



وادي تسمو الرقمي  
TASMU DIGITAL VALLEY

# QATAR DIGITAL INVESTMENT OPPORTUNITIES

وزارة المواصلات والاتصالات  
MINISTRY OF TRANSPORT  
AND COMMUNICATIONS





وادي تسمو الرقمي  
TASMU DIGITAL VALLEY





# FOREWORD

In the wake of a world gradually shedding its dependence on fossil fuels, energy-based economies globally have recognized the need to push strongly to diversify their economies. The Qatar National Vision 2030 emphasizes the development of “a diversified economy that gradually reduces its dependence on hydrocarbon industries, enhances the role of the private sector and maintains its competitiveness”. A major thrust of these efforts has been the increasing emphasis given to the development of the digital economy as a means of empowering the private sector and driving the advancement of the nation to lead industry 4.0. In support of the Qatar National Vision 2030, The Ministry of Transport and Communications has launched a revolutionary TASMU Smart Qatar program, aimed at using emerging and digital technologies to transform the delivery of key public services and to act as the catalyst for driving digital adoption throughout the wider economy. The program is focused across five key sectors, Healthcare, Environment, Sports, Transport and Logistics. Together with our partners, which include the Ministry of Commerce and Industry, Qatar

Development Bank, Qatar Financial Centre and Qatar Free Zone Authority, we have embarked on wide ranging initiatives to support the ideation, incubation and scaled growth of digital business solutions in Qatar. While we continue to develop the digital ecosystem locally, we endeavor to extend our reach internationally, to attract leading digital companies to Qatar. The breadth of the opportunities in digital provided by TASMU and other major programs such as Lusail Smart City and the 2022 FIFA World Cup, in addition to the growing demands of the private sector, provides a sound demand base and a compelling reason for companies to invest in Qatar. In this investment catalogue, we have aggregated a range of digital opportunities present in the market; our aim is to provide an overview of the market opportunities in Qatar to inform investment decision-making. This investment catalogue and any subsequent editions will be available through the launch of the Tasmu Digital Valley portal, which will feature live investment opportunities as part of a wider service offering targeted at supporting the growth of the digital industry.

Through this catalogue, we reiterate our commitment to making Qatar a leader in the evolution and application of the most advanced digital solutions in the world, where we make our citizens the center of such investments. In the process of doing so, we will continually learn and adapt to emerging economic and technological developments and challenges in order to maintain our trajectory to become the leading destination for global investment. I would like to extend great thanks and gratitude to H.H. The Emir, Sheikh Tamim Bin Hamad Al-Thani and H.E. The Minister of Transport and Communications, Jassim bin Saif Al Sulaiti for their guidance and support. Finally, I would also like to thank the many Government and private sector entities operating in the country that contributed to the creation of this catalogue.

**Reem Al-Mansoori**  
Assistant Undersecretary of Digital Society  
Development Sector  
Ministry of Transport and Communications



وادي تسمو الرقمي  
TASMU DIGITAL VALLEY

# CONTENTS

1	FOREWORD
4	<b>01</b> QATAR AND ITS CULTURE
6	<b>02</b> ECONOMY AND BUSINESS
8	<b>03</b> SMART NATION TRANSFORMATION
10	<b>04</b> INVESTMENT CATALOGUE
14	<b>05</b> INVESTMENT OPPORTUNITY INFOGRAPHICS

## INVESTMENT OPPORTUNITY INFOGRAPHICS

- 14 \_\_\_\_\_ **Augmented and Virtual Reality (AR/VR) in Transportation**
- 15 \_\_\_\_\_ **Cloud computing in Postal Industry**
- 16-20 \_\_\_\_\_ **Internet of Things (IoT) in Transportation**
- 21-23 \_\_\_\_\_ **Internet of Things (IoT) in Healthcare**
- 24 \_\_\_\_\_ **Internet of Things (IoT) for Smart City Applications**
- 25 \_\_\_\_\_ **Internet of Things (IoT) – Information Accessibility**
- 26 \_\_\_\_\_ **IT Consulting in B2B Ecommerce**
- 27 \_\_\_\_\_ **IT Consulting in eCommerce**
- 28 \_\_\_\_\_ **IT Consulting in Digital Payments**
- 29 \_\_\_\_\_ **IT Consulting in Online Retail**
- 30 \_\_\_\_\_ **IT Consulting in Digital Wallets**
- 31 \_\_\_\_\_ **IT Consulting in On-Demand Services**
- 32 \_\_\_\_\_ **IT Consulting in Sports for Fan Identification System**
- 33 \_\_\_\_\_ **Custom Application Design & Development in Postal Industry**
- 34-35 \_\_\_\_\_ **Custom Application Design & Development in Logistics**
- 36-39 \_\_\_\_\_ **Custom Application Design & Development in Agriculture**
- 40 \_\_\_\_\_ **Big Data Analytics in Transportation**
- 41 \_\_\_\_\_ **Big Data Analytics in Healthcare**
- 42-43 \_\_\_\_\_ **Big Data Analytics in Logistics**
- 44 \_\_\_\_\_ **Big Data Analytics in Agriculture**
- 45-46 \_\_\_\_\_ **Big Data Analytics in Sports**
- 47 \_\_\_\_\_ **Big Data Analytics in Environment**
- 48 \_\_\_\_\_ **Block Chain for eCommerce (Theqa Program)**
- 49 \_\_\_\_\_ **Artificial Intelligence in Autonomous Vehicles for Logistics**
- 50-51 \_\_\_\_\_ **Hardware & Software Deploy & Support in Healthcare**
- 52 \_\_\_\_\_ **Hardware & Software Deploy & Support in Postal Industry**





وادي تسمو الرقمي  
TASMU DIGITAL VALLEY

# SMALL IN SIZE, BIG ON ACHIEVEMENTS

## QATAR'S TRANSFORMATION

Nestled within the Arabian Gulf, Qatar is one of the world's wealthiest energy-producing nations. Traditionally a hub for fishing and pearling over the past five decades the country has experienced a rapid transformation and now ranks 30th in the United Nations Global Competitive Index with the highest per capita income in the world.

**Qatar welcomes diversity; its capital Doha is home to around 2.4 million people from around 90 different countries and is one of the most accessible and diverse cities in the region.**

**Over the past few decades, it has experienced a tremendous surge in development and in so doing has welcomed the world to Qatar. Doha, with its unique blend of western influence and traditional Arabian heritage allows visitors to experience a rich cultural history that few other nations in the region can offer.**

It is perfectly positioned, only a seven-hour flight from most major European capitals and within close proximity to the rest of the Asian and African markets. This allows investors from around the world to capitalize on the many opportunities in this rapidly advancing nation and the wider region.

## **THE GOVERNMENT HAS HEAVILY INVESTED IN EDUCATIONAL INITIATIVES IN RECENT DECADES.**

Qatar now possesses a literacy rate of 97%, and has an expenditure on education reaching as high as 13.2% of total annual government spending. Qatar Foundation (QF) has played a significant role in helping develop the education sector by establishing Education City, which houses the branch campuses of a number of international colleges and universities. QF has also invested in developing more cutting-edge research and development (R&D) facilities that are designed to support the country's economic transition.

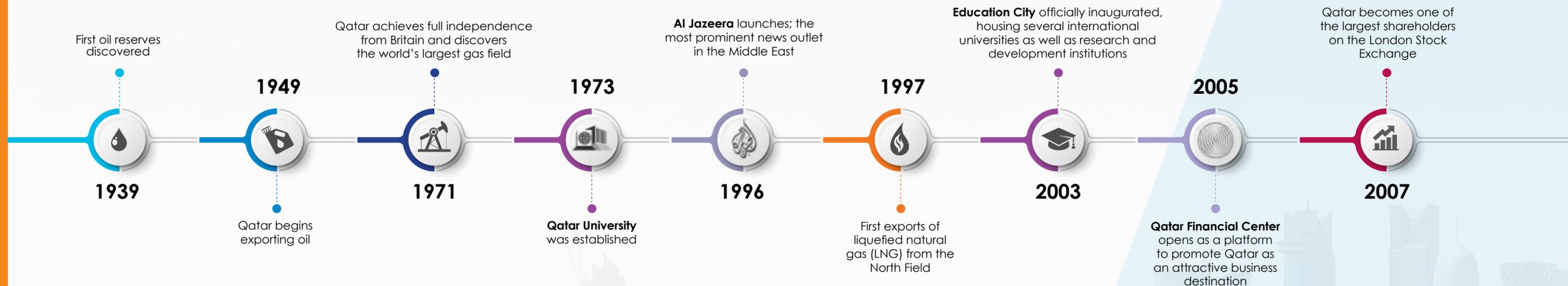
The Qatar Government has undertaken a major infrastructure program in anticipation of the 2022 FIFA World Cup. It has allocated significant investments towards the development of new roads and a newly opened Metro, with planned extensions to the metro and upgrades to world-leading Hamad International Airport and Hamad Port still to come. Domestically Qatar boasts a new state of the art hospital for women and children and it is one of the world's first markets to roll out 5G telecommunications infrastructure. With the eyes of the world on Qatar 2022, the World Cup is a critical element in Qatar's goal of re-envisioning its place on the global stage and meeting the government's objectives of attracting 5.6m tourists annually.





وادي تسمو الرقمي  
TASMU DIGITAL VALLEY

## SOLID FOUNDATIONS, DARING INNOVATIONS *ECONOMY AND BUSINESS TIMELINE*



## ACCOMPLISHED PAST, PROMISING FUTURE *VISION 2030*

In 2008 under the patronage of HH the Father Emir Sheikh Hamad bin Khalifa Al Thani the Qatar National Vision 2030 was launched. The National Vision aims at transforming Qatar into an advanced country capable of sustaining its own development and ensuring high living standards for its people for generations to come. Its development goals are set out in the plan's four interconnected strategic pillars:

### 1. HUMAN DEVELOPMENT

Development of all Qatar's people to enable them to sustain a prosperous society. Qatar aspires to invest in its human capital, nurturing the capacities of its citizens in order to develop and improve their ability to build and maintain a prosperous society.

### 2. SOCIAL DEVELOPMENT

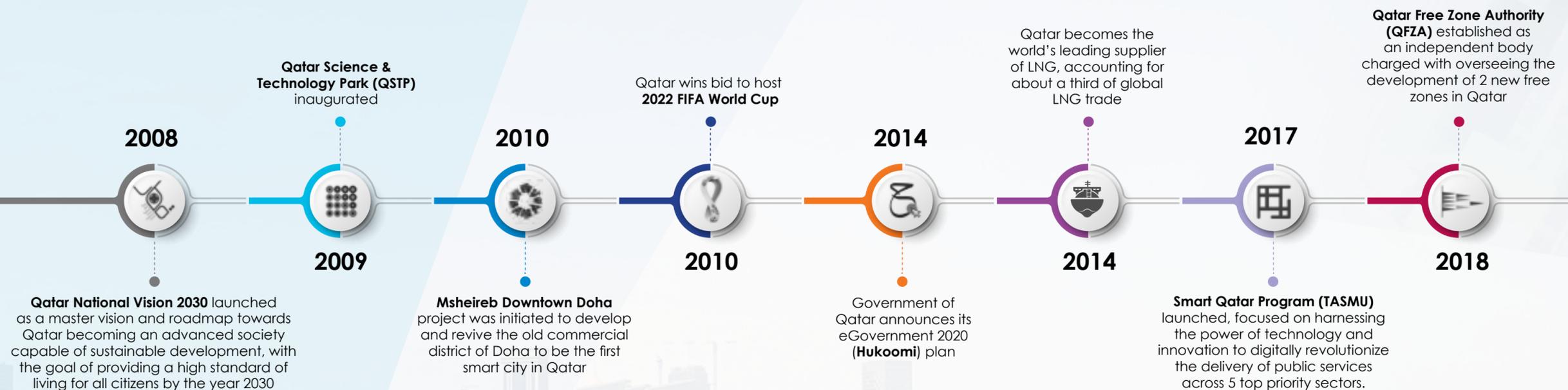
Development of a just and caring society based on high moral standards, and capable of playing a significant role in the global partnership for development.

### 3. ECONOMIC DEVELOPMENT

Development of a competitive and diversified economy capable of meeting the needs of, and securing a high standard of living for all its people both for the present and the future.

### 4. ENVIRONMENTAL DEVELOPMENT

Management of the environment such that there is harmony between economic growth, social development and environmental protection. Whilst Qatar's sound management of its hydrocarbon resources will continue to be a major source of the economy, Qatar is seeking to develop a diversified economy where investment moves towards a knowledge-based economy and the private sector grows in importance.



## EMBRACING THE DIGITAL ECONOMY

The digital ecosystem in Qatar has been advancing rapidly. In addition to direct government investments in the sector, entrepreneurs and SMEs are reaping the benefits from a range of incubation and acceleration programs established by governmental organizations. These programs, offered through institutions such as the Digital Incubation Center, Qatar Science and Technology Park, Qatar Business Incubation Center and Qatar University, provide various offerings supporting fledgling entrepreneurs in research and development, ideation and business planning, prototyping and manufacturing, and funding and marketing.

In 2019, Ooredoo was first in the world to launch a 5G commercial network. With the rapid adoption of digital technologies and the presence of key strengths such as excellent infrastructure, stable economy and business-friendly

environment, Qatar is positioning itself as a destination for digital innovation and growth.

Digital enablement is a theme of several key megaprojects currently ongoing in Qatar, which include Lusail City, Doha Metro, and Hamad Port alongside the many other infrastructure projects supporting the 2022 FIFA World Cup. These projects are utilising the latest in digital solutions and collectively constitute a powerful statement of intent from Qatar on digital.

Leveraging emerging and digital technologies to enable the advancement of the nation is an essential theme for government. Several major initiatives have recently been launched, creating an even more significant market for companies wishing to invest in Qatar.



وادي تسمو الرقمي  
TASMU DIGITAL VALLEY

# SMART CITY TRANSFORMATION



*Hukoomi and Tasmu  
are two initiatives at the  
digital core of the  
Qatar National Vision 2030*



## E-GOVERNMENT STRATEGY “HUKOOMI”

Derived from the National Development Strategies, “Hukoomi” is an E-government strategy launched by the government of Qatar that aims to leverage new technology to provide a better life for all communities in Qatar:

1. Members of the public will be able to access e-Government services that are simple, secure, and available anytime, anywhere.
2. Businesses and private organizations will find it easier, simpler, and faster to register and operate a business. Qatar's Strategy for economic diversification relies on creating the right environment for investment and businesses and removing any barriers to doing business so that the economy can continue to grow and develop.
3. Government entities will be confident they are providing better services to people and businesses, are more efficient, and are achieving better overall outcomes for the nation. The result is savings in public administration due to e-Government, and timesaving to citizens and other users. Beyond savings of cost and time, the E-government strategy also creates greater transparency and higher-quality outcomes for the Qatari population at large.

## SMART QATAR PROGRAM (TASMU)

In line with the QNV 2030 and National Strategy development goals, the Ministry of Transport and Communications (MOTC) launched the Smart Qatar Program (TASMU). The program intends to harness the power of digital technologies to deliver outcomes to the citizens, residents and visitors of Qatar and drive a sustainable economic agenda.

TASMU promises to transform Qatar into a world-leading smart nation. The benefits of this program will reverberate by increasing the standard of living and increase Qatar's competitiveness internationally by creating a knowledge-based economy with a technically perceptive population. Since the program launch, the Qatari government intends to invest USD\$1.65 billion over the next five years across five (5) priority sectors, which consist of 107 digital use cases. These use cases will provide a foundation for investments into Qatar's digital revolution across the following five sectors:



## DEVELOPING THE DIGITAL ECOSYSTEM

In order to prepare the nation for the benefits of these public investment programs, as well as numerous other public and private sector initiatives, MOTC is placing great emphasis on developing the ecosystem that will support and ultimately benefit from this transformation.

The small-to-medium enterprise (SME) sector is a key part of every economy, constituting the overwhelming majority of the absolute number of businesses in a nation. MOTC has identified this sector as a vast untapped market for digital transformation and has embarked on several ongoing initiatives and incentives designed to support companies with their transformation and training needs. The needs of this sector will only increase as the focus areas for these technology transformations become more advanced.

Alongside developing the existing digital sector in Qatar, the government is looking to attract foreign direct investment by digital companies and a number of incentives are already in place with more on the horizon.

**The Qatar Free Zones Authority (QFZA)** was created in 2018 to oversee and regulate several world-class free zones in Qatar, and it has identified emerging technologies as a vital focus sector. It offers outstanding opportunities and benefits for businesses seeking to expand investment in this burgeoning digital nation such as:

- > 100% foreign ownership of your business with full capital repatriation
- > 20 years of corporate tax holidays, no individual income taxes, and zero customs duties on imports
- > Potential access to a USD\$3 billion government backed fund specifically dedicated to promote growth
- > State of the art office facilities, large flexible land options and access to world class transport systems

**The Qatar Financial Center Authority (QFCA)** is a leading business and financial centre leading domestic and international growth and focusing on digital and other key sectors.

**Qatar Science and Technology Park (QSTP)** established by Qatar Foundation is key hub to drive research and development of technology-based companies.

**Manateq (Economic Zones Company)** is mandated to support the economic diversification of Qatar by developing special zones and industrial parks for international business and small-medium enterprises.



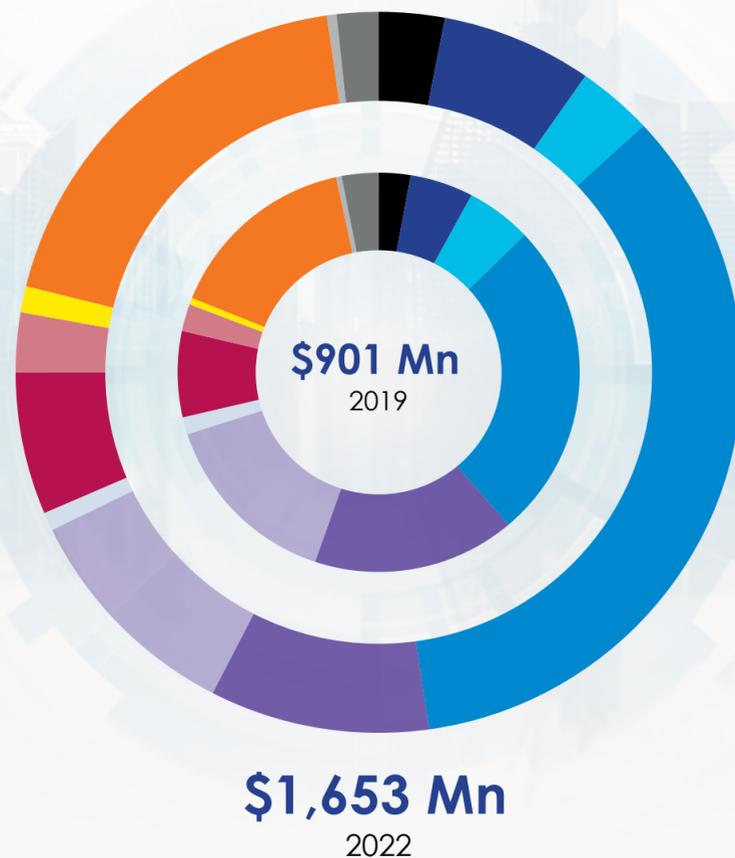
وادي تسمو الرقمي  
TASMU DIGITAL VALLEY

# TASMU DIGITAL VALLEY

To support in the development of Qatar's digital ecosystem, Tasmu Digital Valley program is an innovation cluster where different sectors can come together to help achieve the vision of Smart Qatar. It is a platform that connects entrepreneurs, startups, investors, academics, researchers, students, multinational corporations and institutions with the common goal of innovating new digital solutions. Tasmu Digital Valley has identified 15 priority technology areas of projected high growth in Qatar. **The market value of these priority technologies is expected to exceed USD\$1,653 million by 2022.**

## INVESTMENT OPPORTUNITIES' MARKET SIZE\*

(Million USD)



OPPORTUNITY	2019	2022	CAGR
IoT	233	573	35%
Cyber Security	143	314	30%
Systems Integration	136	170	8%
Hardware / Software Maint & Support	145	162	4%
Cloud Computing	47	112	35%
Big Data Analytics	62	108	20%
ERP	49	56	5%
AR/VR	22	49	36%
Drones	22	42	22%
IT Consulting	27	31	5%
Blockchain	1.8	19	120%
Custom Application Design	12	13	4%
Artificial Intelligence	2	5.7	40%



### AUGMENTED AND VIRTUAL (AR/VR) REALITY

Augmented Reality (AR) enhances the user's current view of reality with digital information, Virtual Reality (VR) immerses the user in a simulated environment obscuring reality.

The Qatari market is expected to grow 36% annually to reach USD\$49 million in 2022.

This growth is driven in part by growth in key industries, such as entertainment and sports. The FIFA World Cup presents significant opportunities for this technology as do a number of major engineering projects and the healthcare sector which is a priority sector for Qatar.



### CLOUD COMPUTING

Cloud Computing is the delivery of computing power, database storage, applications, software, analytics, and other IT resources over the Internet. A Cloud services platform owns and maintains the hardware, while users provision what they need through a web application.

The cloud computing services market is in high demand in Qatar. Out of 107 use cases identified in Tasmu Smart Qatar Program, 81 use cases will require a cloud solution to be realized. Moreover, high awareness and the current low adoption rate of cloud computing services mean that the vast majority of Qatari businesses are potential cloud customers.



### DIGITAL CONTENT

Digital content includes information that is digitally broadcast, streamed or contained in computer files and delivered via online and mobile media. Digital content comes in many forms, ranging from text, audio and video files to graphics, animations and images.

The 93% internet and 95% mobile penetration rates in Qatar, indicate a high demand for digital content, especially for Arabic content where there is currently a gap in supply.



### INTERNET OF THINGS (IoT)

The Internet of Things (IoT) is a system of connected devices that speak to and interact with each other and other networks to improve the way our lives and businesses operate.

Overall, IoT market is expected to see significant growth over the next five (5) years, with Qatar growing higher than the regional average. This growth will be driven by the Tasmu Smart Qatar program as well as several infrastructure megaprojects, which plan to integrate IoT technologies.



### PAYMENT GATEWAYS

The system and infrastructure that facilitates payments from e-commerce stores. It processes the transactions from a website, thus enabling merchants to accept and manage payments and securely mitigate frauds.

Payment gateways are inevitably linked to eCommerce, the government is launching a number of initiatives around consumer protection, advanced marketing & advertising, consumer trust, and digital infrastructure that will help drive growth in the local e-commerce market.



### IT CONSULTING

IT consulting consists of advisory services that help clients assess different technology strategies, align their technology strategies with their business processes, and help them roll out new IT and digital solutions.

The steady rise in the IT consulting market in Qatar indicates a positive outlook for investors interested in offering local services in the future. The growth is fueled by growing businesses and large infrastructure projects, such as FIFA 2022, but it is also being driven by increased spending on IT services and emerging tech among local businesses.



وادي تسمو الرقمي  
TASMU DIGITAL VALLEY



### SYSTEM INTEGRATION

*System Integration is the process of integrating all the physical and virtual components of an entity's system to act as a single system. The physical components consist of various machine systems, computer hardware, inventory, etc. The virtual components consist of data stored in databases, software and applications.*

Qatar's system integration market is forecasted to show robust growth over the coming half decade, driven by increased ICT adoption across the economy, especially of back-office systems. This mirrors global growth in the market, which is growing at 9% on average from 2014 to 2020.



### ENTERPRISE RESOURCE PLANNING

*Enterprise Resource Planning (ERP) Software is a system that uses a centralized database to better integrate business data and processes into a single system that connects operational execution with financial processes and ultimately creates positive outcomes for customers by accelerating value delivery.*

The opportunity for ERP is steadily increasing in Qatar with a majority of Qatari companies still to adopt the ERP systems. This shows a huge demand that needs to be filled in the coming years.



### CUSTOM APPLICATION DESIGN AND DEVELOPMENT

*Custom Application Design and Development are the activities involved in customizing the design of a mobile computer program or software to address the specific internal and external needs of a business by developing its capabilities for efficient operation, increased customer reach and higher profitability.*

The development of custom applications has proven disruptive across industries, and many sectors in Qatar are adopting custom applications to enhance their services. There is limited local presence, which presents a first mover advantage for local companies as well as international companies to invest in the market who understand the local context.



### BIG DATA ANALYTICS

*Big Data Analytics is the process of applying algorithms in order to analyze sets of data and extract useful and unknown patterns, relationships, and information from large data sets.*

In comparison, Qatar Big Data Analytics market is forecasted to achieve higher growth than other MENA or global markets. This will be driven by the Tasmu Smart Qatar program, which when complete will provide a wealth of data from the sensors and systems built into new infrastructure.



### DRONES

*Drones, also known as unmanned aerial vehicles (UAVs), are unmanned aircrafts that can be controlled remotely by a human operator or fly autonomously through embedded software programs containing flight plans and utilizing onboard sensors and GPS.*

Drones are expected to see substantial growth in Qatar over the next five years, growing at an average rate of 23% per year. The future drone demand in Qatar will be driven by TASMU Smart Qatar program, Qatar 2022 World Cup as well as other sectors such as energy & resources, agriculture, environment, healthcare and logistics.



### BLOCKCHAIN

*Blockchain is an open distributed ledger that can record transactions between two parties. Transactions are verified immediately by a distributed network of computers, without needing a central authority. Approved transactions are then added to the existing blockchain permanently and cannot be altered.*

The blockchain market in Qatar is projected to grow sharply at a CAGR of 120% until 2022, reaching a market size of USD\$19 million. By 2021, the top three sectors spending on blockchain will be the public sector, financial services, and logistics.



## CYBERSECURITY

Cybersecurity is the practice of protecting systems, networks, data, devices, and programs from any malicious digital attacks that aim to access, change, or destroy sensitive information. Qatar is projected to see the fastest growth in cybersecurity spending in the Middle East by 2022, offering the highest returns on investment. Large-scale government digitization projects, the Tasmu Smart Nation program, rapid growth of cloud-based applications and other exponential technologies, and a rising number of high-profile cyber-attacks will drive growth in the Qatari cybersecurity market over the next five years.



## ARTIFICIAL INTELLIGENCE

Artificial Intelligence (AI) is the study of computers that can do tasks that would normally require human intelligence.

The AI market in Qatar is projected to see exceptional growth of 40% y-o-y. Low current adoption of AI coupled with rising awareness is fueling the demand and the top three industries projected to be most impacted by AI are construction, energy and the public sector. Finding solutions for AI assisted robotic surgery to drive cost savings in healthcare and the leveraging of AI to reduce energy consumption are some of the opportunities driving future demand.



## HARDWARE AND SOFTWARE DEPLOY AND SUPPORT

Hardware and Software Deploy and Support involves not only the distribution of hardware and software solutions but also the set of services involved in ensuring effective business use through implementation, repair and maintenance.

Qatar's ambitious national undertakings provide unprecedented demand for deploy and support services with TASMU Smart Qatar and FIFA World Cup 2022 being the major programs that will drive demand for hardware and software deployment and support.

*The following pages contain a number of digital opportunities available in Qatar. As the market is continuously developing and expanding, we recommend that you visit TASMU Digital Valley Portal at [tdv.motc.gov.qa](http://tdv.motc.gov.qa) to find out what live opportunities may exist for your business in Qatar.*





## AUGMENTED AND VIRTUAL REALITY (AR/VR) IN TRANSPORTATION

AR enhances the user's current view of reality with digital information, while VR immerses the user in a simulated environment, obscuring reality

### OPPORTUNITY DEFINITION | AUGMENTED AND VIRTUAL REALITY (AR/VR) | DIGITAL TRAVEL GUIDE

Provide travelers access to a digital and contextualized travel guide delivered through a mobile application, an in-taxi screen, or a public transportation kiosk. The Digital Travel Guide is a city guide delivering location and preference-based points of interests, events, public transportation schedules, and offers.

#### TARGET MARKET

##### Target Market

Visitor to Qatar **1.8 million** (2018)

##### Target Users

- > Tourists
- > Business Visitors
- > Commuters
- > Residents
- > Special Needs Passengers



#### KEY PROBLEM STATEMENT | NEED

For users with limited connectivity on their mobile phones, the inability to have access to city guidance including public transportation schedules, navigation, events, and points of interests, can limit their mobility. Similarly, this information is scattered and inaccessible through one single source or channel.



#### PROCUREMENT CYCLE

##### Post Tendering Stage

The opportunity is in post tendering stage.



#### TIMESPAN



Total duration of 2-3 years including implementation and testing

#### ADJACENT OPPORTUNITIES



- > Augmented Home Viewing
- > Single Transport Pass
- > On-Route Concierge

#### STAKEHOLDERS

- > Ministry of Transport & Communications (MOTC)
- > Qatar Tourism Authority
- > Private Sector



#### OWNER AND SECTOR

**Owner** Ministry of Transport & Communications (MOTC)

**Sector** Transportation



#### BUDGET ACROSS AUGMENTED AND VIRTUAL (AR/VR) ECOSYSTEM

The Qatar market for AR/VR is projected to reach **USD\$49 million** by 2022, at a compound annual growth rate (CAGR) of 36% from 2019 to 2022.



# CLOUD COMPUTING IN POSTAL INDUSTRY

The delivery of on-demand computing services, such as servers, database storage, and software, through the Internet with pay-as-you-go pricing

## OPPORTUNITY DEFINITION | CLOUD COMPUTING | R01 –ADVANCED SOLUTION FOR SMART P.O. BOX ADDRESS

The project aims to develop a virtual P.O. Box system for Qpost allowing its customers access to mails 24/7. The system will allow for more than one option on ways to manage mails. The system will be complimented with planned indoor and outdoor delivery options and automated warehousing solutions.

### TARGET MARKET

#### Target Market

Over **200,000 households** in Qatar (2015) and **76,000 registered companies** (2017)

#### Target Users

- > Postal services
- > Shipping and Logistics



### ADJACENT OPPORTUNITIES

- > Smart Lockers
- > Dynamic Route Management

### STAKEHOLDERS

- > Qatar Post (QPost)
- > Ooredoo
- > MEEZA
- > Vodafone



### KEY PROBLEM STATEMENT | NEED

Currently Qpost has operated physical P.O. Boxes for customers to collect mails and packages.



To increase customer satisfaction and adopt to a new sustainable model, Qpost is looking into new approaches for customer pickup of mail items including parcels and other types of postal packages through Smart P.O. Boxes available in the market.



### OWNER AND SECTOR

**Owner** Qpost  
**Sector** Logistics



### PROCUREMENT CYCLE

#### Request for Proposal (RFI)

The opportunity is in a RFP stage.



### TIMESPAN



Total duration of 2-3 years including implementation and testing

### BUDGET ACROSS CLOUD COMPUTING ECOSYSTEM

The Qatar market for cloud computing is projected to reach **USD\$112 million** by 2022, at a compound annual growth rate (CAGR) of 35% from 2019 to 2022.





## INTERNET OF THINGS (IoT) IN TRANSPORTATION

IoT is a system of connected devices that speak to and interact with each other and other networks to improve the way our lives and businesses operate

### OPPORTUNITY DEFINITION | INTERNET OF THINGS (IoT) | SMART PARKING

The purpose of smart parking initiative is to implement a sophisticated IoT based solution that will assist users to find smart parking and minimize the time spent in searching for the nearest available car park. This solution will also provide other functionalities such as access to contextual space information, direct navigation to available spots, and payment solutions.

#### TARGET MARKET

##### Target Market

Qatar's motor vehicle ownership is **411 vehicles per 1,000 inhabitants**.

##### Target Users

- > Drivers
- > Passengers



#### KEY PROBLEM STATEMENT | NEED

One of the main objectives of Qatar's Smart Nation Program is to facilitate development of smart transportation in the country.



Smart parking's objective is to reduce traffic congestion, drive time and energy consumption.



#### PROCUREMENT CYCLE

##### Request for Proposal (RFP)

The opportunity is in a RFP stage.



#### TIMESPAN



Total duration of 2-3 years including implementation and testing



#### ADJACENT OPPORTUNITIES

- > E-Car sharing
- > Road to vehicle communication

#### STAKEHOLDERS

- > Ministry of Transport & Communications (MOTC)
- > Municipalities
- > Private Sector



#### OWNER AND SECTOR

**Owner** Ministry of Transport & Communication (MOTC)  
**Sector** Transportation



#### BUDGET ACROSS INTERNET OF THINGS (IoT) ECOSYSTEM

The Qatar market for IoT is expected to grow at a compound annual growth rate (CAGR) of roughly 35% over the next four years, becoming a **USD\$573 million** market in 2022.



# INTERNET OF THINGS (IoT) IN TRANSPORTATION

IoT is a system of connected devices that speak to and interact with each other and other networks to improve the way our lives and businesses operate

## OPPORTUNITY DEFINITION | INTERNET OF THINGS (IoT) | E-CAR SHARING

The purpose of eCar sharing initiative is to implement an effective mobility solution with greatest impact of substantially reducing number of vehicles on the roads. This will also help achieve the environmental sustainability target by decreasing environmental impact through use of eco-friendly vehicles.

### TARGET MARKET

#### Target Market

Qatar's motor vehicle ownership is **411 vehicles per 1,000 inhabitants.**

#### Target Users

- > Commuters
- > Residents
- > Business visitors / tourists



### ADJACENT OPPORTUNITIES

- > Connected Transport Network
- > Single Transport Pass

### STAKEHOLDERS

- > Private sector
- > Ministry of Transport & Communications (MOTC)
- > Ministry of Interior (MOI)

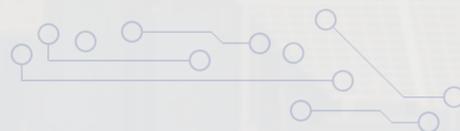


### KEY PROBLEM STATEMENT | NEED

To develop an efficient car sharing service to cater for the needs of residents and travelers visiting Qatar, especially during FIFA 2022. The service will include:



- > eCar sharing solution
- > Distributed charging stations
- > Payment solution
- > Integration with Single Transport Pass solution



### OWNER AND SECTOR

**Owner** Private sector  
**Sector** Transportation



### PROCUREMENT CYCLE

#### Request for Proposal (RFP)

The opportunity is in a RFP stage.



### TIMESPAN



Total duration of 2-3 years including implementation and testing

### BUDGET ACROSS INTERNET OF THINGS (IoT) ECOSYSTEM

The Qatar market for IoT is projected to reach **USD\$573 million** by 2022, at a compound annual growth rate (CAGR) of 35% from 2019 to 2022.





## INTERNET OF THINGS (IoT) IN TRANSPORTATION

IoT is a system of connected devices that speak to and interact with each other and other networks to improve the way our lives and businesses operate

### OPPORTUNITY DEFINITION | INTERNET OF THINGS (IoT) | E-BIKE SHARING

The purpose of eBike sharing project is to create a cost effective and sustainable measure to address prevalent transportation issues such as additional support to other transportation modes e.g. Metro and Bus stations. This could be coupled with additional services by providing eBike sharing stations at strategically located areas in Doha, to help decrease dependency on carbon based transportation modes.

#### TARGET MARKET

##### Target Market

Qatar's motor vehicle ownership is **411 vehicles per 1,000 inhabitants**.

##### Target Users

- > Commuters
- > Residents
- > Business visitors / tourists



#### KEY PROBLEM STATEMENT | NEED

Qatar has developed a modern and sustainable transportation network; however, a few opportunities at the municipality levels need to be implemented to optimize the performance of the new transportation system.



One of these opportunities is to introduce e-bike sharing service. This will help in reduced air pollution, reduced traffic congestion and associated health benefits.



#### PROCUREMENT CYCLE

##### Request for Proposal (RFP)

The opportunity is in a RFP stage.



#### TIMESPAN



Total duration of 1-2 years including implementation and testing



#### ADJACENT OPPORTUNITIES

- > Connected Transport Network
- > Single Transport Pass

#### STAKEHOLDERS

- > Private sector
- > Municipalities
- > Ministry of Transport & Communications (MOTC)



#### OWNER AND SECTOR

**Owner** Private sector  
**Sector** Transportation



#### BUDGET ACROSS INTERNET OF THINGS (IoT) ECOSYSTEM

The Qatar market for IoT is projected to reach **USD\$573 million** by 2022, at a compound annual growth rate (CAGR) of 35% from 2019 to 2022.



# INTERNET OF THINGS (IoT) IN TRANSPORTATION

IoT is a system of connected devices that speak to and interact with each other and other networks to improve the way our lives and businesses operate

## OPPORTUNITY DEFINITION | INTERNET OF THINGS (IoT) | REAL-TIME CROWD & TRANSPORTATION

Implementation of traffic sensors to monitor traffic conditions and trends and collect actionable data to curb the amount of congestion and foster a safer and more effective travel experience. Ultimately, the goal is to reduce the amount of time that the Qatari population spends stuck in traffic during their daily commutes.

### TARGET MARKET

#### Target Market

Number of registered vehicles **1.52 million** (2017)

#### Target Users

- > Transportation Operators
- > Emergency Responders



### ADJACENT OPPORTUNITIES

- > Connected Transport Network
- > Road to Vehicle Communication
- > Public Transportation Social Listening

### STAKEHOLDERS

- > Ministry of Transport & Communications (MOTC)
- > Ashghal
- > Ministry of Interior (MOI)



### KEY PROBLEM STATEMENT | NEED

As Qatar transportation infrastructure grows, an increase in traffic related problems such as traffic congestion, safety and pollution becomes inevitable.



This will necessitate the implementation of sensory infrastructure to collect data about traffic conditions and make the appropriate changes.



### OWNER AND SECTOR

**Owner** Ministry of Transport & Communication (MOTC)  
**Sector** Transportation



### PROCUREMENT CYCLE

#### Post Tendering Stage

The opportunity is in post tendering stage.



### TIMESPAN



Total duration of 2-3 years including implementation and testing

### BUDGET ACROSS INTERNET OF THINGS (IoT) ECOSYSTEM

The Qatar market for IoT is projected to reach **USD\$573 million** by 2022, at a compound annual growth rate (CAGR) of 35% from 2019 to 2022.





## INTERNET OF THINGS (IoT) IN TRANSPORTATION

IoT is a system of connected devices that speak to and interact with each other and other networks to improve the way our lives and businesses operate

### OPPORTUNITY DEFINITION | INTERNET OF THINGS (IoT) | ROAD TO VEHICLE COMMUNICATION

Receive real-time roadway information from central traffic management systems. The vehicles recognize high-risk situations in advance, resulting in driver alerts and warnings through specific actions. The drivers are also made aware of their surroundings such as traffic lights, traffic signals, parking lots and emergency situations to be able to act accordingly.

#### TARGET MARKET

##### Target Market

Number of registered vehicles **1.52 million** (2017)

##### Target Users

- > Public Transportation Operators
- > Emergency Responders
- > Drivers
- > Passengers



#### KEY PROBLEM STATEMENT | NEED

Vehicles operate in silos despite being the primary cause of traffic congestions and incidents on the road.



There is a potential to decrease congestions and collisions by connecting vehicles to the infrastructure. This also enables a wide range of other safety, mobility, and environmental benefits.



#### PROCUREMENT CYCLE

##### Post Tendering Stage

The opportunity is in post tendering stage.



#### TIMESPAN



Total duration of 3-5 years including implementation and testing



#### ADJACENT OPPORTUNITIES

- > Connected Vehicles (V2V)
- > Real-Time Crowd and Transportation Management
- > Mobility Contextual Pre-Advice

#### STAKEHOLDERS

- > Ministry of Transport & Communications (MOTC)
- > Ministry of Interior (MOI)
- > Telecommunication companies



#### OWNER AND SECTOR

**Owner** Ministry of Interior (MOI)

**Sector** Transportation



#### BUDGET ACROSS INTERNET OF THINGS (IoT) ECOSYSTEM

The Qatar market for IoT is projected to reach **USD\$573 million** by 2022, at a compound annual growth rate (CAGR) of 35% from 2019 to 2022.



# INTERNET OF THINGS (IoT) IN HEALTHCARE

IoT is a system of connected devices that speak to and interact with each other and other networks to improve the way our lives and businesses operate

## OPPORTUNITY DEFINITION | INTERNET OF THINGS (IoT) | ICE TRACKING AND RESPONSE

The initiative's purpose is to provide rapid medical assistance, especially for the elderly, by developing a system of sensors that monitor patient health and movement. The system will be connected to caregivers and emergency response teams to provide assistance based on patient location.

### TARGET MARKET

#### Target Market

Elderly population (>65) is estimated at over **30,000 persons**.

#### Target Users

- > Emergency response teams
- > Elderlies
- > Doctors



### ADJACENT OPPORTUNITIES

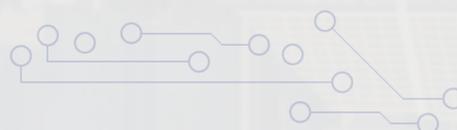
- > Smart ambulance

### KEY PROBLEM STATEMENT | NEED

The increase in the elderly population also results in increasing burden of chronic health disease. This results in a decrease in physical activity and loss of mobility.



The need of ICE tracking and response is to support patients' mobility through sensors and to provide immediate response in case of emergencies.



### OWNER AND SECTOR

**Owner** Hospital and Clinics  
**Sector** Healthcare



### PROCUREMENT CYCLE

#### Request for Proposal (RFP)

The opportunity is in a RFP stage.



### TIMESPAN



Total duration of 2-3 years including implementation and testing

### BUDGET ACROSS INTERNET OF THINGS (IoT) ECOSYSTEM

The Qatar market for IoT is projected to reach **USD\$573 million** by 2022, at a compound annual growth rate (CAGR) of 35% from 2019 to 2022.



### STAKEHOLDERS

- > Hospitals and clinics
- > Ministry of Public Health (MOPH)
- > Ministry of Transport & Communications (MOTC)





## INTERNET OF THINGS (IoT) IN HEALTHCARE

IoT is a system of connected devices that speak to and interact with each other and other networks to improve the way our lives and businesses operate

### OPPORTUNITY DEFINITION | INTERNET OF THINGS (IoT) | SMART MEDICATION

The Smart Medication solution schedules and notifies patients to take their medication and will automatically notifies the pharmacy at reorder points. A dashboard will also enable users and caregivers to monitor consumption.

#### TARGET MARKET

##### Target Market

Total number of healthcare visits– **2.6 million**  
(MDPS' Health Services Statistics 2016)

##### Target Users

- > Patients
- > Nurses



#### KEY PROBLEM STATEMENT | NEED

Many medical errors are due to the fact that people in charge of patient medication make human errors.



From a patient point of view, medical non-adherence is a serious issue and ends up incurring further healthcare costs to remedy problems from non-adherence.



#### PROCUREMENT CYCLE

##### Request for Proposal (RFP)

The opportunity is in a RFP stage.



#### TIMESPAN



Total duration of 1-2 years including implementation and testing

#### ADJACENT OPPORTUNITIES



- > Connected Pharmacy
- > Virtual Consultation
- > Remote Patient Monitoring
- > Single Patient Record

#### STAKEHOLDERS

- > Hospitals & Clinics
- > Pharmacies
- > Insurance Providers



#### OWNER AND SECTOR

**Owner** Hospitals & Clinics  
**Sector** Healthcare



#### BUDGET ACROSS INTERNET OF THINGS (IoT) ECOSYSTEM

The Qatar market for IoT is projected to reach **USD\$573 million** by 2022, at a compound annual growth rate (CAGR) of 35% from 2019 to 2022.



## INTERNET OF THINGS (IoT) IN HEALTHCARE

IoT is a system of connected devices that speak to and interact with each other and other networks to improve the way our lives and businesses operate

### OPPORTUNITY DEFINITION | INTERNET OF THINGS (IoT) | DIGITAL HEALTH COACH

Monitor food consumption and activity through smartphones and wearables to provide real-time and contextualized advice, supporting individualized wellness and behavior. Data collected through the Digital Health Coach is integrated with patient records and monitored by health professionals to provide continuous guidance.

#### TARGET MARKET

##### Target Market

Total number of healthcare visits– **2.6 million**  
(MDPS' Health Services Statistics 2016)

##### Target Users

- > Patients
- > Nurses
- > Doctors



#### ADJACENT OPPORTUNITIES

- > Connected Pharmacy
- > Virtual Consultation
- > Remote Patient Monitoring
- > MyHealth Gateway

#### STAKEHOLDERS

- > Hospitals & Clinics
- > Pharmacies
- > Ministry of Public Health (MOPH)



#### KEY PROBLEM STATEMENT | NEED

Chronic illnesses and health issues are a burden to patients and require constant check-ups or use of specialists. This is costly, takes time and is a burden on the health care system.



Having real-time support eliminates much of this.



#### OWNER AND SECTOR

**Owner** Hospitals & Clinics  
**Sector** Healthcare



#### PROCUREMENT CYCLE

##### Request for Proposal (RFP)

The opportunity is in a RFP stage.



#### TIMESPAN



Total duration of 2-3 years including implementation and testing

#### BUDGET ACROSS INTERNET OF THINGS (IoT) ECOSYSTEM

The Qatar market for IoT is projected to reach **USD\$573 million** by 2022, at a compound annual growth rate (CAGR) of 35% from 2019 to 2022.





## INTERNET OF THINGS (IoT) FOR SMART CITY APPLICATIONS

IoT is a system of connected devices that speak to and interact with each other and other networks to improve the way our lives and businesses operate

### OPPORTUNITY DEFINITION | INTERNET OF THINGS (IoT) | SMART CITY

The opportunity includes developing an Internet of Things application on Ooredoo IoT Builder that would enhance the lives of residents in and visitors to Qatar. The solution could be applied to cover any verticals or domains such as Transportation, Building Management, Smart Cities, Retail, Agriculture, Industrial IoT, Container Terminals, Healthcare, Hospitality, Security Services Industry, Environment, and Energy.

#### TARGET MARKET



##### Target Market

- > Qatar total population – **2.6 million** (2019)
- > Visitor potential of **5.6 million tourists** annually

##### Target Users

- > Public & Private Sector Organisations

#### KEY PROBLEM STATEMENT | NEED

Trends such as population growth, urbanization, climate change, and resource limitations are placing considerable pressure on cities around the world.



To tackle these challenges governments and organizations are turning to IoT solutions to improve operations, deliver better customer experience and create new products and services.



#### PROCUREMENT CYCLE



##### Ideation and Research

The solution will be developed in the Hackathon QITCOM2019. This will be further taken to product development and commercialization.

#### TIMESPAN



Will be defined during commercialization stage



#### ADJACENT OPPORTUNITIES

- > Open Data platforms
- > Cloud Solutions

#### STAKEHOLDERS



- > Ooredoo

#### OWNER AND SECTOR

**Owner** Ooredoo  
**Sector** Smart City



#### BUDGET ACROSS INTERNET OF THINGS (IoT) ECOSYSTEM

The Qatar market for IoT is projected to reach **USD\$573 million** by 2022, at a compound annual growth rate (CAGR) of 35% from 2019 to 2022.



# INTERNET OF THINGS (IoT) – INFORMATION ACCESSIBILITY

IoT is a system of connected devices that speak to and interact with each other and other networks to improve the way our lives and businesses operate

## OPPORTUNITY DEFINITION | INTERNET OF THINGS (IoT) | INFORMATION ACCESSIBILITY

This project aims to use sensors and other devices to extract information from various sources and to make that information accessible to those with low levels of literacy.

### TARGET MARKET

#### Target Market

Around **466 million people worldwide** have disabling hearing loss and **34 million** of these are children.

It is estimated that by 2050 over **900 million people** will have disabling hearing loss. (WHO -2019)

#### Target Users

> Persons with disabilities residing in or visiting Qatar



### ADJACENT OPPORTUNITIES

- > Assistive technology
- > Software with build in accessibility features

### STAKEHOLDERS

> MADA



### KEY PROBLEM STATEMENT | NEED

Access to information is a key aspect when establishing Smart Cities and ensuring inclusivity by making information accessible to all persons including those with disabilities is essential.



The focus of this project is to develop a solution that provides independent access to information to persons of low literacy in particular those within the deaf community in a format that can be easily interpreted.



### OWNER AND SECTOR

**Owner** MADA

**Sector** Smart City / Smart Citizens



### PROCUREMENT CYCLE

#### Ideation & Research

The solution will be developed in the Hackathon QITCOM2019. This will be further taken to product development and commercialization.



### TIMESPAN



Will be defined during commercialization phase

### BUDGET ACROSS INTERNET OF THINGS (IoT) ECOSYSTEM

The Qatar market for IoT is projected to reach **USD\$573 million** by 2022, at a compound annual growth rate (CAGR) of 35% from 2019 to 2022.





## IT CONSULTING IN B2B ECOMMERCE

Advisory services that help clients assess different technology strategies, align strategy with business processes and help roll out new IT solutions.

### OPPORTUNITY DEFINITION | IT CONSULTING | B2B ECOMMERCE NATIONAL STRATEGY & FRAMEWORK

The project will be aimed at addressing the huge B2B eCommerce growth opportunity in the country. The strategy and the target framework will specifically need to address the B2B policy, market size and growth avenues in order to propose initiatives to roll out and an adoption plan to bring small and large B2B eCommerce players onboard.

#### TARGET MARKET

##### Target Market

Overall eCommerce market for B2C & B2B is estimated to be **USD\$3.3 billion**.

##### Target Users

- > B2B online shoppers



#### KEY PROBLEM STATEMENT | NEED

There is a huge B2B eCommerce growth opportunity in the country, which hasn't been tackled yet. In fact, the B2B eCommerce market has shown to be almost as large as the B2C market in Qatar.



This initiative will allow the growth and development of online B2B commerce between local merchants.



#### PROCUREMENT CYCLE

##### Identified Opportunity

The opportunity has been identified & is yet to enter the RFP stage.



#### TIMESPAN



Total duration of 1-2 years including implementation and testing



#### ADJACENT OPPORTUNITIES

- > On-demand Service Providers

#### STAKEHOLDERS

- > Ministry of Transport & Communications (MOTC)
- > Qatar Development Bank (QDB)
- > B2B eCommerce players such as Qpay, e-embedad, Market Hub, etc.
- > SMEs that will make online purchases



#### OWNER AND SECTOR

**Owner** Ministry of Transport & Communications (MOTC)

**Sector** eCommerce



#### BUDGET ACROSS ECOMMERCE ECOSYSTEM

The Qatar eCommerce market is expected to grow from USD\$1.2 billion in 2017 to **USD\$3.2 billion** in 2020.



## IT CONSULTING IN ECOMMERCE

Advisory services that help clients assess different technology strategies, align strategy with business processes and help roll out new IT solutions

### OPPORTUNITY DEFINITION | IT CONSULTING | ECOMMERCE FULFILLMENT PLATFORM STRATEGY & FRAMEWORK

The project is aimed at creating a strategic framework for addressing gaps in the regulation and structure of the fulfillment of eCommerce particularly in relation to last mile delivery in Qatar.

#### TARGET MARKET

##### Target Market

The B2C eCommerce penetration rate in Qatar is estimated at 15% which is equal to **400,000 online shoppers**.

##### Target Users

- > B2C online shoppers



#### ADJACENT OPPORTUNITIES

- > On-demand Service Providers

#### STAKEHOLDERS

- > Ministry of Transport & Communications (MOTC)
- > Communication Regulatory Authority (CRA)
- > Ministry of Commerce & Industry (MOCI)
- > Fulfillment companies such as Qatar Post (Qpost), Aramex, DHL, etc.
- > Online merchants such as Zomato, Talabat, Doha Sooq, Qtickets, etc.
- > B2C online shoppers



#### KEY PROBLEM STATEMENT | NEED

There are currently several identified weaknesses in the provision of last mile delivery by online merchants. These include:



- > Outdated regulations around transfer of ownership
- > Antiquated business models among companies that provide logistical manpower
- > Lack of agility in supply of manpower



#### OWNER AND SECTOR

**Owner** Ministry of Transport & Communications (MOTC) and Communications Regulatory Authority (CRA)

**Sector** eCommerce



#### PROCUREMENT CYCLE

##### Identified Opportunity

The opportunity has been identified & is yet to enter the RFP stage.



#### TIMESPAN



Total duration of 1-2 years including implementation and testing

#### BUDGET ACROSS ECOMMERCE ECOSYSTEM

The Qatar eCommerce market is expected to grow from USD\$1.2 billion in 2017 to **USD\$3.2 billion** in 2020.





## IT CONSULTING IN DIGITAL PAYMENTS

Advisory services that help clients assess different technology strategies, align strategy with business processes and help roll out new IT solutions

### OPPORTUNITY DEFINITION | IT CONSULTING | DIGITAL PAYMENTS GOVERNANCE & FRAMEWORK

The purpose of this initiative is to update the existing regulations and frameworks around digital payments to encourage greater use of digital payments. Gaps will have to be identified and addressed by Qatar Central Bank.

#### TARGET MARKET

##### Target Market

The B2C eCommerce penetration rate in Qatar is estimated at 15% which is equal to **400,000 online shoppers**.

##### Target Users

- > B2C online shoppers



#### ADJACENT OPPORTUNITIES



- > Digital Wallets
- > On-demand Service Providers

#### STAKEHOLDERS

- > Ministry of Transport & Communications (MOTC)
- > Qatar Central Bank (QCB)
- > Ministry of Commerce & Industry (MOCI)
- > Ministry of Finance (MOF)
- > Banking sector (QNB, Doha Bank, Commercial Bank, etc.)
- > Payment processors such as Qpay, Payfort, PaymentsME, etc.
- > Online merchants such as Zomato, Talabat, Doha Sooq, Qtickets, etc.
- > B2C online shoppers



#### KEY PROBLEM STATEMENT | NEED

There are several obstacles limiting the adoption of digital payment solutions in Qatar:

- > Inadequate or outdated regulations
- > High cost & lower quality due limited options of license to be acquired by existing banks



#### OWNER AND SECTOR

**Owner** Ministry of Transport & Communications (MOTC) and Qatar Central Bank (QCB)

**Sector** eCommerce



#### PROCUREMENT CYCLE

##### Identified Opportunity

The opportunity has been identified & is yet to enter the RFP stage.



#### TIMESPAN



Total duration of 1-2 years including implementation and testing

#### BUDGET ACROSS ECOMMERCE ECOSYSTEM

The Qatar eCommerce market is expected to grow from USD\$1.2 billion in 2017 to **USD\$3.2 billion** in 2020.



## IT CONSULTING IN ONLINE RETAIL

Advisory services that help clients assess different technology strategies, align strategy with business processes and help roll out new IT solutions

### OPPORTUNITY DEFINITION | IT CONSULTING | REGULATORY FRAMEWORK FOR ONLINE RETAIL PROMOTIONS AND PRICING

The purpose of this initiative is to create a framework for transforming regulations around pricing and promotions as they relate to eCommerce to ensure the adoption of contemporary consumer marketing strategies around pricing and promotions.

#### TARGET MARKET

##### Target Market

The B2C eCommerce penetration rate in Qatar is estimated at 15% which is equal to **400,000 online shoppers**.

##### Target Users

- > B2C online shoppers



#### ADJACENT OPPORTUNITIES

- > On-demand Service Providers

#### STAKEHOLDERS

- > Ministry of Transport & Communications (MOTC)
- > Service providers focused on digital and data analysis such as A101, Reklam5 Digital Agency, etc.
- > Online merchants such as Zomato, Talabat, Doha Sooq, Qtickets, etc.
- > B2C online shoppers



#### KEY PROBLEM STATEMENT | NEED

Uncertainty among online merchants as to the extent that legacy regulations around promotions and pricing apply to eCommerce.



Contemporary eCommerce marketing strategies place great emphasis on promotions and the use of dynamic pricing fueled by data analytics.



#### OWNER AND SECTOR

**Owner** Ministry of Transport & Communications (MOTC) and Ministry of Commerce & Industry (MOCI)

**Sector** eCommerce



#### PROCUREMENT CYCLE

##### Identified Opportunity

The opportunity has been identified & is yet to enter the RFP stage.



#### TIMESPAN



Total duration of 1-2 years including implementation and testing

#### BUDGET ACROSS ECOMMERCE ECOSYSTEM

The Qatar eCommerce market is expected to grow from USD\$1.2 billion in 2017 to **USD\$3.2 billion** in 2020.





## IT CONSULTING IN DIGITAL WALLETS

Advisory services that help clients assess different technology strategies, align strategy with business processes and help roll out new IT solutions

### OPPORTUNITY DEFINITION | IT CONSULTING | INNOVATION STRATEGY, LICENSING RECOMMENDATIONS & ADOPTION FOR DIGITAL WALLETS

This initiative is aimed at addressing the limited presence of digital wallets in Qatar as well as enabling current digital wallet companies in Qatar to grow to a larger value chain on payments.

#### TARGET MARKET

##### Target Market

The B2C eCommerce penetration rate in Qatar is estimated at 15% which is equal to **400,000 online shoppers**.

##### Target Users

> B2C online shoppers



#### ADJACENT OPPORTUNITIES

- > Digital Wallets
- > On-demand Service Providers

#### STAKEHOLDERS

- > Ministry of Transport & Communications (MOTC)
- > Qatar Central Bank (QCB)
- > Ministry of Commerce & Industry (MOCI)
- > Ministry of Finance (MOF)
- > Banks such as QNB, Doha Bank, Commercial Bank, etc.
- > Payment processors such as Qpay, Payfort, PaymentsME, etc.
- > Online merchants such as Zomato, Talabat, Doha Sooq, Qtickets, etc.
- > B2C Online Shoppers



#### KEY PROBLEM STATEMENT | NEED

There is a large potential for digital wallets in Qatar, despite the few existing players and limited scope. This initiative will guide existing players towards growth and welcome new digital wallet players.



#### OWNER AND SECTOR

**Owner** Ministry of Transport & Communications (MOTC) and Qatar Central Bank (QCB)

**Sector** eCommerce



#### PROCUREMENT CYCLE

##### Identified Opportunity

The opportunity has been identified & is yet to enter the RFP stage.



#### TIMESPAN



Total duration of 1-2 years including implementation and testing

#### BUDGET ACROSS ECOMMERCE ECOSYSTEM

The Qatar eCommerce market is expected to grow from USD\$1.2 billion in 2017 to **USD\$3.2 billion** in 2020.



## IT CONSULTING IN ON-DEMAND SERVICES

Advisory services that help clients assess different technology strategies, align strategy with business processes and help roll out new IT solutions

### OPPORTUNITY DEFINITION | IT CONSULTING | STRATEGY, GOVERNANCE FRAMEWORK & ECOSYSTEM DESIGN FOR ON-DEMAND SERVICE PROVIDERS

This initiative is aimed at addressing the challenge around the lack of maturity on downstream value chain for eCommerce players, especially the ones around distribution.

#### TARGET MARKET

##### Target Market

The B2C eCommerce penetration rate in Qatar is estimated at 15% which is equal to **400,000 online shoppers**.

##### Target Users

> B2C online shoppers



#### ADJACENT OPPORTUNITIES

- > Digital Wallets
- > Digital Payments
- > B2B eCommerce Strategy
- > Online Retail Promotions and Pricing



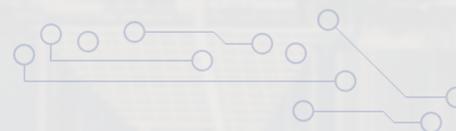
#### STAKEHOLDERS

- > Ministry of Transport & Communications (MOTC)  
Service providers focused on digital and data analysis such as A101, Reklam5 Digital Agency, etc.
- > Online merchants such as Zomato, Talabat, Doha Sooq, Qtickets, etc.
- > B2C online shoppers



#### KEY PROBLEM STATEMENT | NEED

Lack of maturity on the downstream value chain in eCommerce has been caused by undiscovered potential around digital and data driven players who have the tech capability to offer on-demand services to the front-end eCommerce players.



#### OWNER AND SECTOR

**Owner** Ministry of Transport & Communications (MOTC)

**Sector** eCommerce



#### PROCUREMENT CYCLE

##### Identified Opportunity

The opportunity has been identified & is yet to enter the RFP stage.



#### TIMESPAN



Total duration of 1-2 years including implementation and testing

#### BUDGET ACROSS ECOMMERCE ECOSYSTEM

The Qatar eCommerce market is expected to grow from USD\$1.2 billion in 2017 to **USD\$3.2 billion** in 2020.





## IT CONSULTING IN SPORTS FOR FAN IDENTIFICATION SYSTEM

Advisory services that help clients assess different technology strategies, align strategy with business processes and help roll out new IT solutions

### OPPORTUNITY DEFINITION | IT CONSULTING | FAN ID - 2022

The project aims to establish and manage the overall process related to the issue, delivery and operations of the football fan identification system during FIFA world Cup 2022 – Qatar. This system will help the State of Qatar and FIFA Organizing committee have a smooth functioning of the tournament by ensuring the security and comfort of players, spectators and fans alike.

#### TARGET MARKET

##### Target Market

Supreme Committee for Legacy & Delivery expects **2.5 million fans** to visit Qatar for FIFA 2022.

##### Target Users

- > Sports event organizers
- > Government
- > Hotels and transportation



#### ADJACENT OPPORTUNITIES

- > Event planning
- > Stadium Fast Tracking

#### STAKEHOLDERS

- > Supreme Committee of Legacy & Delivery (SC)
- > Ministry of Interior (MOI)
- > Hamad International Airport (HIA)
- > Qatar Rail > FIFA
- > Ooredoo > International security agencies
- > Vodafone (Interpol, Europol, etc.)



#### KEY PROBLEM STATEMENT | NEED

The purpose of this project is to develop an identification card system for the fans visiting Qatar for FIFA 2022, allowing them seamless entry to the country, accommodation and easy movement from city to stadium and public places.

SC is looking for an expert consultant to manage development and implementation of the FAN ID system, management of all work streams and to ensure collaboration with all the stakeholders to deliver the project successfully, Major components of the FAN ID System

- > Fan ID Registration Management
- > Fan ID Application Management
- > Access Control
- > Configuration
- > Entities Management and Tracking System
- > Fan ID Application Administration



#### OWNER AND SECTOR

**Owner** Supreme Committee of Legacy & Delivery  
**Sector** Sports, Transportation



#### PROCUREMENT CYCLE

##### Request for Proposal (RFI)

The opportunity is in a RFP stage.



#### TIMESPAN



Total duration of 2-3 years including implementation and testing

#### BUDGET ACROSS IT CONSULTING ECOSYSTEM

The Qatar market for IT consulting is projected to reach **USD\$31 million** by 2022, at a compound annual growth rate (CAGR) of 5% from 2019 to 2022.



# CUSTOM APPLICATION DESIGN AND DEVELOPMENT IN POSTAL INDUSTRY

Custom application design and development is tailoring the design of a mobile computer program or software to fit an organization's particular business needs

## OPPORTUNITY DEFINITION | CUSTOM APPLICATION DESIGN AND DEVELOPMENT | R01 – ADVANCED SOLUTION FOR SMART P.O. BOX ADDRESS

The project aims to develop a virtual P.O. Box system for Qpost allowing its customers access to mails 24/7. The system will allow for more than one option on ways manage mails. The system will be complimented with planned indoor and outdoor delivery options and automated warehousing solutions.

### TARGET MARKET

#### Target Market

Over **200,000 households** in Qatar (2015) and **76,000 registered companies** (2017)

#### Target Users

- > Postal services
- > Shipping and Logistics



### KEY PROBLEM STATEMENT | NEED

To develop a dynamic solution for Qpost customer to receive mails/parcels at their convenience.



This solution would require multi-channel and digital tracking to enable real time delivery to customers.



### PROCUREMENT CYCLE

#### Request for Proposal (RFI)

The opportunity is in a RFP stage.



### TIMESPAN



Total duration of 1-2 years including implementation and testing



### ADJACENT OPPORTUNITIES

- > Smart Lockers
- > Autonomous Ground Delivery
- > Flexible Delivery

### STAKEHOLDERS

- > Qatar Post (QPost)
- > Ooredoo
- > MEEZA
- > Vodafone



### OWNER AND SECTOR

**Owner** Qpost  
**Sector** Logistics



### BUDGET ACROSS CUSTOM APPLICATION DESIGN AND DEVELOPMENT ECOSYSTEM

The Qatar market for custom application design and development is projected to reach **USD\$13 million** by 2022, at a compound annual growth rate (CAGR) of 4% from 2019 to 2022.





## CUSTOM APPLICATION DESIGN AND DEVELOPMENT IN LOGISTICS

Custom Application Design and Development is tailoring the design of a mobile computer program or software to fit an organization's particular business needs

### OPPORTUNITY DEFINITION | CUSTOM APPLICATION DESIGN AND DEVELOPMENT | DIGITAL SHIPPING GUIDE

Guide individuals and commercial entities through the shipping value chain (e.g. regulations, registrations, planning and execution) by offering a safe and verified digital guide. The Digital Shipping Guide gives up-to-date process information collected from port management, terminal operators and agents, converging all needed information on one platform.

#### TARGET MARKET

##### Target Market

The total number of cargo handled at Qatar Port in 2018 was **1.4 million tons**.

##### Target Users

- > Government Officials
- > Business Owners
- > Logistics Operators



#### KEY PROBLEM STATEMENT | NEED

The export and import industry can be riddled with complexities for small and medium enterprises as well as new businesses.



These regulatory systems will necessitate the development of a digital shipping guide to assist commercial entities in the navigations of complex shipping frameworks.



#### PROCUREMENT CYCLE

##### Request for Proposal (RFP)

The opportunity is in a RFP stage.



#### TIMESPAN



Total duration of 2-3 years including implementation and testing



#### ADJACENT OPPORTUNITIES

- > Global Supply Chain Tracker
- > National Warehousing Marketplace

#### STAKEHOLDERS

- > Ministry of Transport & Communication (MOTC)
- > Ministry of Commerce & Industry (MOCI)
- > General Authority of Customs



#### OWNER AND SECTOR

**Owner** Ministry of Transport & Communication (MOTC)

**Sector** Logistics



#### BUDGET ACROSS CUSTOM APPLICATION DESIGN AND DEVELOPMENT ECOSYSTEM

The Qatar market for custom application design and development is projected to reach **USD\$13 million** by 2022, at a compound annual growth rate (CAGR) of 4% from 2019 to 2022.



# CUSTOM APPLICATION DESIGN AND DEVELOPMENT IN LOGISTICS

Custom Application Design and Development is tailoring the design of a mobile computer program or software to fit an organization's particular business needs

## OPPORTUNITY DEFINITION | CUSTOM APPLICATION DESIGN AND DEVELOPMENT | DIGITAL AUCTION MARKETPLACE

Multi-side platform that connects buyers and sellers, where buyers bid or compete for the product or service. The Digital Auction Marketplace helps streamline the auction process by reducing operational costs of warehousing and potential wastage of lost and found merchandise.

### TARGET MARKET

#### Target Market

The total number of cargo handled at Qatar Port in 2018 was **1.4 million tons**.

#### Target Users

- > Government officials
- > Business Owners
- > Individuals



### KEY PROBLEM STATEMENT | NEED

Unclaimed port merchandise has a huge cost both in monetary terms and operational terms.



The merchandise takes up space and slows port efficiency. The Digital Auction Marketplace helps streamline the auction process by reducing operational costs of warehousing and potential wastage of lost and found merchandise.



### PROCUREMENT CYCLE

#### Request for Proposal (RFP)

The opportunity is in a RFP stage.



### TIMESPAN



Total duration of 2-3 years including implementation and testing



### ADJACENT OPPORTUNITIES

- > Insightful Customs Rating

### STAKEHOLDERS

- > General Authority of Customs
- > Ministry of Transport & Communications (MOTC)
- > Hamad Port



### OWNER AND SECTOR

**Owner** General Authority of Customs  
**Sector** Logistics



### BUDGET ACROSS CUSTOM APPLICATION DESIGN AND DEVELOPMENT ECOSYSTEM

The Qatar market for custom application design and development is projected to reach **USD\$13 million** by 2022, at a compound annual growth rate (CAGR) of 4% from 2019 to 2022.





## CUSTOM APPLICATION DESIGN AND DEVELOPMENT IN AGRICULTURE

Custom Application Design and Development is tailoring the design of a mobile computer program or software to fit an organization's particular business needs

### OPPORTUNITY DEFINITION | CUSTOM APPLICATION DESIGN AND DEVELOPMENT | ZERO FOOD WASTE PLATFORM

The Zero Food Waste Platform is a marketplace where private (i.e. homes) and commercial (i.e. restaurants, hotels, supermarkets) consumers can offer, otherwise wasted, food to charities.

#### TARGET MARKET

##### Target Market

Food and beverage outlets **2,950** (2016)

##### Target Users

- > Residents
- > Home Owners
- > Hotels / Restaurants
- > Event organizers



#### KEY PROBLEM STATEMENT | NEED

Recent studies by Georgetown in Qatar have shown that there is a serious food wastage problem in Qatar.



In 2012, 1.4 million tons of food were consumed and wasted in Qatar, with an extra 14% (about 20 million kg) thrown away before it even reached the end-consumer.



#### PROCUREMENT CYCLE

##### Request for Proposal (RFP)

The opportunity is in a RFP stage.



#### TIMESPAN



Total duration of 1-2 years including implementation and testing



#### ADJACENT OPPORTUNITIES

- > Sustainable Home Ecosystem
- > Recycling Coins

#### STAKEHOLDERS

- > Ministry of Municipality & Environment (MME)
- > Ministry of Public Health (MOPH)
- > Charities



#### OWNER AND SECTOR

**Owner** Ministry of Municipality & Environment (MME)  
**Sector** Environment



#### BUDGET ACROSS CUSTOM APPLICATION DESIGN AND DEVELOPMENT ECOSYSTEM

The Qatar market for custom application design and development is projected to reach **USD\$13 million** by 2022, at a compound annual growth rate (CAGR) of 4% from 2019 to 2022.



# CUSTOM APPLICATION DESIGN AND DEVELOPMENT IN AGRICULTURE

Custom Application Design and Development is tailoring the design of a mobile computer program or software to fit an organization's particular business needs

## OPPORTUNITY DEFINITION | CUSTOM APPLICATION DESIGN AND DEVELOPMENT | CONNECTED FARMERS MARKETPLACE

Provide an online marketplace directly connecting local farmers to end buyers. The Connected Farmers Marketplace is regulated, ensuring that consumers get the highest quality harvests while farmers benefit from increased revenues.

### TARGET MARKET

#### Target Market

There are approximately **1,300 farms** in Qatar.

#### Target Users

- > Residents
- > Business owners
- > Farmers



### KEY PROBLEM STATEMENT | NEED

Local farmers have to rely on the middle man/retailers to access the market.



With a direct access to the market, farmers will benefit more with increased revenues and efficient supply chain.



### PROCUREMENT CYCLE

#### Request for Proposal (RFP)

The opportunity is in a RFP stage.



### TIMESPAN



Total duration of 1-2 years including implementation and testing



### ADJACENT OPPORTUNITIES

- > Digital Farmer Community
- > P2P Agriculture

### STAKEHOLDERS

- > Ministry of Municipality & Environment (MME)
- > Ministry of Public Health (MOPH)
- > Hassad Food Company



### OWNER AND SECTOR

**Owner** Ministry of Municipality & Environment (MME)  
**Sector** Environment



### BUDGET ACROSS CUSTOM APPLICATION DESIGN AND DEVELOPMENT ECOSYSTEM

The Qatar market for custom application design and development is projected to reach **USD\$13 million** by 2022, at a compound annual growth rate (CAGR) of 4% from 2019 to 2022.





## CUSTOM APPLICATION DESIGN AND DEVELOPMENT IN AGRICULTURE

Custom Application Design and Development is tailoring the design of a mobile computer program or software to fit an organization's particular business needs

### OPPORTUNITY DEFINITION | CUSTOM APPLICATION DESIGN AND DEVELOPMENT | DIGITAL FARMER COMMUNITY

A community platform providing localized agricultural information and crop-specific advice for farmers, the Digital Farmer Community offers a verified and trusted source of information and guide for technical, administrative and commercial enquiries.

#### TARGET MARKET

##### Target Market

There are approximately **1,300 farms** in Qatar.

##### Target Users

- > Farmers
- > Government officials



#### KEY PROBLEM STATEMENT | NEED

The Qatari landscape and environment conditions present key challenges for the agriculture industry, making it less attractive for farmers. Moreover, farmers lack accessibility to specialized and localized knowledge in support of growing healthy crops.



#### PROCUREMENT CYCLE

##### Post Tendering Stage

The opportunity is in post tendering stage.



#### TIMESPAN



Total duration of 2-3 years including implementation and testing



#### ADJACENT OPPORTUNITIES

- > Expert Network as a Service
- > Precision Agriculture

#### STAKEHOLDERS

- > Ministry of Municipality & Environment (MME)
- > Ministry of Public Health (MOPH)
- > Hassad Food Company



#### OWNER AND SECTOR

- Owner** Ministry of Municipality & Environment (MME)
- Sector** Environment (Agriculture)



#### BUDGET ACROSS CUSTOM APPLICATION DESIGN AND DEVELOPMENT ECOSYSTEM

The Qatar market for custom application design and development is projected to reach **USD\$13 million** by 2022, at a compound annual growth rate (CAGR) of 4% from 2019 to 2022.



# CUSTOM APPLICATION DESIGN AND DEVELOPMENT IN AGRICULTURE

Custom Application Design and Development is tailoring the design of a mobile computer program or software to fit an organization's particular business needs

## OPPORTUNITY DEFINITION | CUSTOM APPLICATION DESIGN AND DEVELOPMENT | EXPERT NETWORK AS A SERVICE

This opportunity relates to providing farmers access to a network of experts providing technical and business consultancy services through various digital channels. Farmers can consult with accredited experts (subject matter expert, field agents and agro-input companies) to receive relevant agriculture advisory.

### TARGET MARKET

#### Target Market

There are approximately **1,300 farms** in Qatar.

#### Target Users

> Farmers



### ADJACENT OPPORTUNITIES

- > Digital Farmer Community
- > Precision Agriculture



### STAKEHOLDERS

- > Ministry of Municipality & Environment (MME)
- > Ministry of Public Health (MOPH)
- > Hassad Food Company



### KEY PROBLEM STATEMENT | NEED

There are several challenges that farmers in Qatar are facing inhibiting their business sustainability and commercialization. The limiting factors include environmental conditions, lack of business, technical guidance and market information.



Through this service, farmers will receive tailored consultation from agriculture experts. Also, farmers will be able to access the latest information about the market and local best practice guidelines. These initiatives will help farmers achieve profitability and increase crop yield and quality.



### OWNER AND SECTOR

**Owner** Ministry of Municipality & Environment (MME)  
**Sector** Environment



### PROCUREMENT CYCLE

#### Request for Proposal (RFP)

The opportunity is in a RFP stage.



### TIMESPAN



Total duration of 2-3 years including implementation and testing

### BUDGET ACROSS CUSTOM APPLICATION DESIGN AND DEVELOPMENT ECOSYSTEM

The Qatar market for custom application design and development is projected to reach **USD\$13 million** by 2022, at a compound annual growth rate (CAGR) of 4% from 2019 to 2022.





## BIG DATA ANALYTICS IN TRANSPORTATION

Big Data Analytics provides insights that help governments and businesses enhance their operational efficiency, decision making and promote economic growth

### OPPORTUNITY DEFINITION | BIG DATA ANALYTICS | INTELLIGENT ROAD SIGNAGE

Monitor vehicle speeds and road conditions to provide real-time information updates for travelers through Intelligent Road Signage. Through the service, signage can be updated to convey specific messages, change speeds to accommodate traffic patterns and target specific vehicles on the road, such as speeding vehicles or drivers performing illegal actions.

#### TARGET MARKET



##### Target Market

Number of registered vehicles  
**1.52 million** (2017)

##### Target Users

- > Drivers
- > Passengers
- > Emergency Response Teams

#### KEY PROBLEM STATEMENT | NEED

Traffic signage is typically static; however, road conditions constantly change, requiring near real-time information signage updates for travelers.



Allowing for dynamic changes in speed, automatic rerouting and pointing out unsafe driving can help improve traffic congestion problems, and promote safe driving.



#### PROCUREMENT CYCLE



##### Post Tendering Stage

The opportunity is in post tendering stage.

#### TIMESPAN



Total duration of 2-3 years including implementation and testing

#### ADJACENT OPPORTUNITIES



- > Road to Vehicle Communication
- > Real-time Crowd and Transportation Management

#### STAKEHOLDERS



- > Ministry of Transport & Communication (MOTC)
- > Ministry of Interior (MOI)
- > Ashghal

#### OWNER AND SECTOR

**Owner** Ministry of Transport & Communication (MOTC)

**Sector** Transportation



#### BUDGET ACROSS BIG DATA ANALYTICS ECOSYSTEM

The Qatar market for big data analytics is projected to reach **USD\$108 million** by 2022, at a compound annual growth rate (CAGR) of 20% from 2019 to 2022.



# BIG DATA ANALYTICS IN HEALTHCARE

Big Data Analytics provides insights that help governments and businesses enhance their operational efficiency, decision making and promote economic growth

## OPPORTUNITY DEFINITION | BIG DATA ANALYTICS | REMOTE PATIENT MONITORING

Remote patient monitoring, a category of homecare telehealth, is a type of remote patient monitoring using mobile devices/wearables to continuously monitor patient's health data and share health information with doctors.

### TARGET MARKET

#### Target Market

Elderly population (>65) is estimated at over **30,000 persons**.

#### Target Users

- > Emergency response team
- > Patients
- > Doctors / Nurses



### KEY PROBLEM STATEMENT | NEED

Remote patient monitoring leverages specialized sensors embedded in smart wearables to measure key patient parameters and share key insights with healthcare professionals.



### PROCUREMENT CYCLE

#### Post Tendering Stage

The opportunity is in post tendering stage.



### TIMESPAN



Total duration of 2-3 years including implementation and testing



### ADJACENT OPPORTUNITIES

- > Single Patient Record
- > Virtual Consultation
- > myHealth Gateway



### STAKEHOLDERS

- > Hospitals & Clinics
- > Ministry of Public Health (MOPH)
- > Pharmacies



### OWNER AND SECTOR

**Owner** Hospitals & Clinics  
**Sector** Healthcare



### BUDGET ACROSS BIG DATA ANALYTICS ECOSYSTEM

The Qatar market for big data analytics is projected to reach **USD\$108 million** by 2022, at a compound annual growth rate (CAGR) of 20% from 2019 to 2022.





## BIG DATA ANALYTICS IN LOGISTICS

Big data analytics provides insights that helps governments and businesses enhance their operational efficiency, decision making and promote economic growth

### OPPORTUNITY DEFINITION | BIG DATA ANALYTICS | NATIONAL SUPPLY AND DEMAND DASHBOARDS

A supply and demand dashboard provides government officials “at-a-glance” status on national inventory levels of general products (e.g. commodities, primary material, construction material).

#### TARGET MARKET

##### Target Market

- > Livestock handled by Mwani in 2018 – **0.85 million heads**
- > Building material handled by Mwani in 2018 – **0.95 million freight tons**

##### Target Users

- > Government Officials
- > Business Owners



#### KEY PROBLEM STATEMENT | NEED

A transparent platform which shows and predicts national supply and demand ratios for specific sectors can help local companies plan and forecast more efficiently.



#### PROCUREMENT CYCLE

##### Post Tendering Stage

The opportunity is in post tendering stage.



#### TIMESPAN



Total duration of 3-5 years including implementation and testing

#### ADJACENT OPPORTUNITIES



- > Connected Warehouse
- > Supply Chain Control Center

#### STAKEHOLDERS

- > Ministry of Transport & Communications (MOTC)
- > Ministry of Commerce & Industry (MOCI)
- > Ministry of Development Planning & Statistics



#### OWNER AND SECTOR

**Owner** Ministry of Transport & Communications (MOTC)

**Sector** Logistics



#### BUDGET ACROSS BIG DATA ANALYTICS ECOSYSTEM

The Qatar market for big data analytics is projected to reach **USD\$108 million** by 2022, at a compound annual growth rate (CAGR) of 20% from 2019 to 2022.



# BIG DATA ANALYTICS IN LOGISTICS

Big data analytics provides insights that helps governments and businesses enhance their operational efficiency, decision making and promote economic growth

## OPPORTUNITY DEFINITION | BIG DATA ANALYTICS | INSIGHTFUL CUSTOMS RATING

Provides customs authorities with intelligent rating algorithms to enable insightful and selective screening of inbound shipments. It leverages analytical algorithms based on historical data of ships and vehicles to provide a risk assessment, and potentially align the required effort to screen and search inbound shipments accordingly.

### TARGET MARKET

#### Target Market

The total number of cargo handled at Qatar Port in 2018 was **1.4 million tons**.

#### Target Users

- > Government officials
- > Customs



### KEY PROBLEM STATEMENT | NEED

Customs processes often present operational bottlenecks at the ports of entry given all incoming shipments that are subject to screening.



This inevitably leads to increased costs, process redundancies and delays across the value chain.



### PROCUREMENT CYCLE

#### Post Tendering Stage

The opportunity is in post tendering stage.



### TIMESPAN



Total duration of 2-3 years including implementation and testing



### ADJACENT OPPORTUNITIES

- > Global Supply Chain Tracker
- > Supply Chain Control Center

### STAKEHOLDERS

- > General Authority of Customs
- > Ministry of Transport & Communications (MOTC)
- > Hamad Port



### OWNER AND SECTOR

**Owner** General Authority of Customs  
**Sector** Logistics



### BUDGET ACROSS BIG DATA ANALYTICS ECOSYSTEM

The Qatar market for big data analytics is projected to reach **USD\$108 million** by 2022, at a compound annual growth rate (CAGR) of 20% from 2019 to 2022.





## BIG DATA ANALYTICS IN AGRICULTURE

Big Data Analytics provides insights that help governments and businesses enhance their operational efficiency, decision making and promote economic growth

### OPPORTUNITY DEFINITION | BIG DATA ANALYTICS | NATIONAL FOOD SECURITY ANALYTICS

Provides a national food supply and demand dashboard powered by country-wide analytics capabilities.

#### TARGET MARKET

##### Target Market

There are approximately **1,300 farms** in Qatar.

##### Target Users

- > Farmers
- > Government officials
- > Business owners



#### KEY PROBLEM STATEMENT | NEED

Demand can fluctuate quickly and supplies could not be matching, causing either cost overruns or shortages of certain products.



The National Food Security Analytics service continuously balances food import levels compared with local supply, while monitoring and projecting national demand and identifying trends that would help increase food security.



#### PROCUREMENT CYCLE

##### Post Tendering Stage

The opportunity is in post tendering stage.



#### TIMESPAN



Total duration of 3-5 years including implementation and testing



#### ADJACENT OPPORTUNITIES

- > Digital Farmer Community
- > Precision Agriculture

#### STAKEHOLDERS

- > Ministry of Municipality & Environment (MME)
- > Hassad Food Company
- > Farmers



#### OWNER AND SECTOR

**Owner** Ministry of Municipality & Environment (MME)  
**Sector** Environment (Agriculture)



#### BUDGET ACROSS BIG DATA ANALYTICS ECOSYSTEM

The Qatar market for big data analytics is projected to reach **USD\$108 million** by 2022, at a compound annual growth rate (CAGR) of 20% from 2019 to 2022.



# BIG DATA ANALYTICS IN SPORTS

Big Data Analytics provides insights that help governments and businesses enhance their operational efficiency, decision making and promote economic growth

## OPPORTUNITY DEFINITION | BIG DATA ANALYTICS | ACTIVE LIVING INDEX

Use a scoring algorithm that helps aggregate activity levels into one score that can be leveraged across different stakeholders. The Active Living Index helps individuals understand their potential and provides recommendations accordingly. The index can also be extended to serve the ecosystem such as healthcare providers and insurance companies.

### TARGET MARKET

#### Target Market

Total number of healthcare visits – **2.6 million**  
(MDPS' Health Services Statistics 2016)

#### Target Users

- > Residents
- > Citizens
- > Athletes
- > Insurance companies
- > Healthcare providers



### KEY PROBLEM STATEMENT | NEED

Despite Qatar's efforts to promote the benefits of an active lifestyle, physical activity amongst the population is remarkably low.



An active living index would allow individuals to gain recommendations for physical activity as well as keep records for future medical purposes.



### PROCUREMENT CYCLE

#### Request for Proposal (RFP)

The opportunity is in a RFP stage.



### TIMESPAN



Total duration of 1-2 years including implementation and testing

### ADJACENT OPPORTUNITIES

- > Active Lifestyle Social Dashboard
- > Digital Senior Vitality Solutions



### STAKEHOLDERS

- > Ministry of Culture and Sports
- > Aspire Zone
- > Private Sector



### OWNER AND SECTOR

**Owner** Ministry of Culture & Sports

**Sector** Sports



### BUDGET ACROSS BIG DATA ANALYTICS ECOSYSTEM

The Qatar market for big data analytics is projected to reach **USD\$108 million** by 2022, at a compound annual growth rate (CAGR) of 20% from 2019 to 2022.





## BIG DATA ANALYTICS IN SPORTS

Big Data Analytics provides insights that help governments and businesses enhance their operational efficiency, decision making and promote economic growth

### OPPORTUNITY DEFINITION | BIG DATA ANALYTICS | NATIONAL SCOUTING ANALYTICS

A scouting platform will be used to help identify young athletes through their development at schools and sports club for Qatar's National Athlete Development Program. Through this platform a unified athletes database will be developed to monitor and analyze to scout top talent in the country.

#### TARGET MARKET

##### Target Market

Registered active athletes are **12,664** in various sports in Qatar (QOC, 2008)

##### Target Users

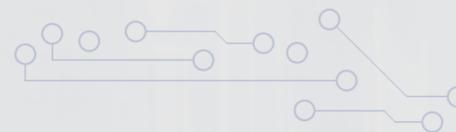
- > Students
- > Schools
- > National Sports Organizations



#### KEY PROBLEM STATEMENT | NEED

In general, scouting for sports teams and individuals is an expensive exercise due to a combination of being labor intensive and having unreliable technology and metrics.

Scouting is marred by inefficient scouts.



#### PROCUREMENT CYCLE

##### Post Tendering Stage

The opportunity is in post tendering stage.



#### TIMESPAN



Total duration of 2-3 years including implementation and testing



#### ADJACENT OPPORTUNITIES

- > Professional Athletes Performance
- > Dashboard
- > Technology Enhanced Training

#### STAKEHOLDERS

- > Qatar Olympics Committee (QOC)
- > Ministry of Culture & Sports
- > Aspire Zones



#### OWNER AND SECTOR

**Owner** Qatar Olympics Committee (QOC)

**Sector** Sports



#### BUDGET ACROSS BIG DATA ANALYTICS ECOSYSTEM

The Qatar market for big data analytics is projected to reach **USD\$108 million** by 2022, at a compound annual growth rate (CAGR) of 20% from 2019 to 2022.



# BIG DATA ANALYTICS IN ENVIRONMENT

Big Data Analytics provides insights that help governments and businesses enhance their operational efficiency and decision making, and promote economic growth

## OPPORTUNITY DEFINITION | BIG DATA ANALYTICS | CITY POLLUTION WATCH

The development of country wide sophisticated digital system to monitor air pollution in the country. With an advance sensor technologies, any environmental impact (e.g. air pollution) on the cities can be monitored and predictive analysis can be used to assess the data, in order to obtain real-time and future conditions.

### TARGET MARKET

#### Target Market

Qatar total population **2.6 million** (2019)

#### Target Users

- > Residents
- > Government Officials
- > Business Owners



### ADJACENT OPPORTUNITIES

- > Sustainable Readiness Index
- > Sustainable City Platform
- > Smart Buildings

### STAKEHOLDERS

- > Ministry of Municipality & Environment (MME)
- > Ministry of Public Health (MOPH)
- > Ministry of Commerce & Industry (MOCI)



### KEY PROBLEM STATEMENT | NEED

With the city's rapid expansion and population growth, air pollution becomes a threat for residents and citizens.



Qatar ranks among the most polluted countries with a lack in standards, policies and official monitoring procedures for pollution. Dust can also be a major issue in Qatar leading to several respiratory health problems.



### OWNER AND SECTOR

**Owner** Ministry of Municipality & Environment (MME)  
**Sector** Environment



### PROCUREMENT CYCLE

#### Request for Proposal (RFP)

The opportunity is in a RFP stage.



### TIMESPAN



Total duration of 2-3 years including implementation and testing

### BUDGET ACROSS BIG DATA ANALYTICS ECOSYSTEM

The Qatar market for big data analytics is projected to reach **USD\$108 million** by 2022, at a compound annual growth rate (CAGR) of 20% from 2019 to 2022.





## BLOCKCHAIN FOR ECOMMERCE (THEQA PROGRAM)

Blockchain is a digital distributed ledger that records transactions and events through a decentralized network of computer systems that verify all transactions and store them permanently

### OPPORTUNITY DEFINITION | BLOCKCHAIN | THEQA PROGRAM: BLOCKCHAIN INTEGRATION

This project aims at developing and integrating blockchain application for the Theqa portal. The development of blockchain application for the Theqa portal will help stimulate local as well as international eCommerce growth through secure sharing of the information among various eCommerce stakeholders.

#### TARGET MARKET

##### Target Market

The B2C eCommerce penetration rate in Qatar is estimated at 15% which is equal to **400,000 online shoppers**.

##### Target Users

- > Local as well as international eCommerce associations



#### ADJACENT OPPORTUNITIES

- > B2B eCommerce Strategy
- > Online Retail Promotions And Pricing



#### STAKEHOLDERS

- > Ministry of Transport & Communications (MOTC)
- > Ministry of Commerce & Industry
- > Online merchants (local and international)
- > International trustmarks
- > Theqa members



#### KEY PROBLEM STATEMENT | NEED

A private blockchain network is needed to support Qatar's eCommerce market through local and international collaboration:

- > Working with international trustmark associations to securely share information regarding certified merchants
- > Partnering with other government entities for merchants verification
- > Increase local merchants market exposure in the international eCommerce market



#### OWNER AND SECTOR

**Owner** Ministry of Transport & Communications (MOTC)

**Sector** eCommerce



#### PROCUREMENT CYCLE

##### Identified Opportunity

The opportunity has been identified & is yet to enter the RFP stage.



#### TIMESPAN



Total duration of 4-6 months including implementation and testing

#### BUDGET ACROSS ECOMMERCE ECOSYSTEM

The Qatar eCommerce market is expected to grow from USD\$1.2 billion in 2017 to **USD\$3.2 billion** in 2020.



# ARTIFICIAL INTELLIGENCE IN AUTONOMOUS VEHICLES FOR LOGISTICS

Artificial intelligence is defined as “the theory and development of computer systems able to perform tasks that normally require human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages”

## OPPORTUNITY DEFINITION | ARTIFICIAL INTELLIGENCE | WAREHOUSE AUTONOMOUS VEHICLES

This project aims to develop self-driving autonomous trucks/vehicles capable of safe driving within a warehouse. AI will be used by the trucks/vehicles to program themselves onto their designated paths and related processes. This will provide a safer and more efficient alternative to material handling by warehouse staff (for labor intensive and repetitive tasks).

### TARGET MARKET

#### Target Market

Fast moving consumable goods and logistics companies

#### Target Users

- > Warehouse operators



### ADJACENT OPPORTUNITIES



- > Connected Warehouse
- > Supply Chain Control Center

### KEY PROBLEM STATEMENT | NEED

Autonomous Reach Trucks / Vehicles within the warehouse can make a major positive impact to warehouse team productivity.



By having driver-less, well-trained vehicles, Warehouse operations can be more productive, faster, in addition to drastically reducing human errors.

Autonomous Reach Trucks can help keeping human staff safe, by handling the dangerous/hazardous goods without the need to expose human life to any dangerous situation.



### PROCUREMENT CYCLE

#### Ideation & Research

The opportunity is in ideation and research stage.



### TIMESPAN



Total duration of 1.5-2 years including implementation and testing

### BUDGET ACROSS ARTIFICIAL INTELLIGENCE ECOSYSTEM

The Qatar market for artificial intelligence is projected to reach **USD\$5.7 million** by 2022, at a compound annual growth rate (CAGR) of 40% from 2019 to 2022.



### STAKEHOLDERS

- > Gulf Warehousing Company (GWC)



### OWNER AND SECTOR

**Owner** Gulf Warehousing Company (GWC)

**Sector** Logistics





## HARDWARE & SOFTWARE DEPLOY AND SUPPORT IN HEALTHCARE

Hardware and software deploy and support are services used for technological transformation to aid a business in its operations and delivery to its customer base

### OPPORTUNITY DEFINITION | HARDWARE & SOFTWARE DEPLOY AND SUPPORT | VIRTUAL CONSULTATION

Provide remote doctor consultation through telemedicine, enabling nationwide and consistent access to clinical health care. Patients connect to doctors via online video chat with digital transmission of medical imaging and health informatics.

#### TARGET MARKET

##### Target Market

Healthcare visits in 2016 – **2.6 million**  
(MDPS' Health Services Statistics 2016)

##### Target Users

- > Patients
- > Doctors
- > Nurses



#### KEY PROBLEM STATEMENT | NEED

Qatar's medical infrastructure has been under pressure over growing population growth and the need to prepare for the upcoming events. Technology can play a key role in reducing pressure on these medical facilities by shifting care from the hospital and the clinic remotely towards home.



#### PROCUREMENT CYCLE

##### Post Tendering Stage

The opportunity is in post tendering stage.



#### TIMESPAN



Total duration of 1-2 years including implementation and testing



#### ADJACENT OPPORTUNITIES

- > Doctor Finder
- > Connected Pharmacy
- > Single Patient Record
- > myHealth Gateway

#### STAKEHOLDERS

- > Hospital & Clinics
- > Ministry of Public Health (MOPH)
- > Insurance Providers



#### OWNER AND SECTOR

**Owner** Hospital & Clinics

**Sector** Healthcare



#### BUDGET ACROSS HARDWARE & SOFTWARE DEPLOY AND SUPPORT ECOSYSTEM

The Qatar market for hardware and software deployment and support is projected to reach **USD\$162 million** by 2022, at a compound annual growth rate (CAGR) 4% from 2019 to 2022.



# HARDWARE & SOFTWARE DEPLOY AND SUPPORT IN HEALTHCARE

Hardware and software deploy and support are services used for technological transformation to aid a business in its operations and delivery to its customer base

## OPPORTUNITY DEFINITION | HARDWARE & SOFTWARE DEPLOY AND SUPPORT | MOBILE CLINIC

Mobile clinics are an innovative model of healthcare delivery that could help improve health disparities in vulnerable populations and individuals with continuing diseases. Mobile clinics provide a wide range of services tailored to community needs, and are individually fitted with examination rooms, laboratory services, and telemedicine tools.

### TARGET MARKET

#### Target Market

EHealthcare visits in 2016 – **2.6 million**  
(MDPS' Health Services Statistics 2016)

#### Target Users

- › Emergency response team
- › Patients
- › Doctors / Nurses



### KEY PROBLEM STATEMENT | NEED

Some regions in Doha, Qatar do not have clinics, so adding mobile clinics there is a quick fix solution.



Lack of several healthcare services in mobile clinics such as services for disabled individuals, medical tests, electrocardiogram and vaccination



### PROCUREMENT CYCLE

#### Post Tendering Stage

The opportunity is in post tendering stage.



### TIMESPAN



Total duration of 2-3 years including implementation and testing



### ADJACENT OPPORTUNITIES

- › Single Patient Record
- › Safe Workforce

### STAKEHOLDERS

- › Hospitals & Clinics
- › Ministry of Public Health (MOPH)
- › Ministry of Transport & Communications (MoTC)



### OWNER AND SECTOR

**Owner** Hospitals & Clinics  
**Sector** Healthcare



### BUDGET ACROSS HARDWARE & SOFTWARE DEPLOY AND SUPPORT ECOSYSTEM

The Qatar market for hardware and software deployment and support is projected to reach **USD\$162 million** by 2022, at a compound annual growth rate (CAGR) 4% from 2019 to 2022.





## HARDWARE & SOFTWARE DEPLOY AND SUPPORT IN POSTAL INDUSTRY

Hardware and software deploy and support are services used for technological transformation to aid a business in its operations and delivery to its customer base

### OPPORTUNITY DEFINITION | HARDWARE AND SOFTWARE DEPLOY AND SUPPORT | R01 – ADVANCED SOLUTION FOR SMART P.O. BOX ADDRESS

The project aims to develop a virtual P.O. Box system for Qpost allowing its customers access to mails 24/7. The system will allow for more than one option on ways manage mails. The system will be complimented with planned indoor and outdoor delivery options and automated warehousing solutions.

#### TARGET MARKET

##### Target Market

Over **200,000 households** in Qatar (2015) and **76,000 registered companies** (2017)

##### Target Users

- > Postal services
- > Shipping and Logistics



#### KEY PROBLEM STATEMENT | NEED

To automate storage solution for Qpost to reduce time, cost and resources. The solution will enable automatic robotic warehousing and dispensing solution of mails/parcels.



#### PROCUREMENT CYCLE

##### Request for Proposal (RFI)

The opportunity is in a RFP stage.



#### TIMESPAN



Total duration of 2-3 years including implementation and testing

#### ADJACENT OPPORTUNITIES

- > Dynamic Route Management
- > Autonomous Ground Delivery



#### STAKEHOLDERS

- > Qatar Post (QPost)
- > Ooredoo
- > Milaha
- > GWC



#### OWNER AND SECTOR

**Owner** Qpost  
**Sector** Logistics



#### BUDGET ACROSS CLOUD COMPUTING ECOSYSTEM

The Qatar market for hardware and software deployment and support is projected to reach **USD\$162 million** by 2022, at a compound annual growth rate (CAGR) 4% from 2019 to 2022.



For more information on digital investment opportunities in Qatar please contact:  
[tdvinfo@motc.gov.qa](mailto:tdvinfo@motc.gov.qa)



وادي تسمو الرقمي  
TASMU DIGITAL VALLEY

COPYRIGHT © 2019 TASMU DIGITAL VALLEY. ALL RIGHTS RESERVED.

