وزارة الاتصـــــالات وتكنولوجيـــــا المعلومـــــات
Ministry of Communications and Information Technology
State of Qatar • دولـــة قطـــر

DIGITAL AGENDA 2030

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HE Sheikh Mohammed bin Abdulrahman bin Jassim Al Thani
Prime Minister and
Minister of Foreign Affairs

SHAPED BY THE ASPIRATIONS AND GUIDING PRINCIPLES OF THE QATAR NATIONAL VISION 2030, THE THIRD NATIONAL DEVELOPMENT STRATEGY (NDS3) FOR THE STATE OF QATAR ESTABLISHES OUR STRATEGIC PRIORITIES AND OVERARCHING FRAMEWORK FOR 2024-2030.

NDS3 aims to accelerate the transition toward a sustainable economic growth model where future growth is propelled by advances in productivity and the invigoration of our business and innovation ecosystems.

The ultimate goals of NDS3 include achieving a 4% CAGR in non-hydrocarbon GDP and a 2% annual growth in labour productivity.

The Digital Agenda 2030 (DA2030) takes our vision and ambitions forward, becoming a catalyst for the fundamental, widespread digital transformation of Qatar and a key enabler for economic progress.

Qatar already boasts state-of-the-art connectivity and digital infrastructure, but opportunities in technology abound beyond what we have today.

Digital transformation enabled through the DA2030 will not only support further development of the ICT and digital sector, but will also unleash a spillover effect across all sectors of the economy.

The Agenda will contribute to transforming our national talent pool into a work-force-of-the-future and transitioning government services to a greater level of excellence.

In tandem, digital transformation will provide for a safer Qatar with better healthcare and happier people.

Ultimately, the DA2030 will empower the Qatari society with the digital skills needed to leap into the future with confidence.

CHARTING THE AGENDA IS THE FIRST STEP IN WHAT I BELIEVE TO BE A BETTER FUTURE FOR QATAR.

HE Mr. Mohammed bin Ali bin Mohammed Al Mannai
Minister of Communications and Information Technology

IN RECENT YEARS, QATAR HAS ACHIEVED TREMENDOUS TECHNOLOGICAL PROGRESS. WHILE PRIDEFUL OF OUR PROGRESS AND WHAT WE'VE PRODUCED SO FAR, WE ARE NOT RESTING.

We have the opportunity to create further positive change for our society and economy.

We are at a pivotal moment with the next phase of advancement in Qatar's national plans, inspired by the Qatar National Vision 2030 (QNV2030) and further solidified in the Third National Development Strategy (NDS3).

In alignment with NDS3, our goal is to fully transition Qatar to a knowledge-based economy and digitally empowered society.

Our commitment to this widespread digital transformation in Qatar reflects within the Digital Agenda 2030 (DA2030).

The DA2030 fulfills the NDS3 belief that digital transformation is a uniquely powerful catalyst: fueling growth, boosting productivity, fostering innovation and reshaping societies.

The DA2030 is our accelerator in development, deployment and adoption of digital technologies by Qatar's economy, government and society. With the technology hyper-powers tamed, we are planning for digitisation across Qatar. The span of our efforts is wide – infrastructure, innovation, regulations, government services, economy and society. Our bold ambition is to contribute 40 bn QAR to the non-hydrocarbon GDP of Qatar and create additional 26,000 jobs in Qatar's ICT sector by year 2030.

We could not have developed the DA2030 without the valuable efforts of all the organisations and individuals – including public authorities, businesses, academia and the community at large – that provided unwavering support, insightful input and enthusiastic participation throughout the whole strategy creation process.

Each of us plays a vital role in driving our nation into the Digital Future. Together, we can build an even brighter future for the people of Qatar, harnessing the potential of technology to reimagine what's possible in our economy and society.

Today we are beginning the journey to becoming global leaders in the Digital Future.

EXECUTIVE SUMMARY

01

EXECUTIVE SUMMARY

QATAR IS IN THE MIDST OF A COMPREHENSIVE PROGRAMME TO ACCELERATE THE COUNTRY TOWARDS BECOMING AN ADVANCED, SUSTAINABLE AND DIVERSIFIED NATION

The programme initiated by Qatar's National Vision (QNV 2030) has already implemented tremendous technological progress throughout the country.

Qatar now boasts state-of-the-art mobile and fixed connectivity infrastructure, with approximately 96% of the population covered by 5G and nearly 99% covered by fibre connectivity.

The country, has also attracted leading technology companies and hosted the most digitally advanced FIFA World Cup tournament in history.

To further Qatar's advancements, ambitious initiatives laid out in the Third Qatar National Development Strategy (NDS3) 2030 show the way forward.

The NDS3 is a catalyst to realising sustainable growth, economic diversification, and social development for the next phase of Qatar's development from 2024-2030.

In considering the challenges and opportunities the country faces now and may face beyond 2030, the NDS3 demonstrates how fundamental widespread digital transformation is for economic success.

This is made evident by the seven key strategic national outcomes in the NDS3, each requiring digital enablement.

Furthermore, as all nations travel a similar path, placing Qatar at the forefront of digital transformation creates potential to become a global enabler in technology.

The foundation to this transformation journey is deep understanding of the most impactful areas of digital change.

Through researching, defining and mastering the global hyper-powers – HyperConnectivity, HyperComputing, and HyperAutomation.

HYPERCONNECTIVITY, HYPERCOMPUTING AND **HYPERAUTOMATION**

The formative knowledge of the hyper-powers underpins Qatar's strategic plan for digital transformation – the Digital Agenda (DA2030).

This exciting strategy is guided by Qatar's vision and mission, and sets out six objectives, comprising 23 strategic programmes, split into primary and secondary hierarchies, running in concurrent sequences.

This journey is also the roadmap for the next generation of Qataris – the HyperGeneration – who will support digital transformation.

The HyperGeneration are the changemakers, drivers and influencers who will inspire the wider Digital Society.

THE VISION

Embrace digital advancement to drive Qatar's competitiveness and prosperity.

THE MISSION

Establish a leading digital economy powered by an attractive and efficient business environment with high-yield digital investments.

STRATEGIC OBJECTIVES

01 Cutting Edge Digital Infrastructure

02 Booming Digital Economy

03 Thriving Digital Innovation

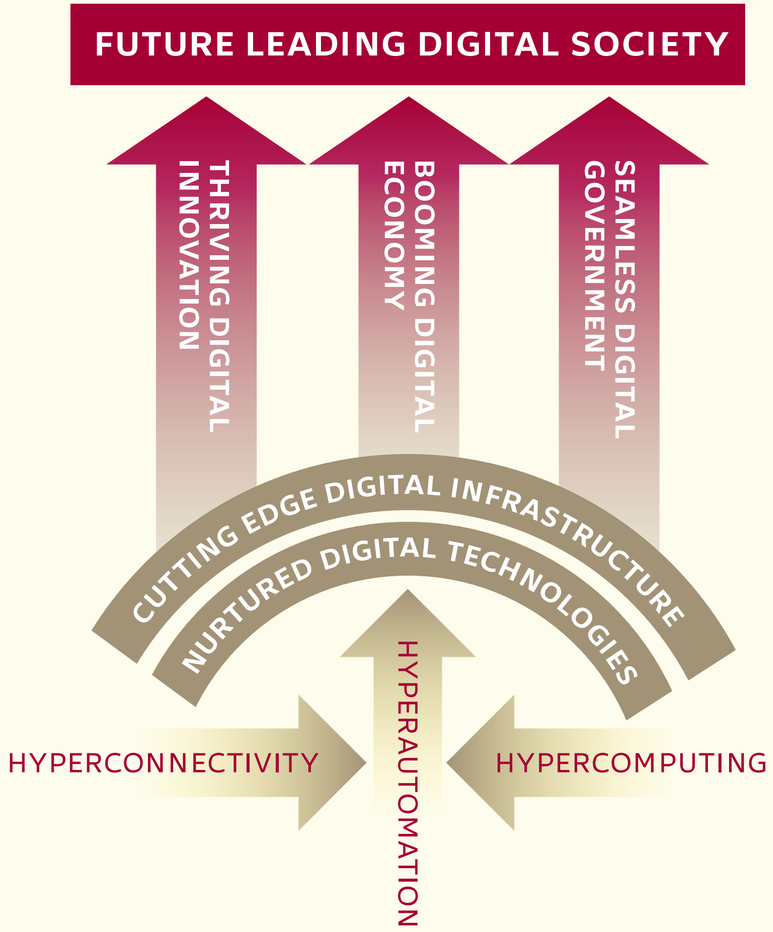
04 Seamless Digital Government

05 Nurtured Digital Technologies

06 Future Leading Digital Society

THE SIX STRATEGIC OBJECTIVES OF THE DA2030 ARE UNDERPINNED BY THE HYPER-POWERS IN THE FOLLOWING WAYS

1. HyperConnectivity and HyperComputing trends enable the DA2030 Infrastructure pillar.
2. Together these two Hypers have recently gave birth to the HyperAutomation trend – which disrupts the world and enables disruptive changes in Digital Innovation and Digital Economy pillars.
3. The disruption of Digital Infrastructure, Digital Economy and Digital Innovation pillars together empowers Qatar to succeed on the other 3 pillars of DA2030.



Success is defined by Qatar's ability to equip its digital society for the world's digital evolution. The DA2030 outlines exactly how to do this with an overarching framework, direction and objectives from now to 2030 and beyond.

Qatar embraces the Digital Future by actioning the Strategic Programmes within the Digital Agenda 2030, to achieve the goals outlined in the NDS3.

1. DA2030 contributes to the 1st NDS3 target outcome of Sustainable Economic Growth through its DA2030 pillars of Digital Economy + Digital Infrastructure + Digital Innovation.
2. DA2030 advances the Future-Ready Workforce outcome, Quality of Life outcome and Government Excellence outcome of NDS3.
3. Noting the prevalence of digital communications as the connective fusion of society, DA2030 will inevitably progress the Cohesive Society outcome of the NDS3.
4. DA2030 implements the core principle of NDS3: creating a buoyant private sector enabling the HyperGeneration to thrive, and, to compensate for Qatar's relatively small market size, transforming the country into an attractive destination for creating innovative digital services that can be exported globally.

Economic impact by 2030

IMPACT OF NON-HYDRO-CARBON GDP

+40 BN QAR

JOBS GENERATED FOR THE QATAR ECONOMY

+26K JOBS

IN LAUNCHING THE DA2030, QATAR TAKES THE NEXT STEP AS AN INFLUENCER OF THE DIGITAL AGE, DRIVING INCLUSIVE GROWTH AND PROSPERITY ACROSS ALL SECTORS OF THE ECONOMY, FOR ALL CITIZENS AND FUTURE GENERATIONS

DA 2030

THE VISION

Embrace digital advancement to drive Qatar's competitiveness and prosperity.

THE MISSION

Establish a leading digital economy powered by an attractive and efficient business environment with high-yield digital investments.

STRATEGIC OBJECTIVES

STRATEGIC PROGRAMMES

		Primary		Secondary
01	Cutting Edge Digital Infrastructure	Commercialize Globally Qatar Based Cloud Capabilities	Develop Environmental Technology Programme	Establish National High-Performance Computing Programme
02	Booming Digital Economy	Priority Sectors Digital Transformation Offices	Advance Small & Medium-sized Enterprises (SMEs) & Enterprises. Digital Transf. Programme	Establish Digital Export Support Programme
		Develop Cross-border Digital Economy Framework		
03	Thriving Digital Innovation	Establish Digital Foreign Direct Investment (FDI) Attraction Programme	Develop National Data & Digital Assets Monetisation Frameworks	Advance Tech Research & Development (R&D)
		Streamline Tech Start-Up Acceleration & Incubation		Establish National Applied Programmes for Emerging Tech
04	Seamless Digital Government	Drive Beneficiary Centric Gov. Services Transformation	Refine and Promote Centralised Services	
05	Nurtured Digital Technologies	Refine Information, Communications and Technology (ICT) Regulatory Landscape	Develop National Data Management Frameworks	Establish Technology Foresight Centre
		Establish National Data & Analytics Programme	Develop National Emerging Technologies Strategic Framework	
06	Future Leading Digital Society	Establish Digital Talent Attraction Programme	Promote the New Ways of Working	Establish Digital Talent Development & Retention Programme
				Expand Digital Inclusion Programme

A BRAVE DIGITAL WORLD

02

TECHNOLOGY IS BIG AND MOVES FAST

IT'S RESHAPING THE WORLD AND IS A STORY WELL TOLD BY MINISTERS, BUSINESS LEADERS, MOVIE DIRECTORS, SOCIAL MEDIA INFLUENCERS AND EVERYONE

But for all that is predicted, shared and re-shared on new digital behaviours, data, artificial intelligence, robotics and such, it remains unknown how societies will actually live.

As the digital future evolves, it's better to accept what cannot be seen than try to stop it.

Rather than imagine the future, nations can influence it.

This starts by understanding the impact of today's global hyper-powers.

The three biggest interoperating parts of technology scaling and accelerating the future now.

HyperConnectivity, HyperComputing and **HyperAutomation.**

HYPERCONNECTIVITY

HyperConnectivity is connectivity so instant and commonplace that it's near invisible.

Unremarkably overlaid and embedded in everyday life.

Yet remarkedly influential in how people communicate, think and act.

True or false truth, it's reshaping industries and creating new leaders, polarising opinions and starting movements, challenging governments and changing society.

As volumes of content are shared and consumed, almost everything and everyone competes for attention.

With understanding and smart application, HyperConnectivity can be used as influence so that citizens can create and share new ideas for world changing impact.

"AS OF 2023, THERE ARE 30 BILLION DEVICES CONNECTED GLOBALLY, AND BY 2025 THERE WILL BE MORE THAN 40 BILLION"[1]

HYPERCOMPUTING

Unlocking the potential of HyperConnectivity requires a scale of global compute capacity and capability never before seen.

This is **HyperComputing**. Processing and analysing the amount of data the world demands and generated at the speed it needs.

Here Cloud democratises high performance and Internet of Things (IoT) and 5G connectivity fuels the rise of smart cities.

Semiconductors are a necessity for any leading nation to shape its economies, state strategies and sanctions.

Transcending technology and economy to a global political platform and power play.

All of which propels the economy forward.

Out of Qatar's rich heritage, it is time to launch the nation into the future and position it alongside other influential states as a hub for technological excellence.

"Advancements in hyper-computing have significantly lowered the cost to compute a Full Human Genome Sequencing from 100 million USD in 2001 to 525 USD in 2022 – this is an incredible benefit for medical research and pharmaceutical development."[2]

HYPERAUTOMATION

When HyperConnectivity and HyperComputing converge, HyperAutomation rises as the undisputed apex.

Even in its infancy, machine learning, artificial intelligence, and Large Language Models (LLMs) promise to help Qatar achieve more than ever before.

GenAI is the natural next step and one that's already leaping ahead. Many may worry about it outsmarting humans. This is where influence on HyperAutomation is critical.

Labour markets will adapt or won't. Wealth redistributes or doesn't. Gaps may widen. Fundamental human qualities will be challenged and require government protection.

Harnessing HyperAutomation's unbound potential embarks Qatar on a journey towards a future where the possibilities are limitless.

"THE ROBOTIC PROCESS AUTOMATION (RPA) MARKET SIZE IS ESTIMATED AT USD 4.02 BILLION IN 2024, AND IS EXPECTED TO REACH USD 14.75 BILLION BY 2029, GROWING AT A AT A COMPOUND ANNUAL GROWTH RATE (CAGR) OF 29.70% DURING THE FORECAST PERIOD (2024-2029)"[4]

THE HYPERGENERATION

HyperConnectivity, HyperComputing, and HyperAutomation. The impact of these three interoperating powers will shape future winners and losers at scale.

To unlock the value of the hyper-powers, Qatar must influence and not imagine outcomes.

Today, it understands them.

Now the next step is to train a generation to live and work with them.

Welcome to the HYPERGENERATION.

Compared to RPA the Artificial Intelligence market is projected to reach US$305.90bn in 2024.

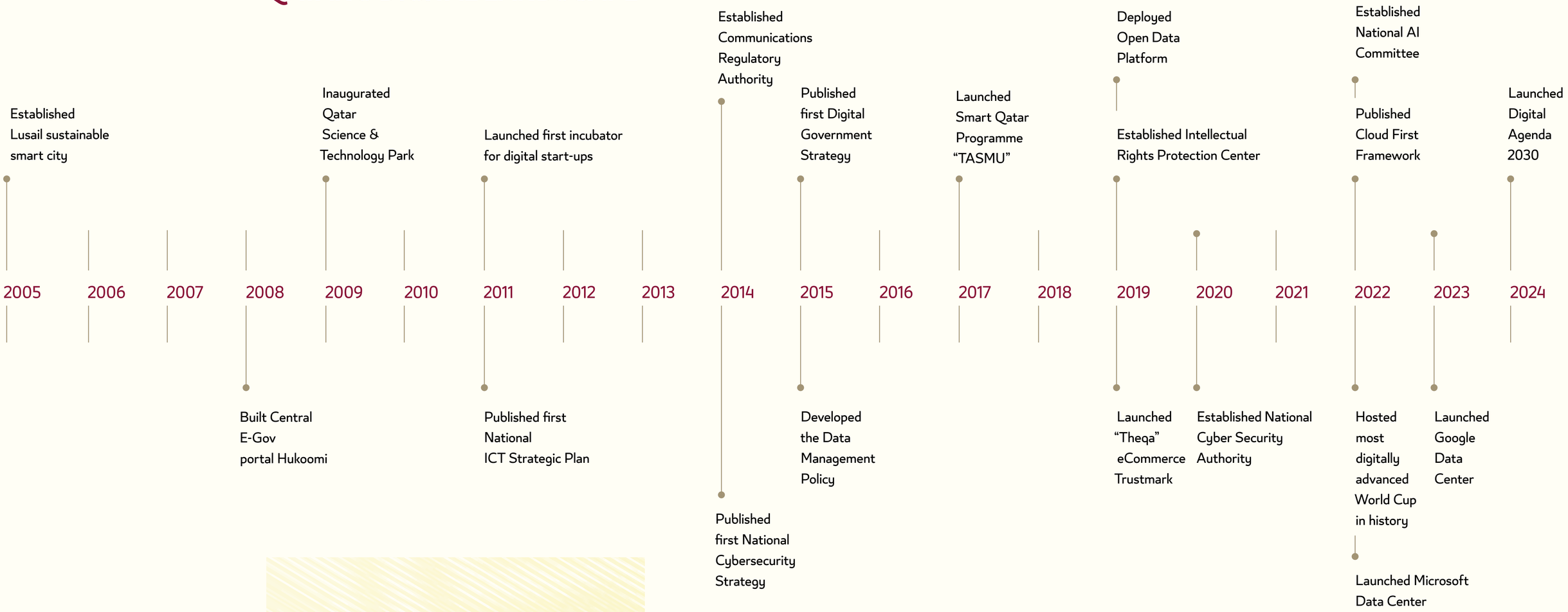
The market size is expected to show an annual growth rate (CAGR 2024-2030) of **15.83%**, resulting in a market volume of US$738.80bn by 2030.[5]

HyperAutomation is responsible for exponentially increasing the amount of compute used in the largest AI training runs, doubling its power every 3.4 months.[3]

THE BIRTHPLACE OF THE DIGITAL FUTURE

03

QATAR'S DIGITAL LANDSCAPE



QATAR STANDS AS A BEACON OF CULTURAL RICHNESS IN THE ARABIAN GULF

IT IS RENOWNED FOR REMARKABLE TRADITIONS AND A VIBRANT HISTORY WOVEN WITH RESILIENCE, INNOVATION AND AMBITION

It embodies a captivating blend of tradition and modernity, perfectly positioned at the crossroads of past and future.

The infrastructure, coupled with the position between the markets and customers of the Mediterranean, West Asia, East Africa and the wider Indian Ocean afford a significant competitive edge.

The past strengthens the future and empowers progress.

Qatar has a sustainable economic future driven by its citizens, residents and the private sector rooted in the nation's values, identity and social fabric. This is a transformation to rival other revolutionary periods.

Baghdad's Islamic Golden Age of learning. Florence, Renaissance patronage, intellectual growth and the Gutenberg press. Amsterdam's shipping and trade innovation. Vienna's Secession in modern art, materials and techniques. London's electric guitar 'British Invasion' and youth culture fashion. NYC Hip Hop, turntables, sampling and drum machines. Open, educated and entrepreneurial Palo Alto and digital transformation.

Every revolutionary period had a birthplace. Each uniquely possessing characteristics spurring a cultural movement that changed the world.

Qatar aspires to become a key driver of the Digital Future.

Being small, wealthy and young is valuable but to also be empowered with technology is a recipe for global impact. Like those who came before, Qatar fosters a delicate pairing of economic diplomacy with citizen-led counterculture.

The focus on HyperConnectivity, HyperComputing and HyperAutomation means Qatar will create a new revolution powered by the HyperGeneration.

RESILIENCE AND RISE

Through resourceful, industrious and selfless actions, Qatar has proven to the world it achieves great things.

From the 2008 global financial storm to persevering through times of global challenge like the COVID-19 pandemic, Qatar has used times of uncertainty to rise above. Each strengthening its resilience to bolster its economy not impede it.

Qatar took itself from a time of food instability to expanding food storage and distribution so well that it set the record for the fastest growth rate in domestic food production in the GCC.

"Between 2017 and 2019 alone, domestic food production reportedly saw a 400 per cent increase, and the country recorded 82 per cent self-sufficiency in dairy products in 2018, having relied on imports for 72 per cent of its supply the previous year." [6]

Illustrating the digital reach and connectivity, 5 billion people engaged with the 2022 FIFA World Cup, following tournament content across an array of platforms and devices. On social media, Nielsen reported, there were 93.6 million posts across all platforms, with a 262 billion cumulative reach and 5.95 billion engagements. [7]

To build bridges with the rest of the world, Qatar set its sights on becoming a global sporting hub. While staying true to its values, the country built world class sporting facilities to host the 2022 FIFA World Cup. Not only was the event regarded for its inclusivity and sustainability, it also became the most digitally engaged World Cup to date.

Qatar's commitment to welcoming people around the world extends beyond the World Cup. It has numerous bids to host major global events, such as the Olympic and Paralympic Games as soon as 2036. This is just the beginning as Qatar embarks on a journey of modernisation and progress mapped by the National Vision 2030.

WITH COMMITMENT AND RESILIENCE, QATAR CONFIDENTLY STEERS THE HYPERGENERATION INTO THE DIGITAL FUTURE

THE MELTING POT

Diverse, elite human talent is the most critical resource to support Qatar's technology influence on economy and sovereignty.

All revolutionary periods require a destination where people of all walks of life unite around a common goal. Qatar is the destination. It is building the goal.

World class investment programmes driven by global hyper-powers – HyperConnectivity, HyperComputing, HyperAutomation – to empower a world changing HyperGeneration.

Connecting continually advancing infrastructure to culture, the arts, commerce and ideas, Qatar engages and excites talent from everywhere around the world.

The Melting Pot of incredible talent invites brilliant global minds while addressing local societal wealth and talent challenges. Reflecting the ideas, culture, technology and infrastructure needed to build a better society.

IT'S THIS COMBINATION OF ENTREPRENEURIAL SPIRIT AND CREATIVITY WHICH POWERS THE HYPERGENERATION TO INSPIRE THE WORLD AND SHAPE A GLOBAL PLATFORM FOR IMPACT AND LEGACY

PERFECTING SUCCESS

Technological growth is underpinned by several key areas.

An unwavering commitment to strong connective infrastructure.

Fair regulation protecting both individuals and businesses.

A superior quality of life.

Abundant business opportunities promising access to funding for ventures and entrepreneurs.

QATAR ALREADY HAS IT ALL

For the HyperGeneration to thrive, Qatar has prioritised the following key areas:

Infrastructure

HyperConnectivity infrastructure for universal population coverage.

145% mobile broadband penetration (share of population).[8]

The fastest internet broadband available globally.

Cutting edge data centres and cloud services through strategic partnerships with leading technology companies.

A connection to the world's largest subsea cable system.

Government

Advancements in efficiency and effectiveness of government institutions and services as reflected in an improvement on the Government Effectiveness Index.

The number of services provided online has also doubled and online transactions have increased by >400% between 2014 and 2020.

Regulation

A dedicated Cyber Security State strategy.

Data protection and privacy laws, the first among Gulf Cooperation Council (GCC) countries.

The state of Qatar introduced the Data Protection and Privacy Law in 2016, and the Personal Data Privacy Protection Law" or DPL) took effect in 2017.[9]

A pioneering National AI strategy.

Cloud friendly policies and regulation, supporting expansion of cloud data centres.

A reformed immigration policy to better attract entrepreneurs, freelancers, students and elite talent.

Economy

Since 2008, Qatar's economy has experienced a solid 5% average annual growth.

During this period, Qatar has consolidated its position amongst the top 3 global exporters of Liquefied Natural Gas (LNG), established a world-class infrastructure backbone and substantially grown the size of its sovereign wealth fund.

Qatar Investment Authority (QIA) CEO Mansoor Ebrahim Al-Mahmoud stated that tech and healthcare will be key focus sectors for QIA in 2024 during an interview on the opening day of the World Economic Forum Annual Meeting in Davos.[12]

Innovation

World-leading technology companies set business in Qatar.

Credit facilities from Qatar Development Bank for a wide range of entrepreneurs and start-ups.

Incentives for private investments into Research and Development (R&D) and Foreign Direct Investments (FDI).

A new national fund of funds to activate investors in providing risk capital.

Market resilient financial conditions for individuals, entrepreneurs, and businesses alike.

Society

High living standards and life expectancy.

Vibrant and leading learning ecosystem.

Elite amenities, healthcare and social programmes.

Tax incentives.

Ranked the world's 5th safest country for the 5th consecutive year.

Global position as a mediator for peace and a provider of development and humanitarian aid.

Qatar continues to rank as the safest country in the world for the fifth time in a row.[10]

Qatar has the lowest unemployment rate globally.[11]

Q MARKS THE SPOT

Qatar is among a rare group of places so perfectly positioned to be the epicentre for a digitally empowered generation.

Its unique size, location, heritage and population mix.

Its wealth in art, commerce and technology. All place Qatar to distinctly shape global impact.

Qatar is the place where a cultivation of economic prosperity, opportunity, well-being and culture meet to become the ideal destination for technology innovation and digitally empowered ideas for the world's talent to collaborate.

Qatar's future talent and digital advancements influence economic growth to inspire a new HyperGeneration.

Shaping a reputation and making Qatar the place for global impact.

THE PATH TO VISION 2030

04

SINCE 2008, QATAR HAS BEEN DEVELOPING AN IMMENSE VISION FOR THE NATION

THE ASPIRATIONS ARE WITHIN THE QATAR NATIONAL VISION (QNV) 2030 AND THE BOLD AND TRANSFORMATIVE INITIATIVES ARE LAID OUT IN THE THIRD QATAR NATIONAL DEVELOPMENT STRATEGY (NDS3)

The ambitious NDS3 establishes the strategic priorities and overarching framework for the next phase of Qatar's development from 2024-2030.

This includes outlining seven major national outcomes with accompanying targets representing priorities that are critical for 2030 aspirations.

Across the seven-year span of NDS3, careful consideration is paid to challenges and opportunities that Qatar may face in the decades beyond 2030.

In the context of the NDS3, digital transformation serves as the cornerstone of opportunity for reaching the country's goals.

Every facet of life is intertwined with technology and as society becomes more reliant on digital infrastructure it requires wide-spread transformation to keep up.

Therefore, to successfully position the economy for long-term sustainability and prosperity, Qatar must consider an explicit strategy that includes embracing the Digital Future.

As a solid foundation, the NDS3 urges the nation to launch the Digital Agenda 2030 (DA2030) with the directive to drive digital transformation across Qatar.

THE SUSTAINABLE ECONOMIC FUTURE

A sustainable economic future for Qatar is vital. To be sustainable, the nation must ensure the economy is competitive, productive and innovative. It will achieve this by being digitally driven.

This means going beyond just digital and IT by maintaining and enhancing the already advanced Information, Communications and Technology (ICT) infrastructure.

This not only facilitates a significant increase to the size of the sector.

It also provides accessible resources, strengthened cybersecurity capabilities and empowers every individual and business to embrace digital adoption.

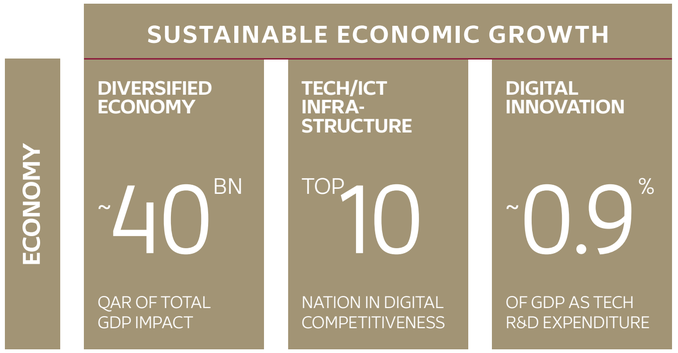
Propelling the nation into the ranks of the top 10 digital nations worldwide.

Digital transformation enabled through the DA2030 will unleash a spillover effect across all sectors of the economy.

From manufacturing, energy, tourism, logistics, financial services and education, the DA2030 aims to generate a cumulative impact of approximately **40 billion QAR and lead to the creation of 26,000 jobs by 2030.**

The DA2030 also supports the Digital Innovation ambition of NDS3. By improving the funding ecosystem, conducting R&D to foster domestic digital innovation will become easier than ever.

Qatar Digital Agenda 2030 and Third Qatar National Strategy ambition



The DA2030 aims to generate a cumulative impact of approximately 40 billion QAR and lead to the creation of 26,000 jobs by 2030.

PEOPLE POWERED

To achieve a strong digital economy it is a requirement to have a future ready workforce, a cohesive society, government excellence and high quality of life. Qatar's people expect the nation to deliver on those prerequisites.

That is why it is fundamental to the national mission to put people at the forefront of the digital future.

This requires Qatar to think not only about digital change but how it can support the next generation to become the masters of it.

Like within the NDS3, the heart of DA2030 is to equip people and businesses with the skills, infrastructure, communities, government and digital tools necessary for them to have limitless potential and opportunity.

It is the nation's commitment to future generations born and raised in the era of Hyperpowers – The HyperGeneration.

Qatar Digital Agenda 2030 input into the Third Qatar National Strategy outcomes

SUSTAINABLE ECONOMIC GROWTH

ECONOMY

DIVERSIFIED ECONOMY	TECH/ICT INFRA-STRUCTURE	DIGITAL INNOVATION
~40 BN	TOP 10	~0.9 %
QAR OF TOTAL GDP IMPACT	NATION IN DIGITAL COMPETITIVENESS	OF GDP AS TECH R&D EXPENDITURE

SOCIETY

FUTURE-READY WORKFORCE	QUALITY OF LIFE	GOVERNMENT EXCELLENCE
~10 %	TOP 10	~90 %
OF POPULATION WITH ADVANCED DIGITAL SKILLS	NATION IN CYBERSECURITY	OF GOVERNMENT SERVICES DIGITIZED

COHESIVE SOCIETY

COHESIVE SOCIETY

ENABLING NEW DIGITAL GENERATION OF QATARIS

DIGITAL AGENDA 2030

The priority vision for the DA2030 is to empower the next generation of Qataris.

The choices made today will define their present and their future. And this future Qatari generation can help shape the world. Spreading their practices, learnings and achievements.

That is why it is critical to focus on influence **today**. Ensuring the HyperGeneration have exactly what they need from the nation.

The DA2030 is the foundation of the digital transformation, enabling the nation to support the HyperGeneration to become the digital masters who can spread their learnings and achievements from Qatar across the world.

THE VISION

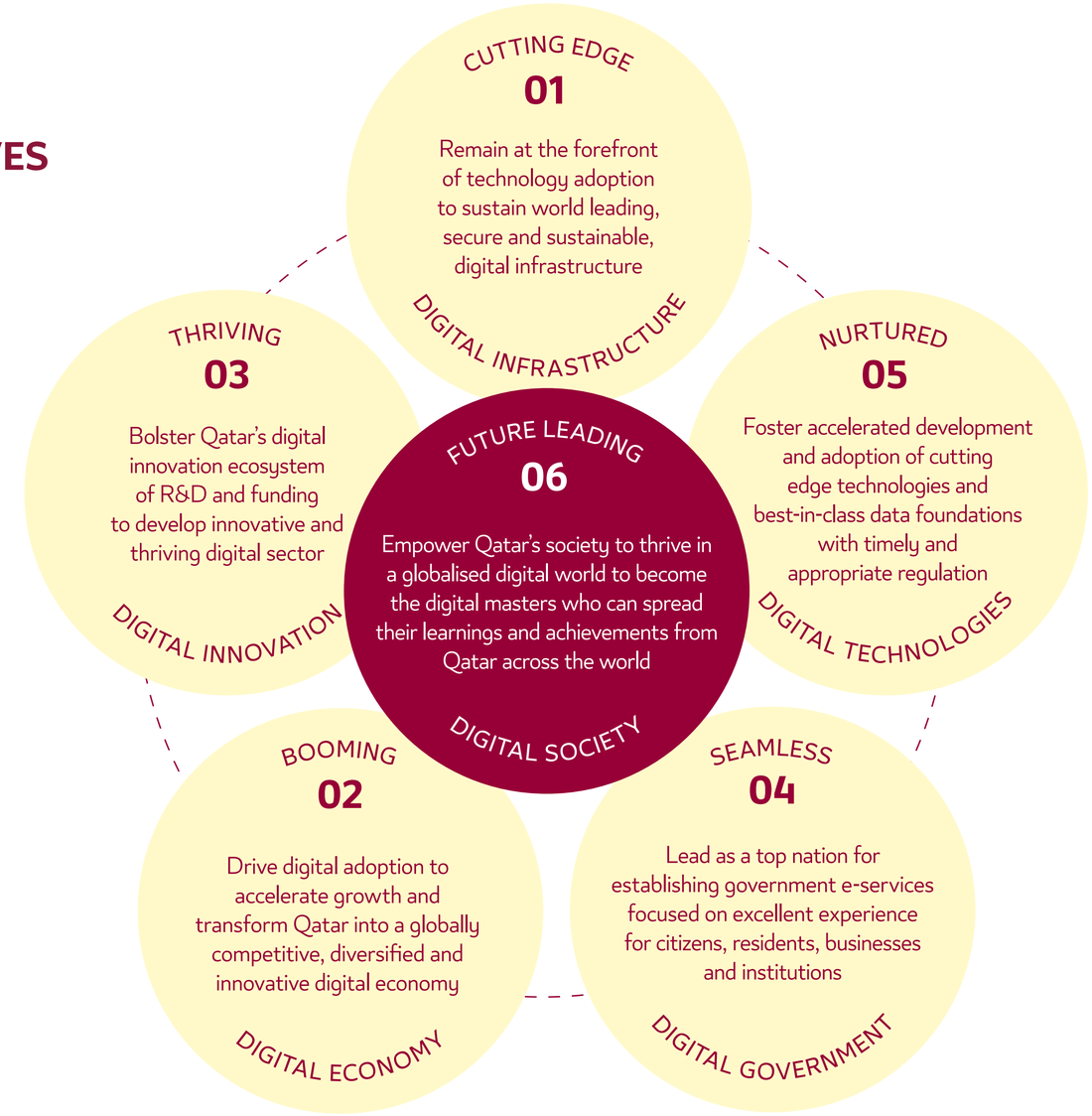
Embrace digital advancement to drive Qatar's competitiveness and prosperity.

THE MISSION

Establish a leading digital economy powered by an attractive and efficient business environment with high-yield digital investments.

STRATEGIC OBJECTIVES

To achieve the DA2030 vision and mission Qatar developed a collection of enabling projects grouped into six strategic objectives comprising 23 Strategic Programmes.



PILLAR ONE

CUTTING EDGE DIGITAL INFRASTRUCTURE

05

PILLAR ONE

CUTTING EDGE DIGITAL INFRASTRUCTURE

REMAIN AT THE FOREFRONT OF TECHNOLOGY ADOPTION TO SUSTAIN WORLD LEADING, SECURE AND SUSTAINABLE, DIGITAL INFRASTRUCTURE

The first pillar of the strategy focuses on perfecting and expanding the digital infrastructure in Qatar, serving as a backbone for nationwide digital transformation and leadership.

This effort encompasses further advancement of connectivity infrastructure and commercialisation of cloud data centre capabilities, while simultaneously prioritising sustainability via reducing the ICT carbon footprint.

Aligned with Third National Development Strategy and National Cyber Security strategy, DA2030 aims to ensure that Qatar infrastructure can withstand any malicious actions.

Finally, this pillar places a key focus on delivering advanced supercomputing capabilities to meet the growing demand of both the public and private sectors for the AI development and adoption.

STRENGTHENING CONNECTIVITY INFRASTRUCTURE

Currently, Qatar boasts state-of-the-art mobile and fixed connectivity infrastructure, with approximately 96% of the population covered by 5G and nearly 99% covered by fiber connectivity.[13]

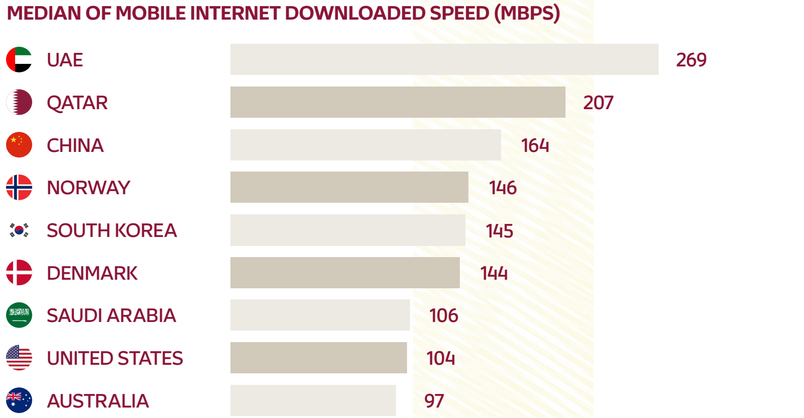
This widespread coverage is supplemented by mobile download speeds that are among the highest in the world (see Figure 1).

Moreover, in 2022, Communications Regulatory Authority (CRA) licensed Starlink to provide satellite broadband Internet services to individuals and businesses in the country via the Low-Earth Orbit (LEO) satellite constellation.

Qatar recognises the constant evolution of the robust and secure ICT infrastructure is essential to meet the future demands of a dynamic and hyperconnected world.

The successful realisation of this objective will primarily be driven by the strategic initiatives outlined in the "Economic Infrastructure" pillar of the Third National Development Strategy, along with the National Cyber Security Strategy 2023-2028.

Figure 1



CLOUD DATA CENTRE COMMERCIALISATION

Qatar's data centre infrastructure growth has been fuelled in recent years by strategic partnerships with global hyperscalers such as Microsoft and Google, who have expanded their cloud computing infrastructure within the country.[15] [16]

With additional construction, Qatar aims to double its national cloud data centre capacity.

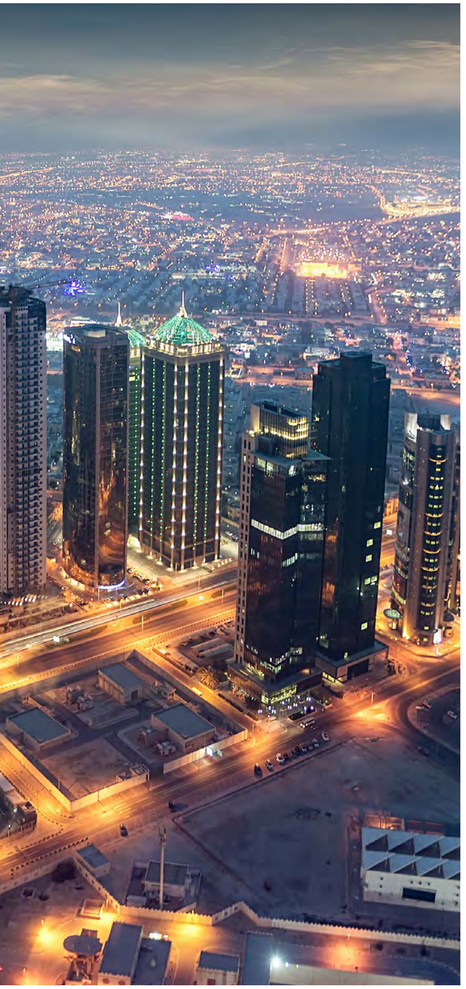
Therefore, the country will take action to commercialise Qatar based cloud capabilities, strengthening the nation's competitive advantage and positioning Qatar as a leader in data centre services.

The promotion and adoption of data centre services will be accompanied by the development of policies and exploration of emerging niches like cloud gaming or data embassies to create new revenue streams.

Additionally, Qatar will strive to raise awareness about the benefits offered by cloud services to both governmental and business entities, creating a pathway for improved productivity.

This approach will boost local demand for data center services and utilisation.

Qatar boasts an expanding data-center capacity, showing an annual growth of ~45% over the last decade reaching total capacity of 23.5 Megawatts (MW).[14]



REDUCING TECHNOLOGY'S CARBON FOOTPRINT

As part of this strategy, sustainability will remain one of the key focus areas.

Data centres currently account for approximately 2.5%–3.7% of the world's greenhouse gas emissions, surpassing the emissions of the entire aviation industry.[17]

Efforts to expand digital infrastructure will be matched by investments in renewable energy, such as new solar power plants expected to be launched by the end of 2024.[18]

Moreover, the country is committed to implementing an environmental technology programme with the goal of formulating policies to minimise the carbon footprint while expanding Qatar's ICT infrastructure.

This objective aligns with the UN Sustainable Development Goals, as well as the net zero targets outlined in initiatives including the Climate Data Center Pact, which commits its signatories (including major data center market players) to reach climate neutrality by 2030.

GROWING HYPERCOMPUTING CAPABILITIES

Qatar recognises the importance of developing high performance computing (HPC) capabilities to accelerate scientific research and enhance technological advancements.

Qatar Computing Research Institute, Qatar Center for Quantum Computing and National Biomedical Informatics Center are already driving advanced computational research and innovation within their specialised domains.

Currently, large generative AI models, with their exascale computing needs (often beyond the capacity of traditional HPCs) and potential for widespread adoption are revolutionising the design of supercomputers,[19 20 21] propelling a shift toward cloud-native AI HPC architecture.

In line with these recent developments, Qatar intends to build a National High-Performance Computing Programme aimed at expanding cloud-native HPC capabilities optimised for AI use cases within the country, to enhance applied R&D and enable new revenue streams.

The global HPC-based AI market and the cloud-based HPC market both are expected to record 75% growth. [22]

Primary Secondary

STRATEGIC PROGRAMMES

To realise the above aspirations, the following programmes will be implemented:

SP01.

Commercialise Globally Qatar-Based Cloud Capabilities

Monetise Qatar's well established data centres and cloud infrastructure by modernising current regulatory framework.

Create a policy enabling offering of data embassy capabilities to the regional trade partners and allied countries.

Regulate operations of multinational gaming companies to enrich their cloud-based gaming platforms, offering highly efficient game streaming services to local and international users.

SP02.

Develop Environmental Technology Programme

Develop Environmental Technology Programme to reduce Qatar's national digital footprint.

Transform existing data centres into sustainable and carbon-neutral entities.

Establish sustainable rules and guidelines for development of new data centres.

Establish regulation for responsible e-waste management and encourage sustainable consumption electronic assets.

SP03.

Establish National High Performance Computing Programme

Establish and operationalise cloud high-performance computing centre(s).

Deliver modernised HyperComputing environment serving as a platform that supports development of innovative applications (e.g., genome sequencing, drug discovery, climate and weather modelling, digital twins).

PILLAR TWO

BOOMING DIGITAL ECONOMY

06

PILLAR TWO

BOOMING DIGITAL ECONOMY

DRIVE DIGITAL ADOPTION TO ACCELERATE GROWTH AND TRANSFORM QATAR INTO GLOBALLY COMPETITIVE, DIVERSIFIED AND INNOVATIVE DIGITAL ECONOMY

The second pillar enables the economy to diversify by providing intensive instruction to broaden knowledge of digital sectors, ensuring Qatar is globally competitive beyond hydrocarbon exports.

This pillar aims to boost digital maturity, generate new revenue streams across industries, drive productivity and efficiencies and strengthen Qatar based companies in both local and international markets through digital technology adoption.

It aspires to develop new technological clusters to future-proof the sustainable growth of Qatar.

Furthermore, this pillar encompasses initiatives to accelerate digital trade between Qatar and other digital economies, putting the nation on the map as a global digital leader.

DRIVING DIGITAL SPILLOVER EFFECT

The global value of international trade in ICT services experienced an **80% growth** between 2017 and 2022.[25]

To effectively drive digitalisation in industry sectors, Qatar will develop sector specific strategies that align with national goals and are tailored to the unique needs and requirements of each sector.

This will enable them to unlock the value of digital transformation with the focus on driving productivity gains, fostering innovation and reducing cost inefficiencies.

By aligning sector-specific strategies with the broader national agenda, Qatar is committed to achieving synergies between sector ambitions and growth of the digital economy.

Digital Agenda 2030 also acknowledges the potential for small and medium enterprises (SMEs) in non-technology sectors to benefit from digital transformation.

Initiatives such as the Digital Transformation of SMEs Programme[23] or the joint initiative for SMEs digital transformation launchedin May 2023 by Qatar Development Bank and Microsoft[24] are key examples.

It will take progressive measures to drive the digital transformation of SMEs by providing funding and dedicated digital advisory services. This support aims to facilitate the adoption and integration of digital technologies into SMEs' business operations, thereby fostering a transition to digital.

Such assistance is essential to help these enterprises navigate their digital transformation journeys successfully, addressing challenges such as skills gaps and financial constraints.

This strategic shift is expected to unleash the digital spillover effect, thereby transforming Qatar's economy.

GROWING EXPORT OF DIGITAL SERVICES

In addition to national digital transformation, Qatar can leverage the export of digital goods and services to bolster the digital economy.

ICT services exports have been steadily increasing, reaching 4.1bn QAR in 2022, accounting for 3.7% of the total service exports value.[26]

Currently, with digital imports surpassing exports (4.3% vs 2.1% of non-hydrocarbon GDP[27 28]) and Qatari technology companies mainly focused on the domestic market,[8] the country exhibits a digital consumer profile.

As Qatar aspires to become a net exporter of digital services in the future, it aims to establish a digital export support programme committed to aiding tech companies in their global expansion.

It plans to do this through diverse strategies, facilitating access to funding, offering advisory services and delivering training.

FOSTERING CROSS-BORDER DIGITAL EXCHANGE

As reflected in the Personal Data Privacy Protection Law, Qatar recognises the importance of cross-border data exchange in fostering international trade.

Plans to further bolster this effort include developing a cross-border digital economy framework to establish clear standards for international digital trade agreements.

This effort will enable international data flows and foster cooperation while protecting the privacy and security of data.

This marks a crucial step in the expansion of its digital economy, given the growing significance of digital trade as a key diplomatic topic and the increasing prevalence of bilateral agreements aimed at stimulating digital commerce.

An example is the forthcoming Association of Southeast Asian Nations (ASEAN) Digital Economy Framework Agreement, positioned to become the world's first regionwide digital economy agreement, fostering digital integration in various areas including trade facilitation, data flows, electronic payments, entrepreneurship and talent development.[29]

Primary Secondary

STRATEGIC PROGRAMMES

To realise the above aspirations, the following programmes will be implemented:

SP04.

Priority Sectors Digital Transformation Programme

Implement digital transformation entities in priority sector regulators to accelerate digital transformation.

Create tailored guidelines and regulations, provide support, establish innovation platforms (serving as a sandbox for public and private sector).

Facilitate collaboration between private sector, public entities and academia.

SP05.

Advance SMEs & Enterprises Digital Transformation Programme

Accelerate digital transformation efforts in private small and medium-size enterprises.

(SMEs) and large companies by providing funding and advisory services.

Helping them adopt and integrate digital technologies into their business operations, improve their productivity, enhance competitiveness, and create new business opportunities.

SP06.

Establish Digital Export Support Programme

Develop and implement the Digital Export Incentivisation Programme enabling the growth of digital exports (e.g., cloud services) in Qatar.

This includes advisory and training, partnerships with global marketplaces, access to digital tools, access to funding, digital trade officers and development of digital export law to support export of digital products and assets.

SP07.

Develop Cross-border Digital Economy Framework

Define Qatar's approach towards cross-border digital economy agreements and develop a dedicated cross-border agreements framework that will support and promote the growth of digital trade.

PILLAR THREE

THRIVING DIGITAL INNOVATION

07

PILLAR THREE

THRIVING DIGITAL INNOVATION

BOLSTER QATAR'S DIGITAL INNOVATION ECOSYSTEM OF R&D AND FUNDING TO DEVELOP INNOVATIVE AND THRIVING DIGITAL SECTOR

The third pillar aspires to drive digital innovation within the technology sector of Qatar, enriching the economy and supporting the nation's transformation to a knowledge-based society.

Globally competitive, vibrant, business-led domestic innovation ecosystem elevates us from consumer of digital technologies to producer and creator, supporting true re-shaping of Qatar's ambition. It will change how the nation perceives itself and its capabilities.

This pillar encompasses initiatives that encourage domestic applied research, attract and promote foreign direct investments into R&D, streamline the commercialisation of digital-related intellectual property and create a supportive ecosystem for technology start-ups and entrepreneurs from all over the world.

ADVANCING TECHNOLOGY FOCUSED APPLIED R&D

Qatar has taken proactive measures to establish the foundations for applied research that will accelerate the development of intellectual property, including the Qatar Research, Development, and Innovation (QRDI) strategy aimed at creating a locally empowered, globally connected R&D ecosystem.

Technology-focused R&D currently accounts for 18.6% of the total R&D spending in Qatar,[30] primarily driven by the presence of renowned international universities with campuses in the country such as the University College London, Northwestern University and Carnegie Mellon University.

Promoting collaborations between the public and private sector has the potential to boost private sector investment in technology R&D, which presently accounts for 7.6% of total R&D expenditure[30] and accelerate innovation within the country.

ATTRACTING FOREIGN DIRECT INVESTMENTS

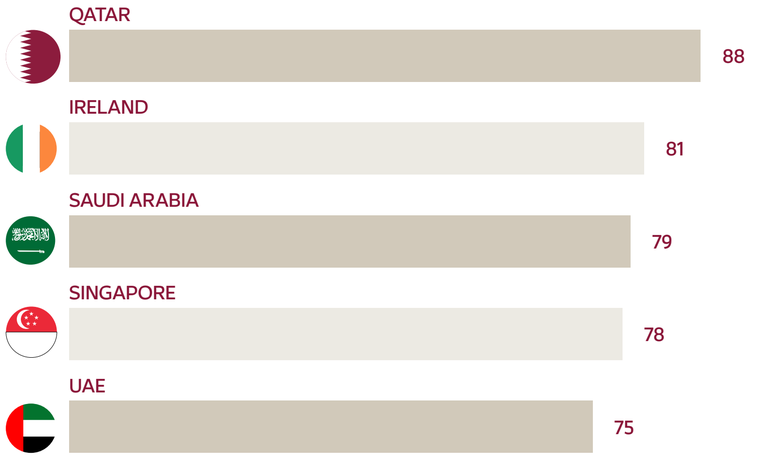
Another opportunity to drive innovation arises from foreign direct investments (FDI).[31]

In 2023, Qatar was ranked as the country with the highest FDI Momentum Index globally[32] (see Figure 2).

Qatar intends to capitalise on this achievement and make further efforts to draw digital FDIs by promoting the digital brand of Qatar, facilitating the international trade and removing administrative barriers for business.

Through the attraction of foreign technology focused venture capital (VC) and private equity (PE) funds, Qatar are also striving to fuel the expansion of tech companies and facilitate their access to funding.[8]

Figure 2



COMMERCIALISING DIGITAL INNOVATION

Over the last few years, Qatar has demonstrated a steadfast commitment to implementing solutions based on emerging technologies.

In 2022, the Hamad International Airport launched the Digital Twin Initiative, aiming to integrate information from multiple airport systems to provide intelligent recommendations for optimising operations.[33]

Furthermore, AI-powered video surveillance, crowd management and smart parking solutions significantly bolstered security during the FIFA 2022 World Cup in Qatar.[34]

The Digital Agenda 2030 will build upon these successes and further enhance expertise across various new technologies.

This will be achieved by establishing national applied programmes for emerging technologies such as Artificial Intelligence, Metaverse, Blockchain, or Internet of Things (IoT).

These programmes will primarily focus on implementing emerging technology use cases to drive innovation and propel the country's technological development forward.

Another significant opportunity emerges from enhancing the efficiency of translating high-quality inputs, such as advanced digital infrastructure, into commercially viable innovative solutions.

Qatar currently ranks 38th in innovation input on the Global Innovation Index, but holds the 67th position in innovation output, indicating an opportunity for growth.

To further enhance the commercialisation of intellectual property created in Qatar, the nation aims to develop a dedicated framework for monetising digital assets.

This framework will enable the development and commercialisation of digital solutions based on public data resources and private sector capabilities.

BOOSTING THE START-UP ECOSYSTEM

Recognising the pivotal role that start-ups play as pioneers of digital innovation, Qatar has introduced incubation centres such as the Qatar Business Incubation Center, the Digital Incubation Center or TASMU Accelerator which offers up to $50,000 in seed funding, flexibility to work from anywhere in the world and 100% retained ownership of the business.

These centres provide start-ups with easy access to resources and stakeholders, nurturing the growth of innovative companies and fostering entrepreneurship.

Through the refinement of acceleration and incubation processes for tech start-ups, the regulation of insolvency mechanisms to incentivise the exploration of innovative ideas and the provision of early-stage resources and mentorship, Qatar aims to ensure a dynamic and supportive ecosystem for entrepreneurs and digitally driven companies.

Consequently, this initiative is expected to enhance the expansion of local technology start-ups with the potential to scale.

QATAR WILL STRIVE TO BOOST A CONDUCIVE ENVIRONMENT FOR TECHNOLOGY-ORIENTED START-UPS BY OFFERING INFRASTRUCTURE, FINANCING, REGULATORY SUPPORT, NETWORKING AND MARKET OUTREACH, RECOGNISING THEIR PIVOTAL ROLE IN DRIVING DIGITAL INNOVATION

Primary Secondary

STRATEGIC PROGRAMMES

To realise the above aspirations, the following programmes will be implemented:

SP08.

Advance Technology R&D

Incentivise the private sector to increase their R&D spend related to innovative technologies and promote applied research within the public sector and academia.

Provide guidelines and standardised assets to streamline the process of patent registration and provide means for commercialisation of intellectual property.

SP09.

Establish Digital FDI Attraction Programme

Provide the necessary capabilities to attract and promote foreign direct investment (e.g., Venture Capital, Private Equity funds) and facilitate business growth, including the availability of sufficient and accessible resources, easy access to international trade and the removal of administrative barriers to business.

Promote foreign direct investment by defining Qatar's digital brand and organising international digital events.

SP10.

Establish National Applied Programmes for Emerging Technology

Build necessary knowledge and technical capabilities to enable seamless adoption of four identified key emerging technologies (AI, IoT, Metaverse, Blockchain).

The National Applied Programmes for Emerging Technology will focus on the creation and implementation of digital use cases as well as defining mechanisms for further value realisation.

SP11.

Develop National Data and Digital Assets Monetisation Framework

Develop and implement a National Digital Assets Monetisation Framework enabling public entities to monetise their digital assets (e.g., valuable datasets, virtual assets, intangible digital assets) and realise their value in safe, effective and transparent way, balancing privacy protection and economic/social benefits.

SP12.

Streamline Technology Start-Up Acceleration & Incubation

Streamline and incentivise existing national programmes to provide early-stage technology start-ups access to resources, mentorship and funding.

Enable start-ups to turn their ideas into successful businesses.

Regulate insolvency mechanisms to encourage start-ups to pursue innovative projects.

Set up targets for accelerators and incubator programmes to increase fund allocation effectiveness.

PILLAR FOUR

SEAMLESS DIGITAL GOVERNMENT

08

PILLAR FOUR

SEAMLESS DIGITAL GOVERNMENT

LEAD AS A TOP NATION FOR ESTABLISHING GOVERNMENT E-SERVICES FOCUSED ON EXCELLENT EXPERIENCE FOR CITIZENS, RESIDENTS, BUSINESSES AND INSTITUTIONS

The fourth pillar emphasises the potential of digital in reshaping our government interactions with individuals and businesses.

Reshaping done with a customer-centric mindset putting customer at the centre of everything government does.

Qatar aspires to be leaders in digital government, leveraging automation and AI to enhance all services.

This effort aims to unlock seamless service interactions, reduce manual complexities, and increase user satisfaction for Qatar's people. Additionally, it underscores the importance of innovation throughout all government-to-government (G2G) services.

GOVERNMENT SERVICES DIGITAL TRANSFORMATION

In 2008, the online government portal Hukoomi was established as a one-stop gateway providing access to all the e-services available in the country.

Additionally, in 2011, the Ministry of Interior published the Metrash2 mobile application, which became the most frequently used means of communicating with the government to date, overtaking physical channels.[35] Since then, Qatar has achieved notable advancements in digitising its services, successfully transitioning over 1,500 services to online platforms.

This has resulted in a substantial improvement in quality, usability, and user satisfaction, which grew from 58% in 2020 to 86% in 2022[8]. In 2023, the Ministry of Communications and Information Technology (MCIT) partnered with Microsoft in adopting OpenAI GPT capabilities to elevate the quality and performance of the Hukoomi portal.[36]

This reflects Qatar's commitment to continuously enhancing the digital experience for individuals and businesses.

Digital governments and their best practices are constantly evolving. Qatar intends to drive innovation in this area, unlocking enhanced beneficiary-centric support. This includes building seamless digital services structured around life journeys and key moments.

This is accelerated through the Beneficiary-Centric Government Services Transformation Programme.[37]

QATAR IS SEEKING TO INTEGRATE NEW TECHNOLOGIES, SUCH AS GENERATIVE AI, INTO ITS NEXT-GENERATION CENTRAL GOVERNMENT SERVICES

CENTRAL GOVERNMENT SERVICES MODERNISATION

Qatar has also implemented a wide range of centralised government-to-government (G2G) services over the years.

This includes the Government Cloud and Data Platform, Government Data Exchange System, National Authentication Service, E-Payment Platform, and Government Contact Center to list a few.

These services have streamlined operations, reduced redundancy, improved security, and enhanced efficiency across the government.

Looking ahead, Qatar plans to modernise and expand its G2G services by integrating emerging technologies and fostering their adoption throughout government.

To achieve this, MCIT aims to develop a GenAI-powered chatbot embedded in the Government Contact Center.

This initiative is designed to enhance user experience, streamline inquiries, and provide efficient, round-the-clock assistance to individuals seeking government services and information.

Additionally, the ministry plans to implement the Qatar Digital Pass, a next-generation national authentication service serving as a single sign-on feature for electronic government services and platforms.

This pass has the capability to digitally store personal biometric data, digital signatures, verified documents, and credit/debit cards.

To supercharge Qatar's transformation, MCIT aims to establish the GovCloud Center of Excellence.

This will facilitate the adoption of cloud services among all government entities.

This effort will encourage government agencies involved in projects for new IT systems or technology updates to prioritise considering and evaluating cloud solutions offered by government endorsed cloud service providers.

Primary Secondary

STRATEGIC PROGRAMMES

To realise the above aspirations, the following programmes will be implemented:

SP13.

Drive Beneficiary Centric Government Services Transformation

Establish a government services transformation programme.

This will deliver experience led, seamless government-to-beneficiary services.

This includes solution ideation, design, development, and deployment.

Plus, set up a marketplace platform for government entities showing recommended services, providers and solutions.

SP14.

Refine and Promote Centralised Services

Digitalise centralised G2G services (e.g., Global Service Exchange (GDX), SMS Gateway, Cloud Services).

Infuse emerging technologies to enhance government services experiences.

Supported by initiatives to promote government-wide adoption.

PILLAR FIVE

NURTURED DIGITAL TECHNOLOGIES

09

PILLAR FIVE

NURTURED DIGITAL TECHNOLOGIES

FOSTER ACCELERATED DEVELOPMENT AND ADOPTION OF CUTTING-EDGE TECHNOLOGIES AND BEST-IN-CLASS DATA FOUNDATIONS WITH TIMELY AND APPROPRIATE REGULATION

The fifth pillar of the strategy aims to enhance Qatar's data and technological capabilities.

Data is the cornerstone for hypercomputing, and integral to the digital revolution.

The country will maximise its power through data accessibility and national solutions.

This will be complimented by strengthened ICT and data regulations, allowing Qatar to harness digital benefits while mitigating potential negative impacts to society.

The nation will not only meet best-practice but be world leaders in digital regulations. Leveraging the nation's emerging technology expertise to build future-oriented policies.

STRENGTHENING ICT AND DATA REGULATORY ECOSYSTEM

Qatar has made significant strides in establishing comprehensive ICT regulations around cyber security, telecommunications and e-commerce.

In 2016, the Personal Data Protection Regulation not only codified those individual protections, but also provided data subject rights and prescribed the guidelines for organisations to process personal data.[38]

To aid transformation, Qatar has proactively established regulatory foundations for technological advancement.

Published in 2023, the National Data Classification Policy[39] facilitates secure information exchange, strengthens data practices, and enhances data protection measures.

Qatar continues to develop policies and the required controls for implementing and governing data management practices among government entities.

This includes data sharing, metadata management, data storage and operations, data architecture and data quality. This initiative seeks to further unlock data-driven innovation and foster responsible data utilisation.

ESTABLISHING DATA AS A NATIONAL ASSET

Data plays a central role in digital transformation, serving as a cornerstone for progress and a strategic asset.

Qatar recognises the value of developing data and analytics capabilities at the national level and have already established a dedicated open data portal.

This fosters creation of data products and digital solutions.

The nation is committed to constantly enhancing the accessibility of data owned by government entities and facilitating the creation of national and sectoral data banks.

This is a key part of Qatar's effort to enable sectors and government entities to build data and analytics services and products.

QATAR'S OBJECTIVE IS TO ESTABLISH A SPECIALISED FORESIGHT CENTRE FOR FUTURE-ORIENTED STUDIOS TO PROACTIVELY SHAPE POLICY DESIGN, ANTICIPATING AND ADAPTING TO EMERGING TRENDS

EMBRACING EMERGING TECHNOLOGIES

Expanding on the nation's data foundations, in 2019 Qatar published the National Artificial Intelligence Strategy. This aims to leverage AI to secure Qatar's economic and strategic future.[40]

Following this, in 2022 Qatar announced the National Blockchain Footprint of Qatar Report.

This highlighted the importance of blockchain technology for the IT sector and digital economy.[41]

To expand the scope of emerging technology development plans,[42] Qatar will develop a national regulatory framework that specifically tackles the opportunities and challenges within this dynamically evolving landscape.

The proliferation of generative AI requires a thorough analysis of the potential benefits and threats arising from its use. Plus, strategic consideration for AI regulations.

FUTURE ORIENTED POLICY ENVIRONMENT

The International Telecommunication Union (ITU)G5 Benchmark, which assesses regulations in the digital area, currently positions Qatar in the "Advanced" category,[43] highlighting the strength of the country's regulatory framework.

By building knowledge of future technologies, Qatar is well placed to anticipate and understand emerging trends.

Therefore, it is well-positioned to proactively shape new digital policies.

Primary Secondary

STRATEGIC PROGRAMMES

To realise the above aspirations, the following programmes will be implemented:

SP15.

Refine ICT Regulatory Landscape

Modernise and extend current ICT regulatory framework (e.g., IP Protection Law, Cybercrime Prevention Law, Digital Trust legislation, E-Commerce and Transaction Law).

This will encourage innovation, promote transparency and enhance reliability and security.

SP16.

Develop National Data Management Frameworks

Develop a National Data Management Framework.

This will consist of key data-management domains and help structure future data efforts.

Based on that framework, a National Data Strategy will be developed and National Data Management Standards created.

This will build a sustainable foundation for future data value realisation and encourage government entities to publish open data.

SP17.

Establish National Data & Analytics Programme

Establish a National Data & Analytics Programme.

This will equip sectors and government entities with the necessary technical capabilities to support data and analytics solutions.

Create and utilise sectorial data repositories and business intelligence solutions.

This will improve government decision-making, build better public services, and stimulate economic growth.

SP18.

Develop National Emerging Technologies Framework

Develop a National Framework for four key Emerging Technologies (Metaverse, IoT, Blockchain, AI).

This includes strategies, policies, and regulations that promote the effective development, deployment, scaling and widespread adoption of emerging technologies.

Plus, ensure safety and privacy.

SP19.

Establish Technology Foresight Centre

Establish and operationalise a Technology Foresight Centre.

This will conduct future-oriented studies on emerging technologies.

This will enable us to proactively define the regulations, policies and guidelines required for the nation to grow its digital economy.

Additionally, it will help mitigate any negative impacts of the new digital revolution.

PILLAR SIX

FUTURE LEADING DIGITAL SOCIETY

10

PILLAR SIX

FUTURE LEADING DIGITAL SOCIETY

EMPOWER SOCIETY TO THRIVE IN A GLOBALISED DIGITAL WORLD AND BECOME THE DIGITAL MASTERS WHO CAN SPREAD THEIR LEARNINGS AND ACHIEVEMENTS FROM QATAR ACROSS THE WORLD

The sixth pillar of the Digital Agenda 2030 acknowledges the vital role of society as the driving force of the digital transformation.

It emphasises attracting and developing digital talent, educating the broader population on digital technologies and engaging people in the digital economy.

It tackles the regulatory challenges associated with evolving work environments and remote work. By fostering societal shifts, engaging Qatari youth and global talent, it aspires to make a digitally empowered, generational impact for Qatar and beyond.

It targets to shape a global platform for impact and legacy, to create a HyperGeneration.

ATTRACTING GLOBAL DIGITAL COMPETENCIES

The digital workforce in Qatar has doubled over the past decade, reaching almost 21k in 2021,[44] but further growth is still required.

To address the gap in the ICT workforce (64% of technology companies find it difficult to hire[8]), Qatar is taking additional steps to source digital talent from abroad.

The country is set to launch a programme designed to attract digital talent by introducing a dedicated, fast-track visa tailored for highly skilled digital professionals.

Moreover, Qatar aims to launch an e-residency programme providing the opportunity to access and utilise digital services, conduct business, and engage in various activities within the digital ecosystem without physical presence.

CULTIVATING LOCAL DIGITAL TALENT

While talent sourcing is crucial in the short term, a long-term strategy requires a concurrent focus on local talent development.

Qatar aims to leverage both its well-established higher education infrastructure and cooperate with leading digital companies in the country to advance this objective.[42]

In 2022, the Ministry of Communication and Information Technology, in collaboration with Microsoft, launched Qatar's National Skilling Programme, which aims to train 50,000 people across all demographics by 2025 in advanced digital skills.[45]

Moreover, Qatar will engage in the promotion of science, technology, engineering and mathematics (STEM) to enrich the digital talent pool and will strive to provide incentives for graduates with digital skills to continue their careers in Qatar after graduation.

The efforts aimed at growing the digital talent pool in Qatar will be structured under the digital talent development and retention programme.

99.7% OF THE QATAR'S POPULATION USES THE INTERNET[8]

ENSURING DIGITAL INCLUSION

Establishing a sustainable digital economy, where newly developed digital services seamlessly integrate into people's daily lives, requires a population equipped with essential digital skills and an eagerness to embrace the offered solutions.

Qatar has a unique advantage in cultivating a digitally literate society: Qatar has one of the world's youngest populations, with 83% falling within the age bracket of 15-64.[46]

This group demonstrates high usage of digital devices, with nearly universal smartphone penetration rates.[36] However, given the country's special demographics with a high percentage of expatriate workers, Qatar aims to ensure that all individuals have the necessary skills and resources to become an active participant in the digital economy.

This commitment involves an expansion of the digital inclusion programme and the implementation of educational initiatives, equipping individuals with the necessary skills to proficiently utilise digital tools and navigate online platforms such as e-government services, online banking, or e-commerce.

ADDRESSING NEW WAYS OF WORKING

The rise of remote work has created a pressing need for regulations in this area.

The benefits of flexible work arrangements have been recently exemplified in multiple studies.[47]

Recognising the benefits for employees and employers, Qatar is committed to promoting new ways of working, including creating a dedicated regulatory framework that safeguards the rights of both parties in the context of remote work.

This framework will provide clarity and guidelines to ensure a fair and conducive remote work arrangement for all involved stakeholders.

Primary Secondary

STRATEGIC PROGRAMMES

To realise the above aspirations, the following programs will be implemented:

SP20.

Establish Digital Talent Attraction Programme

Establish programmes to supply local demand for digital talent by issuing dedicated visas to highly skilled digital professionals and providing digital talent with E-residency opportunities, which allows employment by companies from Qatar while not being physically in the country.

SP21.

Establish Digital Talent Development & Retention Programme

Incentivise local talent to pursue technology degrees in Qatar and ensure that compelling career opportunities and living conditions are offered to those who remain in Qatar after graduation.

This includes additional learning opportunities for working professionals to develop and improve their digital skills.

SP22.

Expand Digital Inclusion Programme

Expand the existing Digital Inclusion programme by improving the level of digital literacy (use of e-government services, adoption of online banking, e-commerce etc.) among the general population, especially across under-represented social groups (women, elderly, people with disabilities) through various trainings and social campaigns.

SP23.

Promote the New Ways of Working

Promote remote work in Qatar and amend the existing labour law to incorporate a dedicated section that specifically addresses the legal aspects of remote work.

This will encompass contracting limitations, the privacy of remote work, safeguarding the worker's personal life and defining employer's rights to supervise the work.

ENABLING THE DIGITAL AGENDA FOR CHANGE

11

QATAR IS READY TO MAKE ITS MARK

TO RAPIDLY UNLOCK VALUE FROM THE DA2030, MCIT HAS DESIGNED AN IMPLEMENTATION ROADMAP

To clearly define the prioritisation stages, several criteria have been assessed including programme dependencies, time-to-value components and budget requirements.

The roadmap reflects a commitment to transparency and accountability, as well as ongoing ambitions to deliver change, fast.

The implementation roadmap is divided into four stages:

The DA2030 is rooted in dynamic and forward-thinking ideas.

Always evolving, it will harness innovation across government entities, sectors, national champions, private organisations, academic institutions and wider society.

This collective effort is pivotal to the roadmap success.

1. FORMATIVE ACTIONS	2. DIGITAL GOVERNMENT EXPANSION AND DATA FOUNDATIONS	3. APPLIED DIGITAL PROGRAMMES	4. DIGITAL EXPORT
2024–2025	2025–2027	2026 ONWARDS	2026 ONWARDS
Mobilising for change Setting up a clear governance model, implementing a change management programme and building a value realisation office.	**Building the digital foundations** Driving beneficiary-centric e-government services transformation and setting up strong data foundations.	**Accelerating Digital Adoption** Transforming digital sectors and implementing digital use-cases across various other industries.	**Digital excellence at scale** Monetising digital assets and elevating Qatar's presence and position in global digital trade.

FORMATIVE ACTIONS

The next steps for 2024-2025, driving impact today and building the tools for long-term success.

Clear Ways of Working

A model with clearly defined roles, responsibilities, and processes to ensure efficient decision making, accountability, ownership and alignment with national objectives.

Digital Economy Tracking

A digital economy measurement framework to quantify the digital economy in Qatar throughout the strategy's implementation and its contribution to the GDP.

Change Implementation

A change management programme to ensure that all sectors and relevant stakeholders have high visibility and are fully committed to the realisation of the Digital Agenda 2030.

Value Measurement

A dedicated Value Realisation Office (VRO) to measure the value and impact of digital initiatives, tracking key performance indicators and ensuring the realisation of anticipated benefits and outcomes.

Digital Maturity Monitoring

A sectorial digital maturity index to gauge the level of digital advancement among entities in Qatar and monitor the progress of digital adoption across priority sectors.

THE FUTURE

12

THE IMPACT OF THE DA2030 SPANS ACROSS THE NATION AND BEYOND

ENHANCING THE LIVES OF QATAR'S PEOPLE AND THOSE CONNECTED TO THE NATION.

To drive change Qatar's key players, both within Qatar and across the globe, must come together.

Everyone plays a part in the digital journey, reaping unique benefits from the transformation.

KEY PLAYERS

Citizens

The new generation empowered by digital change.

They experience the advantages of innovation across every touchpoint of their lives. Vibrant communities, enhanced education, and a thriving digital work sector.

Business

A new era for business, benefiting from the growth of a sustainable and diversified economy.

The DA2030 underpins a world-class business environment. It supports low economic volatility, strong infrastructure, a digital-savvy workforce and favourable regulation. This is the land of innovation, complemented by unparalleled access to regional and global markets.

Start-ups

Qatar is a nation of opportunity and the DA2030 unlocks new incentives for start-ups.

From access to venture funding to start-up friendly regulation and an ever-growing digital workforce, Qatar is a prime choice for new companies.

Investors

The DA2030 gives investors the opportunity to be part of a spectrum of exciting digital ventures and companies.

They are supported by transparent laws and regulation and can benefit from an increasing range of investment options.

Global Talent

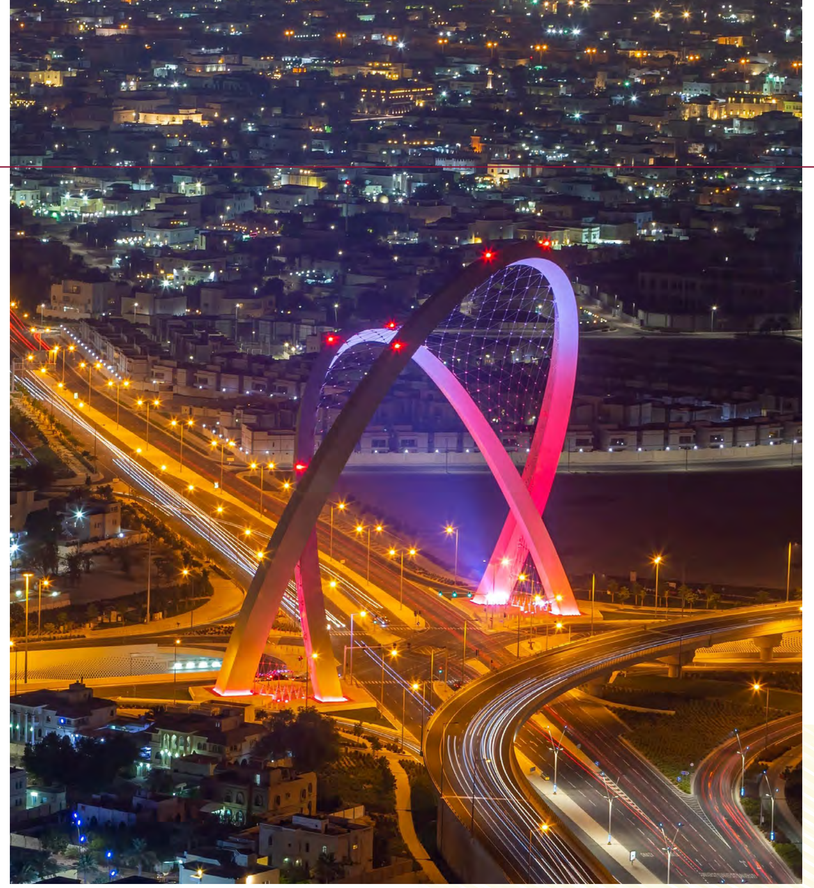
Qatar is expanding the HyperGeneration.

The digital transformation is growing employment opportunities spanning major corporations to promising start-ups. Combined with an enhanced quality of life, world-leading security and a vibrant culture, Qatar continues to attract the best talent for the nation.

Government Entities

The DA2030 weaves through the entire government ecosystem.

Turning the public services digital across all entities, and ensuring efficiency, compliance and satisfaction for all people.



LOOKING FORWARD

By understanding the impact of today's global hyper-powers, Qatar positions itself as a key player in the Digital Future.

The DA2030 outlines the overarching framework, direction, and objectives for the next period of the nation's development (2024-2030).

It is the catalyst to achieve the future vision for Qatar.

A global talent hub driving digital development.

A nation enabled by a sustainable and diverse economy.

Driven by a generation of Qataris empowered to change the world – the HyperGeneration.

To achieve success, everyone must work together as one nation. Bringing strengths together across the nation's people, businesses, and government. Collaborating to overcome challenges and unlock Qatar's greatest ambitions.

Together, transformation can be achieved across Qatar, new opportunities unlocked for future generations and lasting impact on the world.

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