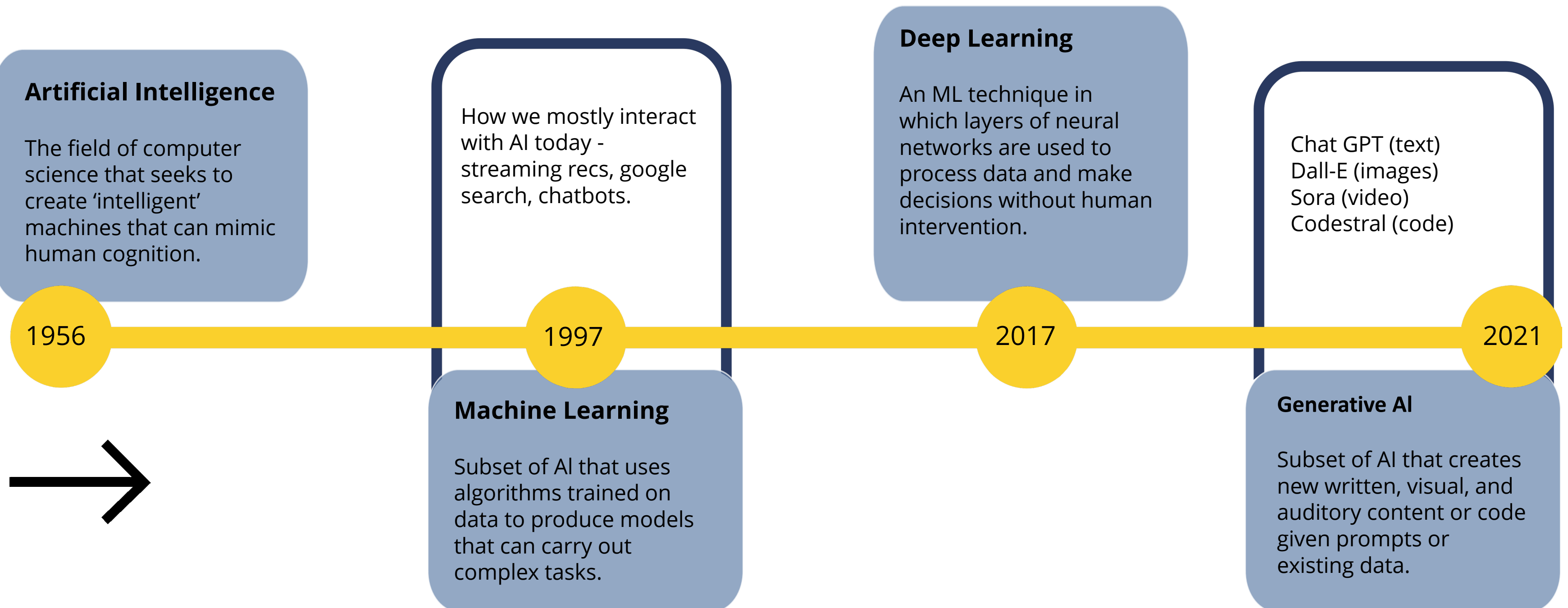
**Digital
Transformation
Vice Presidency**

2025



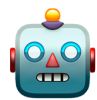
WORLD BANK GROUP
Digital Development

AI TODAY: NEW CAPABILITIES AFTER 60 YEARS OF INNOVATION



AI BRINGS PROMISE AND RISKS; MANY COUNTRIES REMAIN UNPREPARED FOR BOTH

AI's specific capabilities enable new use cases with profound implications for development, but are countries prepared to unlock the benefits and to address the risks.



Learns & adapts

AI improves with use and can augment or substitute human decision-making.



Data-hungry

Continuous performance gains depend on data quality and stewardship.



Generation

GenAI goes further by creating content (text, code, images) and enabling natural-language interaction.



Impacts routine *and* cognitive work

Increases productivity in both low-skill work and high-skill, non-routine, white-collar tasks.



Power-intensive

Bigger models demand much more compute and energy.



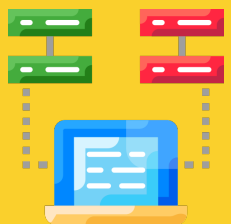
Reliability challenge

Hallucinations and bias require new guardrails and evaluation methods.

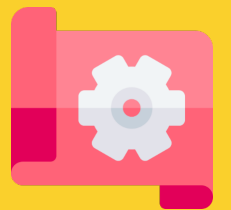
Emerging and developing economies face gaps that prevents the responsible development and adoption of AI solutions.



Digital and data infrastructure gaps, including access to cloud and compute capacity



Limited, siloed and fragmented data ecosystems that slow down development of relevant products/services



Lack of AI skills and local capacity to develop, deploy, and use AI products



Regulatory barriers relating to AI governance



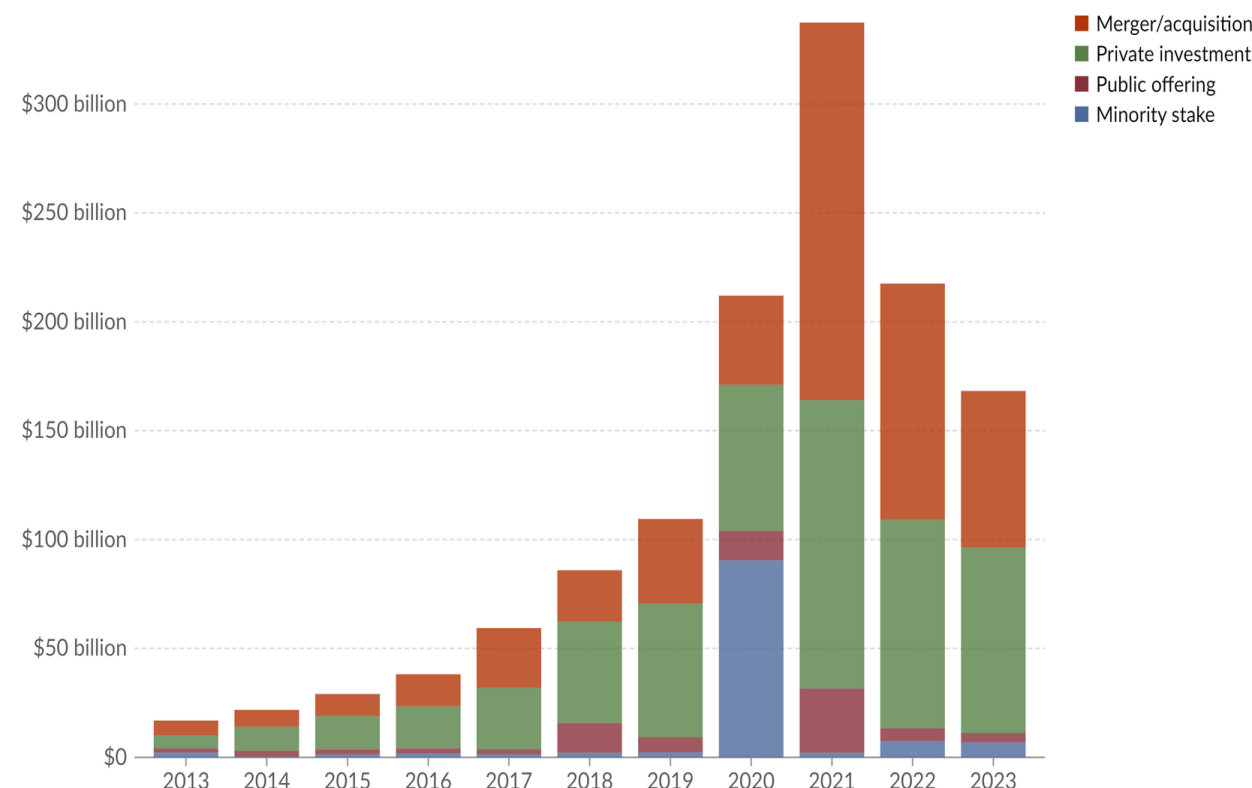
Varying public trust Including concerns related to AI harms (e.g. data privacy, algorithmic bias, environmental impacts)

AI Adoption: The Urgency

The AI Investment Gap

- North America dominates AI investment, representing 50% globally.
- Africa and Latin America together receive less than 1% of this investment.

Annual global corporate investment in artificial intelligence, by type
This data is expressed in US dollars, adjusted for inflation.



Data source: NetBase Quid via AI Index Report (2023)

OurWorldinData.org/artificial-intelligence | CC BY

Note: Data is expressed in constant 2021 US\$. Inflation adjustment is based on the US Consumer Price Index (CPI).

Risks of Inaction

- **Missed Economic Growth:** Falling behind in global productivity and innovation.
- **Widening Inequality:** Increased gaps between nations and socioeconomic groups.
- **Unregulated AI Risks:** Bias, privacy violations, and unethical use.
- **Cybersecurity Threats:** Vulnerabilities exploited by malicious actors.
- **Erosion of Trust:** Public resistance to unethical AI systems.
- **Stagnation in Services:** Missed opportunities in healthcare and education.
- **AI Monopoly Risks:** Dependence on a few dominant AI players.

Source: World Bank staff analysis & Liu (2024), "Generative AI: Catalyst for Growth or Harbinger of Premature De-Professionalization?"



WBG APPROACH TO AI

Helping countries unlock AI for development.

Foundations for Digitalization

Connectivity + Energy

Extend basic connectivity and grid to everyone.

Computing

Any CPU cloud could host apps; location mainly a cost issue.

Data

Post spreadsheets/APIs online; focus on open access, limited quality focus.

Digital Skills

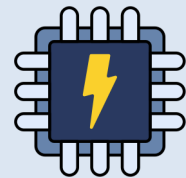
Teach basic ICT skills; run coding bootcamps.

Digital Services

Digitize forms, send SMS alerts, apps, mobile money; scale took years.

WBG AI Strategy Pillars

The pillars address key barriers to AI development and deployment in developing economies through lending and policy.



Connectivity

Reliable high-quality broadband and sustainable energy.

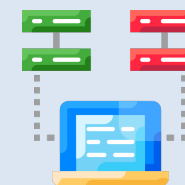
Need **better quality connections** supported by 24/7 **green power** and more capable devices.



Computing

Affordable and accessible high-performance computing and devices.

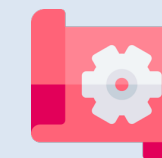
Need **scarce, specialized compute** available locally to develop GenAI solutions and capabilities. **Edge capable devices** for 'small AI'.



Context

Quality data and models with robust governance.

Local **bias-checked, provenance-tagged, curated and well-governed** datasets. Specialized data for sector applications is key.



Competency

AI-skilled workforce and AI technical talent.


Workforce must grasp AI **risk, safety, prompting (GenAI)**, with AI specialists building solutions; continuous refresh of capabilities for all.



Cases

High-impact AI use cases and applications for local needs.

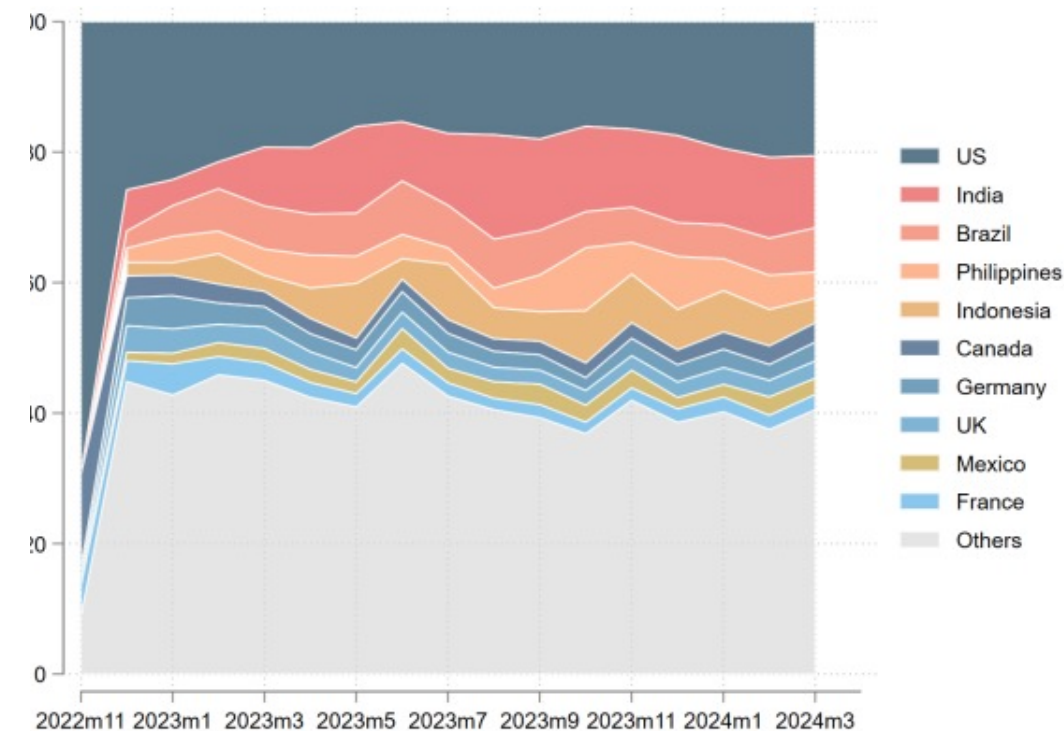
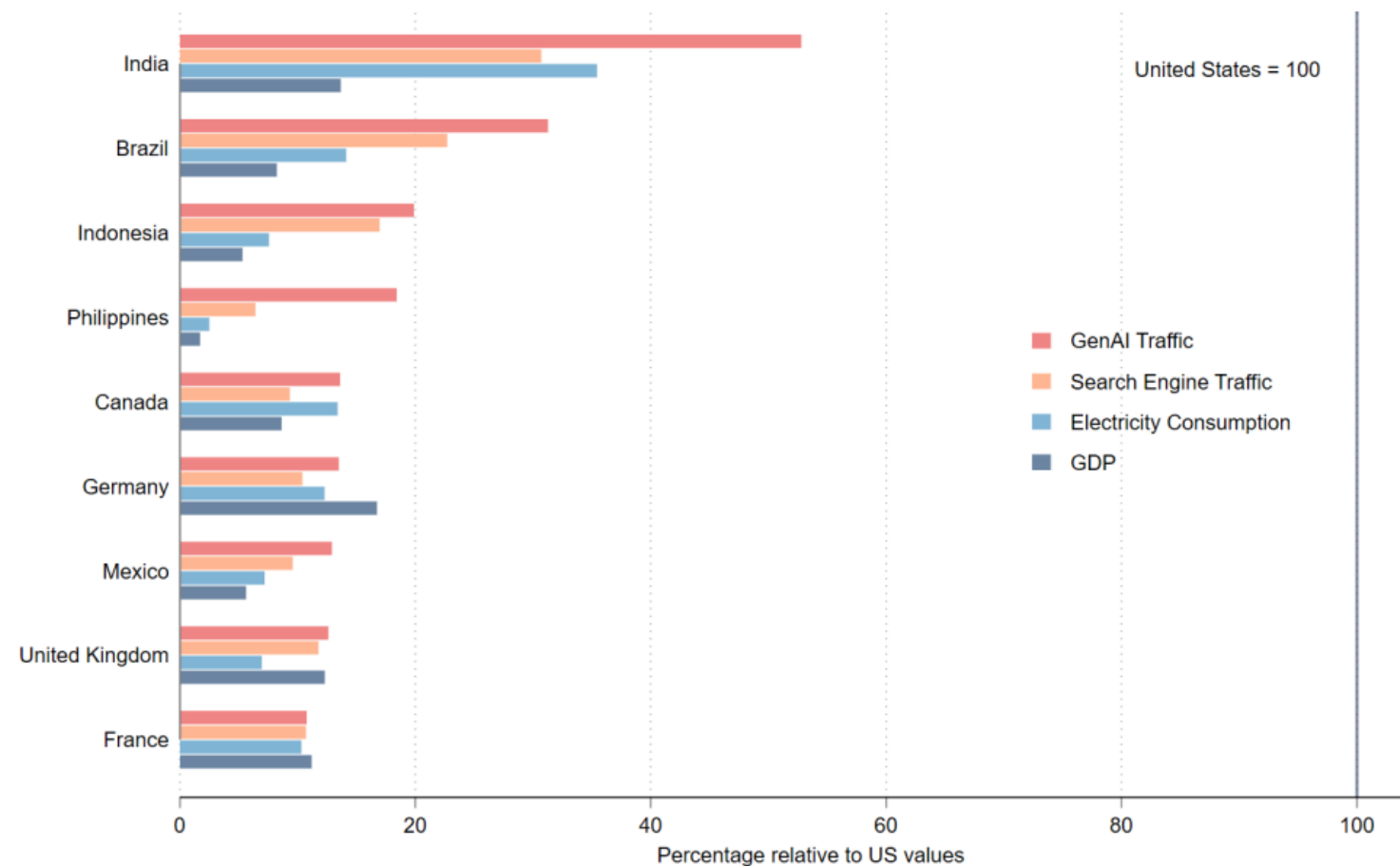
Foundation models **enable rapid development of local** and 'small AI' reaches rural areas, audits and sandboxes needed for safety.



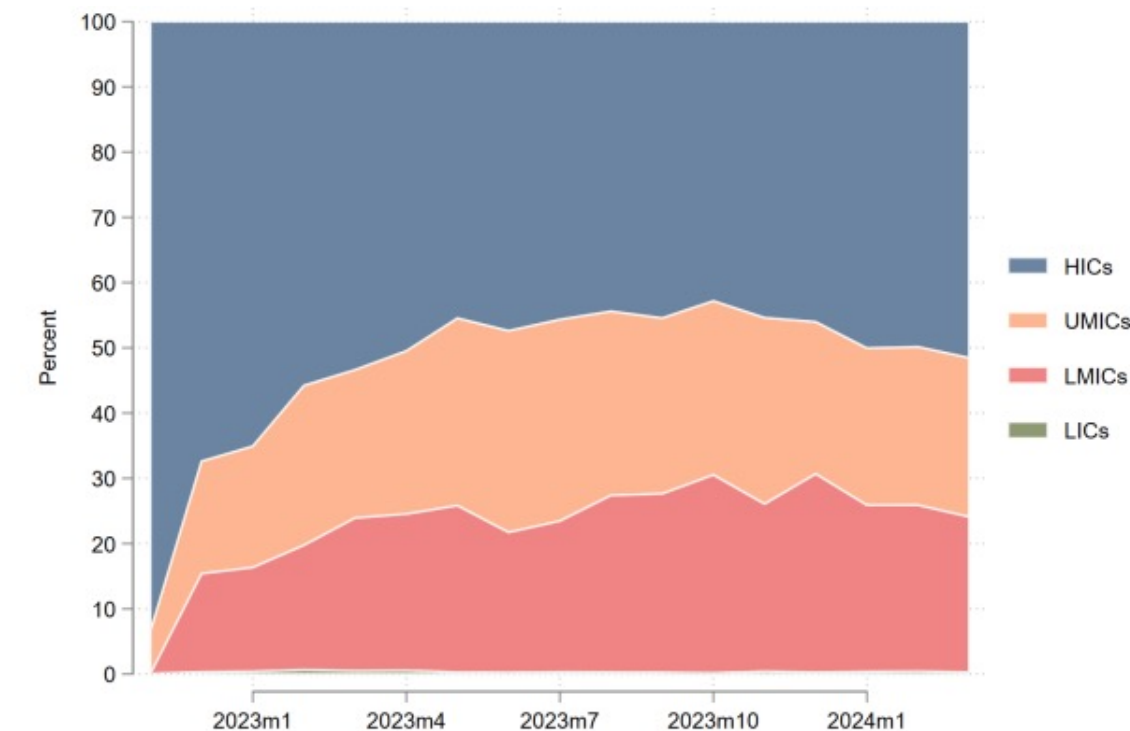
GLOBAL MOMENTUM — WHO'S DOING WHAT

GLOBAL MOMENTUM- GEN-AI USE AROUND THE WORLD

High in Middle-Income, Low in Low-Income Countries



(a) By leading economies



(b) By income level

Change from >90% to 50%

High-income countries

Share of ChatGPT traffic dropped to 50% within six months.

50%

Middle-Income Countries

Now account for half of all ChatGPT traffic

<1%

Low-Income Countries

Generate less than 1% of global GenAI traffic

After the US, India, Brazil, the Philippines, and Indonesia are the top economies using ChatGPT.

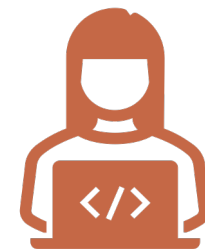
FACTORS INFLUENCING GEN AI ADOPTION

Country level factors that predict higher GenAI usage after controlling for GDP per capita, share of internet users and population:



High-quality digital infrastructure

- Higher fixed broadband penetration
- Faster internet speeds



Digital sector specialization

- Specialization in digitally-deliverable services
- Trade openness
- Share of white-collar jobs



English proficiency and skills

- English speaking country
- Literacy rate
- Share of population with intermediate digital skills

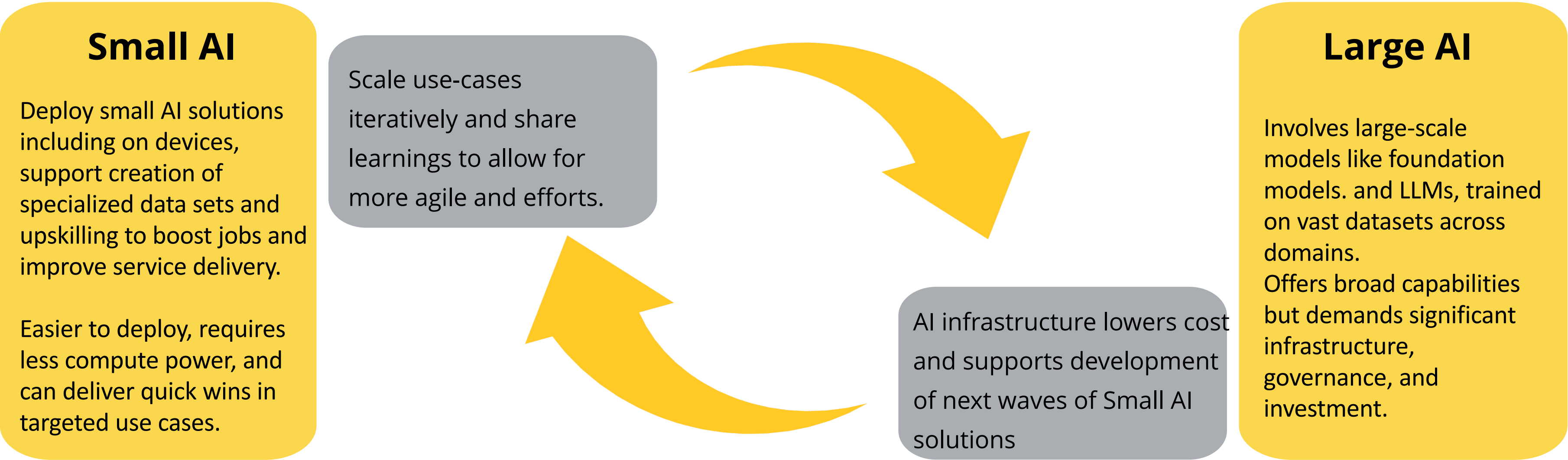


Demographics

- Share of population between 18-34

TWO REINFORCING PATHWAYS

Two parallel and complementary approaches to enabling AI



AI Country Readiness		
Emphasis on 'Small AI'		Emphasis on 'Big AI'
Nascent (IMF AIPI < 0.40 ; GARI > 100)	Emerging (0.40 – 0.549 ; GARI 41-100)	Advanced (≥ 0.55 or GARI Top-40)
Zambia Bangladesh Algeria	Thailand Brazil Kenya	Malaysia Poland Chile

Sources: IMF AI Preparedness Index (AIPI) – 174 countries;. IMF ; Oxford Insights Government AI Readiness Index (GARI) – annual rank of 193 governments

AI ADOPTER OR AI DEVELOPER



1. AI Research and Development (R&D) Capacity



2. Talent and Education



3. Infrastructure and Technology



4. AI Industry and Ecosystem



5. Government Policy and Strategy



6. Data Availability and Governance



7. Adoption and Application of AI



8. International Collaboration and Influence



9. Ethical and Responsible AI Practices



10. Economic Impact of AI



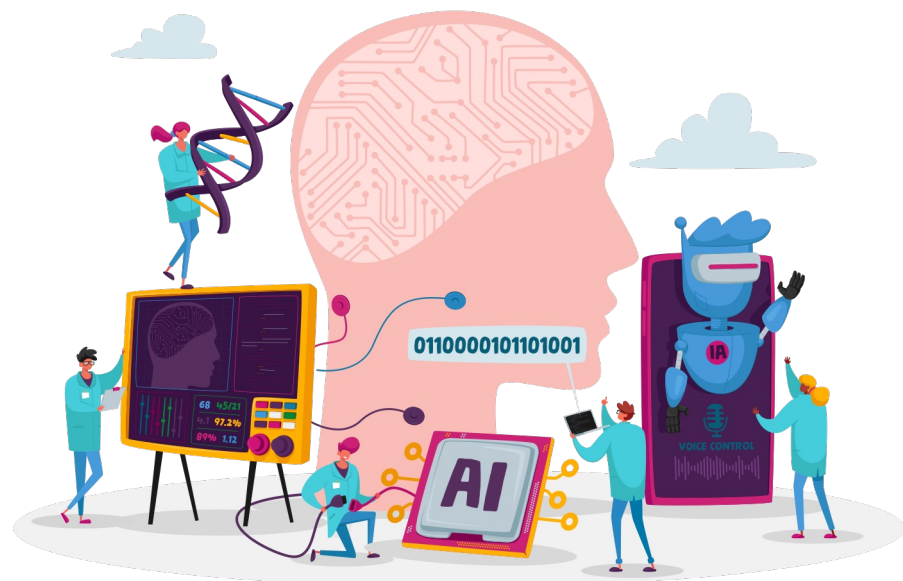


STRATEGIC RESPONSES BY COUNTRIES

THE VISIONS AND MISSIONS BEHIND NATIONAL AI STRATEGIES

The top 4 most cited AI visions and missions in national AI strategies are:

- Ethical and Responsible AI Development
- National Competitiveness
- Research and Application
- Skills, Training, and Talent



SECTORAL PRIORITIES IDENTIFIED IN AI STRATEGIES

An analysis of the sectoral focus and use case trends across 30 National AI strategies

- Top Priority Sectors

Healthcare

Agriculture

Education

Government/Public Admin

Manufacturing

Transportation

Healthcare, Agriculture, and Education emerge as top priorities, reflecting shared global challenges around public health, food security, and human capital development.

Manufacturing and Transportation are key focuses for economic competitiveness, with countries seeking AI-driven productivity gains and infrastructure optimization.

Predictive analytics and automation dominate use cases, suggesting countries are prioritizing proven AI applications over experimental technologies.

Cross-sector applications like **fraud detection and personalization** appear across multiple domains, indicating shared technological approaches across different industries

- Common Use Cases

Predictive Analytics

Process Automation

Diagnostic Systems

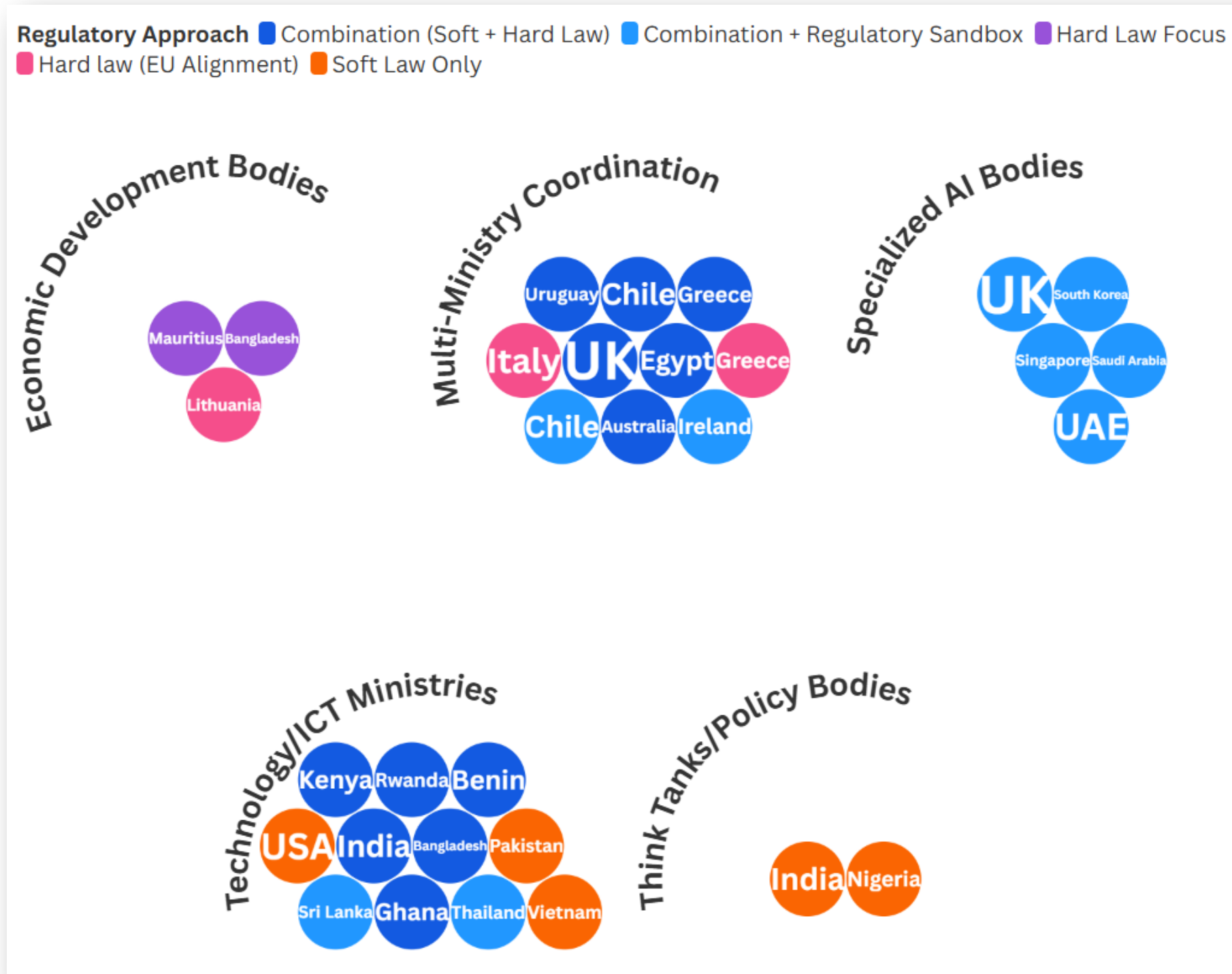
Personalization

Fraud Detection

Traffic/Route Optimization

EMERGING INSTITUTIONAL TRENDS

How Institutional Setups Reflect Countries' AI Priorities



- ICT ministries are still the go-to institutions for AI in many countries, especially in lower- and middle-income settings.
- Countries in Africa and Asia are leaning toward integration within existing digital or ICT institutions, while countries in Europe and North America move toward specialization and coordination.
- HICs are more likely to have dedicated AI offices or multi-agency frameworks.
- Multi-Ministry Coordination reflects a whole-of-government approach increasingly common in countries with more complex governance structures or advanced digital ecosystems.
- The rise of Specialised AI Bodies indicates a trend toward formalization and institutionalization of AI governance, often tied to long-term strategic national priorities.
- Think tanks play a supplementary or transitional role, possibly reflecting either early-stage coordination or a policy-led (vs implementation-led) focus.
- The use of economic development bodies reflects a market-driven or competitiveness-based framing of AI



GOVERNING AI — FROM PRINCIPLES TO PRACTICE

SPECIFIC CHALLENGES IN GOVERNING AI



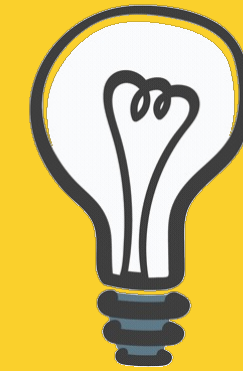
1 Keeping pace with technological advancements

The rapid pace of AI development means that laws and policies may become outdated quickly, creating governance gaps.



2 Cross-jurisdictional coordination

Without a coordinated global approach, disparate national policies can lead to regulatory arbitrage, inconsistencies, and potential loopholes, resulting in gaps in AI governance.



3 Balancing innovation and risk mitigation

Governance approaches must promote AI innovation while mitigating potential risks. Overly burdensome regulations can hinder startups, while insufficient governance leaves individuals and society vulnerable to serious harms.



AI GOVERNANCE TOOLS: OVERVIEW

1

Industry Self-Governance

Private ethical codes and councils set up by large technology firms or affiliated organizations.



Can be integrated into business models and company cultures.



Non-binding and inappropriate for high-risk use cases.

E.g.: **Microsoft's** Aether Committee; **Google's** AI Principles; **Partnership on AI**.

2

Soft Law

Non-binding frameworks promulgated by international bodies, national policymakers, and technical standardization organizations.



Provides adaptable frameworks that promote responsible innovation and sets important precedents.



Focus on high-level principles rather than binding rights and responsibilities.

E.g.: **OECD** AI Principles; **G7** AI Principles; **Chile's** AI policy, **IEEE P70xx** series of standards.

3

Regulatory sandboxes

Controlled, time-bound environments to develop and test new regulatory approaches to AI.



Controlled environments allow for real-world experimentation with AI technologies, without exposing the public to unchecked risks.



Resource intensive and have limited scalability.

E.g.: **Columbia**, the **EU**.

4

Hard Law

Countries can create new horizontal AI laws, update and apply existing laws (such as data protection), or adopt technology-specific / sectoral approaches to regulation.



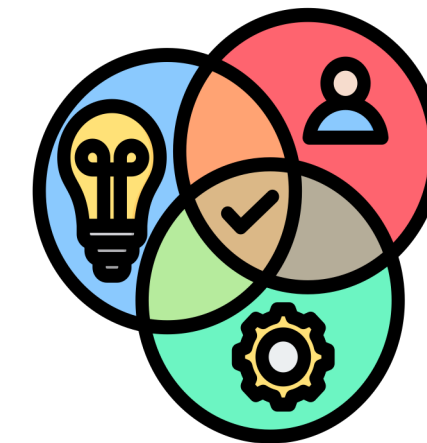
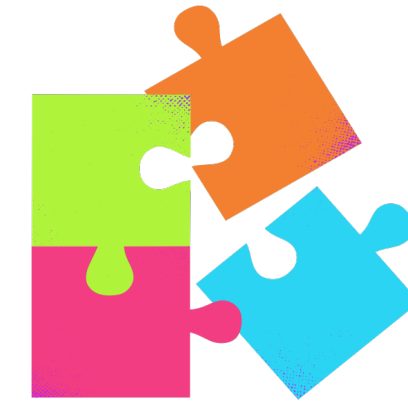
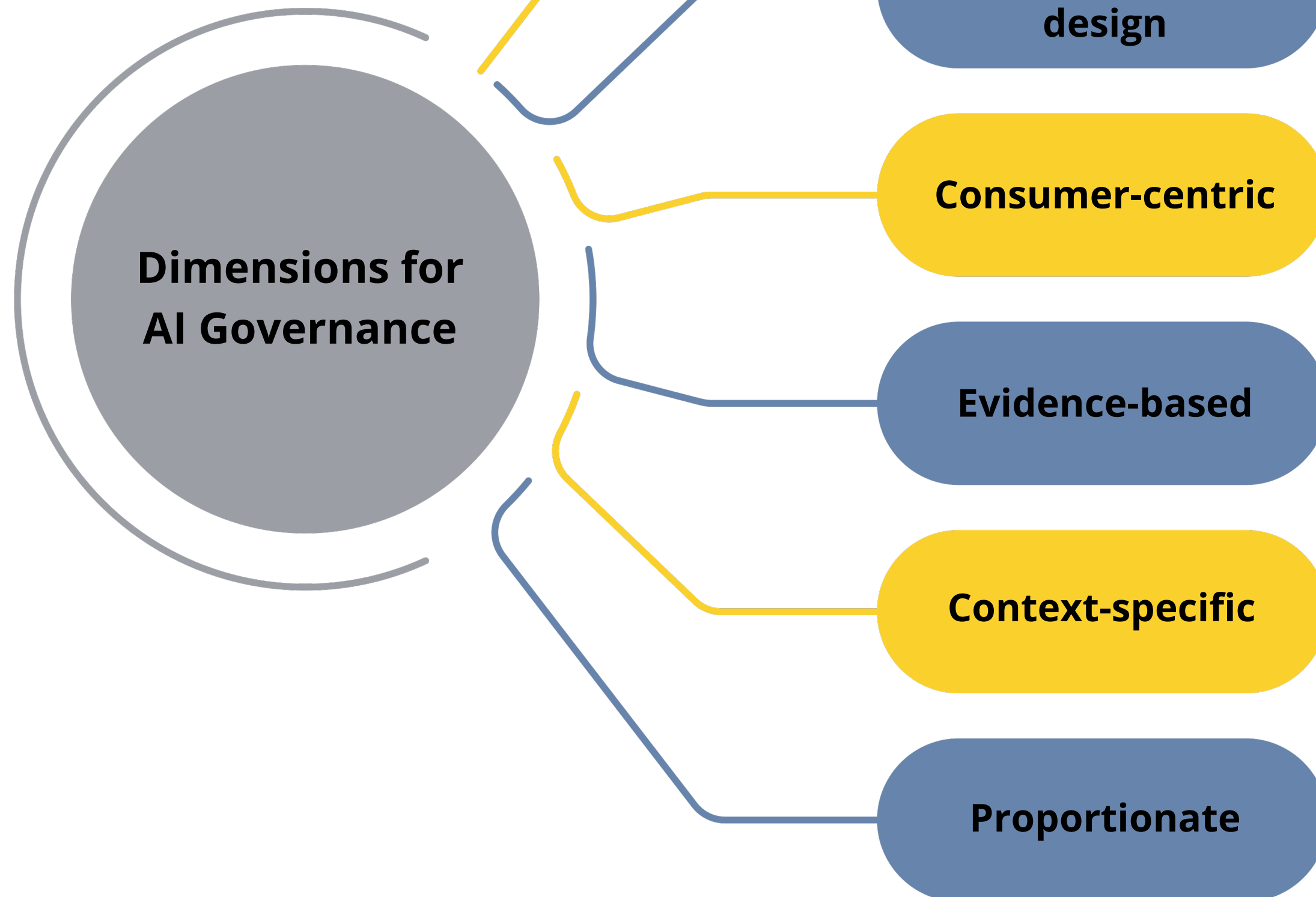
Results in binding legal frameworks with clear, enforceable guidelines.



This is a resource-intensive approach, requiring significant regulatory capacity and thoughtful drafting to future-proof.

E.g.: **EU** AI Act; Brazil's Bill 2.338/2023.

KEY DIMENSIONS FOR DESIGN



HOW COUNTRIES ARE STRATEGIZING AI OPERATIONALIZATION

Approaches to AI Regulation in National Strategies



Mapping Regulatory Approaches to their Implementing Institutions

- Technology and ICT ministries tend to adopt soft or hybrid regulatory approaches, prioritizing flexibility and rapid policy iteration in dynamic digital environments (e.g., USA, India, Kenya, Vietnam).
- Specialized AI bodies are leading in regulatory experimentation, using sandboxes and hybrid setups to pilot responsible AI governance before broader rollout (e.g., Singapore, Saudi Arabia, UAE, UK).
- Multi-ministry coordination models support hybrid regulation and international alignment, embedding AI across policy domains while aligning with global standards like the EU AI Act (e.g., UK, Greece, Chile, Italy).
- Economic and EU-aligned bodies favor binding laws, anchoring AI within frameworks that support competitiveness, trade, and legal certainty (e.g., Mauritius, Lithuania, Bangladesh)



ENABLING AI FOR DEVELOPMENT

THE AI ACADEMY

Empowering Policymakers for Responsible AI Development

What It Is

The AI Academy is a comprehensive educational initiative providing a structured learning environment designed specifically for policymakers (department directors and deputy directors) engaged in AI-related efforts.



Sector Specific Focus

The Academy addresses sector-specific infrastructure, policy, and data considerations with real-time engagement and feedback gathering. Training is tailored for specific sectors including agriculture, education, and other key development areas.

Interactive Learning

The curriculum will deliver knowledge through **practical scenarios, policy simulations, and hands-on exercises** with continuous feedback mechanisms, ensuring participants can effectively apply AI tools in their **specific governmental contexts**.



Comprehensive Curriculum

The Academy covers **AI trends analysis, readiness assessments, and governance frameworks**. The program integrates sector-specific case studies and real-world applications, providing policymakers with both foundational knowledge and practical tools for effective AI leadership in their respective domains.



OUR CURRENT FOOTPRINT

1

Global Knowledge
and Engagement

2

In-Country Impact

3

Convening &
Communications

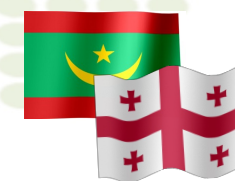
- **AI Strategy:** Frameworks for national AI priorities.
- **AI Governance:** Policies for ethical, transparent, and accountable AI.
- **Use Cases:** Pilot impactful AI applications in key sectors like health, education, and agriculture.



AI USE CASES



AI & ICT
POLICY



AI POLICY

SUMMIT
OF THE FUTURE
ACTION DAYS





QUESTIONS