

برنامج الأمم المتحدة الإنمائي
United Nations Development Programme



Arab Knowledge Report 2014

Youth and Localisation of Knowledge

United Arab Emirates

=Summaries=



The Arab Knowledge Report 2014

Youth and the Localisation of Knowledge - United Arab Emirates

Summary 1

Within the general framework of the third Arab Knowledge Report 2014 comes this report on “Youth and Localisation of Knowledge in the UAE”. It sheds light on one of the most important issues facing the Emirati society, namely integrating the youth and enabling them to actively contribute to the transfer and localisation of knowledge. This process serves as a springboard for the establishment of the knowledge society in the UAE and acts as a window to wider horizons for sustainable human development. The biggest challenge in creating this society lies in the process of building the human being, or the knowledge capital, on new foundations that are aligned with the requirements of the current age. This includes enabling the youth – the key category of this society – to develop their knowledge, skills, thinking frameworks and values so as to transfer, localise, produce and employ knowledge effectively, for their own benefit and that of the Emirati society as a whole.

The report emphasises that knowledge represents one of the most important foundations of comprehensive and sustainable human development, therefore, the engagement of all categories and elements of a given society in the processes of knowledge transfer, localisation, employment and production is a must. In order to achieve this, it is imperative to face the challenges that might impede the building of the knowledge society, be it in education, scientific research or other sectors. Moreover, the effective management of knowledge is a mechanism through which the state can build new generations of citizens who are equipped with the skills required to handle current knowledge learning schemes based on creativity, innovation, critical thinking and scientific research. Knowledge workers are the foundation of progress and wealth in the current knowledge age, and the primary wealth-producing activities do not rely on the availability of raw materials or labour but rather on the added value that these workers provide through renovation, innovation and knowledge application in the workplace.

This report addresses the capabilities and mechanisms that enable the country and its youth to achieve the goal of building a knowledge society and, therefore, actively participate in creating a new civilisation not only in the UAE, but across the world. Moreover, the report explores how to deal with the necessity of integrating the Emirati youth into the process of knowledge transfer and localisation and the opportunities and challenges that hinder this. Drawing upon field investigations, the current situation of the country's youth is carefully examined, particularly with respect to the possession of cognitive, cultural, economic and societal capabilities that are essential to actively contribute to building the knowledge society. In addition, the report aims to diagnose the status of the available enabling environments and their ability to expand youth opportunities and build their capacity to achieve this goal.

The issue of integrating the youth and stimulating their active participation in the transfer and localisation of knowledge holds a special importance for the UAE, it being one of the steadily rising countries aiming to achieve the highest possible rates of development, as well as advancing in the wider fields of knowledge. In this regard, the UAE has declared its determination to become one of the best countries in the world as expressed in the UAE 2021 Vision. Undoubtedly, there are many factors that support this ambition. The country's significant financial capabilities and firm political and societal will coupled with its relatively small size, in terms of land area and population, will make these ambitions possible, and within reach in the near future.

This report builds on several facts and intellectual bases, the first of which being that the youth are the main means and the primary group relied upon to establish the knowledge society, as they are the primary engine pushing in this direction. As a result, the youth must be provided with adequate attention and empowerment. The fact that a knowledge society is not self-built comes as the second intellectual basis; knowledge may exist in a certain country, but its availability does not necessarily entail the existence of a “knowledge society”. The third basis indicates that establishing the knowledge society through the youth, equipped with knowledge tools, must be observed as a practical programme with measures that ought to be implemented in the fields of education, scientific research, culture, communication, economics, media, technology and other fields, all at the same time and in harmony and integration.

The Concepts of Localisation of Knowledge and Active Integration of the Youth

The report stresses that knowledge transfer is undoubtedly is a necessary step to acquire the rudiments and tools of the knowledge society, especially ICT, as well as the essential technical, communication and more general life

skills. Localisation of knowledge – which is the main focus of this report – is the transition from consumption of knowledge, and recycling it from its original form, to its acquisition, use and deployment. This localisation should happen within specific communities and within a social and cultural system that aims at progressing and providing the conditions for genuine development capable of actively contributing to building the human civilisation. The Emirati youth are to this act its lever, main end and purpose.

The authors of the report consider that the term localisation does not only entail the act of transfer, because what makes it localised is the process of producing and re-producing the representations that accompany it, along with the necessary conditions for the transfer process, followed by the localisation and production processes. The goal is to provide enabling environments that include institutions and legislation, without which it would be hard to attain the thresholds of knowledge localisation. This also entails devising the means that enable localisation and providing the necessary elements for building the foundations of the knowledge society, the most prominent of which are ICT and the internet. These elements have become an imperative precursor to accessing a new world and a fresh unbounded culture, i.e. the spaces of development and knowledge society.

The report focuses on the concept of localisation of knowledge as a gateway for sustainable development based on the organic relationship between development and knowledge. The authors of the report find that the youth in the UAE are considered one of the most important categories concerned with the transfer and localisation of knowledge and its production, utilisation, dissemination and integration into the economic and social development processes and in the wider cultural context. The youth represent the social segment that is most capable of learning, training and working as well as producing and being innovative. They are a driving force for development within a society. The increase in the proportion of the youth in the country's demographic pyramid is the best indicator of the importance of their role and highlights the need to better enable them. Based on population estimates for 2013, young people in the 19-29 age group in the UAE constitute 22.2% of the total population.

In line with the conceptual model adopted in the Third Arab Knowledge Report 2014, the overall conceptualisation of the process of enabling the youth to actively participate in the transfer and localisation of knowledge is based on two essential elements. First, the concepts and approaches of the “transfer and localisation of knowledge”, and second,

“enabling and preparing” the youth to actively participate in the transfer and localisation processes. Similarly, the concept of “localisation of knowledge” encompasses three integrated key elements: first is the production of knowledge, second is the employment of knowledge for human development purposes in its cultural, scientific, social, political and environmental dimensions; and third is the dissemination of knowledge.

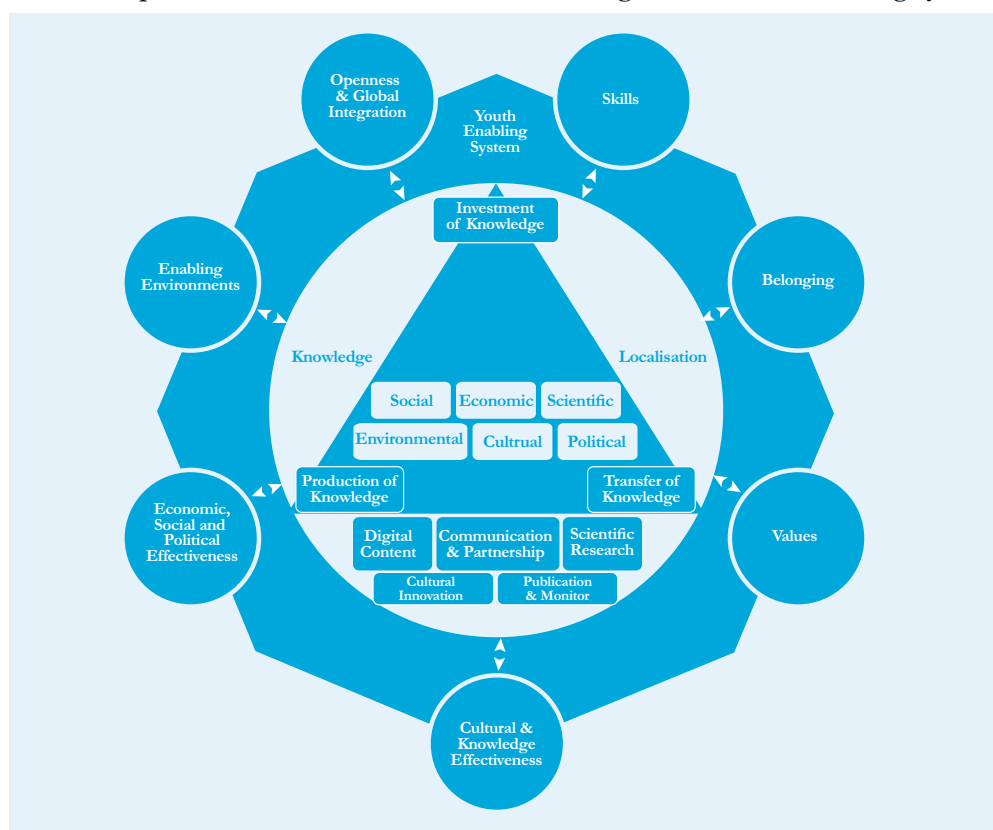
The conceptual model adopted in this report for the UAE case is based on the interdependence between two basic pillars for the transfer and localisation of knowledge:

- First: “Providing the Knowledge Capital”, consisting of youth capabilities that will ensure the transfer and localisation of knowledge;
- Second: “Providing the Enabling Environments”, including the required legislations, supporting institutions, and freedoms in their broader sense. Thus, securing the necessary tools needed for the transfer and localisation of knowledge, including institutional, legislative, cognitive and financial tools.

As demonstrated in the figure, the concept of knowledge localisation involves three complementary key elements. The first is the transfer of knowledge; the second, the production of knowledge; and the third, the employment and diffusion of knowledge for development purposes to benefit society. Within this context, the question that arises is the extent of availability and efficiency of the enabling environments required for the transfer and localisation of knowledge, including legislations, laws, infrastructure, supporting institutions, as well as economic, social, political, educational, scientific, cultural and media conditions.

Within this conceptual model, enabling the youth is considered the second most vital element, as the transfer and localisation of knowledge cannot take place without the youth in particular and human resources in general. Empowering the youth is, then, one of the key tools in establishing the human knowledge capital needed in the UAE for the transfer and localisation of knowledge. Therefore, there is an interactive relationship between youth empowerment and knowledge localisation; the more the youth are enabled, the more enhanced the localisation of knowledge is.

The Conceptual Model for the Localisation of Knowledge and the Youth Enabling System



The current report considers that the issue of youth is not only inseparable from that of development, but rather lies at the heart of it. The youth are the bearers of knowledge and the achievers of development. At the same time, development provides opportunities to secure their freedoms and ensure their readiness to achieve sustainable development while enabling them to access the wider domains of the knowledge society.

The Cognitive Environment and the Challenges Facing the Localisation of Knowledge in the UAE

Summary 2

The report examines the evolution of the situation of knowledge, development and competitiveness of the country with respect to the knowledge society, the knowledge economy and the factors that support active youth participation in the process of transfer and localisation of knowledge. As a first and important step to achieve this goal, the report addresses various global indices inherently related to the establishment of the knowledge society and the knowledge economy, as well as innovation and competitiveness indices. The report, on that basis, identifies a number of issues that should be addressed to strengthen the systems of transfer and localisation of knowledge to enhance the capacities of youth in this regard

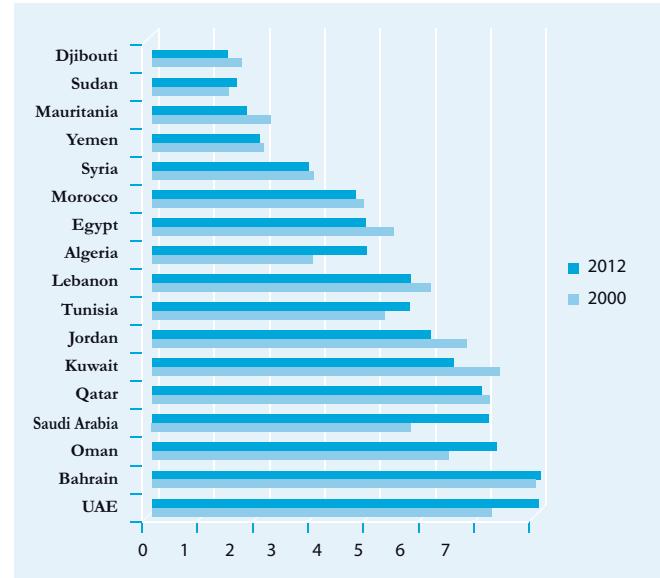
The Knowledge Status in the UAE According to Global Indices

The Human Development Index shows the progress achieved by the UAE over the last 43 years since its formation, particularly with regards to health, education and income. The UAE's progress is also reflected in the country's position, among the top countries worldwide, enjoying very high human development rates, as determined by UNDP's human development indicators. The UAE ranked 3rd on the Arab level and 40th internationally in the 2014 report.

In its diagnosis of the situation of knowledge in the UAE, the report has adopted a number of recent Arab and global indicators. The report also indicates that the UAE has ranked first among Gulf and Arab countries in the Knowledge Economy Index (KEI) and Knowledge Index (KI) scoring 7.09 and 6.94 respectively. It also ranked 42nd on the international level, among 145 countries, advancing 6 positions from its rank in the year 2000. It is important to note that the Education Index improved from 4.4 in 2000 to 5.8 in 2012. The UAE ranked second after Bahrain among the Arab countries and 55th at the international level in the Education Index, which consists of the average of three factors: the adult literacy rate in the country, the rate of enrolment in secondary education, and the rate of enrolment in tertiary education. However, the Education Index remains the lowest among the indicators constituting the general index for the knowledge-based society and economy in the country, which calls for increased efforts in this area, vital for the creation of the knowledge society and for increasing the human development rates in general. Concerning the ICT Index, the UAE advanced 20 positions and reached the 12th rank on the international level and the 2nd on the Arab one with an average of 8.88, followed by Saudi Arabia and Qatar. The report also shows that the UAE ranks first among the Arab countries on the Creativity and Innovation Index, and the 46th on the international level, advancing 35 ranks compared to

the year 2000. As for the Economic Incentives and the Institutional Regime Index, the UAE ranks 4th at the Arab level and 50th at the international level, with a score of 6.5.

Knowledge Economy Index (KEI) for the Arab States (2000-2012).



Source: World Bank Statistics and Data KAM, World Bank 2012.

UAE ranked first on the Global Innovation Index among Arab countries and 36th globally. Such results are highly important in the dynamics of knowledge localisation as innovation and renovation are indicative of a state's investment in modern technology, mainly in information and technology. They also signal the beginning of a transition from an economic model based on the investment of land resources and non-renewable stock to the investment in knowledge and human resources.

UAE has shown continuous progress throughout the Global Competitiveness Reports since 2011, advancing from 27th at the international level (2011-2011 Report), to rank 24 (2012-2013 Report), up to its current position at 19 while it ranked second among the Arab countries (2013-2014 Report). According to the World Happiness

Report 2013, the UAE ranked 14th globally and first among Arab countries, with a score of 7.144 and a difference of no more than 0.56 points from the first rank. Oman ranked 23rd globally and second among Arab countries with a score of 6.853, while Qatar ranked 3rd among Arab countries and 27th globally with a score of 6.666.

Challenges of the Transfer and Localisation of Knowledge in the UAE

The report confirms that, despite the prestigious achievements made by the UAE on various developmental and cognitive levels, further efforts are required for successfully investing those results in society in order to pave the way for the establishment of the knowledge-based society and economy. There is also a need to overcome the challenges that may prevent or delay the move towards the knowledge-based society and economy coupled with the need to achieve higher levels of human development at all levels. In this context, the report shows four major interrelated challenges:

The Educational Challenge: The report shows that, despite the great achievements in the field of education, both university and pre-university, education in the Emirates still suffers from a number of challenges. Hence, despite significant progress in achieving good percentages of mandatory education, high enrolment rates in university education, bridging the gap between males and females, and fighting illiteracy, students' performance in international tests taken in the UAE is still less than required. The number of students enrolled in universities has increased, but the increase in those numbers did not translate into the development of the knowledge economy or the creation of a generation or a critical mass capable of creating this economy. Traditional teaching methods are still prevalent in most of the country's educational institutions. Several reports have noted that the Arab countries, including the UAE, did not completely achieve their goals in the education field, hindering thereby their ability to innovate. According to the report, the Arab countries failed in producing "knowledge workers" who have the ability to generate knowledge products such as information technology software, patents, or books and research. There is also an unbalance in terms of specialisations, as two-thirds of the students are majoring in arts and social and human sciences rather than in sciences and mathematics.

The Youth Motivation Challenge: One of the major challenges in the transfer and localisation of knowledge is the lack of initiative and motivation among the youth and graduates, who tend to seek secure jobs in the governmental sector. Often, Emirati youth tend to pursue

administrative jobs that offer good incomes and avoid sectors directly related to the transfer and localisation of knowledge, especially those associated with innovation, scientific research and technology. The authors of the report confirm that the UAE has been able to provide the enabling environments. However, this should be paralleled by a motivated youth who want to effectively integrate into the processes of knowledge transfer and localisation.

The Human Resources Challenge: The report confirms that one of the major challenges facing the UAE in the transfer and localisation of knowledge and in building the knowledge-based society is the limited number of citizens or local human capital; citizens make up 11.5% of the total population. Enhancing the role of citizens has become a major challenge in the UAE. The citizen workforce needs to be developed and the human capital invested in to create cadres who possess the necessary skills and capabilities to transfer and localise knowledge. The authors of this report do not deny the role of expat human resources in the transfer of knowledge and the establishment of economic infrastructure, just as we cannot recommend to dispense with all foreign workers and depend on the local workforce for the time being, as this would be a waste of a significant force of knowledge in the country that can actually help the national workforce and develop citizens' human capital in the processes of knowledge transfer and localisation.

The second aspect of the human resources challenge is the emergence of youth unemployment as the result of the influx of graduates year after year from institutions, colleges, and universities into the market. This has coincided with the decline of employment opportunities in the government sector, which had been able - until recently - to accommodate all graduate citizens. The situation has been exacerbated as the youth are attracted to majors that may not be in line with the requirements of the labour market, such as humanities and management. As a result of fewer opportunities and shortcomings in the plans and programmes aimed at accommodating the citizen labour force in non-governmental sectors, citizens have been forced to enter into an uneven competition at home with the expats. This has led to high unemployment rates among job-seeking nationals. Unemployment is concentrated among those aged between 20 and 35 years old, who are mostly high school and intermediate graduates, or university graduates; the overall unemployment rate is 4.6%. Despite this low percentage, the issue should be given more attention.

The third aspect of the human resources challenge is the limited number of citizens working in the private sector; most Emiratis will avoid it if offered a job in a government

institution. The small number of nationals in the private sector is not only due to the high salaries in government institutions, but also to a lack of skills, education, training and ability to compete with expatriates. Thus, those in charge of the programme should not give citizens a sense of entitlement with their employment just because they are citizens; rather, employment should be based on data market, competition and merit. This will be a motivation for citizens to compete and be ambitious so as to develop themselves accordingly.

The Economic Challenge: The report highlights the continuous reliance on oil as a major and essential resource for the country, and the consequent fluctuation of the state's revenues in financing the development movement. The country has been making efforts to find alternatives to public revenue, and has been successful in diversifying the sources of income from other sectors such as trade, transport and communications leading to an increase in the contributions of non-oil sectors in output (61.14% in 2013, according to estimates of the National Bureau of Statistics). However, the financing of development projects and programmes is still dependent on the

country's resources from hydrocarbon exports, which is not expected to change in the near future.

This report finds that the persistence of this economic system which relies mainly on oil to finance development, and with the diversity in other sectors depending mainly on trade and transport – does not provide the required driving motives for the transfer and localisation of knowledge. The nature of these sectors and the prevailing patterns of production in the UAE, include in general low added-value of knowledge, especially when compared to the productive sectors and industries with high added value of knowledge as is the case with the electronics industry. Despite understanding and appreciating the major role played by these sectors in supporting development in the UAE and pushing it towards higher levels, and within the framework of the localisation of knowledge and the establishment of the knowledge economy, this report highlights the importance of reconsidering the general economic structures and the productive and active sectors in the UAE so as to gradually move towards economic practices and sectors of higher knowledge value.

The Enabling Environments and the Transfer and Localisation of Knowledge in the UAE

Summary 3

The enabling environments in the UAE, present a great opportunity and play a substantive role in the transfer and localisation of knowledge in the country. These environments and their fellow institutions are considered incubators for the members of society, especially the youth, and thus contribute to building the knowledge society. Yet, many of these institutions need a comprehensive vision directed towards the establishment of the knowledge society in order to enable the youth to access it. And in order to do so, they must focus on their orientation and steps so that their basic tasks revolve around the access of knowledge and its localisation; the generation, dissemination and employment of new knowledge; and an increased contribution to strengthening the capacities of young citizens to transfer this knowledge and localise it.

The authors of the report find that the enabling environments are represented by the various structures and forms of support that society provides to the youth for the creation of an environment that facilitates their engagement in the knowledge society. Therefore, the knowledge-enabling environment is an integrated system based on the interaction of educational, economic, social, political, technological, and media frameworks among others. Enabling requires institutions that are qualified with the features of supporting systems in the knowledge society. This confirms the importance of the integration of various institutions so that the youth can move throughout towards realising better effectiveness in the processes of knowledge transfer and localisation, and accessing to the knowledge society.

The Educational Environment: Higher Education

Universities and institutions of higher education in general play a major role in the consolidation of national identity and community values, as universities are considered to be the main influent which provides society with qualified and trained young national cadres. This is in addition to the scientific, technical and administrative competencies and skills in various fields, so as to achieve economic and social development. Universities also contribute to solving the various issues and challenges faced by society. The report praises the progress and the actual support in the areas of education, emphasising increase in the share of university education in national budgets as it amounted to AED 3.9 billion of the 2013 federal budget- which makes 8.7% of total spending in that year. This is expected to contribute to the significant development of public university education. It would also contribute to developing the academic, scientific and scientific research skills required for establishing the knowledge society and the knowledge economy. The report indicates an increase in the higher education enrolment rates in the UAE; the total number of students enrolled in higher education and university stages (nationals and expatriates) was around 118,600 students

in the academic year 2012/2013, with a growth rate of 7.95% compared to the academic year 2011/2012. The number of Emirati citizens among students in 2012/2013 statistics was 72,400, representing 61% of the total number of students. The statistics in the report also indicate that female citizen undergraduates represented 58.3% of Emirati citizens among students at the higher education and university stage. Further, it denotes the expansion of the private sector's contribution, which provides nearly 65% of higher education and university education in the UAE.

The report shows that we must address the relationship between current student specialisations and the scientific specialisations that serve the process of the transfer and localisation of knowledge; especially since undergraduate students are considered to be a key component for the creation of the critical mass of human capital that is qualified and cognitively capable of leading the processes of the transfer and localisation of knowledge, up to the establishment of the knowledge society and economy. The available statistics show an imbalance in the distribution of specialisations with a preference for administrative and social disciplines, at the expense of scientific ones. For instance, according to the data of the Ministry of Higher Education and Scientific Research, published by the National Bureau of Statistics for the 2012/2013 school year, the rank of the specialisations in terms of citizen-students enrolment came as follows: the field of management, business and economics in the first place with 25.7%; the second place was devoted to primary education, with 23.4%; and the third to engineering with 10.3%. However, the enrolment rate in medical sciences did not exceed 1.1% and that of food and agriculture 0.1%.

The report notes that the UAE hosts almost one quarter of the total number of branches of foreign universities in the world. At the end of August 2012, there were 75 entities with more than 600 accredited programmes. The authors of the report confirm that the branches of

these universities contribute to the facilitation of mutual understanding between students of different nationalities and backgrounds, as well as to crafting the students as global citizens. These universities have succeeded in reducing the number of students who study abroad and the migration of some of the youth. They have also contributed to the diversification of experiences among students who thus acquire the knowledge and skills that help them gain employment at a pace faster than that of their counterparts in public universities. On the other hand, the report points out the reality of the “commodification” of education. And since profit maximisation is the goal, some universities branches lean towards reducing the cost hence paying less attention to investments in libraries, education sources and students’ social facilities. Further arguments of criticism include that the outputs of these universities may be of high quality in the countries to which they belong, but they are not at the same level of quality and excellence once they depart to other countries.

Research and Development Environment

The authors confirm that the driving force behind the transfer and localisation of knowledge, as well as the technological and industrial progress, undoubtedly lies in research and development. UAE has continuously encouraged research through the establishment of the “National Research Foundation”. Despite this, the local research environment did not develop enough to form a true pillar for building the knowledge society. The country still suffers from a shortage in research products, including studies and research papers in international scientific magazines. The Emirati status does not differ much from that of the other Arab states with respect to the lack of potential, spending and production. The financial support falls below the required level, whereas it only represents 0.2% of the GDP, in comparison with what is allocated to the research budget in many developed countries, reaching more than 4% of the National Product. In addition, the private sector’s small contribution hinders innovation and development in carrying out scientific research. Among the challenges hindering the progress of research in the country is the lack of a trained national cadre capable of elevating the national research activity and pushing it forward. There is also a shortage in Emirati executives who assume leadership in research positions, as well as a scarcity of patents and a lack of awareness regarding its importance. The report finds that despite the establishment of research centres, knowledge villages and academic villages, the increase in the number of international universities and university instructors, both citizens and non-citizens, along with the increase in the number of citizens graduating with Master and Ph.D. degrees, there is no push towards linking

research with development. These institutions have failed to become project initiators. This might be attributed, as some researchers stated, to the commercial drift in administering these institutions. The report notes that the UAE Vision 2021 includes seven main goals, among which is a strategy to transform the economy into “a competitive knowledge economy”. This entails a re-analysis of the research status that is currently marginalised and does not support the establishment of the required environment for the transfer and localisation of knowledge, which is a prelude to the transformation into a knowledge-based society or economy. The authors of the report confirm the UAE is in dire need of local research and development efforts in order to increase the knowledge absorptive capacity. The role of universities must be reconsidered in such a way that research and community service become top priorities. Partnerships should be established between universities and economic and industrial entities, with the goal of serving creativity, innovation, as well as knowledge employment and production.

The Economic Environment

The report shows that the UAE national economy has witnessed major growth. According to the 2014 report of the National Bureau of Statistics, the country’s GDP was estimated at AED 1,477 billion for the year 2013, achieving a growth rate of 8.1% from 2012. The UAE is considered among the high-income non-OECD member countries. While the UAE economy is still largely dependent on oil revenues, it has made notable achievements in gradually transferring from an oil-based economy to a diversified economy where non-oil production and services sectors contribute more than two thirds of the domestic product. The report confirms that economic diversification for the UAE is the best solution to achieve sustainable development in a future that is less dependent on oil resources. This entails the stimulation of new strategic sectors in order to establish a higher potential and appeal for the industries and services that enable building long term competitive advantages, hence the importance of the UAE’s transfer into the knowledge economy.

In this context, the report reviews a number of important initiatives in the UAE, such as E-commerce which is considered as one of the features of the knowledge economy and one of the most important basic applications of information and communication technology. Despite the tangible progress in both the economic and institutional areas in these sectors, it might be best for the UAE to go beyond the phase of attracting capital and commissions, to enhance its capability in attracting knowledge and talent as well. In order to achieve such a leap into the future,

UAE will have to master and improve the imported or copied knowledge which is made possible by the attractive economic and institutional environment. However, studies show that such a leap is no easy task. The successful transfer and localisation of knowledge is a long-term process, and usually entails learning, assimilation, apprehension and production of knowledge by individuals in the society.

The Social Environment

The report confirms that the UAE society has witnessed tremendous social changes. This is not merely due to modernisation and to opening up to the outside world, but also to other internal factors that include the transformation of the country into a welfare state after discovering oil and the huge economic and cultural changes that followed. The report also affirms that there is no need to stress the centrality of the family's role in the development of the youths' skills and values. To be emphasised, however, is that the role of the family might be competing with other roles in social environments, smart technology and the means of communication and media. This is not particular to the UAE community, but is also global. Young people are nowadays creating their own world relatively away from the control of their families, and many of them now live in a virtual world, away from reality. From here, specific attention must be dedicated to the youth and one must try to bridge the gaps that this new social environment might create for them. The authors of the report found that the economic progress in UAE has led to positive developments, notably with respect to empowering women and their role in society. The developmental efforts have contributed to an increase in women's participation in society. The most important factors that have enabled women and increased their participation include providing equal opportunities for education and granting increasing opportunities in work and economic activity. However, the tangible progress in developing the capacities of Emirati women, especially in the field of education, has not largely contributed to changing the social positions and values related to them. The biggest obstacles to the participation of women in work and in development in general are basically of cultural and social dimensions. Despite advocating equality at many levels, cultural and community traditions still prevent achieving that in full.

The Challenges of Language

The report found that a society's culture, customs and traditions are passed on to subsequent generations through language, which showcases a society's identity. Preserving the native Arabic language in the UAE means preserving the identity of society and culture. Given the

nature of the Emirati society and the composition of its population, with a high rate of expatriates who outnumber citizens with a variety of nationalities and languages, the extent of influence of these languages and cultures on the language and culture of the society should be taken into consideration. Accordingly, preserving the Arabic language is a political and social claim imposed by reality, so that no complete reliance on languages other than the language of the society takes place. This should be achieved without overlooking the openness of the UAE to other countries economically and culturally, which gives individuals, particularly the youth, the opportunity to enjoy other languages that enable them to communicate with others and get acquainted with the cultures of the world, especially the English language which is considered the language of the knowledge society.

Citizenship

Emphasis should also be made on the importance of citizenship. The central element in the citizenship concept is the sense of belonging to the nation. Belonging is not achieved unless one enjoys protected rights and feels part of the society. In order for this feeling to consolidate, individuals ought to enjoy appropriate standards of living in their society, respect for their privacy as well as non-violation of their rights and freedoms. The concept of citizenship is present in the UAE society, where citizens enjoy all the rights that guarantee them a good living. This feeling of loyalty and belonging is extremely important to the youth because it makes them active members of their society, with a sincere desire to give.

The Political Environment

In the framework of the political environment and the establishment of a knowledge society, the report shows that the UAE's Constitution and its system of governance have guaranteed freedom in the transfer of knowledge and educational attainment. The Constitution of the state guarantees the personal freedom of citizens (Article 26) and freedom of opinion and expression in all its forms (Article 30). It further guarantees citizens the right to work in various fields and gives them the freedom to establish associations in accordance with the Law (Article 33). Foreigners as well enjoy the rights and freedoms stipulated in the applicable international instruments, treaties and conventions to which the UAE is a party (Article 40).

The Demographic Environment

The report also tackles the demographic environment, showing that the UAE witnessed an unusual population

growth that resulted in a rise in the number of its residents from 557,887 in the first official census conducted in 1975 to 4,106,627 in the 2005 census, with an average annual growth rate of 12.5%. According to demographic estimates in mid-2010, the UAE population has reached 8.26 million people, of whom around 948,000, i.e. 11.46% are citizens; divided between 50.5% males and 49.5% females. Non-citizens (i.e. expats), constitute 88.5% of the country's population, divided between 77.67% males and 22.3% females. The report reveals the imbalance in the growth of citizen and non-citizen populations. The local population has tripled in the past three decades (1980-2010), whereas the number of non-citizens has grown nine-fold over the same period. The report shows that the concept of national identity was witnessing a certain crisis among the youth in UAE, as a result of the variables and challenges experienced at the social, cultural and economic levels. Such challenges include the multiple expatriate cultures, the media openness and the accelerated technological progress in the country..

The report confirms that the demographic composition as a whole should not be considered an impediment to the establishment of a knowledge society. On the contrary, its positive aspects are to be dually regarded. The country should benefit from the presence of so much expertise among non-citizens and utilise this to assist in the transfer and localisation of knowledge for the Emirati youth. It is unjust to consider expats as an obstacle to the transfer of knowledge because they have helped in developing the country's economy, which allowed it to achieve notable global recognition. The second positive aspect is that the small number of citizens represents an opportunity for officials in the country to provide the necessary attention and support for the youth so that they can become knowledge workers capable of directing the society towards the target of establishing the knowledge society and economy.

Media Environment: Media and Mainstream Values among the Youth

The report shows the great progress made in the media. For instance, the UAE hosts many print and broadcast media outlets, including eight daily newspapers published in Arabic, six newspapers published in English, and dozens of magazines and specialised journals, in addition to a number of television and radio stations". The report finds that modern media has developed mechanisms and an ability to create a special educational environment of its own. This has marked the end of the monopoly of formal educational institutions in the dissemination of culture and knowledge. Many societies have been witnessing a veiled

and an open competition between the education and media systems. The media plays a significant role in the formation of society in its different segments, especially the youth. Therefore, media institutions bear a responsibility that is equally important and influential as that of educational institutions, and might even sometimes be of greater influence. The authors of the report found that educators are faced with a challenge in the UAE regarding the media environment. This challenge is represented by the means to deal with advanced and rapid media production, and how to benefit from these enormous media outlets in instilling good values. This would develop an ability within the youth that would help them judge whether a programme was valuable or not so that they could choose what benefits their abilities. In parallel, it is necessary to think about the alternatives to audio, visual and internet media production, those which provide virtuous content that is exciting and impacts the youth. Such alternatives will attract the youth and help them abandon any invalid programmes offered by the media market.

Cultural Environment

The report shows that Emirati citizens enjoy multiple and diverse cultural channels that provide them with a distinct and attractive environment of cultural and cognitive diversity, through several cultural institutions and events. These have built a bridge for citizens to communicate with other cultures and thus benefit from their knowledge. The authors of the report confirm that the informational and cultural environment available to young Emiratis is considered among the most important factors that will support the processes of knowledge transfer and localisation. Once properly exploited by young people in the UAE, these factors are not solely local cultural institutions, but also direct sources of knowledge, arts and literature from all over the world, connecting the youth with the cultural and scientific riches of the world.

Technological Environment

The report shows that the UAE has worked on strengthening the processes of transforming into the knowledge society and the knowledge economy through the development of policies and programmes aimed at increasing the impact of information technology in education reform and economic and social development, while attempting to modernise education and link it to rapid and successive variables in information and educational technology. The information and communication infrastructure is considered a key pillar of the knowledge economy and the gateway of the population's access to ICT. It also promotes the use of ICT in order to maximise the potential flow of information

and knowledge. The report reviews a number of indicators that illustrate the prestigious progress of the UAE in this area. In fact, the UAE has upgraded the technological competence of its telephone network and other telephone services supporting the internet. As a result, it has reached a leading position among the world countries and ranked 33rd globally in the Communication Technology Development Index in 2013. It now provides one of the most modern infrastructures in terms of the capacity and diversity of the services offered – all at affordable rates. The prevalence rate reached 22.32 lines per 100 inhabitants in 2013, with a total number of around 2 million subscribers to fixed lines as by the end of 2013. The number of subscribers to mobile phone lines totalled around 16 million subscribers, with a penetration rate of roughly 172 lines per 100 inhabitants for that year. As for the penetration of broadband internet services, according to the statistics of September 2013 the number of subscribers has exceeded one million, at a rate of 11.11 subscribers per 100 inhabitants. Those indicators are considered the highest among the GCC and Arab countries. The UAE also ranked 2nd in the MENA region and 36th globally in relation to ICT preparations and equipment indices. In addition, the UAE ranked 3rd in the MENA region and 30th globally in the “Use of Information Technology” Index. Moreover, it ranked 3rd in the MENA region and 33rd globally in the “Economic and Social Impact of Information Technology” Index. The UAE ranked second in the MENA region and 24th globally in “Networked Readiness” General Index, as shown in the report of the World Economic Forum of 2014. It also ranked second in the MENA region and 18th globally in the “Overall Environment for Information Technology” indicator. Moreover, the UAE ranked among the top Arab countries in several indicators, including the rates of internet users; the importance of ICT in the government's vision for the future; and e-government readiness. At the global level, the UAE also featured in advanced positions coming second place in the government's success in promoting ICT, the government procurement of advanced technology products and e-government readiness. According to the e-government report for the year 2014 issued by the United Nations, the UAE has

assumed a leading position among 193 developed and developing countries participating in the report. The UAE ranked second among Arab countries and 32nd globally, according to the “E-Government Development” Index. The e-government participation indicator measures the extent of internet use by the government in the areas of transparency, communication with the public and involvement of the public in formulating policies and developing services. According to the results of the UN E-government Survey Report 2014, the UAE consolidated its advanced position, assuming the 13th place according to that indicator. The report named UAE specifically as one of the pioneering countries in setting phone participation as a priority for providing round-the-clock services to its citizens since June 2013.

Youth Empowerment Initiatives

The report confirms that the UAE has given great importance to the empowerment of the youth and equipping them with science and knowledge. It has put these goals at the top of its priorities and concerns, based on its belief that young people are the foundation of society and its vital cord, being the efficient and driving force behind any potential development and evolution of the country. This is emphasised by the numerous initiatives and institutions that act towards achieving these objectives. The authors of the report find that the increasing coordination between these initiatives and institutions is a must, as to insure its harmonious operation as a single and comprehensive system that connects them, or more precisely on setting a goal that unifies all of their efforts. In many cases, each institution or enabling environment operates separately, which leads to some inconsistencies and redundancies between the goals of some of these institutions and their events. Therefore, one party sponsoring the knowledge project should be assigned to take charge of coordination between all of these institutions in the country. This party shall develop, set strategies and distribute tasks to different enabling environments that will achieve the goals, each according to its mechanisms, specialities and nature.

While discussing the economic, political, cultural and technological situation in UAE, it seems clear that the horizon for the transfer and localisation of knowledge, leading to the establishment of a knowledge society and knowledge economy, has strong potential in terms of the availability of requirements. There is no economic, political, cultural or technical obstacle that prevents focusing attention on this subject. On the contrary, it can be said that the UAE has a historical opportunity, reinforced by the pillars previously mentioned, to move forward with this project. This falls within the framework of the supporting political climate, the strong technological environment and, depending on its culture and its stable economy, to finance the costs of this project.

Outcomes of Field Surveys

Summary 4

In order to draw a more accurate understanding of the cognitive skills of the Emirati youth, extensive field studies were carried out. The studies sought to examine the status of enabling environments, both at university and in general. It also examined the values held by the youth as well as other key elements of the active participation required in the processes of transfer and localisation of knowledge. Focus group sessions conducted on a selected sample of young Emiratis who have entered the labour market were carried out along with and a brainstorming session held with experts and representatives of relevant stakeholders, including the government, academic and civic sectors. These combined results draw a more complete picture of the status of young Emiratis and their skills, as well as their ways of thinking and orientations. The results of the field study also offer an overview of the opinions of Emiratis on the topic, which shall help Emirati decision-makers and planners in finding the most appropriate approaches and the positive interactions to achieve a successful youth integration in the transfer and localisation of knowledge.

Getting to know the views, perceptions and expectations of the youth on this topic is essential to shed light on their beliefs regarding the transfer and localisation of knowledge. Making the target group realise the importance of this subject is essentially the beginning and a foundation for active integration in these processes. The youth cannot be expected to interact with any process without believing in its importance, whether on a personal, or at a national, public level.

The field study aimed at exploring the most important aspects directly related to the stimulation and increased integration of the Emirati youth in the transfer and localisation of knowledge and in benefitting from the outcomes. These benefits can be attained by making use of knowledge for development purposes in the interests of the Emirati youth and the economic and social development in the UAE in general. The field study, which was conducted on a representative sample of young Emiratis at the final stage of undergraduate study, attempted to find out how familiar the students were with the concepts of knowledge, and to identify their readiness to actively integrate in the process of establishing the knowledge-based society and economy. The survey also captured the opinions and perceptions of the Emirati youth regarding the most important incentives in the transfer and localisation of knowledge and associated challenges in the United Arab Emirates.

Given that knowledge is not limited to applied sciences but also comprises humanities – social, economic and administrative – the sample included male and female students from four specialisations: engineering sciences (all engineering branches, IT), medical sciences (medicine, nursing and biology), administrative sciences (management and economics), and humanitarian sciences (education and social studies). The sample included 2,142 students distributed in a way to best reflect enrolment patterns at these universities.

Studies and Field Surveys with the Youth

Based on the quantitative and qualitative field studies, the following important points can be concluded:

- Emirati youth possess good levels of cognitive skills that enable them to actively integrate in the transfer and localisation of knowledge. This was reflected in the increasing average of the overall score that participating students from both genders received in the cognitive skills, achieving good scores in most of them. However, there were some discrepancies in the main components of this important indicator. Whilst the overall performance of the sample population was fair or even good for the skill of solving daily problems and searching for information, their performance in the written communication skill was within average, despite the great importance of the latter in achieving an active youth integration in the knowledge society. The technology use skill ranged between good and fair. The overall performance of the youth in the use of a foreign language (English) skill was average, denoting a shortage in the command of that skill in understanding and writing. The same applies for the use of the Arabic language, but to even greater extent.

Overall Result on the Cognitive Skills Combined

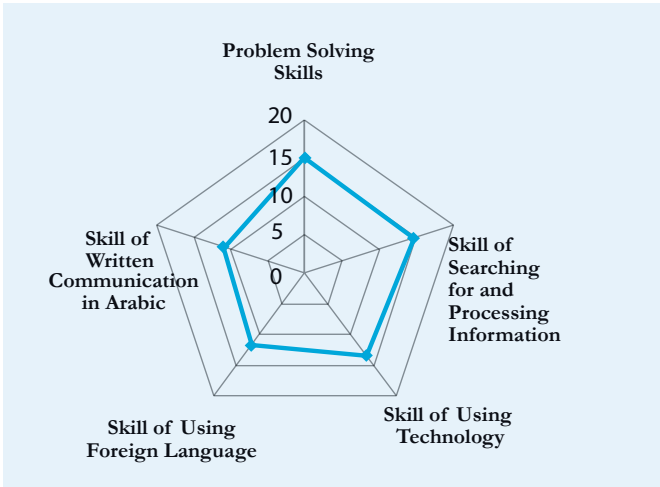
Arithmetic Average	Standard Deviation	Lowest Score	Highest Score
66.08	7.62	39.51	87.80

Scores are on a scale of 0-100.

- The sample representing the Emirati youth also expressed high possession rates for most of the values essential for active integration into the processes of the transfer and localisation of knowledge. Despite

the need to carefully address this score as it might represent the values that the youth aspire to, and might not necessarily reflect their practices and behaviours, it still is a reason for true optimism. This might even be capitalised on towards enhancing the values orienting the youth's behaviour, in a way that serves the higher cause of achieving the active integration of Emirati youth in the processes of the transfer and localisation of knowledge.

Results for Students' Cognitive Skills



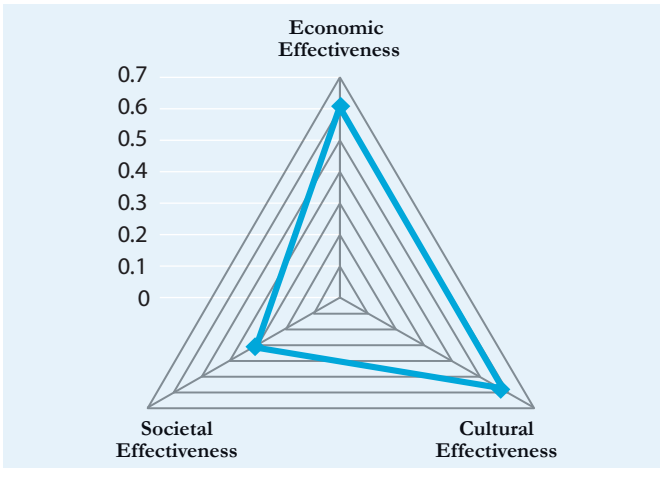
Values

Arithmetic Average	Standard Deviation	Lowest Score	Highest Score
71.23	7.21	44.62	89.23

Scores are between 0 and 100.

- In parallel, the analyses showed a weakness of the youth in social effectiveness and in cultural effectiveness, though to a lesser degree. The rate however was acceptable in the field of economic effectiveness.

Student Scores on Effectiveness



- The results have shown a high sense of belonging among young Emiratis. Most of the participating youth pointed to their clear desire either to complete their education and work in the UAE or to pursue their studies abroad and then return immediately to the country. This love and pride felt by young Emiratis towards their country is manifested through the different activities in which they participate, such as National Day celebrations. This strong sense of belonging can be capitalised on by educational, social, cultural and media institutions to introduce, discuss and further promote the concepts and characteristics of good citizenship among young Emiratis. This enthusiasm and belonging can be built upon, particularly with respect to instilling the concepts related to the foundations and practices of good citizenship (their scores were average, in the range of 55% of the final score), and in what strengthens to a great extent the possibility of active integration based on good citizenship and the rights and obligations it entails.
- The results of the survey showed a general weakness in openness to the world, with an arithmetic average (mean) not exceeding 0.30/1. This result was surprising considering that the Emirati society is reputed for its diversity as people from all nationalities and cultures live in the country. These results can be attributed to the conservative culture of the UAE society where many households still prefer not to integrate and remain closed off from the outside world.

Openness and Global Communication

Arithmetic Average	Standard Deviation	Lowest Score	Highest Score
0.30	0.11	0.00	0.75

Scores are on a scale of 0-1.

Also, 65.1% of the sample answered that they are not exposed to the translated foreign books relevant to their specialties, which indicates a topic that should be addressed with greater efforts, whether by the development decision maker, or the youth themselves. It was also striking that 70% of the participants in the sample indicated that they were not aware of any existing youth institutions related to the transfer and localisation of knowledge. This indicates the necessity of expanding the promotion of programmes and institutions for the youth in the UAE, so that they can benefit from the tremendous opportunities the state is offering them.

- As expected, impressions of Emirati youth regarding the enabling environments were excellent in general. More than 95% indicated that providing the opportunity to use the internet contributes, with an acceptable or great effectiveness, to the youth preparation for the transfer and localisation of knowledge. The same applies for the availability of electronic interaction means (32.6% of acceptable effectiveness and 59.2% of great effectiveness). The Emirati youth also showed trust in the capacity of the working authorities in the UAE, including the media (43.5% of acceptable trust and 43% of full trust) and civil society organisations to contribute in integrating the youth in the processes of the transfer and localisation of knowledge, as well as the vocational associations. The youth believe the government is making huge efforts in supporting them; most of the participants in the sample indicated that the government has made “a very big contribution” or “a big contribution” in this field.
- It is remarkable that almost a quarter of the sample deemed “the contribution of foreign investment projects to the transfer and localisation of knowledge” as “weak” or “absent”. The same goes for the contribution of economic institutions to funding research and “the contribution of the private sector to the advancement of research”. These answers, which were confirmed through the brainstorming and focus group sessions, direct attention to these three important elements while planning the transfer and localisation of knowledge.
- Responses of the youth on issues related to the transfer and localisation of knowledge raised numerous issues. These answers were positive with regard to certain dimensions, and indicative of their awareness of what knowledge, as well as its transfer and localisation, can offer. Such answers include “approving” or “highly approving” that the localisation of knowledge “will contribute to stimulating the creativity and innovation activity”, and that this will contribute to “stimulating the economy”. This comes in addition to acknowledging the positive impact of knowledge on important life issues such as “reducing unemployment”, and that “the transfer and localisation of knowledge in UAE, as in the Arab countries, is a vital issue for the future of these countries”, and that “this can contribute to enhancing the economic competition”.
- Furthermore, some remarks can be examined. The explicit approval rate on the argument “the issue of the transfer and localisation of knowledge is not among current youth concerns” was 38.4% of the total sample. In addition, the focused interviews and the brainstorming session indicated the existence of some fear among the youth, and possibly to a greater extent among older participating experts, that the transfer and localisation of knowledge might entail subordination to the West or change the cultural characteristics of the UAE, including the suppression of identity or prejudice against the Arabic language. This result calls for attention and action, especially towards increasing community awareness of the importance of constructive openness and intercommunication, and the transfer and localisation of knowledge as a developmental necessity benefitting the society, while focusing on the fact that openness does not mean the loss or suppression of identity. Focus should also be on strengthening the Arabic language as an incubator for culture and knowledge, without neglecting the importance of translation and learning foreign languages as a requirement that goes along with supporting the Arabic language, towards achieving productive cognitive openness.
- One of the most important positive issues that can be exalted, is the youth's concurrence of availability of one of the most important knowledge society pillars; freedom. The vast majority of students declared that the basic freedoms were present at a score of “excellent” or “good” (freedom of expression and opinion, 98.4%, freedom of principles, 98.2%, and social justice, 96.4%). This constitutes a positive orientation and an enabling environment that helps the youth in the transfer and localisation of knowledge. This positive orientation can also be seen in opinions about customs, traditions and gender equality. The majority of the youth considered these to be incentives for the transfer and localisation of knowledge, and believed them to be present in the Emirati community. Concerning job opportunities for the youth, and despite their importance to the transfer and localisation of knowledge, 43.1% stated they did not exist. This situation requires attention.

The Focus Groups and Brainstorming Sessions

Results of the focus groups and brainstorming sessions with experts and stakeholders supported these orientations and raised many important relevant issues. These qualitative studies revealed a number of issues whose main points can be summarised as follows:

- Concepts of the transfer and localisation of knowledge and openness were supported among the Emirati youth, who were noticeably excited about the process of the transfer of knowledge. This was considered an important step leading to “the codification of

knowledge for the UAE environment”, in the sense of “its modification and formulation in the local form in a way that suits the culture and identity of the society”.

- As for the localisation of knowledge, participants expressed that the concept was relatively new to them. The majority thought that localisation here meant that knowledge would be localised to the Emirati people themselves, with focus on the importance and necessity of maximum profit from the residents, as well as the transfer of knowledge and experiences they have had; this included “documenting” them in order to preserve and accumulate them, so that the country would not remain “always dependent on an external source”. The youth also confirmed that citizens should excel in many vital areas and not be restricted to transfer and localisation of knowledge, and to be creative and pioneering on a global level, thereafter they can gradually expand the sphere of these areas. The youth stated how important it was that the topic of knowledge management become a national project, with an awareness of the importance of the participation of the youth and their preparation for building a knowledge society.
- It is to be boldly noted that the young people themselves considered youth “an energy that, if not used positively, becomes a negative energy”. Therefore, they should be counted on, trained and given the opportunity to lead in this role. A group of them said there were discrepancies between education outputs and the requirements of the labour market; what students are learning does not significantly serve the labour market. The majority of the participants stated there were real problems in the educational system, which they considered “the source of transfer of knowledge”. Such problems included the scarcity of some specialisations and the relative abundance of others; such as media and management. Some participants also noted the decline in the academic level of male and female students at university.
- The youth noted the need to develop their cognitive skills in an appropriate way for the requirements of the knowledge and globalisation age. Some participants mentioned that students were in dire need of learning new skills to help them in the future, for continuous education and increasing knowledge, and then transferring and localising it. Many of them criticised the existing educational plans. They feared that the educational system might give an impression of progress, whereas its graduates cannot compete with those graduating abroad.
- In the brainstorming sessions, participating experts and stakeholders demonstrated a good understanding of issues of knowledge transfer, localisation and employment, while confirming that these issues should be addressed in a systematic and comprehensive manner and at all societal levels and through numerous institutions, including the Ministry of Education, the Ministry of Information and other institutions. All these institutions should work together in harmony in order to form the young citizen cadres to acquire knowledge then diffuse it in society, employ and develop it.
- In addition to awareness of the knowledge topic and its importance, participants have shown an awareness of the connection knowledge has with economy, the importance of diversifying the economy in the state, and the importance of having an economy that is not restricted to the returns of oil products. In order to achieve the competency of knowledge, participants deemed it necessary to foster a culture of achievement among children at a young age. It means *teaching children how to set objectives for themselves and strive to achieve them, instead of waiting for things to be done for them or for adults to do them on their behalf. ‘Fostering a culture of achievement is very important in Emirati society, particularly among school and university students’.*
- Another competency which participants agreed that it supports the production of knowledge is the social networking. A real pollination of knowledge can never take place without communication, interaction with one another and understanding different opinions and intellectual frameworks and accepting them. Another component of the production of knowledge and the establishment of a knowledge society in UAE – according to the discussions – is related to enhancing work-related values. Such values are in high demand among citizens. A fourth component is related to the value of cultural identity. Participants mentioned a dire need to establish a balance between transfer and the community culture and identity, along with disposing of any destructive social values that do not serve the transfer and localisation of knowledge, such as the prevalence of consumerism and materialism at the expense of human values.
- It was obvious throughout the discussions that some participants had issues regarding the nature of the knowledge to be transferred, with a strong fear of subordination in the name development or transfer of knowledge. However, some participants considered that “there are knowledge gaps in the Arab nation

that have to be bridged”, among which are research, publication and patent gaps.

- There was almost consensus over the necessity of strengthening and supporting the status of the Arabic language as an incubator of culture and a recipient of the transfer and localisation of knowledge, while emphasising that the localisation of knowledge cannot be achieved without the mother tongue. This should not entail neglecting other languages and using them to open up to and communicate with new cultures and knowledge.
- There were also calls for a better organisation of concerned institutions. The idea raised here acknowledges the importance of the existence of general national objectives, or a strategy for the transfer and localisation of knowledge. Afterwards, each institution in education, research, culture and media, as well as other state institutions should take its share of responsibility towards achieving these objectives. This way, all institutions would work together to nurture the aspired-for Emirati citizen.
- Participants argued that labour markets and institutions in their current situation did not support creativity and the transfer of knowledge. Some participants pointed out that the institutions and the labour culture therein represented an obstacle to creativity and to presenting new ideas. What the workers are used to is considered the trend they should follow, and it is often hard to break the routine.
- It is necessary to work on supporting and organising research, entrepreneurship and youth welfare. It became evident that there was confusion between these roles; the hesitation in real world practices on one hand, and the vision and the supporting political

will on the other. Discussions indicated a perplexity and lack of harmony across the different concepts related to the existence of institutions to support the youth, such as the Ministry of Youth, and the work of these institutions in the area of knowledge transfer and localisation.

- As far as the enabling environments are concerned, everyone confirmed their appropriateness and existence. Everyone also confirmed that financial allocations did exist, as well as political support and a clear political vision. These two represent important characteristics of enabling environments for the transfer and localisation of knowledge. However, some participants indicated gaps in the research enabling environments, including support for creativity, research and publications among citizens, in addition to the deficiency in transforming research outcomes into tangible products to serve society.
- The report highlights the need to clarify the objectives and work towards the transfer and localisation of knowledge, and this was reflected and emphasised throughout the discussions. Participants expressed this in various ways: “For our society to be a knowledge society, we must know where it is, where we want to go and how. We must not reject opening up to others”. This leads us to the discussion of strategies regarding knowledge transfer and localisation. Participants deemed that any strategy for the transfer and localisation of knowledge must begin with building the human being. Education is to be given top priority; it should be the top priority of the executive authority, with the purpose of raising a human being capable of dealing with the future. “The most important factor in the transfer and localisation of knowledge is education, and the basic step in education is how to achieve balance between memorising, understanding,

“We must engage the youth in the means of knowledge transfer and in decision-making, in a sense that the youth are partners in creating the future. And we should not rely solely on the institutions working on behalf of the youth. We must believe in the youth and in their capacities and prepare them for the process of knowledge transfer and localisation”. One of the female speakers stated that if we do not engage with and integrate the youth, they will integrate using their own means, for the youth today are an energy: “The youth have integrated without us asking them to do so, without knowing it or noticing it... I was chatting with a female student on Instagram. I thought she was an old lady and was talking to her in a mature way. At the end she displayed her picture and I discovered she was a child... There is an infiltration of the youth into the world of adults, we must reach out to the youth and deal with them using the logic of current times... Let the youth become partners. They are energy. If we do not reach out to them, it will be a negative energy... We should integrate with the youth and not distance ourselves from them, nor them from us”.

Excerpts of participants' comments during the brainstorming sessions.

Strategies for Motivating the Emirati Youth to Effectively Participate in the Transfer and Localisation of Knowledge

Summary 5

The establishment of a national knowledge base in the UAE – one that is based on the effective integration of the youth in building it and benefiting from its products, is one of the basics for achieving comprehensive and sustainable human development. Therefore, it is important to adopt an overall future vision of the transfer and localisation of knowledge, a vision that directs efforts towards horizons that are wider than the transfer of knowledge alone, in order to develop a knowledge production process in which the youth play their desired fundamental role; not only paving the way for the production of knowledge, but also for its employment, diffusion and development. Institutional, legal and strategic frameworks must be promoted to ensure the sustainability and integration of efforts, while taking into account the absorptive capacity while drafting and implementing plans related to the transfer and localisation of knowledge. The importance of the participation of all the segments of society, especially the youth, and all parties concerned, from government agencies and civil sectors, including academia, civil society organisations and the private sector, is not to be overlooked.

The report identifies a number of challenges facing the processes of integrating the Emirati youth in transfer and localisation of knowledge

Facing the Educational Challenge

The report highlighted that the educational challenge starts from the early stages of pre-university education in more than one aspect. The educational challenge persists in subsequent stages among the youth, though in different ways with tangible impact. In addition, universities and higher education institutions failed to produce the required critical mass of “knowledge workers” who are able to generate knowledge products such as software or patented inventions, or publish books and conduct research.

Despite the country’s efforts to develop university education, the relationship between the needs of the labour market and the qualifications of the graduates remains an important issue. Some negative traditions have also prevailed in university education, including a weakness in the spirit of initiative among the youth as well as their continued pursuit of secure government jobs. This trend, by itself, is an obstacle to the transfer of knowledge . It could be generally said that the number of students enrolled in universities has increased, but this increase has not translated in the development of the knowledge economy or in the foundation of the generation or critical mass needed to establish this economy. The report confirms that the first element in strengthening the systems of youth empowerment is providing them with the appropriate skills that match the requirements of knowledge transfer, production and employment. Therefore, the pivotal and essential role of the educational system is again emphasised. The education system must improve its performance to appropriately qualify young Emiratis and provide them with these skills. Thus, the UAE urgently

needs to truly change and develop the current educational system to move from a traditional system based on rote learning to one based on the skills of creative thinking, innovation, scientific research and constructive criticism from the earliest stages of education, so the country can build a national human capital capable of the transfer and localisation of knowledge.

The authors also believe that despite many reforms in the educational system, little has been done with regard to flexibility, innovation and risk-taking; these are the features that lay the foundation for an effective education system in the knowledge-based economy and economic competitiveness.

According to this model, flexibility at the wider level of the educational system requires the establishment of a decentralised management system that provides the freedom of choice for teachers in what they teach, flexible training opportunities, trust between teachers, administrators and managers and the decentralisation of operations. Flexibility also includes an evaluation system that encourages competition between students. However, these processes must not overlook the standard policies of teaching and learning to increase achievement. Innovation in teaching comes through the creation of a learning community among teachers, thereby increasing the exchange of knowledge and creativity in teaching.

The report concludes that there is a need to encourage each student to be creative in the classroom and beyond, with schools and universities focusing on the development and enhancement of the culture of innovation. This culture provides teachers with the freedom to embrace new teaching methods and to stay away from the imposed textbook, whenever required. This will necessarily require a change in the evaluation system, so as to allow the greatest

flexibility at all levels. Finally, with regards to the system, it is important that both teachers and administrators be given the opportunity to contribute to the development of the curriculum, as this will enhance transparency and trust-building between education officials and those who work in schools and universities. The report further confirms that this proposal goes in line with the “UAE Vision 2021”, and is essentially at its core.

Facing the Challenge of Research and Development

The scientific research in UAE has limited capabilities, expenditure, support and production. This represents a challenge that must be dealt with in seeking the transfer and localisation of knowledge for the establishment of the knowledge society and economy in the country. Some of the most important steps that can help face the challenge of scientific research and development in the country can be summarised as follows:

- Increasing the budget allocated for spending on scientific research, in government institutions as a whole and public universities. This is in addition to establishing research partnerships with private universities in the country and abroad.
- Developing a system of incentives for citizens working in the fields of scientific research and in the transfer and localisation of knowledge.
- Providing incentives for young citizens to enrol in specialisations of scientific disciplines, such as medicine, engineering, sciences, information technology and other disciplines that are important to the production of knowledge and which currently witness low enrolment rates by young citizens.
- Encouraging students to complete post-graduate study to get master and doctoral degrees, through exempting them from post-university study fees, granting distinguished students monthly bonuses and motivating them to pay attention to the activities of scientific research and the transfer and localisation of knowledge in different scientific disciplines.
- Providing additional local and foreign grants for outstanding students to complete their post-graduate studies, especially in new disciplines that are gaining increased momentum at the global level and that enrich the process of the transfer and localisation of knowledge in the country.
- Encouraging universities and faculties to open higher

education programmes, especially in new disciplines with a global future trend, along with providing scholarships for citizen students.

- Encouraging the private sector companies that work in the field of scientific research and in the transfer and localisation of knowledge in the country through offering them certain incentives, such as exempting them from renewal fees and providing them with competitive advantages.

Facing the Human Resources Challenge

The limited availability of citizens as human resources – they constitute merely 11.5% of the total number of residents – is one of the challenges discussed in this report. This requires focus on the development of the national labour force and intensified investment in the human capital to create national cadres who enjoy productive positive thinking, effectiveness, quality, competitiveness, an ability to create and innovate and high levels of professionalism. However, this report confirms that foreign labour is not to be ignored when transferring and localising knowledge for the establishment of the knowledge society. This is particularly true regarding skilled and professional workers as this would mean wasting a large cognitive power in the country, one that could help the citizen workforce to develop itself and acquire skills to strengthen the systems of knowledge empowerment. The foreign workforce in UAE is playing a major role in development in various sectors. It enjoys multiple cultures, knowledge and experiences. This is considered by itself an important resource that can be invested in for the transfer and localisation of knowledge. Communication, openness and building partnerships between local and foreign institutions, and between the workers residing in the country and Emirati nationals, should be enhanced in order to maximise the benefit from foreign expertise. The second aspect to the challenge of human resources is the emergence of unemployment among the youth. The various institutions in the country should encourage young people to work in the private sector or in entrepreneurship to maximise economic effectiveness. It is a challenge to common logic that the public sector can accommodate all graduates. Economic participation and employment opportunities for the youth are two important factors that support the promotion of youth empowerment in various fields. An important issue emerges in this regard; youth employment in the private sector. To be able to transfer and localise knowledge, the country should work to increase the employment rate among citizens in the private sector, because building the Emirati human capital in all sectors is an essential element for development.

It can be said that Emiratisation programmes in the private sector, in which companies are expected to employ of specific percentage of citizens, are important national programmes. But this issue must be dealt with cautiously, with a focus on upgrading the skills of citizens and enabling them to compete in the labour market based on their merits and qualifications. The country has succeeded in creating a competitive market that attracts competent people from various parts of the world, and it must push its citizens to enter and succeed in this market on their own merit. This would also better serve the aspired-for processes of knowledge transfer and localisation, which are based on young, skilled people who master cognitive skills and values.

Facing the Challenge of Economic Structure

The Emirati economy, as confirmed by the data issued by the Ministry of Economy in the UAE, still depends heavily on the oil sector. This is despite remarkable progress in economic development in the UAE and major expansions in many economic sectors such as tourism, commerce, finance and industrial manufacturing. The diversification of the economy is not limited to the direct effect on economic development, but also includes the efforts of knowledge transfer and localisation in the UAE. Therefore, the report confirms, it is necessary to double the efforts to diversify the Emirati economy, while focusing on industries and sectors that have a high cognitive added value, and building on existing efforts to qualify young Emiratis to effectively engage in the processes of economic diversification towards the establishment of the aspired knowledge society and economy.

Facing the Challenge of Motivating the Youth to Engage in the Processes of Knowledge Transfer and Localisation

Authors of the report confirm that there is no doubt that the UAE has provided many opportunities and incentives for young Emiratis in various fields at the educational, foundational and professional/vocational levels. The UAE has also progressed in basic infrastructure, including that directly related to the transfer and localisation of knowledge, reaching a par with the world's most advanced countries. The question remains about the effectiveness of these structures and systems in bringing about the transfer and localisation of knowledge, and about the effective use of the potential and opportunities brought about by these structures and environments among young Emiratis. Young Emiratis, as noted previously, prefer administrative jobs in general. A relatively low proportion choose higher education and post-graduate professional development, in

a way that does not commensurate with the opportunities and infrastructure already in place. The country, in its active drive to improve economic and social equality among its population, is also required to work towards stimulating young people to work hard in development and economic, educational and research activities that have a higher cognitive added value, in a way that better serves the interests of the youth, the economy and development in the UAE. Such incentives can come in various forms and start with the formation of the values of work and belonging from an early age, to establishing systems and tools to stimulate productive work. These motivational tools can also be extended to include material and moral incentives, in addition to the establishment of systems that require capacity-based competition to secure jobs and professions. The adoption of such policies would support the engagement of young Emiratis in the transfer and localisation of knowledge for their own interest and that of their country. Moreover, the adjustment of the wages and pension systems to better encourage productive and creative activities could add a sense of value and increase the appeal among young people.

The report confirms that the method used for the transfer and localisation of knowledge should also be reconsidered. This will require unified efforts from several federal and local bodies to set unified goals and strategies aiming to make the UAE a regional hub for the localisation and transfer of knowledge in certain sectors in which the country can lead the way scientifically and technologically. This should be accompanied by an increase in the budgets allocated for scientific research and encouragement to universities to focus on research activities.

There is another problem related to the role of the private sector in this process. Links between research centres and production sectors should be strengthened. Efforts should focus as well on enhancing the role of the private sector, which not only takes a negative stand but also fails to contribute effectively towards the production and localisation of knowledge through supporting scientific research projects at universities or at specialised research institutes in the country. The private sector does not support or fund scientific research projects. It also fails to invest in, use or help transform the creative ideas of researchers in end products.

Scientific institutions in the public and private sector are required to take practical and concrete steps that lead to a quantum leap in scientific research activities in the country. This is to be achieved through a scientific and predefined approach, supported by allocating adequate funds for research activities and projects, in order to promote

government policies on the transition to a competitive knowledge-based economy in accordance with UAE Vision 2021.

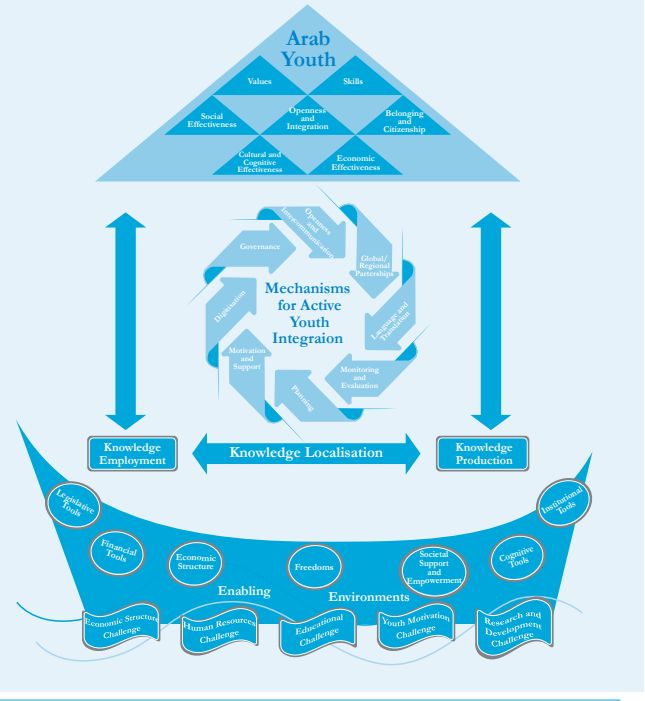
Moving towards the Effective Engagement of the Youth in the Processes of the Transfer and Localisation of Knowledge

The methodology proposed for the future action towards the effective integration of young Emiratis in the processes of transfer and localisation of knowledge is based on four key elements: First, strengthening the systems of youth empowerment; second, strengthening the systems of knowledge localisation, including the processes of knowledge transfer and production, as well as its employment in supporting human development; third, providing the enabling and supportive environments for each of the above two components, including societal support, economic structures and institutional, legislative, financial and cognitive tools; and fourth, providing the required on-the-ground mechanisms for the achievement of positive interaction between the three previous systems, in order to effectively move towards the transfer, localisation and employment of knowledge. This would eventually lead to the ultimate goal of establishing the knowledge society and knowledge economy, and achieving sustainable human development in the country.

The mechanism of action to integrate young people in the processes of the transfer and localisation of knowledge was set in the form of a ship sailing into the future, which is the aspired-for knowledge society and economy, as a gateway to the wider levels of sustainable human development. The ship carries all that could help its passengers (the youth) reach its destination. The base of the ship represents the structures, processes and institutions essential for the transfer, employment, localisation and

production of knowledge, including financial, economic, legislative and institutional instruments and community support. Young people on board are armed with cognitive skills and values; they are open to the world, belong to the country and are efficiently active socially, culturally and economically. Between the base of the ship and those on board is a range of mechanisms or means that allow and guarantee the youth to be effective in the processes of the transfer and localisation of knowledge, including financial allocations, planning, openness, intercommunication, translation, digitisation, monitoring, evaluation, global and regional partnerships, motivation and support and good governance.

Moving towards the Active Youth Integration in the Process of Knowledge Transfer and Localisation: UAE Specific Mechanisms and Challenges



The strategies and mechanisms proposed are not only viable, but also enjoy the availability of most – if not all – conditions to their success. The current settings in the UAE evidently confirm the availability of the main elements and requirements for establishing the knowledge society and the knowledge economy and strengthening the participation of the youth. Investing in building the Emirati citizen and advancing him or her in all fields represents one of the main declared priorities and directions. Also, many of the elements of success are actually available or will be soon, for the UAE has witnessed remarkable achievements towards the establishment of the knowledge society and the knowledge economy. The country enjoys a sophisticated infrastructure and information technology system, a strong economy and a clear understanding of the importance of building the knowledge society and the need to efficiently involve young people in this central development process. More importantly, there is a political will at the highest levels, supported by sincere community will, to achieve these goals. There is also awareness of the importance of catching up with the developed countries. This will lead the UAE to sail across the wide seas of knowledge to reach the shores of sustainable human development and to realise the pride and happiness of the people of the UAE.

