SMART DUBAI

Inspiring New Realities

Dr. Okan Geray, Strategic Planning Advisor, Smart Dubai



4IR Technologies & Functions

Biological

- · Optogenetics
- · Next-generation genomics
- · Systems metabolic engineering
- · Bioinformatics



- Neurotechnologies
- Stem cells
- · Synthetic biology
- · Personalised medicine
- Nanoparticles

Digital

- · Digital twins
- · Augmented Reality
- Blockchain
- · Cloud technology
- Virtual Reality
- · Artificial Intelligence



- · Robotics
- · Internet of Things
- · Big data analytics
- · Industrial Internet of Things
- · 3D printing
- · Quantum computing

Physical

- Next-generation batteries
- · Advanced materials
- Nanomaterials
- · Autonomous vehicles



- · Nanodevices
- · Wearable technology
- · Micro/nano satellites
- Organ microchips





COMMUNICATING



PROCESSING



SENSING & ACTUATING



MODELING



DECISION MAKING



Source: PwC analysis using WEF 4IR categories.

80%

Global GHG Emissions

55%

Global Population

75%

Global Natural Resources consumed

2bn metric tons

Municipal Waste



Cities formulate their strategies in line with global and local agendas









Local **Visions & Strategies**

خطة دبي **2** 21 DUBAI PLAN





AFFORDABLE AND CLEAN ENERGY

13 CLIMATE ACTION



8 DECENT WORK AND ECONOMIC GROWTH

14 LIFE BELOW WATER



15 LIFE ON LAND







SUSTAINABLE DEVELOPMENT **GOALS**



















"To make Dubai the happiest city on Earth"

HIS HIGHNESS SHEIKH MOHAMMED BIN RASHID AL MAKTOUM

VICE-PRESIDENT AND PRIME MINISTER OF THE UAE, AND RULER OF DUBAI







Smart Dubai is leveraging the power of technology to transform city-wide experiences, inspiring new realities, and achieving a happier life for all



Smart Dubai's approach focuses on six city dimensions key to the city's digital transformation



GOVERNANCE

Innovative, transparent government services with public, private & civil engagement



ECONOMY

Innovative economic conditions fueling entrepreneurship & global competitiveness



LIVING

Exceptional quality of life, accessible education, culturally vibrant lifestyle



MOBILITY

Seamless, efficient transport of people & movement of ideas enabled by innovative infrastructure



ENVIRONMENT

Innovative resource, pollution & asset management for sustainability



PEOPLE

Culture of continual learning, innovating & participating in an inclusive society



Data

Governors



Citizen Experience

Transformers



Global Smart

City Leaders



Gov ICT







CITIZEN EXPERIENCE TRANSFORMERS



1BILLION PAPERS

REDUCED ANNUALLY

Smart Dubai will be the paperless, sustainable smart city of the future by 2021.







One app for all government services, paperless and connected by 2021

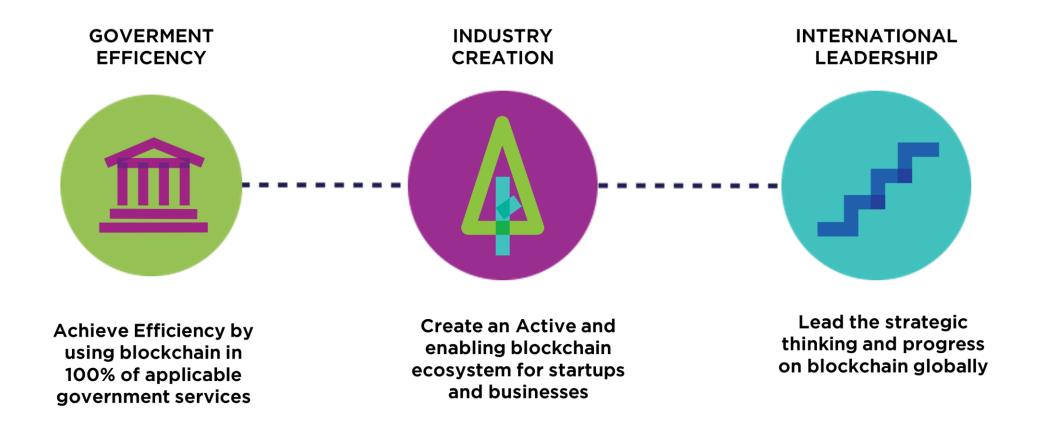
70+ Services

30+ Entities





Making Dubai the Global Capital of Blockchain





43 USE CASES IDENTIFIED

20 ENTITIES

IMPACTED BY AI











TRANSPORT



TOURISM

TRAVEL

EDUCATIO









LOGISTICS



GOVERNMENT



RETAIL



SECURITY



The city's virtual assistant kickstarting our Al strategy



Artificial Intelligence Ethics

Developing AI Ethics Principles & Guidelines to excel in the use and development of AI for human benefit and happiness



Dubai's AI Principles



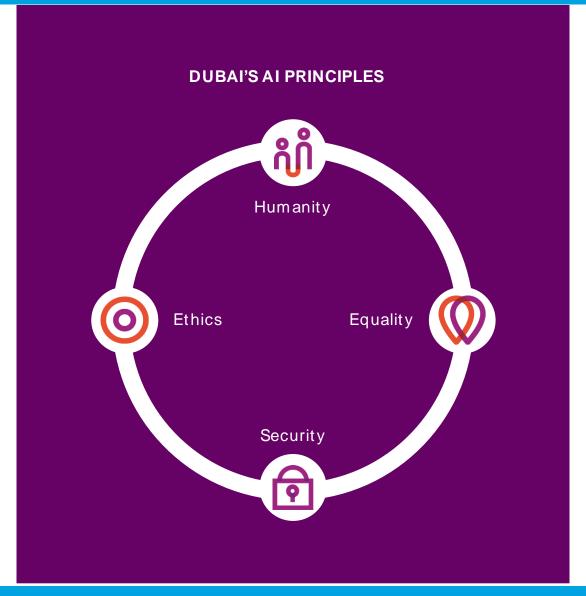
Ethical Al Guidelines



FATE Self-Assessment Checklist



Supplementary Documents







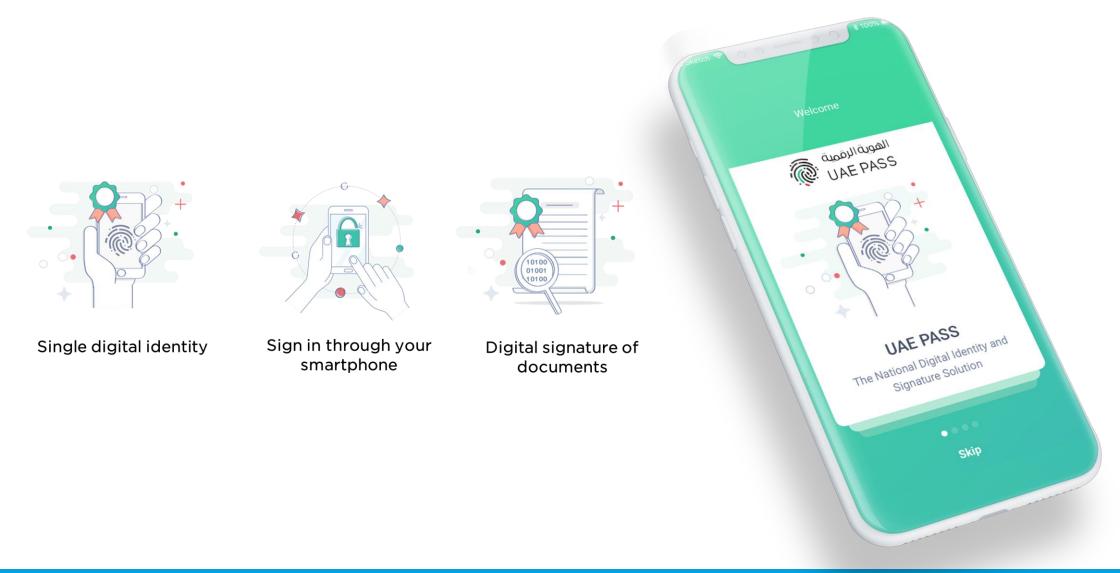
CITY DIGITIZATION ENABLERS





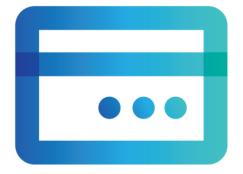


UAE PASS





Dubai Pay





38.22M
TRANSACTIONS SINCE 2015
TILL DATE

DubaiPay payment reconciliation is now on blockchain

In partnership with:



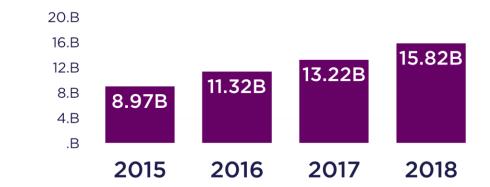




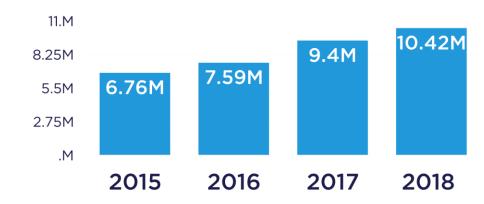




TOTAL PAYMENTS IN AED



TOTAL TRANSACTIONS







DATA GOVERNORS



The Dubai Data Law outlines 9 obligations for government departments



PREPARATION

- Identify obstacles for review by Concerned Body
- Develop a plan for sharing of data
- Classify/categorize the entity's data



DATA OPENING & SHARING

- Modify infrastructure to publish and share data
- Take all necessary actions to publish and share data
- Report on data publication and sharing as requested by Concerned Body



UPKEEP & COMPLIANCE

- Handle data from other providers in compliance with Concerned Body
- Adhere to policies and requirements
- Ensure quality and updating of entity's data



Compliance Dashboard

Compliance dashboard and report to enhance City Data Governance & Improve Compliance

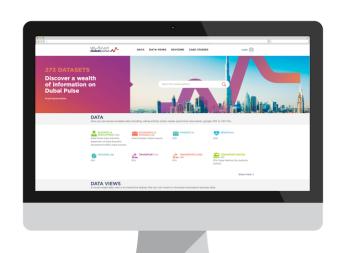






Dubai Pulse is the digital backbone of smart transformation

TODAY, 422 datasets have been INGESTED ON DUBAI PULSE





2000+
DATA SETS IDENTIFIED

35
PARTICIPATING ENTITIES

635K

TOTAL DATASETS

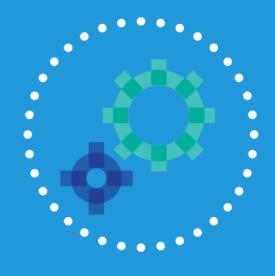
HITS SINCE

AUGUST 2017

DATASETS
DOWNLOADED
SINCE AUGUST 2017

SERVICES AVAILABLE INCLUDING: IaaS, PaaS, DTaaS, IOTaaS, DBaas, DSaaS, and DaaS





DATA INSIGHTS GENERATORS

4th ITU Annual Forum on "IoT, Big Data, Smart Cities and Societies" for Arab region Dubai, UAE, 28-29 August 2019



Economic Dashboard

Leadership dashboard providing relevant economic indicators and contextual data in one place

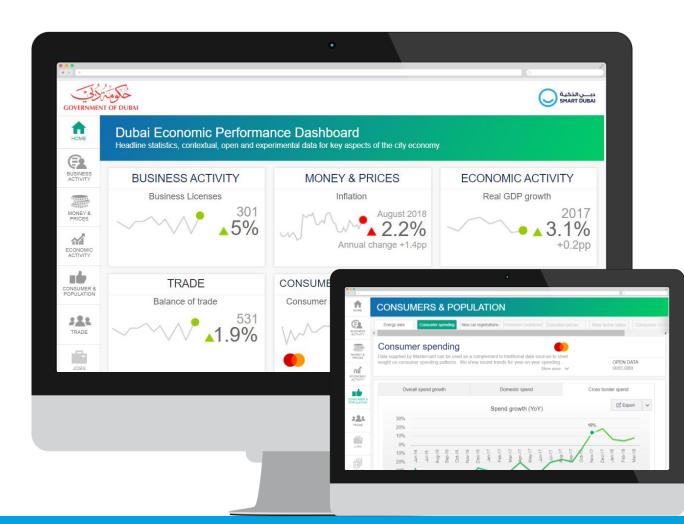
A focus for economic data and policy discussion

Merging data from established and new sources such as MasterCard, Bloomberg, PropertyFinder, and MAF

Descriptive and comparative fields such as city, region, global, etc

Predictive and prescriptive (AI) is near-at-hand

UX is ready to be rolled out







THANK YOU









