

# BUILDING A DATA ECONOMY

Recommendations to accelerate the  
digital transformation of the UAE

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AS IS THE CASE WITH ANY DISRUPTIVE CHANGE, CHALLENGES PERSIST IN THE FORM OF ACCESSIBILITY, SKILLS AND THE RIGHT TOOLS. BUT THESE CAN BE OVERCOME WITH THE APPROPRIATE GOVERNANCE AND GUIDELINES IN PLACE”

# FOREWORD

## CHARTING THE PATH

**A**s the UAE celebrates its 50<sup>th</sup> anniversary, it is a good opportunity to reflect on its many achievements over the past five decades.

From little more than an outpost of the global economy in 1971, the UAE is now a global hub for energy, trade and business. In 2021, the UAE ranks highly in terms of economic and political stability, cultural diversity and quality of life.

As the pace of digitalisation increases, the challenge for the UAE in the coming 50 years is to be a leading player in the data economy and in the global energy transition.

The two key factors in accomplishing this goal are ensuring universal access to data, and establishing a robust system of governance that supports the private sector, while at the same time ensuring privacy and security.

Attaining digital excellence has been the norm for the UAE even before the pandemic. The government's focus has always been on providing the best facilities for its population, an approach that continues to drive the nation's digital journey.

As is the case with any disruptive change, challenges persist in the form of accessibility, skills and the right tools. But these can be overcome with the appropriate governance and guidelines in place.

There is also an opportunity for the UAE to position itself as the 'data processing hub' of the world. With the best-in-class tools, skills and infrastructure in place, it could provide data storage and analysis services to international companies. Data diplomacy strategies could allow for cross-border sharing of data to benefit multiple economies.

The second UAE Technology Think Tank looked at the best way for the UAE to achieve its data economy ambitions and how the private sector could support this. This white paper summarises the findings from the discussion through 10 key recommendations, bringing forth insights from across the UAE's technology industry.

**Richard Thompson**

Editorial Director  
MEED



THE UAE'S FOCUS HAS ALWAYS BEEN ON PROVIDING THE BEST FACILITIES FOR ITS POPULATION, AN APPROACH THAT CONTINUES TO DRIVE THE NATION'S DIGITAL JOURNEY"

# INDUSTRY REPRESENTATIVES

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# KEY RECOMMENDATIONS

## GOVERNANCE

**Launch a national conversation on data governance policies involving public consultation and collaboration with industry players**

**Introduce a national data economy framework that defines the roles and responsibilities of players in the value chain**

## DATA PROTECTION

**Introduce legislation clarifying rules on data ownership and data protection**

**Establish policies to give consumers greater control over their data sharing choices**

## FUTURE GROWTH

**Ensure universal access to minimum data services by introducing measures to reduce the cost of last mile internet connectivity**

**Introduce national programme to reduce energy consumption and to decarbonise data centres**

## TALENT

**Increase investment in local talent pool by identifying missing skillsets, establishing centres of excellence and investing in training and research**

**Attract world class professionals through special visas, higher living standards for digital talent etc.**

## STANDARDS

**Develop GCC-wide alignment on data standards and data protection to enable greater opportunities for cross-border data flow**

**Introduce national standards for the classification, organisation and use of data to regulate quality, privacy and security**

# A NATION WITH A VISION

## DESPITE ITS INFRASTRUCTURE INVESTMENTS, THE UAE STILL HAS MUCH TO DO TO ACHIEVE ITS DATA ECONOMY AMBITIONS

**T**ransformative change was already underway in the UAE's digital journey even before the Covid-19 pandemic.

From the launch of data centres by the likes of Microsoft, AWS and Oracle and commercial scale rollout of 5G networks, to trialling flying taxis and blockchain-enabled public services.

MEED's Digital Transformation Index, which seeks to build a picture of how well-placed economies are to enable digital change in terms of physical infrastructure, human capital and government policy regulation, positions the UAE at the top of the chart among peers in the Middle East and North Africa. This is attributed to excellent physical infrastructure and cybersecurity, digital regulation and the ease of doing business.

The UAE's investment in digital capabilities paid dividends amid the Covid-19 outbreak, when the nation's digital prowess was tested.

Police teams used smart helmets equipped with thermal scanners to measure temperatures from safe distances. The helmets' ability to recognise faces and vehicle plate numbers served as a useful tool to keep travellers in check during the lockdown.

Robots and drones were used to sterilise public areas. Meanwhile, the Al Hosn mobile application served as an integrated platform to view test results, and for authorities to contact-trace and monitor patient health.

Remote-working tools were already at the disposal of most schools and workplaces in the UAE, and with the supportive infrastructure in place, entities were quickly able to adopt work-from-home routines. The Telecommunication Regulatory Authority (TRA) unblocked VoIP applications in collaboration with telecommunication operators Etisalat and Du.

The fourth edition of the Global Interconnection Index (GXI) by digital infrastructure firm Equinix reported that 51 per cent of businesses

in the UAE have rearchitected their IT infrastructure to meet new remote and hybrid working demands, with tech budgets increasing to accelerate digital transformation

Meanwhile, the IMD World Digital Competitiveness Ranking 2020 places the UAE 14th in the world, based on three main factors: knowledge, technology and future readiness.

The report says that the UAE's strengths in digital competitiveness include vast international experience, relatively easy immigration laws, use of Big Data and analytics, and high wireless broadband penetration rate.

In fact, the UAE emerges in the 4th place when it comes to technology and 11th in terms of future readiness, indicating that it has the right resources and appetite for change in place.

### THE NEXT STEPS

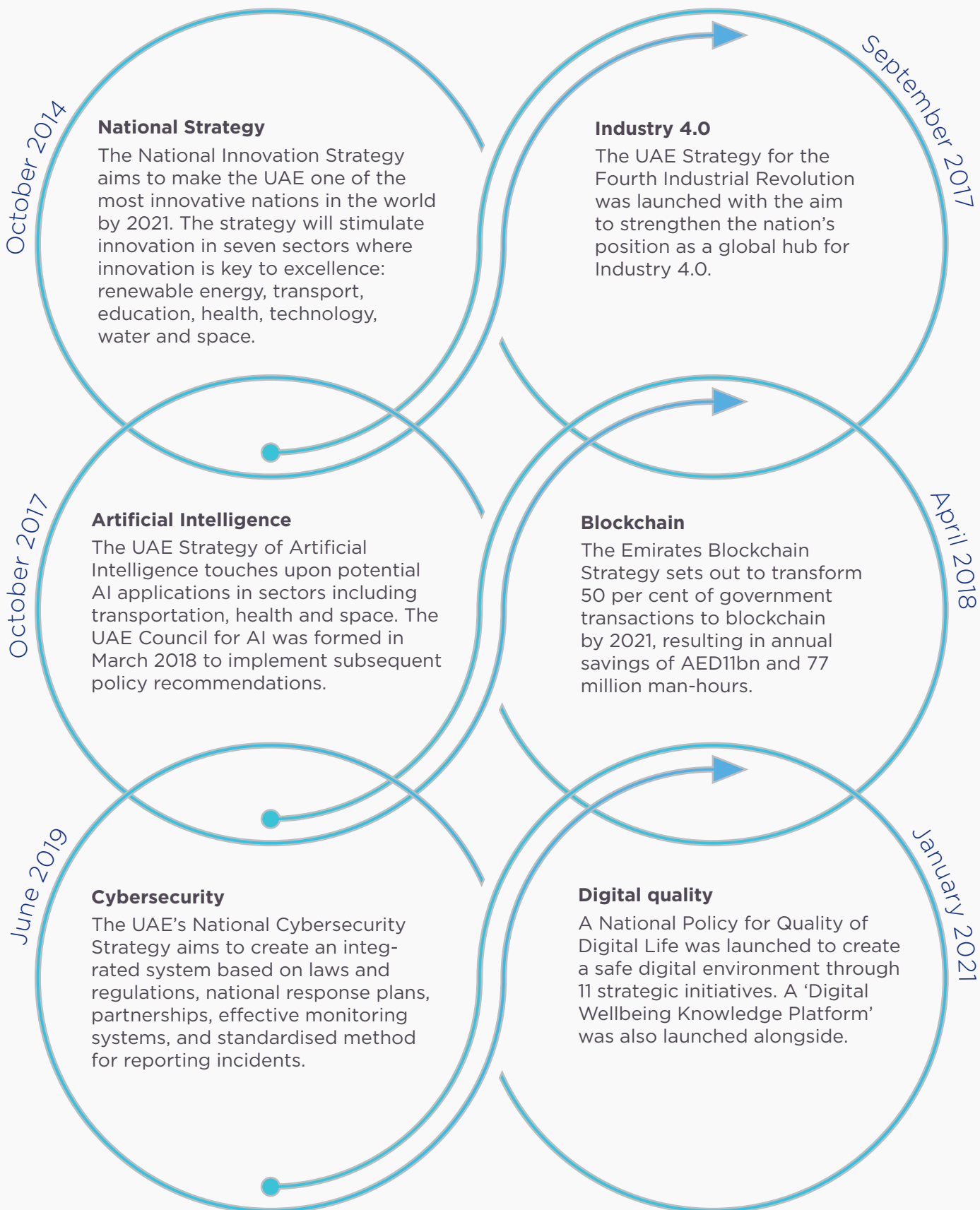
But the report also identifies areas for improvement: cost of connectivity, regulations, lower public expenditure on education (as a percentage of GDP), R&D productivity by scientific publications, annual capital expenditure in telecommunications, and percentage share of industrial robots.

The World Economic Forum's Network Readiness Index 2020 ranks the UAE 30th globally and first among the Arab states, the only country in the region that makes it into the top quartile. The UAE is the global leader when it comes to information and communication technology (ICT) usage and skills among individuals.

It is also one of the highest-ranked countries in terms of skilled workers and access to ICTs.

The index, however, suggests that there is a need to improve the creation of local digital content and applications. There is also room for improvement in data regulations, and contribution of ICT networks to the UN sustainable development goals (SDG).

# FOUNDATIONS FOR INNOVATION IN THE UAE



# BUILDING A DATA ECONOMY

Understanding the UAE's data environment

## FACTORS

**9.94m** Population

**87%** Urban population



## GROWTH POINTS

Increase in average smartphone internet speed in 2020 vs 2019 - **104.6%**

Internet users - **9.84m**

Active social media users - **9.84m**

Mobile connections - **17.06m**



## UAE CLEAN ENERGY TARGETS

**44%** Clean energy

**38%** Gas

**12%** Clean coal

**6%** Nuclear



## ECONOMIC INDICATORS

**1.3%** 2020 expenditure on research and development as % of GDP

**40%** 2020 Share of highly-skilled workers in scientific, technical and humanitarian fields

**3.3%** 2019 Net inflow of foreign direct investment as % of GDP



## BENEFITS

- ★ Greater innovation
- ★ More collaboration
- ★ Reduced costs
- ★ Foreign investments
- ★ New job opportunities
- ★ Creation of wealth
- ★ Better public services
- ★ Improved quality of life



## THE UAE'S

INSEAD Global Innovation Index 2020

**RANK 34**

World Economic Forum - Global Competitiveness Report 2020

**RANK 25**

Ease of Doing Business Index 2020

**RANK 16**





## ACTORS



**ENABLERS**  
Those that regulate and standardise how data is used



**GENERATORS**  
Those that generate the data



**GATHERERS**  
Those that capture the data



**ANALYSERS**  
Those that analyse the data



**DEVELOPERS**  
Those that develop systems to gather, store and analyse data



**MANAGERS**  
Those that manage data platforms and provide services

## TOOLS

- ✓ Governance & guidelines
- ✓ Infrastructure
- ✓ Talent
- ✓ Democratisation
- ✓ Research & development
- ✓ Standardisation
- ✓ Establishing trust



## BARRIERS

- ! Unbalanced distribution of tools to use data
- ! Unequal access to data
- ! Digital commoditisation
- ! Transition costs
- ! Risks of digital divides
- ! Attitudes towards digitalisation
- ! Limited skills



## ACHIEVEMENTS

UN Telecommunication Infrastructure Index (TII) 2020

**RANK 7**

UN ONLINE SERVICES INDEX 2021 (e-government services)

**RANK 8**

HUMAN DEVELOPMENT INDEX 2019

**RANK 31**

NETWORK READINESS INDEX 2020

**RANK 30**

# LESSONS FROM COVID

## THE PANDEMIC PROVIDES AN OPPORTUNITY TO RETHINK THE PATH TO ACHIEVING A DATA ECONOMY

Every second of every day, vast quantities of data are being generated, providing detailed records of how we live and work. Data is a valuable resource that improves our lives and creates wealth.

With more and more devices coming online in the form of smartphones, laptops, connected machines, sensors, etc, this data pool is only set to flourish in the coming years.

Data has already become an essential part of innovation, fiscal growth and social progress. It forms the foundation of a digital economy, ie an economy that uses digitalisation and internet connectivity across all its sectors.

Covid-19 has arguably accelerated the digitalisation of the economy. ICT is collectively regarded as an enabler of post-pandemic economic recovery and a key determinant of how fast markets bounce back.

Technology can open the door to business continuity by allowing companies to maintain

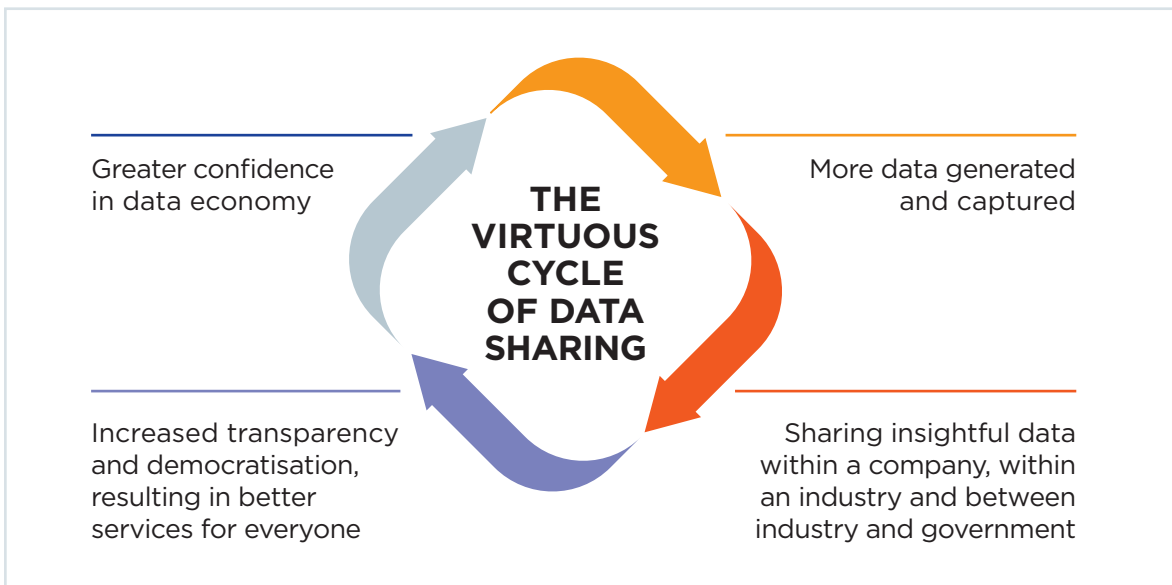
productivity or even advance their business, for example, by protecting workflows from further shocks, rolling out e-commerce services, and enabling process automation.

But with the amount of data generated rapidly expanding, challenges surrounding data quality and vulnerabilities in the data ecosystem are increasingly salient.

### DISRUPTIVE CHANGE

Over the past 16 months, data has been an essential factor in the ongoing battle against the coronavirus pandemic. From data dashboards and forecasts, to trends and visualisations. Data has been critical in helping governments and its entities, businesses and healthcare systems map a fast-changing situation.

With entire cities going into lockdowns, digital technologies became indispensable enablers of connectivity among the global population. Businesses that had never before attempted remote



working now found themselves delivering the same results, while working from the confines of their homes. Many companies are expected to continue with the some form of remote working even after the pandemic.

The economic impact of Covid-19 has been severe in every country. But the blow was harder in countries with low digital resilience and infrastructure. For instance, under-developed nations saw an acute disruption of education where remote schooling was not feasible.

At the same time, the increased dependency on digitalisation provided a reminder of the challenges that surround any data economy: verifiable data and privacy.

With news relating to the virus coming in from almost every corner of the globe, in many instances it was impossible to differentiate between reliable data and misinformation. Tackling this has been a difficult yet necessary task for tech giants and governments alike. In March 2021, social media platform Twitter said it would start applying label warnings to tweets that contain falsified information.

Digital tracking measures to trace the spread of the virus have been implemented around the world, including in the UAE. Location and movement data has allowed minimisation of contamination to an extent, and this was thanks to the combined effort of telecommunication operators, private firms and governments.

But this has also raised concerns surrounding privacy, with users calling for stronger protection of their data.

For example, the European Commission has issued a unified approach for its member nations for apps that help fight the pandemic, requiring them to be in full compliance with its data protection and privacy legislation. The use of these apps is not obligatory and requires data to be anonymised and not be stored in centralised databases, as well as sunset clauses to ensure apps are phased out once the pandemic is over.

The commission also recommends contact tracing apps based on short-range technologies such as Bluetooth rather than geolocation, since the latter collects real-time data on precise location and poses a higher risk to privacy.

However, such laws could also prove to be

## THE SEVEN FOUNDATIONAL PRINCIPLES OF PRIVACY BY DESIGN

Developed by Ann Cavoukian, former information and privacy commissioner in Ontario, Canada, the seven principles express the underlying concept of Privacy by Design, or PbD. The term refers to “data protection through technology design”. It is a concept that integrates privacy from the outset ie, creation and operation of new devices, IT systems, networked infrastructure, and even corporate policies.

- 1. PROACTIVE NOT REACTIVE, PREVENTATIVE NOT REMEDIAL**  
Privacy efforts should be proactive, rather than mitigating damage after something has happened.
- 2. PRIVACY AS A DEFAULT SETTING**  
Personal data should be automatically protected, with no added action or steps required by any individual.
- 3. PRIVACY EMBEDDED IN THE DESIGN**  
Privacy features should be an integral part of the design process of every product and service from the concept phase.
- 4. POSITIVE SUM, NOT ZERO-SUM**  
Users should not be forced to choose between seemingly contradicting options, such as privacy or security. These two goals are and have to be complementary.
- 5. END-TO-END SECURITY**  
Full lifecycle protection with the choice to destroy data when no longer needed.
- 6. KEEP IT OPEN**  
Be visible and transparent with how and where data is being used.
- 7. KEEP IT USER-CENTRIC**  
Overall, privacy should be visible, easy to comprehend and manage, and, most importantly, easy to restore for the average user.

## DIGITAL COMPETITIVENESS FACTORS AND SUB-FACTORS

FACTORS	KNOWLEDGE	TECHNOLOGY	FUTURE READINESS
	Know-how necessary to discover, understand and build new technologies	Overall context enables the development of digital technologies	Level of country preparedness to exploit digital transformation
SUB-FACTORS	<b>Talent</b> <b>Training and Education</b> <b>Scientific Concentration</b>	<b>Regulatory Framework</b> <b>Capital</b> <b>Technological Framework</b>	<b>Adaptive Attitudes</b> <b>Business Agility</b> <b>IT Integration</b>

Source: IMD Digital Competitiveness Ranking 2020

heavily strict and may affect unlocking of value from data gathered. There needs to be a balance between maintaining privacy and enabling the use of advanced technologies and automated processes.

The lessons from the pandemic will be invaluable in shaping the next phase of digital development in the UAE. Challenges that persisted before the pandemic still remain crucial, but have become more pronounced today.

At the height of the pandemic, businesses were quick to turn to digital solutions to keep supply chain disruptions at bay, but the uptake has not been uniform. And for many, digital adoption was merely a stop-gap arrangement.

Government and industry must seek to avoid a productivity chasm between digital adopters and digital laggards.

For firms that do go digital, there is a challenge to find skilled workers that can succeed in the data economy. This issue is evident among small and medium-sized enterprises (SMEs), who lack the capital resources to upskill or reskill.

The issue of data openness and uneven access is a challenge that limits the data in the hands of selected organisations.

With the increased reliance on digital tools, greater focus is needed to ensure trust in the dig-

ital environment. There are also rising concerns around data privacy and cybersecurity.

Key to resolving all of these challenges is a holistic policy framework that supports greater investment in technology innovation and deployment. Such a framework needs to cut across all challenges – economic, social or technical.

The role of businesses in the digital value chain also needs to be defined, to improve data relationships and responsibilities.

At the same time, regulations should not stifle innovation. Policies need to be a balance between resolving concerns and being future proof to enable the use of new technologies that may not exist yet. Consumers also appreciate that data sharing can lead to products and services that make their lives easier and save them money.

Meanwhile data sharing between private sector and the government can aid in better policy decisions and improve social welfare. It also negates the need for the government to spend resources on gathering the same data again.

Ultimately, the acceleration in adoption brought about by Covid has not been limited to the use of digital tools.

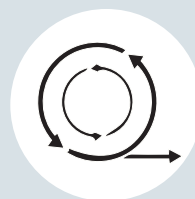
It has also induced a significant “deepening” of the ways in which governments, businesses, and individuals consider digital transformation.

# THINK TANK

## THE SECOND UAE TECHNOLOGY THINK TANK AIMS TO FIND ACTIONS TO BUILD A RESILIENT DATA ECONOMY IN THE UAE



How can the UAE's data laws enhance the data economy?



How can the UAE establish an agile and capable data environment?



How can the UAE establish a secure data economy and safeguard privacy?



How can the UAE improve data democratisation and the purpose of data?

## GOVERNANCE AND GUIDELINES

**A**s connectivity grows, so do the issues around security and transparency. Agile governance needs to underpin all aspects of the data economy, to make sure the most effective guidelines and standards are in place. The aim of such regulation should be to ensure data availability for all, maintain optimal data quality, and safeguard the rights and privacy of those involved in the ecosystem. Identifying, classifying and recording internal and external personal information is crucial to data privacy compliance.

There also needs to be nuanced balance between ownership and commercialisation of data. Data is essential to most businesses today, and laws need to be developed in a way that do not hamper economic growth.

Existing data regulations in the UAE in economic zones such as DIFC and ADGM, as well as those in specific sectors such as banking and healthcare, are focused towards privacy. But there is also a need to establish rules to ensure that a minimum quality of data is being captured.

The private sector is keen to support the UAE government to shape their laws and standards

pertaining to the development, application and safety of digital tools. Moreover, many of the international technology providers operating in the UAE can provide knowledge and insights based on their presence in established markets.

### IN THE REAL WORLD

#### *Stepping stones towards better management of data*

The European Commission published its draft Data Governance Act on 25 November 2020, setting out policy measures and investments to give the EU a competitive advantage by enabling it to capitalise on its vast quantity of data.

The strategy aims at creating a single market for data that will ensure Europe's global competitiveness and data sovereignty. As a result, businesses will have more data available to innovate as a result.

The strategy will introduce legislative measures around business-to-government data sharing; keeping companies and individuals who generate the data in control; make data widely available; invest in development of data processing infrastructure, sharing tools and energy-efficient cloud systems; and facilitate the set-up of a procurement market for data

# ACTIONS TO DESIGN DATA LAWS THAT ENHANCE THE DATA ECONOMY

CHALLENGES	RECOMMENDATIONS
<p><b>UNCLEAR ROLES</b> The roles and responsibilities of various companies in the data value chain are unclear. Who collects the data? Who analyses it? Who stores it? Who protects it?</p>	<p><b>IDENTIFYING THE ACTORS</b> Establish a data economy framework, which defines the role of companies in the value chain and how they can contribute to digital growth.</p>
<p><b>OWNING THE DATA</b> Vague details on ownership of data, particularly raw data can lead to distrust and disputes.</p>	<p><b>OPEN BUT SAFE</b> Establish national level standards to ensure individuals and businesses have clarity on how, why and what data is gathered. Proper categorisation of data is needed to decide what information needs to be kept open. Establish clear guidelines on who owns the data.</p>
<p><b>HANDS ON KNOWLEDGE</b> Regulators find it difficult to formulate relevant policies without ground experience in the challenges and opportunities presented by a data economy.</p>	<p><b>WORK WITH THE INDUSTRY</b> Involve experienced private sector firms in formulation of relevant policies, utilising their knowledge from other markets into the UAE.</p>
<p><b>TOO STRICT</b> Insufficient or stringent laws can make it difficult for investors to invest in emerging technologies in the country, while also deterring success of local solutions.</p>	<p><b>MAKE IT ATTRACTIVE</b> Set up a regulatory environment that encourages greater investment in digital infrastructure and data economy. Improve ease of conducting business (rental incentives, ease of licensing, transparency) to attract investors.</p>
<p><b>DIMINISHED VALUE</b> Unclear guidance on the minimum quality of data that needs to be captured.</p>	<p><b>OPTIMISE QUALITY</b> Establish governance structures to ensure that a minimum quality of data is captured.</p>
<p><b>DATA LOCALISATION</b> Lack of regulated data flows between the UAE and its neighbouring states is leading to lost investment opportunities, data risks and inconsistency in development.</p>	<p><b>CROSS-BORDER DATA SHARING</b> Establish a GCC-wide data protection agreement (similar to the GDPR in EU) to enable greater opportunities for data flow and convergence in the region, allowing governments and businesses to collaborate. Encourage the flow of data into the UAE to cement the country's position as a data hub.</p>

## BUILDING A DATA ENVIRONMENT

**T**he significance of consumer data is evident in data-rich sectors such as transportation, healthcare, retail and e-commerce, and public services, all of which can be enhanced based on continuous data feedback.

To effectively (and safely) gather and utilise this information, however, the UAE needs to construct a capable data environment. And for this, it needs to create optimal conditions to encourage investments in data infrastructure, not just in the physical sense but also in terms of ease of conducting business.

As the number of devices coming online rapidly increase, so does the amount of data generated. Capturing and storing this data will require a considerable amount of investment in world-class computing systems through data centres, fibre networks and uninterrupted supply of power.

Currently, data centres in the UAE are located in industrial areas. There is a call for data centre parks, that serve as a centralised, local hub to house data and cloud centres.

Sectors such as telecommunications are in a position to capture enormous amounts of consumer data, but cannot viably store and use all of this information. There is a need for better clarity on which data needs to be stored, with a minimum data quality standard in place.

Data hygiene practices can be instated to ensure information captured and stored is up-to-date and free from errors.

There is also another critical challenge: lack of skilled personnel (such as data scientists) and tools to analyse this data. This is a global issue and is a significant barrier in achieving a successful data economy.

### IN THE REAL WORLD

#### *Mapping the digital growth of global economies*

Huawei's annual Global Connectivity Index (GCI) tracks the progress of 79 nations, including the UAE, in deploying digital infrastructure and capabilities. Economies with higher GCI scores have greater digital readiness thanks to mature infrastructure, which has lessened the impact of the pandemic on their economies.

Due to the availability of high-speed broadband, cloud services, AI, and IoT solutions, these nations were able to quickly implement distributed workforce models, migrate to e-commerce platforms, and digitally transform their operations to ensure business continuity.

The Index classifies ICT investments in 5G, broadband, cloud, AI and IoT as especially important because they have multiplier effects on other basic and advanced factor investments, dramatically increasing the economic value to society.

For example, investments in 5G and broadband can revolutionise remote learning (education); IoT with 5G can optimise physical assets (infrastructure); and AI can personalise interactions (education) and help scientists mine vast IoT data sets for insights (research).



# ACTIONS TO ESTABLISH AN AGILE AND CAPABLE DATA ENVIRONMENT

CHALLENGES	RECOMMENDATIONS
<p><b>COST OF CONNECTIVITY</b> Internet connection prices in the UAE and the wider region are some of the highest globally.</p>	<p><b>COMPETITIVE CONNECTIVITY COSTS</b> Offer connectivity subsidies to data centres; reduce costs of last mile internet connectivity.</p>
<p><b>GROWTH INHIBITION</b> Challenges such as high energy consumption, commercial access to fibre networks, uniform rollout of 5G systems, remote locations of data centres inhibit growth of the data economy.</p>	<p><b>BRIDGING THE GAPS</b> Offer sustainable power subsidies to data centres, without encouraging waste. Decarbonise data centres to improve sustainable operations. Use AI and IoT sensors to improve energy usage by these systems. Ensure there is proper infrastructure in place to capture and analyse enormous amounts of data generated by 5G systems.</p>
<p><b>TALENT SHORTFALL</b> There is an increasing demand for workers with data science skillsets, but a limited availability of experts. There is also a lack of clarity on different data roles and not enough information on where the talent resource gaps exist.</p>	<p><b>IMPROVE TALENT POOL</b> Build local talent pool by:</p> <ol style="list-style-type: none"> <li>1. Identifying which skillsets are missing</li> <li>2. Establishing centres of excellences with government, industry and academia to train workers</li> <li>3. Futureproof the industry by equipping and upskilling existing players</li> <li>4. Providing visa, better living conditions to attract talent</li> </ol> <p>Companies need to invest in 'branding exercises' and share project details in order to attract the right workers. Encourage use of talent analytics platforms to allow companies to identify talent trends and resource gaps, improving the pool of existing and future employees.</p>
<p><b>POOR DATA MANAGEMENT</b> Improper or inconsistent data entry leads to errors or duplicated efforts, increasing costs and causing revenue delays.</p>	<p><b>DATA HYGIENE</b> Implement standardised practices of classifying, organising and using data, and create a better governance structure to ensure quality is maintained. Use of automated cleaning systems and integrated databases can help minimise duplicated data.</p>

## SECURITY AND PRIVACY

**A**s the world becomes more connected and digital tools embed themselves into every aspect of our lives, concerns about the risks facing those that generate, gather and store this data are rising.

Digital attacks are growing, almost at the same pace as the development of digital solutions, undermining transformational strategies and eroding trust in the system.

And everyday, enormous quantities of data linking to a user's tastes, activities, location and decisions are being captured by a plethora of entities, sometimes even without the permission of users. Technology platforms are competing against time, and each other, to harvest, refine and analyse data to develop insights that can be sold to other firms for targeted reach.

All of this raises concern surrounding the security of those that host the data, and the privacy of those that provide this information.

In the UAE, data protection laws on par with global standards and balancing privacy exist in two special economic zones: Dubai International Financial Centre (DIFC) and Abu Dhabi Global Market (ADGM).

DIFC released an updated version of its Law No. 5 of 2020 to provide enhanced standards and controls for the processing and free movement of personal data by controllers or processors and to protect the fundamental rights of data subjects. This includes how such rights apply to the protection of personal data in the context of emerging technologies.

The UAE National Cybersecurity Strategy 2020-2025 is expected to give way to a federal data protection law in time.

Given the global nature of the UAE's economy, many of the firms operating outside its borders have to comply with international privacy rules, such as those in the EU.

### IN THE REAL WORLD

#### *Canada's digital charter serves as a foundation for privacy*

In November 2020, the Canadian government proposed the Digital Charter Implementation Act 2020, which would introduce laws to ensure the data privacy of citizens is better upheld, and that businesses can benefit from clear rules even as technology evolves. It includes steps such as:

- Meaningful consent to allow individuals to make informed choices
- Data mobility, allowing individuals to transfer information from one organisation to another
- Withdrawal of information as needed
- Algorithmic transparency, giving consumers the right to know how an organisation's automated systems made a prediction or recommendation

# ACTIONS TO SECURE THE DATA ECONOMY AND SAFEGUARD PRIVACY

CHALLENGES	RECOMMENDATIONS
<p><b>SHROUDED APPROACH</b> Users are kept in the dark on how their data will be deployed and are poorly informed about their choices relating to privacy.</p>	<p><b>TWO-WAY STREET</b> Consumers should be aware of how their data is being used. They should have the option of opting out of sharing information if needed. Such a system can help improve consumer confidence in the long term.</p>
<p><b>ATTITUDE TOWARDS CHANGE</b> Data privacy is seen as a compliance activity, rather than a deep-rooted change.</p>	<p><b>CULTURAL SHIFT</b> Drive a cultural change in the way privacy is regarded. Strong data privacy should be seen as an essential foundation of any digital strategy.</p>
<p><b>CHECKING THE BOXES</b> Privacy is treated as an afterthought, added to a product or service only at a later stage, resulting in higher exposure to risks.</p>	<p><b>DATA CONFIDENCE</b> Build systems that prioritise data protection measures from the outset of a digital product or service, ie privacy by design. Enterprises should have their information policies, enforcement teams and systems periodically reviewed.</p>

## DEMOCRATISATION AND VALUE

One of the biggest challenges in digital transformation is overcoming unequal access to data, be it within a group of individuals, an organisation or between nations.

At an enterprise level, this unequal access can introduce a number of gaps that lead to wastage of time, effort and resources. Decision-makers lack access to the right kind of data to analyse and make decisions; employees are often forced to hunt through emails or directories to find the answers they need; and there is a risk of introducing more siloes as only a limited set of people have departmental ownership to the data. These issues limit the scope for growth, creating unfair power and knowledge imbalances.

At an industry level, these discrepancies often mean that bigger organisations have easier access to data, leaving the smaller firms scrambling to grow.

And at an international level, the resource advantages of developed nations is likely to increase their opportunities over developing countries still trying to formulate their data rights.

Discourse around cross-border data flow remains largely vague. It is impossible to even initiate a global data flow network without first sorting out internal policies.

Even where data is available, a lack of data science skills is a challenge. Most people within

a business will have no background in data analysis and as a result, will not know how to effectively utilise the information. They need to be upskilled in order to better handle the data, as well as to improve the data capturing and analysis process.

To achieve data democratisation, it is important to build a culture of trust, where the purpose and ownership of data is clearly defined beyond fine print at the bottom of a website.

It can be reasoned that if consumers or businesses are recognised as the primary owners of the data they generate, they will be more confident in sharing and trading this data. It will incentivise them to share this data in order to better the services they ultimately receive.

It is also important that governments and businesses look beyond deploying data as a way to generate profits. There is a need to focus on the 'greater good', using data insights to solve global issues such as sustainability, poverty, access to education and food security.

### IN THE REAL WORLD

#### *Airbnb achieves democratisation with its data university*

For online marketplace Airbnb, the challenge of data illiteracy meant that it was unable to achieve its full potential as a data-driven organisation. Despite its open-source background and with all the data infrastructure in place, Airbnb found that its non-IT employees were struggling to effectively utilise available data.

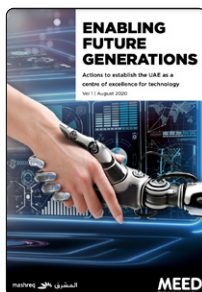
In 2016, the firm launched a Data University (Data U) to empower every employee (tagged as 'citizen data scientists') to make data-informed decisions. This approach has helped democratise data at the firm, making it accessible to all employees regardless of their technical skills, while also freeing up data scientists to focus on specialised activities.

# ACTIONS TO IMPROVE ACCESS TO DATA AND DEFINE PURPOSE

CHALLENGES	RECOMMENDATIONS
<p><b>SILOED ACCESS</b>            Unequal access to data within an organisation creates power and knowledge gaps among staff members.</p>	<p><b>FLEXIBLE APPROACH</b>            Companies and governments to implement data democratisation goals, underpinned by an overarching data strategy. Entities must deploy the approach that suits their business objectives and is beneficial to all employees.</p>
<p><b>LACK OF UNDERSTANDING</b>            Insufficient knowledge or poor data quality leads to an increased risk of users misinterpreting data.</p>	<p><b>DATA LITERACY</b>            Employers allocate funds to train employees to improve the input and understanding of data.</p>
<p><b>DATED SYSTEMS</b>            Legacy software systems and inflexible data architecture slows down the process of data sharing and analysis.</p>	<p><b>MODERNISED PLATFORMS</b>            Assess and upgrade existing systems to remain secure and up-to-date with changing technologies. API integration tools can help free up legacy data and improve cross-platform compatibility.</p>
<p><b>LIMITATIONS IN USAGE</b>            Companies invest in a limited variety of data tools, which may be too complex to use for non-data professionals.</p>	<p><b>PURPOSE LED TOOLS</b>            Invest in no-code tools and self-service analytics. The needs of individual teams can be recognised by a data leader, such as a chief data officer.</p>
<p><b>LIMITED VIEW</b>            Data providers are not equipped with sufficient information on how their data will be used, creating a culture of distrust.</p>	<p><b>FIT FOR PURPOSE</b>            Be clear about the purpose of the data being captured, to enable meaningful value creation.</p> <p>Incentivise customers to share their data, by rewarding them with tailored services, exclusive benefits, discounts etc.</p>
<p><b>DATA FOR PROFIT</b>            Profits and competition are becoming the sole drivers of data capturing and analysis.</p>	<p><b>FOR THE GREATER GOOD</b>            Invest in digital services that leverage data captured for the betterment of societies and tackle challenges facing humanity.</p>

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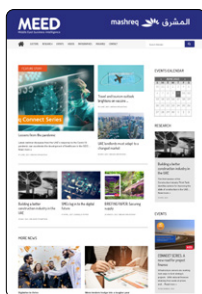
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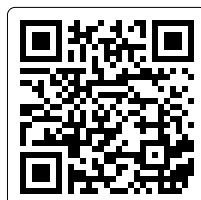


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Acquired by GlobalData Plc in December 2017, MEED is now part of one of the largest data and insights solution providers in the world with the capacity to build global communities for our clients.

Our purpose is to support the region's companies make better and more timely decisions through our innovative data solutions and grow through our comprehensive and world-class marketing solutions.

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# ABOUT MASHREQ

**E**stablished in 1967, Mashreq is the oldest bank in the UAE, with award-winning financial solutions and services.

Throughout its 50 years' history, Mashreq has differentiated itself through innovative financial solutions, making it possible for its customers to achieve their aspirations.

Today, Mashreq has a significant presence in 11 countries outside the UAE, with 21 overseas branches and offices across Europe, the US, Asia and Africa.

Mashreq launched its new Vision and Mission recently, outlining its commitment towards its clients, colleagues and the community.

In line with its vision to be the region's most progressive bank, Mashreq leverages its leadership position in the banking industry to enable innovative possibilities and solutions for its customers across corporate, retail, international, treasury and Islamic banking.

Mashreq is proud to be the first financial institution in the UAE to be awarded the Gallup Great Workplace Award for four consecutive years from 2014-17.

Mashreq also continues to invest in recruiting, training and developing future generations of UAE national bankers.

