

Trusted intelligence

Governing AI inside official statistics

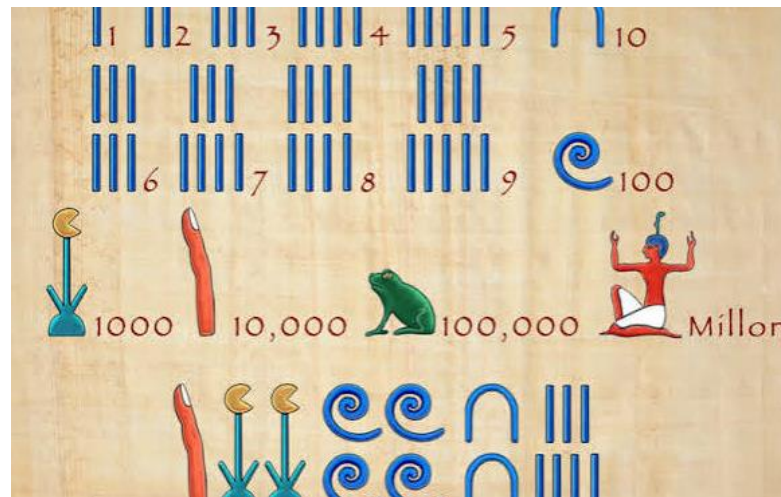
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Data-tech leader & AI Strategist, UAE Government

Ambassador, Women in AI UAE

Session: AI for official statistics /
opportunities and practical applications

Labor Statistics Journey

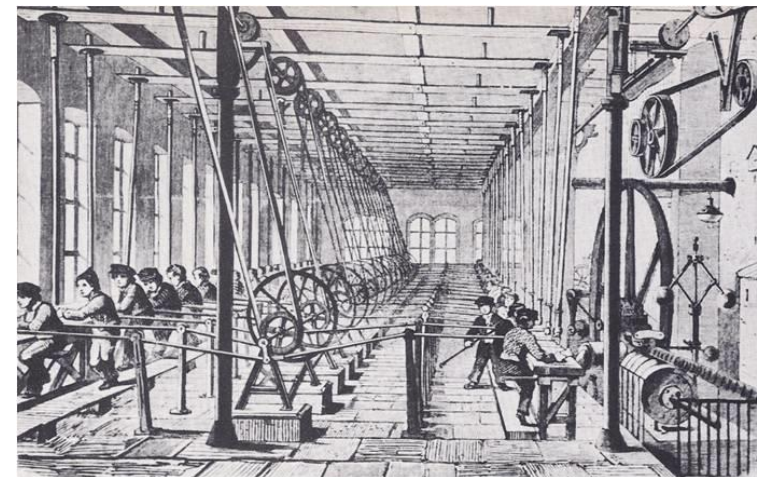


01

EGYPT • C. 2500 BC

Statistics 1.0 : The Ancient Baseline

Scribes counted the workforce that built the pyramids and the count arrived long after the work was done.



02

1800-1900

Statistics 2.0: The First Industrial Revolution

The era of the survey. Industrial labor grew too complex to count everyone, or to need to and methods were introduced.



03

1950 - 2022

Statistics 3.0: The E-gov and Digital government

Integration of data sources and digital data registries, and the production cycle fell from years to weeks.



04

TODAY

Statistics 4.0: The AI Era

The era of orchestration. Agents assemble and answer continuously without any delay.

Five challenges

OFFICIAL STATISTICS IN THE AI ERA

01 AI-ready visibility



Agents and LLMs are replacing the web interface. Data that is not AI-readable loses visibility, attribution and authority.

02 Accuracy and trust



Our currency is trust. Models produce plausible, wrong figures and a chatbot's error becomes our credibility problem.

03 Confidentiality



We hold sensitive microdata. Feeding it to models or third-party clouds risks leaking personal and business data.

04 Governance



At scale the obstacle is governance, not the model: unbiased, explainable, fair and compliant with the EU AI Act.

05 Method and skills



Design the use case; legacy IT, with staff still learning to validate AI methods.

Evolving Publication Models for Official Statistics

01 Publications

Yearbooks, releases and documents.

02 Open data

A shift toward centralized portals, APIs, and raw machine-readable files. .

03 SDMX

Statistical Data and Metadata Exchange
A shared standard so structure and metadata.
Version 1.0 in 2004, ISO 17369 in 2013, version 3.0 in 2019.

04 MCP + skills

The most advanced paradigm enables AI assistants to query primary data sources directly using the Model Context Protocol. By leveraging skills and markdown files .md

Users

Policy maker

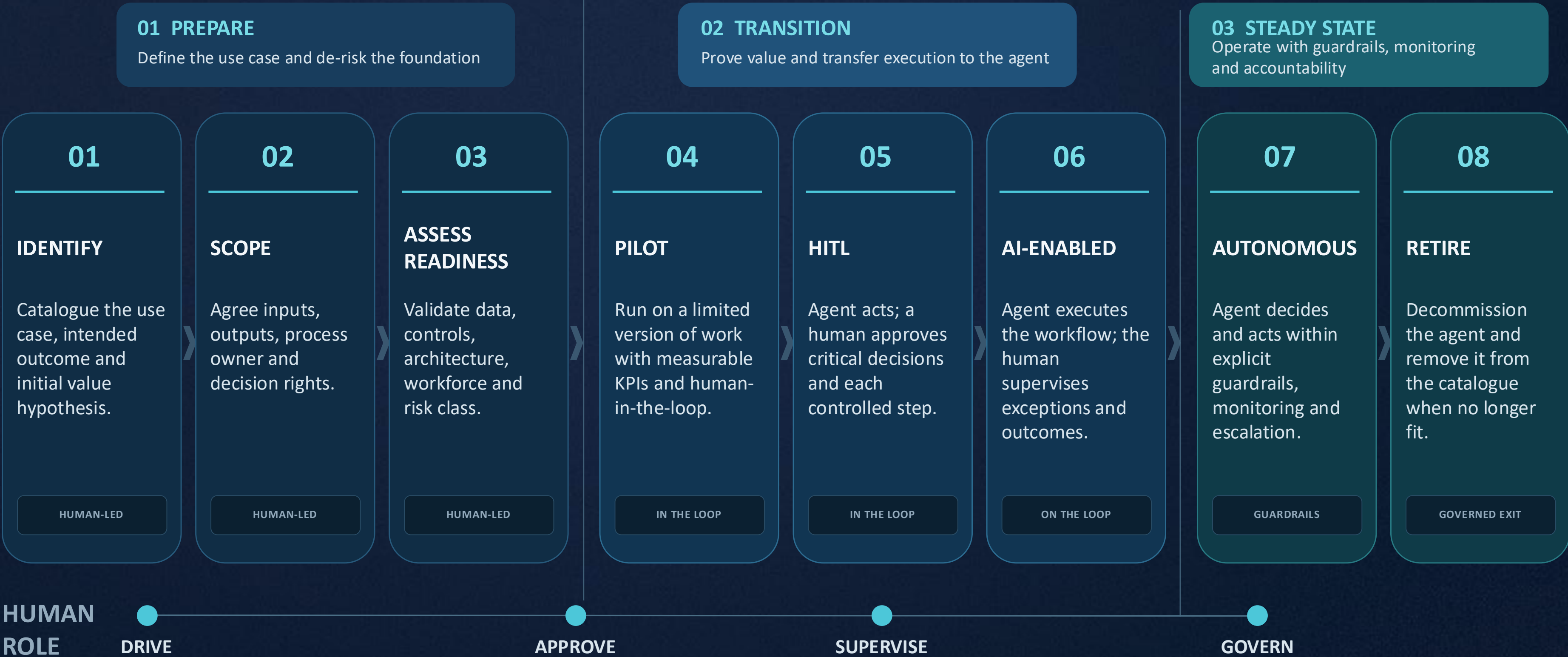
Researcher

Journalist

Investor

Citizen

Agentic Use-Case Lifecycle



Autonomy increases →

The UAE agentic transformation

Example 1 - UAE Government

A framework to move 50% of government sector operations to agentic AI within two years.

From Digital Services to Autonomous Government

TRADITIONAL GOVERNMENT

Citizen Pulls Service

- Citizen initiates each request
- Multiple forms across portals
- Multiple departments, sequential
- Manual approvals & follow-up
- Reactive, episodic service

AGENTIC GOVERNMENT

Government Acts for You

- AI anticipates citizen needs
- AI orchestrates cross-agency workflows
- AI executes routine actions end-to-end
- Human oversight where required
- Proactive, continuous service

Five Strategic Pillars Driving Agentic Government

Example 1 - UAE Government

01



Autonomous Government Services

Visa renewals, Emirates ID updates, licensing – orchestrated end-to-end by AI agents.

02



Regulatory Intelligence

AI-driven regulatory ecosystem for monitoring, drafting and compliance.

03



Government Workforce Upskilling

Federal employees re-skilled into AI-augmented operating roles.

04



AI Infrastructure Expansion

Sovereign compute scaling national capacity.

05



Data Sharing & Zero Bureaucracy

One-government data fabric eliminating duplicate citizen submissions.

AI and Government Services in Practice

Example 2 - Abu Dhabi statistics

Bayaan 4.0

THE OBJECTIVE

- Open official statistics to increase personalization and speed
- Offering simulations and ready made analysis

WHAT THE AI DOES

Natural-language querying of official statistics, what-if scenario simulation for policy testing, and district-level geospatial analysis.

THE OUTCOME

Statistics used in the decision, not published alongside it.

40+ entities · launched GITEX, October 2025

Example 3 - Department of Digital Enablement Abu Dhabi

AutoGov

THE OBJECTIVE

- Lift the burden of initiating a service off the citizen
- Move government from responding to anticipating

WHAT THE AI DOES

Agentic AI that completes recurring government processes proactively .

THE OUTCOME

A government that acts before it is asked.

**Part of TAMM: 3.8m users · 1,150+ services
(platform-wide)**

Macro – Agent : macroeconomic understanding of countries

Example 4 – UAE Government

THE OFFICIAL SIDE

- Macro indicators are what we trust to understand a market
- Many published indicators cannot be consumed programmatically

THE SIGNAL SIDE

- Emerging sources and extracted signals layered on the official base
- Fills the gap between publication dates
- Labelled, dated and traced as a signal, never as a statistic



**Data Agents
(Parallel Execution)**

 **Macro Agent**

 **Political Agent**

 **FDI Agent**

✓ Validator Agent



Completeness Check
Verifies all required fields



Cross-Source Validation
Compares overlapping data



Variance Detection
Flags discrepancies >15%

📄 Synthesis Agent



Executive Summary
Key highlights & rating



Detailed Analysis
Comprehensive coverage



Citations
Attributed sources

THE OUTPUT

≈ **2 min**

from question to a cited country brief summary, analysis, sources.

- Before: days of analyst assembly per brief
- Every figure labelled official, derived or signal never blended
- The analyst's time moves from assembly to judgement: what matters, what is missing, what signal are important ?

Trusted Intelligence Ecosystem: non-negotiables for trustworthy AI-enabled official statistics



01

Provenance by design

Every insight is traceable to its source, lineage, method and version. If it cannot be traced, it cannot be trusted.



02

Human oversight is permanent

Human review is built into high-impact decisions, validation and exception handling never treated as a temporary phase.



03

Privacy by default

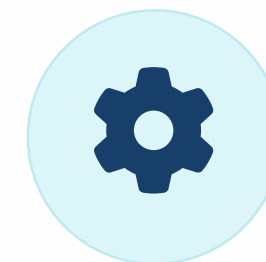
Outputs are aggregate-first, with minimum cohort thresholds and privacy-preserving controls embedded from the start.



04

End-to-end auditability

Every action is recorded: data used, model and version, context, reviewer and the full decision trail.



05

One quality gate for all inputs

AI-generated and inferred data must meet the same validation, governance and quality standards as official sources.

Trusted Intelligence Ecosystem

REFERENCE MODEL

GOVERNANCE

 **Policies**
AI, data and model use

 **Governance framework**
Policy & oversight

 **Bias & hallucination**
Quality checklist

 **Data classification**
Datasets tiered

 **Approval workflows**
Role-based access

 **Audit & monitoring**
Full traceability

LAYER 1 Digital channels

 **Statistical products**

 **Analytical products**

 **Agentic products**

LAYER 2 Agent platform

Orchestration
 **Routing & guardrails**
 **State, memory & checks**

Productivity
 **Assistants & copilots**
 **Reusable skills**

Enterprise agents
 **Domain & entity agents**
 **Research & profiling**

LAYER 3 AI infra

 **Cloud AI platform**

 **Compute & GPU capacity**

 **Model catalogue & deploy**

 **Retrieval & vector store**

 **Evaluation & monitoring**

 **Sandbox & experimentation**

LAYER 4 Data foundation

 **Core data platform**

 **Pipelines & integration**

 **Registries & admin records**

 **Data partners & agreements**

 **Survey & official statistics**

 **Alternative & emerging data**

ENABLEMENT

 **Open sessions**
Regular, all staff

 **Innovation labs**
Protected build time

 **Champions network**
Embedded in each team

 **Executive upskilling**
Leadership programme

 **Tiered training**
Foundation to advanced

 **Recognition**
Spotlights & awards

Way forward

THREE PROPOSALS

Shared evaluation standards

Establish common standards for evaluating AI agents used in statistical production, so every Statistics Office tests against the **same trusted criteria** rather than independently recreating the same controls.

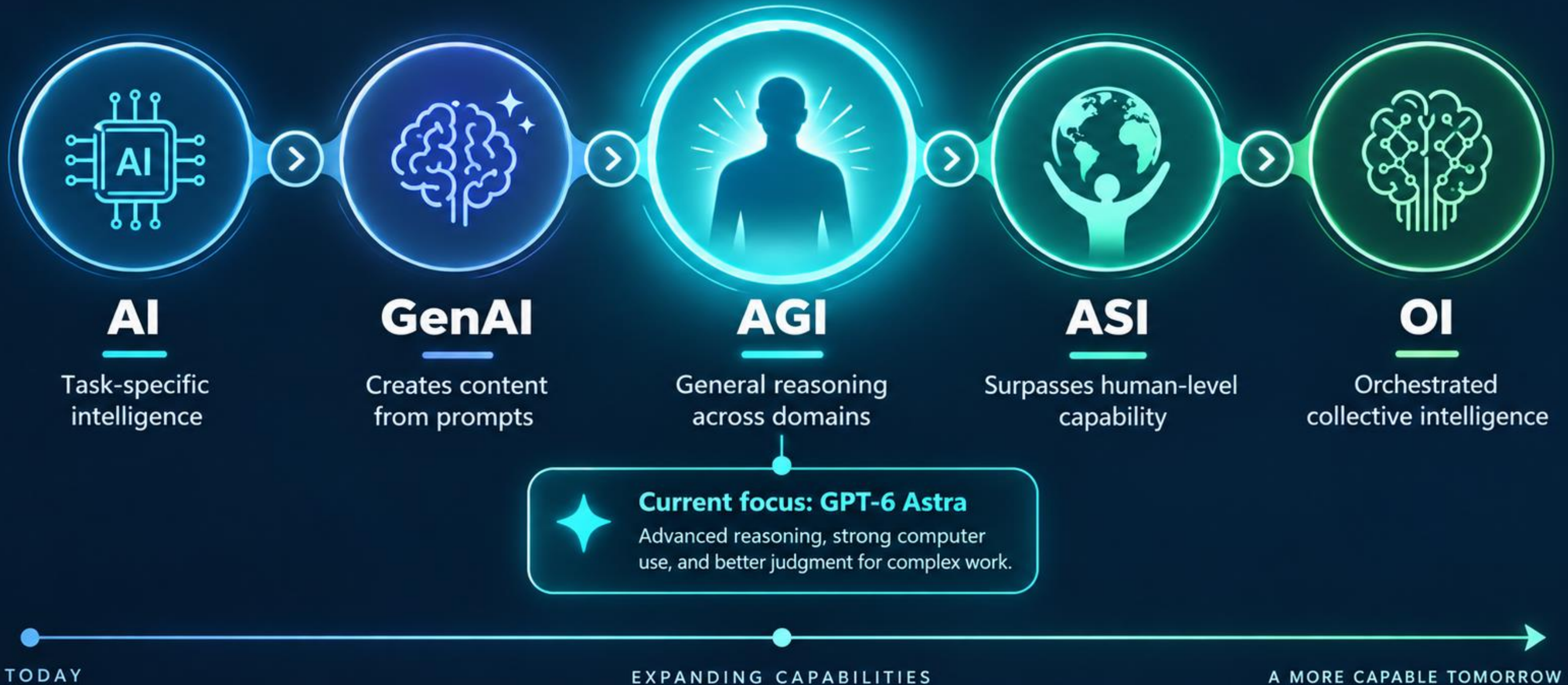
An agentic-readiness maturity model

Create a comparable maturity model that enables Statistics Offices to **assess readiness, benchmark progress, and identify the capabilities required** for safe and effective agentic adoption.

Capability funded as infrastructure

Treat AI capability as **core statistical infrastructure, not one-off training**. The people who govern, direct, and challenge these systems are as essential as the **data, registers, and platforms** they depend on.

“Welcome to the AGI era.”



An agent will never sign the number.
We will.

Thank you!

Stay Connected!



Latifa AlShehhi

Chief AI Officer | Top 30 Women in Tech MENA|
Ambassador Women in AI UAE |Keynote Speaker| F...

