



The UAE Data Strategy:

Building Future-Ready Data Ecosystem

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Agenda

- Drivers of national data strategy in the UAE
- The role of UAE National Statistic Office in data strategy
- Framework of the data strategy
- Data Maturity Index (DMI)
- The reporting of data maturity index in the UAE
- Challenges and Recommendations

2002 > E-Government

E-government launch tonight

Dubai Government will go online tonight after the launch of the e-government portal by Crown Prince of Dubai and UAE Defence Minister General Sheikh Mohammed bin Rashid Al Maktoum.



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The portal launch will not only alter the way the public finalises transactions with the government but will further transform the way the 24 local government departments communicate with one another.

It also comes at a time where IT and the Internet have become the engine behind organisational re-invention.

2013 > m-Government



UAE mGovernment initiative

On 22nd May 2013, the Mobile Government initiative was launched in order to make the government services available to the people wherever they are 24/7.

Sheikh Mohammed's objective was to relocate customer service centres into every customer device on the belief that a successful government is the one which goes to clients wherever they are and doesn't wait for them to come to it.

Features of mGovernment

A robust mGovernment:

- O works non-stop
- O provides services 24 hours a day, 7 days a week and 365 days a year
- O provides fast track and reliable services
- O adapts to changes quickly
- O devises solutions to challenges
- facilitates people's lives
- O brings them happiness.

2015 > 100% Government Services on Mobile Devices



His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of UAE and Ruler of Dubai, has launched the "Best m-Government Service Award", an initiative to motivate government agencies to provide innovative solutions in the field of smart phone applications, mobile websites and SMS.

The Best m-Government Service has the following categories:

- 1- Best m-Government Service Award on the Federal Level.
- 2- Best m-Government Service Award on the Local Level.
- 3- Best m-Government Service Award on the Arab Level.
- 4- Best m-Government Service Award on the Global Level.
- 5- Best m-Government Service Award for Students from Universities in the UAE.

2017 > UAE Artificial Intelligence Strategy

Mohammed bin Rashid launches UAE Strategy for Artificial Intelligence - Updates

(§ Monday, October 16, 2017 11:12 PM * 2 minutes Reading





DUBAI, 16th October, 2017 (WAM) -- Vice President, Prime Minister and Ruler of Dubai, His Highness Sheikh Mohammed bin Rashid Al Maktoum, has announced the UAE Strategy for Artificial Intelligence, AI, a major initiative within the UAE Centennial 2071 objectives.

This is the first such strategy of its kind in the region and the entire world to promote government performance and create an innovative and highly-productive environment by means of investing in AI, and its applications across multiple domains. The strategy is premised to ensure best utilisation of all resources and invest in all available potential in creative manners that accelerate the execution of developmental projects.

Al require Data



FUTURE

4

The World's first Minister for Artificial Intelligence Was Just Appointed - In the UAE

The 27-year-old Minister was appointed shortly after Dubai created its own cryptocurrency. What next?

Staff Writer - Oct 21, 2017



technology

UAE Creates CEO of Artificial Intelligence in All Federal Entities

One minute

















TECH • ARTIFICIAL INTELLIGENCE

The UAE Is on a Mission to Become an AI Power

ARTIFICIAL INTELLIGENCE

Dubai to appoint AI officers across all government entities

By Divsha Bhat | April 30, 2024

- Drive to embrace new technology
- All government entities to take part
- Push for investment and skills

"Data" is the cornerstone of Artificial Intelligence and Decision-Making

Data is 'oil of the future,' Dubai government summit told



Government initiatives that require data



The UAE government announces the launch of the "Zero Government Bureaucracy" program, to simplify and reduce government procedures. Ministries and government entities were directed to immediately adopt the program, canceling at least 2,000 government procedures, reducing at least 50% of the time for procedures, and eliminating all unnecessary conditions and requirements within a year.















Statistics



490K Customer Reviews



4.9M 1,400+
Customer Tracked Services



456 Channels





%400 Increase in response rate



10%
Increase in customer satisfaction



Savings in Annual Operational Costs



UAE Government Performance Management system

The role of National Statistic Office in developing national data strategy

- Regulating data governance across the federal government
- Data Stewards
- Unifying and standardizing of data definition, classification across all government entities
- Build on current statistic and data exchange
- Capturing data and creating new statistical products
- Provide guidance to all government entities through Data Maturity Index
- Formation of Data Champion Teams in entities
- Enable growth of a data economy (i.e. digital economy)



Data Maturity Index and the Role of National Statistic Office in the UAE

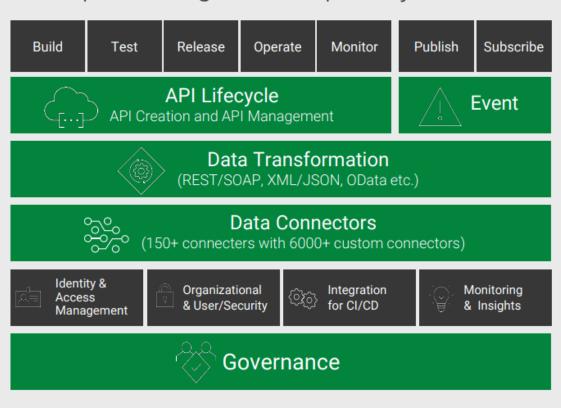
- Measures the maturity of data management practices in federal gov
- Key dimensions: Data Governance, Data Quality, Data Operations, Data Sharing, Data Security and Data Analytics.
- Centralized data collection and management - API
- Ensures data quality and integrity.
- Facilitates data-driven decision-making.



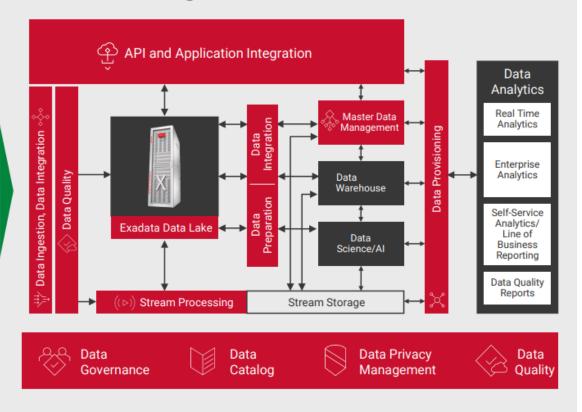
Enterprise Integration & Data Management Platform Capability Architecture

Enterprise integration is an integration framework, which centralizes and standardizes integration practices across fcsc enterprise infrastructure. Modern end to end data management architecture enables FCSC to control business data, using Informatica Data Management and Oracle Exadata.

Enterprise Integration Capability



Data Management Platform



Core Principles of the UAE Data Framework







DATA INTEROPERABILITY

DATA QUALITY

DATA GOVERNANCE

UAE Smart Data Framework





PRINCIPLES & STANDARDS

IMPLANTATION GUIDE

The Framework Emphasizes on ...







OPEN DATA PUBLICATION



PRIVACY



QUALITY

The Framework is divided into...







Smart Data Principles

Standards

Implementation Guide

Data Protection and Governance Policies

Data Protection Policies:

- Federal Decree Law No. 45 of 2021 regarding the Protection of Personal Data.
- Ensures confidentiality and security of personal data.
- Compliance with international standards.

Governance Policies:

- Law No. 26 of 2015 Regulating Data Dissemination and Exchange in Dubai.
- Supervision by the Dubai Data Establishment (DDE).
- Policies for classification, dissemination, exchange, and protection of data.

The Data Maturity Index Measurement



Pillar (1)

Data Regulatory and operational framework

1.1 Governance of the process

1.1.1 Governancee: Formation of data team

1.1.2 Metadata: Implementing data regulatory farmwork

1.2 Data Inventory

1.2.1 Define data inventory & cataloguing

1.2.2 Data classification



Pillar (2)

Data Quality
Standards

2.1 Ensuring Data Quality

2.1.1 Apply standardd of data quality

2.2 Open Data Quality

2.2.1 Apply d open data standards

2.2.2 Apply SDGs data standards



Pillar (3)

Data Availability and Exchange

3.1 Technical Environment

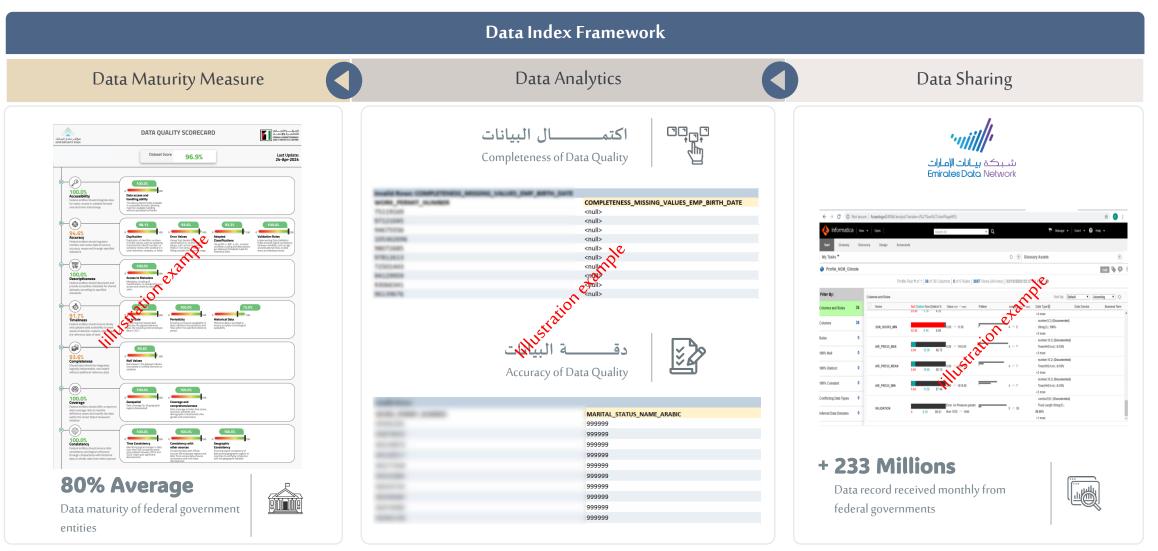
3.1.1 Data Environment Requirement

3.2 Data Sharing

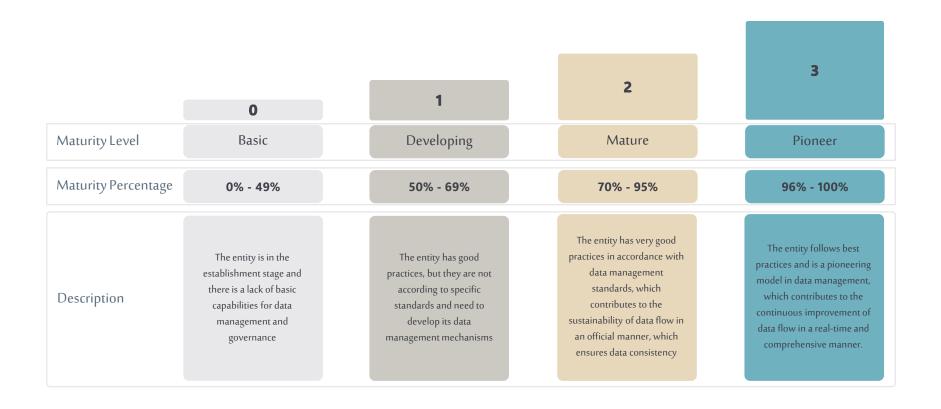
3.2.1 Activate the Emirates Data Network

3.2.2 Data sharing frequency

The Automation Process of Data Maturity Index



The Data Maturity Index Ranking Model





DATA QUALITY SCORECARD



Validation Rules

and educational level, at data

entry and database levels

Dataset Score

96.9%

Last Update: 24-Apr-2024

100.0% Accessibility

Federal entities should integrate data for easier access in suitable formats and electronic interchange

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Accuracy

Federal entities should regularly monitor and review data to ensure accuracy, measured through specified



100.0% Descriptiveness

Federal entities should document and provide accessible metadata for shared datasets according to specified



91.7% Timeliness

Federal entities should ensure timely and updated data availability to meet needs of decision-makers, aligned with the reference date of data

Up to date

Access to Metadata

Metadata, including all

access and review by dataset

classifications, is provided for easy

Data access and

handling ability

Duplication

without specialized software

98.1%

Duplication of identifier numbers or entity names, such as repeating characteristics like ID numbers or

company names with variations in

other elements, variables, or fields

Confirming that shared data matches the agreed reference

Error Values

Values that deviate from specifications or conflict with real

values, such as text in numeric

falling outside the expected range

fields or vice versa, or values

Periodicity

Ensuring continuous availability of data maintains the periodicity and flow within the specified reference

Historical Data

Adopted

Classifications

Using ISIC-4, ISIC-2, etc., ensures

Historical data is provided to



Null Values

Geospatial

Completeness Null values in the dataset indicate incomplete or unfilled elements or Shared data should be integrated, logically interpretable, and usable without additional reference data



100.0% Coverage

Federal entities should offer a report on data coverage ratio to monitor deficiency cases and classify the data within the Smart Data Framework initiative



100.0% Consistency

(®)

Federal entities should ensure data consistency and logical coherence through comparisons with historical data or similar data from other sources



Data coverage for all geographic regions (Geospatial)

Time Consistency Identifying logical changes in data over time, like comparing rental price indexes between 2022 and 2023, helps spot significant discrepancies

Consistency with other sources Comparing data with official sources like employee registry and labor force survey data ensures consistency and minimizes

Coverage and

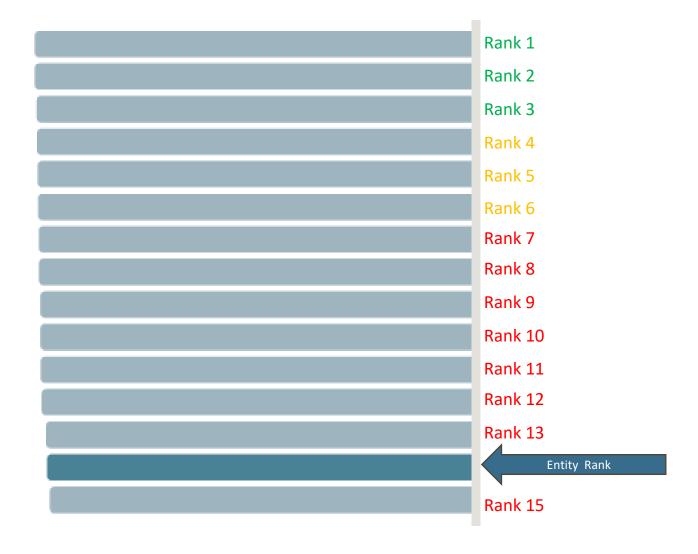
comprehensiveness

gender and social status

Data coverage includes free zones, economic activities, and demographic characteristics like

Geographic Consistency Ensuring logical consistency of data across geographic regions or countries by verifying coherence with the geographic variable

The Data Maturity Index Results



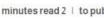
Mohammed bin Rashid adopts an assessment of the best and worst 5 government agencies in the Emirates... and a 90-day deadline for the worst to ""adjust the course

The Middle East

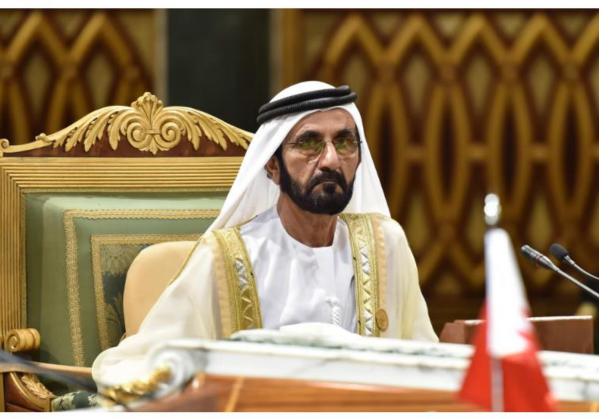








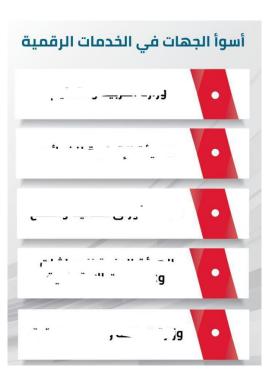




Dubai, United Arab Emirates (CNN) - Sheikh Mohammed bin Rashid, Vice President and Prime Minister of the Emirates and Ruler of Dubai, approved the results of the best and worst 5 federal government agencies in digital services, and gave the worst of them 90 days to "adjust their ".course

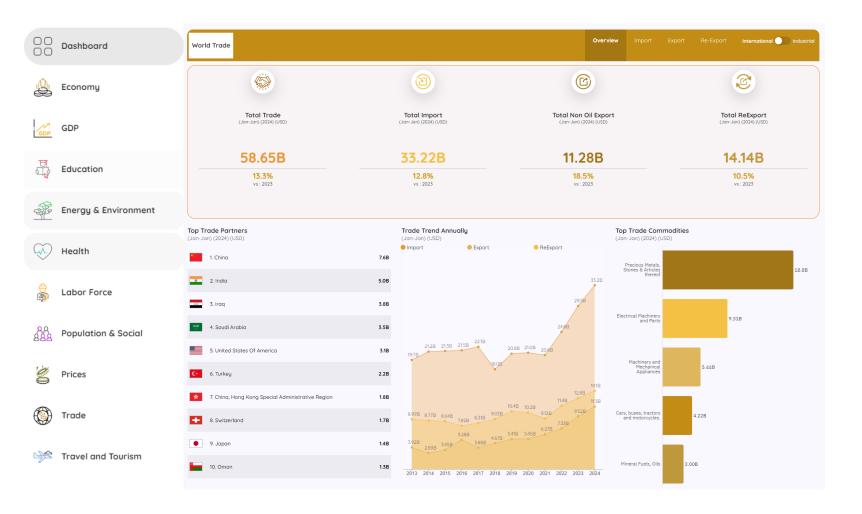
The Announcement





The UAE Pulse





The target is to increase the monthly data flow and reduce the yearly update

Row Labels 🏋	Count of Frequency	Count of Frequency2
Yearly	65	45%
Monthly	42	29%
Quarterly	17	12%
Weekly	11	8%
Daily	6	4%
BI-Yearly	3	2%
Grand Total	144	100%

Challenges

- Data Protection & Privacy
- Data Culture we own the data
- Fast growing digital revolution (i.e. digital economy "can't be captured")
- The new Data is owned by private sector

Recommendation

- Al-driven data analysis for predictive insights
- Embracing Large Languagege Models (LLM) & integration of GPT for enhance decision-making
- Fast growing digital economy "can't be captured"
- Centralization platform for Application Programming Interfaces (API) access
- Enhances collaboration between government entities and private sector











