GEOSA
الهيئة العامة للمساحة والمعلومات الجيومكانية
General Authority for Survey and Geospatial Information

From Vision to Reality: Shaping the GeoAI in the Kingdom of Saudi Arabia

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AI in Saudi Arabia: A Vision in Action

> We are living in a time of scientific innovation, unprecedented technology, and unlimited growth prospects. These new technologies such as Artificial Intelligence and the Internet of Things, if used optimally, can spare the world from many disadvantages and can bring to the world enormous benefits.

His Royal Highness
Prince Mohammed bin Salman bin Abdulaziz Al Saud
Crown Prince, Prime Minister of the Kingdom of Saudi Arabia

AI in Saudi Arabia: Saudi Million for Artificial Intelligence

Through the **“SAMAI – Saudi Million for Artificial Intelligence”** initiative:

Target: 1 million Saudi citizens.

Progress (as of 2024–2025):
Over 334,000 Saudis already trained.
779,000+ trained in data/AI-related fields, including:
9,775 specialists,
260 scientists and experts,
80 public-sector leaders.

AI Companies

In recent years, Saudi Arabia has taken significant strides in building a strong technology ecosystem by establishing leading tech companies that drive innovation, digital transformation, and artificial intelligence.

These initiatives are part of the broader Vision 2030 goals to diversify the economy and position the Kingdom as a global hub for technology and AI.

HUMAIN

SCAI

SITE

AI Conference and Summit

Exhibitors: Over 1,800 participating organizations, including more than 680 startup companies.

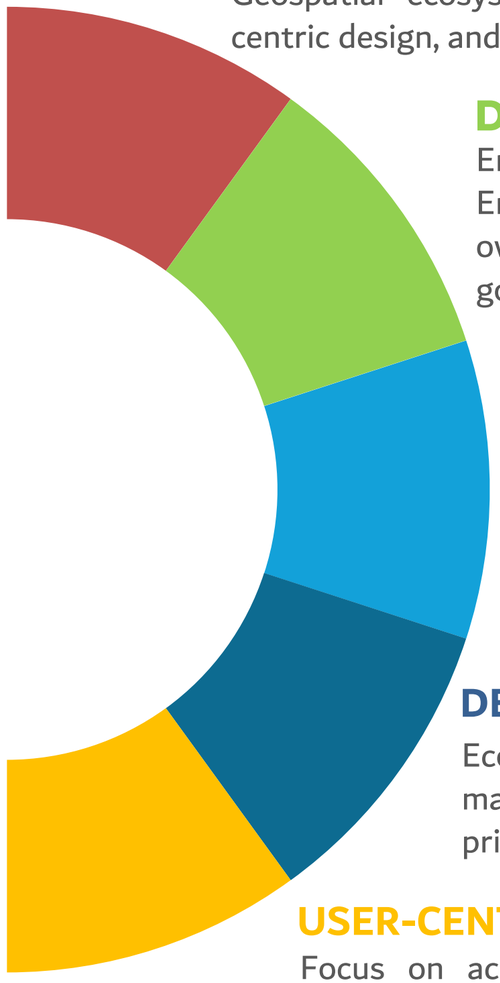
Visitors: reach More than 200,000 attendees from around the globe.

Investments and Partnerships: about $14.9 billion.

Geospatial Ecosystem

FROM SDIs TO GEOSPATIAL ECOSYSTEMS

Geospatial ecosystems emphasize dynamic data use, scenario-centric design, and integration with emerging technologies.



DATA SPACES

Enable secure, trusted, and sovereign data sharing. Encourage collaboration without loss of data ownership. Built on semantic interoperability, governance, and shared infrastructure.

AI & ADVANCED TECHNOLOGIES

AI, ML, IoT, and cloud computing now play central roles in real-time analysis, automation, and decision support. Data cubes allow performant, large-scale analysis and integration with national AI systems

DECENTRALIZED & COLLABORATIVE MODELS

Ecosystems are shifting from top-down government control to market-driven and community-inclusive models. Support for private sector innovation, citizen science, and open data initiatives.

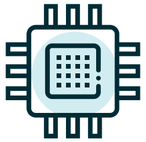
USER-CENTRIC DESIGN

Focus on accessibility, usability, and low-code/no-code platforms. Encourages data literacy and empowers broader user groups.

High-Level Initiatives – Saudi Arabia National Geospatial Ecosystem (SANGE)

ENABLE SANGE PRACTICES

To adopt the best ecosystem practices and working modalities required to sustain the interconnectedness between the different stakeholders of the Geospatial ecosystem network.



OPERATIONALIZE SANGE SHARED INFRASTRUCTURE

To establish and maintain a robust and scalable SANGE geospatial network of shared infrastructure.

ENABLE SANGE DATA MANAGEMENT

To develop comprehensive, structured, efficient SANGE data management practices with applicable policies, standards, and guidelines.

ENHANCE SANGE DATA ANALYTICS

To leverage the full potential of geospatial data and analytics within SANGE through data contextualization and ensuring analytics interoperability.

AUTOMATE SANGE FUNCTIONALITIES

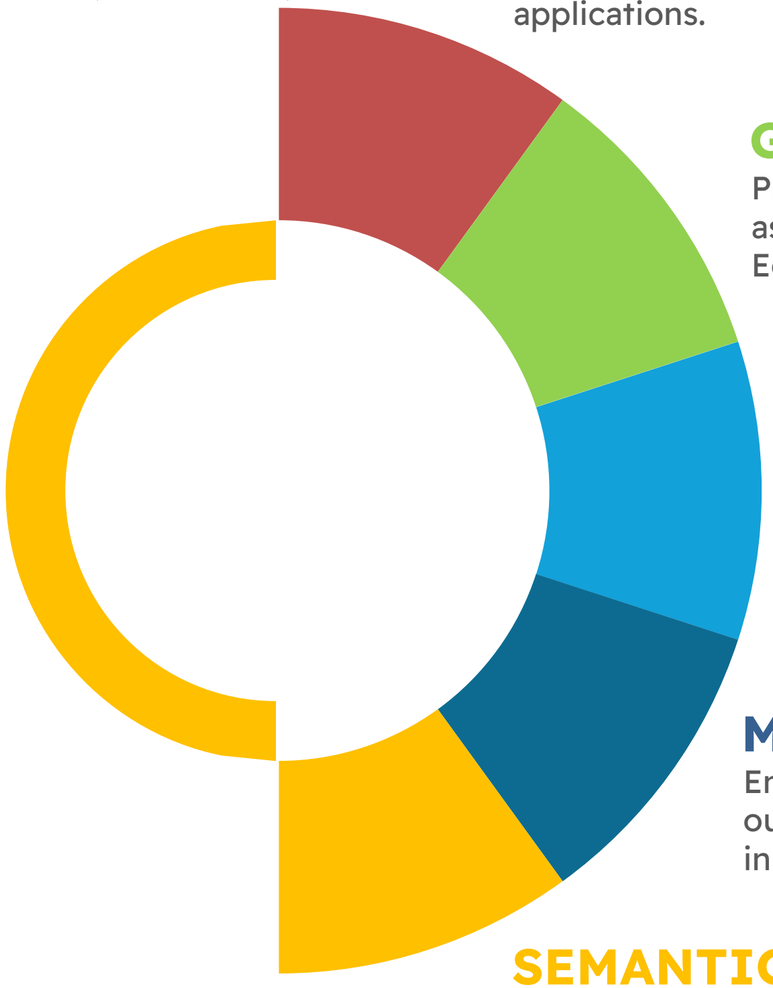
To automate standalone functionalities or processes to develop capacity across both robotic process automation and cognitive automation.

DELIVER AN INTEGRATED SANGE ARCHITECTURE

To ratify SANGE architecture that fosters interoperability, tying together its business, data, application, and technology components within the ecosystem.

Geospatial Artificial Intelligence (GeoAI)

Geo-AI encompasses projects that seek to exploit the network of integrated data as provisioned by the ecosystem for the generation of insights, taking the form of unplanned knowledge.



GEO-ANALYTICS

Enables value-addition to data and the generation of insights that would prove valuable in real-world applications.

GEO-VISUALIZATION

Provide enhaced visualization tools that serve as mode of interactions for the users with the Ecosystem.

GEO-AUTOMATION

Enterprise automation would increase overall efficiency throughout the ecosystem by limiting human intervention.

M2M COMMUNICATION

Enabling machines to communicate tasks and outputs between themselves is an essential stage in Robotic Process Automation.

SEMANTICS & ONTOLOGIES

Enables the creation of networked open data that will facilitate advanced AI paradigms such as Natural Language Processing.

Achievements

14th Globally

1st Regionally

Global Artificial Intelligence Index 2024

"By Tortoise Intelligence"

11th Globally

1st Regionally

Global AI Safety Index 2025

"By The international research center for AI ethics and governance in Beijing"

9th Globally

6th G20

1st Regionally

Geospatial Knowledge Infrastructure 2025

"By Geospatial World"