

Forward

On March 20 and 21 2017, The General Secretariat of the Executive Council held the "futureXchanges 2017" sessions as part of the Dubai Plan 2021 implementation initiatives. The sessions covered 8 high priority topics and included over 150 participants. The following report provides a summary of the main outcomes of these sessions and will be a key input into the "Dubai Pulse" report which outlines progress in the achievements of Dubai Plan 2021 objectives and the implementation of its strategic programs.



His Highness Sheikh Mohammed Bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, visited the "futureX-changes" and stressed the importance of collaboration and innovative ideas in strengthening the UAE's position globally.





Introduction Page 08



A Generation for Our Nation
Page 29



My Name is Ibrahim Page 59



People Not Cars Page 87



The Capital of Aviation Industry
Page 113



Pioneering Pharma Page 133



Resolution First Page 199



A Click Away Page 157



Secure Cyberspace Page 179



Dubai Plan 2021

The strategy of the Government in Dubai is formed from the vision of its inspiring leadership, and outlined in Dubai Plan 2021. Launched in December 2014 by H.H. Sheikh Mohammed Bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, Dubai Plan 2021 aims to reinforce Dubai's position as a global center and destination across a number of fields.

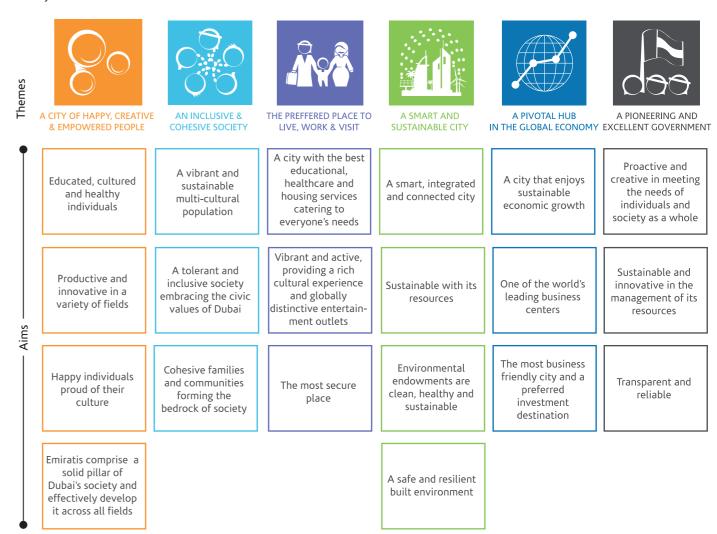
The Dubai Plan 2021 describes the future of Dubai through holistic and complementary perspectives, starting with the people and the society who have always been, and always will be, the bedrock of the city. This aspect describes the characteristics that Dubai's people need to have to deliver on the city's aspirations in all areas, and examines the society needed to support and empower these individuals in achieving their goals.

The plan addresses the urban environment including both natural and built assets, means of transportation, sources of energy and many other aspects. It looks at the living experiences of the people of Dubai and its visitors as a result of their interaction with the environment and the economic and social services provided. In addition, the plan also focuses on the future of the city from an economic perspective, which is the city's development engine and the fuel for its march forward.

Finally, the plan addresses the government as the custodian of city development in all aspects.

These perspectives were divided into six themes, each highlighting a group of strategic developmental aims for Dubai, and together forming the city's vision for 2021.

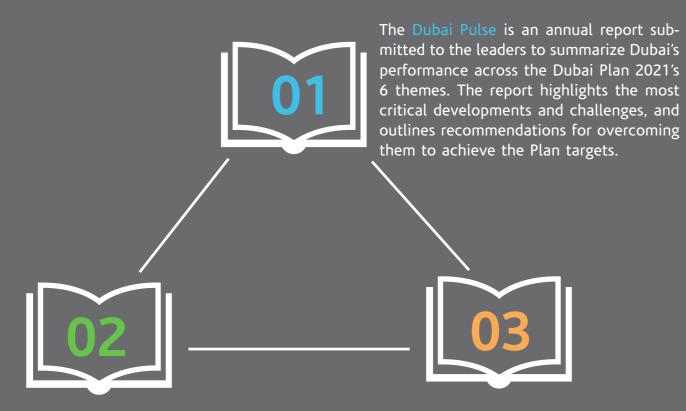
They are summarized as follows:



The 6 themes and their 20 aims were detailed by defining more than 600 key performance indicators (KPIs) in various areas and over 600 programs to ensure the effective implementation of Dubai Plan 2021 and the achievement of its ambitious goals.

8 | Dubai Plan 2021 | futureXchanges 2017 | 9

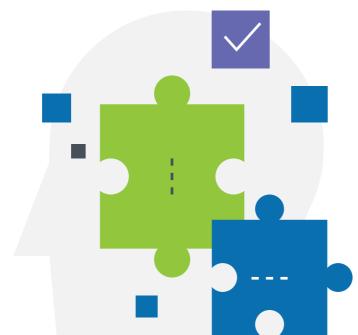
Dubai Plan 2021 performance is monitored through reports at three levels:



The Dubai Plan 2021 Dashboard outlines performance against the Plan's Key Performance Indicators using live data, and allows comparisons with best the best cities and countries.

The Dubai Plan 2021 Execution Report provides an overview of the implementation of strategic programs and targets the Executive Council Sector Committees and government leaders.





The Creative Labs, which are organized annually by the General Secretariat of the Executive Council, are considered a key input in the implementation of the Dubai Plan 2021, in particular to the Dubai Pulse report. The labs offer an interactive platform to present the progress in plan implementation, and engage on a number of key topics, with the participation of experts, specialists and government officials, as well as representatives from the private sector, civil society and different segments of the general public. The labs also help in addressing major challenges by identifying strategic programs and presenting solutions and innovative ideas to achieve the goals and objectives of Dubai Plan 2021.



















Cohesive Society

Financial Center

Creative Labs

2014

The General Secretariat of the Executive Council held the first session of the Creative Labs of Dubai Plan 2021 in November 2014. This was considered a major phase in the Plan's development, and was the starting point for defining and developing the strategic programs. It also provided a key interaction point for all stakeholders in the development of the Plan.

Inclusive Society













Integrated Mobility

One Government ____

Entrepreneurial Spirit

Made in Al Quoz المعلقة

What's in our Neighborhood?

From Waste to Resource

Creative Labs

The second edition of the Creative Labs was held in March 2016 and addressed six topics selected according to previous studies as well as the gaps and challenges arising from the analysis of 2015 results.

Avid Readers



Happy Family 🕌 🔓

Government of Happiness



Sustainable Resources

300

Experts from inside and outside the UAE, representing both public and private sector **Programs and** ideas generated

Topics

Experts from inside and outside the UAE, representing both public and private sector.

Entities

Programs and ideas generated

Topics

Entities

Key Outcomes of 2014 & 2016 Creative Labs

The following strategies and initiatives are examples of programs implemented based on previous lab recommendations.



Dubai Industrial Strategy 2030



Dubai SME Rating Framework



Prosecution Order Law



One Day Misdemeanour Court



Dubai Translation Conference



The School Librarian of the Year Award











futureXchanges 2017

The third session of the Dubai Plan 2021 Creative Labs was held under the theme "futureXchanges". These sessions were inspired by the vision of the UAE leadership to enhance happiness and well-being, and provide a decent life for all. The session aimed to accelerate the achievement of Plan objectives and address the challenges faced by working teams during the implementation phase. The "futureXchanges" adopted a very practical approach in identifying solutions and initiatives that can tackle these challenges effectively and efficiently through the development and implementation of 100 day plans for key themes and areas within the Plan.

The discussions took place over two consecutive days -March 20th and March 21st at Nikki Beach resort in Pearl Jumeirah, in a creative environment that featured a set of theoretical, practical and recreational events, with the participation of over 160 experts from the UAE and abroad, including representatives of government and private entities, partners, parents, students, artists and citizens.





160 **experts**



100 day plans

The "futureXchanges" tackled critical issues along eight strategic areas within Dubai Plan 2021

A Generation for Our Nation



Discuss key challenges and propose innovative solutions to enhance the educational outcomes for Emirati students in private schools. The session builds on the key themes of the Dubai Plan 2021 to build an educated and cultured Emirati generation of happy individuals who are proud of their culture.

My Name is Ibrahim



Develop a comprehensive system of care for autism that integrates health, education, and social policies, and suitable interventions, to provide equal opportunity and integration in society. The session name was inspired by a 23 year old Emirati man with autism named Ibrahim, in a clear and straightforward indication that the focus must always be on the person and not his or her disability.

People Not Cars



Enhance social cohesion and quality of life through the urban redesign of public spaces and streets to drive happiness. The session is in line with one of the top themes of the Dubai Plan 2021 to create a preferred place to live, work and visit.

The Capital of Aviation Industry



Establish Dubai as a capital for aviation industries by building a sustainable and integrated aviation ecosystem and cluster. The session focused on identifying the key elements, enablers and accelerators for building this cluster, so as to support all the phases of the value chain and attract leading companies as well as nationalize certain targeted aviation industries.

Pioneering Pharma



Identify pharmaceuticals and medical devices mix to drive Dubai's pioneering position in the pharmaceutical and biotechnology industries and develop a plan to accelerate the construction of a biotechnology centre. which would make Dubai a leader in selected industries related to medicine and medical equipment, and enhance the contribution of pharmaceutical industries in Dubai's economy and increase their share of the GDP.

A Click Away



Improve the investment environment to attract industries and stimulate the industrial sector and industrial exports, by replacing the existing multiple portals with a one-stop-shop for industrial licensing, procedures and services, accelerating the process of industrial licensing and providing other value-add services.

Secure Cyberspace



Discuss key challenges and security breach risks linked to the most common electronic crimes, and identify the best ways to combat them, to improve the Emirate's resilience and improve security and safety levels.

Resolution First



Avail alternative dispute resolution mechanisms to address real estate and labor cases, to reduce the burden on the courts, and expedite the resolution of disputes.

His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE, and Ruler of Dubai, attended the "futureXchanges" session to explore the latest developments in the implementation of the strategic programs. During this visit, His Highness launched "Mohammed Bin Rashid Distinguished Students Programme"in Dubai, one of the outputs of the first day of the "A Generation for Our Nation" session. The program me aims to give distinguished Emirati students the opportunity to enroll in the best private schools in the Emirate and benefit from the best possible education.

His Highness announced the programme would be implemented starting the school year 2017-2018, and directed the Knowledge and Human Development

Authority to set the required criteria and communicate with parents. He also called on Emirati parents to seize this opportunity to develop their children's skills and capacities. His Highness also visited the "My Name is Ibrahim" and "Secure Cyberspace" sessions.

In addition, His Highness Sheikh Hamdan bin Mohammed bin Rashid Al Maktoum, Crown Prince of Dubai and Chairman of the Dubai Executive Council, visited the "futureXchanges" participating in the discussions of all eight sessions.

His Highness reiterated the importance of hosting these types of sessions that establish a constructive and creative dialogue with various stakeholders in the Emirate on how to best achieve the goals of Dubai Plan 2021. Her Highness Sheikha Latifa bint Mohammed bin Rashid Al Maktoum, Vice Chairman of the Board of Directors of the Dubai Culture & Arts Authority, also attended part of the "futureXchanges."





Today, I visited the 'A Generation for Our Nation' session and saw the passion of participating students for excellent education. I was impressed by their commitment and ability to contribute to the future and rise of the UAE. It is for this reason that we developed this program for distinguished students, as they are the source of our strength and our drivers to become among the world's best.



— His Highness Sheikh Mohammed Bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai







The "futureXchanges" also included visits from over 20 leaders from the Emirate, including directors general from the Government of Dubai, who interacted with the participants in the different sessions and provided their feedback and perspectives on the topics. Among the key personalities were His Excellency Lieutenant General Dhahi Khalfan Tamim, Deputy Chief of Police and General Security in Dubai, His Excellency Humaid Mohammed Al Qatami, Chairman of the Board and Director-General of the Dubai Health Authority, His Excellency Saeed Mohammed Al Tayer, Chairman of the Infrastructure and Environment Committee and Managing Director and Chief Executive Officer of Dubai Electricity and Water Authority, His Excellency Major General Rashid Thani Al Matrushi, Director General of the Dubai Civil Defense, His Excellency Sami Dhaen Al Qamzi, Director General of the Department of Economic Development in Dubai, His Excellency Abdulrahman Saleh Al Saleh, Director General of the Department of Finance in Dubai, His Excellency Ahmed Abdul Karim Mohammed Julfar, Director General of the Community Development Authority, His Excellency Dr. Lowai Mohamed Belhoul, Director General of the Government of Dubai Legal Affairs Department, His Excellency Dr. Hamad Al Shibani, Director General of the Islamic Affairs & Charitable Activities Department, His Excellency Mohammed Ahli, Director General of Dubai Civil Aviation Authority, His Excellency Ahmed Bin Meshar, Secretary General of the Supreme Legislation Committee, His Excellency Sami Gargash, CEO of the Mohammed Bin Rashid Housing Establishment, His Excellency Khalifa Bin Darri, Executive Director of the Dubai Corporation for Ambulance Services, His Excellency Ahmed Mahboob Musabih, Director of Dubai Customs, His Excellency Arif Al Muhairi, Executive Director of Dubai Statistics Center, His Excellency Saeed Al Nabouda, Acting Director-General of Dubai Culture & Arts Authority and Her Excellency Dr. Amina Al Rustamani, Group Chief Executive Officer of TECOM Group.

The "futureXchanges" generated a range of creative ideas and initiatives seeking to accelerate the achievement of Dubai Plan 2021. The sessions also yielded 100-day plans for each topic to ensure the effective and immediate implementation of the recommendations.

The implementation phase will be handled by implementation teams involving stakeholders from the government and the private sector as well as civil society; and it will be regularly monitored to assess progress and ensure that the main challenges are addressed quickly and efficiently. An overview of the main outputs of each session are presented in the next part of this report.



His Highness Sheikh Hamdan bin Mohammed bin Rashid Al Maktoum, Crown Prince of Dubai and Chairman of the Executive Council, stressed the importance of the futureXchanges in promoting a dialogue among various stakeholders in the Emirate on the best ways to achieve the vision of the wise leadership, and to help Dubai become a global leader in all sectors.



Abstract

The "A Generation for our Nation" session, which was organized in collaboration with the Knowledge & Human Development Authority (KHDA) aimed at identifying the key enabling elements and success factors required to increase enrollment of **Emirati students** in private schools rated "good", "very good" and "outstanding" according to the **Dubai School** Inspection Bureau

The main challenges identified include the lack of access to quality, affordable education that caters to the cultural nuances of the United Arab Emirates; the low quality of Arabic Language, Islamic Studies and Social Studies curriculum delivery; the absence of Emirati role model teachers; and the limited awareness among parents of the DSIB school rating scheme, the differences among various international curriculums, and the lack of awareness on the best approaches for selecting the appropriate schools for their children.

The two-days session yielded 3 key initiatives to increase the percentage of Emirati students in private schools with "good" and above ratings. These initiatives are expected to be implemented within 100 days:



Mohammed Bin Rashid Distinguished Students Programme

- Finalize partnership with key private schools operators and agree on the list of "good" and above schools that are part of the program
- Launch the online portal for the program to enable Emirati students to apply to the scholarship and access all required information
- Finalize application review and administer assessments in line with the requirements of participating schools
- Announce the first batch of Emirati students enrolled in Mohammed Bin Rashid Distinguished Students Programme for Exceptional Students for 2017-2018 academic year



Teacher Development Program

- Confirm teacher development requirement and develop criteria to endorse teacher training programs
- Approve teacher training providers and programs
- Select teachers to be trained and licensed on the basis of meeting initial licensing requirements

100 day plan

(DSIB).



Parent Awareness Program

• Conduct a baseline survey to understand Emirati perception on what constitutes quality education





We have the utmost confidence in the Emirati youth, and we see the fruits of their hard work in their innovation and creativity in different fields. Therefore, we want our Emirati students to have the best-in-class education - one that out paces time and challenges the future. We want a generation armed with exceptional education; a generation for our nation in every sense of the word in terms of values, qualifications and abilities; a generation that realizes our hopes and ambitions and propels us to the highest echelons of global competitiveness, leadership and excellence.

— His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE, and Ruler of Dubai

Background

The increase in levels of affluence among Emiratis and their desire for a better quality education for their children have driven Emiratis towards private schools. Currently, 58% of Emirati students in Dubai attend private schools with the proportion increasing year on year.

Emirati parents prefer private schools because they perceive them to offer a superior quality of education, particularly in terms of better English language instruction which is required for university entry in the UAE and abroad, a supportive environment that is conducive to learning and development, smaller class sizes, a variety of extracurricular activities, quality facilities and equipment, and strong emphasis on parent engagement.



However, official statistics show that Emirati students are concentrated in specific schools, many of which have low Dubai School Inspection Bureau (DSIB) ratings. These schools are particularly attractive due to the predominance of Emirati culture which is the result of higher concentration of Emiratis, the greater attention paid to Arabic, Islamic and Emirati Social Studies subjects, and their lower school fee structures. Figure 1 indicates that around 50% of Emirati students in private education attend the lowest performing private schools that have been rated "acceptable" or below, according to DSIB ratings. This seems to indicate that many Emirati students are not capturing the sought after benefits of private school, and are therefore left with substandard education that would undoubtedly have a negative impact on their academic attainment, personal growth and development, and future career aspirations.

Accordingly, "A Generation for our Nation," which was organized in collaboration with the Knowledge & Human Development Authority, aimed at understanding the drivers behind Emirati parents' choice of schools and identifying the key enablers and success factors required to ensure that Emiratis enrolled in private schools are attending the best schools.

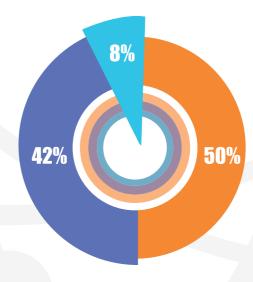


Figure 1: Emirati Student's Distribution in Private Schools in Dubai (2015/16 Ratings)

Private schools rated "acceptable or lower" 15,963 students Private schools rated "good or above" 13,414 students Private schools not inspected

Key Themes & Challenges

"A Generation for our Nation" employed the design thinking approach to engage over 50 policy makers, industry experts, parents, students, educators and investors. Participants transitioned through the design thinking stages of Empathize, Define, Ideate, Prototype, and Test to address three main questions:

How might we ensure better access for Emirati students to high performing schools?

How might the community support Emirati students to thrive and be equipped with 21st century skills?

How might we support Emirati parents to make informed choices about their children's education?



The discussions highlighted several key challenges facing Emirati parents and students in their choice of schools that must be addressed to alleviate the problem.

While Emirati parents prefer private schools due to their better overall offering, as highlighted above, this generally comes at the cost of losing touch with culture, traditions and the Arabic language. This is especially relevant to the high-rated international schools where Emirati students are a minority and where female Emirati teachers are rare and male Emirati teachers are completely absent. The limited cultural offering and the lack of Emirati role models at these otherwise excellent schools make them less attractive to Emirati parents, and in fact, only 12% of Emirati students in private schools are in these highly-rated school. Many parents choose lower-performing schools mainly due to the aforementioned cultural dimensions, the provision of single-gender classes or floors, or their geographical location.

Another major factor driving Emiratis away from highly-rated schools is their unaffordably high fees. School rating is directly and positively correlated with school fees, as higher fees allow schools to spend more on their teacher pool, facilities, and extracurricular activities. Accordingly, highly-rated schools tend to also have high-fees due to their superior offering, making them inaccessible to the majority of middle and low-income Emirati parents. Instead, these parents are forced to enroll their children in low-fee, low-rated schools that lack the standards of quality education and are populated with underqualified low paid teachers.

Did you know that 55% of Emirati students attend private schools and 45% attend public school?

While the limited cultural offering and high cost of highly-rated schools make them less attractive to many Emirati families, a third factor plays a critical role in Emirati parents' choice of schools. The DSIB provides comprehensive reviews on performance and standards of private schools in Dubai including "Parent Reports" which aim to assist parents in making an informed decision for their children's education. However, many Emirati parents are unaware of the DSIB rating system and the resources available to them to help with their school selection. Their lack of awareness of these tools and failure to understand differences among various curriculums results in poor an uninformed school choices for their children.

In summary, the limited cultural offering and high cost of highly rated schools, coupled with the limited investment in teachers and resources in low-fee, low-rated schools, along with the lack of awareness among Emirati parents have resulted in 50% of Emirati students in private schools to enroll in schools rated "acceptable" or below. These factors must be addressed to ensure that Emirati parents that choose private education for their children are pursuing the best schools.

Did you know that Emirati students perform less favorably compared with non-Emirati students on international assessments (TIMMS and PISA), even when they are in the same school?



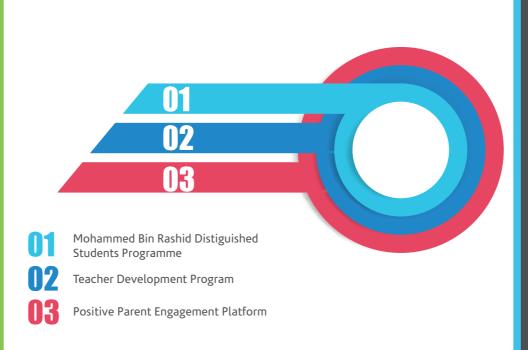
The "A Generation for Our Nation" session identified three initiatives that will help address above mentioned challenges, and improve the accessibility and quality of education for Emiratis in private schools.

Mohammed Bin Rashid Distinguished Students Programme

The "Mohammed Bin Rashid Distiguished Students Programme" was announced by His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE, and Ruler of Dubai, during his visit to the "A Generation for Our Nation" session. The program is a prestigious merit scholarship awarded to Emirati students based on outstanding academic performance. It aims to facilitate the enrollment of approximately 6,000 students over 20 years in private schools with DSIB ratings of "good", "very good" and "outstanding" with the objective of providing Emirati students with high quality education and equipping them with the skills required beyond tertiary education.

The "Mohammed Bin Rashid Distiguished Students Programme" promotes competition and provides the opportunity for Emiratis to develop their potential to the maximum in environments that set high academic expectations and employ systems to monitor, guide, support, and promote a holistic development for every student.

The program, is expected to commence in the academic year 2017/2018, and could be expanded in the future to include talented students and students with disabilities.



Teacher Development Program

Central to any proposition on improving school quality in Dubai is the requisite improvement to the quality of teaching at schools that Emiratis attend. A two-pronged approach is proposed. The first approach involves addressing teaching quality across all subjects in the lower-rated schools where most Emirati students are already enrolled in order to impact the greatest number possible. The second approach involves improving the quality of teaching in the subjects of Arabic, Islamic Studies and Emirati Social Studies in "good", "very good" and "outstanding" schools in order to attract Emirati students wary of further erosion of their language and national identity.

The recommendation for addressing the issues is to implement a teacher development program that is linked to a partnership agreement with a number of teacher training providers in Dubai. This program, which is aligned with the teachers licensing requirements, will upskill existing teachers, both Emirati and non-Emirati, in subject areas and skills relevant to the Emirati students in question. The specific training would be school-based, providing teachers with an accelerated opportunity to learn on the job in exemplary schools and gain real life teaching experience and general skills, supported by a network of experienced mentors and instructors. The program will be funded through various mechanisms, including employer-funding and sponsorships.

In addition to improving the skills of existing teachers, the development program would also serve to upskill teachers who have left the teaching profession or Emirati education graduates who are unable to find teaching jobs, with the aim of making them teachers of choice in private schools. In time, these teachers would help foster a greater understanding and appreciation of national identity and language in the private sector and drive enrollment of Emirati students to the private schools which employ the potential teachers.

Upon completion of the development program and passing the UAE teacher licensing examination, the teachers in the program would be awarded UAE-recognized Competent Teacher Status. This would further enhance their careers and provide them with the skills and experience to support students in general and Emiratis in particular. This would benefit the students in both high Emiraticoncentration schools and in highly-rated international schools that have failed until now to attract Emiratis due to their weak offerings in Arabic, Islamic Studies and Emirati Social Studies subject areas.

Positive Parent Engagement Platform

As an enabler to help transform mindsets over time through raising awareness of curriculums, positive education, assessments, soft skills, and future careers, the Positive Parent Engagement Platform brings Emirati parents together to engage, share, learn and support one another. The platform is designed and geared in a way to help parents make informed decisions about the choice of schools for their children based on their quality and what they can offer their children in terms of holistic development.

This initiative aims not only to increase parent awareness and engagement, enhance the understanding of student and parent perceptions, provide parent training programs and introduce appropriate targeted solutions, but also to provide parents with a platform to share their experiences of private schools and publish success stories. KHDA will appoint a Positive Parent Engagement Committee to drive the initiative with membership from KHDA and Emirati parents whose children are recipients of the Mohammed Bin Rashid Distinguished Students Programme.



Key Recommendations

Mohammed Bin Rashid Distiguished Students Programme

- Finalize partnership with key private schools operators and agree on the list of "good" and above schools that are part of the program
- Launch the online portal for the program to enable Emirati students to apply to the scholarship and access all required information
- Finalize application review and administer assessments in line with the requirements of participating schools
- Announce the first batch of Emirati students enrolled in Mohammed Bin Rashid Distiguished Students Programme for 2017-2018 academic year

To be implemented within 100 days

02

Teacher Development Program

- Confirm teacher development requirement and develop criteria to endorse teacher training programs
- Approve teacher training providers and programs
 Select teachers to be trained and licensed on the basis of

meeting initial licensing requirements

03

Positive Parent Engagement Platform

 Conduct a baseline survey to understand Emirati perception on what constitutes quality education

• Issue periodic reports on program progress and outputs

• Enroll subsequent batches of students in Mohammed Bin Rashid Distiguished Students Programme

To be implemented beyond 100 days

• Launch Teacher Development Program

• Issue periodic reports on program progress and outputs

 Launch parental exchanges sessions in collaboration with Emirati parents from "good" and above schools



In line with Dubai Plan 2021's goal to create an educated, cultured, happy, and proud Emirati generation, this pioneering program aims to provide Emirati students with the desire and academic ability to access the best private schools in the Emirate that offer exceptional education according to international assessments. We are thus aiming for our national results in education to be among the best in the world.

— His Highness Sheikh Hamdan bin Mohammed bin Rashid Al Maktoum, Crown Prince of Dubai and Chairman of the Executive Council

46 | Dubai Plan 2021 | futureXchanges 2017

Impact & Success Measures

Accelerating the implementation of the three initiatives identified is expected to increase Emirati student enrollment in high performing schools in Dubai over the short and medium-terms. The 100 days plan is expected to result in the following outcomes:

3

Enrollment of 100 Emirati students in private schools ranking good, very good and outstanding according to the DSIB in the 2017/2018 academic year.

Enrollment of 10 teachers who are potential role models for Emirati students in the Teacher Training program and their employment in schools rated good, very good and outstanding in the 2017/2018 academic year.

Enrollment of 30 teachers from high-Emirati concentration private schools with DSIB ratings of "acceptable" and below in the Teacher Training program in the 2017/2018 academic year.

Develop and pilot Positive Parent Engagement Platform and launch in the 2017/2018 academic year.



Did you know that the percentage of Emiratis in private schools rated better than "Good" has drastically improved from 21% in 2009/2010 to 42% in 2015/2016?

Key Next Steps

	TOPIC	ACTIVITY	TIMELINE	RESPONSIBLE ENTITY
	Mohammed Bin Rashid Distiguished Students Programme	Establish a taskforce led by KHDA with membership of Knowledge Fund (KF) and The General Secretariat of the Executive Council (TEC)	28-03-2017	KHDA in partnership with KF and TEC
		Develop funding model with KF	05-04-2017	KHDA in partnership with KF and TEC
		Finalize partnership agreements, including confirmation of number of scholarship awarded and all relevant information, led by KHDA	13-04-2017	KHDA in partnership with KF and TEC
01		Scholarship Design:		
		Finalize selection criteria with the relevant schools	13-04-2017	KHDA in partnership with private schools
		Outline Scholarship terms and conditions	16-04-2017	KHDA in partnership with private schools
		Outline recruitment process and admissions criteria	16-04-2017	KHDA in partnership with private schools
		Develop brand and marketing material	20-04-2017	KHDA in partnership with private schools
		Identify host site to hold scholarship announcement, criteria, application process, Q&A, contact details, etc	20-04-2017	KHDA in partnership with private schools
		Develop mechanism for parental –commitment and engagement	20-04-2017	KHDA in partnership with private schools

	TOPIC	ACTIVITY	TIMELINE	RESPONSIBLE ENTITY
	Mohammed Bin Rashid Distiguished Students Programme	Scholarship Program Implementation:		
01		Receive scholarship applications from students	20-04-2017	KHDA in partnership with private schools
		Process applications and shortlist candidates	26-04-2017	KHDA in partnership with private schools
		Administer admissions assessment	30-04-2017	KHDA in partnership with private schools
		Confirm scholarships to students	04-05-2017	KHDA in partnership with private schools and parents
		Accept scholarship offer	08-05-2017	Private Schools with parents
		Clearance by KHDA (refund re-enroll- ment fees)	15-05-2017	KHDA in partnership with private schools
•••••			•••••	
02	Teacher Training Program	Confirm teacher licensing requirements and identify teacher training approaches and criteria to endorse training programs	08-05-2017	KHDA
		Identify target schools to participate in the Teacher Development Program	11-05-2017	KHDA in partnership with private schools
		Conduct meetings with potential teacher training providers to discuss criteria, implementation plan and cost for training programs	18-05-2017	KHDA in partnership with training providers
		Review proposed training programs and agree on implementation roadmap	01-06-2017	KHDA in partnership with training providers

50 | Dubai Plan 2021 | futureXchanges 2017 | 51

				RESPONSIBLE
	TOPIC	ACTIVITY	TIMELINE	ENTITY
02	Teacher Training Program	Develop sponsorship schemes for the enrolled teachers	04-06-2017	KHDA in partnership with KF, TEC and private schools
		Share training programs and sponsor- ship schemes with school principals	08-06-2017	KHDA in partnership with private schools and training providers
		Agree with school pricipals on commitment to upskill their existing teachers and recruit new teachers	15-06-2017	KHDA in partnership with private schools
		Approve teacher training providers and programs	18-06-2017	KHDA in partnership with training providers
		Select teachers to be trained and lincensed based on teachers licensing requirements	22-06-2017	KHDA in partnership with private schools
		Launch Teacher Development Program and issue provisional teacher license by	10-09-2017	KHDA in partnership with private schools and training
		KHDA to all participating teachers		providers
•••••	•••••	•••••	•••••	••••••
03	Positive Parent General Platform	Develop baseline data about Emirati perception of quality education and mindset around education (survey format that could be completed with every scholarship application)	04-05-2017	KHDA
		Develop a plan with scholarship team to have parents that receive scholarships 'give back' by being part of founding advisors for the Emirati engagement platform	04-05-2017	KHDA

	TOPIC	ACTIVITY	TIMELINE	RESPONSIBLE ENTITY
03	Positive Parent Engagement Platform	Develop media and communication strategy	11-05-2017	KHDA
		Invite Emirati parents from "good" and above schools to collaborate in the development of the content and structure of parent engagement	14-05-2017	KHDA
	rtationn	Identify date, venue and potential speakers for the inaugural parent platform	14-05-2017	KHDA
		Parents come together, share and learn from one another	21-05-2017	KHDA



52 | Dubai Plan 2021 | futureXchanges 2017 | 53

Lab Participants

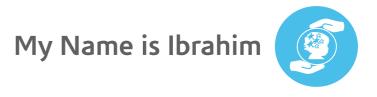
NAME	TITLE - ENTITY
HE. Hesham Al Qaizi	CEO, Knowledge Fund
Dr. Wafi Dawood	Chief of Strategy and Excellence, Knowledge and Human Development Authority
Mrs. Fatma Al Marri	CEO, Dubai School Agency, Knowledge and Human Development Authority
Mrs. Habiba Mohammed Bin Thaleth	Cultural Advisor, Knowledge and Human Development Authority
Ms. Maitha Bin Turkeya	Director of Business Support Services HR , Knowledge and Human Development Authority, Moderator
Ms. Stephanie Price-Whittle	Director of Creativity, Happiness and Innovation, Knowledge and Human Development Authority, Moderator
Ms. Nada Salha	Head of Connect, Knowledge and Human Development Authority, Moderator
Mr. Luke Naismith	Director of Research, Knowledge and Human Development Authority, Moderator
Mr. Bassam Refaeie	Head of translation, Knowledge and Human Development Authority, Moderator, Note taker
Mr. Bernard West	Investor , CEO PA Education Holdings
Mrs. Reem Al Shihhe	COO, Dispute Resolution Authority, DIFC
Mr. Rohan Roberts	Innovation Leader at GEMS Education
Mr. Dinesh Kothari	Investor, Pro-Vice Chairman of Delhi Private Schools
Mr. Ammar Shamsuddin	Board Governer, Dubai English Speaking College
Mr. Peter Daly	Advisor, School Leadership ESOL
Mr. Jonathan Huges-D'Aeth	School Principal, Repton
Mr. Mike Lambert	School Principal, Dubai College
Ms. Nan Billingham	School Principal, School of Creative Science
Mr. David Hicks	School Principal, Emirates International School



NAME	TITLE - ENTITY
Mr. Chris Vizzard	School Principal, Dubai English Speaking School
Mr. Matthew Farthing	School Principal, North Anglia International School
Mr. Navid Iqbal	School Principal, School of Creative Science
Mrs. Yasmina Al Maazmi	Vice Principal, Applied Technology High School
Mrs. Shaikha Rashid Al Shamsi	Director, Foundation and English Language Program, Abu Dhabi Vocational Education Training Institute (ADVETI)
Ms. Mary Saad	Researcher, Parkville Global
Ms. Lama Andari	Researcher, Parkville Global
Mrs. Amal BelHasa	Parent
Mr. Mohammed Darwish	Parent
Mr. Marwan AlShehhi	Parent
Mrs. Fatma Al Janahi	Parent
Dr. Kaltham Kenaid	Parent
Mrs. Suhaila Bughooma	Parent
Ms. Fatma Ebrahim Mohammed	Parent
Mrs. Amal Ali Al Muhairi	Parent
Mrs. Hala Badri	Parent
Mrs. Ibtissam Al Muhairi	Parent
Mrs. Maryam Ali Al Falahi	Parent
Mrs. Maryam Othman Abdul Qader	Parent
Mrs. Moaza Mohammed Rashed Al Jarwan	Parent
Mrs. Moza Shoomi	Parent
Mrs. Nouf Al Suwaidi	Parent
Mrs. Safia Al Khayat	Parent

NAME	TITLE - ENTITY
Mrs. Shaikha Ahmad Al Jarman	Parent
Ms. Aisha Al Noohi	Student, Universal American School
Ms. Dhabya Al Mana Al Falasi	Student, Dubai English Speaking School
Ms. Kawthar Darwish	Student, Jumeirah English Speaking School
Ms. Hessa Humaid Al Ghandi	Student, Al Ittihad Private School
Ms. Latifa Ahmed Al Janahi	Student, Al Mawakeb School, Al Barsha
Ms. Noora Abdul Rahman Al Shaibani	Student, Al Mawakeb School, Al Barsha
Mr. Abdulla Al Muamar	Student, Mohammed Bin Rashid Al Maktoum Model School
Mr. Majed Al Banna	Student , Universal American School
Mr. Mohammed Abdulla Al Rahma	Student , Al Ittihad Private School
Mr. Suhail Al Muhairi	Student, British English Speaking School

56 | Dubai Plan 2021 | futureXchanges 2017 57



Abstract

Autism Spectrum Disorder (ASD) is a associated with a range of long-term functiona impairments that can adversely affect the quality of life for the person with ASD, their family and advocates. Further, ASD is associated with economic constraints that perpetuate the social exclusion of people affected by ASD and can constitute a significant public particularly given the population prevalence estimates currently approximate 1 in 68

People with ASD benefit from care that is person-centered and coordinated within health-care and across health, education and social settings. Care that is fragmented often results in detrimental effects including difficulty accessing quality care and services, elevated expenses and economic burden leading to sub-optimal clinical and well-being outcomes.

The aim of the "My Name is Ibrahim" session was to develop a Dubai System Of Care for Autism that ensures optimal identification, intervention and inclusion of people with ASD within an integrated system of health, education and social care that will enable efficient and effective collaboration between different stakeholders, thereby leading to the development of coherent integrated policy and programmatic interventions. Developing a Dubai System Of Care for Autism is aligned with the broader Dubai Plan 2021 and the more specific 'My Community... A City for Everyone' initiative and requisite Dubai Disability Strategy committed to transforming Dubai to be disability-friendly by 2020. As such, all individuals with autism ought to receive adequate and equal opportunities to enjoy health, educational and employment opportunities, achieve their optimal developmental potential and quality of life, be self-determined and participate in, and contribute towards, society.

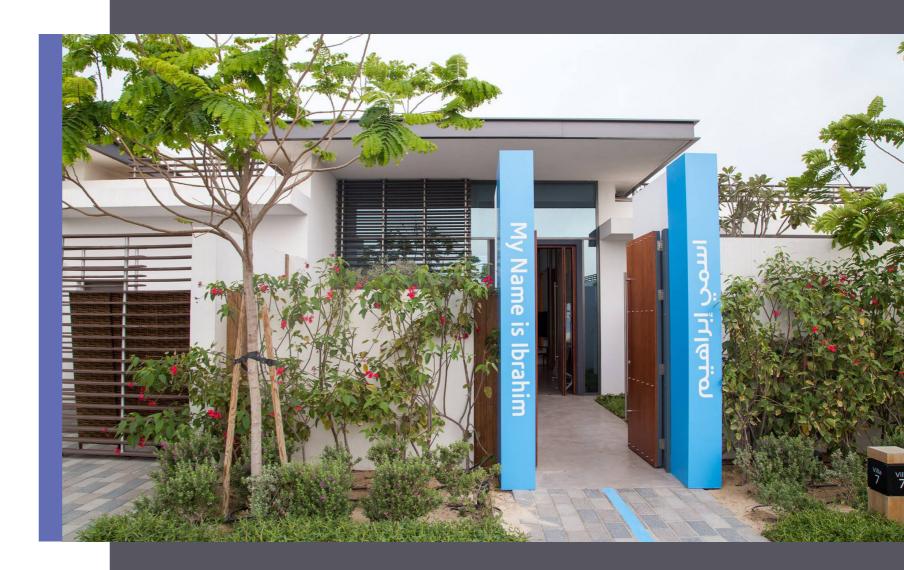
The session produced key initiatives to begin the process of building a system of care for autism in Dubai in a 100 days that included:

Adopt a "Dubai Declaration On Autism"

Develop health, education, social inclusion and family support plans with mechanisms to mobilize and allocate human and financial resources with appropriate regulations and standards of practice for operators and professionals

Deliver training programs prioritizing existing professional development needs and promote innovation and research

100 day plan



Background

Autism spectrum disorder (ASD) refers to a range Dubai population prevalence of ASD remains unability. Certain comorbidities include gastrointesfunctional outcomes and significantly enhance Figure 1). the level of independence and inclusion.

of neurodevelopmental conditions characterized known. However, administrative data indicate that by challenges with reciprocal social communica- pervasive developmental disorders in general, and tion, repetitive and restricted behaviors. ASD is a ASD in particular, constitute approximately 40-55% "spectrum" disorder that reflects the wide vari- of the caseloads in select private and public sector ation in its causes, challenges, as well as unique providers. Despite all the constraints, Dubai has strengths possessed by each person with autism. made concerted efforts and has achieved measura-Around one third of people with ASD are non-verble strides in response to the need of services for, bal and around one third have an intellectual dis- and the inclusion of, children and adults with autism.

tinal (GI) disorders, seizures, sleep disturbances, However, the current capacity in Dubai is not able attention deficit and hyperactivity disorder to meet the increasing demand as evidenced by (ADHD), anxiety and phobias. The first signs of lengthy waitlists and the number of people with ASD tend to appear around 18 months of age. Al- ASD who remain at home versus mainstreamed in though some environmental factors are associat- school or work. Additionally, some services and suped with an increased risk of ASD, genetic factors port systems across the health, education and social play a significant role, with heritability estimates sectors tend to be fragmented, non-evidence-based at approximately 90%. There is no known "cure" and loosely regulated, at times leading to potentialfor ASD, however, early identification and intensive early intervention can improve clinical and a financial and emotional burden to families (refer to

> As such, the "My Name is Ibrahim" session participants were tasked to develop a 100 day plan that would address existing gaps in the quality and capacity of services available to those with ASD, and raise awareness of ASD and the rights of people with ASD.

1 in 68 children are diagnosed with autism



Figure 1: The Dubai Context



AUTISM

is a complex heterogeneous neurodevelopmental disorder associated with significant long-term functional impairments that can adversely impact the quality of life for the affected person and their family



Source: Autism Speaks, National Autism Association, Autism Society & What to Expect.com

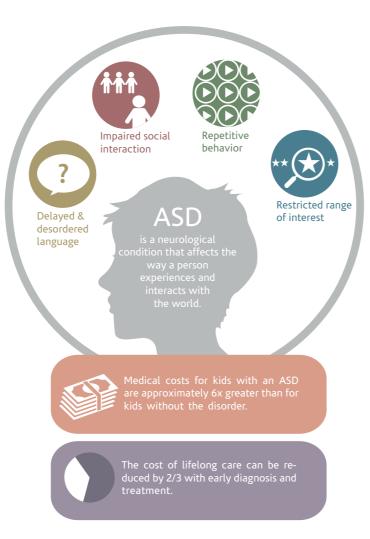


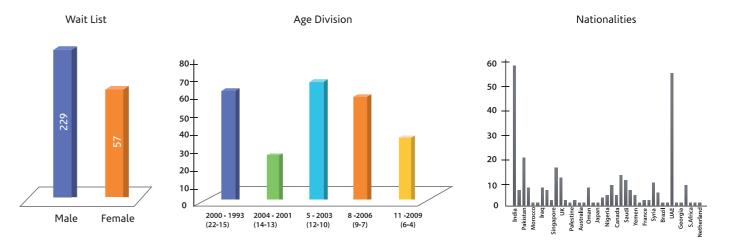


Figure 1: The Dubai Context

Dubai Autism Center, 2016

The cost per child with Autism in the center is around AED 140,000 [per annum]. Families who do not have private health insurance have to pay out of pocket. Dubai Autism center relies heavily on donations, and can offer their services for a lower fee of AED 40,000.

The Center serves approximately 55 children with autism and has a capped wait list of 300 children.



48% of children with autism are non-verbal





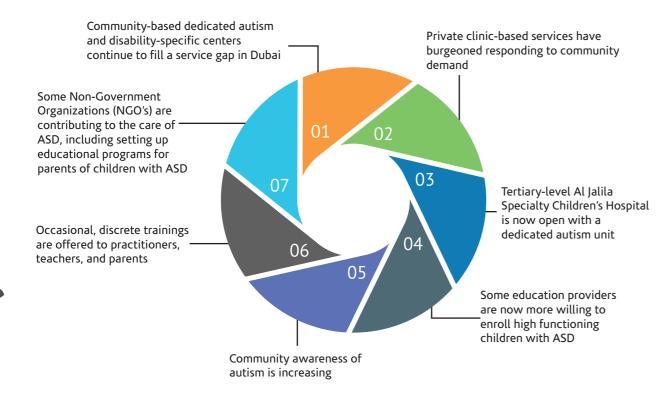
His Highness Sheikh Hamdan bin Mohammed bin Rashid Al Maktoum, Crown Prince of Dubai and Chairman of the Executive Council commended the "My name is Ibrahim" session for its focus on developing a comprehensive system of care for autism designed to bridge the service and policy gaps in the health, educational and social sectors. His Highness congratulated the organizers and participants on the choice of name that focuses on the person instead of his disability, calling all stakeholders to take all necessary actions to integrate persons with autism into society, stating, "We are all Ibrahim".

66| Dubai Plan 2021 | futureXchanges 2017

Dubai Plan 2021 | futureXchanges 2017

Families with persons with autism often struggle to source and secure the few services available that are often characterized by for-profit competitive forces. Furthermore, families also face tremendous challenges including their children with ASD into mainstream schools, work and social opportunities. The absence of an integrated strategic approach to respond to the health, social or economic challenges faced by persons with ASD and their families leads to fragmentation of services, which in turn further intensifies the burden on the shoulders of families.

There are a number of strengths and challenges that affect the quality of life outcomes of people on the autism spectrum living in Dubai. Some of the identified strengths are:



The identified gaps and challenges are:

- Lack of awareness and the universal pervasive denial mechanisms around ASD
- Lack of integration of available services and interventions
- Late or inadequate identification and diagnosis
- Lack of access to quality, evidence-based and affordable treatments/interventions
- No clear referral pathway
- Limited licensed specialist workforce
- · Limited inclusive mainstream education, vocational and lifelong education opportunities
- Limited access to gainful employment and social habilitation
- Presence of non-evidence based and sometimes harmful unapproved treatments
- No health funding as part of basic health coverage in public or private sector





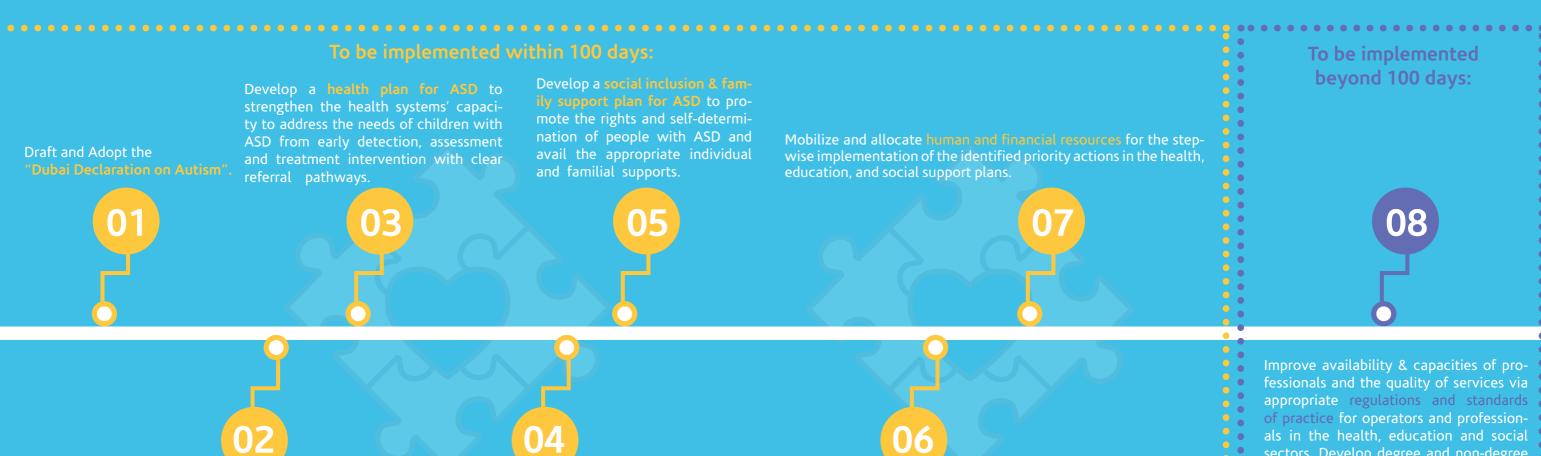
The autism spectrum disorder is one of the complex disorders affecting children, and causes great impact on the individual's mental and physical health and educational abilities, in addition to family health and happiness. The discussion focused on the establishment of integrated programs of autism that link medical, educational and social services together under one single umbrella

— Dr. Ammar Al Banna Executive Director of Al-Jalila Specialized Hospital

70 | Dubai Plan 2021 | futureXchanges 2017 71

Key Recommendations

In keeping with the 'My Community... A City for Everyone' commitment to transforming Dubai to be a disability-friendly city by 2020, the "My Name is Ibrahim" session agreed on the following recommendations to deliver a Dubai System of Care for Autism as per the framework in Figure 2:



Establish an autism working group charged to promote a supportive legislative and policy environment, thereby ensuring the appropriate provision of care and social inclusion of people with ASD and their families with representation from key government departments, Disability Specific Organizations (DPOs), private providers, academia, and key [self] advocates.

Develop an education plan for ASD to strengthen the education systems' capacity to include and support students with ASD in early years, schools, vocational, alternative and tertiary level education providers.

Secure partnerships with relevant international, regional and local academic, research and service level organizations, to promote innovation and research on the (1) diagnosis, prevention and treatment of autism and its associated medical conditions, and (2) autism prevalence and efficacy studies of evidence-based interventions, supports and habilitation services in the context of integrated care services.

sectors. Develop degree and non-degree training programs, prioritizing existing professional gaps through collaborating with universities and colleges.

Figure 2: Dubai System of Care Pathway





IDENTIFICATION

DEVELOPMENTAL & AUTISM SCREENING (0-5 years)















DUBAI SYSTEM OF CARE FOR AUTISM:







ASSESSMENT

OBJECTIVES OF COMPREHEN-

ELEMENTS OF COMPREHEN-

CRITERIA FOR DIAGNOSIS

INTERVENTION

GOALS OF THE TREATMENT

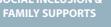
TYPES OF TREATMENT

COMMUNITY-BASED

EDUCATION & SOCIAL INCLUSION

GOAL OF INTERVENTION

SOCIAL INCLUSION &



REGISTRY: Screen +

AUTISM SCREENING

Case Entry (DSM-V))

Case Monitoring & Follow-Up

ENABLERS: Leadership | Governance | Funding | Advocacy & Awareness | Multi-Disciplinary Workforce | Data & Research [Monitoring & Evaluation]



Impact & Success Measures

The main expected impact is to improve the quality of life of persons affected by autism and their families through the provision of integrated, seamless and holistic care thereby reducing their social exclusion. As such, the 100 day plan is expected to:

01

Launch a focused targeted campaign on raising awareness of ASD and the associated Red Flags leading to the increase of early pickup rate for autism.

02

Establishing a funded clinical pathway delivered by licensed professionals that (1) facilitates screening, (2) standardizes clinical assessment, and (3) ensures evidence-based interventions based on international standards of practice. Providing children with suspected ASD greater access to affordable comprehensive assessments and interventions delivered by qualified practitioners meeting required competencies. The expected impact will be Dubai availing a seamless pathway for informed and empowered families by ensuring coordinated, individualized, person-centered care by select privileged providers with high standards of assessment and intervention, thereby reducing risk of malpractice and the cessation of unapproved and harmful treatments.

03

Collaborating with the education providers and social agencies to ensure access and provision of appropriate supports in accessing quality education and employment opportunities on equal basis with others. The outcome will be a reduced social burden on families.

04

Agreeing with academic and research institutions to launch training programs in at least one of ASD professional domains and pursue a focused ASD research project with a clear dissemination plan. The impact on the sector will be increased culturally and linguistically relevant research activity in ASD and increased availability of licensed qualified professionals serving the needs of our community.



Dubai Declaration on Autism

We, as a group of leaders, policy makers, health actors, civil society, advocates, family and service user representatives, and other stakeholders convened in Dubai on 20-21 March 2017 to participate in Dubai Plan 2021 organized "futureXchanges" Think Tank entitled "My Name is Ibrahim" and drafted a Dubai Declaration on Autism as detailed below.

In keeping with the My Community...A City for Everyone initiative committed to transforming Dubai to be a disability-friendly city by 2020, Dubai will establish a Dubai System of Care for Autism that plans to:



of the world's population has autism spectrum disorder



Adopt this Declaration with the objective of promoting stronger and coordinated actions in Dubai towards the development of a SYSTEM OF CARE FOR AUTISM throughout the lifespan.



Unite key government departments, disability specific organizations (DPOs), private providers, academia and key [self] advocates to establish an AUTISM WORKING GROUP promoting a supportive legislative and policy environment for the provision of care and the social inclusion of people with autism and their fam-



Task the appropriate parties the priority actions as outlined in the Dubai System of Care for Autism 100-Day Plan to realizing the goal of establishing an integrated system of care for autism in Dubai that includes increasing AWARENESS of autism and the rights of persons with autism; developing a HEALTH PLAN from early detection, assessment, treatment and intervention; developing an EDUCATION PLAN to include students with autism in early years, schools, vocational, alternative and tertiary level education; and developing a SOCIAL INCLUSION PLAN to promote the self-determination, independence and inclusion of people with autism while ensuring the families are supported and empowered.



Improve availability & capacities of PROFESSIONALS and the quality of services via appropriate REGULA-TIONS AND STANDARDS OF PRACTICE for operators and professionals in the health, education and social sectors.



Secure partnerships with relevant international, regional and local academic, research and service level organizations to promote INNOVATION and RESEARCH on the care, supports and habilitation services in the context of and integrated system of care model.



Mobilize and allocate human and FINANCIAL RESOURCES for the stepwise implementation of the identified priority actions in health, education, and social settings.

Key Next Steps

	INITIATIVE	ACTIVITY	TIMELINE	RESPONSIBLE ENTITY
01	Awareness	Develop an evidence-based targeted awareness campaign Develop a media ASD information pack Facilitate an online bilingual resources on autism including FAQ on autism Explore availing Sesame Street Julia in Arabic Children's publications on Autism	10-08-2017	Community Development Authority In collaboration with The General Secretariat of the Executive Council Al Jalila Children's Specialty Hospital KidsFirst Medical Center Dubai Autism Center
02	Health plan:			
	2a.Screening0-5 years>5 years	Develop Screening for ASD in Health Settings: ASD Screening at 18 or 24 months in Pediatric/Child Health clinics & hospitals by linking to immunization process/records Fund via a basic health benefits package coverage Training & Referral: Nurses as facilitators Integrate into Dubai Health Authority App	31-08-2017	Dubai Health Authority In collaboration with Dubai Health Care Authority Al Jalila Children's Specialty Hospital
		Develop Screening for ASD in Early Childhood Learning Centers & Schools: Create an approved information pack and training program for school-based learning support units and ECLC health clinics to identify red flags and early signs of ASD and developmental delays	31-08-2017	Knowledge & Human Development Authority In collaboration with Ministry of Education Dubai Health Authority Kids First Medical Center

INITIAT	IVE	ACTIVITY	TIMELINE	RESPONSIBLE ENTITY
2b. Assessement & Reassessment Diagnosis		Develop the required competencies for a clinic/hospital/center to be a privileged provider as an autism assessment center – and ensure that only those who meet these requirements are provided funding for the assessment. Link to funding (coverage in benefit package) and regulation (privileging).	31-08-2017	Al Jalila Children's Specialty Hospital In collaboration with Dubai Health Care Authority Dubai Health Authority Community Development Authority Knowledge & Human Development Authority
2C. Assessement & Reassessment Diagnosis	-	Define an evidence-based Minimum Treatment Package using international guidelines and include this as part of covered services in the basic benefit package at a price that is both sustainable and will attract additional high-quality supply to the market. Articulate this as a "coverage statement" for insurance. Define minimum requirements for providers of the minimum package and ensure that only providers who meet these requirements are privileged to receive post-assessment referrals and be funded for their care. Recommend Dubai Health Authority (DHA) planned Early Intervention Centers & Community Development Authority (CDA) Dubai Early Childhood Development Center to include an autism specialist program in the planned Early Intervention Centers.	31-08-2017	Al Jalila Children's Specialty Hospital In collaboration with Dubai Health Care Authority Dubai Health Authority Community Development Authority Knowledge & Human Development Authority

30 | Dubai Plan 2021 | futureXchanges 2017 81

	INITIATIVE	ACTIVITY	TIMELINE	RESPONSIBLE ENTITY
	2d. Health funding	Define funded coverage packages that includes all health and rehabilitation requirements for the entire costumer journey. o Intensive Early Intervention o Eligibility/inclusion criteria o Capitation funding Explore a possible Voucher System (choice of providers)	31-08-2017	Dubai Health Authority In collaboration with Dubai Health Care Authority Community Development Authority
	2e. Regulations and standard of practice	 Develop regulations/privileging criteria on approved providers (assessment, intervention) Develop positive list of evidence-based interventions and a negative list of unproven investigations /interventions to be excluded from coverage Plan for the revision of existing standards / qualifications for the licensing of ABA Therapist (CDA) Explore international accreditation options 	31-12-2017	Dubai Health Authority & Dubai Health Care Authority In collaboration with Community Development Authority Knowledge & Human Development Authority
03	Education plan	 Provide practitioner education toolkit to schools that provides schools with evidence-based-guidelines on how to support ASD in the school environment, FAQs, and expected standards of practice. Develop "autism friendly school/ECLC" criteria and associated "quality mark" that schools can opt into with appropriate incentives. Interface with Vocational Education Strategy to ensure a viable Alternative / Vocational Education pathway, linking special centers with mainstream, alternative and vocational education 	31-08-2017	Knowledge & Human Development Authority In collaboration with Ministry of Education Dubai Autism Center

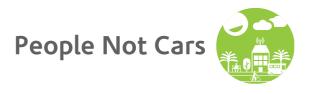
	INITIATIVE	ACTIVITY	TIMELINE	RESPONSIBLE ENTITY
04	Social inclusion plan	Develop Autism Resources online to support family & peer support groups Ensure that the Dubai Inclusive Employment policy promotes inclusive employment opportunities for people with ASD Prioritizing emotional health/resilience/attachment and the importance of play Ensure planning for appropriate protection and respite services via the Social Protection Task Force Develop a home based program plan	31-08-2017	Community Development Authority In collaboration with Dubai Autism Center Al Jalila Children's Specialty Hospital Dubai Health Authority – Mental Health Strategy
05	Capacity building	Begin developing consistent definition/licensing standards for ASD professionals. Identify 2-3 education providers for continuing medical education (CME) and long-term capacity building for human resources in key areas: speech and language, behavioral and occupational therapy and psychology. Teacher Training package /key information on autism	31-12-2017	Dubai Health Authority In collaboration with Dubai Health Care Authority Al Jalila Children's Specialty Hospital Community Development Authority
06	Research & innovation	Develop and execute a Dubai System of Care vetting and-dissemination plan Incentivizing R&D initiatives and grants in the area of ASD (ZU, MBRU)	31-08-2017	Collaboration between Al Jalila Children's Specialty Hospital Mohammad Bin Rashid University of Medicine and Health Sciences Harvard Medical School Center for Global Health Delivery – Dubai Zayed University

82 | Dubai Plan 2021 | futureXchanges 2017 | 83

Lab Participants

NAME	TITLE, ENTITY
Dr. Mohammed Al Awadhi	COO, Al Jalila Children's Specialty Hospital
Dr. Ammar Al Banna	Head of Child & Adolescent Mental Health Center of Excellence, Al Jalila Children's Specialty Hospital
Dr. Zainab Alloub	Consultant Pediatrician Neurodevelopment, Al Jalila Children's Specialty Hospital
Ms. Noora Al Marri	Head of Special Education, Ministry of Education
Dr. Hussein Al Maseeh	Sector Expert/Social Development and Care Sector
Ms. Fatma Al Matrooshi	Parent Advocate & Founder of the Emirates Autism Society
Ms. Fayza Almuaini	Director of Um Al Quwain Center for Autism, Ministry of Community Development
Dr. Marwan Al Mulla	Director, Health Regulation, Dubai Health Authority
Ms. Noora Al Saadi	Bilingual Inspector, Knowledge and Human Development Authority
Dr. Hanan Al Suwaidi	Senior Specialist Registrar, Health Funding, Dubai Health Authority
Dr. Haidar Al Yousef	CEO Health Funding, Dubai Health Authority
Dr. Fekreya Arjamand	Director of Clinical Affairs, Dubai Health Care Authority
Ms. Sara Baker	Head of Community Service Unit, Dubai Autism Center
Dr. Nadia Dabbagh	Consultant Child & Adolescent Psychiatrist, Rashid Hospital, Dubai Health Authority
Dr. Haitham El Bashir	Head of Neuroscience & Rehabilitation, Al Jalila Children's Specialty Hospital
Ms. Nancy Karaan	Head of Social Care for People with Disabilities Section, Community Development Authority
Dr. Salmaan Keshavjee	Director , Harvard Medical School Center for Global Health Delivery – Dubai
Dr Peyvand Khaleghian (Moderator)	Co-Founder and Director of Amana Healthcare
Mr. Sean Pavitt	Senior Inspector, Dubai School Inspection Bureau, Knowledge and Human Development Authority
Dr. Madeleine Portwood	Senior Consultant Educational Psychologist, UK & Ebdaah Dubai
Dr. Latifa Al Rustamani	Consultant Family Physician, Primary Health Care, Dubai Health Authority
Ms. Nannette Wicker-Essick	Founder and Director, KidsFirst Medical Center





Abstract

As the urban population increases globally, cities are facing new challenges arising from increased demands for infrastructure, transportation networks, and public spaces.

Cities are expected to provide high-quality and inclusive public spaces that meet the needs of a growing and diverse user base and enhance their quality of life. Cities have supplemented these efforts by promoting walkability, encouraging the use of public

Similarly, Dubai is facing its own set of challenges in managing the needs of its fast growing population and economy. Specifically, it is looking to balance between enhancing the livability and the quality of its urban fabric on one side, and maintaining a high-performing, efficient road and transport system on the other. The result so far has been a fragmented urban fabric with low levels of walkability and high dependency on private vehicles.

The "People Not Cars" session aimed at rethinking the concept of the street in Dubai by conducting a comprehensive urban analysis on a selected study area in Al Barsha 1 and 2 neighborhoods and exploring ways to enhance the livability and walkability through urban design. The interactive session identified a number of challenges adversely affecting walkability, including comfort and climate challenges, connectivity and mobility issues, inadequate land-use mix, and safety and security issues.

Recommendations coming out of the session revolved around 4 main pillars to enhance the livability and walkability of the studied street within 100 days. These recommendations included focusing on:

- Enhancing the connectivity of Al Barsha 2 neighborhood by introducing a network of green spaces, and providing alternatives to connect the neighborhood to the nearest metro station.
- Improving the utility of public realm by reducing physical barriers around existing social amenities and public destinations in Al Barsha 2 neighborhood and enhancing land-use mix around Al Seedaf 2 Street.
- Establishing a sense of belonging among residents of Al Barsha 2 neighborhood through street activities to enhance its livability.

100 day plan



Background

be living in urban areas, and cities will face new city in line with the needs and perspectives of its challenges stemming from increasing pressures inhabitants by focusing on the wellbeing of the on their infrastructure, transportation networks, and public spaces. This trend has driven a lot of of life while balancing between economic growth research in city and urban design and the last and the preservation of city resources and envidecade has witnessed the emergence of new ronment. However, Dubai is facing challenges in ideas and thinking around the livability of cities. managing the needs of a fast growing population This has included the development, testing, and and economy. implementation of a range of innovative frameworks that respond to deteriorating urban environments in cities around the world.

the spatial and strategic vision of a city and urban urban fabric with low levels of walkability and design is a key driver for social integration and high dependency on private vehicles. prosperity, for generating a higher sense of place and raising the level of safety and public health. Inclusive urban design takes into account social ing average time spent travelling. Car ownership diversity and the needs of different age groups in Dubai is among the highest in the world at 550 and people with disabilities to reduce the barriers vehicles per 1,000 residents. As a result, Dubai's between the public and private spheres by setting travel index is relatively high at 1.84 in 2016, appropriate street patterns and promoting permeability between streets and buildings. However, for streets to be livable they must first be recognized as public spaces.

By 2050, 70% of the total world population will The Dubai Plan 2021 aims at creating an inclusive individual and the society to enhance the quality

Specifically, it is looking to balance between enhancing the livability and the quality of its urban fabric on one side, and maintaining a high-performing, efficient road and transport system on Integrated planning plays a key role in achieving the other. The result so far has been a fragmented

> Increasing car ownership translates into increasmeaning that it nearly takes double the travel time during peak hours. In addition, 35% of Dubai's residents are not satisfied with the fluidity of traffic according to the 2016 Dubai Urban Environment Survey.

Dubai ranks among the highest car oriented cities with 550 vehicles apper 1,000 residents



While public transport ridership increased to 361.6 million passengers using Dubai's metro, tram and bus networks in 2016, the use of public transport remains low accounting for only 16% of the overall modal split. This is despite 25% of Dubai residents indicating that they see public transport as their ideal mode of transportation. Moreover, 45% of Dubai's residents do not walk because of the lack of walkable destinations (Dubai Urban Environment Survey, 2016).

The "People Not Cars" session aimed at rethinking the concept of the street in Dubai by conducting a comprehensive urban analysis on a selected study area in Al Barsha 1 and 2 neighborhoods and exploring ways to enhance the livability and walkability through urban design. The targeted output was a 100 days plan that directs the redesign of the street as a model for public space, in line with Dubai Plan 2021's aim to create a livable city that supports wellbeing and healthy lifestyles.

"People Not Cars" came as a natural continuation of the 2016 Creative Lab "What's in our Neighborhood?" which focused on rethinking the distribution of public and social amenities not according to the typical functional land use planning approach, but based on elements of livability such as walkability and accessibility. Last year's lab participants agreed on the need for applying the recommendations through a pilot project, which was the essence of this year's session. Al Barsha Street in Al Barsha 1 neighborhood and Al Seedaf 2 Street in Al Barsha 2 neighborhood were chosen because they offered a multitude of significant elements to study, making them suitable for a pilot project that could be scaled up and rolled across other areas in Dubai.





in Dubai in 2016



The main idea of the session is to encourage the citizens of Dubai to walk more and depend less on car usage. Participants discussed solutions to provide basic services in the residential neighborhoods from entertainment venues, parks, shopping malls and mosques.

Key Themes & Challenges

A number of challenges have been identified, affecting the level of walkability and livability of Al Barsha Street and Al Seedaf 2 Street. These challenges mainly include the following: (refer to Figure 1)

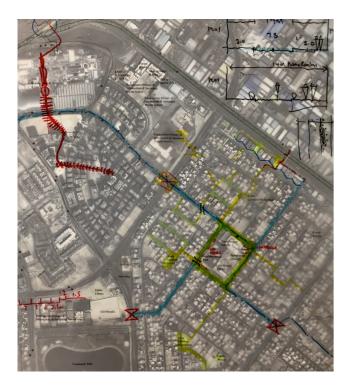


Figure 1: Highlight of the exiting challenges

Utility & Comfort:

Al Barsha Street and Al Seedaf 2 Street are two major collector roads with a 30.5 meters right of way (R.O.W.). With only 7.3 meters allocated for car circulation and 5 meters for parallel parking on both sides of the street, the remaining 23.2 meters, including a 2 meters sidewalk from each side, are dedicated to underground utilities and infrastructure, resulting in wide streets with underdeveloped edges that do not incorporate basic shading elements such as trees due to technical constraints caused by the underground infrastructure (tree roots might damage underground utilities such as cables and water pipes).

The lack of natural shading along with heat and humidity for long parts of the year make spending time outdoors uncomfortable. In addition, the streets lack urban furniture such as benches and drinking water which reduces the attractiveness and utility of public spaces.

Connectivity & Mobility:

The poor urban design that didn't incorporate livability measures has led to the creation of 2 separate neighborhoods on either side of Al Khail First Street. The area lacked sidewalks and pedestrian street crossings and had underdeveloped sikkas which makes it difficult and unpleasant for resident to walk to local destinations such as the mosque or park. There were no accessible destinations and no cycling lanes or bicycle parking. The neighborhood was not connected to public transportation (no bus stops and feeder buses). There is no pedestrian access to Mall of the Emirates, and a lack of seamless pedestrian crossing at First Al Khail Street.

Land Use Mix:

Inclusion:

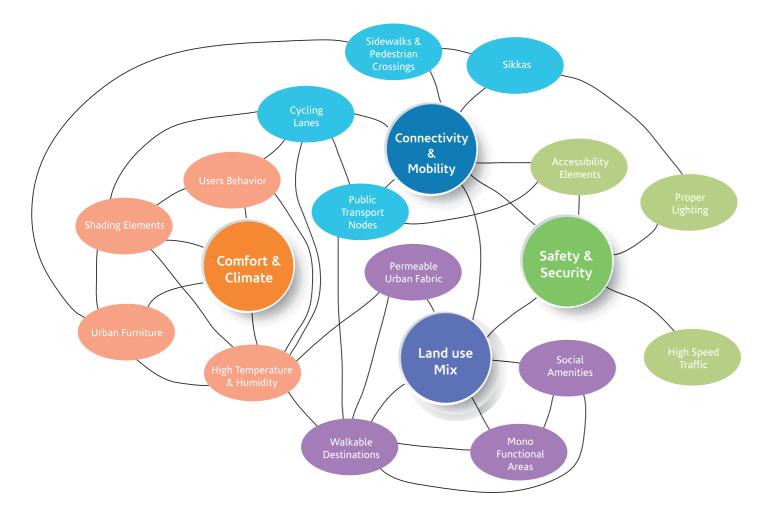
Al Barsha 2 neighborhood features a typical mono-functional (residential) land use and lacks commercial activities on the street level. There are no final walkable destinations and there's a lack of social amenities such as pocket parks and public library.

Safety & Security:

The streets feature high speed traffic and there are no buffer zones between pedestrians and cars. The streets also lack quiet areas as well as proper lighting.

The street design does not incorporate accessibility standards such as ramps, traffic lights for the visually impaired and tactile signage, and making the streets unfriendly to families, children, the elderly, and people with disabilities.

These challenges are summarized in the issue tree in Figure 2.





The main goal of the "People Not Car" session was to reimagine the section of Al Barsha 2 under study as an area that is designed first and foremost around the needs of its residents. This reimagined neighborhood is one that is bustling with pedestrian life and activities, offering an abundance of practical and aesthetics amenities that cater to the needs of all its residents. regardless of ability or age. Its public space is at the center of a strong sense of community that exists among residents that not only fosters stronger bonds between them, but also helps them develop a strong affinity to their neighborhood and its future. While this neighborhood is fully integrated with the rest of the city by bicycle or public transport, you can also choose to get to it by car.

In order to achieve this, a number of initiatives must be addressed along 4 main pillars: (refer to Figures 3 & 4)

Dubai plans to have more than 900 km of bicycle lanes by 2020



Figure 3: Setting the guidelines for the design intervention



Figure 4: Proposed Conceptual Design

Key Recommendations

To be implemented within 100 days:

Enhance Connectivity & Mobility

Incorporating an overlay of green and open spaces such as pocket parks and treated sikkas into the existing urban fabric would create an interconnected pedestrian pattern not only within Al Barsha 2 neighborhood but also between the 2 sides of Al Khail First Street. In addition, replacing traditional speed bumps with speed humps containing pedestrian crossings would help in enhancing the safety of pedestrians and reducing the speed of traffic. Moreover, mobility alternatives such as a bus stop or a feeder bus connected to the nearest metro station would enhance the connectivity of Al Barsha 2 neighborhood.

Improve the Utility of Public Realm

The reduction of physical barriers by eliminating fences and walls especially around exiting social amenities and public destinations such as the mosque and the public garden would enhance the quality of the public space and increase resident's use of these spaces. Furthermore, the land-use mix within Al Barsha 2 and more particularly around Al Seedaf 2 Street should be revisited to encourage the establishment of additional community-level public destinations within walkable distances such as a public library, clinics, local coffee shops, and laundry service shops.

Establish a Sense of Belonging

Boosting the sense of belonging among residents of the neighborhood is important to enhance its livability. This can be accomplished by incorporating interactive public sculptures and introducing street wall art in the surroundings of existing schools and nurseries in Al Barsha 2, as well as developing street neighborhood activities.

02

03

To be implemented beyond 100 days:

Revisit Street Design

The street has to cater to pedestrian users taking into account challenges with climate in the hot and humid summer months. Accordingly, it is of prime importance to rethink the typical right of way (R.O.W.) utilities cross sections manual to incorporate livability and public realm elements, cycling lanes and green corridors to enhance street aesthetics and improve the quality of the urban environment.



Impact & Success Measures

100 Days impact and success measures are:

Reviewed land use map for edges of the interface between Al Barsha 1 and Al Barsha 2 neighborhoods.

Revitalization project selected and approved.

1 Year Impact and success measures are:

Implementing the street revitalization project in Al Barsha 1 and 2 neighborhoods will achieve the following:

- Increased number of walking trips and cycling trips in comparison to the baseline set within the 100 days action plan.
- Increased square meters of green area and public open spaces.
- 100% compliance with Universal Design Guidelines.
- Decrease in the street local temperature by 3 to 4 degrees Celsius according to evidence based research.

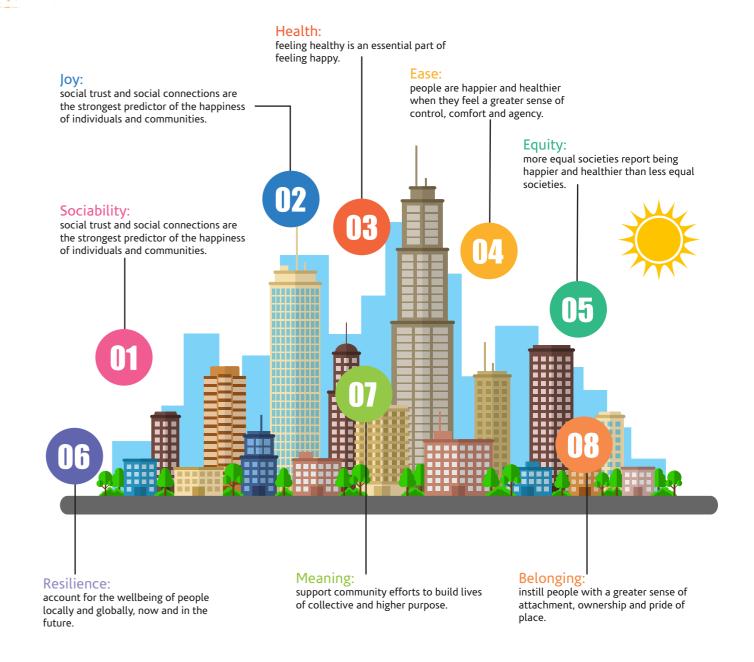


Best Practices

According to the Happy City*, eight wellbeing principles are key elements to achieve livable public realms through design. Beyond securing the individual's core needs (water, food, shelter, security and sanitation), one should consider the following:



wellbeing principles to guide placemaking practice. Source: Happy City



106 Dubai Plan 2021 | futureXchanges 2017 Dubai Plan 2021 | futureXchanges 2017 | 107

Happy City is a Canadian based urban design and planning consultancy firm. Their philosophy is to bring happiness into neighborhoods and cities through research, public events, and collaborative consulting. Their work is grounded in evidence from psychology, neuroscience, public health and behavioral economics. Charles Montgomery, founder and principal at Happy City, is an award-winning author, urbanist and leader of transformative experiments, research and conversations about wellbeing in cities.

Key Next Steps

	INITIATIVE	ACTIVITY	TIMELINE	RESPONSIBLE ENTITY
01	Revising the typical R.O.W. utilities cross < sections manual	Include the revision of the R.O.W. manual on the Infrastructure, Land and Environment Committee agenda. The revision of the manual should take into account the incorporation of livability and public realm elements, cycling lanes and green corridors.	15-06-2017	Roads & Transport Authority
02	Establishing the Task 〈 Force	Establishing a task force headed by the General Secretariat of the Executive Council to follow up on the implementation of the action plan until the project delivery.	15-06-2017	The General Secretariat of the Executive Council in collaboration with Roads & Transport Authority and Dubai Municipality
03	Enhancing the land use mix within Emiratis typical housing neighborhoods	Rethink the land use map within the study area, to explore the possibility of adding commercial uses and services on First Al Khail and Al Seedaf 2 Streets.	27-07-2017	Dubai Municipality

	INITIATIVE	ACTIVITY	TIMELINE	RESPONSIBLE ENTITY
04	Setting the livability baseline for the street	Setting a livability baseline for the street that includes recording temperature variations in sun and shade, assessing traffic safety issues, screening the green spaces and plantations, assessing cessibility issues and monitoring trips done by walking and cycling.	27-07-2017	Dubai Municipality in collabo- ration with Roads and Transport Authority, Smart Dubai Office and Masdar Institute of Science and Technology
05	Kick off the revitalization plan	Produce the revitalization plan (including the detailed design of the street) based on the guidelines discussed and agreed upon in the session.	28-09-2017	Dubai Municipality in collaboration with the Task Force
06	Implementation of the revitalization project	Executing the detailed design on the ground keeping in mind that the pilot project should be maximizing the impact of the revitalization plan with no physical intervention on underground infrastructure and minimal financial impact.	31-12-2017	Dubai Municipality and Roads & Transport Authority
07	Kick off the revitalization plan	Measuring the project impact in comparison to the initially set baseline.	29-03-2018	Smart Dubai Office in collaboration with Dubai Municipality and Roads and Transport Authority

10\partial Dubai Plan 2021 | futureXchanges 2017 | 109

Lab Participants

Dr. Khaled Al Awadi

Dr. Khaled Nasef

Dr. Youssef Diab

Eng. Maram Almuathen

Eng. Yousif Al Hammadi

Eng. Abdulla Jassim

Eng. Ahmed El Khzaimy

Eng. Mohamed Al Ali

Ms. Michelle Saywood

Eng. Abdul Jalil Al Abbasi

Mr. Yatinder Mahajan

Mr. Houssam Elokda

Mr. Abdul Wahed Al Jasmi

Mr. Rami Farook

Mr. Fortuné Penniman

Ms. Maryam Al Muheiri

Mr. Ahmed Al Mulla

Assistant Professor, Masdar Institute of Science and Technology

Senior Urban Planner and Design Specialist – Dubai Municipality

Scientific Director – School of Engineers, City of Paris

Senior Urban Planner - Dubai Municipality

Head of Maintenance Unit, Parks Section – Dubai Municipality

Deputy Director & Right of Way Services Manager, Roads and Transport

Authority

Deputy Director & Transportation Integration Manager, Roads and

Transport Authority

 ${\tt Director\ Planning\ \&\ Business\ Development,\ Public\ Transport\ Agency,}$

Roads and Transport Authority

Vice President Design – Meraas

Vice President Planning & Design – Dubai Silicon Oasis Authority

Head of Smart City - Dubai Design District

Research and Middle East Operations Lead – Happy City

Al Barsha neighborhood resident

Founder-Director at Traffic R&D, Farook Social Enterprises and The Farook

Foundation

Architect & Designer - A Hypothetical Office (AHO) Dubai

Master's Degree student – Masdar Institute of Science and Technology

PhD Degree student – Masdar Institute of Science and Technology





Abstract

The "Capital of Aviation Industries" session aimed at specifying the key enabling elements and success factors required to build a commercially sustainable ecosystem to support the entire aerospace value chain and help in attracting global manufacturers to Dubai. Main challenges identified include high costs of operations and living, limited funding options, administrative inefficiencies, and lack of sufficient sector-related innovation, R&D and incentives.

Despite the aforementioned challenges, Dubai is capturing around 5% of its potential aerospace manufacturing capacity. The sector is considered relatively nascent, but has been attracting a number of key players who have set themselves in Dubai and have shown willingness and interest to develop Dubai's aerospace capabilities. A list of key initiatives has been identified to enhance the aerospace competitiveness, boost its growth and attract more manufacturers. Initiatives are expected to deliver the following within 100 days:

01

Identify vocational training needs and launch at least one training program with a university.

02

Design optimal regulatory framework to attract investors.

03

Define governance model for aerospace cluster and establish an association or committee.

04

Set up a one-stop shop for aerospace licensing.





114Dubai Plan 2021 | futureXchanges 2017 Dubai Plan 2021 | futureXchanges 2021 | futureX

Dubai Industrial Strategy 2030 aims to elevate the Emirate to "become a global platform for knowledge-based, sustainable and innovative industries." The strategy focuses on six industrial subsectors: Aerospace, Maritime, Pharmaceuticals & Medical Equipment, Aluminum & Fabricated Metals, Fast Moving Consumable Goods (FMCG), and Machinery & Equipment.

The aerospace sector has been selected given the pioneering role that Emirates Airlines plays as it is considered one of the leading companies worldwide and owns a large and competitive fleet globally. The strategy aims at supporting Emirates Airlines and Dubai's long-standing competitiveness in the industry over the long term, through the localization of manufacturing capabilities in certain aerospace sub-industries.

In order to achieve this ambitious goal, one of the key initiatives that has been set is the creation of an aerospace cluster which draws on the partnerships and collaboration amongst the key relevant stakeholders such as Emirates Airlines, Fly Dubai, Dubai Airports, JAFZA, etc. As such, the "Capital of Aviation Industries" session that was led by Dubai South aimed at specifying the key enabling elements and success factors required to build a commercially sustainable ecosystem to support the entire aerospace value chain and help in attracting global manufacturers to Dubai.



The aerospace industry represents

2.3% of the industrial sector in Dubai.

The industrial sector represents 10% of Dubai's GDP.



The aviation industry in Dubai is an important pillar of the local economy, with globally competitive transport and logistics capabilities

		2013	%	2020	%
KEY CONTRIBUTOR	Jobs ('000s)	416	21%	754	30%
TO THE LOCAL ECONOMY	\$ USD ('billion)	26.7	27% GDP	53.1	38% GDP

Large infrastructure spending programs prioritized by the gov't



approved to fund expansion of 2 airports



airline by int'l PAX

Emirates 251 A/C in service / 252 Backlog #4 - world largest

#1 - highest number of international PAX #3 - busiest cargo



57 A/C in service / 83 Backlog



Funds raised in 2016 for expansion of AMIA

And significant private sector capex programs



DRIVEN BY LOCAL

PLAYERS WITH

GLOBAL SCALE





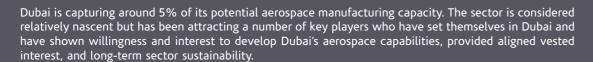






beyond '16 – '17

*Emirates group annual report 2015 - 2016



A number of challenges have been identified that affect the aerospace sector attractiveness, mainly including the following:

Costs of doing business (direct and indirect costs). There is a need to assess the detailed cost items and identify the structural measures and incentives such as material costs, labor costs and capital costs (e.g. machinery, land and buildings).

Costs of living (e.g. shortage of affordable housing, education and healthcare needs especially those at affordable prices).

Sustainability and continuity of business. There is a need to ensure consistent long-term demand and volume, for example through attracting services that might be provided by Dubai (e.g. MRO/Asset Management). All this requires building the local supply chain.

Barriers to entry (e.g. high costs of infrastructure and land lease).

Lack of a structured framework and specific investment proposal to engage local airlines (e.g. Emirates Airlines and Fly Dubai) in attracting global suppliers to manufacture locally.

Procurement policy not utilized to attract global manufacturers to relocate some production lines and increase local content share of manufactured products.

Complex regulatory system and bureaucracy leading to an unclear map of the investment process for new entrants and lengthy procedures.

Sub-optimal utilization and limited availability of capital-intensive assets that requires government intervention to facilitate and make available to be shared among aerospace cluster players.

Weak linkages and collaboration between government, industries, universities, etc.

Lack of sector-related structure and funding for innovation and R&D.

Limited funding options and availability of only one class of shares for start-ups in the free zones.



Aerospace industry is expected to attract additional

7,000 **†††**skilled jobs
by **2030**

Key Recommendations

To be implemented within 100 days:

piece part repair) and base procedures. maintenance.

Target potential investment Design an optimal regulatory opportunities where Dubai framework to simplify and speed could have a competitive ad- up the licensing process for new envantage such as components trants, and set up a one-stop shop (avionics, airplane seats and for aerospace and rapid licensing

Set up a governance model for the aerospace cluster (e.g. association, committee, or agency) to facilitate coordination and partnerships between aerospace cluster players.

inal Equipment Manufacturers (OEMs) to invest and set up Maintenance, Repair & Operations (MRO) operations in Al Maktoum International Airport. Dubai's established position in the market Signing at least one place as a global hub for aviation term sheet (i.e. agreeand logistics presents a unique platform for MRO business to succeed.

Attract and/or invest with Tier 1 and Tier 2 aero-structure companies to build manufacturing operations in Dubai South. Dubai has an opportunity to partner with OEMs and Tier 1 suppliers to invest locally and benefit from the existing and future ecosystem.

Use the procurement policy to attract global manufacturers to produce locally to increase local content (to cater for aerospace and other sectors such as infrastructure, transportation, utilities, etc.).

Set up an aviation innovation incubator (to fund and connect stakeholders) for innovation related ideas and start-ups (e.g., provide funding vehicle for R&D, provide several funding options for startups instead of one-class of shares. etc.).

Provide affordable housing, educationnd health insurance, especially for blue colored workers.

Reduce the cost of doing business and operational costs of investors (e.g. long-term reduced land lease).

Consider leveraging on Strata and Tawazun experience to boost the sector growth and even to expand in Dubai South as they share the same objective of localizing the sector, to ensure integration and coordination for the benefit of the UAE.

Develop and implement an integrated educational strategy to provide vocational training and on the job training.

ment) with an investor with commitment to relocate to Dubai.

Agree on long-

term loans with

low rates with at

least one bank to

finance investors.

Attract and/or partner with Orig-

Provide innovative funding solutions and incentives to attract manufacturers, including the consideration by the government to invest in some CAPEX as seed implantation to boost the sector growth and attract big investors (e.g. Hangers, large machinery, Autoclave, etc.), and to facilitate the investment in capital-intensive assets to be shared between aerospace cluster players.

Measu uccess

The main expected impact is to increase the aviation sector value added in Dubai's economy and make Dubai a capital for selected aviation industries. The first 100 days are expected to yield the following:

Identify vocational training needs and launch at least one training program with a university.

Design optimal regulatory framework to attract investors.

Define governance model for aerospace cluster and establish an association or committee.

Set up a one-stop shop for aerospace licensing.

\$600 bn with an expected 4% CAGR until 2030.



Best Practices

Case Study - Mexico

Mexico's goals and competitive factors elevated the status of the country as a prime manufacturer and exporter of components



GOALS

Feature among the 10 largest suppliers globally



Employ 110k locals in the sector



Export >\$12bn of aero manufactured products every years





SUCCESS FACTORS

Cost competitiveness

15.7% cost advantage over U.S counterparts

Trade agreements NAFTA provides manufacturers with dutyfree access to U.S and Canadian aerospace markets

Bilateral aviation safety agreements

Certify Mexican manufactured aerospace designs and components

Government assistance

Five aerospace clusters driving production and R&D to facilitate transaction to higher tech manufacturing

Workforce development 115k engineers and tech students graduate every year

High-level development timeline

YEAR

HIGHLIGHTS

Major foreign manufacturers Honeywell & Westinghouse started fabricating basic components for US defense aircraft

2005

Organized aerospace sector begins - Establishment of National Aerospace and Supplier Park

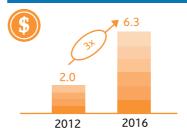
Regulatory initiatives by government Mexico declared "Pole de Competitive*" for the French Aerospace

Today

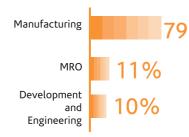
Mexico becomes 15th largest exporter in the global aviation industry and one of the largest recipients of FDI in aerospace sector

aerospace manufacturers

VALUE OF EXPORTS (\$ BILLIONS)







FACTS AND FIGURES







126 Dubai Plan 2021 | future Xchanges 2017 Dubai Plan 2021 | futureXchanges 2017 | 127

Key Next Steps

	INITIATIVE	ACTIVITY	TIMELINE	RESPONSIBLE ENTITY
01	Align the procurement policy to increase local content	Engage the list of suppliers (Emirates Air lines and Fly Dubai lists) and understand their needs Develop incentive packages and term sheet (i.e. agreement) tailored to suppliers Build awareness among the list of suppliers Ensure suppliers' commitment to relocate	15-05-2017 15-06-2017 13-07-2017 28-12-2017	Dubai South
02	Develop and implement an integrated educational strategy to provide vocational training and on the job training	Conduct a training needs assessment (university and technical programs and funding opportunities) Tailor education programs Launch education programs	15-05-2017 15-06-2017 15-10-2017	Dubai South in collaboration with KHDA & universities
03	Provide tailored funding schemes	• Engage the banking sector to design specific financial products that are tailored to the needs of the aerospace industry	15-06-2017	Dubai South in collaboration with banks
04	Set up a one stop shop for aerospace	Develop the full journey for an aerospace company to set up and facilitate licensing Have representative offices (General Civil Aviation Authority "GCAA" and Dubai Civil Aviation Authority "DCA")	15-05-2017 13-07-2017	Dubai South in collaboration with DED, Dubai The Model Center and Dubai Smart Government Establishment

	INITIATIVE	ACTIVITY	TIMELINE	RESPONSIBLE ENTITY
05	Design optimal regulatory framework	• Review and design a regulatory framework that is more competitive, attracts investors and simplifies the process of the investment map for new entrants	13-07-2017	Dubai South
06	Set up a governance model for the aerospace cluster	Define the concept (e.g. association, committee, etc.) Implement the model to facilitate coordination and interaction between aerospace cluster players	13-07-2017 28-12-2017	Dubai South
07	Establish Industrial Development Fund	Set up Industrial Development Fund for all industrial sectors to provide loans at preferential conditions	31-12-2018	DED
08	Government to facilitate setting up a fund for investment in capital-intensive assets for sharing	Identify CAPEX Needs Combine the needs that can be funded on a common platform Set up an SPV to manage those assets	16-11-2017 14-12-2017 31-12-2018	Dubai South
09	Set up an aviation innovation incubator	Provide a platform and space for start-up incubations (to fund and connect stakeholders) for innovation related ideas/ start-ups	31-10-2018	Dubai South

12\Dubai Plan 2021 | futureXchanges 2017 | 129



Lab Participants

NAME	TITLE - ENTITY
Dr Mohammed Al Fahim (Session Moderator)	SVP Corporate Development – Dubai South
Mr. Yasir Badri	VP Special Projects – Dubai South
Mr. Ahmed Yasin	Director of Strategy – Dubai South
Ms. Amal El Houbbadi	Aviation Strategy Specialist – Dubai South
Mr. Ahmed Al Zarooni	Commerical Lead – STRATA Manufacturing
Mr. Ziad Al Hazmi	Commercial Lead at Lufthansa Technik Middle East
Mr. Ivan Gale	Head of Commercial Operations - Boeing
Mr. Leonardo Monti	Consultant - Strategy&
Mr. Alessandro Borgogna	Consultant - Strategy&



Abstract

The "Pioneering Pharma" session aimed highlighting the key challenges facing the Pharmaceuticals & Medical Equipment in Dubai in order to select the key enablers and strategic initiatives required to overcome them and attract global manufacturers. Furthermore, it highlighted the range of products and medicines that can fortify Dubai's position in this sector. Key challenges include weak manufacturing ecosystem, fragile IP and regulatory frameworks, limited talents pool, lack of products' specific guidelines, limited market size and limited access to regional and international markets. A number of products were recommended for Dubai to venture into over the short, medium and long terms within Pharma and MedTech sectors.

As such, a total of 30 strategic initiatives within 8 main categories were identified to increase Dubai's competitiveness. These initiatives are expected to deliver the following within a 100 days plan:

Finalize and endorse the list of opportunities for Pharma and MedTech industries in Dubai.

Develop sector-wide and categories' specific investment pitch documents.

Develop a list of targeted investors across the different opportunities in Pharma and MedTech to start investment promotion missions.

Set up a one-stop shop with the full journey for a Pharma company to establish facilities and get required licensing.

Moreover, the following achievements are expected within one year:

Pitch book presented to at least 10 potential investors and attract 2 manufacturers by the end of 2018.

Launch 3 vocational training and capacity building programs in collaboration with educational institutes in Dubai.

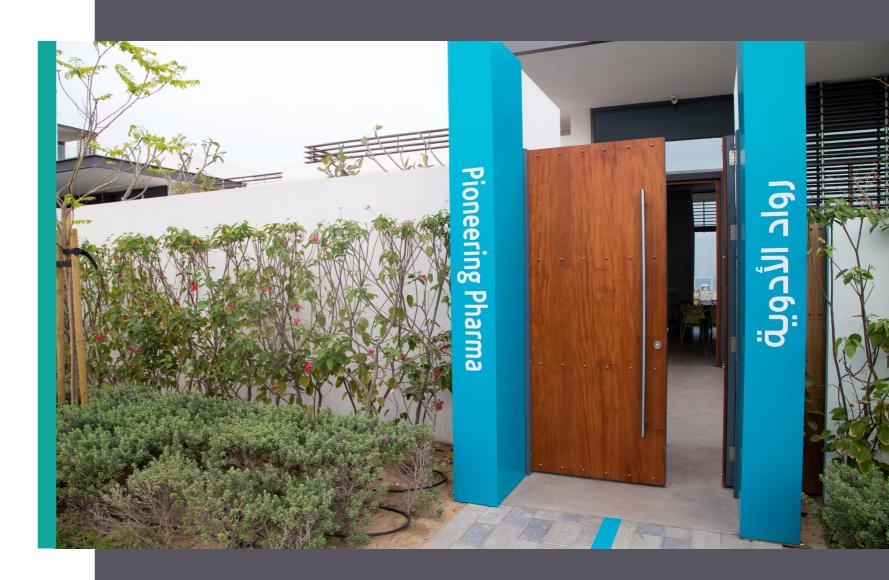
Feasibility study completed for establishing Biotechnology institute in Dubai.







100 day plan





The Dubai Industrial Strategy 2030 aims at driving sustainability and diversification of Dubai's economy by strengthening and developing the industrial sector. The session, which included participants from local and international companies, discussed challenges and highlighted solutions, including creating specialized areas for pharmaceutical manufacturing and securing the necessary support from the government.

— Marwan Al Janahi, Executive Director, Dubai Science Park

13¢ Dubai Plan 2021 | futureXchanges 2017 Dubai Plan 2021 | futureXchanges 2017 | 137



3ackground

Dubai Industrial Strategy 2030 targeted six strategic sectors, one of which is Pharmaceuticals & Medical Equipment. Given that many international pharmaceutical firms expressed their interest in transferring parts of their plants and research centres abroad to take advantage of international markets' expansions and ensure lower business costs, Dubai is considered one of the prime hubs to host these international firms.

In order to achieve this global stance vis-a-vis other leading competitors; several strategic initiatives have been identified by the relevant stakeholders and in accordance to international best practices.

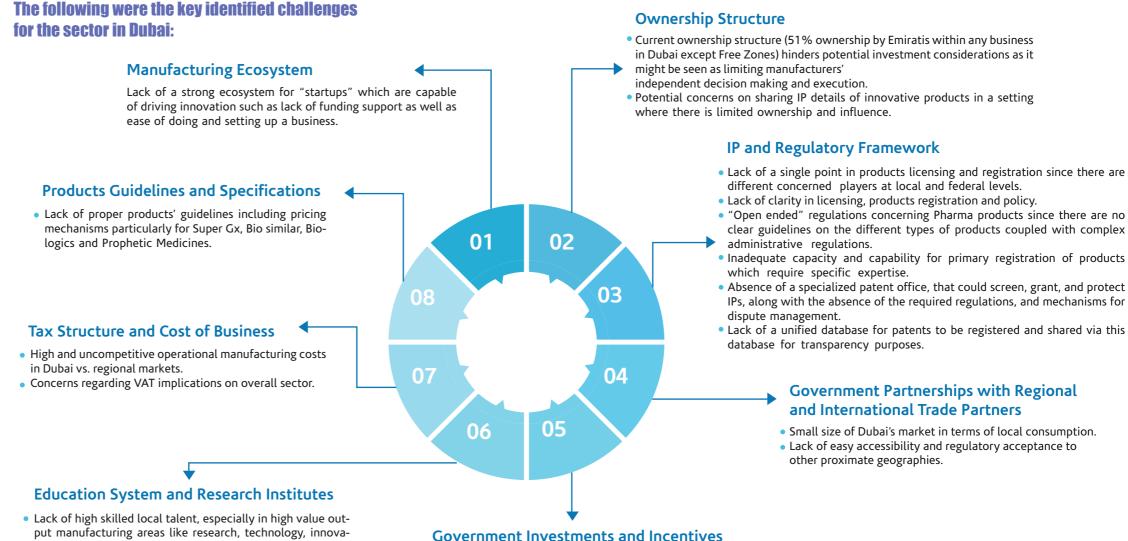
Stemming from this ambitious vision and to further solidify the identified strategic initiatives, the "Pioneering Pharma" session that was led by Dubai Science Park highlighted the range of products and medicines that can fortify Dubai's position in this sector and recommended a set of enablers to attract global manufacturers.

Pharmaceuticals industry represents 1.8% of the industrial sector in Dubai. The industrial sector in Dubai represents 10% of GDP and is the 1th largest sector.

Key Themes & Challenges

From a Pharma perspective, MENA will be among the fastest growing regions globally with a projected CAGR of 7.6% from 2015-2020 vis-à-vis 2% for Latin America. 3% for Europe and 4% for Asia. UAE Pharma market is insulated from the regional slowdown; growth expected to continue going forward. Compared to various industries, Pharma – MedTech has one of the highest reliance on UAE imports currently at 80% compared to 46% for Chemicals, 47% for Metals and Oreos, and 60% for Food products. Manufacturing capabilities in the UAE are mainly located in Ras Al Khaimah & Abu Dhabi and primarily focusing on generics, the less complex formulation.





- tion, etc.
- High dependency on expats with short-term visas and permits and constant rotation, thus, hindering retention efforts.
- Lack of clinical trial support and facilities

Government Investments and Incentives

- Lack of a strong and efficient funding mechanism from government and financial institutions.
- Lack of funders' capabilities to assess the viability of business opportunities and
- Lack of an investment strategy and promotional packages for potential investors, along with guidelines to attract targeted investments particularly in high R&D and innovative activities.

140 Dubai Plan 2021 | future Xchanges 2017 Dubai Plan 2021 | futureXchanges 2017 | 141

Key Recommendations

Based on UAE's general and Dubai's specific value proposition, potential areas of opportunities were identified to drive the way forward for Dubai in both Pharma (i.e. Super Gx) and MedTech (i.e. Insulin Pumps).

Also, the following key enablers have been identified as key to push the sector forward in the coming period:

Pharmaceuticals industry is expected to attract additional 3,000 skilled jobs

by **2030**



Enhancing manufacturing ecosystem.

01

Strengthening IP and regulatory frameworks.



To be implemented beyond 100 days:

Improving government investments and incentives particularly related to provision of financing schemes.



Improving the business environment by addressing concerns related to tax structure and cost of business



02

Clarifying ownership structures options for investors.

04

Solidifying government partnerships with regional and international trade partners.



Enhancing talents pool through the education system and research institutes.



Developing products guidelines and specifications.

The main expected impact is to increase the industry's value added by transforming Dubai into a pioneering hub in Pharmaceuticals and Medical Equipment. Therefore, a total of 30 strategic initiatives within 8 main categories were identified to increase Dubai's competitiveness. These initiatives are expected to deliver the following within a 100 days plan:



Finalize and endorse the list of opportunities for Pharma and MedTech industries in Dubai.



Develop sector-wide and categories' specific investment pitch documents.



Develop a list of targeted investors across the different opportunities in Pharma and MedTech to start investment promotion missions.



Set up a one-stop shop with the full journey for a Pharma company to establish facilities and get required licensing.

Moreover, the following achievements are expected within one year:



Pitch book presented to at least 10 potential investors and attract 2 manufacturers by the end of 2018.





Launch 3 vocational training and capacity building programs in collaboration with educational institutes in Dubai.





Feasibility study completed for establishing Biotechnology institute in Dubai.

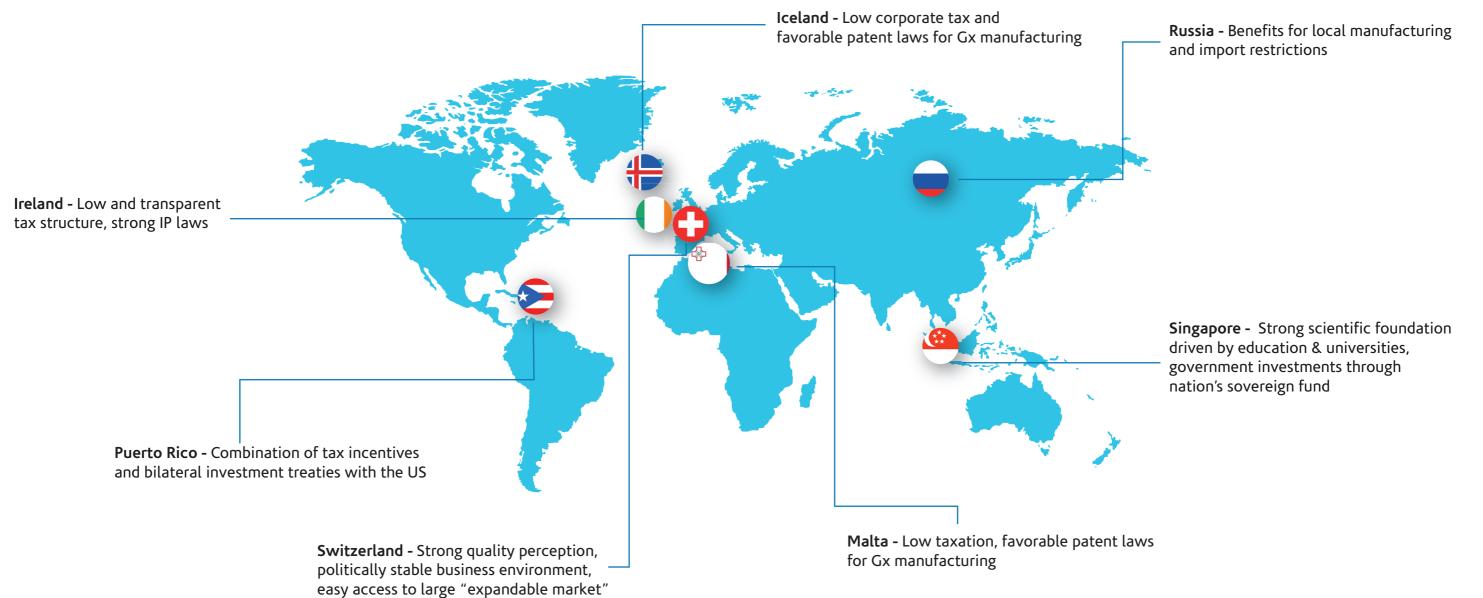




80% of pharmaceuticals consumed in the GCC are imported

Best Practices (Selective Examples)

Different Countries have emerged as a manufacturing hub by providing different value proposition



146 Dubai Plan 2021 | future Xchanges 2017

Key Next Steps

	ENABLER	INITIATIVE	ACTIVITY	TIMELINE	RESPONSIBLE ENTITY
		Develop and promote Dubai's Pharma and MedTech opportunities	1.1. Finalize and endorse the list of opportunities for Pharma and MedTech industries in Dubai.	29-06-2017	Dubai Science Park in collaboration with DHCA, JAFZA and Dubai South
01	Manufacturing Ecosystem		1.2. Develop sector-wide and categories' specific investment pitch documents.	15-08-2017	Dubai Science Park in collaboration with DHCA, JAFZA and Dubai South
		Improve startups ecosystem	1.3. Set up a one-stop shop with the full journey for a Pharma company to establish facilities and get required licensing	15-08-2017	Dubai Science Park in coordination with DED, Dubai Smart Government Establishment and Dubai The Model Center
02	Ownership Structure	Improve perception around ownership	2.1. Communicate clearly freezones advantages with regards to ownership structures (to be reflected into activity 1.2. as part of pitch book)	30-11-2017	Dubai Science Park in collaboration with Dubai Chamber of Commerce and Industry and Dubai Investment Development Agency
03	IP and regulatory framework	Strenghten IP system	3.1. Review and develop required IP by-laws for Pharma and MedTech	30-11-2017	Dubai Science Park in collabo- ration with Supreme Legislation Comittee (SLC), DED and Ministry of Economy
			3.2. Set up specific Pharma and MedTech patent review and dispute committees	30-11-2017	Dubai Science Park in collabora- tion with SLC, DED and Ministry of Economy

	ENABLER	INITIATIVE	ACTIVITY	TIMELINE	RESPONSIBLE ENTITY
03		Strenghten IP system	3.3. Develop a full-fledge transport patent review and dispute committees	28-06-2018	DED in collaboration with Ministry of Economy
	IP and regulatory framework	Strengthen regulatory framework	3.4. Develop and communicate guidelines for Pharma and MedTech products' regulatory approval, including timelines, requirements and primary reviews.	28-06-2018*	Dubai Science Park in collaboration with DHA, DHCA and Ministry of Health
			3.5. Develop sub-guidelines per products' category (Pharma , BS, MedTech)	28-06-2018*	Dubai Science Park in collaboration with DHA, DHCA and with Ministry of Health
			3.6. Develop an assessment of current capabilities and capacity for primary registration review and present key improvement recommendations	28-06-2018*	Dubai Science Park in collaboration with DHA, DHCA and Ministry of Health
			3.7. Enhancing current capability and capacity for products primary registration review (Dependent on Step 2.6.)	28-06-2018*	Dubai Science Park in collaboration with DHA, DHCA and with Ministry of Health

Note: *Might take more than one year.

14\Dubai Plan 2021 | futureXchanges 2017

Dubai Plan 2021 | futureXchanges 2017 | 149

	ENABLER	INITIATIVE	ACTIVITY	TIMELINE	RESPONSIBLE ENTITY
03	IP and regulatory framework	Strenghten IP system	3.8. Set-up and communicate transparent pricing framework per products' category	28-06-2018*	Dubai Science Park in collaboration with DHA, DHCA, DOF if needed, and with Ministry of Health
		Improve regulatory recognition	4.1. Leverage Gulf Council remit/ recommendation for GCC countries to adopt a regional level recognition 4.2. Develop regulatory	28-06-2018	Dubai Science Park in collaboration with Ministry of Economy
		recognition	recognition agreements with less stringent countries i.e. Africa, - CIS, etc.	30-06-2019	Dubai Science Park in collabora- tion with DED, SLC, Ministry of Economy, and Ministry of Foreign Affairs and International Coop- eration
04	Government partnerships with regional and international trade partners		4.3. Leverage and develop trade agreements to expand addressable market (e.g. Turkey and MedTech)	30-06-2019	Dubai Science Park in collaboration with DED, SLC and Ministry of Economy
		Trade agreements <	4.4. Upgrading current local facilities/standards to comply to international recognition standards	30-09-2018	Dubai Science Park in collaboration with DHA
			4.5. Communicate clearly information to investors (to be reflected into activity 1.2. as part of pitch book)	28-09-2017	Dubai Science Park

	ENABLER	INITIATIVE	ACTIVITY	TIMELINE	RESPONSIBLE ENTITY
			 5.1. Conduct a review of current government incentives and identify clear gaps and recommendations 	28-12-2017	Dubai Science Park
		Develop and clarify government incentives	5.2. Set-up a unified portal to communicate clearly incentives for manufacturing firms in Dubai (to be linked with activity 1.2.)	28-06-2018	Dubai Science Park
0	Government investments and incentives		5.3. Enhance the current incentives for local manufacturing based on the review's recommendations	28-06-2018	Dubai Science Park
		Develop sector specific	5.4. Facilitate financing for local manufacturing (e.g., partnership with banks for tailored financing schemes, etc.) 5.5. Set-up Dubai	30-06-2019	Dubai Science Park in collaboration with UAE Banks Federation
		financing schemes	Industrial Development Fund for lending	30-06-2019	DED
••••	•••••				
0(Education system and research institutes	Attract talents	6.1. Assess required talents through the value chain as per the selected opportunities within Pharma and MedTech	30-06-2019	Dubai Science Park

15\psi Dubai Plan 2021 | futureXchanges 2017 | 151

	ENABLER	INITIATIVE	ACTIVITY	TIMELINE	RESPONSIBLE ENTITY
		Develop local talents	6.2. Develop internship and apprenticeships programs with leading schools to develop local talent pipeline with technical knowledge	30-06-2018	Dubai Science Park in collaboration with Universities, KHDA and Ministry of Education
06	Education system and research institutes	Investment promotion	6.3. Develop a full-fledge feasibility study to set up a specialized training institute in Dubai for biotechnology that includes educational programs and labs for research.	28-06-2018	Dubai Science Park in collaboration with Universities.
			6.4. Set up the Biotechnology Institute in Dubai (Dependent on completion of Step 8.3.)	30-06-2019	Dubai Science Park
	Tax structure and cost of business	Clarify VAT implications	7.1. Understand VAT implications on Pharma/ MedTech	28-12-2017	Dubai Science Park in collaboration with DED and DoF
07			7.2. Communicate clearly to investors about impact of VAT/ double taxation etc., either through public documents/ workshops	28-12-2017	Dubai Science Park in collaboration with Dubai Chamber of Commerce and Industry and DoF
08	Other strategic components	Set up a biotechnology institute	8.1. Develop a list of targeted Investors' across the different opportunities in Pharma and MedTech.	28-09-2017	Dubai Science Park
			8.2. Set specific investment promotion missions to attract key investors (present to at least 10)	28-06-2018	Dubai Science Park in collaboration with Dubai Chamber of Commerce and Industry and Dubai Investment Development Agency



Lab Participants

Mr. Marwan Abdulaziz Al Janahi (Session Moderator) Executive Director – Dubai Science Park

Dr. Ramadan Al Blooshi CEO –Dubai Healthcare City Authority

Mr. Nick Karjalainen Executive Director Corporate Strategy – TECOM Group

Mr. Nuno Viana General Manager - VieCo Pharmaceuticals

Mr. Jan Demeester General Manager – Cooper Pharma

Mr. Madhukar Tanna COO - Pharmax Pharmaceuticals

Mr. Thanos Flampouris Director – Sector Development – Dubai South

Dr. Yacoub Haddad Government Affairs Director, MEAP - AbbVie Biopharmaceuticals

GmbH

Dr. Ahdy El Sayes Entrepreneur - Ex GM , Takeda

Dr. Nadia Younis Director, Government Affairs & Regulatory – Gulf & ME - AstraZeneca

International Gulf & ME

Mr. Atiq Mirza Strategy and Business Development Director - Medtronic

Ms. Maryam Al Raeesi Senior Executive Business Development – Dubai Science Park

Mr. Hasan Kapar Principal - QuintilesIMS

Ms. Nathalie Bassil Engagement Manager- QuintilesIMS

Mr. Prashant Pandarathil Sr. Consultant – QuintilesIMS





Abstract

The "Click Away" session aims to accelerate and facilitate industrial licensing procedures and standardize them at the local and federal levels, by implementing the onestop-shop principle for industrial license applications. The key challenges related to obtaining industrial licenses can be summarised as follows: Multiple and different appellations for industrial activities at the Department of Economic Development in Dubai and Ministry of Economy, lack of a comprehensive guide showing clear and specific process flow for industrial licensing procedures, repeated requests for the same documents from the various government entities (at the local and federal levels), and lack of detailed statistical information on industrial faConsequently, an action plan including a set of recommendations seeking to facilitate and accelerate the industrial licensing process has been proposed and is expected to accomplish the following within maximum 100 days:

- Establish a specific process flow for industrial licensing procedures.
- Standardize the appellations of industrial activities.
- Standardize the list of documents required for industrial licensing.
- Develop a comprehensive guide on industrial licensing procedures required by relevant government entities (at the local and federal levels).
- Develop a one-stop-shop for industrial licensing applications.
- Carry out effective coordination efforts between the relevant government entities responsible for industrial inspection operations.

100 day plan



Background

phase, the Government of Dubai developed an environment, the "A Click Away" session that Industrial Strategy for the Emirate to be one of was led by Dubai Exports in Department of Ecothe targeted strategic sectors alongside the tra-nomic Development investigated the mechanism ditional ones such as trade, logistics, financial of turning the multiple government windows services and tourism.

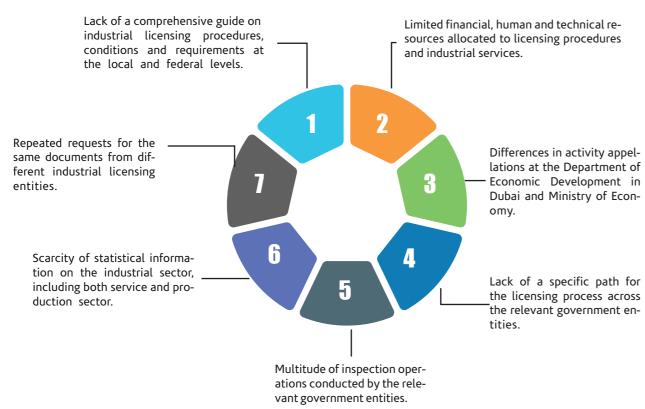
ence and integration with other economic sec- ment bodies operating under one umbrella, thus, tors - particularly strategic ones - and to create cutting down costs and time, which will further an attractive and conducive investment environ- enhance industrial activities and exports. ment for industries.

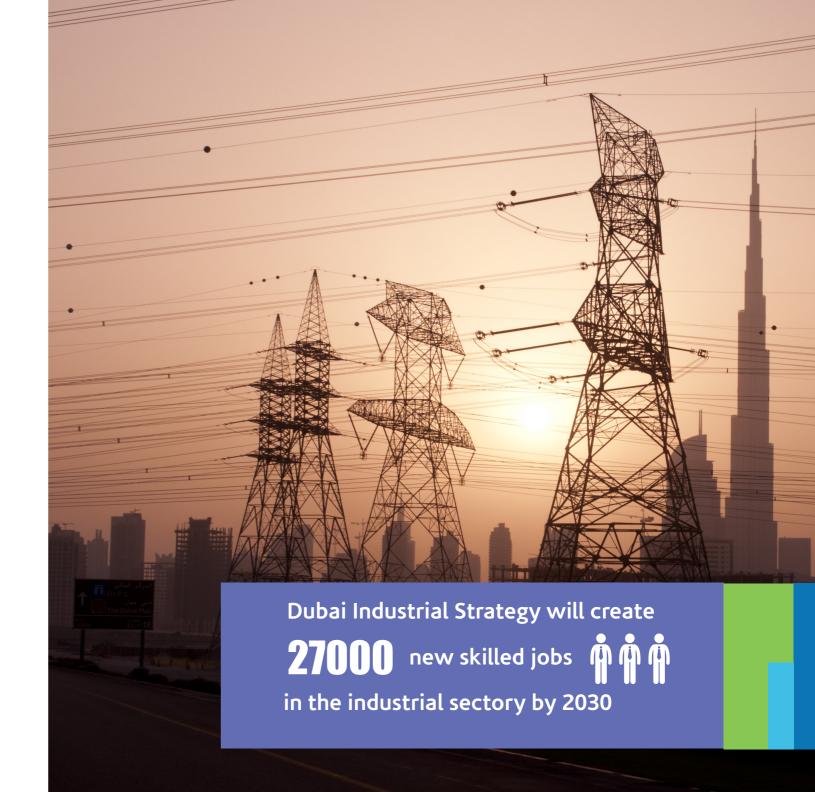
As Dubai Plan 2021 enters its implementation As such and in order to improve the investment into a single one-stop-shop that issues the required licenses and industrial related services. It The strategy aims to enhance industrial coher- will have representatives from relevant Govern-

Dubai Industrial Strategy will increase Dubai's GDP by **AED 160 bn** by **2030**

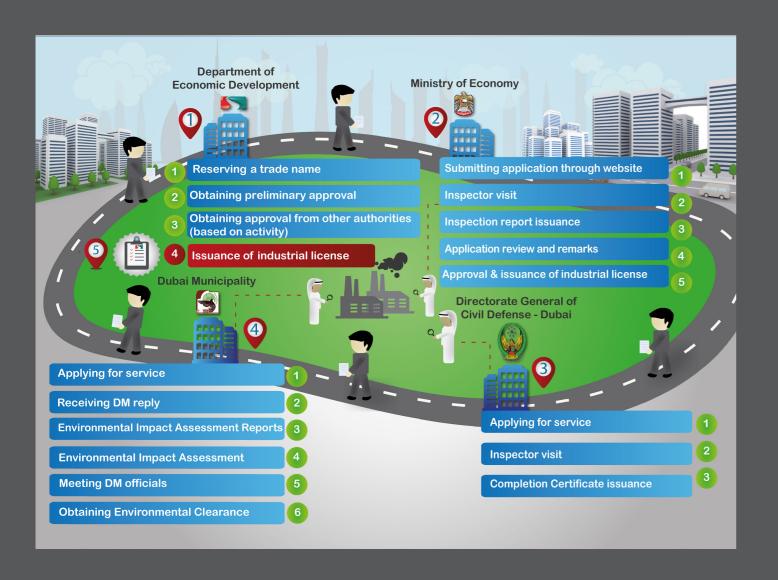


The "A Click Away" session conducted an in-depth analysis of the industrial licensing process, taking into consideration input from the Ministry of Economy, local entities, and the private sector. This revealed a number of challenges faced by the industrial licensing process in Dubai as follows:





"Dubai/ UAE Customer Journey Map for Issuing an Industrial Licensing"





Key Recommendations

Given the aforementioned list of challenges, a set of recommendations to facilitate and accelerate the industrial licensing process was developed. Those can be summarised as follows:

To be implemented within 100 days:

Coordinate between the Department of Economic Development in Dubai and the Ministry of Economy, to standardize the appellations of industrial activities.

the local and federal levels).

Develop a comprehensive guide on

industrial licensing procedures for

all relevant government entities (at

Develop an interactive one-stop-shop for industrial licensing applications.

Carry out effective coordination efforts between the relevant government entities responsible for industrial inspection operations.

Establish a statistical database for the industrial sector, which includes detailed data on industrial facilities. business volumes, labour, etc.



02

Establish a specific process flow for industrial licensing procedures in order to facilitate and accelerate it.

Standardize the list of documents required for industrial licensing from the different relevant entities.



Increase financial, human and technical resource allocations and ensure active management thereof.



Coordinate with free zones to ensure integration among industrial licensing procedures in Dubai and its free zones.

Impact & Success Measures

The expected impact consists of accelerated, standardized, and facilitated industrial licensing procedures at the local and federal levels, by implementing the one-stop-shop principle for submitting industrial licensing applications.

Consequently, an action plan including a set of recommendations seeking to facilitate and accelerate the industrial licensing process has been proposed and is expected to accomplish the following within maximum 100 days:

Establish a specific process flow for industrial licensing procedures.

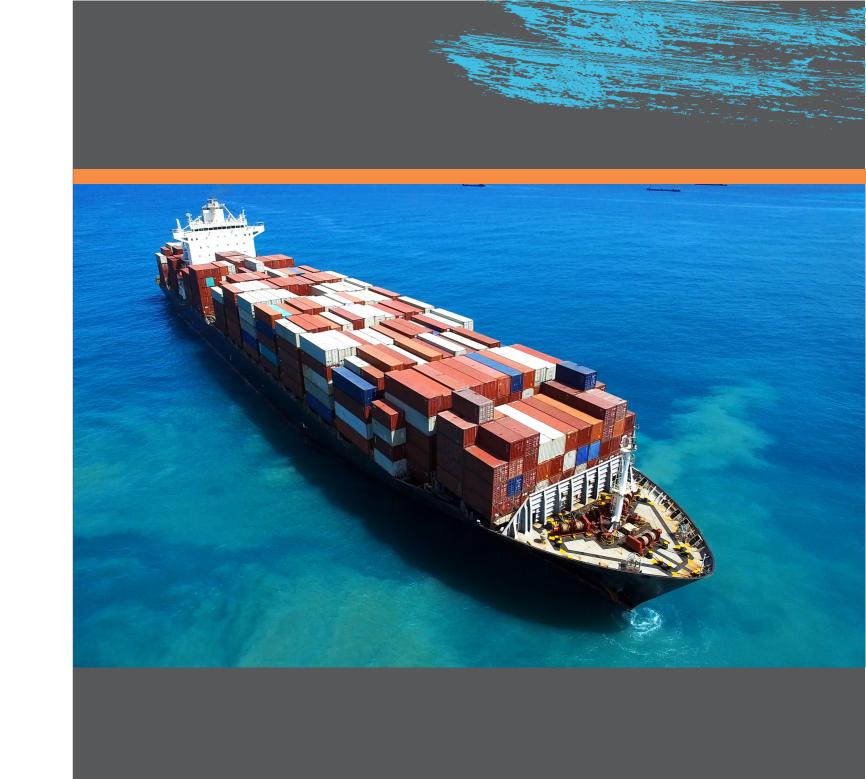
O2 Standardize the appellations of industrial activities.

Develop a comprehensive guide on industrial licensing procedures required by relevant government entities (at the local and federal levels).

O4 Standardize the list of documents required for industrial licensing.

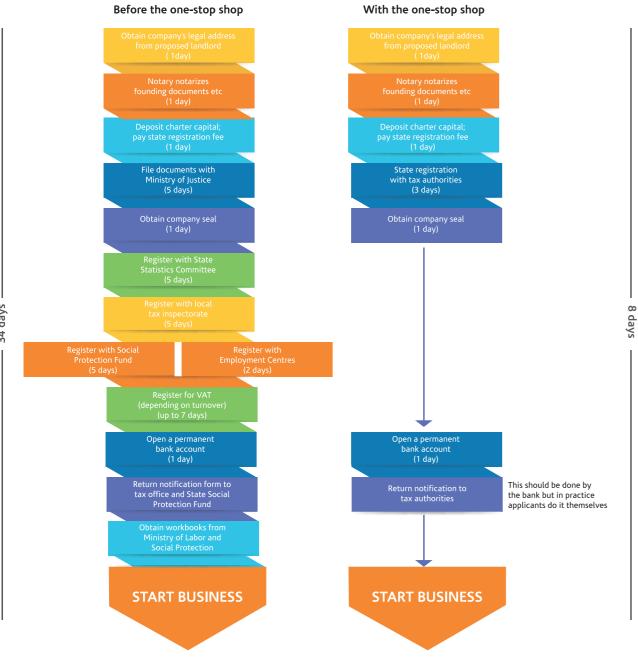
Develop a one-stop-shop for industrial licensing applications.

Carry out effective coordination efforts between the relevant government entities responsible of industrial inspection operations.



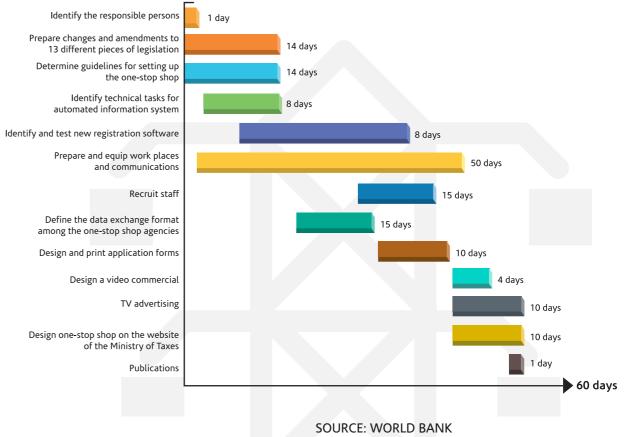
One-stop shop in Azerbaijan

Best Practices



Within 60 days in Azerbaijan

Implementation of the one-stop shop was achieved within 60 days



17φDubai Plan 2021 | futureXchanges 2017 | 171

Key Next Steps

	INITIATIVE	ACTIVITY	TIMELINE	RESPONSIBLE ENTITY
01	Establish a specific process flow for industrial licensing procedures	 Identify all the relevant government entities, at the local and federal levels and merge the processes to accelerate the workflow Review and develop the current industrial licensing procedures workflow 	15-05-2017	Dubai Exports in Department of Economic Development in Dubai, in coordination with the Ministry of Economy and Dubai the Model Center
02	Standardize the appellations industrial activities by coordinating between the Department of Economic Development and the Ministry of Economy	 Acquire a list from each relevant entity of all industrial activity appellations (the Department of Economic Development in Dubai and the Ministry of Economy) Align the industrial activity appellations between the relevant entities to identify differences Standardize the industrial activity appellations Develop a governance system to centrally manage required changes in industrial activity appellations and prevent variances in the future 	15-06-2017	Dubai Exports in Department of Economic Development in Dubai, in coordination with the Ministry of Economy
•••••	• • • • • • • • • • • • • • • • • • • •	•••••	• • • • • • • • • • • • • • • • • • • •	•••••••••••••••••••••••••••••••••••••••
03	Develop a comprehensive guide on industrial licensing procedures for all relevant government entities (at the local and federal levels)	 Determine industrial licensing procedures for each government entity and the required documents Develop a comprehensive guide including the steps to be taken by the industrial investor (at the local and federal levels) to obtain an industrial license 	15-06-2017	Dubai Exports in Department of Economic Development in Dubai, in coordination with the Ministry of Economy and Dubai the Model Center

	INITIATIVE	ACTIVITY	TIMELINE	RESPONSIBLE ENTITY
03	Develop a comprehensive guide on industrial licensing procedures for all relevant government entities (at the local and federal levels)	Enable electronic and interactive access to the guide on the internet (and later via smartphones) for investors	15-06-2017	Dubai Exports in Department of Economic Development in Dubai, in oordination with the Ministry of Economy and Dubai the Model Center
•••••			•••••	•••••••••••
04	Standardize the list of documents required for industrial licensing	Determine the required documents and identify the central entity through which these documents will be submitted once Develop a clear mechanism to recover and provide these documents for any other relevant government entities requesting them (without going back to the applicant again)	29-06-2017	Dubai Exports in Department of Economic Development in Dubai, in coordination with the Ministry of Economy and Dubai the Model Center
•••••	• • • • • • • • • • • • • • • • • • • •	•••••	•••••	• • • • • • • • • • • • • • • • • • • •
05	Develop a one-stop- shop for industrial licensing applications	Develop an electronic system (one-stop-shop) for submitting industrial licensing applications in a standardized and centralized manner. Involve all the relevant government entities in the system development process. Consider expanding the system's scope to include free zones.	17-08-2017	Dubai Exports in Department of Economic Development in Dubai, in coordination with the Ministry of Economy, Dubai the Model Center, Dubai Smart Government and Free-Zones Council

17‡Dubai Plan 2021 | futureXchanges 2017 | 17:3

	INITIATIVE	ACTIVITY	TIMELINE	RESPONSIBLE ENTITY
06	Standardize and manage industrial inspection operations, by coordinating effectively between all relevant government entities	Identify the local government entities concerned with inspecting industrial facilities (Dubai Electricity & Water Authority, Directorate General of Civil Defence Dubai and Dubai Municipility) Specify inspection procedures for each government entity Establish a comprehensive and standardized table for inspection operations conducted by all the relevant government entities Coordinate to manage inspection operations using the standardized table, and ensure conducting them simultaneously Study the feasibility of having a general inspector safeguarding inspection procedures by all government entities Study the feasibility (at a later stage) and the possibility of outsourcing inspection operations to the private sector	17-08-2017	Dubai Exports in Department of Economic Development in Dubai, in coordination with Ministry of Economy and Dubai The Model Center
•••••	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	•••••
07	Establish a statistical database for the industrial sector	 Identify and standardize the statistical requirements of each government entity Develop the statistical database Enable access of other government entities to the database 	14-12-2017	Dubai Exports in Department of Economic Development in Dubai, in coordination with Ministry of Economy



Lab Participants

NAME	TITLE, ENTITY
Mr. Abdulla Al Shamsi	Undersecretary - MOE
Mr. Majid Al Owais	Director of industrial licensing - MOE
Mr. Abdulla Al Aghbari	Vice President - DEWA
Mr. Mohammed Al Kamali	Deputy CEO - Dubai Exports (Session Moderator)
Mr. Abdulla Saeed Al Zaabi	Director of licensing & registration - DED-Licensing
Mr. Ahmed Ibrahim Omari	Director of export markets - Dubai Exports (DED)
Dr. Faisal Al Ameer	Industrial advisor - Dubai Exports (DED)
Ms. Ayesha Al Falasi	Senior researcher - Dubai Exports (DED)
Ms. Hamdah Bin Dimathan	Head of policy - Dubai Data Est.
Mr. Humaid Al Hammadi	Senior architecture designer - Dubai Municipality
Ms. Lina Halaseh	Advisor - Dubai The Model Center
Mr. Ahmed Belyouha	CEO - Emirates Macroni Factory
Dr. Fadi Farra	Founder & partner - Whiteshiledpartners
Mr. Deepak Ashar	Financial Advisor – Kimoha Entrepreneur Ltd.





Abstract

The digital transformation the world is witnessing and the widespread of internet use have resulted in an increase in cvbercrimes and the emergence of new, unprecedented phenomena. These cyberattacks and cybercrimes cause heavy losses for countries, institutions and individuals.

The UAE is not exempt from that, as cybercrimes have increased over the last few years, growing by 23% in 2016, due partly to 92% penetration of internet among residents and the existence of certain security vulnerabilities; the cost of cybercrimes in the country is estimated at over AED 5.14 billion annually. This has required giving special attention to cybercrimes and a session entitled "Secure Cyberspace" was hosted as part of the 2017 futureXchanges, in order to discuss the current challenges in dealing with cybercrimes and finding innovative solutions to limit them.

The session highlighted key challenges faced in Dubai:

- Limited community awareness around the dangers of cyber-hacks and attacks and on how to deal with them.
- Legal gaps, such as the lack of critical laws related to data protection and encryption, in addition to the lack of standardised norms for cybersecurity in the private sector.
- Lack of accurate statistics on cyberattacks in the Emirate, in particular non-criminal cyberattacks.
- Lack of studies to identify security vulnerabilities and available systems in the Emirate in order to develop preventative solutions prior to attacks.
- Lack of effective and integrated mechanisms for following up on reported attacks, along with the fragmentation of response efforts in tackling attacks.
- Lack of treatment programs for victims and hackers.

Accordingly, the session resulted in several programs to overcome these challenges over several phases and these are expected to deliver the following within a 100 day plan:

- Assess the need for establishing specialized courts and prosecution for cybercrime
- Develop data protection, privacy and encryption policies and enforce cybersecurity standards on service providers
- Develop systems to accelerate assessment, analysis and triage mechanisms
- Provide regular reports to decision-makers on cyberattacks
- Develop and implement psychological treatment programs for cybercrime victims
- Establish a screening mechanism for all unregistered software and devices before their distribution in the Emirate
- Launch targeted programs to educate all segments of Dubai's society on cybercrime
- Establish incubators to attract hackers and cybersecurity specialists and utilize their expertise to achieve security goals
- Adopt Emirati developed security solutions as an alternative to externally developed solutions



day plan

Background

The digital transformation the world is witnessing According to the statistics of Dubai Police, the and the widespread of internet use have resulted Emirate has witnessed numerous cyberattacks in an increase in cybercrimes and the emergence over the last five years, namely targeted attacks. of new, unprecedented phenomena. These cyber- These have included various types of cyberatattacks and cybercrimes cause heavy losses for tacks and cybercrimes including phishing, malcountries, institutions and individuals.

The UAE is not exempt from that, as the country races to keep up with global technological ad- This has prompted responsible bodies, both at the vancement, with the introduction of smart government transformation and the wide adoption bodies to implement cybersecurity standards and of modern technologies in various sectors. This is measures to protect confidential information demonstrated by the increase in internet penetra- and prevent leakage, as well as raise awareness tion in the country to 92% in 2016. On the flipside, this widespread of technology use has also forts are insufficient, due to the accelerating income with negative consequences with the num- crease in the number of cyberattacks over the ber of cybercrimes growing by 23% in the same last few years, especially targeted attacks, and year. Furthermore, global reports have indicated due to the limited focus on raising awareness and that the UAE is among the countries that are most cybersecurity standards in the private sector. targeted by cyberattacks, with cyberattacks at the UAE level accounting for an esimated 5% of the global total.

ware, cyber-extortion and other hacks meant to steal sensitive information or funds.

local and federal levels, to compel government through targeted programs. However, these ef-

Accordingly, a session entitled "Secure Cyberspace" was held as part of the futureXchanges to discuss the current challenges in dealing with cybercrimes and find innovative solutions to address them.

Internet penetration in the UAE was 92% in 2016



The session's discussions revolved around 5 key dimensions, within the cybersecurity framework, wherein the latest developments and challenges faced in each of these dimensions were discussed. The following is a summary of the key points brought up over the course of two day discussion.

Laws, policies and regulations

The participants discussed relevant global practices and laws, such as data and privacy protection laws, as well as the role of laws, policies and regulations in providing protection and prevention against cybercrimes. The main current gaps include:

- · Absence of certain laws covering areas such as encryption and data privacy and protection
- Lack of detailed classification of cybercrimes within the Law on Combating Cybercrimes
- Lack of clarity on the roles and responsibilities of entities involved in cybercrime prevention and response
- Limited international conventions to exchange information and expertise among countries
- Lack of guides and clear frameworks for implementing cybersecurity policies in Dubai
- Absence of effective mechanisms to ensure the implementation of the Emirate's policies and standards, such as those issued by Dubai Cyber Security Centre
- Lack of specialized prosecution and courts with expertise in cybercrimes making it difficult for the judicial system to deal with and rule on these types of crimes

Notification, identification and response

The focus of the discussion was on procedural efficiency and speed in responding to cyberattacks and cybercrimes reported or identified. Several entities are currently working on identifying attacks using monitoring programs and security operation centers, where modern security technologies such as SIEM, APT, IPS, Next Generation Firewalls, Web End Point Solutions, Application Firewalls, etc., are used to monitor and identify attacks on networks and systems. Some of the key challenges include:

- · Lack of a single channel and entity for reporting cybercrimes
- Lack of a system for identifying, analysing and classifying attacks by type, timing, hacker identity and hacked entities
- · Lack of an effective mechanism for following up on reports filed
- Length of the procedures for responding to cybercrimes
- Lack of coordination framework between the Telecommunications Regulatory Authority and the Dubai Cyber Security Centre for responding to cyberattacks and cybercrimes
- Limited exchange of expertise between the government entities specialized in information security

Research, innovation and development

The session uncovered the following key gaps:

- Failure to leverage the expertise of professional hackers and attract them to use their capabilities to support the security sector or government entities
- Limited Emirati competencies specialized in cybersecurity
- Lack of locally developed cybersecurity systems and databases, and the full-reliance on systems developed abroad
- Lack of a mechanism for detecting new security vulnerabilities in systems used in the country or any new systems being introduced
- Limited studies and research in this field

Protection

The session also addressed the methods for protecting against cybercrimes and cyberattacks. This revealed the following challenges:

- · Absence of security standards to be implemented in the private sector
- Limited role of Du and Etisalat in raising awareness among subscribers around personal protection and security standards
- Prevalence of unregistered programs and devices purchased from unreliable sources, which increase
 the vulnerability to attacks
- Absence of an integrated, community-wide mechanism and approach for raising awareness to all segments of the society
- Limited awareness programs targeting private companies, especially those working in highly-sensitive areas, and the lack of a clear classification of these companies by data sensitivity
- Inadequate involvement of the media in spreading awareness and information on actual crimes
- Lack of "honeypot" mechanisms to detect and analyse attacks proactively and pre-emptively.

Prevention and treatment

Despite the potential for intervention and prevention mechanisms to help with limiting cybercrimes and mitigating their impact, current efforts focus primarily on response, with minimal investment in preventative measures. In addition, Dubai does not offer any psychotherapy programs or any other types of treatment programs for cybercrime victims. Consequently, the following gaps were identified:

- Lack of treatment programs for the victims, to mitigate the impact of the crime on the victim's state of mind and to limit the victim's financial losses and moral pain
- Lack of treatment programs for the hackers, who could be suffering from mental illnesses or other stresses.

184 Dubai Plan 2021 | futureXchanges 2017 Dubai Plan 2021 | futureXchanges 2017 | 185

05

04

03

01

Key Recommendations

The session yielded a number of initiatives for overcoming these gaps, namely:

Cybercrimes grew by **23%** in the UAE in 2016



Laws, policies and regulations:

- Assess the feasibility of establishing a specialized court and prosecution for cybercrimes
- Develop data privacy and protection policy
- Develop an encryption policy
- Review the Law on Combating Cybercrimes to ensure comprehensive coverage of cybercrimes
- Develop a policy to compel service providers to implement security standards

To be implemented within 100 days:

Prevention and treatment

 Develop psychological treatment programs for the victims according to type of cybercrime

rotection

- Develop a mechanism for examining unregistered programs and devices prior to putting them up for use in the country, by assessing the feasibility of establishing a lab that specializes in identifying vulnerabilities
- Enable the role of the Information Security Awareness Committee formed in the Emirate and adopt effective performance measures for the programs identified
- Coordinate with the media to spread awareness on real crimes and threats, without uncovering any sensitive information

To be implemented beyond 100 days:

aws, policies and regulations:

 Issue policies to compel private companies to implement security controls in line with global standards

01

03

02

Notification, identification and response

- Study and adopt modern systems for accelerating assessment, analysis and triage
- Submit regular reports on various attacks in the Emirate and classify them by targeted entity, hacker identity, hack type, hack severity, etc.

05

Research, innovation and development

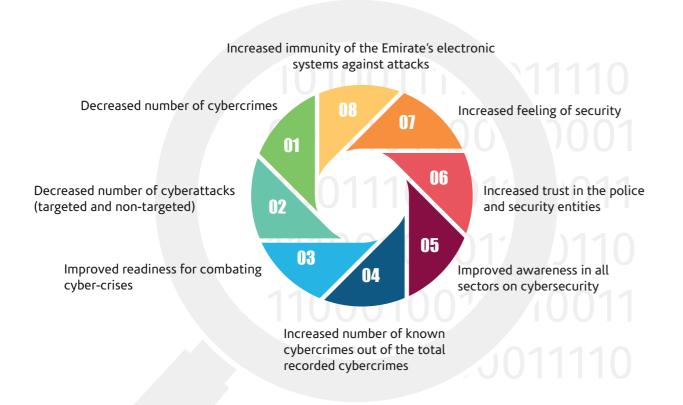
- Establish incubators to attract hackers and cybersecurity
- Adopt Emirati developed security solutions as an alternative to externally developed solutions

Notification, identification and response

 Assess the feasibility of establishing an integrated reporting, identification, classification, and follow up system for cyberattacks, including all real and malicious attacks, as part of a "Threat Intelligence Operation Centre." This Centre would also respond to crimes at the Emirate level

Impact & Success Measures

The implementation of the proposed initiatives and next steps, especially those focusing on the development of systems for protecting the public and the private sector, and the standardisation of notification and response systems, would result in the following:





The UAE ranks 17th in the Global Cybersecurity Index

Source: International Telecommunication Union (ITU)

The UK National Cyber Security Strategy 2016 to 2021 Overview of the strategy:

The United Kingdom is considered one of the leading digital countries in the world. Stemming from its belief in the importance of promoting its economy and growth by protecting its electronic information and networks against internal and external threats, the country developed its first strategy from 2011 to 2015. It then launched its ambitious strategy from 2016 to 2021, in light of the results of its previous strategy and in line with its vision for 2021 in which "the UK is secure and resilient to cyber threats, prosperous and confident in the digital world". Additionally, a budget of GBP 1.9 billion was allocated for the implementation of this strategy. One of its key characteristics is that it is a national strategy, meaning that it targets individuals and society, in the public, private and academic sectors, through specific programs.



Defend: Promote the UK's means to defend itself against evolving cyber threats, to respond effectively to incidents, with high flexibility, and to protect government networks and the private sector.



Deter: Take the necessary measures to prevent cyberattacks or take offensive action to ensure security.



Develop: Promote British technological research and industries and develop qualified national talents and expertise to combat future challenges.



International relations: Invest in current partnerships and develop relationships with new international partners, in the interest of the UK and to promote its economy.



In order to achieve its objectives, the task of following up on the strategy was assigned to the Cabinet Secretary. Also, the National Cyber Security Centre (NCSC) was established in October 2016 to be the government's voice on cyber security and to provide standardised policies and rules for all sectors in the UK, in addition to responding to incidents, developing cyber capabilities, submitting periodic reports on attacks and threats to the Cabinet and continually diagnosing gaps. Additionally, the Cyber Security Operations Centre affiliated to the Armed Forces was tasked to work directly with the NCSC to ensure protection at the national level and deter international attacks.

As for the other strategic initiatives launched after the announcement of the strategy, these include the implementation of a comprehensive national program at the UK level to enable school and college students, and private and public sector employees to face cyber challenges. Also, two innovation centres with a budget of GBP 165 million were launched to develop, study, and purchase technological products and modern protection systems in collaboration with the private sector, in addition to the project for developing an emergency response system at the UK level. Additionally, it was confirmed that the Data Protection Act would continue to apply in all sectors of the UK, and a program was launched to gradually change behaviours in society, so as to improve protection and guidance and avoid dangerous practices that damage national security.

Key Next Steps

	INITIATIVE	ACTIVITY	TIMELINE	RESPONSIBLE ENTITY
		T1.1. Develop data privacy and protection policies, that address all areas including patient data in health centres, credit card data, etc.	29-06-2017	Dubai Data Establishment, in coordination with the Dubai Cyber Security Centre
		1.2. Develop an encryption policy	29-06-2017	Dubai Cyber Security Centre, in coordination with the Dubai Data Establishment
01	Laws, policies and regulations	1.3. Review Federal Law No. 5 of 2012 on Combating Cybercrimes, to ensure that all modern types of cybercrimes are covered	29-06-2017	Dubai Police, in coordination with the Dubai Cyber Security Centre and the Supreme Legislation Committee
		1.4. Develop a guide showing how to implement cybersecurity standards in the Emirate	30-8-2017	Dubai Cyber Security Centre
		1.5. Develop a policy to compel private companies to implement security controls in line with international standards	31-12-2017	Dubai Cyber Security Centre
•••••			•••••	••••••
		2.1. Submit reports on various attacks on the Emirate and classify them by targeted entity	29-6-2017	Dubai Cyber Security Centre, in coordination with the relevant government entities and Telecommunications Regulatory Authority
02	Notification, identification and response	2.2. Study and adopt modern systems for accelerating assessment, analysis and triage of cybercrimes	30-7-2017	Dubai Police, in coordination with the Identification and Notification team at the Telecommunications Regulatory Authority and the Dubai Cyber Security Centre

	INUTIATIVE	A CTIVITY	TINACLINIC	DECDONICIDI E ENITITY
	INITIATIVE	ACTIVITY	TIMELINE	RESPONSIBLE ENTITY
02	Notification, identification and response	2.3. Assess the feasibility of establishing an integrated system to identify criminal an non-criminal attacks and issuing periodic reports	30-10-2017	Dubai Cyber Security Centre, in coordination with the Dubai Police and the Telecommunications Regulatory Authority
•••••	•••••	_	••••••	
03	Prevention and treatment	3.1. Establish treatment programs for victims	29-6-2017	Dubai Health Authority, in coordination with Dubai Police
•••••		4.1. Enable the role of the Information Security Awareness Committee and develop effective	22-6-2017	Telecommunications Regulatory Authority, in coordination with Dubai Police and Dubai Cyber
		performance measures		Security Centre
04	Protection	4.2. Coordinate with the media to spread awareness on real crimes and threats, without uncovering any sensitive information	22-6-2017	Dubai Cyber Security Centre, in coordination with Dubai Media Incorporated
		4.3. Develop a policy to compel service providers to implement security standards and raise awareness among their users	29-6-2017	Telecommunications Regulatory Authority
		4.4. Develop a mechanism for examining unregistered programs and devices prior to putting them up for use in the Emirate	29-6-2017	Team led by the Security Industry Regulatory Agency, in coordination with Dubai Customs, Department of Economic Development, Nedaa and Emirates Authority for Standardization and Metrology

19‡Dubai Plan 2021 | futureXchanges 2017 Dubai Plan 2021 | futureXchanges 2017 | 193

	INITIATIVE	ACTIVITY	TIMELINE	RESPONSIBLE ENTITY
05	Research, innovation and development	r5.1. Study the feasibility of establishing cybersecurity incubators to identify and utilize available expertise	08-6-2017	Dubai Cyber Security Centre, in coordination with Dubai Police
UJ		5.2. Establish an organizational unit specialized in cybersecurity research, in cooperation with universities	29-6-2017	Dubai Cyber Security Centre
•••••		•••••		•••••••••••••••••••••••••••••••••••••••
		6.1. Assess the feasibility of establishing a specialized court focused on cybercrimes	08-6-2017	Dubai Courts
		6.2. Assess the feasibility of establishing a specialized public prosecution focusing on cybercrimes	08-6-2017	Public Prosecution
06	Governance	6.3. Assess the feasibility of establishing an integrated reporting, identification, classification, and follow up system for cyberattacks, including all real and malicious attacks, as part of a "Threat Intelligence Operation Centre." This Centre would also respond to crimes at the Emirate level	1-11-2017	Dubai Police, in coordination with Dubai Cyber Security Centre and Telecommunications Regulatory Authority



Lab Participants

NAME	TITLE, ENTITY
Brigadier Khalid Nasser Al Razooqi	General Director of Smart Services Department, Dubai Police
Colonel Saeed Al Hajiri	Director of the Cyber Investigation Department, Dubai Police
Colonel Rashid Ahmed Lootah	Director of Electronic Evidence, Dubai Police
Major Faisal Al Khimiri	Strategy Director, Dubai Police
Mr. Amer Sharafuddin Sharaf	Director, Compliance Support & Alliances, Dubai Cyber Security Centre
Dr. Bushra Al Blooshi	Manager, Research & Innovation, Dubai Cyber Security Centre
Mr. Khalifa Khamis Bu Suaud	The State Security Department in Dubai
Mr. Arif Yousuf Al Mualem	The State Security Department in Dubai
Ms. Mira Sultan Obaid	Director, Information Security Department, Dubai Smart Government Establishment
Mr. Khalifa Al Shamsi	Hacker Expert, , Dubai Smart Government Establishment
Mr. Mansour Mohammad Al Dhahiri	Director of Operation, National Electronic Security Authority
Ms. Moza Shalman Al Shamlan	Analyst, National Electronic Security Authority
Mr. Abdullah Saleh Abdullah Bu Ali	Cyber Security Engineer, Telecommunications Regulatory Authority
Dr.Yousuf Al Hammadi	Academic Professor, Khalifa University
Mr. Ali Al Amadi	Executive Director, Ebdaa (Session Moderator)





Abstract

In light of the economic and urban UAE, and particularly in Dubai, the volume o cases going to courts has increased, leading to pressure on the order to alleviate this pressure and accelerate Dubai has sought out alternatives to included the Centre fo Settlement of Disputes However, a look at the performance of this Centre reveals a

set of challenges that

achievement of desired

The proportion of real estate disputes resolved amicably is considered low (8%) compared to other disputes such as family disputes, which have achieved an amicable resolution in 73% of the cases in 2016. Similarly, only 16% of labor disputes have been resolved amicably in 2016. It's important to point out that the resolution procedures for labor and real estate disputes differ, as Federal Law No. (8) of 1980 and its amendments, regulating labor relations, stipulate the obligation to submit all labor disputes to the responsible departments at the Ministry of Human Resources & Emiratisation. Should resolution be impossible, the case would then be transferred to the courts. On the other hand, parties of a real estate dispute are given the option to resolve it amicably or submit it to the courts. However, if the dispute value is AED100,000 or less, the case is then submitted to the Centre for Amicable Settlement of Disputes.

In addition to the Centre for Amicable Settlement of Disputes at Dubai Courts, Dubai has several entities authorized to amicably resolve real estate disputes, such as Dubai International Financial Centre Courts and Dubai International Arbitration Centre. Despite these options, the scarcity of specialists in amicable resolutions of all types of disputes, the weak culture of resolution among parties of a dispute, and the lack of trust in the amicable resolution process are some of the key factors preventing the wider adoption of amicable resolution.

Accordingly, the "Resolution First" session was held to define initiatives and programs that promote alternatives to litigation for labor and real estate disputes, with a focus on amicable resolution. The initiatives defined are expected to deliver the following within a 100 day plan:

- Increasing the value jurisdiction of the Centre for Amicable Settlement of Disputes and assigning the mandate for amicable resolution of labor disputes to the Centre.
- 2 Enhancing the amicable resolution enablers including training qualified specialists and streamlining resolution procedures.
- 3 Launching initiatives to raise awareness on the importance of amicable resolutions.
- Increasing coordination among relevant entities in amicable resolutions.
- **5** Update workers and employers on the latest amendments to labor laws and procedures.

100 day plan The session included specialists from relevant entities such as the Permanent Committee of Labour Affairs, the Ministry of Human Resources & Emiratisation, Dubai International Arbitration Centre (DIAC), Dubai International Financial Centre Courts, Centre for Amicable Settlement of Disputes, Dubai Land Department, and the Rental Disputes Center, as well as experts and lawyers. They discussed the various dimensions of the current challenges and attempted to find solutions that would help improve resolution procedures, establish a mechanism to reduce delays in lawsuits in line with Dubai Plan 2021 objectives, determine the roles of the entities involved in amicable resolutions, promote the role of lawyers in these procedures, and establish a clear framework for resolution governance in Dubai.



Background

Accelerating litigation proceedings and reducing Accordingly, the "Resolution First" session was the number of cases referred to courts are two of held to discuss the status of alternative dispute the key objectives of Dubai Plan 2021. However, resolutions in real estate and labor disputes, with the percentage of real estate disputes reaching an a focus on amicable resolution, and the factors amicable resolution was only 8% in 2016 - con- that have prevented the wider adoption of this siderably below the 2021 target of 70%. Addioption. This is especially critical in light of the retionally, the last four years have witnessed an in- sults of the Trust in Judicial System survey concrease in the number of labor disputes transferred ducted by Dubai Statistics Center at the end of to Dubai Courts, reaching 8,119 recorded cases in 2016, which revealed that only 16% of residents 2016, most of which were related to labor claims would resort to alternative dispute resolutions, for arrears from their employers. Only 1,315 casincluding amicable resolution, if they were a pares, or 16% of the total, were resolved amicably ty in any dispute. in 2016, a substantial drop from the 2012 figures of 2,145 out of a total of 6,129, which translates to a rate of 33%. This trend has prompted the examination of the root causes for this drop in performance, given their negative impact on Dubai's reputation and ranking in global competitiveness indicators.

92% of real estate disputes in Dubai are settled in court. IIII IIII Our target is to resolve 70% outside the courts by 2021



Local Law No. (16) of 2009 and its amendments establishing the Centre for Amicable Settlement of Disputes stipulated that parties of real estate lawsuits must submit their disputes to the Centre if their amounts do not exceed AED 100,000. Should these lawsuits exceed this amount, the parties may choose between amicable resolution or courts. In addition to the efforts made by the Centre for Amicable Settlement of Disputes in the real estate area, Dubai International Financial Centre Courts and Dubai International Arbitration Centre have played an important role in the amicable resolution of real estate cases.

For labor disputes, amicable resolution is mandatory as a first step in all cases, as Article (6) of Federal Law No. (8) of 1980 regulating labor relations stipulates that, if the employer, the worker, or any beneficiary thereof disputes any of the rights provided for any of them under this Law, he or she shall file an application to the relevant Department at the Ministry of Human Resources & Emiratisation. The Department would then summon both parties and take whatever action it deems necessary to settle the dispute amicably.

If no such amicable resolution is reached, the Department would then refer the dispute to the competent court within two weeks from the date of application, accompanied with a memorandum containing a summary of the dispute, the arguments of both parties, and the Department's comments. The court would set a hearing date within three days from date of application receipt, and notify the parties accordingly. The court may summon a representative of the Department to explain the content of the memorandum submitted by it.

It is clear that existing legislation established specific procedural rules to encourage the use of amicable resolution of all types of disputes, by compelling the parties of a dispute to attempt resolution procedures first, in labor and real estate cases that do not exceed AED 100,000, and only refer these cases to courts should this attempt fail.

84% of labor disputes in Dubai are settled in court. IIII IIII Our target is to resolve 40% outside the courts by 2021

Several factors have prevented the wider adoption of amicable resolutions for real estate and labor cases, namely:

Scarcity of specialists in amicable resolutions of all types of disputes, as the number of those working at the Centre for Amicable Settlement of Disputes, responsible for handling amicable resolutions of real estate, commercial and civil disputes, does not exceed 15 employees. This indicates the need to run specialized training programs to train a larger number of specialists. Alternatively, the privatization of amicable resolution could ensure needs are handled by a group of authorized mediators.

Insufficient efforts to settle labor disputes

amicably, especially in light of the considerable increase in the number and complexity of these cases, and the fact that amicable resolution of labor disputes does not fall under the madnate of the Centre for Amicable Settlement of Disputes, and is instead handled by interim administrative judges who often do not have the requisite skills.

The role of the Permanent Committee of Labour Affairs and Ministry of Human Resources & Emiratisation in the area of amicable resolutions cannot be neglected. However, the Ministry deals with labor complaints from across the country, including free zones, making it impossible to pursue amicable resolutions (The Ministry, received 120 thousand labor complaints in 2016). This necessitates establishing additional frameworks and enablers for amicable resolution.

Lack of documentation of real estate disputes resolved amicably outside the Centre for Amicable Settlement of Disputes, as there is no data on the number of real estate disputes settled amicably in free zones, Dubai International Financial Centre Courts, Dubai Land Department and other entities, which results in limited execution of the agreed settlements, as well as the underreporting of amicably resolved real estate cases which negatively impacts the relevant indicator.

Weak culture of resolution and lack of trust in this option. As a result, the main parties of real estate disputes do not attend the resolution sessions. This is also the case for labor disputes, where most employers do not appear before the mediator at the amicable resolution sessions, either because the facility is in default and unable to settle its arrears or because the employer does not wish to settle.

Some of the key reasons for this weakness are the fact that parties of labor disputes have limited knowledge of the laws and procedures regulating labor relations, due to the limited number of awareness and education programs targeting workers and the fact that most labor legislations and regulations are only available in Arabic and English, and not in languages spoken by the majority of the labor population.

Unclear rights of parties in real estate transactions, as a result of negligence and irregularities in the formulation of certain contracts, as most contracts preserve the interests of the two parties of a dispute unequally.

Inadequate bank guarantees for settling arrears due to workers. Federal Law No. (8) of 1980 and its amendments, regulating labor relations, stipulate that employers must submit bank guarantees for the payment of workers' wages. However, the amount to be paid for each worker does not exceed AED 3,000 and this guarantee is only used in exceptional circumstances, such as purchasing travel tickets for the workers.

20**4** Dubai Plan 2021 | futureXchanges 2017 Dubai Plan 2021 | futureXchanges 2017 205

Key Recommendations

The session resulted in several recommendations addressing the aforementioned challenges. These recommendations include:



in the Emirate.

To be implemented within 100 days:

Studying the possibility of increasing the value jurisdiction of the Centre for Amicable Settlement of Disputes, to compel more parties to attempt amicable resolution prior to resorting to the courts, and assigning the mandate for amicable resolution of labor disputes to the Centre.

Intensifying efforts to raise awareness on the importance of using amicable resolution as a first alternative to the courts.

Utilizing all means of communication to keep workers and employers updated on all resolutions and procedures which regulate their relations.

06

Exploring the possibility of amending Federal Law No. (8) of 1980 regulating labor relations, to expressly stipulate that local entities in the

Emirate shall be granted the power to conduct amicable resolutions of

labor disputes, without the need to submit them to relevant Depart-

ments at the Ministry of Human Resources & Emiratisation, so as to

cope with the continuous increase in the number of foreign workers

01

03

ب

Establishing the enablers needed to promote amicable resolutions, including availing the required specialists and streamlining esolution procedures.

Developing a mechanism to coordinate between the entities responsible for amicable resolutions in the Emirate, to comprehensively capture amicably resolved cases.

Impact & Success Measures

Ultimately, success will not be achieved unless the session's outputs contribute to:

Improving the indicator of real estate disputes that are amicably settled, to reach 32% by the end of 2017.



Increasing the number of specialists in amicable resolution of labor and real estate disputes, to reach 100 persons by the end of 2017.

Improving the performance indicator of labor disputes that are amicably settled, to reach 25% by the end of 2017.



Key Next Steps

	INITIATIVE	ACTIVITY	TIMELINE	RESPONSIBLE ENTITY
01	Awareness and training	 1- Study the feasibility of establishing a specialized institute for training and educating workers on labor laws and procedures. 2- Establish a system to raise workers' awareness on their rights and duties and on the procedures therefor. 	15-06-2017 29-06-2017	Permanent Committee of Labour Affairs, in coordination with Ministry of Human Resources & Emiratisation Permanent Committee of Labour Affairs, in coordination with Ministry of Human Resources & Emiratisation
		3- Develop a program to train and prepare specialists in amicable resolution of labor disputes	30-07-2017	Dubai Judicial Institute, in coordination with the Centre for Amicable Settlement of Disputes
• • • • • • • • •	г	1- Conduct a feasibility study on	••••••	Dubai Courts, in coordination
		the privatization of amicable resolutions for different types of disputes.	15-08-2017	with Department of Economic Development in Dubai and Dubai Chamber of Commerce & Industry
02	Develop amicable dispute resolution enablers	2- Conduct a study on the possibility of amending Federal Law No. (8) of 1980 regulating labor regulations, to expressly stipulate that local entities in the Emirate shall be granted the power to conduct amicable resolution of labor disputes, without the need to submit them to relevant Departments at the Ministry of Human Resources & Emiratisation.	31-12-2017	Permanent Committee of Labour Affairs, in coordination with Ministry of Human Resources & Emiratisation

	INITIATIVE	ACTIVITY	TIMELINE	RESPONSIBLE ENTITY
03	Standardize employment contract [©] templates	Standardize employment contracts for facilities licensed by General Directorate of Residency and Foreigners Affairs, in line with the contracts used at the Ministry of Human Resources & Emiratisation.	29-06-2017	General Directorate of Residency and Foreigners Affairs, in coordination with Department of Economic Development in Dubai, Dubai Chamber of Com- merce & Industry and Ministry of Human Resources & Emiratisation
04	Prepare standard templates for real estate contracts	Prepare standard templates for real estate contracts to include basic conditions that protect both parties of the contract, without prejudice.	16-07-2017	Dubai Land Department, in coordination with Dubai Courts, Rental Disputes Center, Depart- ment of Economic Development in Dubai and Dubai Chamber of Commerce & Industry
05	Amend the legislations regulating the activity of the Centre for Amicable Settlement of Disputes	1- Issue a legislation granting the resolution mediator the authority to compel the main parties to attend the resolution sessions. 2- Amend the law establishing the Centre and include provisions allowing the Centre to conduct amicable resolutions for labor disputes, after coordination with the Ministry of Human Resources & Emiratisation	15-08-2017	Centre for Amicable Settlement of Disputes, in coordination with Supreme Legislation Committee, Dubai Courts and Ministry of Human Resources & Emiratisation
06	Consolidate the real estate disputes which are amicably resolved in the Emirate		30-08-2017	Dubai Courts, in coordination with Dubai Land Department, Real Estate Regulatory Agency, Free Zone Council and Supreme

Legislation Committee

21\psi Dubai Plan 2021 | futureXchanges 2017 | 211

Lab Participants

NAME	TITLE, ENTITY
Judge Jamal Al Jabiri	Head of Labor Courts, Dubai Courts
Judge Ali Al Madhani	Judge, Dubai International Financial Centre Courts
Judge Shehab Al Shehhi	Judge, Dubai International Financial Centre Courts
Judge Ahmed Al Dhanhani	Head of Property and Mediation Courts, Dubai Courts
Judge Nasser Al Nasser	Judge, Minor Cases Committee, Dubai International Financial Centre Courts
Mr. Mohammad Amin Al Mubashiri	Head of Centre for Amicable Settlement of Disputes, Dubai Courts
Mr. Eisa Al Zarooni	Head of Department of Inspection, Ministry of Human Resources & Emiratisation
Mr. Hashim Al Qiwani	Director of Expertise and Disputes Settlement Department, Rulers Court Dubai
Mr. Abdulaziz Anwar	Head of Cases, Dubai International Arbitration Centre
Mr. Mohammad Yahya	Deputy CEO Rental Sector, Land Department
Mr. Omar Qasheer	Head of Legal Affairs, Dubai Real Estate Corporation
Mr. Hamad Abdullah	Head of Labour Cases Unit, Dubai Courts
Colonel Abdulmenem Al Madawi	Legal Advisor, Permanent Committee of Labour Affairs
Lawyer Bashar Abdullah Al Musaibah	Specialist Lawyer in Labour Cases
Mr. Saeed Mohammed Shukur	Settlement Expert, Rulers Court Dubai
Mr. Mohammad Saeed Al Sharif	Independent Expert in Labour Cases
Mr. Moataz Al Maleh	Independent Engineer Expert
Colonel Abuallah Al Khayat	Session Moderator
Mr. Aqil Kazim	Properties Expert, Nakheel Properties
Ms. Rita Saood	Events Executive, Dubai International Arbitration Centre

