Entrepreneurship, SMEs and Local Development in Abu Dhabi:

Boosting the entrepreneurial ecosystem

OECD
BETTER POLICIES FOR BETTER LIVES

In partnership with:

صندوق خليفة لتطوير المشاريع
Khalifa Fund for Enterprise Development

ENTREPRENEURSHIP, SMES AND LOCAL DEVELOPMENT IN ABU DHABI

Boosting the entrepreneurial ecosystem

BETTER POLICIES FOR BETTER LIVES

This paper is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and the arguments employed herein do not necessarily reflect the official views of OECD member countries.

Authorised for publication by Stefan Kapferer, Deputy Secretary-General and Director, Centre for Entrepreneurship, SMEs and Local Development.

Table of contents

The OECD reviews on "Entrepreneurship, SMEs and Local Development" 7
Acknowledgments 9
Acronyms 10
Executive summary 13
Assesment and recommendations 17

Chapter 1. **Setting the context: the Emirate of Abu Dhabi in the United Arab Emirates 27**
Introduction 27
The Emirate of Abu Dhabi in the United Arab Emirates (UAE) 27
An economic overview of the Emirate of Abu Dhabi 31
Entrepreneurship and SME trends in Abu Dhabi 39
SME and entrepreneurship policies in Abu Dhabi 45
Thematic policy areas 52
References 67

Chapter 2. **The entrepreneurial and SME ecosystem of Abu Dhabi: Key stakeholders and the policy framework 69**
Key stakeholders in the entrepreneurial and SME ecosystem of Abu Dhabi . . . 69
The policy framework for entrepreneurship and SME development 80
Conclusions and policy recommendations 98
References 100

Chapter 3. **Human capital development in Abu Dhabi 100**
Introduction 100
Issues in human capital development and social inclusions 102
Human capital development and social inclusion in Abu Dhabi 103
The way forward 113
Conclusions and policy recommendations 129
References 132

Chapter 4. **Innovative entrepreneurship and SME innovation in Abu Dhabi 137**
Introduction 137
Assessment of the Abu Dhabi innovation ecosystem 138
Implementing the way forward 145
Policy recommendations 170
References 173

Chapter 5. **Entrepreneurship and SME financing in Abu Dhabi. 175**
Introduction 175
The state of entrepreneurship and SME financing in Abu Dhabi 175
Major stakeholders in entrepreneurship and SME financing. 187
Conclusions and policy recommendations 209
References 213

ANNEX I. General policy assessment scores 215

ANNEX II. Priority policy actions to strenghten the entrepreneurial and SME ecosystem of Abu Dhabi 217

ANNEX III. UAE federal laws affecting doing business in Abu Dhabi 229

Tables

Table 1.	Overview of UAE Vision 2021	29
Table 2.	Abu Dhabi's GDP nominal growth, 2009-2013	31
Table 3.	Abu Dhabi's export volumes, 2008-2103, and as a percentage of GDP, 2013	32
Table 4.	Abu Dhabi's Foreign Direct Investment flows, 2008-2012	32
Table 5.	Percentage Distribution of Public Expenditures in Abu Dhabi	33
Table 6.	Contribution to Abu Dhabi's GDP by main economic sector, 2010-2013	35
Table 7.	Sector distribution of employed population in Abu Dhabi, 2013	38
Table 8.	Trends in business licenses in Abu Dhabi, 2009-2013	43
Table 9.	Types of Business Establishments in the Emirate of Abu Dhabi, 2012	43
Table 10.	Average enterprise size by sector in Abu Dhabi, 2012	44
Table 11.	Types of business licenses in Abu Dhabi	49
Table 12.	Free zones in Abu Dhabi	50
Table 13.	Closing a business in the MENA region, 2009	89
Table 14.	Key supply and Demand Side Challenges in Accessing SME Finance	178
Table 15.	Main characteristics of KFED lending activities	192
Table 16.	Main financial information of KFED lending	192

Figures

Figure 1.	Inflation rates in Abu Dhabi, 2005-2013	34
Figure 2.	Pillars of Abu Dhabi Policy Agenda Vision	45
Figure 3.	Abu Dhabi Economic Vision 2030	47
Figure 4.	Global and Regional Focus Sectors	48

Boxes

Box 1.	Main policy recommendations	25
Box 2.	The dualism of the UAE labour market	39
Box 3.	The profile of the Emirati entrepreneur	41
Box 4.	The federal SME Law	51
Box 5.	Main examples of industry-university collaboration in Abu Dhabi	53
Box 6.	The work of the Tawteen Council in the area of VET	54
Box 7.	Main Federal innovation policies of the UAE	59
Box 8.	Issues and trends in access to finance in the UAE	62
Box 9.	International examples of inter-ministerial institutionalised collaboration	79
Box 10.	Ireland's SME Advisory Committee	80
Box 11.	Ireland's enterprise policy for economic recovery	83
Box 12.	Examples of demand-side policies for innovation	87

Box 13.	The importance of insolvency regimes for entrepreneurship and SME development	90
Box 14.	Singapore's bankruptcy law	91
Box 15.	The US bankruptcy law	92
Box 16.	The French "auto-entrepreneur" regime	95
Box 17.	Local good practice: The KFED's kitchen incubator project	97
Box 18.	Partnership between the Jordan government and INJAZ JA to expand entrepreneurship capacity in Jordan	111
Box 19.	The Austria National Action Plan for Gender Equality in the Labour Market (2010-2013)	114
Box 20.	The Kanagawa Women's Worker Collective	118
Box 21.	Employment social enterprise "AbilityOne", the United States	120
Box 22.	The start-up subsidy for the unemployed in Germany	123
Box 23.	Finland's Entrepreneurship Education Strategy	125
Box 24.	International good practices in entrepreneurship education initiatives	127
Box 25.	The Singapore National Science and Technology Board	147
Box 26.	The Georgia Research Alliance and Eminent Scholars Programme, United States	148
Box 27.	Managing business incubators: The case of Oxford Innovation	152
Box 28.	Interface – the knowledge connection for business in Scotland	154
Box 29.	Taiwan's Industrial Technology Research Institute (ITRI)	156
Box 30.	The UK Design Council	158
Box 31.	Brighton Fuse: Benchmarking creativity and design in the United Kingdom	160
Box 32.	The seven main operational guidelines for business accelerators	165
Box 33.	The Dutch Growth Accelerator Programme	166
Box 34.	The Management 4 Growth Programme, Ireland	168
Box 35.	Mexico's Unified Registry of Movable Property Collateral	180
Box 36.	Model credit bureau	181
Box 37.	Examples of credit mediation schemes	183
Box 38.	Credit guarantee schemes	196
Box 39.	The Crowdfund Act under the JOBS Act in the United States	204
Box 40.	The Vigo Accelerator Programme, Finland	206

The OECD Reviews on "Entrepreneurship, SMEs and Local Development"

This study forms part of the series of OECD Reviews on Entrepreneurship, SMEs and Local Development. These reviews examine the opportunities and challenges for entrepreneurship and SME development and the role that policy can play in case study regions, cities or localities. They investigate the extent to which the local business environment is favourable to start-ups and SME growth and assess the local economic policies in place and the improvements that can be made. The issues examined include management and workforce skills development, access to finance, innovation and knowledge transfer, entrepreneurship and start-ups, internationalisation of SMEs, and the local strategic and governance framework of entrepreneurship and SME policies.

The reviews follow a methodology which is based on a background questionnaire, a fact-finding mission, desk research and a local stakeholder workshop. The final outcome is a report analysing local framework conditions and policies to support entrepreneurship and SMEs and identifying priority policy actions and international policy examples relevant to the identified development challenges. The policy guidance and recommended actions contribute to the creation of more entrepreneurial local economies offering better job opportunities and increased economic growth and resilience.

Governments, development agencies and other interested organisations at national, regional and local levels are invited to contact the OECD Secretariat for further information – Jonathan Potter, Senior Economist, Centre for Entrepreneurship, SMEs and Local Development (*jonathan.potter@oecd.org*) – and to consult the OECD website: *http://www.oecd.org/cfe/leed/boostingentrepreneurship.htm*.

Acknowledgments

The OECD review on "Entrepreneurship, SMEs and Local Development in Abu Dhabi: Boosting the Entrepreneurial Ecosystem" was requested by the Khalifa Fund for Enterprise Development and carried out by the OECD LEED Programme in partnership with the Khalifa Fund. The aim has been to assess the strengths and weaknesses of the Abu Dhabi entrepreneurial and SME ecosystem, identify existing policy gaps and provide policy recommendations on how to address these gaps, based on the experience of OECD and non-OECD countries and regions. The fact-finding mission in which the OECD expert team met with Abu Dhabi government entities and private-sector stakeholders was undertaken on the week of 16-20 November 2014, while the main findings of the report were presented to an audience of local stakeholders in a workshop organised by the Khalifa Fund for Enterprise Development in Abu Dhabi on 8 December 2015.

The report was prepared and edited by Marco Marchese, policy analyst at the OECD, with substantial written contributions made by Karen Chapple (University of California at Berkeley), Emily Cox (UAE-based consultant), Marco Marchese (OECD), William O'Gorman (Waterford Institute of Technology), Ricardo Pinto (Pinto Consulting) and Stephen Roper (Warwick Business School). The review owes much to the support and co-operation of Abu Dhabi government officials from the Khalifa Fund for Enterprise Development and, in particular: Abdullah Al Darmaki (Chief Executive Officer), Manish Kotwala (Director, Strategic Planning and Performance Management Department), Ahsan Ali (Director, Credit Department), and Hadef Al Shamsi (Manager, Stakeholders Management Unit).

This project was led by Marco Marchese under the direction of Jonathan Potter in the OECD LEED Programme.

Acronyms

Abu Dhabi Business Women Council (ADBWC)

Abu Dhabi Centre for Technical and Vocational Educational Training (ACTVET)

Abu Dhabi Chamber of Commerce and Industry (ADCCI)

Abu Dhabi Commercial Bank (ADCB)

Abu Dhabi Council on Economic Development (ADCED)

Abu Dhabi Department of Economic Development (ADDED)

Abu Dhabi Food Control Authority (ADFCA)

Abu Dhabi Government entities (ADGEs)

Abu Dhabi Vocational Education and Training Institute (ADVETI)

Aerospace Research and Innovation Centre (ARIC)

Business Angels Networks (BANs)

Business-to-Business (B2B)

Competitiveness Office of Abu Dhabi (COAD)

Credit Guarantee Schemes (CGS)

Executive Council of Abu Dhabi (EC)

Federal National Council (FNC)

Federal Supreme Council of Rulers (FSC)

Fujeirah Welfare Association (FWA)

General Secretariat of the Executive Council of Abu Dhabi (GSEC)

Global Entrepreneurship Monitor (GEM)

Gulf Cooperation Council (GCC)

Higher College of Technology of Abu Dhabi (HCT)

Higher Education Institutions (HEIs)

Intellectual Property (IP)

Intellectual Property Rights (IPR)
International Finance Corporation (IFC)
International Standards Industrial Classification (ISIC)
Khalifa Fund for Enterprise Development (KFED)
Khalifa University of Science, Technology and Research (KUSTAR)
Local Economic and Employment Development (LEED)
Microfinance institutions (MFIs)
Middle East and North Africa (MENA)
MIT & Masdar Institute Cooperative Program (MMIP)
National Bank of Abu Dhabi (NBAD)
National Research Foundation (NRF)
Organisation for Economic Co-operation and Development (OECD)
Research and Development (R&D)
Science, Technology, Engineering and Math (STEM)
Small and Medium Enterprise (SME)
Statistics Centre Abu Dhabi (SCAD)
Technology Development Committee of Abu Dhabi (TDC)
Total Entrepreneurial Activity (TEA)
United Arab Emirates (UAE)
United Arab Emirates Dirham (AED)
United States Dollar (USD)
Vocational education and training (VET)
World Trade Organisation (WTO)

Executive summary

The Emirate of Abu Dhabi is the federal Capital of the United Arab Emirates (UAE) and the largest of the seven emirates which comprise the country. Thanks to 9% of the world oil reserves and nearly 5% of the world gas reserves, Abu Dhabi is the wealthiest of the seven emirates and contributes three-quarters of the federal budget. The economy of Abu Dhabi heavily depends on the oil sector, which represents more than 50% of the local annual GDP (55% in 2013). There are, nonetheless, concerted efforts at the government level to diversify the economy through the promotion of high value-added industries, with entrepreneurship and SMEs expected to play an important role in diversification strategies.

Available data shows that entrepreneurship is at a very incipient stage in the Emirate of Abu Dhabi; in fact, entrepreneurial attitudes are strong but they do not translate into equally strong entrepreneurial action. Global Entrepreneurship Monitor (GEM) data shows that entrepreneurship is highly considered in the Emirati society, risk aversion is not high, and Emiratis are confident to have to the right skills set to become entrepreneurs. From intentions to actions the situation is less rosy. The GEM established business ownership rate for the UAE is below the OECD average and business density is lower in Abu Dhabi than in the OECD, signalling that business ownership is not widespread in the local population. Also, entrepreneurial dynamics have been rather muted in the most recent years in Abu Dhabi, with the number of operating business licenses declining in the early 2010s. Quite a unique feature of entrepreneurship in the UAE is that 82.5% of Emirati entrepreneurs are not full-time, i.e. they share this activity with another occupation, usually in the government (i.e. part-time entrepreneurship).

The Abu Dhabi government has put in place significant public resources to enlarge the enterprise base and enhance its competitiveness, which are two of the strategic objectives set by the Abu Dhabi Economic Vision 2030, the strategy document which steers economic policy making in the Emirate of Abu Dhabi. Although government support is generous, its effectiveness could be improved by avoiding the extension of public

support for too long without the attainment of development milestones by beneficiaries and by phasing out support for those entrepreneurs who keep a parallel job in the government or in the private sector.

Abu Dhabi has succeeded in developing a widespread and relatively strong higher education system able to supply a skilled workforce to the labour market. In addition to local and federal universities, several international universities have established campuses in Abu Dhabi, making the Emirate an important global university hub. Despite these efforts, there is a dearth of graduates in STEM subjects in Abu Dhabi which may thwart the development potential of some of the strategic sectors identified by the Vision 2030. Moreover, while higher education has attracted much attention, the same cannot be said for Vocational education and training and entrepreneurship education.

Human capital development in the local entrepreneurial ecosystem also requires special attention to certain groups of the population, notably women and the youth. Home-based business legislation and the role of intermediate structures such as cooperatives are specific policies which could encourage women's greater participation in entrepreneurship, although the challenge is wider in scope and likely to require structural reforms which foster women's participation in the private labour market more generally. As to the youth, several interventions are in place, although these are not part of a coherent youth entrepreneurship strategy.

Abu Dhabi's innovation eco-system presents some contrasts. On the one hand, R&D spending is low by international standards, on the other levels of innovation activity at firm level are relatively high and there are pockets of world-class R&D activity in place (e.g. Masdar Institute and the Aerospace Research and Innovation Centre). R&D is, nonetheless, mainly the prerogative of large firms and government organisations; for example, industry-university collaborations are common in Abu Dhabi, but they rarely involve SMEs. In this context, the objective of the government is to increase R&D spending by three times, bringing it to 1.5% of the local GDP. The establishment of the Abu Dhabi R&D Council may become a valuable step towards the achievement of this objective, although to do so the Council should ensure that any funded R&D activity is strongly linked to effective commercialisation.

Finally, access to credit for SMEs is not optimal in Abu Dhabi and has warranted active policy intervention. Typical lending requirements applied by commercial banks are quite strict and includes collateral assets worth at least AED 500 000 and preferably audited financial statements. This leads to rejection rates for business loans in the range

of 50-70% and may also favour high numbers of discouraged borrowers. Interest rates on business loans are also high, while the range of financing products offered by banks to SME clients is relatively simple. Altogether this results in low volumes of commercial loans, although SME lending has been slightly on the rise in Abu Dhabi in the last years. Difficult credit market conditions are partly related to some gaps in federal and local legislation, including the lack of an asset registry, lack of fulsome credit bureau information and lack of a bankruptcy law which would make the process of business insolvency more predictable and less costly.

The government of Abu Dhabi has intervened energetically to improve credit market conditions, including through the establishment in 2007 of the Khalifa Fund for Enterprise Development (KFED) which was endowed with an original investment capital of AED 2 billion. The public support of KFED is generous by OECD standards and designed with the intention to spark entrepreneurial action in a society where business ownership is not common. As entrepreneurial conditions mature in Abu Dhabi, KFED might consider increasing the diversification of its product offerings, for example with respect to loan terms and conditions, and encourage the supply of a steady pipeline of "bankable clients" to the private banking industry. Additional enterprise financing policies which could be further explored would encompass legislation on new financing mechanisms such as crowdfunding, one or more credit guarantee schemes where banks should still carry part of the default risk, support of business angel networks (possibly aligned with the local business incubator policy) and direct subsidisation of interest rates applied by commercial banks.

Assesment and recommendations

The Emirate of Abu Dhabi is the federal Capital of the United Arab Emirates (UAE) and the largest of the seven emirates which comprise the country. Thanks to 9% of the world oil reserves and nearly 5% of the world gas reserves, Abu Dhabi is the wealthiest of the seven emirates and contributes three-quarters of the federal budget. The economy of Abu Dhabi heavily depends on the oil sector, which represents more than 50% of the local annual GDP (55% in 2013). There are, nonetheless, concerted efforts at the government level to diversify the economy through the promotion of high value-added industries such as aviation and aerospace, pharmaceuticals and life sciences, and healthcare equipment and services. Entrepreneurship and SMEs are expected to play an important role in diversification strategies as well as in increasing the percentage of the local labour force (UAE nationals) in the private sector (currently less than 10%).

Strong entrepreneurial attitudes do not translate into entrepreneurial action

Available data shows that entrepreneurship is at a very incipient stage in the Emirate of Abu Dhabi; in fact, entrepreneurial attitudes are strong but they do not translate into entrepreneurial action.

GEM data show that entrepreneurship is highly considered in the UAE society, with nearly three-quarters (73%) of the total GEM-surveyed population and 89% of the surveyed UAE nationals who believe entrepreneurs receive high social status in the Emirates. Both figures are significantly above the OECD average (62%). Risk aversion does not appear to be high either: 40% of the UAE nationals who see a market opportunity to start a business report that "fear of failure" would prevent them from taking action, which is a value in line with the OECD average (40%). Emiratis are also confident to have to the right skills set to become entrepreneurs: 52% of the UAE nationals believe to have adequate competences, which is lower than the three expat communities taken into consideration by a local analysis of GEM data, but much higher than the OECD average (39%). Total entrepreneurial activity (*i.e.* TEA - the sum of the people who have been in the process of starting an enterprise in

the last three months or who have started one for less than three-and-a-half years) is also higher in the UAE than the OECD average (8% vs. 7%) and, especially so, if only UAE nationals are taken into account (10.5%). Interestingly, the TEA rate of Abu Dhabi is higher than that of Dubai (11% vs. 10%) and second only to that of the Emirate of Ajman.

From intentions to actions the situation is less rosy. The GEM established business ownership rate is 3.5%, which increases to 5% if only UAE nationals are considered; both values are lower than the OECD simple average (7%). Again, Abu Dhabi does better than Dubai (5% vs. 3%) but worse than three other smaller emirates. Quite a unique feature of entrepreneurship in the UAE is that 82.5% of Emirati entrepreneurs are not full-time business owners but rather share this activity with another occupation, usually in the government (i.e. part-time entrepreneurship).

Business density measured by business licenses – i.e. the number of business licenses per one thousand people[1] – is lower in Abu Dhabi (39) than in the OECD (45), which signals that business ownership is not widespread in the local population. Also, entrepreneurial dynamics have been rather muted in the most recent years. The number of operating business licenses has been on the decline in the first years of the decade, although the low seems to have been reached in 2012, with the trend reversing in 2013.

A household-based survey by Statistics Centre Abu Dhabi (SCAD) highlights the limited role of the small business sector in Abu Dhabi. Three-quarters (76%) of the total stock of enterprises are small businesses employing less than 20 workers, whereas the OECD simple average for the small enterprise size class is much higher (90%). On the other hand, large companies employing 50 workers or more are 4% of the total in Abu Dhabi, but less than 2% of the total in the OECD as a whole (simple average, 1.7%).

Altogether, these figures point to an economy of Abu Dhabi which is driven by large companies and where business ownership and entrepreneurship are not widespread. This is a feature which is linked to the industry structure of the Abu Dhabi economy, notably the importance of the capital-intensive extractive industries, but also to other contextual factors such as, for example, the large availability of well-paid government jobs which increases the opportunity cost of entrepreneurship and gaps in legislation which makes credit insolvency very risky for entrepreneurs.

Progress has been mixed in the entrepreneurship and SME policy framework

The Abu Dhabi government has put in place significant public resources to enlarge the enterprise base and enhance its competitiveness, which are two of the strategic objectives set by the Abu Dhabi Economic Vision 2030, the strategy document which steers economic policy making in the Emirate of Abu Dhabi. The "Vision" has been the result of a long consultative process which has involved no less than the forty different organisations and which underscores the participatory approach of the Abu Dhabi government to policy making. Collaboration is also common at the programme level in Abu Dhabi; most SME programmes are indeed the result of collaborations between different government entities either at the design or implementation level.

On the downside, institutional collaboration is often ad-hoc, whereas the establishment of a standing committee which meets regularly would help advance further the entrepreneurship and SME policy agenda by providing strategic orientation, giving advice to programme managers, and assessing progress on policy implementation. Also, government support is generous but its effectiveness could be improved by avoiding the extension of public support for too long without the attainment of development milestones by beneficiaries and by progressively phasing out support for those entrepreneurs who keep a parallel job in the government or in the private sector.

Important enabling legislation has been introduced at the federal level which will impact on doing business in Abu Dhabi. Particularly relevant is the federal SME law which sets out an SME Council, launches a federal SME programme, enhances access to finance through the Emirates Development Bank, and establishes SME set-asides in public procurement. It will be important that this law is given appropriate follow-up, for example through a clear SME definition to be used in the federal SME programme; a comprehensive array of public support measures for SMEs which will be communicated in a clear way to potential beneficiaries (for example, through a unified website); the formulation of public procurement rules which will facilitate access to government contracts for SMEs besides specific set-asides; and an SME Council which will possibly act as a kind of standing committee on SME policy along the lines suggested above.

At the same time, other legislation key to entrepreneurship and SME development is still missing at the federal level. A case in point is bankruptcy law, whose absence has heavy consequences on the costs of business insolvency. It takes 5.1 years for a company to go through

insolvency in the UAE, compared to 3.5 years in the MENA region and 1.7 years of the OECD average. Costs are also high; one can expect 30% of the company's value to melt away in an insolvency proceeding in the UAE, as against 14% in the MENA region and 8.5% in the OECD. Meetings with local stakeholders have also brought out the lack of home-based business legislation – i.e. legislation setting the conditions under which it is possible to run a business from home – which could in turn enhance Emirati women's participation in the labour force.

Progress has finally been achieved in streamlining the business licensing process, primarily through the Abu Dhabi Business Centres which were set up in 2012 to provide a key source of information and administrative compliance to potential and existing entrepreneurs in Abu Dhabi. Nonetheless three main peculiarities persist in the local business license system of Abu Dhabi: a) licenses are required for all economic activities rather than only for those which involve risks for the environment or the society; b) licenses need to be renewed every year; c) the cost of licenses appears to be the same regardless of the size and/or legal entity of the business. Further simplification of these aspects could reduce the cost of setting out a business in Abu Dhabi, although "doing business" costs are most likely not the main reason behind low entrepreneurship activity in the Emirate (for example, with some sector exceptions, business income is not taxed in the UAE).

Further human capital development requires attention to certain education segments and population target groups

Abu Dhabi has succeeded in developing a widespread and relatively strong higher education system able to supply a skilled workforce to the labour market. In addition to local and federal universities, several international universities have established campuses in Abu Dhabi, making the Emirate an important global university hub. The Education Council designs strategic plans for education provision in the Emirate which are in line with university curricula set at the federal level and which are linked to the Abu Dhabi Vision 2030, seeking to match skills supply with expected skills demand from industry. Despite these efforts, there is a dearth of graduates in STEM subjects in Abu Dhabi which may thwart the development potential of some of the strategic sectors identified by the Vision 2030.

While higher education has attracted much attention in Abu Dhabi, the same cannot be said for Vocational education and training (VET). Only 3% of postgraduate students are enrolled in a VET course, which

is lower than in most other OECD countries. However, stronger VET participation could back both the diversification and the Emiratization agendas of Abu Dhabi by facilitating the entry in the labour market of more UAE young people. In addition, it would also help entrepreneurship and SME development through the improvement of technical competences and work-related networks from which VET participants can benefit.

Entrepreneurship education aims to foster entrepreneurial mind-sets, attitudes and skills across all levels of education and covers a broad range of activities, from proper coursework to business idea competition to business simulations. Entrepreneurship education is still at a relatively early stage in the Abu Dhabi education system. Abu Dhabi's universities tend to offer some form of entrepreneurship coursework, on a spectrum from offering a major in entrepreneurship (*e.g.* the Abu Dhabi School of Management), to providing general exposure to entrepreneurship to a broad array of students (*e.g.* Zayed University). Out of the university system, entrepreneurship and small business management training is primarily provided by the Khalifa Fund for Enterprise Development (KFED), which generally combines in its programmes a financing and training component.

Human capital development in the local entrepreneurial ecosystem also requires special attention to certain groups of the population, notably women and the youth. Indeed, it can be argued that if Abu Dhabi could significantly increase the participation of women in the labour force, especially in the private sector and through entrepreneurship, the Emirate would be able to diversify its economy more rapidly. Women's entrepreneurship in Abu Dhabi is primarily supported by the Abu Dhabi Business Women Council (ADBWC) through awareness-raising campaigns and tailored business management training and by KFED through both general and women-tailored training. Despite these efforts, women's self-employment rate is only 2% in Abu Dhabi, similar to other Gulf Cooperation Council (GCC) countries such as Qatar and Bahrein, but lower than in other MENA countries (*e.g.* Morocco or Lebanon). Home-based business legislation and the role of intermediate structures such as cooperatives are specific policies which could encourage women's greater participation in entrepreneurship, although the challenge is wider in scope and likely to require structural reforms which foster women's participation in the private labour market more generally.

As to the youth, they are a special target of local entrepreneurship policies because of the high levels of unemployment among young UAE nationals aged 20-30. Several interventions are in place, although these have not been formally evaluated, nor are they part of a coherent youth

entrepreneurship strategy. In this respect, GEM data provides some encouraging signs, showing the highest TEA rate in the population bracket aged 25-34 (14%).

Greater focus on both technological and non-technological innovation is needed

Abu Dhabi's innovation eco-system presents some contrasts. On the one hand, R&D spending is low by international standards (0.5% of the local GDP vs. 1.9% of GDP in the EU-28); on the other, levels of innovation activity at firm level are relatively high (65% of Abu Dhabi companies introduced a product or process innovation between 2008 and 2011) and there are pockets of world-class R&D activity in place (*e.g.* Masdar Institute and the Aerospace Research and Innovation Centre). R&D is, nonetheless, mainly the prerogative of large firms and government organisations; the latest GEM survey, for example, shows that the whole of nascent firms in the UAE are in low-tech industries. A limit of the innovation system of Abu Dhabi is that most innovation is based on bought-in technology rather than technology developed locally; according to a report by the Abu Dhabi Department of Economic Development (ADDED), local enterprises devote the majority of their innovation expenditure on the acquisition of machinery, equipment and software developed elsewhere, rather than on R&D spending.

Industry-university collaborations are quite common in Abu Dhabi, although they rarely involve SMEs. Examples are rife and include research centres within the Masdar Institute of Science and Technology, the partnership between the Khalifa University of Science, Technology and Research (KUSTAR) and Mubadala aerospace or still sponsored courses at the Higher College of Technology (HCT). Most collaboration involves collaborative research and technology licensing, whereas the encouragement of university spinoffs is still limited.

In this context, the objective of the government is to increase R&D spending by three times, bringing it to 1.5% of the local GDP. The establishment of the Abu Dhabi R&D Council may become a valuable step towards the achievement of this objective, although to do so the Council should ensure that any funded R&D activity is strongly linked to effective commercialisation.

Beyond R&D and research commercialisation, developments will also be necessary in supporting non-technological forms of innovation (*e.g.* design-related innovation), which increasingly account for much innovation activity in both OECD and non-OECD countries, and in assisting enterprises with potential for rapid growth.

Credit market conditions are not favourable to SMEs and have led to relevant government interventions

Access to credit for SMEs is not optimal in Abu Dhabi and has warranted active policy intervention. Typical lending requirements applied by commercial banks are quite strict and includes collateral assets worth at least AED 500 000 and preferably audited financial statements. This may lead to high numbers of discouraged borrowers, i.e. people who do not approach a bank knowing that their loan request is likely to be turned down, and leads to rejection rates for business loans in the range of 50-70%, whereas as a way of comparison the rate of SME loan rejections in the Euro area was 11% in 2013. Interest rates on business loans are also high, especially given the central bank's base interest rate of 1%. Based on stakeholder interviews, interest rates by commercial banks can go above 15% for unsecured loans and range between 6-8% for asset-backed loans; these rates are higher than those available in the Euro area where the policy interest rate is also at a historic low.

The range of financing products offered by banks to clients is also relatively simple and comprises letters of credit (ca. 55% of bankable SMEs), overdrafts (ca. 44% of bankable SMEs), secured loans (ca. 24% of bankable SMEs) and unsecured loans (ca. 13% of bankable SMEs). An analysis by IFC, on the other hand, shows that in other high-income countries banks offer on average 5 deposit products, 9 credit products, and 8 payment and other transaction products.

Altogether this leads to low volumes of commercial loans; in the UAE as a whole, they account for 4% of overall bank assets compared to an average of 9% in the MENA region. As a way of comparison, SME loans in G7 countries such as France and Italy, where there is a large small business base, hovers around 20% of total business loans. Nonetheless, SME lending volumes have recently increased in Abu Dhabi (though from low levels); based on information collected from stakeholder interviews, SME lending by the top ten commercial banks surged from estimated AED 22 billion in 2013 to about AED 32 billion in 2014.

Difficult credit market conditions are partly related to some gaps in federal and local legislation, including the lack of an asset registry which could enable banks to assess borrowers' collateral assets (beyond car and real estate property); lack of fulsome credit bureau information (for example, on credit taken of any type and size and on the timely payment of bills) which would help banks to better establish borrowers' credit worthiness; and lack of a bankruptcy law which would make the process of business insolvency more predictable and less costly.

The government of Abu Dhabi has intervened energetically to improve credit market conditions, including through the establishment in 2007 of the Khalifa Fund for Enterprise Development (KFED) which was endowed with an original investment capital of AED 2 billion to enhance access to credit for both SMEs and new entrepreneurs, the latter of whom are usually not covered by commercial banks. The public support of KFED is generous by OECD standards and designed with the intention to spark entrepreneurial action in a society where business ownership, as seen earlier, is not common. As entrepreneurial conditions mature in Abu Dhabi, KFED might consider increasing the diversification of its product offerings, for example with respect to loan terms and conditions, and encourage the supply of a steady pipeline of "bankable clients" to the private banking industry.

In addition, a new credit bureau (El Ethiad) was launched in 2012, which should work towards the collection of credit information about individuals and legal entities with a view to helping both lenders to assess the credit worthiness of clients and borrowers to understand their own financial obligations and debt levels. Finally, the new federal SME law requires the Emirates Development Bank to earmark 10% of its lending for SMEs, although monitoring of this requirement calls for a unequivocal SME definition which is used by all federal and emirate-level government entities as well as by most commercial banks.

More generally, a unified definition of SMEs at the national level could also help the Central Bank to collect and publish regular statistics on SME lending (loan conditions, repayment rates, rejection rates, etc.), which would in turn improve credit market information and potentially reduce the SME lending risk perceived by banks. Normative solutions such as interest rate caps on bank loans and SME lending quotas are also possible policy options, although they will need to be closely monitored to ensure that unintended effects (*e.g.* surge of subprime loans) do not overshadow expected benefits (i.e. greater SME lending volumes).

Finally, additional policies which could be further explored to enhance access to finance, not only credit but also equity, would encompass legislation on new financing mechanisms such as crowdfunding, one or more credit guarantee schemes where banks should still carry part of the default risk, support of business angel networks (possibly aligned with the local business incubator policy) and direct subsidisation of commercial banks' interest rates which would also have the benefit to generate "bankable" SME clients.

Main policy recommendations

Some of the main policy recommendations to strengthen the entrepreneurial and SME ecosystem of Abu Dhabi are summarised below:

Box 1. **Main policy recommendations**

Policy framework

- Make collaboration among Abu Dhabi government entities with a say on entrepreneurship and SMEs more regular, for example through the establishment of a standing SME advisory committee which comprises focal points from different government departments to provide strategic advice on entrepreneurship and SME policy to the Executive Council, assess progress on existing policies and identify new policy needs in the local entrepreneurial ecosystem.
- Consider the formulation and formalisation of a comprehensive SME strategy which is informed by an analysis of existing strengths and weaknesses in the local SME ecosystem, identifies policy gaps and priority target groups, and formulates a comprehensive range of programmes which reflect the assessment done and is sufficiently tailored to priority target groups.
- Encourage federal and local statistical offices to collect information by enterprise size class, consistent with international definitions, to enable the local SME sector performance to be better benchmarked with other countries.
- Drop progressively the number of new public sector jobs and lower entry wage levels to increase the attractiveness of entrepreneurship as a career option. For example, the OECD average entry salary for a junior professional (i.e. USD 72 000 at PPP) increased by a certain percentage mark-up (*e.g.* 10-15%) could provide a first rough indication of lower but still reasonable public sector entry-level wages.
- As the local entrepreneurial ecosystem reaches more maturity, reduce the generosity of public support and give higher priority to full-time entrepreneurs rather than to those who keep a parallel job in the public or private sector.

Human Capital Development and innovation

- Scale up resources for the promotion of youth and female entrepreneurship to tackle high unemployment in the first group and low labour market participation in the second group. Especially relevant for women entrepreneurs will be new legislation on home-based business.
- Develop a national strategy to introduce entrepreneurship education at the primary, secondary and tertiary levels to instil entrepreneurial attitudes and skills among UAE nationals since early age. Make sure that entrepreneurship education is based on interactive and experiential teaching methods.
- Follow international best practices in the implementation of the R&D Council, including by awarding local and international collaborative research and fast-tracking research projects in areas of relevance to the economic diversification agenda of the Abu Dhabi Vision 2030.

Box 1. **Main policy recommendations** *(Continued)*

- Pull in world-class research staff not only by offering attractive salaries and cutting-edge research facilities but also by ensuring that researchers reap most of the economic benefits from research commercialisation.
- Further develop incubator activity, where enhanced incubator capacity is strongly linked both to funded R&D activity – to ensure deal flow – and to sources of risk capital to support enterprises' early-stage development (*e.g.* business angels).
- Develop intermediary organisations able to bridge gaps between universities and existing SMEs, for example by building a comprehensive database of commercially relevant research ongoing in Abu Dhabi and pooling university patents available for licensing by companies.
- Establish an Abu Dhabi Design Council to provide a lead body for the design and creative sectors and to support broadly based innovation. The R&D Council would play both a co-ordination and activating role, linking together existing initiatives to support design and creativity and potentially stimulating new initiatives.

Financing

- Consider restructuring the current enterprise financing offering of KFED, which is based on relatively standardised soft loans, along the threefold classification of social, intermediate and quasi-commercial SME financing, with differing terms and conditions in each case.
- Introduce a bankruptcy law which protects creditors' rights without discouraging entrepreneurship. This will involve clear rules for re-organisation plan and liquidation process of companies which file for bankruptcy.
- Pursue the creation of a registry of moveable assets to help the reduction of interest rates applied to SMEs, the rate reflecting the creditor risk perceived by lenders, and thereby increase SME lending volumes.
- Ensure that the new public credit bureau collects fulsome information on both individuals and legal entities, including debt of any size and regular payment of bills.
- Experiment with alternative approaches to SME financing such as loan interest rate rebates, crowdfunding legislation, credit guarantee schemes, and support of business angel groups to widen the scope of enterprise financing options available to local SMEs and entrepreneurs.
- Consider a ceiling to the maximum interest rates applicable by commercial banks, pegging it to the Central Bank's base interest rate.
- Consider SME lending quota requirements to banks where the majority shareholder is the government, but do this in compliance with Basel II legal framework and monitor that this policy does not lead to a steep increase of troubled loans.
- Introduce a unified definition of micro, small and medium enterprises, which will help banks to keep track of SME lending volumes. Collect, analyse and publish information on bank lending by business size class to monitor trends and progress in this area.

Chapter 1

Setting the context: the Emirate of Abu Dhabi in the United Arab Emirates

Introduction

This chapter sets the economic and institutional background of the Emirate of Abu Dhabi in the United Arab Emirates (UAE). Information is mostly presented at the level of the Emirate of Abu Dhabi although federal-level information is introduced when this affects entrepreneurship and SME development in Abu Dhabi (for example, the federal SME law) or when there is a lack of local data but it can be assumed that national data provides a reliable picture of the situation also in Abu Dhabi (for example, the average profile of the Emirati entrepreneur).

It should also be noted that individual emirates not only have significant autonomy, but can also propose new legislation to the federal government. This explains why some of the recommendations in report pertain to the sphere of the federal government; in this case, the Emirate of Abu Dhabi cannot introduce new legislation on its own but can bring forward ideas and legislative projects to the federal government.

The Emirate of Abu Dhabi in the United Arab Emirates (UAE)

Introduction to the UAE

The United Arab Emirates was formed in 1971 when the seven former Trucial states of Abu Dhabi, Dubai, Sharjah, Ajman, Umm Al Quwain, Ras Al Khaimah, and Fujairah merged into a federation under its new constitution. Before the discovery of oil, the economy was dependent on fishing and a declining pearl industry. However, with the exportation of oil, the country has rapidly transformed into a modern state with high standards of living, making the UAE one of the most important economic centres in the Middle East.

To ensure a sustainable economic future, the UAE has been working towards transitioning from an oil-based economy to a more diversified model. The diversification efforts over the last ten years have led to non-oil sectors contributing 69% of total GDP, and thus dropping the contribution of the oil sector to nearly one third. Major non-oil sectors in 2014 included tourism and hospitality, trade and services, aviation, banking and finance, manufacturing and real estate (including construction).

Under the UAE constitution, each emirate is governed by its own ruler and government structure and maintains a large degree of autonomy vis-à-vis the federal government. Unless otherwise stipulated in the constitution, each emirate exercises authority on judicial, economic, and political affairs while the federal government exercises power over foreign affairs, defence, health, education, and postal services. The structure of the UAE federal government includes the Federal Supreme Council of Rulers (FSC), which is comprised of the rulers of each Emirate. It is the highest constitutional, legislative, and executive authority in the UAE. The President of the UAE is His Highness (HH) Sheikh Khalifa bin Zayed Al Nayhan, who is also the Ruler of Abu Dhabi. The Vice President and Prime Minister of the UAE is HH Sheikh Mohammed bin Rashid Al Maktoum, who is also the Ruler of Dubai, as well as the Defence Minister of the UAE. Both the president and vice president are elected by the FSC among the seven FSC members. The FSC is supported by an appointed Council of Ministers and the Federal National Council (FNC), an advisory body comprised of 20 appointed members and 20 elected members.

In 2010, the *United Arab Emirates Vision 2021: United in Ambition and Determination* was launched to make the UAE among the best countries in the world to live, work, and do business. To translate the vision into reality, four pillars were identified and mapped to six national priorities (see Table 1). Transforming the economy into a competitive knowledge-based economy is one of the six priorities identified in the agenda; it places a strong emphasis on promoting innovation, research and development (R&D), strengthening the regulatory framework for key sectors, and encouraging high value-adding sectors. In addition, the agenda aims to make the UAE among the best countries in the world for entrepreneurship with UAE Nationals driving the force of economic development through small, medium enterprises (SMEs) and increased participation rates in the private sector.[2]

Table 1. **Overview of UAE Vision 2021**

PILLARS					
	United in Responsibility	United in Destiny	United in Knowledge	United in Prosperity	
NATIONAL PRIORITIES					
Cohesive Society & Preserved Identity	Safe Public & Fair Judiciairy	Competitive Knowledge Economy	First-Rate Education System	World-Class Healthcare	Sustainable Environment & Infrastructure

Source: UAE 2021 Vision.

Introduction to the Emirate of Abu Dhabi

The Emirate of Abu Dhabi is the federal capital of the UAE and currently holds 9% of the world's proven oil reserves and almost 5% of the world's proven supply of natural gas. At its current rate of production, it has been estimated that the Emirate has enough hydrocarbons to last ninety years (Davidson, 2009). As such, the Emirate is the wealthiest and financially dominant of the seven emirates, providing almost 75 % of federal revenues and grants to the smaller emirates (Ernst & Young, 2011).

Abu Dhabi is also the largest of the seven emirates, representing 87% of the UAE land mass. It is comprised of three regions: Abu Dhabi (city and surrounding suburban areas), Al Ain (Eastern Region), and Al Gharbia (Western Region). Of the three regions, Abu Dhabi region has the highest population density of 136 persons per square kilometre, followed by Al Ain (49) and Al Gharbia (9). Much of the development and major infrastructure projects are taking place in the Abu Dhabi Region with the capital city as the centre for most investment and non-oil economic activity. The city accommodates the headquarters of federal and local government entities, major corporations, United Nations agencies, as well as foreign embassies. Al Ain is known as the "Garden City" due to its greenery and oases and is also home to a number of historical and archaeological sites, and almost half of the emirate's farming industry.[3] Al Gharbia region, the largest of the three regions, but the least populated, houses much of the petroleum industry. Relative to Abu Dhabi, both Al Ain and Al Gharbia have low levels of non-oil economic output, and have faced challenges in attracting labour, businesses and financing into their strategic sectors (ADDED, 2013). As such, local disparities exist with regards to income levels, opportunities, and services within the Emirate of Abu Dhabi.

In 2012, the population in the Emirate of Abu Dhabi was approximately 2.3 million with expatriates comprising 80% of the total population; a common trend seen across the UAE. Since 2005, the population has been growing on average 7.5% per annum.

The three main pillars of the Abu Dhabi economy are oil and gas revenues, petrochemicals, and overseas oil-financed investments acquired through a number of sovereign wealth funds estimated to be worth over USD 1 trillion (Davidson, 2009). The Government has significant ownership of key sectors of the economy including oil and gas production, refining, the petrochemical industry, large scale manufacturing, energy and water production, telecommunications, and transportation. Its long-term diversification strategy is fuelled by massive investment in infrastructure encompassing road networks, seaports and airports (Ernst & Young, 2011).

Public Policy Making in Abu Dhabi

As previously mentioned, HH Sheikh Khalifa bin Zayed Al Nahyan is the Ruler of Abu Dhabi, and the President of the UAE. His brother, HH Sheikh Mohammed bin Zayed Al Nahyan is the Crown Prince of Abu Dhabi and Deputy Supreme Commander of the UAE Armed Forces. The Executive Council (EC) is the local executive authority responsible for assisting the Ruler in carrying out his duties through reviewing, recommending, and approving government sponsored plans, projects, and services across the Emirate. The EC also reviews and recommends laws and decrees before submitting them to the Ruler.[4] The Crown Prince chairs the EC whose members include heads of departments of Abu Dhabi Government entities (ADGEs), and members appointed by the ruler.

The decision-making process is supported by the EC's five committees including the Executive Committee and the four sub-committees: the Social Development Committee, the Economic Development Committee, the Infrastructure and Environment Committee, and the Security, Justice, Health, and Safety Committee. The Executive Committee is comprised of the chairman and heads of the aforementioned sub-committees (*i.e.* EC members), while the sub-committee members include EC members and senior officials of ADGEs (i.e. including non-EC members). Within their scope, the sub-committees review requests submitted by ADGEs and present their recommendations to the Executive Council.[5]

The coordination between the EC and government entities is carried out by the General Secretariat of the Executive Council (GSEC), which is the administrative body of the EC. The GSEC is entrusted with

supporting the policy-making process by preparing studies, reviewing policies, organizing meetings of the EC and its committees, managing requests of government entities, managing EC decisions, and issuing the Emirate's Official Gazette. Thus, policies approved by the government are coordinated through GSEC and implemented at the local level by ADGEs. GSEC also plays a key role in monitoring the performance and progress of the government's strategies and initiatives and coordinating amongst government entities to achieve the government's goals.

An economic overview of the Emirate of Abu Dhabi

This section provides a description of major trends and issues in the economy of the Emirate of Abu Dhabi.

GDP growth

In 2013, Abu Dhabi's GDP was AED 953 billion, growing by 4.8 % from 2012. On average, GDP has grown by 15.8% over the three years spanning 2011 to 2013. GDP is comprised of oil and non-oil activities, with oil taking the largest share at 55 % (AED 524 billion) and non-oil standing at 45% (AED 428 billion). Construction, manufacturing, financial and insurance, real estate, and public administration, defence, and social security contributed to the highest amount of non-oil activities respectively.

Table 2. **Abu Dhabi's GDP nominal growth, 2009-2013**

Year	**Non-oil** (AED billion)	**Oil** (AED billion)	**Total** (AED billion)	**Growth Rate**
2009	296	239	535	
2010	312	308	620	15%
2011	334	472	806	30%
2012	396	515	909	12.70%
2013	428	524	953	4.80%

Source: SCAD Statistical Yearbooks of Abu Dhabi

Trade & foreign direct investment

In 2013, exports were largely dominated by oil, gas, and oil products at AED 490.4 billion corresponding to 45.6 % of GDP. Non-oil exports and re-exports (through the ports of Abu Dhabi) were valued at AED 15.9 billion and 16.4 billion, equating to 1.7% and 1.6% of GDP respectively.

One the other hand, imports are valued at AED 118.9 billion (SCAD, 2014). This means that if the oil sector is taken into account, Abu Dhabi enjoys a very large trade surplus. However, excluding the oil sector, Abu Dhabi has a large trade deficit which reflects the still incipient stage of manufacturing development in the Emirate. At the same time, it should be noted that non-oil exports have more than doubled since 2008, recovering well from the slump of the 2008 global economic crisis. Similar trends have also been observed in the oil sector.

Table 3. **Abu Dhabi's export volumes, 2008-2103, and as a percentage of GDP, 2013**

Item	2008	2009	2010	2011	2012	2013
Total Exports (AED million)	372 844.90	214 827.20	300 707.90	445 533.90	481 611.60	522 904.80 **50.50%**
Oil, gas and oil products	360 350.90	196 632.2	278 105.40	422 488.90	451 455.00	490 460.10 **47.30%**
Non-oil Exports	6 252.00	9 500.80	11 610.90	11 478.00	15 411.60	15 996.10 **1.60%**
Re-exports through the Ports	6 242.00	8 694.20	10 991.70	11 567.00	14 745.00	16 448.60 **1.50%**

Source: SCAD Statistical Yearbooks of Abu Dhabi

Foreign direct investment (FDI) in 2012 was AED 60.8 billion and grew in nominal terms by 16.6% from 2011 to 2012. Real estate (23.4 AED billion) followed by manufacturing (11.5 AED billion); utilities and waste management (6.7 AED billion); mining and quarrying (6 billion AED, includes crude oil and natural gas); financial and insurance (5.8 billion AED); and construction (4.7 billion AED) received the uppermost FDI.

Table 4. **Abu Dhabi's Foreign Direct Investment flows, 2008-2012**

	2008	2009	2010	2011	2012
(AED million)	38 855	43 171	48 446	52 232	60 898

Source: SCAD Statistical Yearbooks of Abu Dhabi

Government fiscal accounts

The Abu Dhabi government's revenues and expenditures are only publically available in percentages. In 2013, 93% of its revenues were derived from petroleum royalties and tax revenue, followed by department collections at 6.1%, and capital revenue at 0.9%. From 2011 to 2013, there were minor fluctuations in these percentages.

The government's public expenditures are divided into two categories: current expenditures and capital expenditures. Current expenditures constituted 74.2% of total expenditures in 2013 with current transfers being the largest expenditure within this category at 52.6%, followed by salaries and wages (11.7%), and goods and services (9.9%). Since 2011, current expenditures on average have been increasing by 11%. Capital expenditures represented 25.8 % of total expenditures in 2013 and on average have been decreasing by 12% since 2011. Within this category of expenditures, capital transfers were the highest expenses at 18.7%, followed by development expenditures on government projects (6.6%), and capital expenditures on goods and services (0.4%). In the period 2011-2013, therefore, there has been a reduction in investment and an increase in state transfers, which is somewhat linked to the impact of the global recession also on the economy of Abu Dhabi.

Table 5. **Percentage Distribution of Public Expenditures in Abu Dhabi**

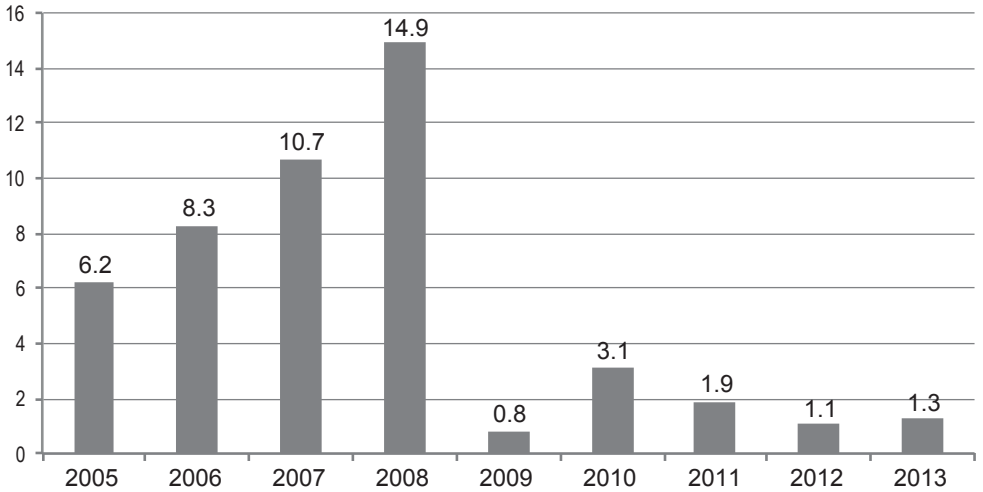
Expenditures	2011	2012	2013
Current expenditures	**60.3**	**67.4**	**74.2**
Salaries and wages	10.8	10.2	11.7
Goods and Services	4.4	8.9	9.9
Current transfers	44	48.2	52.6
Capital expenditures	**33.7**	**32.6**	**25.8**
Development expenditures on government projects	9.7	6.5	6.6
Capital expenditures on goods & services	0.7	1	0.4
Capital transfers	23.4	25.2	18.7

Source: SCAD Statistical Yearbook of Abu Dhabi (2014).

Inflation

Price inflation was very high in Abu Dhabi before the 2008 global economic crisis, reaching two-digit values in 2007 and 2008, but has since then subdued to levels in the range of 1-2% (with the exception of 2010).

Figure 1. **Inflation rates in Abu Dhabi, 2005-2013**



Source: SCAD Statistical Yearbook of Abu Dhabi (2014).

Interest rates

Interest rates are set at the national level and are the responsibility of the UAE central bank rather than of the government of Abu Dhabi. Nonetheless, they affect economic activity at the local level.

Since the Emirati dirham is pegged to the US dollar, interest rates in the UAE have been falling since 2008 when the global economic crisis pushed the US Federal Reserve to start lowering its central interest rates. Compared to other GCC countries, the UAE has the lowest interest rates averaging 1%, followed by Kuwait and Oman (2%), Bahrain (2.25%), and Qatar (4.5%).

Main economic sectors[6]

Sector data shows the preponderance of the oil sector in the economy of Abu Dhabi; more than half of local GDP comes from oil and gas-related activities. Other key drivers of the local economy are construction,

manufacturing, financial and insurance, and wholesale and retail trade, while other future relevant sectors for the local government's diversification strategy include petrochemicals, transportation and storage, ICT, and tourism.

Table 6. **Contribution to Abu Dhabi's GDP by main economic sector, 2010-2013**

	2010	2011	2012	2013
Oil and gas				
Share in GDP at current prices	49.1	56.9	56.7	54.6
Construction				
Share in GDP at current prices	12.9	9.9	9.1	9
Share in non-oil GDP at current prices	25.7	23.1	21.3	20
Manufacturing				
Share in GDP at current prices	5.6	5.7	5.3	5.7
Share in non-oil GDP at current prices	11.1	13.3	12.3	12.6
Finance and insurance				
Share in GDP at current prices	4.6	3.9	4.5	4.8
Share in non-oil GDP at current prices	9.1	9.1	10.4	10.7
Wholesale and retail trade				
Share in GDP at current prices	5.1	3.3	3.5	3.6
Share in non-oil GDP at current prices	…	…	8	8
Transportation and storage				
Share in GDP at current prices	3.3	3.5	3.5	3.7
Share in non-oil GDP at current prices	6.6	8.1	8.2	8.2
Information and comm. technologies				
Share in GDP at current prices	3	2.3	2.1	2.3
Share in non-oil GDP at current prices	5.9	5.3	4.8	5
Tourism				
Share in GDP at current prices	0.9	1	1	1
Share in non-oil GDP at current prices	…	…	…	…

Source: SCAD Industry reports 2010-2013. (values for 2013 are estimates)

Oil and Gas

The mining and quarrying sector (which includes oil and gas activities) represented over half of Abu Dhabi's GDP in 2013 at AED 523.8 billion. While the sector contributes the most to GDP, it only employs 2% of the population and represents 0.1% of businesses in the Emirate, which reflects the capital intensity of this sector.

Construction

The construction sector plays a key role in the economy, contributing 9.0% of GDP (AED 85.3 billion) and employing 40% of the total workforce (mainly migrant male labourers). Building permits statistics show that the majority of projects are taking place in Abu Dhabi (75%), followed by Al Ain (21%), and Al Gharbia (4%). In Abu Dhabi, much of the development (nearly 50%) is of residential nature, followed by public utilities (18%), commercial projects (14%), and industrial estates (7%). This explain how real estate accounted for 4.8% of GDP (AED 45.4 billion) in 2013, and was the favoured form of foreign investment reaching AED 23.4 billion in 2012.

The construction sector is large by international standards. This is the result of the government's vast urban and industry development plans outlined in the "Abu Dhabi 2030 Urban Structure Framework Plan" (published by the Abu Dhabi's Urban Planning Council), but it exposes the Emirate to the risk of a property bubble given that the largest majority of projects are of residential nature.

Manufacturing

The manufacturing sector accounts for 5.7% of total GDP (AED 54.2 billion) and employs 11% of the total workforce. This is low by international standards for a well-capitalized region, although nearly half of the manufacturing activity in terms of value-added was reported to be in the high-tech industry. Chemicals and plastics on their own, for example, already account for nearly 40% of the value added output in Abu Dhabi's manufacturing sector.

Manufacturing has been placed high in the diversification agenda of Abu Dhabi, which is demonstrated by the large public investments in manufacturing-oriented free zones such as ZonesCorp and Kizad. In particular, with its large reserves in natural gas and associated liquids, high-tech manufacturing in downstream chemicals and petrochemicals are target industries for the local government. Both are, indeed, considered sectors with high-skilled jobs and key to the future export performance of the Emirate.

Finance and insurance

The finance and insurance sector has experienced strong growth in Abu Dhabi over the past few years mainly due to the growth of Takaful or Islamic insurance. The sector contributed to 4.8% of GDP in 2013 (AED 45.7 billion) and was the fifth highest recipient of FDI (AED 5.8 billion) in 2012. The industry is considered a high-skill knowledge industry with high wages and accounted for 2% of the workforce.

Wholesale and retail trade

Wholesale and retail trade accounted for approximately 45% of the total number of businesses in the Emirate of Abu Dhabi, and 14 % of the total workforce in 2012, but only contributed 3.6% of GDP (AED 34.7 billion). General retail and trade shops are considered low in growth, skills, and technology, but are still the predominant choice of start-up in Abu Dhabi.

Transportation and storage

In line with its urban and economic development plans, the government of Abu Dhabi has invested heavily in the development of transport and storage infrastructure. Existing infrastructure is continuously being upgraded to better access global markets through improved land, water, and air transport, as well as warehousing and logistics. The ongoing investments contributed to 3.7% of GDP in 2013.

Information and telecommunications

Abu Dhabi is striving to achieve a knowledge-based economy by deploying advanced technologies throughout the Emirate. Fixed broadband subscribers per 100 inhabitants amounted to 12 in 2013, while the number of mobile phone subscriptions amounted to twice the size of the population. The sector contributes to 2.3% of total GDP.

Tourism

Tourism has been identified as an important development sector for diversifying the local economy. Recreational facilities have been built (*e.g.* the Formula 1 racetrack, Ferrari World, Yas Island attractions, etc.), but the Emirate also aims to make itself a cultural destination by attracting branches of internationally renowned museums such as the Guggenheim and the Louvre. Total revenues generated by the tourism sector were approximately AED 5.4 billion in 2013.

Employment by sector

Table 7 below provides information on employment by gender and sector in Abu Dhabi. Some of the most interesting facts can be summarised as follows:

- Nearly 60% of women are engaged in household activities. Combined with the very low female rate of labour market participation, this means that very few women in Abu Dhabi are active in the external labour market. Those who are employed out of their own household found occupation primarily in the public administration, education and health and social activities, all of which are to a large degree linked to the government.

- More than one quarter of the male workforce is in the construction sector, which confirms the weight of this industry in the Abu Dhabi economy. As mentioned, most construction workers are low-skilled migrant workers.
- Public Administration and household are main sectors of activity not only for female but also for male workers. Indeed, estimates suggest that more than 90% of UAE nationals are employed in the government or in government-related activities.
- In the private sector, manufacturing and wholesale and retail trade are the sectors which employ most workers, although gender gaps are relevant; only 0.8% of female workers are in manufacturing and 2.4% in wholesale and retail trade.

Table 7. **Sector distribution of employed population in Abu Dhabi, 2013**

Economic Activity	Males	Females	Total
Agriculture, forestry & fishing	5	0.1	4.3
Mining and quarrying	3.7	1.3	3.4
Manufacturing	9.9	0.8	8.6
Electricity, gas, steam & air conditioning supply	1.1	0.3	1
Water supply; sewerage, waste management & remediation activities	0.2	0.1	0.2
Construction	26.1	1.8	22.7
Wholesale & retail trade repair of motor vehicles and motorcycles	8.4	2.4	7.6
Transportation & storage	6	1.9	5.4
Accommodation & food service activities	5.5	3.7	5.2
Information & communication	0.9	0.8	0.9
Financial & insurance activities	1.5	2.5	1.6
Real estate activities	2.3	0.5	2
Professional, scientific & technical activities	2.9	0.9	2.6
Administrative & support service activities	5.7	1.2	5.1
Public administration & defense; compulsory social security	8.5	7.6	8.4
Education	1.4	7.7	2.3
Human health & social work activities	1.2	5.5	1.9
Arts, entertainment & recreation	0.3	0.3	0.3
Other service activities	0.4	0.4	0.4
Activities of households as employers undifferentiated goods & services	8.7	59.9	16
Activities of extraterritorial organizations & bodies	0	0.1	0
Not Stated	0.2	0.3	0.2
Total	**100**	**100**	**100**

Source: SCAD Statistical Yearbook (2014)

Box 2. **The dualism of the UAE labour market**

In a country such as the UAE where the current pace of economic growth cannot be met by the size of the local population, labour market policies are closely intertwined with migration policies and, therefore, an aspect which falls within the main responsibility of the federal government. Labour market policies in the UAE have recently had two main objectives: i) attracting foreign workers to fulfil gaps in the labour market across all spectrums of industry; ii) protecting jobs for UAE nationals through so-called Emiratization policies.

Studies on labour market policies in the UAE suggest that they undermine private-sector employment of UAE nationals in two ways: i) through open migration policies that provide easy access to cheap labour to the local private sector, and ii) through generous conditions (i.e. higher-than-market salaries, better job security, shorter working hours, etc.) in public employment for UAE citizens (Hertog, 2014). As a result, 95 % of the private-sector workforce is made up of expatriates while more than 90% of UAE nationals work in government or government-related activities. At the same time, it must be recognised that without a large inflow of migrant workers it would be hardly feasible for a country with a local population of only 1.4 million to meet the existing level of economic activity in sectors such as oil, finance, and construction.

Job security and high pay in the public sector increase the opportunity cost of entrepreneurship and thereby become major deterrents to entrepreneurial risk-taking. Indeed, there is evidence that 82.5% of Emirati entrepreneurs hold another full-time job, which suggests that they are not sufficiently motivated to leave a government job and that entrepreneurship by UAE nationals is mainly a part-time phenomenon (GEM, 2011).

Entrepreneurship and SME trends in Abu Dhabi

There is a lack of official data on the number of SMEs in Abu Dhabi and the UAE more in general. In fact, there is not either an official definition of SME which is adopted by all emirates in the federation. Some non-governmental estimates suggest that Abu Dhabi accounts for around 32% of the total SME population in the UAE, preceded by Dubai (45%) and well ahead of Sharjah (16%). The three largest emirates together, therefore, generate 93% of total SMEs in the UAE.[7]

Global Entrepreneurship Monitor data on entrepreneurial activity and attitudes

Global Entrepreneurship Monitor (GEM) data shows that only 3% of Emiratis are established business owners (2.7% for the whole population), while the Total Entrepreneurial Activity (TEA) rate – an indicator which measures nascent and early-stage entrepreneurial activity – supplies more cheerful figures, showing a rate of 9% for the Emiratis (something in between the highest and lowest values across the countries covered by the GEM analysis) but only 6.2% for the total population; the last figure is, however, affected by restrictions to business ownership for foreign residents in the UAE. Within the UAE, Abu Dhabi does better than Dubai both in the established business ownership rate and the TEA rate (respectively 5.3% vs. 3.3% and 11.1% vs. 10.2%), although the highest values for both rates are found in other emirates (*i.e.* Ras Al Khaimah for established businesses and Ajman for total early-stage entrepreneurial activity) (Zayed University, 2013). Quite a unique feature of the entrepreneurial ecosystem of Abu Dhabi is that 82.5% of Emirati entrepreneurs are not full-time business owners but rather share this activity with another occupation, usually in the government or state-owned enterprises (i.e. part-time entrepreneurship).

Part-time entrepreneurship is also the consequence of cultural issues. It has been reported in meetings with stakeholders that risk aversion is a major barrier to setting out a business in Abu Dhabi. For example, there is still a strong social stigma associated with business failure which makes people hesitant to "gamble" with a business venture; well-paid government jobs are available to Emiratis, who are often reluctant to forego a certain source of income; obtaining a bank loan is far easier for those who have a job than for those who only rely on a self-employment, which means in some cases personal loans are used for business purposes; and failing to pay back a loan can realistically lead to prison. These factors altogether are not supportive of entrepreneurship. GEM data, however, only partially supports this anecdotal evidence. In fact, "fear of failure" is perceived as a major barrier to starting a business by 40% of the Emiratis who otherwise see a market opportunity, which is a figure very much in line with the simple average for the 34 OECD countries (40%).

Box 3 below provides additional details on the profile of the Emirati entrepreneur, based on GEM information analysed by Zayed University.

Box 3. **The profile of the Emirati entrepreneur**

In a recent report Zayed University extracted some key conclusions about the profile of the Emirati entrepreneur across the entire UAE (Zayed University, 2013). Given the weight of Abu Dhabi in the overall population of the UAE, it can be assumed that most of these features will also be valid for Abu Dhabi-based Emirati entrepreneurs.

Emirati entrepreneurs present the following main features in the UAE:

- They are predominately male aged 25 to 34, hold a post-secondary education, earn a monthly income level above AED 20 000 (i.e. approx. USD 5 000) and are from a household of 1 to 2. Emirati entrepreneurs seek advice mostly from family (76.7%) and friends (82.8%) in their personal networks, while professional advisory networks such as bankers (10%) and lawyers (10%) are among the least consulted. This suggests that UAE entrepreneurship primarily involves small-scale activities.
- Emiratis have positive attitudes towards entrepreneurship, with nearly nine in ten perceiving there is adequate media attention on entrepreneurship, and four in five perceiving entrepreneurship as a good career choice. However, only one out of every twenty is actively involved in startup efforts. There is therefore a gap between the way entrepreneurship is perceived in society and the extent to which society is really ready to engage in it.
- Among the reasons why Emirati entrepreneurs close their business, non-profitability and financing issues ranked on top (39.4 % and 19.5 %). Interestingly, 51% of women remarked "personal reasons" compared to only 15 % of men, while only 24% of female entrepreneurs cited non-profitability compared to 44 % of men. This suggests that profitability may well not be the main driver of female entrepreneurship in the UAE and that women face more social barriers in setting out a business activity than men due the main role they play in the management of the household.

The same report finds the following main barriers preventing higher entrepreneurship rates in the UAE:

- Cultural Barriers: Negative attitudes towards business failure in the society are an obstacle to higher start-up rates among UAE nationals; slightly more one in three Emiratis surveyed indicated that fear of failure would prevent them from starting a business, although this is in line with OECD average figures.
- Educational Barriers: Many Emiratis (60.6%) see good opportunities to start a new venture in the next six months, but only 50% of them believed to have the necessary skills and knowledge necessary to start their own business, which was the lowest amongst all nationality groups.
- Internationalization Barriers: Only 4% of Emirati-owned SMEs export 75% or more of their goods and services compared to 14% of all SMEs in the UAE. The low percentage of Emirati entrepreneurs operating internationally indicates that they need support in networking and tapping into the unique opportunities offered by international markets.

Box 3. **The profile of the Emirati entrepreneur** *(Continued)*

- Innovation Barriers: Emirati entrepreneurs have minimal involvement in the high-tech sector, possibly a result of even higher degree of risk involved in technological innovation. The survey found that 100 % of new businesses run by UAE nationals are in no or low-tech areas.
- Financial barriers: Getting a business loan from a bank is challenging for Emirati entrepreneurs. Indeed, if an entrepreneur has a stable salary from being employed elsewhere, it is much easier to obtain a personal loan with a bank rather than a small business loan. This may explain why so much entrepreneurship in the UAE is part-time-based.

Source: Zayed University (2013), *Entrepreneurship: An Emirati Perspective*, Abu Dhabi.

Trends in business licenses

Business licenses do not correspond to the precise number of firms in Abu Dhabi, since one single firm and individuals can hold more than one license. Nonetheless, they provide some proxy for business dynamics in Abu Dhabi over the last years since a business license is needed and needs to be renewed every year to do business in the Emirate.

In 2013 there were approximately 77 200 business licenses operating in Abu Dhabi. Table 8 shows that the number of operating business licenses (i.e. renewed + new – cancelled business licenses) has decreased over the period 2009-2013 by 7.6% overall, with the strongest drop in 2012 close to the years of the global economic crisis. In a similar vein, over the same time period, annual new business licenses (i.e. a proxy for start-up rates) have declined considerably, reaching a low of less than 8 000 in 2012. However, there were some signs of recovery as early as 2013 both in the number of new business licenses (i.e. entrepreneurial activity) and total operating business licenses, which respectively experienced a growth rate of 12.6% and 7.1% on year-to-year basis.

In 2012, the latest year for which data is available, there were 77 203 operating business licenses in Abu Dhabi for a working population of 1.9 million. This gives a business density of 41 licenses per thousand people, which is low by international standards and more typical of countries whose economy is dominated by large companies and where business ownership is not widespread.[8]

Table 8. **Trends in business licenses in Abu Dhabi, 2009-2013**

Indicators	2009	2010	2011	2012	2013
Number of registered new business licenses	10 333	9 023	8 539	7 689	8 657
Growth rate in new business licenses		*-12.7*	*-5.4*	*-10*	*12.6*
Number of renewed business licenses	74 815	67 821	68 043	66 906	70 891
Number of cancelled business licenses	1 583	2 268	2 550	2 477	2 345
Number of operating business licenses	83 565	74 576	74 032	72 118	77 203
Growth rate in operating business licenses		*-10.8*	*-0.7*	*-2.6*	*7.1*

Source: SCAD Industry Report (2013).

Concerning the type of businesses prevailing in Abu Dhabi, ADDED data from 2012 reveals that sole proprietorship is the most popular choice especially in the two peripheral regions of Al Ain and Al Gharbia where micro-enterprises are more prevailing than in the centre represented by the city of Abu Dhabi (Table 9).

Table 9. **Types of Business Establishments in the Emirate of Abu Dhabi, 2012**

	Sole Proprietor	Ltd. Company	Foreign branch	Other
Abu Dhabi	44%	34%	6%	15%
Al Ain	69%	21%	1%	9%
Al Gharbia	74%	22%	1%	3%

Source: ADDED "Abu Dhabi Competitiveness Report: Improving the Competitiveness of the Emirate of Abu Dhabi," (2013)

Average enterprise size by sector in Abu Dhabi

As part of an annual economic survey in 2010 in Abu Dhabi, Statistics Centre-Abu Dhabi (SCAD) estimated that 76% of enterprises in Abu Dhabi were comprised of small enterprises (1 to 19 employees), 20 % were medium enterprises (20-49 employees), and the remaining 4% were large enterprises (more than 50 employees). The survey, therefore, adopted an SME definition of up to 50 employees. However, it should be noted that results are from a household survey based on household units; this implies that not all economic activities are captured by the survey.

Table 10. **Average enterprise size by sector in Abu Dhabi, 2012**

Categories (contribution to GDP)	Economic Activity	N. of establish-ment	N. of employees	Average est. size
Industry (64.8%)	Mining and quarrying	53	29 924	565
	Manufacturing	6 595	166 651	25
	Production and distribution of electricity and water, sewage and waste	62	13 123	212
Construction (9.1%)	Construction of buildings	1 498	311 319	208
	Civil engineering	224	118 375	528
	Specialized construction activities	2 684	137 810	51
Wholesale & Retail Trade (3.50%)	Wholesale and retail trade and repair of motor vehicles and motorcycles	5 302	36 953	7
	Wholesale trade, except of motor vehicles and motorcycles	1 221	22 771	19
	Retail trade, except of motor vehicles and motorcycles	14 178	147 224	10
Transportation & Storage Supplies (3.50%)	Land transport and transport via pipelines	513	42 327	83
	Water transport	14	2 778	198
	Air transport	8	12 597	1575
	Warehousing and support activities for transportation	276	16 916	61
	Postal and courier activities	14	1 911	137
Information & Telecommunications (2.10%)	Publishing activities, motion picture, video and television program production, etc.	55	3 722	68
	Telecommunications	172	5 028	29
	Computer programming, consultancy and related activities	57	3 816	67
	Information service activities	13	65	5
Banks & Financial Institutions (4.50%)	Financial service activities, except insurance and pension funding	136	17 978	132
	Insurance, reinsurance and pension funding, except compulsory social security	35	3 961	113
	Activities auxiliary to financial service and insurance activities	128	8 029	63
Services (10.90%)	Accommodation and food service activities	3 082	98 786	32
	Real estate activities	514	6 446	13
	Professional, scientific and technical activities	1 774	58 254	33
	Administrative and support service activities	1 650	122 572	74
	Education	393	26 741	68
	Human health and social work activities	475	34 344	72
	Arts, entertainment and recreation	452	6 461	14
	Other service activities	4 556	21 733	5
Total		**46 134**	**1 478 615**	**32**

Source: SCAD Statistical Yearbook, 2014

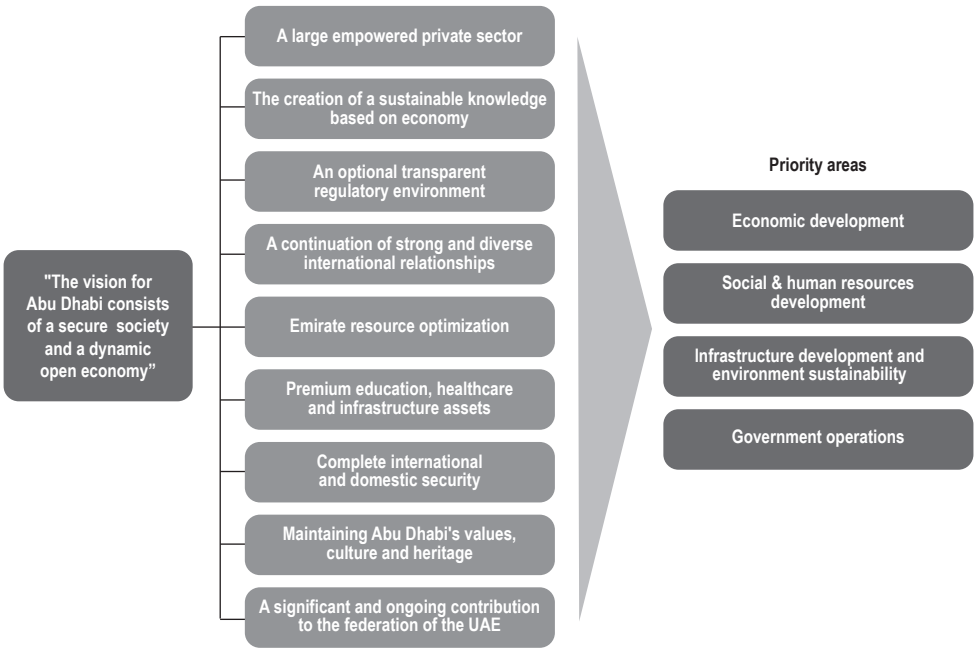
Table 10 provides a very simple analysis of the average enterprise size in Abu Dhabi by economic sector. It shows that in most sectors this is bigger than what was considered an SME by the survey. Exceptions are general services, retail and wholesale trade, manufacturing, telecommunications, accommodation and food services and professional activities where the prevailing type of business appear to be an SME (less than 50 employees).

SME and entrepreneurship policies in Abu Dhabi

The Abu Dhabi Economic Vision 2030 and the 2007-2008 Abu Dhabi Policy Agenda

The SMEE policy landscape in Abu Dhabi is underpinned by the *2007 – 2008 Abu Dhabi Policy Agenda and Abu Dhabi Economic Vision 2030*, both of which guide Abu Dhabi in fulfilling its role in the *UAE Vision 2021*. Both policy documents outline the Abu Dhabi government's plans to move from a resource-based to a knowledge-based economy by leveraging its current wealth to build a more sustainable, diversified, high-value added economy.

Figure 2. **Pillars of Abu Dhabi Policy Agenda Vision**



Source: The 2007 – 2008 Abu Dhabi Policy Agenda

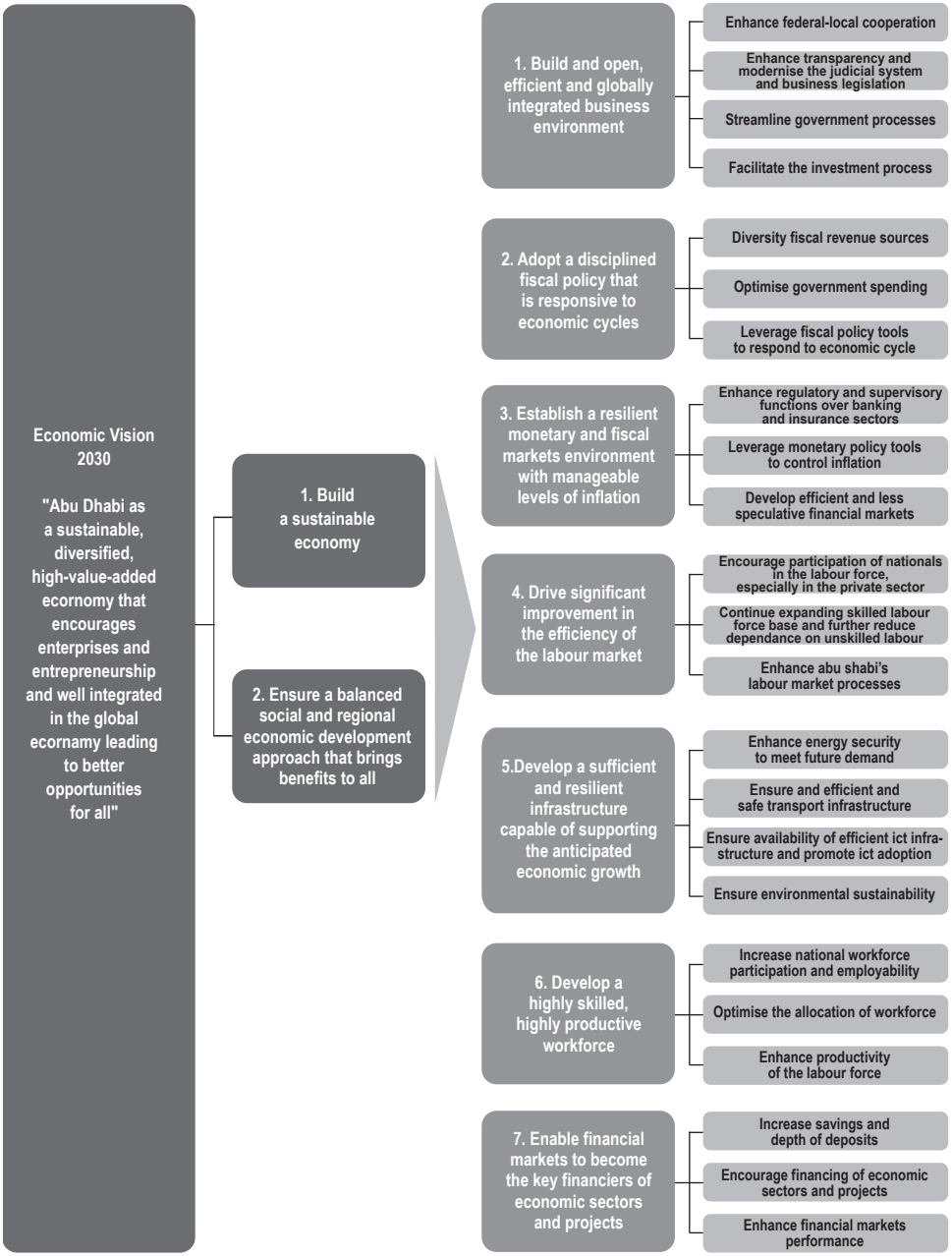
The *2007 – 2008 Abu Dhabi Policy Agenda* was created to ensure the realization of the *Abu Dhabi Vision*: "To continue to create a confident, secure society and to build a sustainable, open and globally competitive economy." The figure below summarizes the nine pillars and four priority areas identified to form the architecture of the Emirate's social, political, and economic future.

Based on the principles in the *2007 – 2008 Abu Dhabi Policy Agenda*, the *Abu Dhabi Economic Vision 2030* was developed to serve as the roadmap for the Emirate's economic progress. A taskforce comprised of stakeholders from the public and private sector was established to develop the vision and was mandated with two tasks: (1) Conduct an exhaustive assessment of the key enablers for economic growth; (2) Create a comprehensive long-term economic vision, with explicit targets to guide the evolution of the Abu Dhabi economy through to the year 2030. Guided by these principles, the taskforce developed the following *Abu Dhabi Economic Vision*, "Abu Dhabi as a sustainable, diversified, high value-added economy that encourages enterprises and entrepreneurship and integration in the global economy leading to better opportunities for all," along with two priority policies, seven policy focus areas, and 23 objectives, which are summarized in the figure below.

Thus, the core of the *Abu Dhabi Economic Vision* is to sustainably develop the economy through diversification to enable economic stability and distribution through key sectors and sound government policies. To this end, with economic diversification as a key objective of the Vision, regional and global focused sectors were selected as the Emirate's engines of economic growth. The global focused sectors are those wherein local policy makers believe Abu Dhabi to have a competitive advantage and to be able to build on its current strengths, while the regional focused sectors are those where policy makers believe Abu Dhabi has growth potential. Combined together, these sectors are planned to grow at an aggregate annual rate of 7.5%.[9]

Aiding in the development of these focused sectors are other domestic industries which act as "enabling sectors." These include construction and engineering, machinery, electrical equipment, construction materials, and food and beverage. These enabling sectors were selected for their potential to provide long-term sustainable growth and diversification.

Figure 3. **Abu Dhabi Economic Vision 2030**

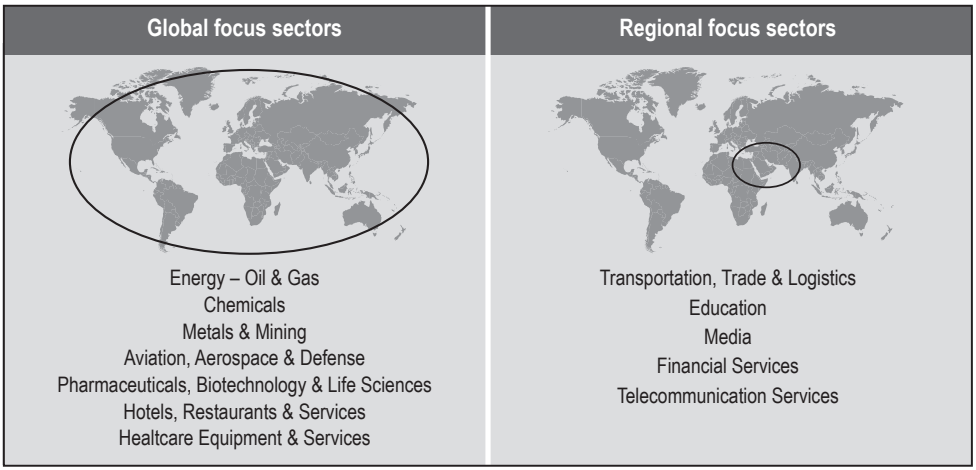


Source: The Government of Abu Dhabi (2008), *The Abu Dhabi Economic Vision 2030*, Abu Dhabi.

To achieve its goals, the Abu Dhabi Government has laid out the following main targets:

- Economic growth on average will grow through 2015 at 7%, and 6% thereafter;
- Equilibrium in the trade balance, excluding the oil sector, will be reached by 2028;
- Fiscal deficit, net of oil revenues, will fall significantly over the target period.
- Policies that keep inflation in check will be developed;
- National unemployment rates will be reduced to 5%;
- GDP will increase by more than five times by 2030.

Figure 4. **Global and Regional Focus Sectors**



Source: The Government of Abu Dhabi (2008), *The Abu Dhabi Economic Vision 2030*, Abu Dhabi.

Abu Dhabi's business licenses and free zones

In Abu Dhabi, there are various business licenses available to investors and the process is governed by Law No. 2009 "Concerning the Issuance of Licenses in the Emirate of Abu Dhabi," which stipulates that neither a person nor a legal entity is permitted to engage in any economic activity without first obtaining a relevant license from the concerned authority and fulfilling the legal requirements applicable to practice of that particular activity. The main types of licenses and the issuing authorities are summarized in the table 11.

The types of company formations available in Abu Dhabi are in line with the Federal Company Law. These include establishments (i.e. sole proprietors), limited liability companies, partnership companies, joint stock companies, and a branch of a foreign company. In most cases, all categories require 51% ownership of an Emirati national or legal entity.

Branches of foreign companies or free zone companies wanting to do business in Abu Dhabi (i.e. on-shore not in a free zone) must have a UAE national or a company wholly owned by UAE nationals as its service agent, who should preferably be a resident of Abu Dhabi. Foreign companies, who do not wish to set up a branch, but would like to conduct business in Abu Dhabi have the option to enter into a commercial agency agreement with a national service agent. The rules, requirements, conditions and fees of setting up a business vary based on the type and nature of activity.

Table 11. **Types of business licenses in Abu Dhabi**

Type of license	Description	Issuing entity
Commercial License	Owners of companies or establishments practicing business activities (*e.g.* general trading, construction, real estate, transportation, clinic, etc.).	Abu Dhabi Department of Economic Development (ADDED)
Agricultural License	Owners of agricultural farms or makers of animal and marine products.	Abu Dhabi Department of Economic Development (ADDED)
Professional License	Individuals who practice a profession or craft that uses physical effort and/or tools and equipment. (*e.g.* carpenter, mason, welder)	Abu Dhabi Department of Economic Development (ADDED)
Occupational License	Individuals who practice a profession that utilizes intellectual abilities and talents (*e.g.* consultant, writer, lawyer, auditor, etc.)	Abu Dhabi Department of Economic Development (ADDED)
Tourism Licence	Owners of facilities and services that are specialised in tourism activities (*e.g.* hotel, travel agency, boat rental firm, etc.).	Abu Dhabi Tourism & Culture Authority (ADTCA)
Industrial Licence	Owners of manufacturing factories	Industrial Development Bureau (IDB)
Masdar Operating License	Masdar, the Abu Dhabi Future Energy Company, offers various licensing segments related to renewable energy and business support.	Masdar (free zone authority)
Media Operating License	Twofour54 is a free zone specializing in the development of Arabic media and entertainment content.	Media Zone Authority (free zone authority)

Source: Abu Dhabi government website (2015). Accessed at *https://www.abudhabi.ae/portal/public/en/homepage?_adf.ctrl-state=18anvl7qb3_4&_afrLoop=1058870835412750*;
Twofour54 website (2015). Accessed at *http://twofour54.com/en/segment/about-twofour54*;
Masdar website (2015). Accessed at *http://www.masdarcityfreezone.com/setting-up/licensing-packages*

Table 12. **Free zones in Abu Dhabi**

Name	Description
Khalifa Industrial Zone Abu Dhabi (Kizad)	Kizad is an industrial hub for manufacturing, logistics and trade across a number of sectors. It offers competitive utility rates, vertically integrated clusters, competitive leasing, and world class transportation infrastructure including sea, air, road and rail networks.
TwoFour54	Twofour54 was set up as a media free zone in Abu Dhabi to position the Emirate as a leading player in the Arabic media content creation industry. It has a fund, incubator and production facility to support businesses.
Masdar City	Masdar City, the flagship project of Abu Dhabi Future Energy Company (Masdar), offers various licenses and has a focus on clean technology and renewable energy.
The Abu Dhabi Airport Free Zone	The Abu Dhabi Airport Free Zone offers facilities and infrastructure such as commercial offices, plots of land for development, warehousing units and logistic services. It mainly targets aviation, aerospace, airport services, logistics, cargo, and freight sectors.
ZonesCorps	ZonesCorps is responsible for the establishment, management and operation of specialized economic zones in Abu Dhabi. With a focus on increasing the SME sector, it is committed to the development of industrial infrastructure in the capital. To date, it has established four zones including the following: • ICAD I is focused on heavy-to-medium manufacturing, engineering and processing industries, including metal products, construction materials, fiberglass and plastics assembly. • ICAD II is focused on light-to-medium manufacturing, engineering and processing industries, including wood processing, engineering, oil and gas, construction materials, and chemicals. • ICAD III is focused on light-to-medium engineering and processing businesses with an international focus. Wood processing and engineering, chemicals and plastics, construction materials, high-tech industries, food and textiles are the key target sectors for this zone. • Al Ain Industrial City (I and II) is a multi-use development with a priority focus on SMEs in the light-to-medium manufacturing, engineering and processing industries, including wood, engineering, chemicals and plastics, construction materials, food and textiles.
Abu Dhabi Global Market	The Abu Dhabi Global Market is the financial free zone in the Emirate. The authority will establish a regulator, registrar, and courts similar to what the Dubai International Financial District (DIFC) offers.

Source: Abu Dhabi government website. *https://www.abudhabi.ae/portal/public/en/gen_info_detail?docName=ADEGP_DF_131542_EN&_adf.ctrl-state=2ih4skqa8_4&_afrLoop=2806707666967876*; Kizad website (2015). Accessed at *http://kizad.com/en/section/free-zone*; ZonesCorp website. Accessed at *http://www.zonescorp.com/En/Pages/default.aspx*; Gregor Stuart Hunter, "New Financial Free Zone for Abu Dhabi on Al Maryah," (April 24, 2013). Accessed at *http://www.thenational.ae/business/industry-insights/economics/new-financial-free-zone-for-abu-dhabi-on-al-maryah#ixzz3lvlZ2VEp*

Box 4. **The federal SME Law**

In April 2014, to encourage the development of the SME sector, the federal government introduced a new Law (No.2) ("SME Law") that seeks to support SMEs wholly owned by UAE nationals and registered with the new federal SME Programme. Certain details of the law such as the SME definition and the establishment of a governing body, the SME Council, have not been finalized. Once finalized, the Cabinet will issue two resolutions in this regard.

The need for a SME definition is long overdue, and while this is a step in the right direction for the federal government, the Emirates of Dubai and Abu Dhabi have meanwhile adopted their own SME definitions. The Abu Dhabi definition of an SME was issued by a decree on 30 June 2013 and defines micro and SMEs by the number of employees in each firm where:[10] micro, less than 5; small, between 5 and 19; medium, between 20 and 49; and large, more than 50.

To further support SMEs, the SME law also foresees the following incentives and benefits for participants in the national SME programme:

- Financing for SMEs: The Emirates Development Bank, a governing body established in 2011 with AED 10 billion of capital to promote economic growth, is planning to develop SME financing under the new SME Law. The SME Law places an obligation on the Emirates Development Bank to ensure that at least 10% of its annual financing is allocated to SMEs. The UAE Central Bank will issue further regulations on SME financing to encourage more lending by commercial banks.
- Public Procurement: Federal authorities must contract at least 10% of their procurement budget for purchasing, servicing, and consulting to SMEs. In addition, state-owned enterprises where the federal government holds stakes of more than 25% must ensure at least 5% of their contracts for local SMEs.
- Exemptions and Grants: The SME law grants exemptions from customs tax for equipment, raw materials, and goods for productions, and the payment of bank guarantees that companies must pay for each new worker. SMEs will also benefit from land grants for industrial or agricultural purposes.
- Exhibitions: SME Participants will have opportunities to market their products globally through partaking in exhibitions around the world.
- Innovation: The SME law also grants benefits to inventors, patent owners, and companies that invest in R&D.
- Receipt of Combined Benefits: SME participants are not limited to one SME programme, and may receive combined benefits from both federal and local government programmes, as well as from the private sector.
- Other incentives: these include credit and funding facilitation, support with marketing, and reduced licensing procedures and costs.

Foreign investors seeking 100 % ownership have the option to establish a company in a free zone. The free zones in Abu Dhabi are designed around clusters that encompass logistics, media, and light, medium and heavy industries.

Businesses in Abu Dhabi are also affected by federal legislation. Annex 3 in the report presents a table with summary information on the main federal policies which affect doing business in Abu Dhabi as much as in the other emirates. The box below, on the other hand, sums up the main points of the federal SME law, a new piece of legislation which intends to actively promote SME and entrepreneurship across the whole UAE.

Thematic policy areas

This section describes policy developments in three key policy areas of relevance to entrepreneurship and SME development – human capital development, innovation and access to finance – in Abu Dhabi and which are taken up through a more detailed assessment in the thematic chapters of this report.

Human capital development

Trends in tertiary education

One important trend in tertiary education has been growing collaboration with industry. There are several examples in place; some of the most relevant are highlighted in box 5.

Trends in vocational education and training (VET)

Vocational training is seen as a major contributor to the Emirate's diversification strategy, as industries require a technically skilled labour force to move up the value chain. Licensing of technical and vocational training institutes and centres is overseen by the Abu Dhabi Centre for Technical and Vocational Educational Training (ACTVET). Under its umbrella, the Abu Dhabi Vocational Education and Training Institute (ADVETI) manages seven vocational entities which cover fields such as IT networking and multimedia, human resource management, accounting, process automation, etc. ACTVET also oversees the Institute of Applied Technology (IAT), which focuses on aviation, logistics, and nursing. Other entities include the Abu Dhabi Polytechnic, Applied Technology High School, and the Fatima College of Health Sciences.

Box 5. **Main examples of industry-university collaboration in Abu Dhabi**

Masdar Institute of Science and Technology

The collaboration between Massachusetts Institute for Technology (MIT) and Masdar (a subsidiary of Mubadala) led to the development of the Masdar Institute of Science and Technology, which offers two year Master programs with a focus on renewable energy. The collaboration has also resulted in industry-university collaborative research, as shown by the establishment of a number of research centres. Examples include:

- The Sustainable Bioenergy Research Consortium (SBRC) is a non-profit consortium, with Boeing, Etihad and UOP Honeywell as founding members. SBRC is focused on the joint research and advancement of sustainable aviation biofuels.
- The ATIC-SRC Centre of Excellence for Energy Efficient Electronic Systems (ACE4S) was established through a partnership between the Advanced Technology Investment Company (subsidiary of Mubadala) and the Semiconductor Research Corporation and is jointly hosted in Abu Dhabi by the Masdar Institute and the Khalifa University of Science, Technology and Research (KUSTAR). The center's research is focused on energy-efficient wireless sensors and making advances in sensor technologies, power management, energy harvesting, and wireless communications circuits.
- The Research Centre for Renewable Energy Mapping and Assessment (ReCREMA) was established to support the International Renewable Energy Agency (IRENA) in its advancement of a publicly-accessible atlas of solar and wind resources for developing countries. The centre is supported through a number of local and international partners such as IRENA, the UAE National Center of Meteorology and Seismology (NCMS), Total Energy (France) and ParisTech (France).

Aerospace Research and Innovation Center (ARIC)

The Aerospace Research and Innovation Center (ARIC) at the Khalifa University of Science Technology and Research (KUSTAR) was established in partnership with Mubadala Aerospace to undertake cutting-edge research in aerospace engineering. The centre focuses on manufacturing, mainly characterizing the properties of new lightweight materials and structures for use in advanced aerospace applications. The centre also collaborates with other leading companies in the UAE to help them to design and manufacture the next generation of high-performance aerospace structures.

Petroleum Institute

The Petroleum Institute is a collaborative project between the Abu Dhabi National Oil Company (ADNOC) and Colorado School of Mines, and is supported by a number of international corporations such as Shell, British Petroleum, Japan Oil Development Company, and Total. It is a collaborative undertaking between industry and academia that brings world-class engineering education and research to the energy industry.

In addition, the Abu Dhabi Tawteen Council (i.e. the local employment agency) has a number of partnerships with universities and the private sector to offer courses, vocational training, and job placements.

While there is a growing offer of vocational training with various technical institutes opening across the emirates, there is still a general lack of interest amongst UAE nationals with only 3 % of post-secondary graduates pursuing vocational training. This is believed to be largely the consequence of the stigma attached to vocational training where this is seen as an alternative for individuals who were unsuccessful in gaining admission into university.[11] However, with the new flexibility provisions in place that allow students to transfer from a vocational school to university (after retaking and passing pre-university exams), more students may consider a vocational institute knowing they can still pursue a university degree at a later stage (Oxford Business Group, 2013).

Box 6. **The work of the Tawteen Council in the area of VET**

The Tawteen Council has set up the following collaborations in the area of VET:

- The Trucks/Heavy Vehicles Driving License Programme with the Emirates Driving Teaching Company;
- The Technical Assistance Diploma Program with Total Abu Dhabi Bukhush Academy; it allows graduates to work in the marine oil sector;
- The Technical Diploma in Electrical Engineering Programme with ADNOC; it trains students in the fields of power generation, distribution, and electrical machines;
- The National Marine Dredging Programme with the National Marine Dredging Company; it targets individuals without a high school diploma to study and complete their diploma through this programme which provides specialized skills in the field of offshore drilling;
- The Technical Programme in Power Field; it trains students in the field of electric power and provides graduates with a Higher Technical Colleges Diploma in Electrical Engineering;
- The "Towards a Healthy Future by Emirati Hands" Programme; it provides those with a high school diploma the opportunity to study different medical specializations such as nursing, pharmacy, radiology, physiotherapy, and first aid;
- The Tasaheel Programme with the Ministry of Labour; it trains individuals to work as a customer service clerk.

Trends in entrepreneurship education

The Abu Dhabi Educational Council has developed a new curriculum entitled the "New School Model" for public schools that focuses on building the 21st-century skills needed to foster innovation. These skills include critical thinking, creativity, communication, and collaboration, all of which are key to entrepreneurship development in the young generations (Dutta *et al.*, 2014).

At the same time, specific entrepreneurship teaching is neither required nor promoted in the curriculum of secondary and post-secondary education (GEM, 2011). Nonetheless, some ad-hoc entrepreneurship educational programs are available in Abu Dhabi, among which:

- INJAZ-UAE provides entrepreneurship educational programs to youth. Through their programs, they connect corporate volunteers to mentor youth (ages 11-24) at various educational levels through interactive, impactful and practical mentoring sessions. To date, INJAZ-UAE has reached over 15 000 students since 2005, through more than 1 500 volunteers at more than 43 schools and universities. They have been actively involved in encouraging creativity, innovation and promoting entrepreneurial and employability skills amongst the youth of the UAE (GEM, 2011).
- The UAE Academy, in partnership with Abu Dhabi Education Council and Babson College, opened Abu Dhabi School of Management (ADSM), the first college specialized in entrepreneurship education in the region. ADSM offers undergraduate and postgraduate programs in entrepreneurship and healthcare, and heritage and cultural facilities management.
- New York University Abu Dhabi provides Leadership and Social Entrepreneurship as a pre-professional course, which are designed for students to study the dynamics of social innovation, organizational change, and transformative leadership with a particular focus on the not-for-profit and government sectors.
- Abu Dhabi University Innovation and Entrepreneurship Centre was established to support innovation and entrepreneurship through academic programs, public seminars and workshops on entrepreneurship, leadership, and innovation. It is also a local CISCO Entrepreneur Institute Centre, which provides online training on starting and running a business. The centre has trained around 100 entrepreneurs to date.

- The Khalifa Fund for Enterprise Development also supports entrepreneurship training in the young population primarily through partnerships with other government entities. For example, KFED supports the Abu Dhabi Council on Economic Development (ADCED) in the implementation of "Akoun", which raise awareness about entrepreneurial careers in university students through workshops and a business idea competition.

Innovative entrepreneurship and SME innovation

Innovation trends in Abu Dhabi

The *Abu Dhabi Innovation Index*, a report prepared by the Abu Dhabi Department of Economic Development (ADDED) in collaboration with the INSEAD Innovation and Policy Initiative and SCAD, provides a detailed assessment of the Emirate's innovation capabilities and performance by comparing its results to a selected group of 22 natural resource-rich economies (NREs). The report also includes results of the *Abu Dhabi Innovation Survey*, which explored innovation activities of 532 Abu Dhabi firms from 2008-2011 operating in manufacturing; construction; transport; ICT; financial and insurance; and professional, scientific, and technical activities.[12]

The main findings of the report are the following (ADDED, 2014):

- Abu Dhabi is highly efficient in adopting and diffusing new knowledge, technology, products and services across its economy; however, if the Emirate is to build an economically significant and sustainable knowledge-driven economy, it must evolve and grow its capacity to create and develop new innovations;
- Nearly 39% of surveyed Abu Dhabi firms introduced a new or significantly improved product, 21% introduced a new good, and 33% introduced a new service. These are high proportions by international standards, although they are influenced by the dominance of large enterprises (more than 250 employees) in the economy.
- Abu Dhabi firms undertook more innovation in processes (59.4%) than products (38.5%). Forty-one percent of the product innovations were new to the UAE market, and 16% were novel internationally;
- "Innovation by adoption" was the most common mean of accessing new knowledge and technology, primarily through the acquisition of other business units;

- Suppliers and customers are the most important channels firms have in identifying or learning about new products; this suggests the importance for local companies to tap into global supply chains.
- Firms that invested in innovation spent approximately 3.2% of annual turnover, which is on par with Nordic countries (ranked high on the index), and ahead of most European countries. However, acquisition of machinery, equipment, and software (39%) topped innovation-related expenditure of firms compared to Nordic countries which spend the bulk of their innovation expenditure on R&D.
- Nearly 36% of innovating firms have cooperated with other parties to introduce new products or processes; this is line with OECD average values (36%) and signals that knowledge exchange is taking place within Abu Dhabi's innovation system. Fifty percent of cooperating firms reported internal cooperation (i.e. partnership with another business entity within the same enterprise group). With regards to external partners, suppliers are the most important partners across all sectors surveyed, followed by government or public research institutes, and universities or other HEIs. The share of firms that cooperate with universities is much lower and below the average of the European Union.
- Government departments and agencies as innovation customers have been the main driver of demand for innovation in the Emirate of Abu Dhabi. Main sectors of demand for innovation include construction, oil and gas, public services and government procurement, while tourism, health services, and multimedia were modest in their impact. This confirms the leading role of the public sector, both directly and indirectly, in propelling innovation in the Emirate of Abu Dhabi.
- The vast majority of innovating firms in Abu Dhabi are in business-to-business (B2B) industries (64% of total firms) compared to customer-oriented firms/B2C (36%).
- With respect to innovation Barriers, costs emerged as the most significant barrier facing innovative firms with 60% of firms indicating they did not allocate any funds to directly support innovation-related activities, and only 2.6% which received public financial support for innovation activities in the period 2008-2011. Market dominance by large firms in some sectors also represented a barrier to innovation for smaller domestic enterprises.

Innovation funding programmes in Abu Dhabi

The Abu Dhabi government manages the following programmes and funds.

- Masdar Capital: The Masdar Clean Tech Fund is a USD 250 million late-stage venture growth equity investment vehicle that focuses on the development and commercialization of technologies in renewable energy, energy efficiency, carbon management and monetization, water usage and desalination.
- The Technology Development Committee's (TDC) Takamul Programme: TDC runs Takamul, a two part innovation support programme that helps UAE-based individuals, universities, and enterprises to patent and commercialize their ideas. The Takamul IP Programme provides legal and financial support for international patent filing. The Takamul Technology Transfer Programme supports the commercialization of IP and patents. In 2013, 58 inventions were reviewed, 1 start-up was supported, 2 licenses were negotiated, and 10 detailed commercialization projects were completed.
- The Ibtikari Programme of the Khalifa Fund for Enterprise Development (KFED): The Ibtikari Programme is an annual competition designed for Emirati youth to develop smart phone applications. Participants with the best 20 ideas are provided specialized training over a month and during this time they develop their application and prepare a feasibility study. Winning ideas are given financial and technical support from KFED. Last year's programme was supported by ADDED, the ICT Fund (Telecommunications Regulatory Authority), and British Petroleum Company.
- Masdar Institute Centre for Innovation and Entrepreneurship: The centre facilitates innovation and entrepreneurship at Masdar University and throughout the UAE through the commercialization of technology developed by faculty and students. To this end, the centre provides the following two grant schemes:
  - Technology Innovation Programme (TIP) awards one-year grants up to USD 250 000 to faculty-led proposals for technology translation. The programme supports late-stage, applied R&D with a commercial upside.
  - The MIT and Masdar Institute Cooperative Program (MMIP) was established to help faculty and students of MIT and the Masdar Institute to jointly work to commercialize breakthrough technologies and inventions by transforming promising ideas into innovative products.

Box 7. **Main Federal innovation policies of the UAE**

In addition to support from Abu Dhabi government entities, Emirati-owned firms based in Abu Dhabi can benefit from a wide array of innovation support mechanisms made available by the UAE federal government. Indeed, innovation appears high on the UAE Federal agenda with the announcement of the "UAE Innovation Strategy" in 2014, the declaration of 2015 as the "Year of Innovation" for country, and the recent announcement of the establishment of 60 "CEO of Innovation" posts across all federal departments in 2015.

The UAE Innovation Strategy

The "UAE Innovation Strategy" aims to make the UAE the most innovative nation in the world by 2021 and focuses on innovating in seven key sectors: renewable energy, transport, education, health, technology, water and space. The plan will be carried out in phases with the first stage consisting of 30 national initiatives to be completed within three years. The initiatives will cover new legislation, incubators, investment in specialized skills, private-sector incentives, international research partnerships, and an innovation drive within government. One key scheme, for example, requires all government agencies to set aside 1 % of the budget to research and innovation. To govern and monitor the implementation of the UAE Innovation Strategy, the National Innovation Committee (NIC) was also established in 2014.[13] At the moment, however, it is unclear if the policy has been implemented at the federal level and certainly has not yet come into effect at the Emirate level.

Main innovation federal programmes

The main federal innovation support tools to which Abu Dhabi enterprises can apply are:

- The *National Research Foundation* (NRF) is a federal initiative under the Ministry of Higher Education and Scientific Research established to advance the UAE national research agenda through competitive research grants. The NRF supports fields that improve the quality of life for citizens or contribute to the development of the UAE as a knowledge-based society. The following six funding schemes are available:
- The *Emirati Faculty Research Mobility Award* (EFRMA) provides opportunities for Emirati faculty members to be trained and acquire new knowledge in their relevant field of teaching with an organization active in research that is located outside the UAE.
- The *Young Emirati Postgraduate Research Students Mobility Award* (YEPRSMA) provides the same opportunities as above, but for young Emirati postgraduate research students.
- The *Young Emirati Researchers Prize* (YERP) is a prize-based competition aimed at young Emirati researchers who have completed either a PhD or Master's in recent years, and demonstrated outstanding research performance.
- The Y*oung Emirati Innovators Prize* (YEIP) has the same rationale of the YERP but is aimed at young Emirati graduates.

Box 7. **Main Federal innovation policies of the UAE** *(Continued)*

- The *University-Industry Research Collaboration Award* (U-IRCA) supports University-Industry research collaboration projects in any scientific discipline and field of application. A key criterion for U-IRCA projects is their potential impact for the participating companies' performance, as well as the potential for establishing a long-term partnership between the entities.[14]
- The *Patent Filing Award* (PFA) offers financial support to inventors who want to protect their intellectual property by obtaining a patent for an outstanding invention with a clearly identified market potential.[15]
- *ICT Fund*: The ICT Fund is an initiative of the Federal Telecommunications Regulations Authority that supports UAE Nationals in innovative R&D in the ICT sector through support of educational scholarships and R&D projects, among other things.[16]
- *Zayed Future Energy Prize*: This annual award celebrates achievements that reflect impact, innovation, long-term vision and leadership in renewable energy and sustainability. There are five prize categories including Large Corporation, SME, NGO, High Schools, and Lifetime Achievement. The competition is open to applicants from around the world. With an award of USD 4 million, this is the world's largest prize for innovation in sustainable energy solutions.

SME and entrepreneurship financing

SME financing programmes in Abu Dhabi

The Khalifa Fund for Enterprise Development (KFED) is the lead SME and entrepreneurial agency in Abu Dhabi for Emirati-owned SMEs and new entrepreneurs. KFED was provided with a fund of AED 2 billion in capital investment to initiate its programmes. The fund aims to create a new generation of Emirati entrepreneurs through provision of comprehensive support programs comprised of training, counselling, capacity building, support services, and funding. They cater to Emirati entrepreneurs with unique business ideas, as well as certain Emirati target groups such as women, people with disabilities and/or additional needs. Funds provided by KFED range in value from AED 100 000 to AED 10 million and are assessed in detail in the chapter dedicated to enterprise financing.

Other main government-sponsored programmes involve grant competitions for start-up funding, such as:

- Under the *Akoun Campaign* with the Abu Dhabi Council of Economic Development (ADCED) the "Bright Ideas Bright Futures" business idea competition awards students from the three different regions of

Abu Dhabi with prize money of AED 50 000 (1st place), AED 30 000 (2nd place) and AED 20 000 (3rd place).

- The *IDEA Factory Competition* takes place annually at the Abu Dhabi Global Summit for Young Entrepreneurs, which is held in partnership with Abu Dhabi University. It targets youth from 14 to 22 years of age with the aim of encouraging youth entrepreneurship. Teams of 1 to 3 are formed to turn an innovative idea into a sustainable business venture. Winners are eligible to progress their ideas into reality with business model validation and seed funding.
- Abu Dhabi Global Shapers Hub run *Fikrat*, a competition aimed at promoting women's entrepreneurship. Participants work individually or in teams to develop a business plan for their startup, which are assessed individually by a panel of experts. The winner of the competition is awarded financial and technical assistance.

Funding support is also provided in the frame of a few initiatives around business incubation, business acceleration and start-up boot-camps. In these cases, however, financing is only one component of programme activities, which also comprise training, mentoring and networking with current entrepreneurs.

- The *Kitchen Incubator* is a joint initiative by KFED and UAE University in Al Ain that supports UAE nationals in the food industry. With a focus on traditional food, participants are provided training in culinary, administrative, and marketing skills, as well as food safety and production lines. Funding is provided to successful candidates who pass all technical and administrative requirements under the sponsorship of the KFED.[17]
- UAE Academy, a subsidiary of the Abu Dhabi Chamber of Commerce, also runs the *Entrepreneurship Development Programme* (EDP) which assists budding Emirati entrepreneurs by providing start-up boot camp training and assistance with funding.
- UAE Academy also runs the *Business Start-up and Innovation Park* (BSIP) which targets unemployed young Emiratis. The program provides participants with training to develop the business skills that are necessary for starting, testing and running their own business. Participants undergo boot camp style training for 12 weeks and develop their business idea and obtain their business license. Participants incubate with BSIP for 1 year whilst getting mentored by another business owner. BSIP employs its participants by providing a stipend as ancillary income.

- *Flat6lab* is a regional start-up accelerator programme that recently established an office in Abu Dhabi. Supported by Twofour54, it provides seed funding, 24 hour office space, start-up workshops and educational programmes, links to mentors and advisors, etc. It is planning to launch more than 80 companies in the UAE in the next four years.
- *Ibtikar* is also a Twofour54 initiative that provides financing and support for young Arab talent interested in media and the entertainment industry. The programme provides seed funding, investment in content development, and guidance and planning through its creative lab community.

Financing issues in Abu Dhabi

There is a lack of data about financial barriers experienced by Abu Dhabi-based firms, although existing data and facts about the credit and equity market of the UAE should in principle provide a realistic picture of major issues and challenges in Abu Dhabi as well given the economic weight of this emirate in the federation as a whole.

The box below, therefore, provides an overview of major trends in access to debt and equity finance in the UAE.

Box 8. **Issues and trends in access to finance in the UAE**

Trends in SMEs' access to finance in the UAE

While a select few of Emirati business owners have access to government-funded programmes, most SMEs must rely on other sources of funding. A 2014 survey conducted by Souqalmal.com – a website collecting information on loans and financing in the UAE – found that 31% of SMEs are self-funded, 28% have bank loans, 26% have borrowed from family and friends, 10% have found strategic investors, and 6% have a broad mix of funding.[18]

As everywhere else, start-up firms in the UAE struggle to find finance from banks, as banks require companies to be profitable and have at least three years of financial audited accounts to be considered for a loan. SME lending is also constrained in the UAE; in fact, the estimated rejection rate for SME lending by UAE banks hovers between 50% and 70% (Dun & Bradstreet, 2008). However, recent reports state that with interest rates at record lows, banks are likely to focus even more on individuals and SMEs in the near term as profit margins are higher here than in loans made to less risky corporate clients.[19]

The very large majority of government-sponsored SME programmes provide funding to Emirati-owned SMEs. In Abu Dhabi the main actor is the Khalifa Fund for Enterprise Development (KFED), while in Dubai is SME Dubai, a programme of the Dubai Department of Economic Development (formally known as the Mohammed Bin Rashid Establishment for Young Business Leaders). In addition, SME financing is also expected to be provided by the Emirates Development Bank. Funds granted by government entities are generally in the form of grants, interest-free or low-interest loans, and microfinance.

Box 8. **Issues and trends in access to finance in the UAE** *(Continued)*

The role of commercial banks[20]

SMEs that are able to obtain bank loans are provided secured, partially secured, and unsecured lending options with the first option being the dominant form of SME finance in the UAE. Loans are secured on assets such as property (mortgages) or intangibles such as accounts receivables. Common credit products offered to SMEs include letters of credit, overdrafts (used for working capital purposes), equipment loans (secured), working capital loans (unsecured) and performance bonds and guarantees (common in the construction sector).

SMEs face a number of obstacles in accessing loan finance in the UAE. Many SMEs claim that they are not able to secure the total amount of funds required, find the loan application process confusing, and are offered high interest rates with hidden fees that ultimately increase the total cost of the loan.

On the other hand, the banks interviewed in the course of the fact-finding mission in Abu Dhabi (16-20 November 2014) claim that the transient nature of the working population (i.e. the large percentage of expats in the total population of the country) and the business environment of the UAE, where audits and financial reporting are not required, have led them to adopt conservative risk assessment practices. In particular, banks mention two main issues preventing to increase the volume of SME lending:

- The lack of reliable information and credit history of SME applicants:
  - Audits containing financial information cannot always be validated; the fact that there are no standardized financial reporting standards in the UAE poses challenges when reviewing audited financial statements.
  - The lack of a fully functioning credit bureau limits banks in knowing the complete financial status and history of an applicant. While the Central Bank's Risk Bureau provides information on outstanding loans amounting to AED 250 000 or more on all loan borrowers, a potential client could have AED 100 000 outstanding loans with multiple banks, which may not be reported to the Central Bank. In this respect, EmCredit, UAE's first private credit bureau, also faces challenges in determining credit worthiness of companies due to the lack of data.
- Gaps in the current regulatory framework
  - The absence of a bankruptcy law complicates the efforts of banks to work with delinquent loan applicants as many of them can flee the country to avoid prosecution and imprisonment. Furthermore, banks cannot seek repayment from the 51% National shareholder of a limited liability company (LLC) if power of attorney was given to their non-Emirati business partner (49% shareholder). Thus, banks may require the applicant to take personal guarantees such as writing a blank cheque for additional security (If the cheque defaults, the business owner could face jail time). Banks also find the process of seizing assets of defaulters unclear, lengthy, and inconsistent.

Box 8. **Issues and trends in access to finance in the UAE** *(Continued)*

- Current UAE law does not permit the registration of collateral with the exception of property and cars. As such, there is no registry available for large machinery (i.e. cranes) and inventory. Problems arise when clients are dishonest with several banks on their assets, where they provide the same inventory or machinery as collateral to several banks to receive multiple loans.

Venture capital in the UAE

Private equity and venture capital is still at an incipient stage in the Middle East and the UAE is no exception. According to the MENA Private Equity Association, the number of VC deals in the region grew by 50% between 2010 and 2012 with the majority invested in technology (47%). In the UAE, VC investments increased from 12 deals in the period 2008-2010 to 16 deals in the period 2011-2013. The increase in activity was largely in information technology, services, and consumer goods, which accounted for six of the eight VC deals in 2013 (MENA Private Equity Association, 2014).[21]

Crowdfunding is also gaining some ground in the region. Notable crowd-investment organizations include Eureca, a global crowd investing market place providing an online platform for SMEs to seek funding from investors in exchange for equity; Zoomal, which follows the Kickstarter model in the United States for projects that require USD 5000 or less; Af lamnah, a crowdfunding platform in the region focused on films; and PiSlice an online platform that facilitates microfinance.[22]

Notes

1. In 2012, the latest year for which data is available, there were 74 595 business enterprises in Abu Dhabi for a working population of 1.9 million.
2. UAE 2021 Vision, *http://www.vision2021.ae/en/national-priority-areas/competitive-knowledge-economy*
3. Nouf Bakhsh, "Farms in Abu Dhabi Produce More Wheat than Regional Counterparts," March 23, 2014. *http://www.thenational.ae/uae/environment/farms-in-abu-dhabi-produce-more-wheat-than-regional-counterparts#ixzz3Ja8yjB6m*
4. Draft laws are also reviewed by the National Consultative Council (NCC) prior to being submitted to the Ruler. The NCC is comprised of 60 members selected amongst the main tribes and families in the Emirate. *www.abudhabi.ae*
5. GSEC website (2015). *https://www.ecouncil.ae/ar/Pages/default.aspx*
6. The section on industry trends is based on: Abu Dhabi Department of Economic Development (2013), "Abu Dhabi Competitiveness Report: Improving the Competitiveness of the Emirate of Abu Dhabi".
7. Numbers are from Dun & Bradstreet (2008).
8. Estimates based on the OECD Structural and Demographic Business Statistics Database and the OECD Population Database.
9. Information from the Abu Dhabi Economic Council website.
10. Gillian Duncan, "How Do You Define an SME in the UAE," (Oct. 16, 2014). Accessed at *http://www.souqalmal.com/blog/how-do-you-define-an-sme-in-the-uae/*
11. Sara Hamdan, "United Arab Emirates Looks to Vocational Education," (Nov. 24, 2013). Accessed at *http://www.nytimes.com/2013/11/25/world/middleeast/united-arab-emirates-looks-to-vocational-education.html*
12. The 2012 Abu Dhabi Innovation Survey followed the approach adopted in the Community Innovation Survey (CIS). Firms were surveyed over the period of June – August 2012. 3 classes of sample size were included in the survey: small firm = 10-49 employees; medium firm = 50 – 249 employees; large firm = 250 or more employees. No firm with fewer than ten employees was considered in the survey, and surveyed firms that were deemed inappropriate such as bakeries, tailors and other personalized service providers were excluded. The construction sector was given a specialized classification to compensate for the highly labour intensive nature of this sector: small firm 10 -199, medium firm 200 – 2 399, and large firm 2 400 or more. Source: Abu Dhabi Innovation Index

13. Aarti Nagraj, "Sheikh Mohammed Launches National Innovation Committee In the UAE," (November 3, 2014). Accessed at *http://gulfbusiness.com/2014/11/sheikh-mohammed-launches-national-innovation-committee-uae/#.VN42Ztj9nIU*

14. University-Industry research collaborations are understood here as any research partnership between a higher education institution and an alternative entity, being either a private business or a governmental affiliation. Only UAE federal institutions and the Commission for Academic Accreditation (CAA)-approved institutions in UAE can apply. The participating industry partner must be a legal entity established in the UAE. It can either be a private business or a governmental affiliation. *http://www.nrf.ae/U-IRC2014.aspx*

15. Only inventors being employed in UAE federal institutions and the Commission for Academic Accreditation (CAA)-approved institutions can apply. The inventor must reside in the UAE at the time of filing the patent as well as at the time of submission of application. The assignments of the rights of the patent must be to an organization that is legally established in the UAE.

16. Applicants must be a UAE National or a legal entity with a majority UAE ownership.

17. "Khalifa Fund and UAE University Sign an Agreement for the 'Kitchen Incubator' in Food Industry in Al Ain." Accessed at *http://emiratesnewswire.ae/4986/khalifa-fund-and-uae-university-sign-an-agreement-for-the-kitchen-incubator-in-food-industry-in-al-ain/*

18. John Everington, "Turned Down at the Banks, SMEs Turn Out Their Pockets," (Nov. 2, 2014). Accessed at *http://www.thenational.ae/business/banking/turned-down-at-the-bank-uaes-small-business-owners-turn-out-their-own-pockets*

19. Mahmoud Kassem, "UAE Banks Turn to SME Lending as Interest Rates Drop," (Oct. 26 2014). Accessed at *http://www.thenational.ae/business/banking/uae-banks-turn-to-sme-lending-as-interest-rates-drop.*

20. This section is based on the paper, Khalifa Fund, "SME Financing in the UAE", and a roundtable discussion with banks organised by the Dubai Chamber of Commerce in 2009.

21. The data covers only structured VC funds that meet the MENA Private Equity Association VC criteria. The data does not cover direct investments, seed, incubation or investment programs investing in VC.

22. Information from the websites of the crowdfunding platforms.

References

Abu Dhabi Department of Economic Development (ADDED) (2013), *Abu Dhabi Competitiveness Report: Improving the Competitiveness of the Emirate of Abu Dhabi*, Abu Dhabi.

Abu Dhabi Department of Economic Development (ADDED) (2014), *Abu Dhabi Innovation Index*, Abu Dhabi.

Davidson C. (2009), *Abu Dhabi Oil and Beyond*, Columbia Press University, New York.

Dun & Bradstreet (2008), *Business Insight Series: SME lending in the UAE*.

Dutta S., B. Lanvin, and S. Wunsch-Vincent (2014), *The Global Innovation Index 2014: The Human Factor in Innovation*, World Intellectual Property Organization (WIPO), Geneva.

Ernst & Young (2011), *Doing Business in the UAE*.

Global Entrepreneurship Monitor (GEM) (2011), *2011 GEM Report on Entrepreneurship in the UAE*.

Hertog S. (2014), "Arab Gulf States: An Assessment of Nationalization Policies", GLMM research paper 1/2014.

Khalifa Fund for Enterprise Development (KFED) (2013), *SME Financing in the UAE*, Abu Dhabi.

MENA Private Equity Association (2013), *Private Equity and Venture Capital in the MENA Region*, Thomson Reuters and KPMG.

Statistics Centre Abu Dhabi (SCAD) (2010-2013), *Industry Reports*, Abu Dhabi.

Statistics Centre Abu Dhabi (SCAD) (2014), *Statistical Yearbook of Abu Dhabi*, Abu Dhabi.

The Government of Abu Dhabi (2008), *The Abu Dhabi Economic Vision 2030*, Abu Dhabi.

The Oxford Business Group (2013), *The Report: Abu Dhabi 2013*, Oxford.

Zayed University (2013), *Entrepreneurship: An Emirati Perspective*, Abu Dhabi.

Chapter 2

The entrepreneurial and SME ecosystem of Abu Dhabi: Key stakeholders and the policy framework

Key stakeholders in the entrepreneurial and SME ecosystem of Abu Dhabi

The main stakeholders of the entrepreneurial ecosystem of Abu Dhabi are aligned with the strategic objectives of the *Abu Dhabi Economic Vision 2030*, notably those of "enlarging the enterprise base" and "enhancing their competitiveness", which need be achieved by increasing the number of local SMEs, improving their productivity, making them a key pillar of the future knowledge-based economy, and turning them into future employers of UAE nationals (i.e. at the moment more than 90% of Emiratis are employed by the government).

This section presents an overview of the main stakeholder organisations involved in the design and implementation of entrepreneurship and SME policy in the Emirate.

The Executive Council

The Abu Dhabi entrepreneurial ecosystem has a strong *catalyst* in the Abu Dhabi Executive Council (EC), which is the highest local government body and drives social and economic development policies in the Emirate. This role is primarily performed through the EC's economic development and social development committees. Policy implementation takes place through a set of government institutions, which report to the EC committees through the intermediation of the General Secretariat of the Executive Council (GSEC).

Being the highest local government body in Abu Dhabi, the EC supervises and steers the implementation of policies and programmes by institutions such as the Khalifa Fund for Enterprise Development (KFED), the Abu Dhabi Department of Economic Development (ADDED) or still the Tawteen Council (i.e. the local employment agency). This is done in line with the broader strategic directions of HH Sheikh Mohammed bin Zayed Al Nahyan, who chairs the Executive Council in his quality of Ruler of Abu Dhabi and President of the UAE. In this way, the Ruler of Abu Dhabi is informed of progress made towards the achievement of the objectives set in the Abu Dhabi Economic Vision 2030, including those most closely related to entrepreneurship and SMEs.

In this context an important double role is played by the General Secretariat of the Executive Council (GSEC), which disseminates strategic policy directions from the Executive Council down to the government entities in charge with policy implementation but also collects feedback on policy measures and views on existing policy gaps (i.e. social or economic problems which are currently not addressed by policy makers) from field-level officers to bring them to the attention of the Executive Council's members. GSEC is therefore a key conduit for the flow of information from those charged with policy design to those charged with policy implementation and vice versa.

Khalifa Fund for Enterprise Development (KFED)

The Khalifa Fund for Enterprise Development (KFED) is one of the key government entities charged with implementing the federal and local governments' plan to move from a resource-based to a knowledge-based economy by leveraging its current wealth to build a more sustainable, diversified, and high-value added economy. Established in June 2007 by Presidential Decree (Law 14 of 2005) as an independent Not-for-Profit SME Socio Economic Development Agency of the Government of Abu Dhabi with an initial total capital investment of AED 2 billion (approx. USD 545 million), the main purpose of KFED is to help develop local enterprises in Abu Dhabi by instilling and enriching the culture of investment amongst UAE nationals and by supporting small to medium-sized investments in the Emirate. The KFED has, more precisely, been founded to address the lack of skills and financing in local Emirati entrepreneurs (KFED, 2013).

To do this, it has laid out a number of training and funding programmes aimed at UAE nationals which cover: i) Funding start-ups; ii) Funding expansion and growth of existing companies; iii) Mentoring Emirati entrepreneurs on

business start-up and business expansion; iv) Training, development and education programmes to encourage young Emiratis to become entrepreneurs, and; v) Training, development and education programmes to convert nascent entrepreneurs into business owner/managers.

The core activities of KFED can, therefore, be summarised into the two main areas of human capital development and enterprise financing.

Human capital development

KFED's primary role in the human capital development system is to strengthen the capacity of entrepreneurs and encourage a culture of entrepreneurship. KFED provides an array of training programmes for start-ups, growing companies, and special groups (*e.g.*, former inmates, home-based business owners, etc.). Programmes support both micro-enterprises and SMEs, from basic entrepreneurship awareness workshops, to specific courses in business skill development, marketing, feasibility analysis, business planning, bookkeeping and accounting, and more. In a short period of time (seven years), the training efforts have reached significant scale (7 000 trained and 10 000 attendees in the awareness workshops). Most participants are already working full-time with the government (60%), but they come with varied educational backgrounds. The main sectors in which KFED clients start companies are agriculture, tourism, retail, food and beverage, and ICT, which suggests that KFED's support primarily on low-tech sectors is not always in line with the priority sectors highlighted in the Abu Dhabi Economic Vision 2030.

Despite its rapid success in terms of numbers, KFED experiences deep challenges in recruitment and retention of participants. Of 200 applications per month, just 10 are on average worthy of support. Moreover, once in the programme, participants may not attend regularly, except when KFED charges a fee; for example, in the very beginning of KFED activities in 2008, as many as 15% of participants in entrepreneurship training did not complete their respective courses.

Although KFED still does most of its training in-house, it has also begun developing a collaborative approach with government, industry, and universities and other organizations (*e.g.* the Tawteen Council, the Family Development Foundation, etc.). This trend towards outsourcing is likely to continue, as the Fund's own training offer is limited (for instance, KFED does not offer sales training for SME staff). This opens up an opportunity for KFED to play in the future not only a role of implementer but also one of facilitator of entrepreneurial training in the entrepreneurial and SME ecosystem of Abu Dhabi.

Financing

In addition to providing training and coaching to nascent entrepreneurs, KFED is also the major public actor involved in start-up funding. This role is of critical importance since, as pretty much everywhere in the world, banks in Abu Dhabi are reluctant to provide loans to new business due to their lack of track-record performance and financial information. This leaves an important gap in credit market which KFED contributes to fill through a large number of programmes whose credit offer is however relatively standardised; lack of interest rates and repayment period of seven years, for example, apply to most KFED's financing programmes. This is unusual compared with OECD countries, where a differentiation in public credit offer according to target groups and project nature has been the common trend.

Loan collection rates are also low by international standards, although this is partly justified by the fact that entrepreneurship is at a very early stage among UAE nationals which requires generous and prolonged public support. Until now KFED has adopted a 'hand holding' approach in which pre-start help with the business concept, business plan development, and working with the entrepreneur to make the business viable, are consecutive steps one after the other. To some extent, KFED is more interested in developing the person, the entrepreneur, and to facilitate him/her to be successful rather that receiving a return on the investment.

In the future, as the ecosystem matures, KFED could consider a greater diversification of its credit offer towards a progression from highly subsidised loans to more commercially-oriented ones and the possibility of offering grants rather than loans for entrepreneurs from disadvantaged groups. As part of this strategy, a key objective would be for KFED to create a pipeline of bankable clients who can progressively move from publicly subsidised loans to fully commercial loans in the private sector.

Abu Dhabi Chamber of Commerce and Industry (ADCCI)

The Abu Dhabi Chamber of Commerce and Industry, founded in 1969, is an autonomous institution which represents the interests of the private sector in the Emirate of Abu Dhabi. Its vision is "to be recognised as the leading voice of the Abu Dhabi business community". The Chamber sees itself as the advocate representing concerns and issues of the private sector to the government. The Chamber also considers itself to be the institution to support the development of private enterprises, increase private enterprise management capabilities, and enhance competitiveness within the private enterprise sector through education programmes, seminars, workshops, conferences and trade missions.

Today, the Chamber has 89 000 certified members, 92% of which are SMEs representing 60% of GDP. Most of the Chamber's information sessions and events are designed to support the competitive development of its member enterprises. The Chamber also encourages its members to attend and showcase their products and services both at national and international events and, where applicable, to take part in trade missions to other countries. However, by the law, "all natural and legal persons, having their headquarters, branch or representation office in the Emirate of Abu Dhabi, to exercise any commercial, industrial, vocational or professional activity in the Emirate, must join the Chamber and get their membership certificates". This explains the Chamber's extremely large membership base which fully funds the Chamber's activities. In return, most services, events, and training sessions are open to all members without additional costs.

There are three categories of businesses the Chamber works with (i) start-ups, (ii) business growth (up to five years), and (iii) business expansion. With regard to start-ups, the Chamber, in 2009, embarked on the idea of encouraging entrepreneurs to consider franchising as a way of getting into business. The work of the ADCCI on franchises has been successful, culminating in a series of workshops and an annual Franchise Conference which has led to the establishment of the Emirati Franchise Association.

Other initiatives by the ADCCI include Business Link, an advisory service to assist its members with exporting; fee-based credit rating services where a credit score is assigned to a company on request of another company which is planning to do business with the first; training and consulting programmes, especially on accounting, marketing, business feasibility, and personalised coaching; and the Abu Dhabi Businesswomen Council (ADBWC), whose aim is to strengthen ties with businesswomen communities at the international level and contribute to woman empowerment through doing business in Abu Dhabi. In particular, the latter encourage women's entrepreneurship through awareness-raising campaigns, tailored business management training and a platform for dialogue among women entrepreneurs and between women entrepreneurs and the female society at large.

One area where success has been more limited has been incubators. In 2000 the ADCCI, in agreement with the local government, initiated a fund of AED 25 million which was matched by public sector funds to support the incubation of start-ups. However, also owing to issues related to land ownership rights, the Fund has not succeeded in establishing incubation centres in Abu Dhabi.

To summarise, the ADCCI is an important component of the Abu Dhabi entrepreneurial ecosystem because of the services it provides to its members, its ability and mandate to generate activities, create "sub-entities", set up networks, and/or committees to further entrepreneurship in Abu Dhabi. At the same time, compulsory membership makes ADCCI different from the experience of Chambers of Commerce in other OECD countries, where they are rather voluntary-based organisations, with the risk of making the Chamber of Abu Dhabi less accountable to its members. In addition, the challenge of launching business incubators in Abu Dhabi should be taken up again in the Emirate, though not necessarily by the Chamber of Commerce again.

Abu Dhabi Department of Economic Development (ADDED)

The Abu Dhabi Department of Economic Development (ADDED) is responsible for preparing, formulating and proposing the economic and commercial policy of the Emirate of Abu Dhabi and preparing plans and programmes required for implementing this policy.[1] Its mission is to "lead Abu Dhabi's economic agenda towards a balanced, diversified and sustainable knowledge-based economy that enhances the competitiveness of Abu Dhabi in the global economy and ensures prosperity for its people".[2] The main objectives of the ADDED are to achieve economic development in the Emirate, regulate economic and commercial affairs, and work for development of the same in the interest of the country. In summary the ADDED holds both a strategic and implementing role in the Abu Dhabi entrepreneurial ecosystem.

The ADDED is a key enforcer of the *Abu Dhabi Economic Vision 2030* by "supporting the process of structural transformation in the Emirate of Abu Dhabi, in an endeavour to speed up its surge towards a diversified knowledge economy based on innovation, technology, and highly skilled human resources".[3] The ADDED is also responsible for implementing and monitoring policies aimed at strengthening the competitiveness, productivity, innovativeness and growth of the industry sector in Abu Dhabi.

Today the ADDED has two strategic offices key to a sustainable local entrepreneurial ecosystem: the Industrial Development Bureau and the Competitiveness Office. The main function of the Industrial Development Bureau is to create "the ideal environment for the development and growth of the industry sector", while at the same time "allowing diversification of the economy and contribute to sustainable economic development". The Industrial Development Bureau also supplies the organisational, legal, and ecological frameworks required to initiate and develop industrial projects, including issuing all necessary licenses to do business in Abu Dhabi.

The ADDED established the Competitiveness Office of Abu Dhabi (COAD) in 2011 to actuate the competitiveness goals expressed in *Abu Dhabi's Economic Vision 2030* (published in November 2008). The COAD was designed and implemented based on a study of thirty competitiveness offices around the world. From this study twelve were selected as "best in class" to formulate a model and set of criteria against which the activities and success of the COAD would be measured. The aim of COAD is "to enhance the competitiveness thinking and commitment of Abu Dhabi's people and enterprises (…) and to create a business environment conducive to innovation and productivity, which will encourage investment and the success of business projects in the Emirate".[4]

The ADDED provides many services to the industry sector of Abu Dhabi such as licensing, liquidation, exporting and commercial spatial services (GIS). The work with regards to licensing is one of the ADDED's major roles, especially commercial licensing. One of the ADDED's contributions to competitiveness was to streamline the licensing process with the result that the time taken to process a license has been reduced from 15 to 8 days in Abu Dhabi. In this respect, the Abu Dhabi Business Centres were established in 2012 to simplify the business licensing process. While these centres are not yet "one-stop shops" where entrepreneurs can sort out all administrative requirements related to business creation in one-go, they have significantly streamlined the business license system of Abu Dhabi by reducing the number of offices involved in the process and providing a key reference point to entrepreneurs about where to obtain business-related information and deal with administrative requirements. However, it should be noted that business licenses for tourism, education and the media are the responsibility of other Departments, which have their own rules, regulations, and goals.

As regards the Abu Dhabi entrepreneurial ecosystem, the ADDED plays a critical role at the nexus of formulation and implementation of SME policy; it also sees itself as consulting to the Executive Council. The ADDED, together with KFED, is probably the best positioned organisation to facilitate a process of interactive engagement between all the entities involved in the Abu Dhabi entrepreneurial ecosystem, although a similar role would have to be accepted by all involved Abu Dhabi government entities.

Abu Dhabi Council for Economic Development (ADCED)

The Abu Dhabi Council for Economic Development (ADCED) was established in 2006. Its main goal is to develop policies and initiate programmes that promote sustainable and diversified economic growth in Abu Dhabi by improving its business environment and enhancing its human capital primarily through collaboration between business and government leaders. One of its more specific objectives is to increase the contribution of the private sector to 16% of GDP.

The ADCED's main function is to support public-private sector policy dialogue, as shown by its Board of Directors which includes: Abu Dhabi Chamber of Commerce and Industry (ADCCI), the Abu Dhabi Department of Economic Development (ADDED), National Bank of Abu Dhabi (NBAD), Abu Dhabi Higher Corporation for Specialized Economic Zones (ZonesCorp), and the Bin Hamoodah Group. Such a set of stakeholders provides a platform for government and private sector organisations to work together to secure a sustainable future for Abu Dhabi, based on developing non-oil service sectors such as tourism and financial services, as well as non-oil productive industries such as aluminium and steel.[5]

The strategic objectives of the ADCED are to: (i) provide government with policy recommendations to ensure sustainable economic development and catalyse the creation of an international economic hub in Abu Dhabi), (ii) use leading edge research and 'best-in class' modelling technique to provide innovation and excellence on the development of enterprise policy, (iii) create an integrative, collaborative stakeholder network to enable debate on economic issues between government, business, academia and the community, and (iv) facilitate the implementation of initiatives generated by policy and the interactive engagement of stakeholders.

One of the main activities of the ADCED has been its role in developing the Abu Dhabi Economic Vision 2030 in collaboration with GSEC. Some of the ongoing key initiatives of the ADCED are on the other hand: i) the Financial Literacy project, whereby they target new employees, investors, and the general public so that they know more about financial management (i.e. the organisation also holds workshops with university students to provide them with knowledge about dealing with fraud, basic investment, savings, and other relevant aspect of finance management; ii) the "Akoun" entrepreneurial awareness project, which involves student entrepreneurship competitions with the aim to instil entrepreneurial mind-sets in university students.

To sum up, the focus of ADCED is more on "creating awareness" than being involved in the depths of enterprise creation. However, ADCED also works closely with KFED by involving the latter in its workshops to talk to students about businesses/enterprise services, and through its entrepreneurship competitions.

Other stakeholders

A large number of other organisations play an active role in the Abu Dhabi entrepreneurial ecosystem, although to a lower degree than KFED, ADDED, the Chamber of Commerce and ADCED. For example, the Tawteen Council, the employment agency of Abu Dhabi, intends to run a small-scale programme on self-employment promotion for the unemployed in the western region of Abu Dhabi where wage employment opportunities are rare; the Emirates Foundation targets young Emiratis aged15-35 across the whole UAE through a series of social and economic development initiatives such as training on financial literacy and on leadership and entrepreneurship under the aegis of the "Kafaat" scheme, whose goal is to increase the private-sector employment rates of young Emiratis; the Family Foundation manages a small-scale training programme for women still in the western region of the Emirate of Abu Dhabi who wishes to start a home-based businesses, usually in traditional activities such as handicraft, food and perfume manufacturing.

Collaboration in the local entrepreneurial ecosystem

The design and implementation of economic policies in Abu Dhabi is highly inclusive of relevant government organisations. For example, for the *Abu Dhabi Economic Vision 2030*, a taskforce of more than 43 different government departments and entities (mainly regulatory and licensing entities) was established and consulted. The taskforce was mandated to conduct an exhaustive assessment of the key enablers for economic growth and create a comprehensive long-term economic vision which resulted in the main strategic policy document which today drives policy making in the Emirate.

Inter-organisational dialogue is also ongoing among 15 different organisations (*e.g.* the Tawteen Council, ADDED, KFED, etc.) to provide advice and recommendations on employment policies to the Executive Council. Inter-stakeholder dialogue is, however, often ad-hoc with a view to producing "white papers" and "policy reports" but hardly ever institutionalised through standing committees which meet

regularly, not only to provide advice but also to give strategic directions and assess progress on policy implementation. In the case of SME policy, collaboration would be strengthened by the establishment of a standing committee where all relevant departments of the Abu Dhabi administration would be represented and which could meet quarterly to discuss policy issues affecting the development of entrepreneurship and SMEs in the Emirate, share collective approaches, and identify opportunities for collaboration on specific projects or activities.

Consultation with the private sector is also much less common than inter-ministerial dialogue. There is little evidence of collaborative projects between government and private-sector companies other than for the case of privately sponsored research institutes and graduate-level courses in local higher education institutions (see chapters 3 and 4).

To increase the influence of SMEs in the policy agenda, ministries responsible for SMEs have formed in a number of countries SME advisory committees to facilitate structured dialogue between the government and representatives of the small business sector and to solicit policy advice on the key issues affecting development of SMEs. The membership of these committees is generally broad, including entrepreneurs, chambers of commerce, small business associations, associations of entrepreneurs, SME support organisations, and independent experts (see boxes 9 and 10 for examples).

At the programme level, collaborations within Abu Dhabi's entrepreneurial ecosystem is very common. KFED, which plays a leading role in SME and entrepreneurship support, has for example collaborations with the Family Development Foundation to support women's entrepreneurship, with the Tawteen Council to encourage self-employment among the unemployed, and with the Abu Dhabi Council for Economic Development (ADCED) to raise awareness about entrepreneurship in the university student population. These collaborations are welcome as they help design better-informed programmes thanks to the involvement of the expertise of more than one organisation.

Box 9. **International examples of inter-ministerial institutionalised collaboration**

Malaysia

The National SME Development Council (NSDC) in Malaysia, established in 2004, has the mandate to provide strategic direction for the formulation of SME development policies and to set clear goals and targets. Its membership is represented by the heads of 14 key ministries and 3 agencies, chaired by the Prime Minister. It is the highest policymaking body to set strategic direction for government policies on SME development and ensure co-ordination and effectiveness of SME programmes. It meets twice a year to deliberate strategies and new policies to support MSME development across all sectors, as well as to monitor and evaluate the effectiveness of SME policies and programmes. (See: *http://www.smecorp.gov.my*).

Thailand

The SME Promotion Committee in Thailand is the key body responsible for setting strategy and co-ordinating MSME policy across government. This Committee, chaired by the Deputy Prime Minister, consists of 25 members, including key ministries (Commerce, Industry, Finance, Agriculture, etc.), appointed representatives of the Board of Trade and Federation of Thai Industries, six members from private sector organisations, and three regional entrepreneurs. The core responsibilities of the Committee include recommending the "SME Promotion Policy and Plan" to the ministerial cabinet, defining SMEs, submitting an "SME Status Report" to the cabinet and the public, recommending incentives, new laws, or legislative amendments to the authorised agencies, and supervising concerned agencies on the implementation of the SME Promotion Action Plan. (See: *http://www.sme.gov.th*).

Spain

The State Council on Small and Medium Enterprises and Entrepreneurship in Spain, attached to the Ministry of Industry, Energy and Tourism, is the official body to co-ordinate all policies and measures of the various ministries and public administrations affecting SMEs, and to serve as a planning and co-ordination forum involving other governments and fostering dialogue with the representatives of SMEs. The Council was created and is regulated by Royal Decree 962/2013 approved by the Council of Ministers on 5 December 2013. The State Council is responsible for: informing the multiannual plan to support SMEs; developing recommendations and proposals on priorities, mechanisms, actions and regulatory changes necessary to increase SME activity and competitiveness as well as entrepreneurship in Spain; coordinating the various support programmes carried out by the competent bodies and harmonizing the criteria and standards of service for support to SMEs; monitoring the application of the Small Business Act for Europe in Spain to enable the evolution of policies aimed at facilitating SMEs' access to finance, internationalisation, public procurement, information and communications technologies (ICTs), and reducing administrative burdens affecting SMEs; promoting entrepreneurship in the media, educational settings and society in general; and reporting on regulatory projects and improvements.

Box 10. **Ireland's SME Advisory Committee**

The Advisory Group for Small Business (AGSB) in Ireland, was established by the Ministry for Small Business in June 2011 as a private sector body to facilitate structured and regular dialogue between the government and representatives of the small business sector and to provide policy advice for onward reference to government on the key issues affecting the development and growth of the SME sector and possible solutions. The 17-member body consists mainly of entrepreneurs, nominees from the main small business and sector representative bodies, Startup Ireland, officials from the Department of Jobs, Enterprise and Innovation, the state enterprise support agencies, Enterprise Ireland, and the Credit Review Office. The first task assigned to the Group was to carry out consultations to develop an action plan for small business, which they submitted to the Minister for Small Business in November 2011. The group has been extremely active in promoting entrepreneur-friendly policies and procedures and successful in shaping many of the budgetary policies adopted by government in the budgetary process over the last number of years. It has also provided direct feedback on a number of proposals that were deemed to be anti-entrepreneurship.

As part of the Ireland's continuous evolutionary process of enterprise development the AGSB was reconstituted and restructured in July 2014 to meet the ever changing needs of SMEs in the Irish and global economies. The new AGSB has a similar mix of representatives from SMEs, enterprise support agencies, and government bodies, with the added remit to continue to work with SMEs to grow and support the vital role they serve in Ireland's society.

The policy framework for entrepreneurship and SME development

The extent of policy support

Adequate resources are committed by the Abu Dhabi government to support entrepreneurship and SME development. For example, the Khalifa Fund for Enterprise Development (KFED), the enterprise agency charged with entrepreneurship and SME development in Abu Dhabi, was established in 2007 with a total capital investment of AED 2 billion (approx. USD 545 million) to strengthen access to finance and business management skills in existing and future Emirati entrepreneurs based in Abu Dhabi. More recently, KFED expanded its operations across the UAE, opening branches in Ras Al Khaimah, Ajman, and Fujairah. Given the relatively small size of the target population (i.e. originally,

UAE national working-age population preferably resident in Abu Dhabi), in international comparative terms this is a significant budget which local policy makers thought necessary to start changing local attitudes towards entrepreneurship. As the capital investment of KFED has progressively depleted due to relatively high default rates on its loans, the 2014 drop in international oil prices may soon prove a test of how much the Abu Dhabi local government is willing to commit further resources to entrepreneurship development under tighter budgetary conditions.

While adequate resources are being spent in the Emirate of Abu Dhabi to stimulate new business creation and business expansion by local Emiratis, the success and sustainability of the local entrepreneurial ecosystem will also depend on how these resources are spent. In the view of KFED and other government organisations, local unfavourable conditions (*e.g.* risk aversion in the local population, government job expectations, lack of bankruptcy law making access to credit difficult) warrant a "shock therapy" where financial support to entrepreneurs is extended over many years at very advantageous conditions. While this may hold true in the short term, the risk of fostering dependency on public support among local entrepreneurs and of building unsustainable policies and programmes in the long run should not be underestimated. Multi-year public support, more often than not for entrepreneurs who also have another job (i.e. 60% of KFED beneficiaries are part-time entrepreneurs), has not commonly been the most common approach to nurturing a sustainable entrepreneurial ecosystem.

Existing legislation affecting entrepreneurship and SME development

The SME law (federal)

New legislation is being crafted to support entrepreneurship and SME development in Abu Dhabi. For example, a federal law for small and medium enterprises (i.e. the SME law) was issued in 2014 which sets the foundations for a future definition of SMEs by the UAE cabinet (based on standard criteria such as levels of employment, turnover or capital investment), the establishment of an SME Council, and the creation of a national SME programme which UAE-owned enterprises will have to join if interested in government support. The SME law also sets up quotas for SMEs owned by UAE nationals in federal government contracts and contracts issued by private-sector companies with significant government participation (respectively, at least 10% and 5% of total contracts); enhances access to finance in the entrepreneurial ecosystem by requiring the Emirates Development Bank to contribute no less than

10% of its total annual financing facilities to SMEs part of the national programme; provides tax breaks such as exemptions from the custom tax for the import of equipment, raw material and intermediate products; and encourages internationalisation by helping SMEs to participate in international trade fairs.

The new SME law goes in the right direction towards setting a business environment friendly to SMEs, although it remains vague about future implementation steps and the definition of SMEs. Moreover, there also needs to be some caution in the implementation of some of its elements. For example, the law requires federal government entities and companies that are more than 25% owned by the federal government to contract respectively more than 10% and 5% of their procurement contracts to local SMEs. This might lead federal government entities and government-owned companies to source from local SMEs regardless of the quality of their products and services, which might in turn prompt public procurement officers to fill this quota primarily through demand for services in low-value added services (*e.g.* services, facilities management, cleaning, etc.). In a similar vein, the establishment of a National Programme for SMEs is a positive development which could enable policy makers to collect precious information on the performance of participant firms and to evaluate policy impact. However, the wording of "SME Programme Registration" in the SME Law suggests a degree of additional "red tape" which an enterprise needs to comply with which may be counterproductive to the creation and growth of SMEs.

An example of a comprehensive SME policy which could inspire Abu Dhabi with respect to its SME law is offered by Ireland, which has launched a far-reaching enterprise policy to make SMEs the engine of economic recovery after the 2008 global economic crisis. The key message is that Abu Dhabi could achieve its goals by articulating a clear set of enterprise policies and by mobilising, tasking and measuring key government departments and agencies to deliver an entrepreneurial environment conducive to increasing the population of entrepreneurs, creating new enterprises and growing existing SMEs.

Box 11. **Ireland's enterprise policy for economic recovery**

In 2008 Ireland went from being a Celtic Tiger economy to being the epicentre of a 'Great Recession' needing a €75 billion bailout from the 'troika' consisting of the European Union (EU), the International Monetary Fund (IMF), and the European Central Bank (ECB). Unemployment rates swiftly rose from virtually full employment in 2008 (less than 4.5% unemployment) to over 15% in 2011. Between 2008 and 2011 almost 15% of enterprises in Ireland ceased operations altogether, and the total decline in employment during the same period was just under 20%.

On the 6th March 2011 the newly formed coalition government in Ireland published its *Programme For Government*. The sole purpose of this policy was to bring the Irish economy back on the road to recovery, to *"... repair our society over the next five years and get our people back to work"*; and to *"... get our economy moving, restore confidence, fix our banking system and support the protection and creation of jobs"*. The enterprise policy aspects of the *Programme for Government* contained the following features:

- Fiscal aspects to support enterprise growth included maintaining the corporation tax rate at 12.5%; a reduction on the rate of VAT (Value Added Tax), a reduction of up to 50% on employee Payment Related Social Insurance (PRSI) for lower paid employees, and a commitment not to increase the employer rate of contribution to PRSI.
- Access to credit for SMEs: In many cases the lack of credit directly precipitated the closure of many Irish businesses. Therefore this policy facilitated Irish enterprises gain access to finance by (a) establishing a Strategic Investment Bank (SIB) to provide (i) finance for large capital projects and (ii) venture capital to SMEs; (b) developing a €100mn Microfinance Start-Up Fund; (c) implementing a temporary, partial credit guarantee scheme to insure against bank losses on loans to job-creating firms; and (d) by committing to provide adequate credit to SMEs during the planned restructuring of the banking sector in Ireland.
- The policy also included focused support for SMEs to maintain and create new jobs by (a) reforming public procurement laws to allow SMEs greater access to public procurement contracts; (b) changing the bankruptcy legislation to enable a more flexible personal bankruptcy system that reduces discharge time for honest bankrupts; (c) taking steps to end the practice of 'upward only rent reviews'; and (d) introducing a 'legally binding commercial debt plan' that allows SMEs to restructure debts without recourse to expensive court procedures.
- The policy also decreed that 100 000 net new jobs would be created by enterprises between 2011 and 2016. Additional to this dimension of the policy was the development of a Jobs Fund; the provision of an additional 15 000 places in training, work experience and educational opportunities for those who are out of work; and also the provision of an additional 60 000 places in new graduate and apprenticeship internship schemes, work placement programmes and further education opportunities for the young unemployed.

Box 11. **Ireland's enterprise policy for economic recovery** *(Continued)*

- During the Celtic Tiger approximately 90% of exports from Ireland was generated by foreign owned multinational corporations. The profits pertaining to these exports were not maintained in Ireland. Therefore in order to address the export imbalance and to increase the level of exports generated by indigenous enterprises, the policy (a) established an Export Trade Council to strengthen co-operation and co-ordination across key Government departments and agencies; (b) created a "Home to Export" Programme to share the expertise of exporting companies with firms that are relying solely on the domestic market; (c) developed of a "Source Ireland" portal to market Irish goods and services abroad; (d) commenced a long-term strategy of forming better relationships for developing markets in emerging economies; and (e) exempted service companies that export more than 90% of their output from having to pay VAT.
- Innovation and the commercialisation of research was also a key element of this policy. The R&D tax credit scheme was retained, but it was to be amended so that the scheme would be more attractive and accessible to micro-enterprises and SMEs. The policy focuses on making Ireland a "digital island" and being a leader in "cloud computing". The policy also supports the development of a National Intellectual Property (NIP) protocol.

In March 2015 the Irish Government published its *Programme for Government 2011 – 2016* Annual Report. In summary, from an enterprise perspective, the report stated that over 90 000 new net enterprise jobs were created between 2011 and 2015. The unemployment rate was down to 9% (an all-time five-year low). Youth unemployment rate was cut by 30%. According to the Annual Report "five start-up companies were created every day". Recently, the Central Bank has projected that Ireland's economic growth rate for 2015 will be 3.7%, the highest in the EU.

The credit bureau (federal)

Credit bureaus are an important component of effective insolvency regimes through collection of information on bankrupt companies (see also chapter 5). But they are also a key component of the wider local credit market by gathering and keeping information on the creditworthiness of individuals and businesses. Private credit bureaus are generally considered more reliable by lending institutions than public credit bureaus. Nonetheless, where there is a lack of private-sector credit bureaus, public credit registries can be an effective tool to improve the quantity and quality of information in the credit market (OECD, undated).[6]

The UAE federal government launched in 2012 the first country-wide credit bureau (Al Etihad Credit Bureau) to operate a new credit reporting system in which lending institutions would be enabled to

make better-informed decisions and individuals and companies would be enabled to better understand the level of their financial obligations. To this aim, the Al Etihad Credit Bureau has started work with major financial institutions to collect credit data and plans to work in the near future also with utilities and public-sector organisations.

Some key guidelines with which newly-established public credit bureaus such as Al Etihad should comply are the following:

- Credit bureaus should strive to gather both positive and negative information about people and businesses. Collecting information only in the event of negative events (*e.g.* information on loan defaults or late payments) does not go a long way in helping individuals and business owners with good credit history to obtain bank credit. In this respect, there should be rules, like in the United States, where positive credit information can be disclosed unless an individual expressly opts out, rather than making such provision subject to explicit approval.
- Besides credit information, as credit bureaus mature, they should also strive to collect information on timely payment of utility bills, which is another source of assessing borrowers' credit worthiness.
- Credit bureau should keep information up-to-date, as this is the only way credit information can be meaningfully be used by lending institutions in their decision-making process. In particular, all liabilities should be registered regardless of their value to supply the most realistic picture on the indebtedness of borrowers.
- The reporting of key financial information on companies and individuals by financial institutions should be made compulsory to enable the credit bureau to create a database with wide-ranging information. At the same time, the governance of the credit bureau should ensure accountability and transparency, divulging only information which is allowed by the law and guaranteeing fair access to the information by users.

The local procurement law (local)

Public procurement for SMEs is a priority not only at the federal level (i.e. the new federal SME law), but also at the local level, with the government of Abu Dhabi which has just launched a new local procurement law. Local procurement is even more important than federal procurement for new and small enterprises because local government contracts are of smaller size and thus better suited to SMEs' capacities.

The most direct way to ensure that Abu Dhabi SMEs benefit from local public procurement is to establish set-aside quotas, i.e. earmarking a certain proportion in the volume of public contracts to SMEs. This percentage can be applied to each government department and government-owned entities or can rather be seen as whole-of-government objective to which government units contribute differently based on the content and nature of their work. While it is quite straightforward to set quotas, some of the risks inherent to this policy are lower quality in the government purchases and a decrease in the value for money for the government. In addition, it has not been uncommon for other OECD countries to miss targets set for SME public procurement contracts either because of the inability of local SMEs to meet the standard requirements or because of lack of knowledge by public procurement officers on how to implement the quotas. Training should be delivered to ensure that local officers are able to implement set-aside quotas.

In addition to establishing set-aside quotas, procurement laws can ease access to SMEs by easing the process of submitting tenders. These adjustments include simplifying tendering documents and procedures, de-bundling large tenders into smaller lots accessible to SMEs, implementing an SME supplier registration system that allows them to be pre-qualified as bidders, providing information and training to SMEs on how to successfully access procurement contracts, and ensuring the timely payment of contracts by the government.

Public procurement for innovation is also gaining ground in OECD countries (see box 12). The public sector, as a large-scale purchaser of goods and services, can in fact promote innovation by being an informed and demanding buyer. The mechanisms by which public procurement would support innovation include: (i) signalling acceptance of innovation as early users (i.e. lead-market users); (ii) demanding new-to-market products creating new opportunities in the market; and (iii) requiring compliance with standards (*e.g.* environmental or quality standards) that imply highly specialised knowledge and competencies.

The local procurement law of Abu Dhabi should also seek to encourage innovation in SMEs through calls for tender which integrate new standards or demand new products or by financing the R&D expenses of those SMEs which have won government contracts involving innovative products and solutions.

Box 12. **Examples of demand-side policies for innovation**

Demand-side policies are attracting increased attention in both OECD and non-member economies. The following are examples of demand-side initiatives that specifically target demand for innovation.

Finland: The national innovation funding agency, Tekes, finances public procurement of innovation to lower risks associated with the development of innovative goods and services. In the first stage, planning of procurement, the government funds between 25% and 75% of the project's total expenses. In the second stage, procurement or implementation, Tekes provides financing support for the procurer and for suppliers' R&D and innovation expenses.

France: Article 26 of the French Economic Modernisation Act of March 2009 promotes procurement of innovation from SMEs. It reserves 15% of small technology contracts for innovative SMEs. The article applies to all firms eligible for FCPI (*Fonds commun de placement dans l'innovation*) funding, *i.e.* SMEs which spend 10-15% of their expenditures on R&D or meet other conditions related to innovation.

Netherlands: The Dutch Launching Customer Scheme is an awareness and information scheme on the use of public procurement by government procurers and suppliers. The Dutch Innovation Agency, SenterNovem, complements this scheme by advising municipalities and other agencies on how to promote innovation through tendering.

Korea: The New Technology Purchasing Assurance scheme requires public agencies to give preference to the procurement of goods and services from SMEs, which also receive a new technology guarantee from the government. Under this programme, the Korean Small and Medium Business Administration finances the technological development of SMEs, and public institutions purchase the products for a certain period.

United Kingdom: The United Kingdom aims to make government procurement more conducive to innovation. Government departments are required to establish and develop an Innovation Procurement Plan. The procurement agency and the innovation ministry provide practical advice to procurers on how to ensure that innovation is incorporated into procurement practices.

United States: In 2003, a total of USD 95 billion in public procurement contracts was awarded to SMEs in the framework of the US Small Business Act, which targets 23% of direct contracts and 40% of subcontracts to SMEs. Agencies must measure and communicate their annual results to the Administrator of the Small Business Administration and the President of the United States.

Source: OECD (2010), The OECD Innovation Strategy, OECD Publishing, Paris.

Missing or improvable legislation affecting entrepreneurship and SME development

While some key legislation for entrepreneurship and SME development has just been enforced, Abu Dhabi still lacks some legislation (*i.e.* bankruptcy law) or needs improvement in some regulations (*i.e.* home-based business regulations) which if enacted would further contribute to SME development in the Emirate.

The bankruptcy law (federal)

Similarly to other countries in the Gulf and MENA region, the UAE lacks an efficient and widely used bankruptcy law. One study by the World Bank reports how insolvency regimes in the MENA region are by and large underdeveloped, treating debtors as wrongdoers rather than economic actors in distress. Countries in the region tend to punish debtors, including bankrupt entrepreneurs, primarily with civil penalties (*e.g.* restriction of movement or the loss of the right to manage a company), but in some cases also with terms in jail. Therefore, in the region, business reorganisation is rare even when the law allows for it, while liquidation procedures are considered ineffective (Uttamchandani, 2011).

In the UAE insolvency is ruled by a distinct chapter of the 1993 Commercial Transaction Law n. 18 consisting of 255 provisions (Hawkamah *et al.*, undated). However, debtors and creditors hardly ever use the insolvency provision of the law. "Business reorganisation" is not known in the UAE, while with respect to liquidation the law makes provision for a deed of arrangement between a bankrupt person and its creditors which needs to be accepted by a two-thirds majority of the creditors. Other than this, there is little statutory provision for the requirements of any such plan and there is no provision for appeal by dissenting creditors (Hawkamah *et al.*, undated). The treatment of insolvency cases by the national court system also calls for improvement. For example, there are no courts or judges specialised on bankruptcy, and there are no rules governing the legal professions related to business insolvency.

The weakness of existing regulations bears consequences for the effectiveness of business closures in the UAE. For example, it takes 5.1 years for a company to go through insolvency in the UAE, compared to 3.5 years in the MENA region and 1.7 years of the OECD average. The best in the league is Ireland, where it only takes a little over 3 months to deal with business insolvency. The cost of insolvency proceedings is also extremely high in the UAE; one could expect 30% of the company's value to melt away in an insolvency proceeding in the UAE, as against

14.1% in the MENA region and 8.4% in the OECD. The top performer in this case is Singapore where only 1% of the value of the company is on average lost in an insolvency process. Finally, with respect to the ability to recover credit from debtors, in the UAE a creditor can expect to get back on average 10%, whereas this goes up to 30% in the MENA region and nearly 70% in OECD. The best in the league is Japan where creditors can expect to recover 92.5% of the outstanding credit at the end of the insolvency process (Hawkamah *et al*., undated).

Table 13. **Closing a business in the MENA region, 2009**

	Time (years)	**Cost** (% of estate)	**Recovery rate** (cents on the $)
MENA region	3.5	14.1	29.9
OECD	1.7	8.4	68.6
UAE	**5.1**	**30**	**10.2**
Algeria	2.5	7	41.7
Bahrain	2.5	10	63.2
Egypt	4.2	22	16.8
Jordan	4.3	9	27.3
Kuwait	4.2	1	34.5
Lebanon	4	22	19
Morocco	1.8	18	35.1
Oman	4	4	35.1
Qatar	2.8	22	52.7
Saudi Arabia	1.5	22	37.5
Syria	4.1	9	29.5
Tunisia	1.3	7	52.3
Yemen	3	8	28.6

Source: Hawkamah, World Bank, OECD, INSOL International (undated), Study on Insolvency Systems in the Middle East and North Africa, based on World Bank Doing Business Survey.

The lack of a lean insolvency regime undermines entrepreneurship development in two main ways: i) it slows down business exit and thus stymies the entrepreneurial process of creative destruction which is key to the rapid reallocation of resources in the economy; ii) it discourages banks and other credit institutions from lending if they feel the chances they can recover part of the credit in case of bankruptcy are thin.

The importance of effective insolvency regimes for entrepreneurship and SME development is further detailed in box 13.

Box 13. **The importance of insolvency regimes for entrepreneurship and SME development**

Sound insolvency regimes which protect the rights of both creditors and debtors are instrumental to entrepreneurship and SME development. This is so for at least three reasons:

- In their absence, SMEs which are viable but have short-term liquidity issues will not have the necessary legal protection to solve their business distress. Creditors may, in fact, demand immediate repayment, jeopardising not only the survival of the company (and its jobs) but also their chances of getting their credit back;
- In the case of non-corporate SMEs, debts taken by the entrepreneur on behalf of the business and on behalf of his/her household are not separated. This means that all belongings of the entrepreneur may be claimed by creditors in case of liquidation, which may turn into a big disincentive to engage in entrepreneurship *tout court*;
- For the economy at large, messy liquidation processes imply a less efficient reallocation of resources than if the rights of creditors and debtors were adequately protected.

A modern framework for SME insolvency should cover both corporate and non-corporate SMEs and include the following key elements:

- There should be clear and transparent rules through which the entrepreneur is given the opportunity to present a re-organisation plan and keep his/her business alive. This means, for example, that creditors need to provide a solid legal and/or business case to reject the re-organisation plan of the business submitted by the entrepreneur.
- Likewise, clear and transparent rules for the liquidation process should also be part of the legal framework. If an agreement between creditors and debtors cannot be found, the business must be liquidated so that creditors can be promptly repaid in full or in part depending on the seniority of their credit. In this respect, rules of discharge should be unequivocal about which profile of debtor will be paid first in case of bankruptcy (*e.g.* institutional vs. private, loan provider vs. bondholder, etc.).
- There should be mechanisms, including the prospect of jail sentence, to punish fraudulent behaviours such as the sale of the company assets before filing for bankruptcy to avoid the repayment of creditors. In a similar vein, there should be limits to the number of times an entrepreneur can file for bankruptcy.

Insolvency regimes need to go beyond a proper bankruptcy law. Credit bureaus which gather information about business solvency are also important to make sure that lenders and investors are aware of those companies which are going through bankruptcy. Also, there is a need for legally certified insolvency administrators (usually lawyers or certified accountants) who manage the liquidation process on a daily basis, for example selling at market prices the assets of the bankrupt company. Finally, whenever possible, out-of-court solutions to clear divergences between debtors and creditors should be pursued to avoid an excessive burden on the court system and reduce the length of the bankruptcy process.

Source : OECD based on IFC (2010), *Scaling up SME Access to Financial Services in the Developing World*, Washington, DC.

Box 14. **Singapore's bankruptcy law**

In Singapore when a person becomes insolvent, or is unable to repay his debts to his creditors, the creditors may decide to institute bankruptcy proceedings against him. A Bankruptcy Order will allow the Official Assignee appointed by the Court to administer the estate of the debtor and distribute such property as fairly as possible amongst the creditors. Alternatively, the debtor himself can also file for bankruptcy.

A petitioning creditor or debtor can begin bankruptcy application, if the debtor

- has property in Singapore;
- resides in Singapore;
- resides in, or carried on business in Singapore, one year before the bankruptcy application;
- owes a sum of money exceeding $10 000, payable immediately and enforceable in Singapore;
- is unable to pay the debt.

If the debtor is the applicant, he must provide proof that he is unable to pay the debt. Similarly, if the creditor is the applicant, he will also need to prove that the debtor's liabilities exceed his assets. The presumption of inability to pay arises when the following is satisfied, in accordance to section 62 of the Bankruptcy Act:

- The debtor failed to comply with a Statutory Demand to pay the debt;
- The debtor failed to comply with a court issued execution to pay the debt;
- The debtor has fled the country to avoid repayment;
- The Official Assignee certifies that the debtor is unable to pay the debt;

After the Court grants the application, the Bankrupt must submit a statement of his assets, liabilities and creditors. Failure to do so can result in imprisonment or a fine. The Official Assignee will then sell off his assets (i.e. liquidation). The Bankrupt can also make an offer of composition or a scheme of arrangement to pay his debts (usually a certain percentage of his debts, in monthly instalments) to his creditors (i.e. reorganisation). The creditors can decide whether to accept such offers.

After selling off the debtor's assets, the dividends will be paid by the Official Assignee to the creditors who have provided proof of the debts.

If the debts have been fully repaid, or if the creditors reach an agreement with the debtor, the Bankrupt can then apply for annulment of his Bankruptcy status. Otherwise, the Bankrupt must continue to render an account of all his assets (for example, his monthly income) to the Official Assignee. He will be allowed to retain a certain reasonable amount for maintenance of himself or his family. The remainder must be given to the Official Assignee for repayment to his creditors.

Source: http://singaporelegaladvice.com/bankruptcy-in-singapore/

The boxes 14 and 15 provide examples of existing bankruptcy laws. One concerns Singapore which, as seen, has one of the least expensive insolvency regimes worldwide. The second is about the US bankruptcy law which is often considered as a model because of the extent it enables bankrupt entrepreneurs to file for protection from creditors for a certain period of time to try to reorganise their business.

Box 15. **The US bankruptcy law**

Description of the approach

About half of enterprises do not survive the first five years of their life and of all business closures, bankruptcies account on average for about 15% of the closures in Europe (A Second Chance for Entrepreneurs, EC, 2011). Bankruptcy is a legal proceeding involving a person or business that is unable to repay outstanding debts. Upon the successful completion of bankruptcy proceedings, the debtor is relieved of the debt obligations incurred prior to filing for bankruptcy.

In the United States, the bankruptcy code basically helps people who can no longer pay their creditors get a fresh start either by liquidating assets to pay their debts or by creating a repayment plan. The US bankruptcy laws also protect troubled businesses and provide for orderly distributions to business creditors through reorganisation or liquidation. Federal courts have exclusive jurisdiction over bankruptcy cases. There are two main chapters of the Bankruptcy Code:

- Chapter 7 or Liquidation: this provides for liquidation or the sale of a debtor's non-exempt property and the distribution of the proceeds to creditors. The bankruptcy trustee gathers and sells the debtor's non-exempt assets and uses the proceeds of such assets to pay holders of claims (creditors). Part of the debtor's property may be subject to liens and mortgages that pledge the property to other creditors.
- Chapter 11 or Reorganisation: this provides for reorganisation, usually involving corporations and partnerships. A debtor usually proposes a plan of reorganisation to keep the business alive and pay creditors over time. People in business or individuals can also seek relief in chapter 11.

Factors for success

Bankruptcy offers a number of advantages and disadvantages to failing businesses. The most important disadvantage is that it affects the debtor's credit rating. In the case of the US, for a period of up to 10 years after the filing, anyone requesting a credit report on the debtor will be informed of the bankruptcy. This can have long-lasting effects on the ability to buy a car or home, obtain a credit card or get a loan for a new business venture. But bankruptcy has become more common in the US over time and many creditors no longer automatically disqualify people because of their past history, though bankruptcy will certainly be an aspect in their decision-making process.

Box 15. **The US bankruptcy law** *(Continued)*

Another aspect to filing for bankruptcy under Chapter 7 is that the debtor may lose some or all of their property. If the property is not exempt, it will be sold and used to pay off the outstanding debts. Additionally, after filing for bankruptcy, debtors are prohibited from taking on a management role with a limited liability company and it can result in significant legal and court fees, depending on the length of the process.

Nevertheless, individuals and businesses often benefit from going through the US approach to bankruptcy. A crucial success factor is that it either wipes out the debt owed or delivers a plan for repayment of part or all the debt. Instead of lying idle, capital and assets can be redeployed productively. Throughout the process, debtors are protected by the federal courts from legal action by creditors. The government also provides protection from discrimination, such as protecting employees from being made unemployed solely because of a bankruptcy process.

Obstacles and responses

Chapter 11 represents a recognition that sometimes the value of a business is greater if sold or reorganised as a going concern, rather than if its assets are sold individually (*i.e.* Chapter 7). In other words, it may be more efficient to allow a troubled company to continue operating, cancel some of its debts and give ownership of the reorganised company to the creditors whose debts are cancelled. There are also obstacles to this, not least the fact that the resulting reorganisation and/or court process may take a significant amount of time, thus reducing the chances of a successful outcome. A company undergoing Chapter 11 reorganisation is also effectively operating under the protection of the courts until it re-emerges from the process. During this time it is able to stop debt payments, cancel previous contracts, etc., albeit with the bankruptcy court's approval.

Relevance for UAE/Abu Dhabi

The legal and regulatory barriers are extremely high in the case of the UAE. One of the most prominent barriers is the lack of a bankruptcy law according to international business norms. The result is that entrepreneurs may be unwilling to start new businesses or choose not to engage with commercial banks and other providers of finance for fear of being jailed, if the business fails. Commercial banks find it hard to manage risks, which results in restricted lending practices and high risk premiums in the form of interest rates charged to enterprises.

The introduction of a bankruptcy law using the principle of legal precedence would normalise personal and corporate bankruptcy procedures, reduce the risk to commercial banks while also spurring entrepreneurship in Abu Dhabi and the UAE, reducing the fears of the consequences of business failure. It would also be important to incorporate a "second chance" policy enabling honest formerly bankrupt entrepreneurs to return to the market and the economy.

The home-based business legislation (local)

Legislation on running a business from home is at the moment quite restrictive in Abu Dhabi, excluding certain sectors which are elsewhere commonly accepted and preventing men from this type of business activity. There is, therefore, scope for reforming the legislation surrounding home-based business by expanding the number of permitted trades and by including men among the possible users. The cost of establishing a traditional business in the UAE is, in fact, considerably higher than in the OECD, i.e. 6.3% of the average income per capita in the UAE vs. 3.4% in the OECD. A more relaxed approach to home-based business ownership, including lower registration and licensing costs, could contribute to expanding the numbers of entrepreneurs in Abu Dhabi, especially women's entrepreneurs.

For example, as noted further in chapter 3 of the report, there are constraints to setting out a home-based business in the food industry due to the reluctance by the Abu Dhabi Food Control Authority (ADFCA) to provide the necessary authorisation. While it is important that food is prepared and packaged in healthy conditions, legal remedies exist such as the obligation for home-based businesses to go through regular sanitary controls or to submit product samples for hygienic checks. In the United States, for example, state-level cottage food laws have regulated and facilitated the sale of home-prepared foods; in the context of Abu Dhabi similar laws could encourage women's entrepreneurship, which is not yet very common in the Emirate.

More generally, a simple and affordable licensing system for home-based businesses which is also available to men would help boost self-employment in the local population, including among those groups who are on the edge of the labour market such as the unemployed or the retired people. For example, France introduced in 2009 the so-called "auto-entrepreneur" regime to foster small-scale business creation, including among disadvantaged groups in the labour market (see box 16); since then the number of self-employed in the country has experienced a dramatic hike (*i.e.* 182 000 registrations only in the first six months of the law).

The business license system (local)

It has been noted earlier in the chapter that the business license system has been simplified through the creation of the Abu Dhabi business centres in 2012. Nonetheless, several stakeholders in the OECD fact-finding visit stressed that "doing business" could be further streamlined in Abu Dhabi. This happens in a national context where the UAE does not rank particularly

well worldwide with respect to the time and cost needed to set out a business (58th position in the World Bank Doing Business Survey). Although the results of this survey are based on the Emirate of Dubai, stakeholders in the fact-finding interviews reported how start-up costs in Abu Dhabi are higher than in Dubai due to a still relatively complex license system.

Some unusual practices in Abu Dhabi's business license system are the following: a) licenses are required for all economic activities (including common trades such as transport, carpenter or welder), rather than only for those which present a risk for the environment or consumers like in most OECD countries; b) licenses need to be annually renewed, which adds up to the costs of running a business (together with other requirements such as compulsory registration in the Chamber of Commerce); c) the business registration process appears to be the same regardless of the size or legal entity of the business, which has a disproportionate impact on smaller enterprises; d) while most licenses are managed by ADDED (commercial, agricultural, professional and occupational licenses), there are still sectors such as tourism and media whose licenses are issued by third authorities.

Box 16. **The French "auto-entrepreneur" regime**

The "Auto-entrepreneur" regime was introduced in France in 2009 by the *Law on Economic Modernization* with the objective to promote the legal recognition and simplify administrative procedures for self-employment. Thus, auto-entrepreneurs are exempt from registration with the national business registry and have lower bookkeeping obligations than traditional businesses..

To qualify as an auto-entrepreneur, the annual gross turnover of the business must be less than EUR 80 300 for commercial activities (*i.e.* purchase and resale of goods) and EUR 32 100 for services. On the other hand, the business can be the main source of income of the auto-entrepreneur or just a supplement to another primary source stemming from wage employment or a traditional business activity.

Early evidence shows that approximately 30% of the auto-entrepreneurs were previously unemployed and 12% had no professional experience, thus making this policy an important instrument of social inclusion. Three-quarters of auto-entrepreneurs have indicated that they would not have started a business without this new special legal regime, which points to a strong additionality of the policy. Finally, interestingly for Abu Dhabi policy makers, 40% of auto-entrepreneurs are running part-time businesses which integrate other sources of income. A similar policy could, therefore, work well in Abu Dhabi where much entrepreneurship by UAE nationals is of part-time rather than full-time nature.

Source: OECD/EC (2013), *The missing entrepreneurs: Policies for inclusive entrepreneurship in Europe*, EC Publications Office, Luxembourg.

The focus on target groups

One promising but often little explored avenue for governments to help social groups which are at the margins of the labour market consists in the promotion of self-employment. The Emirate of Abu Dhabi is actively engaged in this area. For example, women's entrepreneurship is primarily supported through the Abu Dhabi Business Women Council (ADBWC) and the Family Development Foundation. The ADBWC raise awareness about women's entrepreneurship and provides training to women in the Emirate. The Family Development Foundation, which has a broader mandate about the promotion of family values in the Emirati society, runs through its 16 centres nationwide training courses on leadership which are followed up by more hands-on activities on how to run a home-based business. Jobseekers fall within the mandate of the Tawteen Council, which is planning to launch an intervention in collaboration with KFED to encourage self-employment by the unemployed in the western region of Abu Dhabi. Finally, very hard-to-reach social groups such as former prison inmates and substance abusers are served by KFED through dedicated small-scale programmes such as "Al Radda" and "Ishraq".

These initiatives all make economic sense and, to some extent, are innovative in targeting groups such as former prison inmates or drug abusers who are often overlooked also in OECD countries. Nonetheless, they are mostly very small-scale initiatives, whereas the size of women's unemployment (18% in 2012) and the need to move the youth away from dependency on government jobs would require a scale-up of the resources committed to entrepreneurship support in both target groups.

Women's entrepreneurship

Greater women's participation in the labour market through both private-sector jobs and/or entrepreneurship would go a long way in enabling the Emirate of Abu Dhabi to achieve economic diversification through the different economic sectors which women choose for their business compared to men. Nonetheless, women's self-employment rate is still very low in the country as a whole. Only 2% of working women are involved in self-employment activity in the UAE, which is similar to other Gulf Cooperation Council (GCC) members such as Qatar and Bahrein, but lower than in other MENA countries such as Lebanon or Morocco (OECD, 2015). Multiple barriers prevent women from building new businesses in the UAE, including Abu Dhabi, such as challenges related to working at home or part-time, and lack of technical and logistical support to access markets. For example, UAE municipalities, including Abu Dhabi, require proof of a leased business location before

they can grant a business licence, which prevents women from starting a home-based enterprise when this could be their preferred choice, for example to combine work and family responsibilities.

In Abu Dhabi, as seen earlier, women's entrepreneurship is primarily supported by the Abu Dhabi Business Women's Council (ADBWC), whose mission is to promote women's participation in trade, commerce and industry mainly through awareness-raising and training. In the face of existing barriers to women's entrepreneurship, two suggested policy interventions advanced in this report are greater support for home-based entrepreneurship and the development of intermediate structures, such as worker cooperatives. These policy options are explained in greater detail in chapter 3 of the report.

Box 17. **Local good practice: The KFED's kitchen incubator project**

The Khalifa Fund for Enterprise Development initiated the Kitchen Incubator Project in partnership with the United Arab Emirates University to help foster an entrepreneurial culture among women in the food sector. The incubator is a licensed, commercially equipped facility that enables women to start food-related businesses. Operating any kind of food production business from a domestic kitchen is in fact not allowed in the UAE, so this deters many potential women entrepreneurs from pursuing their business ideas in this area of activity. The costs of establishing a commercial kitchen and obtaining a license to operate are also often prohibitive for most women. The KFED-sponsored incubator has therefore allowed a number of Emirati women to launch business operations which they would not have been able to start from their home base.

Source: OECD (2012) *Women in Business Policies to Support Women's Entrepreneurship Development in the MENA Region*, OECD Publishing.

Youth entrepreneurship

Youth entrepreneurship receives a great deal of attention in the Abu Dhabi policy agenda, primarily because of the high unemployment rate of young UAE nationals (*e.g.* youth aged between 20 and 30 make up 50% of total unemployed people in the UAE) and because of the reliance on government-sector jobs by most young Emiratis.

Several government interventions have already been put in place to support entrepreneurship among young Emiratis, including the Akoun Campaign, the IDEA Factory Competition and the UAE Academy's

Business Start-up and Innovation Park (BSIP), which have been profiled in chapter 1 of this report. These initiatives are, however, ad-hoc rather than part of an integrated strategy. Moreover, there is no formal evaluation of the impact of these initiatives. Nonetheless, the latest GEM data provides some encouraging signs, showing that Total Entrepreneurial Activity (TEA) in the UAE is the highest among young people aged 25-34 (14%).

With respect to youth entrepreneurship programmes, evidence from EU countries suggests that policy makers in Abu Dhabi should pay particular attention to four considerations (OECD/EC, 2012). Firstly, policy makers needs to be selective by ensuring that support goes to those young people with the best projects and initial human capital resources. Youth entrepreneurship programmes which have achieved good performance in terms of business survival and business growth have, indeed, tended to apply stringent selection criteria. Secondly, policy makers should favour concentration of resources over spreading resources thinly. In particular, financing should be large enough to enable young entrepreneurs to shy away from low value-added sectors where entry barriers are low but competition is fierce. Thirdly, youth entrepreneurship programmes should be based on a mixed services offer. For example, the effectiveness of supplying finance will be enhanced when it is complemented by advice, coaching and networking. Finally, youth entrepreneurship schemes can and should also be aimed at disadvantaged groups such as the unemployed. In this case, however, policy makers should be aware that: a) success may have to be measured not so much in terms of business growth as of the increase in the employability of the target group population through new skills acquisition; b) similar programmes may imply greater public expenditures than those for programmes for mainstream young entrepreneurs with higher chances of business success.

Conclusions and policy recommendations

The Abu Dhabi entrepreneurial ecosystem already has a large number of government and private-sector stakeholders actively involved in its support, with a strong catalyst in the Executive Council and strongest implementers in the KFED and ADDED. Moreover, significant resources have been committed to its development. At the same time, some framework conditions are not supportive of entrepreneurship, for example the lack of bankruptcy legislation. As Abu Dhabi enters a new period in time characterised by lower oil prices (oil being the main source of government revenues), it will be important to make good use of available resources, designing sustainable public support measures and

heightening the contribution of local SMEs to the diversification strategy at the core of the Abu Dhabi Economic Vision 2030.

The following recommendations are offered to move forward the Abu Dhabi entrepreneurial ecosystem and its broader policy framework.

- Make collaboration among public sector stakeholders with a say on entrepreneurship and SME policies more institutionalised, for example through the establishment of an SME advisory committee consisting of focal points from different government units (GSEC, KFED, ADDED, etc.) to discuss progress on ongoing policies, new needs in the ecosystem and propose policies to address these needs.
- Consider the launch of a comprehensive SME strategy which deals with all major issues of relevance to new and small business in Abu Dhabi (i.e. workforce and management skills development, innovation, access to finance).
- Advocate for the rapid implementation of the SME law at the federal level, starting with a common definition of SME to be used across the whole country to better assess the performance of this business segment and the impact of policies targeted at this segment.
- Establish set-aside quotas for SMEs in local procurement but combine this policy with training and mentoring to ensure that local officers are enable to enforce this measure. In addition, simplify the process of submitting tenders for small government contracts to attract more SMEs into applying.
- Further streamline the business license system by making licenses compulsory only for business activities which feature risks for the environment or the society at large and/or extending their validity beyond one year.
- As the local entrepreneurial ecosystem matures, make public support more sustainable by introducing development milestones which recipient firms need to meet in order to continue receiving government funding.
- Scale up resources for the promotion of youth and female entrepreneurship to tackle high unemployment and low labour market participation in these two groups.

Notes

1. Information from: *http://www.csrhub.com/CSR_and_sustainability_information/Abu-Dhabi-Department-of-Economic-Development*
2. Information from: *https://ded.abudhabi.ae/en*
3. Information from: *https://ded.abudhabi.ae/en*
4. Information from: *https://ded.abudhabi.ae/en*
5. Information from: *www.adced.ae/sites/En/SitePages/Home.aspx*
6. OECD (undated), Discussion Paper on Credit Information Sharing, Paris.

References

Hawkamah, World Bank, OECD, INSOL International (undated), *Study on Insolvency Systems in the Middle East and North Africa*.

Khalifa fund for Enterprise Development (KFED (2013), *Annual Report 2013*, Abu Dhabi.

OECD (2015), *Women in Business 2014: Accelerating Entrepreneurship in the Middle East and North Africa Region*, OECD Publishing, Paris. *http://dx.doi.org/10.1787/9789264213944-en*.

OECD (undated), "Discussion Paper on Credit Information Sharing", unpublished, Paris

OECD/EC (2012), *Policy Brief on Youth Entrepreneurship*, Publications Office of the EU, Luxembourg. *http://www.oecd.org/cfe/leed/Youth%20entrepreneurship%20policy%20brief%20EN_FINAL.pdf.*

Uttamnchandani M. (2011), "No way out: The lack of efficient insolvency regimes in the MENA region", World Bank Policy Research Working Paper, Washington

Zayed University (2013), *Entrepreneurship: An Emirati Perspective*, Abu Dhabi.

Chapter 3

Human capital development in Abu Dhabi

Introduction

In the past decade, significant Emiratization efforts have sought to incorporate Abu Dhabi nationals into the labour force, particularly in the private sector. The shift from a mode of social welfare to social development has not been easy. To date, the government has invested in an unparalleled expansion of the educational system, with record numbers of Emiratis, particularly women, attending university. However, even though they are increasingly well prepared, the graduates of this system, as well as the Emirati unemployed, are not well connected to entrepreneurship. While the incentives to obtain an education have been increasing, those to start businesses remain low. Thus, a pressing need exists to link this human capital development more effectively to the entrepreneurial ecosystem.

Even were these connections well-articulated, Abu Dhabi would continue to face special challenges of inclusion in entrepreneurship. The entrepreneurial gap is particularly high for Emirati women, who face multiple barriers due to their role in the home. Yet, the Emirate lacks appropriate policy instruments to translate women's high levels of educational attainment into business start-up opportunities, even if home-based.

The following looks first at the larger context within which the Abu Dhabi labour market is operating. After providing a brief overview of entrepreneurship-related training and education programmes, the chapter then offers a set of policy recommendations to strengthen the entrepreneurial ecosystem in terms of human capital development and inclusion.

Issues in human capital development and social inclusions

To understand better the special challenges that Abu Dhabi experiences in growing entrepreneurship, it is important to review key findings in the literature. We begin with an overview of why human capital is important in entrepreneurship, and then examine why and how policymakers have tried to make entrepreneurship more inclusive.

Human capital

Only a few studies examine the role of human capital in fostering entrepreneurship, but their findings suggest strongly that successful entrepreneurship stems from a relatively broad conception of human capital as not just education and training, but also skills developed through experience and understanding that comes with age—all interacting with what might be called innate potential. Human capital that combines education and experience gives employees the adaptiveness so key to entrepreneurship (Wright *et al.*, 2007). The more prior business ownership experience that an entrepreneur brings, the more likely that the new ventures will be initiated and expanded (Madsen *et al.*, 2003).

Work experience is important to entrepreneurship in part because a long career path brings broader social networks and effectiveness in building new ties (Mosey and Wright, 2007). Such interaction turns out to be even more important than collaboration with universities, particularly for regions dominated by low-tech businesses (Ramos-Vielba *et al.*, 2010).

This suggests a key gap in the approach to human capital development for entrepreneurship in Abu Dhabi. Thus far the focus has been much more on higher education than experience and social networks. Programmes to build connections and gain exposure to entrepreneurs would likely complement the educational system well although being the entrepreneurial ecosystem in Abu Dhabi quite young it will take time to build the density of networks and entrepreneurship experience seen in other advanced industrialized countries.

Social inclusion

Entrepreneurship rates have long varied across different groups, with business start-up and ownership rates typically lagging among both minority racial or ethnic groups and women (Bates, 1995). In the U.S. – much like Abu Dhabi – some native-born groups have struggled to create businesses at the same rates as immigrants. Hindering the emergence of entrepreneurship has been disincentives (such as welfare dependence and lucrative employment

opportunities) as well as lack of social networks and experience. Richer countries tend to lack the "necessity entrepreneurs" – those who start a business in order to survive – of poorer countries, which then leads to less experience with entrepreneurship generally (Reynolds *et al.*, 2005). Moreover, lacking supportive entrepreneurial networks, some richer countries may also inhibit the emergence of "opportunity" entrepreneurship (taking advantage of market opportunities) (ibid.) Studies of the entrepreneurship deficit have shown that would-be entrepreneurs often lack the family background in business that is so important for success, together with the training that provides competence in business management (Bates, 1995).

Gender differences in entrepreneurship occur across countries, although the extent of the gap differs; in general, men are 60% more likely to be involved with business start-ups or ownership than women (Reynolds *et al.*, 2003), but the gap tends to be lower in developing countries. Gender differences seem to occur because of contextual factors. The immediate social context – perception of business opportunities, contact with entrepreneurs, and confidence about skill levels – matters considerably for entrepreneurship, placing women at a natural disadvantage (ibid.). Even when women succeed in establishing firms, they lack the access to markets that male-owned firms have, which makes expansion difficult.

Policy efforts in advanced industrialized countries have made significant inroads in narrowing the gaps in entrepreneurship between groups. Specifically, agencies like the U.S.'s Small Business Administration have created programmes to build capacity and improve access to capital for underrepresented groups, and government set-aside programmes have provided a ready market for their businesses. Such programmes have been shown to increase minority and female entrepreneurship significantly (Bates, 1995; Rice 1995).

Human capital development and social inclusion in Abu Dhabi[1]

A fragmented labour market

In recent years, many GCC countries have adopted new development goals, focusing on modernization and diversification. One key objective is to reduce reliance on the immigrant workforce by developing a skilled indigenous labour pool (Kirk and Napier, 2009).

In terms of higher education reform, wealthy, oil-rich countries (such as the UAE and Qatar) have experienced the most rapid and dramatic success in developing a university system. The UAE has pledged to offer education free of charge to nationals at all levels, and thus all are entitled

to attend one of the three federal Higher Education Institutes if they meet the entry requirements (Wilkins, 2010). With universal schooling, the local population should gradually assume a greater role in the economy, though some dependence on expatriates will continue. Furthering this independence is the increase in private universities, which are perceived to offer higher quality education (Godwin, 2006). Due in part to the brain drain of skilled workers attending overseas universities, the Arab world had begun opening up academic systems to foreign and private competition in the 1980s (Romani, 2009). Most recently, the UAE in particular has become a global higher education hub by attracting international branch campuses of prestigious institutions from countries such as the U.S. and Britain; by 2009, the UAE had over forty providers (Wilkins, 2010; Becker, 2009). Although these universities foster modernization by reproducing western educational qualifications, they are experiencing numerous challenges, such as reconciling national goals (such as sectorial diversification) with local labour demand, and how much to rely on imported systems versus developing their own based on local traditions (Kirk and Napier, 2009).

Although the main focus of this report is on entrepreneurship among UAE nationals in Abu Dhabi, it is important to note the role of the non-citizen population in the workforce and how it structures opportunities for nationals. Oil wealth has allowed the UAE to import cheap foreign labour and invest in generous social benefits for nationals, most significantly the reservation of high-paying jobs for life in the public sector, but also health care and housing assistance, generous pension packages, and discounted utilities and gasoline. This has resulted, in part, in high unemployment rates among nationals, who may choose to remain unemployed until landing a government job (Forstenlechner and Rutledge, 2010). Not only is private sector employment disincentivised, but also it is culturally stigmatized: applying for a private sector job means that an individual has poor family or tribal affiliations (in Arabic, *wasta*) (Rutledge *et al.*, 2011).

With the private sector thus dominated by foreign workers, the UAE labour market is highly segmented. In fact, with just 7.4% of UAE nationals employed in the private sector (according to the UAE National Bureau of Statistics in 2009), it is more segmented than any other GCC country (with only Kuwait experiencing a similar level). Segmentation follows gender lines as well, since the majority of migrant workers are male. As experience in advanced industrialized countries has shown, overcoming segmentation poses tremendous challenges. For instance, in the U.S., shifting women and minorities out of their labour market segments has required a combination of policies, including access to higher education, affirmative action, and anti-discrimination laws (Osterman, 1999).

One of Abu Dhabi's most critical challenges is increasing the labour force participation of women, who comprised just 16% of the Emirate's labour force in 2013 (compared to about 20% in the GCC region as a whole) (Scott-Jackson *et al.*, 2010). While the male unemployment rate of UAE nationals in Abu Dhabi has decreased from 7.3% in 2005 to 5.5% in 2012, the same rate for UAE female nationals has risen from 15.6% to 18%.. This has occurred despite their relatively high levels of educational attainment; 95% of female high school graduates continue on to higher education and women comprise 77% of college graduates. Behind this low participation are several factors, including the competition of high-skilled expatriates for jobs; family obligations that make full-time employment difficult; the cultural stigma of working in mixed-gender work environments, especially in the private sector, such as hospitality; and geographic and transportation constraints (ADEED, 2010; Rutledge *et al.*, 2011; Scott-Jackson *et al.*, 2010). In fact, a recent survey showed that household duties accounted for almost 62% of the economic inactivity among women (SCAD, 2014). These issues, particularly the cultural barriers and the potential infrastructure costs that result, discourage the private sector from hiring women (Rutledge *et al.*, 2011). These factors, in turn, suggest that entrepreneurship may be the most practical approach to increasing labour force participation for women. And in fact, business establishments owned by women in the UAE as a whole are relatively profitable, despite the particular challenges faced by women, such as the need for management skills and technology access, as well as time required for family obligations (ADDED, 2009; Scott-Jackson *et al.*, 2010). For instance, a recent survey by the Abu Dhabi Businesswomen's Council found that almost 25% of businesswomen have an earnings ratio of 50% or more of total revenue, which is high relative to other Middle Eastern countries.[2]

All the same, business ownership is rare among women. In 2013, only 0.5% of the female employed population was a business owner (60% of which did not hire any employees), while the equivalent male rate was five times larger, 2.6%. Yet, this gap may be narrowing: although men are much more likely to have an established business, the share of women that expect to start up a business is just half that of men, and more women than men now have a nascent business (El-Sokari *et al.*, 2013). In general, these are rates much lower than found in the OECD area, for example, where self-employment rates (i.e. the rate of own-account workers out of the total workforce) range from 7% in the United States to 39% in Turkey.

Entrepreneurship-related human capital development in Abu Dhabi

As in many countries, Abu Dhabi has a complex and fragmented system of education and training. But unlike others, many of the programmes and institutions are quite new, creating an opportunity to instil a more entrepreneurial culture. Many of the universities are already incorporating entrepreneurship education (for instance, Zayed University, discussed below), and others are strongly linked to corporations and thus have infrastructure in place (*e.g.*, mentoring and internships, as at the Higher College of Technology). But weaknesses remain, particularly in vocational training and primary and secondary school education. And even where entrepreneurship education exists, it typically does not deal explicitly with issues of inclusion for women.

Entrepreneurship education and training takes many forms, from youth enterprise events, to programmes tailored to entrepreneurs funded by the Khalifa Fund, to undergraduate and graduate majors at the universities. But with many different entities in this area, there is very little coordination. This creates the potential for redundancy and hinders learning about best practices, undermining the objective of creating a vibrant entrepreneurial ecosystem which hinges on interconnecting and interacting parts.

Another challenge is linking these labour supply strategies with labour demand. Abu Dhabi Vision 2030 suggests a set of sectors that will be key to the region in the future, including energy, metals, aerospace, life sciences, tourism, health care, logistics, education, media, financial services, and telecommunication services. The Abu Dhabi Education Council links its strategic plans to the Vision, and conducts industry surveys on an ongoing basis to determine where demand lies, and thus what training courses to support. For instance, there is awareness that universities are under-producing graduates in STEM-related subjects and overproducing graduates in the humanities. This then has led to initiatives to encourage STEM take-up (such as scholarship programmes). However, the government does not analyse the training needs of the SME sector in particular, or monitor the quality of training that occurs. Training needs analysis is typically done via surveys, interviews, focus groups, or perhaps most effectively, on-site observation (McClelland, 1994).

Higher education

Abu Dhabi has made rapid progress towards the goal of equipping its indigenous labour supply with higher education. Of its 18 higher educational institutions, the three federal universities (UAE University,

Higher College of Technology (HCT), and Zayed University) dominate enrolment – and provide free undergraduate education. Nearly all of the remaining universities, which are public/non-federal or private, were founded after 2000.

Many of the universities feature close collaborations between academia and industry. For instance, Khalifa University collaborates with national companies in its Aerospace Research and Innovation Center to design cutting-edge, high-performance aerospace structures. UAEU has ongoing collaborations in industrial manufacturing, defense, and aerospace. Masdar has a number of sponsored research centers focusing on sustainable aviation with companies such as Boeing, Etihad, and UOP Honeywell. The ATIC-SRC Center of Excellence for Energy Efficient Electronic Systems was established through a partnership between the Advanced Technology Investment Company and the Semiconductor Research Corporation and is jointly hosted in Abu Dhabi by the Masdar Institute and Khalifa University of Science, Technology and Research. Abu Dhabi Polytechnic is developing a program in petroleum engineering in collaboration with the Abu Dhabi National Oil Company. At the HCT, to ensure that curricula are demand-responsive, programme design is coordinated closely with companies, often working in concert with the Tawteen Council. HCT also offers the Centre of Excellence for Applied Research and Training, which develops training courses for existing and incoming employees of public and private sector organizations (such as the Abu Dhabi Police)

In addition, most universities offer some form of entrepreneurship coursework, on a spectrum from offering a major in entrepreneurship, to providing general exposure to entrepreneurship to a broad array of students. For instance, at one end of the spectrum is the Abu Dhabi School of Management, which specializes in entrepreneurship education at both the undergraduate and graduate level. At the other is Zayed University, which is introducing a mandatory freshman seminar on entrepreneurship, with plans to begin a pre-incubator center for graduating seniors.

Despite the growing course offerings, an examination of the curricula at several of the major universities revealed little content directed at women. Interestingly, universities in Dubai have taken more initiative in this area. For instance, Zayed University in Dubai has offered the "Emirati Young Women Leadership Forum," and the Khalifa Fund has co-sponsored an annual Women Entrepreneurship programme at the University of Dubai, with a small number of graduates.

Complementing the course curricula are efforts such as the "Akoun" programme, which is the result of collaboration between the Abu Dhabi Council on Economic Development (ADCED), the Abu Dhabi Chamber of Commerce and Industry (ADCCI) and KFED and which has seen increasing demand by students. "Akoun" develops entrepreneurship awareness across universities in the UAE (22 in 2013) by providing a series of workshops and then running a business-idea competition for students. The winners receive a money prize and take training courses from KFED to learn how to develop a business plan, although this does not necessarily lead to the creation of an enterprise.

The shortcomings of the higher education system in Abu Dhabi are well known, in part because of the work of the Abu Dhabi Higher Education Taskforce.[3] The Taskforce identified challenges in the higher education system, as well as an inability to meet the objectives of the Vision 2030. Universities place low in international rankings, and most of the issues have to do with quality: the lack of research infrastructure, the poor preparation of students, the limited course offerings, and the issues in retaining good faculty. As the system was being built, critics pointed to its fragmentation and lack of strategic planning (Nicks-McCaleb, 2005). The strategic plans undertaken by ADEC, as well as the Taskforce's work, have tried to address this by improving the quality of higher education, as well as monitoring implementation. However, there is still a dearth of specific strategies and funded programs to better link graduates with the Vision 2030, in particular the anticipated new labour demand in business, engineering, education, ICT, and medicine. The Taskforce instead suggests soft strategies such as partnership facilitation and accreditation. Likewise, though there is concern voiced about the employability of women, the planning thus far falls short of overcoming the real barriers women face in entering entrepreneurship.

Vocational training

Vocational training plays an important role in the diversification strategy of Abu Dhabi; many of the strategic sectors in the Abu Dhabi Vision 2030 rely on vocational training. As Emiratis start to form new businesses in these sectors, vocational training could gain significantly in importance. Moreover, vocational training can lead to apprenticeships, an effective channel to provide work experience and expand networks.

Relative to OECD countries, vocational training is scarce in Arab countries (Romani, 2009). Only 3% of post-secondary graduates in the UAE pursue vocational training, in part because of the availability of free university education, but also because of the stigma attached to job training.[4]

However, it is poised to grow because of higher admissions standards at the Higher College of Technology, which is pushing less qualified nationals into the vocational system (ibid.).

Increasing the prevalence of vocational training also makes sense as an Emiratization strategy. Apprenticeship models and on-the-job training may be a way to expose UAE nationals gradually to the private sector (Randeree, 2009). This could be particularly appropriate for the large share of Emirati boys who drop out of high school, up to 25%.[5] Finally, it may help meet critical demand gaps in strategic sectors such as health care, construction, tourism, and hospitality (ADDED, 2010).

The Abu Dhabi Education Council is not directly involved in the provision of vocational education and training (VET). Instead it is supervised by the Abu Dhabi Centre for Technical and Vocational Education and Training (ACTVET), which was created by the Abu Dhabi Executive Council in 2010 to preside over technical and vocational training in the Emirate. ACTVET delivers VET mainly through seven technical institutes spread across Abu Dhabi and gathered under the umbrella of the Abu Dhabi Vocational Education and Training Institute (ADVETI). Many ADVETI courses are also sponsored by companies, which ensure that skills supply meet labour demand and that VET graduates easily find a job in the private sector or in companies associated with the government.

Numerous private providers also offer short courses, many through the Tawteen Council. The Tawteen Council is the Abu Dhabi employment agency and provides employment services to national jobseekers between the ages of 16 and 60. It maintains a database to match jobseekers with vacancies, and works with both nationals and employers to make connections. As part of its focus on Emiratization, it is currently launching a new program to promote self-employment for the unemployed, but faces the ongoing challenge of incentivizing entrepreneurship. This programme will begin by targeting 100 unemployed people in peripheral areas. The Tawteen Council also helps to manage two efforts to increase the representation of UAE nationals in the private sector, the "Absher" Initiative (which provides support for on-the-job training, conditional on the private firm hiring the graduate), and the "Diresati" programme (which specifically targets the banking sector for training and hiring).

The UAE Academy, a subsidiary of the Abu Dhabi Chamber of Commerce and Industry, has launched similar Emiratization programmes, for a variety of industries. Curricula are tailored to the specific needs of corporate sponsors.

Two of the most promising programmes are in media and tourism. The "Tadreeb" Academy of Twofour54 provides media training in conjunction with global media organizations such as the BBC. Classes and on-demand training cover video journalism, digital audio techniques, writing for radio, social media, and other communications skills. The tourism training via the Abu Dhabi Tourism Authority is extensive, offering both tourist guide and hospitality training in partnership with tourism and hotel schools at universities such as Cornell, the University of Hawai'I, and Hong Kong Polytechnic. The goal of the Authority is to increase Emirati participation in the sector, currently at 1%.

Primary and secondary schools

In the primary and secondary educational system, particularly the public schools, there is little integration of entrepreneurship education into the curriculum; instead, it takes the form of extra-curricular activities. The major programmes are run by INJAZ, which connects youth to business mentors through the Junior Achievement programme.

An interesting experience, in this respect, comes from the Arab region and notably from Jordan where the national government decided in 2003 to mainstream the Junior Achievement Programme in the public school system through INJAZ, which as seen is also present in the UAE. The case is detailed in box 18.

Other entrepreneurship training programmes

- **The Khalifa Fund for Enterprise Development**

Outside the education system, the Khalifa Fund for Enterprise Development (KFED) plays the major role in entrepreneurship training in Abu Dhabi. KFED's products and services are, indeed, divided into funding and training programmes, although in most cases the training and funding components are intertwined (KFED, 2013)

Some training programmes of KFED have a clear industrial orientation, while others have rather a social objective in mind. Among the former are training schemes targeting the retail and the food and beverage sectors, as well as the Zarie programme. For example, since its inception KFED has supported 85 projects in the food industry sector with a total amount of AED 85 million.[6] Zarie combines training with funding to help Emirati farmers to convert to hydroponic techniques, a method of growing vegetables in water with mineral-nutrient solutions but without soil. Still under this group of training, KFED has recently developed a new 16-module Capacity Building Strategic Plan which is based on extensive training needs analysis resulting from surveys, interviews and on-field observations of local companies by its Training Department.

Box 18. **Partnership between the Jordan government and INJAZ JA to expand entrepreneurship capacity in Jordan**

In Jordan, the Junior Achievement programme operates through the NGO INJAZ. Launched in 1999, INJAZ-Jordan has delivered its programmes to 850 000 students and is active on more than 200 schools and 36 colleges and universities. One of the most important developments for the organisation was the decision of the Ministry of Education in 2003 to mainstream the INJAZ programmes in the public school system, including several entrepreneurship-related courses and programmes, such as the Entrepreneurial Master Class, "It's My Business", "My Entrepreneurial Project", and the Company Programme (where students start and run a company during the academic year). The Ministry of Education requested INJAZ to expand into more schools and to train teachers how to teach in a more entrepreneurial way through use of participative teaching-learning approaches. Since 2006, INJAZ has become a member of the Curricula and Training Unit within the Ministry of Education's Committee for Curricula Development.

In 2011, the Ministry of Planning and International Cooperation also developed collaboration with INJAZ to scale-up the Company Programme across all public universities over three years (2011-2014). The project aims to empower students as entrepreneurs, encourage the creation of 225 real businesses over the three years, and to support these companies in the post-creation phase to foster job opportunities for the programme students and their peers. INJAZ matches the company teams with coaches and mentors and provides linkages to sources of financing, incubators, and other supports and resources to enable their ventures to continue after the end of the programme. In the first year, 50 new businesses were created. The target for the second year was 75 companies and 100 in year three. A total of 3,375 students/young entrepreneurs, working in teams of 15, was expected to be implicated in the creation of the 225 companies. In 2012/13 INJAZ finally established a new "Enterprise Development Programme" to support the successful development of enterprises arising from the Company Programme through an array of business support services and resources co-ordinated by the Business Development Unit.

Critical in the development of INJAZ was the partnership with the King Abdullah II Fund for Development going back to 2004. Through this partnership the two organisations agreed to cooperate and co-ordinate efforts to help youth at Jordanian universities develop their life skills and prepare to enter the job market. This has to date enabled INJAZ to have access to students in 36 universities and community colleges across the Kingdom. In 2011/12, INJAZ also signed an agreement with the Vocational Training Centre to develop the business and entrepreneurship skills of youth, and with the Ministry of Social Development to deliver entrepreneurship programmes in orphanages and centres for youth with disabilities.

Source: AfDB (forthcoming 2014), "Good Practice Case Studies in Entrepreneurship Development and MSME Support: Volume II, Catalysing Job Creation and Growth through MSME Development in the Deauville Partnership Countries".

Among "social programmes" are Al Raddah, Ishraq and Amal, as well as training programmes targeted at women entrepreneurs. Al Raddah is an entrepreneurship training program launched in collaboration with the Abu-Dhabi Police for ex-offenders that develops soft skills and simple entrepreneurship training (*e.g.*, financial literacy), along with financial and logistical support for the transition to employment. Ishraq targets recovered Emirati drug addicts, supporting their entry into the business sector through soft skills and basic entrepreneurship training. Amal focuses on Emiratis with special needs, helping them to enter specific industry sectors (*e.g.* hydroponic farming) but also preparing them for self-employment through vocational training, soft-skill training, and business skills training.

Women's entrepreneurship is another major priority of KFED's training activities which is pursed in two different ways. First, a large number of KFED trainees in mainstream programmes are women, as much as 45% based on interviews carried out during the fact-finding mission (Abu Dhabi, 16-20 November 2014). Second, KFED has developed a special training module for women called "General Entrepreneurship for Women", which focuses on the provision of basic entrepreneurship skills such as business management, finance, introduction to technology and entrepreneurial lifestyle. In the future, KFED is planning to integrate "telecommuting" principles into this model to train women on how to run a home-based business through the use of information and communication technologies.

- **Entrepreneurship training by other entities**

A variety of other entrepreneurship training programmes exist in the Emirate – sometimes with the support and/or in partnership with KFED.

The Abu Dhabi Chamber of Commerce, for example, has been an early player in entrepreneurship training, working with the Women's Business Council and then via the UAE Academy, its subsidiary. The Academy offers a start-up boot-camp for unemployed nationals aspiring to run a business. The boot-camp begins with a psychometric assessment of their disposition for entrepreneurship. Based on their personal development plan, they develop an idea about a business opportunity. Training also covers resume preparation and soft skills such as interviewing for a job.

The "Emirates Foundation for Youth Development" runs six programmes targeted to the youth aged 15-35 across the UAE as a whole. The programme closest to economic themes is "Kafaat", which provides training on business writing to help young Emiratis obtain and retain a

job in the private sector. This programme targets 750 young Emiratis per year, with the best 200 of this group who also receive leadership and entrepreneurship training. Another small-scale programme by the Emirates Foundation provides financial literacy skills to university graduates, with a view to helping them better manage their savings and investments.

The Family Development Foundation works in partnership with KFED to provide start-up training workshops to a small number of women (with almost 60 participants this year, resulting in ten potential start-ups). The programme has experienced challenges in terms of participant attendance and drop-out rates, as well as aversion to risk, i.e., reluctance to borrow money from KFED. The programme is continuing with refinements, but there is also interest in starting a larger scale industrial project, perhaps a factory for handicrafts, connected to the "Sougha" Initiative, the social enterprise programme launched by the Khalifa Fund for national artisans that has thus far provided income for 148 families (El-Sokari *et al.*, 2013). The underlying rationale is that the diversification strategy set out in the *Abu Dhabi Vision 2030* involves sectors requiring scale, whereas only 0.4% of industrial firms in Abu Dhabi are women-owned as compared with nearly 8% in traditional sectors. At the same time, industrial projects are likely to need large external funding from banks or the government, which may shy away risk-averse Emirati women.

Another collaborative effort of the Khalifa Fund is the "Intilaqaah" training programme, entrepreneurship training for small or medium commercial projects based on the Shell Livewire social investment programme. Designed to help young, typically college-educated UAE nationals develop a comprehensive business plan, the free programme is run in collaboration with Shell, HCT, the National Bank of Abu Dhabi, and the Abu Dhabi Chamber of Commerce and Industry.

The way forward

There are four general areas where Abu Dhabi can improve with respect to human capital development and social inclusion in its entrepreneurial ecosystem: i) including women in the entrepreneurial ecosystem, ii) taking a more comprehensive approach to socially inclusive entrepreneurship, iii) bolstering entrepreneurship education, iv) linking entrepreneurship training to strategic sectors. Of these, helping women participate in the economy will likely have the largest impact. But for any of these to be effective, the Khalifa Fund will need to act more as system manager. Currently, without a clear champion for entrepreneurship, the educational and employment system is slow to change.

Box 19. **The Austria National Action Plan for Gender Equality in the Labour Market (2010-2013)**

Description of the approach

Austria's National Action Plan provides a roadmap for how to reach equality of women and men in the labour market. In Austria, the major issues are under-representation of women in the STEM fields; over-concentration in certain types of apprenticeships related to home economics and health care; lower labour force participation than men, gender pay inequality, particularly for part-time work; and under-representation in leadership positions, particular on private sector boards. The Plan adopts four strategic goals: diversifying educational paths and career choices; increasing labour market opportunities, particularly full-time work; increasing representation in leadership positions; and reducing the gender pay gap. The 55 measures recommended to attain these goals include providing more gender-sensitive education (such as gender-aware content and career guidance for women); reducing barriers to participation, for instance through technology training, support for child care, and flexible work models; increasing leadership through training; and collecting and analysing data on income disparities.

Although there has not yet been a formal evaluation of the plan's impact, several indicators suggest that shifts are underway. For instance, women's labour force participation has increased to 67.6% in 2013, up from 58.9% in 1995 (UNECE, 2014). The gender pay gap has dropped from 25.5% in 2006 to 23.4% in 2012. In the public sector, the proportion of women in leadership positions has increased from 27% in 2006 to 32% in 2013. An annual "gender index" measures progress on a set of indicators.

From 2009, prior to the Plan, the Austrian constitution had called for gender equality in the budget; every ministry must have at least one outcome objective related to gender. In 2013, as part of the process that the Plan set in place, the constitution incorporated gender-responsive budgeting and gender impact assessment as well. Finally, new national legislation includes an income-related child care benefit to encourage fathers to take parental leave, while also increasing the number of child care slots.

Factors for success

Several factors account for the apparent success of the Plan. First, the Austrian government had begun endorsing actions to end gender inequality almost thirty years earlier, when it ratified the U.N. Convention on the Elimination of All Forms of Discrimination against Women. It has regularly submitted progress reports on the areas of concern outlined in the Beijing Platform for Action in 1995. The 2009 Lisbon Treaty of the EU also requires the promotion of gender equality. Compliance with these platforms has increased awareness of gender inequality in Austria. Second, the process of developing the plan was extensive (lasting a year) and inclusive, involving broad participation from government, business, science, and nongovernmental organizations. And third, the Federal Minister for Women and the Civil Service took charge of the implementation of the Plan, creating a strong centralized voice for gender equality.

Box 19. **The Austria National Action Plan for Gender Equality in the Labour Market (2010-2013)** *(Continued)*

Obstacles and responses

Some of the plan's recommendations have not yet been implemented due to the need for more legislation to enact penalties and incentives. Work is ongoing at the executive and legislative branches to develop this regulatory infrastructure.

Relevance to Abu Dhabi

A comprehensive plan for gender equality would help spur action – and reduce women's unemployment – in Abu Dhabi. It would describe the challenges across different arenas, from education to work models to leadership to pay gaps. This would not only increase awareness but also demonstrate the need for more comprehensive approaches. As the 55 measures in the Austrian plan show, there are many different steps that need to be taken in order to address entrenched inequality. This example shows that it is possible to make progress if the planning process is inclusive, leadership is strong and institutionalized, and legislative bodies are supportive.

For further information

Austria National Action Plan for Gender Equality in the Labour Market (2010-2013), *https://www.bka.gv.at/DocView.axd?CobId=42528*

Supporting women's entrepreneurship

Though considerable planning and resources have gone into developing a new entrepreneurial ecosystem in Abu Dhabi, the system falls short in supporting the development of female entrepreneurs. Multiple barriers prevent women from building new businesses, including challenges of working at home and part-time, and lack of technical and logistical support to help businesses access markets. If Abu Dhabi could significantly increase the participation of women in the labour force, the private sector, and entrepreneurship, the Emirate would meet its goals of diversification much more rapidly. But to move forward, Abu Dhabi needs a much more comprehensive effort that maximizes its existing investment in women's higher education and addresses obstacles to participation throughout the economy and culture. A strategic plan for women's business would help diagnose the issues, raise awareness, and suggest strategies to be incorporated into entrepreneurship policies and programmes. Two key policy interventions are support for home working and development of intermediate structures – such as worker cooperatives – that help self-employed women grow their businesses.

1. Developing a strategic plan for women's entrepreneurship

The economic empowerment of women in Abu Dhabi will require strategic thinking in each of five areas: access to capital, access to markets, skills and capacity building, representation in leadership, and access to innovation and technology. For example, with a better understanding of special skills needed by women in order to work at home (*e.g.*, ability to troubleshoot a home computer network), universities may be able to adapt curricula for entrepreneurship education. Another example is company leadership. In the past, when the Abu Dhabi Women's Business Council tried to pass a law to mandate representation by women on the boards of government companies, there were unforeseen obstacles in implementation: board membership is not transparent and appointment typically works through political channels. The strategic plan could outline the reforms and steps needed in order to make such laws viable.

A strategic plan should begin by making the business case for women's participation: the costs of and returns to investment. For instance, limits on women's participation in the workforce in the Asia-Pacific regions cost the economy an estimated US $89 billion every year (APEC report). A strategic planning process could help to identify the special obstacles faced by women, as well as effective policy initiatives. Thus, issues that a plan might address include how to create all-female or gender-neutral environments for work and how to develop more flexible work models such as "hot-desking" (combining home work with workstation sharing), (Scott-Jackson et al., 2010). The Austria National Action Plan for Gender Equality in the Labour Market (2010-2013) provides a learning model that Abu Dhabi might follow (see box 19 in the previous page).

2. Enabling working from home

A recent Oxford Strategic Consulting Report on how to integrate women more effectively into GCC economies suggests that home working has the most potential of any strategy. Advanced industrialized countries have developed a class of working professional women by offering more flexible working arrangements, such as part-time working, flexible schedules, maternity leaves, and job sharing. Yet in GCC countries, home working is rare except for craft and catering workers. Surveys suggest that two major obstacles prevent implementing home working at a large scale: the lack of incentives (i.e., the lack of financial motives because of the availability of public sector work), and issues of trust (lack of control over employees). Yet, certain occupations could easily perform their work at home, including customer service, human resources, IT support, and market research. The report recommends the establishment of an intermediary to provide the

training and capital investment necessary to encourage companies to adopt home working. A bold step like this might help draw attention to the barriers to home working in Abu Dhabi, both for employees and entrepreneurs.

Emiratis face multiple challenges in starting home-based businesses, as previous work by KFED and others has shown. The major obstacle is in the licensing process, which is a barrier to business start-up and expansion more generally in Abu Dhabi and the UAE. The costs of starting a business, as a percentage of the income per capita, in the UAE is in fact nearly twice as high as in the OECD area (6.3% versus 3.4%).

In addition, regulations have been too restrictive to accommodate for the diversity of entrepreneurial needs, i.e. the different types of businesses including those run by women. For example, legal constraints have been reported during the stakeholder meetings about starting home-based enterprises in the food processing industry due to reluctance by the Abu Dhabi Food Control Authority (ADFCA) to provide the necessary authorisation. However, legal remedies exist in this particular business segment which could play an important role in the development of women's entrepreneurship in Abu Dhabi. Many countries have passed Cottage Food laws to facilitate and regulate the sale of home-prepared foods. For example, in California the law allows non-potentially hazardous foods – foods that do not require refrigeration to keep them safe from bacterial growth, such as breads, candy, dried fruit, and jams – to be prepared at home and sold to the public, either directly (*e.g.*, at bake sales or famers' markets) or indirectly. To qualify, business can make up to USD 50 000 in gross sales. Cottage Food Operators register with the state and must meet licensing and permitting requirements. The success of laws such as these in fostering entrepreneurship has led to their rapid replication across advanced industrialized countries.

3. Supporting the development of intermediate structures

Home-based businesses face challenges in expansion. In part subsidized by the low overhead costs that result from working in the home, the owner of a growing business may not be able to absorb the new costs of rent and utilities from establishing an independent location. And in fact, growing the business may itself be hindered by the poor access to markets that occurs due to the isolation of the business in the home. Two models that help to overcome these barriers are business incubators and worker cooperatives. The KFED and other intermediaries have experimented with incubators, but with challenges; in particular, the ADFCA has created kitchen incubators, or shared kitchen facilities for start-up catering, retail, or wholesale food businesses.

Worker cooperatives are another viable alternative. These currently employ 250 million workers worldwide and serve as a stepping stone for self-employed workers to move into entrepreneurship (Roelants *et al.*, 2014). Although cooperatives take many forms, they typically share several characteristics (ibid.): they provide economic efficiency and flexibility for businesses; they motivate participation by members; and they uphold traditional family values while also reinforcing community identity and pride. Globally, worker cooperatives are seen as a key to addressing the gender gap in entrepreneurship. For instance, in Japan, the growth of worker cooperatives is due largely to the flexibility it offers housewives, as well as the reinforcement of local values of community building over pure profit motives (Marshall, 2006; Fujii, 2013). The Kanagawa Women's Worker Collective provides an example.

Box 20. **The Kanagawa Women's Worker Collective**

Description of the approach

Worker co-operatives emerged in the 1980s in Kanagawa, as an employment solution that would allow middle-aged Japanese housewives to work part-time and still meet family obligations. In Kanagawa, there are 160 groups with almost 5 000 members, conducting 5.6 billion yen of business per year (Tusubogo, 2012). About 18 000 women now work in the network of almost 600 co-operatives across Japan, with tens of thousands more in independent co-operatives (Kisaburo, 2006). Membership of the national Japan Workers' Cooperative Union is about two-thirds women, and in the Worker's Collective Network of Japan as high as 93% (Marshall, 2006; Tsubogo, 2014). Most women run businesses in long-term care, child care, meal services, facilities operation and maintenance, and administration, specifically, restaurants, marriage counseling, ice cream making, bread baking, crafts goods, editing and translation, video production, and delivery services. Limits on working hours help women fulfill their family obligations without feeling pressure to work more. Businesses are typically founded with family savings, and may be mission driven, based on social utility more than profit (Fujii, 2013).

For the first couple of decades after its founding, the movement grew steadily – the number of co-operatives more than tripled in the 1990s alone (Kisaburo, 2006). It has benefitted from the existence of a growing group of middle-class women with children of school age and beyond, who don't wish for lifetime full-time employment like their husbands, but also want to avoid part-time and temporary employment. As the movement gained maturity, co-operatives have gained a focus on social inclusion, increasingly training workers with disabilities (Fujii, 2013). Some co-operatives are currently exploring the possibility of putting entire communities to work, from youth, to people with disabilities, to housewives, to the elderly (Hirota, 2010). In the last decade, particularly the last few years, challenges in Japan's economy have affected co-operatives, which have slipped in revenue from 12.7 billion to 11.3 billion yen (Tsubogo, 2014). In metropolitan Tokyo, almost half of the 63 collectives are not profitable.

Box 20. **The Kanagawa Women's Worker Collective** *(Continued)*

Yet, Kanagawa reportedly has more profitable enterprises than anywhere else, likely because of its close relationship to the Seikatsu Consumer Co-operative, which provides demand; for instance, the co-operative may not only purchase goods from local producers, but also use its advertising channels to promote unrelated services such as elderly care (Hirota, 2010).

Factors for success

Behind the growth of women's worker co-operatives are three factors. The constraints of culture and family obligations hinder women from re-entering the labour market after having children, and create a large labour supply of workers who desire to control their own work. Second, tax law penalizes secondary income and favors families constructed to include a breadwinner plus a housewife, rather than two breadwinners.[7] Finally, consumer co-operatives built entrepreneurial capacity among women. Most famously, the Seikatsu Club Consumer Co-operative, which started from a group of housewives seeking to buy better quality goods and lower prices, has become a successful social enterprise with over 300 000 members and sales of US $1 billion (Leung *et al.*, 2013). In organizing co-operatives for buying, women learned business and managerial skills; unemployed members could gain experience and income by working in the distribution centers (Marshall, 2006). Over time some began producing goods and services for the co-operatives, thereby launching worker's co-operatives.

Obstacles and responses

Critics point out that the businesses are not self-supporting, but instead reliant on the breadwinner's income. Moreover, the identity of participants remains that of a housewife, rather than an entrepreneur – and thus does not foster independence. Thus, it is not a true entrepreneurship training model.

Other challenges faced by the co-operatives is the lack of national laws governing them. This not only means that the enterprises are poorly regulated, but also that they may not be receiving tax benefits and subsidies to which they are entitled (Hirota, 2010). In response, lawmakers are considering emulating the Social Enterprise Development Act in South Korea, which is considered an effective model.

Relevance to Abu Dhabi

The Kanagawa example shows how middle-income, college-educated housewives – much like the unemployed women of Abu Dhabi – have expanded their home-based businesses into co-operatives. Also like many in Abu Dhabi, these women are not interested in entering entrepreneurship in order to develop a full-time business, but rather as an activity that they can conduct on the side while simultaneously meeting family obligations. Once in the co-operative, though, those who desire to expand have ready access to markets, because of the link to consumer co-operatives. Thus, the model accommodates traditional values while also offering the potential for eventual entrepreneurship.

For further information

See Cooperatives Japan website: *http://www.iyc2012japan.coop/whatsnew/l01217_01.html*

Taking a more comprehensive approach to supporting socially inclusive entrepreneurship

It is well known that government agencies are "siloed": departments work in specialized areas, hindering joint problem-solving. Two such silos that hinder entrepreneurship are in government purchasing and unemployment programmes. Government agencies typically purchase goods and services based on rationales that are purely economic, but it may make sense to address social goals via purchasing as well. Employment social enterprises can provide needed goods and services while also spurring entrepreneurship among under-represented groups – a "double bottom line" approach. Likewise, several countries are showing how traditional welfare or unemployment programs may move beyond purely providing job training and placement services to a broader approach to economic development via entrepreneurship training.

4. Creating employment social enterprises

Employment social enterprises are businesses that, usually through government purchasing, create jobs with the explicit purpose of employing people facing multiple barriers to employment, while also generating revenue to offset costs (Javits, 2013). Serving ex-felons, people with severe disabilities, or job seekers with other barriers to employment (such as family responsibilities), these firms sell a variety of goods and services, such as facilities management, document destruction, food processing, and landscaping, typically to government agencies. Revenues cover normal business costs and may also help cover some of the costs of the support systems needed by employees. The AbilityOne social enterprise is one such model.

Box 21. **Employment social enterprise "AbilityOne", the United States**

Description of the approach

Employment social enterprises are businesses with a double bottom line, focused on both creating a profit-making business and employing people with significant barriers to joining the workforce (Javits 2013). Most of these firms sell goods and/or services to commercial or government purchasers. Profits are invested in part in support services that help employees move into the private sector workforce. In the U.S., the AbilityOne network, formed in 1971, is comprised of about 500 non-profit organizations that are essentially employment social enterprises.

Box 21. **Employment social enterprise "AbilityOne", the United States** *(Cont.)*

Results achieved

The 500 firms in the AbilityOne network, with a total of 130 000 employees (47 000 with barriers), sell more than $2 billion of goods and services to the federal government each year, most notably the Defence Department. Many have grown to a significant size, and have moved to a mostly commercial market – though they still may require some support in the form of investment capital (Javits, 2013). About one-quarter of the firms employ less than five people, one-half employ 6-50, and one-quarter employ over 50. Overall, the firms that have had the most success in transitioning workers to the private sector are those that have offered training in specific occupational skills. In the most successful cases (such as the programme run by the Center for Employment Opportunities in New York), benefits have included decreased public costs (for incarceration and welfare) (ibid.).

Factors for success

Three factors have driven the rapid employment growth of firms in the network (Javits, 2013). First, federal regulations incentivized purchasing from these non-profits via streamlining of the procurement process. Second, the U.S. Congress created an intermediary organization (NISH) that provides technical assistance to businesses to assist them in fulfilling their contracts. This intermediary is funded by a 3.75% fee on the federal contracts. This has helped business to maintain their contracts over time – a predictability that then has allowed them to move into private sector markets. Finally, federally-funded support services, such as vocational rehabilitation, have helped people with disabilities work despite the challenges.

Obstacles and responses

Despite this success, concerns remain. Many employees have not succeeded at transitioning to stable employment in the private sector, and many firms have not developed private sector markets. Wage levels are inconsistent, and can be quite low. Over time, the network has responded by increasing marketing to commercial businesses, focusing specifically on the business-to-business sales that are less likely to move offshore. With few choices about location, these "captive" businesses may also pay higher wages. Another approach is to target luxury markets that can sustain high wages, such as that for locally sourced food.

Relevance to Abu Dhabi

The AbilityOne model could address the specific challenge in Abu Dhabi of employing the formerly incarcerated population. Training programmes for ex-felons often struggle with job placement. A program like AbilityOne links this labour supply to market demand, specifically government demand for goods and services. Programmes like this work well in countries where the government conducts extensive procurement. Implementation can be quite simple if the programme is built on existing infrastructure, making use of training programmes already experienced in working with population with barriers, as well as procurement systems already in place.

For further information: *http://www.abilityone.gov*

Employment social enterprises are an appropriate model for relatively affluent countries that can apply a "double bottom line" approach to government purchasing or contracting. Just like the government set-aside programmes that have built the capacity of women's enterprises in countries like the U.K., these programmes provide much-needed work experience to those who would otherwise be unemployed or underemployed as well as an alternative to the government to supplying more public-sector jobs. In some cases, the programmes target new firms, with the government acting as the initial client to launch the enterprise. In Abu Dhabi, one possible niche for such enterprises would be catering, since there are many events requiring local food.

The KFED and the Tawteen could take the lead on this, since they are already involved in programmes targeting hard-to-reach social groups.

5. Incorporating entrepreneurial training into unemployment programmes

Increasingly, unemployment programmes offer entrepreneurship training as a form of job training. In Abu Dhabi, too, there have recently been talks of a self-employment programme for the unemployed which will be offered by the Tawteen Council (the local employment agency) in collaboration with the Khalifa Fund for Enterprise Development (KFED). Since 1992 in the U.S., the federal Self-Employment Assistance Program has trained unemployed workers for entrepreneurship, while still providing them with unemployment insurance benefits. The most effective programmes tend to contract with microenterprise development organizations to provide training (CFED, 2012). Entrepreneurship training typically includes sessions on business planning, accounting, insurance and legal formation, management, marketing, sales, and financing; participants may also receive counselling on market feasibility. Participants must have a viable business idea, not competing with existing employers, on which they are willing to work full-time, staying in the region. The income from the new business is not deducted from the unemployment stipend. Still, enrolment remains relatively low (2 000 per year nationally), in part because of onerous steps to qualify: applicants must often show they have resources to get the business off the ground, and may also lose unemployment benefits after six months.[8]

One of the most successful policies supporting entrepreneurship by the unemployed is from Germany, which since the mid-1980s has experimented with schemes that foster business creation among job-seekers. More details are provided in Box 22.

Box 22. **The start-up subsidy for the unemployed in Germany**

The new Start-Up Subsidy (New SUS) was created in 2006 to merge the two previous programmes targeting self-employment by the unemployed in Germany: the Bridging Allowance and the Start-up Subsidy. It provides the unemployed with the benefit she or he would otherwise be eligible to for over the first 9 months of the start-up phase. A monthly lump sum of EUR 300 is also transferred for the same time period to cover social contribution requirements; the latter can also be extended for another 6 months to secure the livelihood of the unemployed person starting a business and partly overcome the capital constraints associated with the start-up phase. It is therefore an income-subsidy policy, combined with additional support services such as business planning and coaching aimed at strengthening the survival likelihood of the supported firms. Only people receiving unemployment benefits under Germany's federal legislation and whose business plan has been approved by the Chambers of Commerce are eligible for support.

Robust evaluation results are available for the former Bridging Allowance, which was subsequently merged into the new Start-Up Subsidy with a very similar design. By comparing the performance of participants with non-participants eligible for the programme, the evaluation points to positive income and employment effects especially for the low-educated, the youth and women, reaching the conclusion that the approach is more effective for groups that are disadvantaged in the labour market or in areas where opportunities for wage employment are scarce. The evaluation study also shows that businesses created by the unemployed are not necessarily structurally weak. Even after 5 years from the intervention, as many as 70% of male participants in East Germany and 68% of those in West Germany were still in business, while the lowest survival rate was for women participants in East Germany (56%). Between 30-40% of business founders also created additional jobs beyond their own.

Unemployment benefits can be used to subsidise self-employment by the unemployed, provided that the right set of incentives for the unemployed is in place. For example, social security contributions may have to be paid on top of the subsidy, which should be given on a monthly basis rather than as a lump sum. Similar schemes seem to work especially well for social groups who are disadvantaged in the labour market or in regions where wage employment opportunities are scarce. In the case of Abu Dhabi this means that policy makers may want to pilot this programme with women, whose unemployment rates are high and labour market participation low, and the unemployed in the peripheral western region. The programme could also be tested in the future with the youth more in general, although it will require a reduction in the existing supply of government jobs to become really appealing to the unemployed.

The Tawteen Council has already started a new program for entrepreneurship training for the unemployed, and there is the boot-camp at the UAE Academy, but both could learn from the variety of programs around the world.

Supporting entrepreneurial learning within and outside the education system

To encourage cultural shifts – such as a new entrepreneurial mindset – it is important to make use of formal and informal learning institutions. Numerous examples exist of entrepreneurship education at the primary, secondary, and tertiary school levels. Additionally, many countries have found that peer learning – acquaintances, friends and family sharing their experiences – is key to gaining buy-in to new ideas.

7. Systematically expanding entrepreneurship education

There is widespread agreement that Abu Dhabi needs to develop a more entrepreneurial culture. Many countries, most notably in Scandinavia, start by teaching schoolchildren about the economy and business. As described above, entrepreneurship training for youth in Abu Dhabi currently takes the form of extra-curricular activities, and is not well incorporated into regular classes.

Other countries have taken a more comprehensive approach (see boxes 23 and 24), by (1) including entrepreneurship in core curricula at primary and secondary schools; (2) training teachers in entrepreneurship skills; (3) providing decentralized resource centres; and (4) incorporating entrepreneurship training and testing into vocational programmes. The best of these programmes (such as Regional Entrepreneurship Education Strategy from Finland) use learning by doing strategies, i.e. encouraging the formation of pilot businesses among youth. Given the challenge of instilling entrepreneurship in Abu Dhabi, this more comprehensive approach would be appropriate.

8. Expanding university-level entrepreneurship education

At the university level, entrepreneurship education is headed in a positive direction. Most notably, the Akoun competition has quickly established itself across the entire UAE, and universities such as Zayed are gradually integrating entrepreneurship education into the core curriculum. However, to spur the type of shift required, more universities will need to take action. If the Zayed experiment proves successful, the Higher College of Technology, as well as the UAE University, should consider a similar requirement (the freshman seminar in entrepreneurship). In the longer term, accreditation bodies might require private universities to enact similar core classes.

Box 23. **Finland's Entrepreneurship Education Strategy**

Description of the approach

Over the past thirty years, in response to high unemployment among its youth, Finland has developed one of the most comprehensive entrepreneurship education strategies in the world (Kyro, 2006). This approach spans the educational process from pre-primary schools to universities; here we look at three aspects of the programme, including the strategic plan, youth entrepreneurship activities, and Me and MyCity, which teaches 6th graders about urban economies.

In Finland, although the national ministry of education provides general guidelines for entrepreneurship education, the regions have considerable autonomy in designing programmes, and regional resource centres provide a repository of local knowledge. One unique feature of the Finnish programme is that it encompasses vocational training, offering entrepreneurship courses and even exams on basic entrepreneurial skills (Hytti, 2004).

The Junior Achievement-Youth Enterprise network (JA-YE) is the world's largest entrepreneurship education organization, reaching over 10 million youths each year in 121 countries. JA-YE Finland provides entrepreneurship programmes for 7- to 25-year-olds, integrating business and financial management skills into the curricula of existing educational institutions. JA provides pre-made curricula – and support for their use – while also bringing in business volunteers to assist. For youth, the programme might involve setting up a mock company; for older college students, it includes mentoring such as job shadowing as well. In 2013-14, the programme reached 12 646 teachers, 2 281 business volunteers, and 55 109 students. The programme is funded by foundations, companies, and the European Social Fund.

In 2009, Me and My City emerged, using a creative learning environment – a miniature town – to teach sixth graders about work life, consumption, and entrepreneurship. The programme includes teacher training, learning materials for ten lessons, and a day-long visit to the miniature town. All can be readily adapted to different regions; for example, the professions assigned to students represent actual employer needs in the region. The curriculum includes exposure to banking and IT, virtual tools that monitor purchasing and payroll in the mock town. Thus far, the programme has involved 37 000 pupils, 1 500 teachers, 1 500 university/secondary school students (acting as mentors), 118 companies, and 210 municipalities. Me and My City has received awards from the World Innovation Summit for Education competition, as well as the European Commission and the International Partnership Network. The programme's current goal for expansion is to reach all Finnish sixth graders, and then to expand internationally.

Box 23. **Finland's Entrepreneurship Education Strategy** *(Continued)*

Factors for success

The major factor that contributes to the success of Finland's overall strategy is the comprehensiveness of its commitment, with significant resources expended in support of the regional centres and teacher training, and technical support coming from the international JA-YE network. Entrepreneurial activities are not just extra-curricular activities, but integrated into the school curriculum, so that all students are exposed. Another key factor seems to be the role of local government; with authority over education, local decision-makers can conduct impact assessments that serve as a basis for shared understandings among stakeholders (Hofer and Delaney, 2010).

Obstacles and responses

A recent evaluation of the implementation of curriculum reform suggests that it has been generally successful, but needs to get teachers more involved with business partners (Seikkula-Leino, 2011). One potential solution is provided by the Pori region, where the Pori Regional Entrepreneurship Education Strategy 2010-2015 has prioritized teacher training, with innovations such as teach-entrepreneur speed dates to help teachers build familiarity with business thinking (EU Interreg IVC Programme, 2012).

Relevance to Abu Dhabi

The model of entrepreneurship education in Finland has important lessons for Abu Dhabi. Integrated into school curricula, entrepreneurial thinking is becoming a skill held by school graduates at all levels. The expansion of entrepreneurship education over thirty years has occurred due not just to the investment of resources, but also due to a commitment to teacher training and the involvement of international institutions. Such a comprehensive approach would be required to advance entrepreneurship education in Abu Dhabi.

For further information

Junior Achievement Finland website: *http://nuoriyrittajyys.fi/en/junior-achievement-finland/*
Me and My City website: *http://www.memycity.org/*
WISE-Qatar. "2014 WISE Awards: Me and MyCity." World Innovation Summit for Education, 2014. *http://www.wise-qatar.org/me-and-mycity-finland*.
Contact: Carla Javits, President, Roberts Enterprise Development Foundation.

Box 24. **International good practices in entrepreneurship education initiatives**

Cooperative development of entrepreneurship education programme in the Netherlands

The Dutch Ministry of Economic Affairs and the Ministry of Education, Culture and Science launched the National Entrepreneurship Education Programme in 2000. They formed a consultative commission on entrepreneurship and education consisting of people from different fields of education, employer associations, entrepreneurs, and the Dutch Association of SMEs to draft proposals for the development, piloting and implementation of promising activities to foster enterprise and, entrepreneurial skills and awareness, spanning all levels of education from primary school to university. The government approved a subsidy scheme on entrepreneurship to support pilot projects (*e.g.* seminars, training for teachers), and larger projects to develop learning instruments and methods to make entrepreneurship a core component of the curriculum. The Education and Entrepreneurship Action Plan has been ongoing since 2007. The goal of the Action Programme is to see a growing number of pupils and students showing more entrepreneurial behaviour and starting up their own business within five years of completing their education.

The National Centre for Entrepreneurship Education in the United Kingdom

The National Centre for Entrepreneurship in Education (NCEE) (previously named the National Council for Graduate Entrepreneurship) was established in 2004 and designed to develop the link between industry, students and higher education institutes seeking to facilitate improvements in the "enterprise culture" within UK universities. Its objectives are to: raise the profile of entrepreneurship across further and higher education, stimulate cultural change across universities and colleges, build capacity through staff development, and support the choice of starting a business among students, graduates and staff. It has fostered the development of many programmes to integrate entrepreneurship across university disciplines, train professors in the teaching of entrepreneurship, develop resources, support the formation of student enterprise clubs, and initiate support programmes for students and graduates who go on to start their own businesses. An evaluation of the impact of the NCEE programmes estimated a return to the UK economy of GBP 11 return for every GBP 1 invested. (*http://www.ncee.org.uk/*).

The Young Entrepreneurs Scheme for Schools (YES! Schools) in Singapore

Singapore's national SME Agency, which is part of the Ministry of Trade and Industry, launched the Young Entrepreneurs Scheme for Schools (YES! Schools) in 2008 with the objective of nurturing and encouraging the youth to be more entrepreneurial and innovative through hands-on entrepreneurship learning opportunities. The scheme provides funding support of up to SGD 100 000 (about USD 80 000) per polytechnic, up to SGD 50 000 per technical college and up to SGD 10 000 per junior college/secondary school/primary school to implement structured entrepreneurship learning activities to cultivate an enterprise mind-set among students and teachers. Entrepreneurial learning objectives and outcomes have been developed for the curriculum at all levels of the education system with the ultimate goal of nurturing aspiring youth to become entrepreneurs.

Linking entrepreneurship training to strategic sectors

The Khalifa Fund provides support in particular to certain sectors, such as agriculture, food processing, tourism, and ICT. But the rest of the entrepreneurial ecosystem is not necessarily set up for these specialties, and the KFED itself may need to consider broadening its approach to support other key strategic sectors in Vision 2030, such as health care, logistics, or media. Some of the stakeholders met in the OECD fact-finding mission in Abu Dhabi, indeed, insisted on the importance for KFED to move from the support of small-scale and relatively marginal entrepreneurial activities to industrial projects in manufacturing sectors, which would however require bigger public investments on each single project and, as a result, bigger funding of KFED from the Abu Dhabi government.

The most effective training programmes tend to target sectors with opportunities to insert more workers, either because of increasing demand or strategic opportunities (Conway and Giloth, 2014). Market opportunities may arise because of overall demand (*e.g.*, consumption of new information technologies), local demand and purchasing (for instance, when government agencies need catering services), or unique local specializations (such as traditional handicrafts). Thus far, moreover, much of the training system in Abu Dhabi has been supply driven; entrepreneurs have sought to create new businesses based on their own talents, rather than market forces. Future plans for entrepreneurship training could better link supply and demand. Policy makers should target and support entrepreneurs with business ideas that match well with demand in the Emirate, and this should be done across women's entrepreneurship support, public sector programmes and entrepreneurship education in the school system. This will require an ongoing effort to collect data on demand, which then would need to be disseminated regularly to educational and training programmes so as to be incorporated into curricula.

One weak spot in the entrepreneurship training system is vocational training. As described in Finland's entrepreneurship education strategy above, other countries actually incorporate entrepreneurship training into vocational programmes. There is also an opportunity to capitalize on existing vocational training programmes, such as those in media and tourism. For instance, existing efforts such as the "Sougha" Initiative might send successful crafts entrepreneurs to media or tourism training in order to expand their markets. But at present, the system lacks the mechanisms to formally connect the dots between these various training efforts.

Conclusions and policy recommendations

For a country that only began a serious effort to develop the private sector a decade ago, Abu Dhabi has made remarkable inroads. In essence, the Emirate has quickly developed some capacity to educate and train Emiratis for entrepreneurship. However, this new infrastructure, and the supply-driven strategy in general, has not yet produced a strong entrepreneurial ecosystem. There are multiple challenges yet to overcome.

First, though the higher education system has made it possible for UAE nationals to graduate from college, the unemployment rate of UAE nationals is high by international standards at 11.8% in 2011. This is particularly true for women – unemployment rate of 16.5% in the same year – and the youth aged 20-30, who contribute to the 50% of total unemployment by UAE nationals. This suggests that this supply-focused strategy may not be well-aligned with demand or cultural expectations or that the quality of the education system may need upgrading to be able to supply young workers with the skills requested by the local private sector. It will clearly take time to build entrepreneurship and to make sure that this feeds into the strategic sectors of the *Abu Dhabi Economic Vision 2030*. But a first step would be to connect jobseekers more effectively to employers, whether via the university or vocational system. As studies of entrepreneurship have shown, it is critical to increase work experience, in order to build the networks that then lead to entrepreneurship opportunities.

Second, despite the prevalence of female unemployment, there is not yet a system of support for women's entrepreneurship. Across all educational levels, the only programmes that explicitly target women are those by the Family Development Fund and the "Sougha" Initiative. And in fact, this is a near universal challenge in GCC countries, where just a few have taken aggressive steps to foster women's entrepreneurship. For instance, Qatar has launched the "Roudha" Centre, an incubator for women entrepreneurs. The Roudha Centre helps develop women entrepreneurs through technical assistance for both start-ups and growing business. Via a unique immersion experience, the Centre mentors entrepreneurs, helps them navigate regulations, and offers start-up space. Funding comes mostly from the sponsorship international organizations. Roudha is the only NGO in Qatar and GCC countries that focuses exclusively on women's entrepreneurship.[9]

Finally, many of the existing training programmes report that classes are not well attended and graduation rates are low. Rather than increasing the number of classes, it may be more effective to reduce the amount of redundancy and increase participation. This suggests

the need for a system coordinator or manager. Much as ADEC guides the educational system in general, there could be a role for the Khalifa Fund in facilitating the training system specifically for entrepreneurship. Indeed, it seems that the Fund, while continuing to provide training, is also starting a broker role, by building relationships with external players and outsourcing some of its training.

Policy recommendations: implementing the "way forward"

To advance the agenda outlined in the section called "the way forward", the Khalifa Fund will need to act more as system manager. Currently, without a clear champion for entrepreneurship, the educational and employment system is slow to change. KFED will need to develop an even more active collaboration with the other actors in the system, which focuses on specific types of education and training. With the help of the models described above, it might help the Abu Dhabi Education Council to act quickly to insert entrepreneurship education particularly at the primary and secondary school levels, ACTVET to insert entrepreneurship education into the vocational training system and the Tawteen Council to implement and scale up its entrepreneurship training for the unemployed.

Each of these actors, as well as the smaller agencies such as the Family Development Foundation and the UAE Academy, can play specific roles in implementing the "way forward" described above. In particular:

- Make the strategic planning process around entrepreneurship education, female and youth entrepreneurship, and entrepreneurship for the unemployed participatory of relevant stakeholders. Although KFED is clearly well positioned to shape in much of the systemic reform needed, it will take the engagement of all of the actors to achieve results.
- Champion regulatory relief for home work, as well as the development of new worker cooperatives, primarily through KFED and ADDED.
- Support employment social enterprises and entrepreneurship training for the unemployed primarily through the work of the Tawteen Council in collaboration with KFED.
- Engage former KFED alumni in entrepreneurship training for new entrepreneurship, peer-to-peer learning being an important source of entrepreneurial skills development. For example, as a condition of enrolment in KFED's training programmes, new entrepreneurs might be required to "give back" in other classrooms for entrepreneurship training. This might take place in KFED's own classrooms, but could also be effective in primary and secondary schools.

- Introduce entrepreneurship training through all levels of education, with leadership taken by the Abu Dhabi Education Council, under the umbrella of the federal Ministry of Education, as far as primary, secondary and tertiary education are concerned, and ACTVET as far as vocational education and training are concerned. In both cases, support from KFED and universities already engaged in entrepreneurship education would be most helpful.

Notes

1. A description of the major trends in tertiary education, vocational education and training and entrepreneurship education in Abu Dhabi is provided in the first chapter of the report in the section on "thematic policy areas".

2. Abu Dhabi Department of Economic Development. "Abu Dhabi Businesswomen Council report: 88% businesswomen have no obstacles managing their own enterprises." Accessed May 8, 2015 at *https://ded.abudhabi.ae/en/media-center/news/Abu-Dhabi-Businesswomen-Council*.

3. Serving on this Taskforce (established in 2009) were the General Secretariat of the Executive Council, the Executive Affairs Authority, the Ministry of Higher Education and Scientific Research, UAE University, Advanced Technology Investment Company (ATIC), the Harvard Business School, University of Oxford and Imperial College London.

4. Hamdan, Sara. "United Arab Emirates Looks to Vocational Education." The New York Times, November 24, 2013. *http://www.nytimes.com/2013/11/25/world/middleeast/united-arab-emirates-looks-to-vocational-education.html*

5. Hamdan, Sara. "In the Gulf, Boys Falling Behind in School." New York Times. May 27, 2012, sec. Middle East.

6. Information from: *http://www.tradearabia.com/news/MISC_275021.html*

7. Specifically, if a wife earns more than one million yen, she must pay her own social security taxes and health insurance.

8. Haislip, Barbara. "Laid Off and Launching." Wall Street Journal, February 14, 2011, sec. Small Business. *http://www.wsj.com/articles/SB10001424052748703453804575479290365370782*.

9. Tawseen Consulting Blog, "Why aren't there more female entrepreneurs in the GCC?" December 17, 2013. Accessed at *http://tahseen.ae/blog/?tag=khalifa-fund-for-enterprise-development*

References

Abu Dhabi Department of Economic Development (ADDED) (2009), *The Role of Businesswomen in Economic Development in UAE: A Comparative Study*, Abu Dhabi.

Abu Dhabi Department of Economic Development (ADDED) (2010), *Trends of Demand in the Labour Market*, Abu Dhabi.

Abu Dhabi Statistics Centre (SCAD) (2014), *Statistical Yearbook of Abu Dhabi 2014*, Abu Dhabi.

Al-Waqfi, M. and I. Forstenlechner (2010). "Stereotyping of Citizens in an Expatriate-dominated Labour Market: Implications for Workforce Localisation Policy", *Employee Relations*, 32(4), 364–81.

Asia-Pacific Economic Cooperation (2015), "Policy Partnership on Women and the Economy," accessed at *http://www.apec.org/Groups/SOM-Steering-Committee-on-Economic-and-Technical-Cooperation/Working-Groups/Policy-Partnership-on-Women-and-the-Economy.aspx.*

Baldwin-Edwards M. (2011), *Labour Immigration and Labour Markets in the GCC Countries: National Patterns and Trends*, LSE Global Governance: Kuwait Programme on Development, Governance and Globalisation in the Gulf States.

Bates T. (1995) "Self-Employment Entry across Industry Groups", *Journal of Business Venturing*, 10(2), 143–56.

Becker R. (2009), *International Branch Campuses: Markets and Strategies*, The Observatory on Borderless Higher Education, London.

Carayannis E., D. Evans and M. Hanson (2003), "A cross-cultural learning strategy for entrepreneurship education: outline of key concepts and lessons learned from a comparative study of entrepreneurship students in France and the US", *Technovation*, 23(9), 757-771.

Collins L., A. Smith and P. Hannon (2006), "Applying a synergistic learning approach in entrepreneurship education", *Management learning*, 37(3), 335-354.

Corporation for Enterprise Development (CFED) (2012), "Self-Employment Assistance Expansion Advocacy Guide", *www.cfed.org.*

El-Sokari H., C. Van Horne, Z. Yuhuang and M. Alawad (2013), *Entrepreneurship – An Emirati Perspective*, Zayed University, Abu Dhabi.

EU Interreg IVC Programme (2012), Youth Entrepreneurship Strategies: Ways to Succeed with Entrepreneurship Education", Lille, France.

Forstenlechner I and E. Rutledge (2010), "Unemployment in the Gulf: Time to Update the Social Contract", *Middle East Policy*, 17(2), 38–51.

Fujii A. (2013), "Social Inclusion in Japanese Workers' Collectives", EMES Network, Liege.

Godwin S. (2006), "Globalization, Education and Emiratisation: A Study of the United Arab Emirates", *The Electronic Journal on Information Systems in Developing Countries*, 27(1), 1-14.

Hirota M. (2010), "Ninth National Assembly of Worker's Collective Network Japan", Accessed at *https://mig76en.wordpress.com/2010/04/16/9th-national-assembly-of-workers%E2%80%99-collective-network-japan/*

Hofer A. and A. Delaney (2010), "Shooting for the moon: Good Practices in Local Youth Entrepreneurship Support", OECD LEED Working Paper. Accessed at *http://www.oecd-ilibrary.org/industry-and-services/shooting-for-the-moon-good-practices-in-local-youth-entrepreneurship-support_5km7rq0k8h9q-en?crawler=true*

Hytti U. (2004), "State of the art entrepreneurship education in Europe", Turku School of Economics and Business Administration, Turku, Finland.

Javits C. (2013), "A Market Solution to Job Creation and Opportunity: Social Enterprise", Berkeley Institute for Research on Labour and Employment, Berkeley, California. Accessed at *http://www.bigideasforjobs.org/wp-content/uploads/2013/03/1a_Javits_Report_Entrepreneurship.pdf*

Khalifa Fund for Enterprise Development (KFED) (2013), *Annual Report 2013*, Abu Dhabi.

Kirk D. and D. Napier (2009), "The Transformation of Higher Education in the United Arab Emirates: Issues, Implications, and Intercultural Dimensions" in J. Zajda, H. Daun and L.J. Saha (eds), *Nation-Building, Identity and Citizenship Education*, 131–42.

Kisaburo O. (2006) "Worker Cooperatives in Japan", Paper presented at Expert Group Meeting on Cooperatives and Employment, Shanghai, China.

Kutzhanova N., T. Lyons and G. Lichtenstein (2009), "Skill-based development of entrepreneurs and the role of personal and peer group coaching in enterprise development", *Economic Development Quarterly*, 23(3), 193-210.

Kyro P. (2006), "Entrepreneurship Education and Finnish Society", Working Papers in Economics No. 152, Tallinn University of Technology, Estonia.

Leung A., C. Zietsma and A.M. Peredo (2013), "Emergent Identity Work and Institutional Change: The 'Quiet' Revolution of the Japanese Middle Class Housewives", *Organization Studies*, 0(0), 1-28.

Madsen H., H. Neergaard and J. Ulhøi (2003), "Knowledge-intensive Entrepreneurship and Human Capital", *Journal of Small Business and Enterprise Development*, 10(4), 426–34.

Marshall R. (2006), "The Emergence of Worker Cooperatives in Japan among Middle-Aged, Middle-Class Housewives in the Late Twentieth Century", *Labor in Cross-Cultural Perspective*, AltaMira Press, Oxford, United Kingdom.

McClelland S. (1994), "Training Needs Assessment Data-gathering Methods: Part 4, On-site Observations", *Journal of European Industrial Training*, 18(5): 4-7.

Mosey S. and M. Wright (2007), "From Human Capital to Social Capital: A Longitudinal Study of Technology-Based Academic Entrepreneurs", *Entrepreneurship Theory and Practice*, 31(6), 909-35.

Nicks-McCaleb L. (2005), "The Impact of State Funded Higher Education on Neighbourhood and Community in the United Arab Emirates", *International Education Journal*, 6(3), 322-334.

Osterman P. (1999), *Securing Prosperity. The American Labor Market: How it has Changed and What to Do about It*, Princeton University Press, Princeton, New Jersey.

Ramos-Vielba, I., M. Fernández-Esquinas and E. Espinosa-de-los-Monteros (2010), "Measuring University–Industry Collaboration in a Regional Innovation System", *Scientometrics*, 84(3), 649-667

Randeree K (2009), "Emiratisation: Research and Practice in Human Resource Management", *http://rphrm.curtin.edu.au/2009/issue1/emiratisation.html*.

Reynolds P., N. Bosma, E. Autio, S. Hunt, N. De Bono, I. Servais, P. Lopez-Garcia and N. Chin (2005), "Global Entrepreneurship Monitor: Data Collection Design and Implementation 1998–2003", *Small Business Economics*, 24(3), 205–31.

Rice M. (1995), "Minority Business Enterprise Set-Aside Programs, Disparity Fact-Finding Studies, and Racial Discrimination in State and Local Public Contracting in the Post-Croson Era", *National Political Science Review*, vol. 5, 215-240.

Roelants B., E. Hyungsik and E. Terrasi (2014), *Cooperatives and Employment: A Global Report*, CICOPA & Desjardins Group.

Romani V. (2009), *The Politics of Higher Education in the Middle East: Problems and Prospects*, Crown Center for Middle East Studies, Brandeis University, Waltham, Massachusetts.

Rutledge E., F. Al Shamsi, Y. Bassioni and H. Al Sheikh (2011), "Women, Labour Market Nationalization Policies and Human Resource Development in the Arab Gulf States", *Human Resource Development International*, 14(2), 183–98.

Sakurai M. and S. Hashimoto (2009), "Exploring the distinctive feature of social enterprise in Japan", draft paper prepared for the Joint Research Project of East Asian researchers and the EMES European Research Network.

Seikkula-Leino J. (2011), "The Implementation of Entrepreneurship Education through Curriculum Reform in Finnish Comprehensive Schools", *Journal of Curriculum Studies*, 43(1), 69–85

Scott-Jackson W. , K. Bashar, A. Porteous and A. Harb (2010), *Maximizing Women's Participation in the GCC Workforce*, Oxford Strategic Consulting, Oxford, United Kingdom.

Tsubogo M. (2014), "The Role of Civil Society and Participatory Governance in Japanese Democracy", *Japanese Political Science Review*, Vol. 2, pp. 39-61.

United Nations Economic Commission for Europe (UNECE) (2014), *Regional review of progress: Achievements and challenges in promoting gender equality in the ECE region by country*, UNECE, Geneva.

Wilkins S. (2010), "Higher Education in the United Arab Emirates: An Analysis of the Outcomes of Significant Increases in Supply and Competition", *Journal of Higher Education Policy and Management*, 32(4), 389–400.

Wright M., M. Keith, D. Hmieleski, D. Siegel and M. Ensley (2007), "The Role of Human Capital in Technological Entrepreneurship", *Entrepreneurship: Theory and Practice*, 31(6), 791-806.

Chapter 4

Innovative entrepreneurship and SME innovation in Abu Dhabi

Introduction

This section of the report focuses on enhancing the support for innovation and innovative entrepreneurship in Abu Dhabi. Definitions vary but the US Advisory Committee on Measuring Innovation, for example, defines innovation as: 'The design, invention, development and/or implementation of new or altered products, services, processes, systems, organisational structures or business models for the purpose of creating new value for customers and financial returns for the firm' (US Department of Commerce, 2008). As this definition makes clear innovation occurs in all industries – manufacturing and services, traditional and high-tech – and all sectors have the potential to generate new value for consumers and enhanced profitability for business owners. The stress is also on innovation as a business process rather than a technological process; innovation may involve a technological advance or breakthrough but in many cases may not. Instead, innovation may be non-technical or design-led generating value-added without significant technical change (Talke *et al.*, 2009). Whether technical or non-technical, design-led or R&D based innovation is important as innovative firms have higher productivity, faster growth and greater export potential than non-innovators.

Important changes have taken place in recent years in terms of how innovation happens. Increasingly, traditional linear models of innovation in which R&D investments lead to new discoveries which generate new products and services have been questioned. Instead, innovation is now thought of as a social process shaped strongly by feed-back loops, collaboration and networks. This suggests the value of a systemic approach to the promotion of innovative activity stressing the role of national innovation systems and the bottleneck effects of potential system failures (Nelson, 1993). Here, government can play an important role to address

systemic failures that block the functioning of innovation systems, hinder the flow of knowledge and technology and, consequently, reduce the overall efficiency of R&D efforts. Such systemic failures can emerge from mismatches between the different components of an innovation system, such as conflicting incentives for market and non-market institutions (*e.g.* enterprises and the public research sector), or from institutional rigidities based on narrow specialisation, asymmetric information and communication gaps, and lack of networking or mobility of personnel.

Entrepreneurship can play a key role in generating new value within innovation systems. Much entrepreneurial activity, however, is concentrated in low-impact, slow-growing firms. Key to diversification is the small proportion of 'gazelles' or high-growth firms. For example, one recent academic review of over twenty empirical studies concluded that: "a few rapidly growing firms generate a disproportionately large share of all net new jobs compared to non-high-growth firms. This is a clear-cut result" (Henrekson and Johnasson, 2010). Such firms also create new markets, contributing to diversification and growth in non-traditional sectors.

In the remainder of this chapter, following a brief overview of innovative processes in Abu Dhabi, we focus on three development priorities for supporting innovation and diversification in the Emirate. First, in the light of on-going developments in R&D financing in Abu Dhabi through the Research Council, we suggest some proven policy models which might help to support the commercialisation of R&D activity. Second, we extend the discussion to include design and creative industries and suggest the potential for these sectors in encouraging diversification and supporting tourism in Abu Dhabi. Finally, we focus on the support mechanisms for gazelle companies which, if well supported, may provide the catalyst for rapid diversification.

Assessment of the Abu Dhabi innovation ecosystem[1]

A contrasting picture on R&D and innovation

Abu Dhabi's innovation eco-system presents some strong contrasts. On the one hand, R&D spending remains low by international standards; on the other, levels of innovation activity at firm level are relatively high and there are pockets of world-class R&D activity.[2]

Concerning R&D spending, one recent estimate puts current investment in Abu Dhabi at 0.5% of the local GDP, much lower than the average of 1.92 % of GDP across the EU28 and 2.07% across the EU15 in 2013. This is of consequence to Abu Dhabi's objective of building

a knowledge-based economy because investments in R&D provide an indication of the ability of countries and regions to create new knowledge underlying new technology-based products and because the process of conducting R&D provides a strong training ground for younger research staff.

At the same time, contrasting with the low level of local R&D investment in Abu Dhabi is some evidence which suggests that levels of innovative activity – the introduction of new products, services etc. – by firms in Abu Dhabi compare relatively well to those in other economies. Indeed, a recent benchmark report notes that around 65% of Abu Dhabi companies introduced a product or process innovation between 2008 and 2011, a proportion higher than most European economies including Germany (64.3%). This may be explained in part by the larger average size of firms in Abu Dhabi but may also reflect an emphasis on process rather than product innovation (ADDED, 2014). In addition to this, there are in Abu Dhabi centres of excellence such as the Masdar Institute, the Petroleum Institute and the Aerospace Research and Innovation Center (ARIC) which suggest the potential for developing other similar initiatives.

Nonetheless, the majority of innovation ongoing in Abu Dhabi is based on technologies developed elsewhere. As one recent report notes: "A closer inspection of the international data reveals an important difference between Abu Dhabi and the Nordic countries. Firms in the Nordic countries spend the bulk of their innovation expenditure on R&D, while Abu Dhabi firms devote the majority of their innovation expenditure on other innovation activities, mostly the acquisition of machinery, equipment and software … innovation activity in Abu Dhabi firms depends mostly on the diffusion of acquired technology" (ADDED, 2012).

The clear implication is that the majority of the innovation in Abu Dhabi results from bought-in technology rather than developed locally. There are similar findings in terms of entrepreneurship itself. For example, the 2013 Report "Entrepreneurship: An Emirati Perspective" finds that while Emirati entrepreneurs face similar cultural, educational, administrative, and financial barriers as entrepreneurs of other nationalities in the UAE, they additionally showed minimal involvement in the high-tech sector, due perhaps to the higher degree of risk and higher expenses related to technological innovation. Indeed, the survey found that 100 % of new businesses were no/low tech, a figure which had not changed since the Global Entrepreneurship Monitor Report was first published in 2006 (ADDED, 2012).

Taken together these results suggest that the majority of innovative entrepreneurship and innovation by established firms in Abu Dhabi are currently either derivative – based on technology developed elsewhere – or restricted to low technology sectors or activities.

Nonetheless, institutional developments in Abu Dhabi have been oriented to support future innovation (see chapter 1 for more details on programmes). The Abu Dhabi Educational Council has developed a new curriculum entitled the "New School Model" for public schools that focuses on building the 21st-century skills needed to foster innovation, including critical thinking, creativity, communication, and collaboration (Dutta *et al.*, 2014). One important trend in tertiary education in Abu Dhabi – central to more advanced innovation eco-systems – is the growing number of partnerships between academia and industry, with some of the most relevant examples highlighted in the first chapter of this report.

Broader developments in the governance of the local innovation system have also been put in place recently. The "Innovation Governance Framework" was recently submitted to the Executive Council for review. With the underlying principle that innovation must support the Abu Dhabi Vision 2030 objectives, the proposal was developed by the Innovation Committee within the Abu Dhabi Department of Economic Development (ADDED) which has been informally coordinating with other government entities. If approved, ADDED will be the overall coordinating body and the primary entity for the development of commercialization activity including the establishment of the Innovation Office; the Abu Dhabi Education Council will focus on education and R&D, as well as the establishment of the Research Funding Agency which will provide competitive funding schemes to support basic, applied, and industry-led academic R&D and innovation; while the Technology Development Committee (TDC) will be the primary entity on policy.

At the federal level, many of the framework conditions within which innovation and innovative entrepreneurship can take place are well established in the UAE. In particular, the legal basis for developing and protecting intellectual property is well established, with the UAE being a member of worldwide conventions on intellectual property including the Madrid Convention, the WTO, TRIPS, Patent Cooperation Treaty, etc. Protection for patents is provided by the Federal Industrial Property Law (No. 17 of 2002), and the law imposes fines and imprisonment for infringement. UAE is also part of the GCC Patent system which provides a mechanism for regional filings of patent applications with the GCC countries. Similar legal protections are also established for copyright

(the Federal Law Concerning Author's Rights and Neighboring Rights (no. 7 of 2002) and trademarks (Ernst and Young, 2011).

Overall, Abu Dhabi's innovation system is developing rapidly with both the policy framework and the Emirate's institutional capabilities growing quickly. Overcoming the institutional legacy of historically low levels of R&D will take some years as organisations re-orient towards more research-intensive activities. However, if Abu Dhabi is to maximise the benefits of increased R&D and innovation activity, developments will also be necessary in supporting the commercialisation of new ideas and firms with the potential for rapid growth. Both are discussed in subsequent sections.

Discussion of 'innovation' in Abu Dhabi also tends to focus on technological innovation. Globally, however, much innovation is driven by non-proprietary technology, creativity and design. Adopting this broader view of innovation suggests the value of extending institutional supports in Abu Dhabi beyond the technological field to embrace creativity and design. While a focus on creativity is implicit in some instances such as the Abu Dhabi Education Council's "New School Model", there is more that could be done to more strongly link creativity and design to innovation. This too is discussed in subsequent sections.

The way forward

R&D and commercialisation

R&D Capability at the firm level – either through the hire of specialised staff members or through the contracting of external consultants – has a number of advantages for SMEs. For example, it enables businesses to undertake long-term and uncertain innovation projects on their own (especially when they hire their own R&D staff) and strengthens the capacity of the enterprise to absorb knowledge from other sources, which makes it an active contributor and benefiter of the local innovation system. R&D personnel are also very likely to have strong personal networks which may provide valuable networks (channels) for technology diffusion.

Currently spending on R&D in Abu Dhabi is low by international standards and where R&D investment does take place it is concentrated in 'islands' of good practice. R&D activity is, therefore, concentrated in a few larger firms, while most SMEs have little R&D capability mainly due to lack of specialised staff. Developing this capacity will require an increase in both R&D leadership and R&D labour force in Abu Dhabi along with an increase in the level of research collaboration between industry and academia.

With respect to R&D leadership, the establishment of the Abu Dhabi R&D Council is a valuable step in raising levels of R&D activity and capacity in Abu Dhabi firms and forging stronger links between firms and knowledge organisations. The potential is that the R&D Council, through its oversight of the technological innovation system and funding support, may be able to link together existing islands of activity and create a more coherent technological innovation system. In particular, the R&D Council should ensure that any funded R&D activity is strongly linked to effective commercialisation. This may involve the development of new start-ups, but should also emphasise stronger partnerships between research organisations and existing businesses. In the first case, business incubators linked to or at least collaborating with universities can play an important role (see the example of Oxford Innovation below). In the second case, the creation of a single desk-front office or technology intermediary institute by which local SMEs can access the whole spectrum of commercially relevant research in Abu Dhabi is one way of overcoming the frequent lack of communication between industry and university (see the example of Scotland's "Interface").

With respect to increase in the R&D workforce, the Abu Dhabi authorities should continue to keep in mind that the labour market for leading researchers is international, with different countries competing to attract leading scientists and research teams. Good wages are an important pulling factor, one which Abu Dhabi has no difficulty to lever, but are not enough on their own. Top-notch research facilities, research independence, high-quality social and cultural amenities as well as a more general culture of tolerance are also likely to influence the ability of a place to attract world-class researchers (Florida, 2002).

Another strand of research also stressed the importance of giving intellectual property over government-sponsored research to universities and faculty members actually undertaking the research. The rationale is that, in doing so, faculty members have a greater incentive to try and commercialise their own research, an incentive which would be diminished if property rights and future revenues from commercialisation were to belong exclusively to the sponsor government entity. In 1980, for example, the US Congress implemented a similar reform through the Bayh-Dole Act which, among other things, allowed universities to own patents arising from federal research grants. In the mid-2000s, the volume of university patenting, licensing activity and start-up formation had increased more than tenfold since the enactment of this Law (Siegel, 2007). The UAE federal legislation on patenting should draw inspiration from to the major guidelines of the Bayh-Dole Act, avoiding as much as

possible the distinction between UAE nationals and non-nationals in the public-sector funding of commercially-relevant research.

The role of design and creativity

Recent developments in the support for innovation in Abu Dhabi have focused on the importance of technologically-based innovation. However, beyond R&D, international research evidence also suggests the importance of other intangible investments in stimulating innovation across both manufacturing and services firms, emphasising particularly the role of design and creativity. Research findings show how the integration of design within new product development can positively affect the financial performance of a company as well as its corporate identity and brand (Ravasi and Stigliani, 2012). However, design is still often perceived as a late stage add-on in innovation and aimed at adding 'bells and whistles' to a new product or service.

As the Abu Dhabi economy moves towards maturity the need for design and creative thinking across the corporate sector is hard to overstate. First, creativity will naturally be the driving force for creative industries such as digital content, web-based activity and the software sector. Second, vital creative industries will also contribute to a vibrant cultural sector with positive implications for tourism, which is one of the sectoral priorities of the Abu Dhabi 2030 strategy. Third, and perhaps more importantly, creativity and design also shape much activity in the broader manufacturing and service economy, turning ordinary products and services into high-value propositions with stronger market appeal.

There are already elements of the Abu Dhabi economy where design and creativity are strong drivers of diversification and growth. For example, in the university sector the introduction by Zayed University of a degree programme in Art and Design in line with international accreditation standards (of the US National Association of Schools of Art and Design) is important.[3] However, as with R&D and technological innovation, these pockets of activity remain limited, and there is certainly the potential to substantially increase the contribution of design and creativity to productivity gains and broader economic development in Abu Dhabi. This can happen in multiple ways. First of all, design can increase the value-added contribution of manufacturing activities, which is especially important at a time when the UAE seeks to diversify from the oil sector and strengthen the contribution of manufacturing to national GDP. Second, design and creativity-oriented activities may ease the introduction of innovations in small and medium enterprises, which are less prone to R&D than large companies, and thereby back the growth of the still incipient SME sector.

Third, these forms of non-technological innovation may encourage entrepreneurship in segments of the society which are less economically active than the average, such as in women (*e.g.* through the manufacturing of traditional dresses or other items) and in residents of the most remote areas of the Emirate (*e.g.* through the development of sustainable tourism).

A new emphasis on high-growth firms

International evidence also suggests the importance of smaller, high-growth companies in stimulating economic growth and diversification. The evidence for different countries points out that in general terms between 4-6% of high-growth firms produces around half to three-quarters of all new jobs. The potential for such firms to contribute to the development and diversification of Abu Dhabi is therefore substantial.

In this respect, two issues are important to retain for policy makers. The first concerns the profile of high-growth firms. Unlike what commonly thought, these firms are found across all sectors of the economy and are not more likely to be technology-based companies. If anything, they are proportionally overrepresented in the services industry (Henrekson and Johansson, 2010). Moreover, high-growth firms are more likely to be young and small, with firm age being a stronger determinant than firm size. High-growth firms can therefore make a major contribution to the diversification of the Abu Dhabi economy away from the dominance of large companies but also beyond the technology-driven sectors.

The second issue concerns the type of support high-growth firms need from policy makers, which primarily involves access to finance and managerial advice and development. A recent OECD review has highlighted a number of international examples of such schemes which illustrate both the potential benefits and structure of such initiatives (OECD, 2013). However, at the moment, support for high-growth firms is very limited in Abu Dhabi with no targeted initiatives. This is at odds with international best practice and suggests that there is a potential role for the Khalifa Fund for Enterprise Development (KFED) in co-ordinating and delivering this type of support scheme. This would represent a development of the KFED's existing programmes of advice and support.

The nurturing of growth-potential firms in Abu Dhabi would also contribute to the diversification strategy enshrined in the Abu Dhabi 2030 vision. This envisages the creation of 'hub' or 'anchor' firms in target sectors around which small firms can coalesce as suppliers or contractors. While such anchor firms may usefully act as a first or lead customer for smaller suppliers or contractors, the ability of such small firms to grow will depend

on their acquisition of new customers, most probably internationally. Here, management, marketing and export development support may be valuable to maximise the growth potential of these firms. Building a cohort of high-growth firms from the base of local small firms which have the potential and ambition to grow would contribute to the diversification ambition of Abu Dhabi 2030, driving growth in both target sectors and ancillary industries.

Implementing the way forward

This section provides more details on how to advance the "way forward" agenda for promoting SME innovation and innovative entrepreneurship in Abu Dhabi. Accordingly, it keeps a focus on the three priority issues of research commercialisation, design and creativity, and high-growth firms.

Research and commercialisation

Linking R&D and entrepreneurship

Considerable progress has been made in recent years in strengthening the R&D base in Abu Dhabi including the very positive development of centres of expertise such as Masdar and the Petroleum Institute. The developing proposals for the Research Council, and strategies within the universities to strengthen their research focus, will continue this positive trend.

The Research Council would need to be high profile and adopt open and transparent practices for resource allocation as per international best practice. The Council itself should comprise members from each of the triple helix partners – industry, academia and government. It should be supported by staff who can monitor the development of the eco-system to inform Council priorities and decisions as well as effectively administer research funding. Research funding itself should be targeted at commercialisable research and wherever possible should aim to promote collaboration between industry and academia. There may be a role for the council in supporting research training – particularly PhDs – to increase the Emerati population with high level research training

Thus, the new Research Council should reflect international best practice in its operations by having a focus on:

- Collaborative grants – rather than grants to single enterprises collaborative grants can foster both collaborative research at local level and international collaborations where world-class expertise is brought into Abu Dhabi;
- Promoting research partnership – knowledge and expertise sharing between academia and industry will be key to effective commercialisation

in Abu Dhabi. Industrial organisations (*e.g.* Adnoc, Mubadala, Tawazun) can play a key role in providing practical research challenges for local universities and co-funding relevant research.

- International gateway – through bi-lateral or multi-lateral relationships the Research Council should be able to stimulate co-operation with target partner countries or supra-national groups;
- Pathways to impact – by looking beyond research outcomes to their end use, research priorities should be defined and resources targeted to ensure maximum national benefit;
- Social science research – through an understanding of structures and tensions within the innovation system it will provide a valuable counterpart to more technological activity. In this respect, it is welcome that this type of analysis is part of the profile of the Masdar Institute.

Building R&D capability and leadership

One of the key challenges faced by Abu Dhabi in increasing R&D capability in future years will be the attraction of new research leaders. Perhaps the key issue here – and also the potential opportunity for Abu Dhabi – is that the market for world-class R&D talent is international. The implication is that leading scholars will migrate to those areas where the personal rewards are greatest and where there exists the research infrastructure which allow them to peruse their scientific objectives most effectively.

The advantages of attracting eminent international researchers to be based in Abu Dhabi can be summarised as follow

- They will make a contribution to developing the local knowledge base. This may provide the basis for commercialisation through spin-outs, existing businesses or licensing to other organisations;
- They will contribute to research leadership, attracting to Abu Dhabi (and potentially retaining) internationally mobile younger researchers and students;
- They will contribute to the critical mass of research and capability in the target sectors in Abu Dhabi helping to build and reinforce the local eco-system;
- Through their international links they will generate network advantages linking researchers in Abu Dhabi to international best practice and world class research institutes;
- Their attraction will provide a 'demonstration effect' highlighting Abu Dhabi internationally as a location for world-class R&D.

Science Foundation Ireland – the model for the Abu Dhabi Research Council – has adopted this type of role seeking to attract to Ireland a range of international scholars in target disciplines. Often this has involved substantial rewards for those recruited but also the construction of new R&D facilities and the provision of related teams of post-graduate research staff. Singapore also provides an example of a coordinated approach to attracting skilled labour force in the Asian city state through the National Science and Technology Board.

Box 25. **The Singapore National Science and Technology Board**

To attract foreign R&D labour, the Singapore government, through the National Science and Technology Board, has focused its efforts on improving and expanding investment in higher education and research facilities as well as creating centres of excellence.

Singapore has sought to develop a critical mass of skills in targeted areas through the 1990s. New research centres of excellence include the Institute of Molecular Agrobiology (1995), the Bioinformatics Center (1996), the Institute of Materials Research and Engineering (1997), the Cancer Therapeutics Research Group (2000) and the Singapore Synchrotron Light Source (2001). To staff these institutes, the government has recruited top talent from abroad by putting more money into fellowships for new post-doctorates and post-masters. The country has targeted young graduates in mainland China with the hope that once they have completed their two-year fellowships they will move onto industry.

Singapore has also established an internet-based job matching service that links up foreign faculty with firms and institutes in Singapore. Another programme assists companies in the recruitment of experienced foreign researchers, providing 50% funding for recruitment by helping with relocation costs, salaries and housing allowances for up to two years. In addition, the Temasek Professorships are used to target individuals in areas where Singapore wants to develop and to hire them to head or start laboratories. These areas include biological sciences, mathematics, semiconductors and data storage. Singapore plans to recruit between 20 and 30 Temasek professors for between 3 and 5 years and has allocated a budget of USD 89 million. Recipients of the professorships, selected by a steering committee, will be required to spend only 50% of their time in Singapore.

The establishment of centres of excellence in research, financing of research posts, international Internet-based job matching, assistance to companies in recruiting overseas staff and creation of new professorships have all been used in seeking to attract talented labour and boost the science and technology base of the city state and provide possible inspiration for the Emirate of Abu Dhabi which is faced with similar challenges in this field.

Source : OECD (2004), *Global Knowledge Flows*, OECD Publishing, Paris.

In Georgia, United States, the Eminent Scholars programme adopts a similar approach. Here, as part of the Georgia Research Alliance – a group of state-sponsored measures designed to support commercialisation of R&D – the aim has been to attract leading scholars (in target areas) who also had a strong entrepreneurial track record to broaden and enrich the local science base, with the aim to ensure that local investments in R&D were effectively commercialised. There is an essentially similar requirement in Abu Dhabi to build a broader base for the R&D and innovation system, join up some of the existing 'islands' of R&D capability and strengthen the commercialisation of research . In the Eminent Scholars programme the costs are shared between the universities and the state government. In Abu Dhabi it may be necessary to re-evaluate this approach, allowing for a larger proportion of the funding to come from government sources.

Box 26. **The Georgia Research Alliance and Eminent Scholars Programme, United States**

Description of the approach

The US state of Georgia supports the Georgia Research Alliance (GRA) to capitalise on innovative university research. The work of the GRA to support business is in part related to the state's overall strategy of attracting high-technology firms and supporting small business. The GRA, which began in the early 1990s, has a number of dimensions including technology transfer programmes, incubators, seed capital funds for businesses and the provision of commercialisation grants to university faculty. The programme is run as a collaboration between the state's six universities and the state government. There are close working relationships between the GRA and other organisations involved in the commercialisation of university research.

The Eminent Scholars programme is used to attract internationally renowned researchers to come and work in Georgia. The aim is to attract leading international researchers, particularly those with a focus on commercialising research. Partner universities may access funds to recruit Eminent Scholars in the core research areas - advanced communications and computing, biosciences.

These research projects in turn help attract the best graduate students and attract further research income into the State. Scholars are recruited to the standard university system based in part on a GRA supplementary endowment to be used for facilities, equipment, and other non-salary expenses with matching funds being provided by the universities. Average state spending on the Eminent Scholars programme has exceeded $20m pa.

Factors for success

The GRA provides an example of integrated suite of policy initiatives designed to maximise the commercial value of R&D investments in Georgia. Each of the measures is likely to be valuable in themselves but the whole 'suite' of measures is likely to generate positive synergies.

Box 26. **The Georgia Research Alliance and Eminent Scholars Programme, United States** *(Continued)*

Many of the individual measures have been widely adopted in different locations, the GRA is unusual in integrating these different measures within a single initiative. Among the initiatives adopted the Eminent Scholars programme is perhaps the most innovative.

The Eminent Scholars programme is designed to take advantage of the international mobility of leading academics. Providing a resource-rich environment within which these research leaders can develop laboratory capacity has proved very successful in attracting to Georgia leading international specialists. This in turn has had substantial impacts both on research activity and commercial outcomes within the State. The success of the Eminent Scholars programme has been shaped by the partnership between state agencies and the universities.

Obstacles and responses

The international market for leading scientific expertise is highly competitive. Leading scientists are able to command a premium both in terms of salary and support provided through facilities. Georgia has seen the value of attracting leading international talent with substantial state backing. The perceived value of the programme to Georgia and the participating universities is evident in the continuation of the Eminent Scholars programme throughout the thirty years of the GRA.

Relevance to Abu Dhabi

The GRA provides an example of an integrated suite of policy initiatives designed to maximise the commercial value of R&D investments. As Abu Dhabi seeks through the R&D Council to rapidly develop its research strength and capability the parallel development of support for commercialisation also seems important.

A key issue for Abu Dhabi as it seeks to develop its R&D capacity will be human resources. The Eminent Scholars programme provides an example of the type of scheme which may help to attract leading scientists to work in Abu Dhabi and establish leading edge research teams. It is important to acknowledge, however, that such a scheme is unlikely to work in isolation. The strength of the GRA suite of policies is its integrated nature. For Abu Dhabi this emphasises the importance of embedding any Eminent Scholars type programme within a more general programme of measures around building R&D and commercialisation capacity.

Further information

An overall description of the development and history of the GRA can be found in the US Chapter of OECD (2007), "United States: Georgia", in *Competitive Regional Clusters: National Policy Approaches*, OECD Publishing. *http://dx.doi.org/10.1787/9789264031838-23-en*.
More up to date information on the GRA including recent annual reports is available at: *http://www. gra.org.*

Facilitating effective commercialisation in Abu Dhabi

Around the world countries have invested heavily in R&D without necessarily benefitting substantially in economic terms. This emphasises the importance of creating effective pathways from laboratory to market through both new spin-out companies and the effective utilisation of university expertise and resources by existing businesses.

Fostering spin-outs – or start-up companies more broadly – is a business rather than technological problem. One element of the business eco-system in Abu Dhabi which could usefully be developed, and which would help support effective commercialisation, is business incubation – the provision of intensive support services for younger firms during the immediate post-start-up period. Incubation has a relatively long history with Batavia Industrial Center (NY) often recognised as the first business incubator (BI) opening in 1959. Slow diffusion of BIs during 1960s and 1970s was followed by accelerating growth during 1980s and 90s as regulation/legislation increasingly prioritised IP protection, innovation and commercialisation (Hackett and Dilts, 2004).[4] Typically: *"the role of business incubators is to provide a supportive environment, where new entrepreneurs receive training and assistance in business management and marketing, various other business services, and access to seed capital"* (Avinimelech *et al*., 2007).

It has been suggested that incubators add value to their tenants in four areas: diagnosing business needs, selecting and monitoring their tenants, providing access to business networks and providing access to capital. It has also been suggested that incubators may enhance the entrepreneurial culture of an area and act as a magnet for highly skilled individuals looking to benefit from the services provided by the incubator (Avinimelech *et al*., 2007).

Internationally, the variety and diversity of incubators is immense. This makes it difficult to generalise in terms of either questions such as 'what works?' or elements of best practice. One recent study identifies six types of business incubators each with rather different goals (Bøllingtoft and Ulhøi, 2005): i) For-profit, seed capital incubators which aim to make a profit; ii) For-profit collaborative incubators where the goal is to make profit through collaboration; iii) For-profit development corporations where the goal is to reap profit from real estate development; iv) Public sponsored non-profit development corporations where the goal is often job creation rather than the creation of business value; v) Non-profit sponsored development corporation with a regional development objective; vi) Academic incubators where the goal is prototype development rather than developing companies/profits

In many cases any specific incubator may combine elements of these models. Moreover, incubator success depends only partially on the internal capabilities of the organisation but is also linked to the position of the incubator within the wider business eco-system. The case of Oxford Innovation in the UK, for example, highlights the importance of business incubation and support alongside the provision of appropriate capital (see box 27). The implication is that incubators can form a valuable part of a systematic approach to supporting SME growth and development but are unlikely to succeed in isolation.

Expanding incubator provision in Abu Dhabi seems one fairly straightforward step in strengthening the commercialisation pipeline in the Emirate, perhaps linked to the sectoral priorities of the 2030 Vision. Initial steps in this direction are most likely to adopt the 'Non-profit sponsored development corporation' model, recognising that it is often difficult in the early years of life of an incubator for it to be self-sustaining. Perhaps the other key lesson from the international experience, however, is that such initiatives need to be developed as part of a broader system upgrading. This might reflect the implementation of a series of measures along the lines of the supports for commercialisation included in the GRA initiative described earlier, particularly linking support for R&D with subsequent seed capital grants, proof of concept funding and support for business development and growth.

While developing incubation capacity will help with supporting spin-outs much of any commercialisation of new R&D activity in Abu Dhabi will occur through existing firms. Internationally, difficulties are often evident in firms' ability to identify appropriate university expertise and partners. Here, there is a role for intermediary organisations which aim to bridge gaps and facilitate the innovation process. Developing, maintaining and sharing comprehensive databases of organisations - including their technological capabilities and market orientation - is central to supporting collaborative partner search processes. Information provision here may also include technological and market scanning as well as awareness and access to existing IP and licensing opportunities. Intermediary organisations typically seek to regulate the innovation process as observers without actively being involved in the innovation process. An example is the Interface organisation in Scotland, whose focus is on match-making between local firms and universities to help firms benefit from either research capacities or expertise at local universities (see box 28). Another model is the Taiwanese Industrial Technology Research Institute (ITRI) (see box 29). From a firm's point of view the ability of a single contact to provide information across the whole Abu Dhabi university network is also likely to be attractive.

Box 27. **Managing business incubators: The case of Oxford Innovation**

Description of the approach

Oxford Innovation (OI) in the UK manages 21 Business Innovation Centres, provides a range of business support services on behalf of the UK government and facilitates related business angel networks. This creates the potential for an integrated business support offering which provides over 900 micro-businesses with a place to grow and develop, leadership and management support and the potential to access early stage equity funding.

OI's Innovation Centres vary significantly in focus and structure – reflecting the priorities of the Centre owners - but each Centre provides a range of standard features:

- Flexible office, laboratory or workshop space
- A range of shared and co-working spaces
- On-site business support from a professional Centre team
- High speed broadband and excellent telephony
- A range of conference and meeting rooms
- Access to networking and collaboration opportunities

Oxford Innovation (OI) also runs three business angel investor networks used by entrepreneurs from across the UK as well as those based in the OI Innovation Centres. Perhaps the best known is the Oxfordshire Investment Opportunity Network which holds monthly investment presentation meetings in Oxford. Typical meetings attract around 90 potential investors with up to six businesses seeking finance from GBP 250 000 to GBP 2 million. In total over 50 companies have raised more than GBP 7m from business angels as part of total funds raised of GBP 40m.

The results have been positive. A recent research report commissioned by OI compared the performance of graduate firms from the OI Innovation Centres to UK average figures survival rates and growth. Both are consistently above average for Centre-based companies.

Factors for success

We might identify three key factors which shape the effectiveness of OI Innovation Centres: focus, management and the integrated offer.

First, most Innovation Centre tenants are very small firms in the early years of life. In a recent evaluation 84% of Centre-based enterprises were found to have less than 5 employees; prior to joining the Centre 58% of firms had either worked at home or had no prior office.

Second, Oxford Innovation tries to avoid the strict selection policy adopted by some other providers. Instead they operate a self-selection policy enabled by offering firms a transparent package of potential benefits and costs. Rents, however, are set at market rates. On average firms stay within an OI Centre for around 20 months, significantly shorter than the average tenancy in most business incubation centres.

Box 27. **Managing business incubators: The case of Oxford Innovation**
(Continued)

Third, the link between OI's provision of Innovation Centres, publicly supported business development schemes and angel finance is important. OI client companies can take advantage of each aspect of support.

Obstacles and responses

Unlike some incubators OI position their Innovation Centres as charging market rents. The offer to potential tenants therefore relates not to cost but the flexibility of potential rent agreements and value added services being provided. Indeed the recent evaluation conducted by OI emphasised that the main reasons for choosing a centre were: flexibility (*e.g.* short notice period), cost effectiveness, convenience of the location and quality perception of customers was also important.

Relevance to Abu Dhabi

Despite some recent developments there remains a lack of incubation and Innovation Centre space in AD. This will be increasingly important as investments in R&D increase and the need to strengthen the commercialisation pipeline arise. Without this type of development there is a danger that the commercial potential of R&D funded and conducted in Abu Dhabi may be commercialised outside the Emirate. Innovation Centres can also effectively support creative industry development and may therefore be complementary to the development of a stronger design and creative capabilities in AD.

The example of OI suggests that incubators can be effective charging at or near market rents where they provide sufficient value added in terms of additional services to make the offer appealing.

Further information

Further information on the activities of Oxford Innovation is available at: *http://www.oxin.co.uk*. Links from the main website also provide an overview of the range of Innovation Centres operated by the company, information on a recent impact evaluation and related business angel networks.

Profile of Oxford Innovation Ltd by David Kingham, CEO, Available at: *http://www.sbs.ox.ac.uk/NR/rdonlyres/3D85103E-AE5E-42A6-BC74-96516D05B960/0/David_Kingham.pdf*.

Also: *http://oxfordinnovationservices.co.uk/Equity-Investment*, accessed 5th Feb 2015, on total angel investment.

Oxford Innovation (2014) Business Survival and Growth within Oxford Innovation's Centres. See *http://www.oxincentres.co.uk/uploads//92838%20Business%20Growth%2024pp%20Report_lowres_email.pdf*.

Box 28. **Interface – the knowledge connection for business in Scotland**

Description of the approach

Interface is a service created in 2005, aimed at linking business and industry to academia. Interface works with 24 partner research and higher education institutes. Its main objectives are to encourage increased innovation and the commercialisation of research, and also to promote Scottish universities and their collaboration with businesses. There are no specific conditions to benefit from the service: every type and size of company from every field is concerned by this scheme, but in practice most of the companies helped are SMEs.

Interface mainly provides a match-making support scheme, with staff in the organisation providing information on capability and capacity in the Universities in response to business enquiries. Enquiries when they are received from firms are filtered and directed to individual research and commercialisation offices in each university via a named point of contact. Interface identifies the university or research institute that matches the needs of a company asking for support, check their capability to support the company and the interest raised. Typically two weeks are given to respond and therefore to organise match-making if the assessment is positive. Contacts are monitored until they either result in an agreed partnership or are closed. Around 40 % of initial enquiries result in a collaborative project or agreement.

In addition to its reactive role Interface also aims to promote the capability of Scotland's universities to SMEs and so stimulate demand by companies for university contacts and expertise.

Factors for success

Interface has received consistent financial support from the Scottish government with additional support available from some EU schemes. This has allowed Interface to extend its advisory/match-making function to provide more pro-active support for firms and some direct funding for collaborative projects through Innovation Vouchers on behalf of the Scottish Funding Council. Interface also supports Scottish companies outside Scotland in collaboration with Scottish Development International.

There are perhaps two other key success factors for Interface. First, the quality of the people the organisation has in-house and their extensive knowledge of the Scottish higher education sector. Second, the network of partnerships which Interface has developed with the commercialisation and technology transfer offices in each higher education institution.

Obstacles and responses

The level of interaction between small firms and Scottish universities has been highlighted as a significant weakness of the Scottish innovation system (Roper *et al.*, 2006). Through its focus on small and micro enterprises, Interface is helping to make engagement between SMEs and academia more cost effective and efficient.

Box 28. **Interface – the knowledge connection for business in Scotland**
(Continued)

Not all universities have equal or consistent experience of working with small companies. Awareness of the strengths and limitations of the various institutions has helped Interface identify relevant and effective partners for small firms. One important learning point for Interface from project evaluations has been the importance of maintaining on-going relationships with client firms after a relationship with a higher education institution has been brokered.

One other more recent development in Interface has been the development of sectoral teams to support industries which are development priorities for Scotland. Interface Food and Drink (IFD), for example, was established in 2011 as a five year project designed specifically to support the Scottish food and drink industry by connecting it to the academic expertise available in Scotland's universities.

Relevance to Abu Dhabi

As the Abu Dhabi R&D Council begins its work supporting further research activity in AD's universities ensuring firms are able to access the expertise developed becomes an increasing priority. An organisation like Interface might provide the type of matching services to enable Abu Dhabi firms to identify suitable expertise in the universities and access this effectively. In developing this type of provision in Abu Dhabi it may be worth considering whether a generic service covering all sectors of the economy or a more focussed service targeted on the priority sectors defined in the 2030 vision may be more applicable.

There is a potential role for the Khalifa Fund in operating this type of match-making and information service. The Khalifa Fund already has an established role as a trusted intermediary within the Abu Dhabi business eco-system and this would be a good basis from which to develop this additional capability.

Further information

Further information on the Interface organisation is available from the Interface website at www.interface-online.org.uk. Previous evaluation material and overall project description is also available at: at *https://ec.europa.eu/growth/tools-databases/regional-innovation-monitor/support-measure/interface-scotland*.

Biggar Economics (2013), Evaluation of Interface – the knowledge connection for business, May 2013. Summary available at:
http://www.interface-online.org.uk/sites/default/files/Economic%20impact%20of%20Interface%20-%20executive%20summary%2021May13.pdf

Box 29. **Taiwan's Industrial Technology Research Institute (ITRI)**

Taiwan has since the 1970s encouraged knowledge transfers from foreign affiliates in order to build a domestic world class manufacturing capacity in semiconductors and information and communications technologies. One of the critical instruments behind this success is the Industrial Technology Research Institute (ITRI), which was founded in 1973. This is an example of the sort of intermediary technology transfer agency that this report calls for. In Taiwan, ITRI formed research alliances with incoming foreign investors and then commercialised outputs into domestic SMEs. The Hsinchu science-based technology park attracted foreign investors and was a suitable place for alliances to be built.

For example, key alliances were developed by ITRI with IBM and Motorola. Thus Taiwan's current dominance in mobile Personal Computers (PCs) rests on the work of public-private consortia that rushed product to world markets in the early 1990s. Its strong performance in data switches, crucial to PC networks, also arose from ITRI-SME consortia to match the Ethernet standard in 1993. The IBM PowerPC microprocessor of 1995 was cloned simultaneously through ITRI's alliance with originating designers IBM and Motorola. Subsequent successes arose via the partnership mechanism in the digital communication and multimedia areas. Today, Taiwan is one of the world's largest producer of notebook computers and a range of PC components such as motherboards, monitors, scanners and power supplies in keyboards.

In many emerging economies such as Abu Dhabi, R&D undertaken in multinational subsidiaries remains a potentially important knowledge source, together with the basic science and research undertaken in universities. Thus similar intermediary technology transfer agencies would appear appropriate in order to provide a number of the practices and services carried out in Taiwan by ITRI, in particular the approach of forming research alliances around key sectors. One of the lessons of ITRI is that such intermediary technology transfer agencies need not focus solely on university commercialisation, but should exploit all potential knowledge sources, including FDI, which has proved so powerful in Taiwan.

Source : OECD (2004), *Global Knowledge Flows*, OECD Publishing, Paris.

Innovation by design

Innovation occurs across all sectors within an economy. In some – perhaps the minority of - cases the impetus for innovation will be technological. Every innovation, from whatever sector, involves an element of design or creativity, however. In the creative industries – fashion, art, digital arts – this link is obvious. In manufacturing too design can give objects 'meaning' as well as contributing to the functionality, aesthetics and usability of products. More broadly, and in services as well as manufacturing, design and creativity play an important role in marketing as well as potentially in service and process design. Here, "design thinking", the application of design principles to business process or service delivery, may help reform and upgrade business models (Brown, 2008).

Building design capability

Design can be considered either as a process or as an outcome. As an outcome, design is usually related to the final result of an innovation process. As a process, design not only involves adding pleasing features to a final product, but it requires the performance of different activities pursuing the creation of an appealing, usable and functional object. Good design can generate positive reactions from consumers, help differentiate products, and lead to competitive advantage. The evidence also suggests the positive impact of design investment on business performance in both manufacturing and services (Hertenstein et al, 2005).

Building design capability into a business eco-system requires three key activities each of which is relevant to Abu Dhabi. First, there is a need to have a capability to train and nurture creative and design talent. The establishment of the Art and Design course at Zayed University is an important first step towards this objective. To achieve a broader 'design culture' however it will be necessary for design and creativity to be embedded more widely in school and other university curricula.

Second, it is necessary to encourage a culture which values creativity and design and, as part of this, an awareness among firms of its potential value and importance. Developing a design culture is a long-term project which can be helped by having a national lead body focussed on design promotion. The UK's Design Council is one such national government organisation which contributes to the promotion of a culture of design but also helps firms to introduce design and creativity into their own operations. In the context of the UK, it has been successful in raising the profile of design and creativity-oriented activities and in providing practical support to embed design in client companies (see box 30).

Box 30. **The UK Design Council**

Description of the approach

The UK's Design Council was established in 1994 to raise the UK's industrial design standards. The Design Council has made a significant and tangible contribution to solving some of the UK's most complex challenges by providing design support and the advice, tools and know-how to bring about positive change. The Council's work includes advocacy to raise the profile of design and creativity, partnership formation to promote design and creativity and skills development and direct support to individual organisations seeking to enhance their design capability.

The shape of the current Design Council resulted largely from the 2004 by Sir George Cox which reviewed the contribution of design, innovation and creativity to the UK economy. Increasingly, the Design Council focused on identifying and demonstrating design's value to the UK economy. In 2006 the Design Council launched 'Designing Demand' – a support programme for small and medium-sized companies helping them to use design more strategically within their businesses to unlock new value. Designing Demand is now part of the Design Leadership Programme which places hand-picked design experts from across the country into organisations to help them achieve their goals. One other recent initiative was the establishment of the Design Skills Alliance in 2008 which aims to improve design training from primary through to higher education and professional development.

The Design Council is an independent charity although a number of programmes receive funding from the UK government. The Council raises additional funding by providing business services and training, and by helping organisations innovate and grow.

Factors for success

Evaluations of the Design Leadership Programme have indicated very positive results. A recent evaluation indicated that for every Euro an organisation invests in design as a result of a Design Leadership project, the returns include: €4.12 net operating profit, €20 net turnover and €5.27 net exports[5]

Key to the success of the Design Council has been its partnerships with other organisations in developing and delivering programmes. For example, the Design Skills Alliance was established in collaboration with the Creative and Cultural Skills Council.

Obstacles and responses

Perhaps the key barrier to the work of the Design Council has been firms' reluctance to invest in and use design as part of their activities. The Design Council have developed case studies of the successful use of design and design thinking in many sectors to help overcome this barrier.

Design training has traditionally been focussed very much on the aesthetic aspects of design with less emphasis placed on the use of design principles as part of a management process. This too has been a focus of Design Council activity over the years with the aim of broadening design training to include a broader awareness of the requirements of a commercial environment.

Box 30. **The UK Design Council** *(Continued)*

Relevance to Abu Dhabi

Abu Dhabi currently lacks any lead body for the design and creative industries. In much the same way as the new R&D Council will provide support for R&D activity across the Emirate, a lead body could also be established for design and creativity. The range of functions which could be played by such a body are numerous reflecting the positioning of the UK Design Council.

Further information

Much useful information is to be found on the Design Council website (*www.designcouncil.org.uk*) including information on the partnerships formed by the Council and case studies of its support for individual firms and other organisations.

Finally, creativity and design are inherently interactive, social activities in which networks and partnerships are key. Few firms will be large enough to employ their own in-house designer, so in many cases firms will be working with external design or creative agencies. Likewise, few creative or design firms will have the capability to deliver the entirety of a project in house. Partnerships and networks among such firms are therefore central to their success. For example, still in the context of the UK, a local initiative called "Brighton Fuse" has built intensive networks between creative companies to stimulate economic growth and diversification. Crucial to the success of this initiative was the partnership between firms, city authorities and local universities. Evidence from this project suggests that 'fused' companies – combining creative arts and IT capabilities – grew twice as fast as un-fused firms.

Benchmarking design and creativity in Abu Dhabi

At the moment little is known about the overall level and extent of creative business in Abu Dhabi. As a first step towards developing support measures for design and creative inputs into innovation, it might be valuable to map and measure the local design and creative sectors. The Brighton Fuse study provides a model for such a study as does the 2014 Abu Dhabi Innovation Index report. This would involve identifying firms in the design and creative sector and then conducting a business survey to find out the range of activities being undertaken, their aspirations and ambition and the barriers to growth. The aim of this type of exercise would be to develop understanding of the scale and extent of the creative sector in Abu Dhabi as the basis for more informed policy intervention. The results of any such study could guide the development and capability of any sectoral lead body subsequently established.

Key elements of the Brighton Fuse project which it might be useful to carry forwards into an assessment of the creative industries in Abu Dhabi are:

- The use of business registry data to profile the structure and size of the sector;
- The use of business surveys to examine both the level of innovation in the sector but also the extent to which firms in Abu Dhabi are 'fused' – balancing technical and creative capabilities;
- An assessment of the barriers facing the growth and development of such firms.

Box 31. **Brighton Fuse: Benchmarking creativity and design in the United Kingdom**

Description of the approach

Brighton Fuse was a two-year research project focussed on Creative Digital and IT (CDIT) businesses and support organisations in Brighton in the South of England. The CDIT sector is seen as important as it grew at four times the speed of the UK economy between 2004 and 2010.

The notion of 'Fusion' reflected in the project title reflects both the combination of creative arts and design and technology and appears as a critical driver of innovation and growth in the creative economy. Notions of clustering are also important here with the potential for creative clusters to generate strong internal growth dynamics and innovation.

The aim was to explore the drivers of growth and diversification in this sector to help improve policy development. The project also aimed to provide a benchmark for the sector against which future policy initiatives could be gauged by 'mapping, measuring and enhancing the CDIT cluster'. The research element of the project led on to a series of action research projects designed to strengthen the cluster and offset barriers to growth.

The research approach combined sectoral mapping based on company registry data; survey activity at two points in time; observational study at events; and, resulting from the initial findings some targeted action research projects. The project was conducted by university partners in collaboration with industry groups and arts funding bodies.

Factors for success

Perhaps the most important success factor was the breadth of the coalition of partners supporting the project including local universities and various industry and representative bodies linked to the sector itself. Resourcing for the survey activity and action research projects was also critical to the success of the project.

Box 31. **Brighton Fuse: Benchmarking creativity and design in the United Kingdom** *(Continued)*

Obstacles and responses

Identifying CDIT businesses, many of which are small and young, is a continual challenge. Working in partnership with industry bodies and educational establishments helped with identifying these firms. What emerged was a picture of a strongly integrated cluster of firms which was: economically significant and fast growing; dominated by micro-businesses and young firms; diverse, spanning a number of very different sectors; home to a number of fast growing firms; strongly 'fused' or networked. The majority of firms were in B2B services with diverse business models.

One key output from the project was a typology of innovations. This illustrates the specificity of innovation to the sector and the distinction between R&D based technological change and that in the creative industries. The types of innovation identified were:

- New goods and services that are different from the competition•
- New processes that make firms more efficient and responsive to customer needs
- New materials eligible for copyright, like a new video game, new film or song
- New software code
- New business models, that is, strategies to generate revenue.
- Staff training – an important type of innovation investment.

Only around 1% of firms in the cluster had not engaged in these types of innovation over a year. Firms which were 'fused' - fused businesses are those that combine creative art and design skills with technology expertise – were more likely to do more types of innovation. The project identified clear barriers to growth in the cluster linked to resources, skills and the availability of suitable office space.

Relevance to Abu Dhabi

The conceptual and practical approaches adopted in the Brighton Fuse project suggest a potential first step for Abu Dhabi in assessing the extent and potential of the CDIT sector in AD. Highlighting the scale of the sector as well as the challenges that CDIT firms face could inform the design and structuring of a lead body to support creativity and design in Abu Dhabi. Conducting this type of project as a collaborative initiative can also stimulate co-operation across institutions and organisations.

Further information

The Brighton Fuse website provides up to date information on the project and its latest outcomes – see *www.brightonfuse.com*. A useful summary of the outcomes of the research project can be found in the Brighton Fuse Final Report available at: *www.brightonfuse.com/wp-content/uploads/2013/10/The-Brighton-Fuse-Final-Report.pdf.*

Leading design and creativity in Abu Dhabi

The Design Council provides a focal point for the design and creative industries in the UK. It represents these sectors to government, champions their role in creating growth and diversification in the economy and helps to strengthen the infrastructure and support for the creative industries. The Council also works with individual businesses to help develop their creativity and design capabilities. In doing so, the Design Council has been a key contributor to the development of the creative industries in the UK.

Abu Dhabi currently lacks any lead body for the design and creative industries. In much the same way as the new R&D Council will provide support for R&D activity across the Emirate, a lead body could also be established in the Emirate for design and creativity. The range of functions which could be played by such a body are numerous reflecting the positioning of the UK Design Council. An Abu Dhabi lead body for design and creativity would ideally be established to bring together related stakeholders to provide a co-ordination framework in order to:

- Champion the economic case for design and creativity within Abu Dhabi firms and public services to stimulate interest in the implementation of design processes;
- Challenge existing educational provision to fully embrace creativity and design;
- Assist individual firms in developing their design and creative capabilities; and
- Assist with nurturing and training design and creative talents.

Supporting innovative high-growth firms

International evidence re-emphasises the importance of high-growth small firms in generating growth and contributing to the diversification of economies. The evidence also suggests that high growth can occur across the economy and is not restricted to the high-tech sector. High growth firms also have very specific support needs which reflect their dynamic development and changing needs in terms of finance, managerial resources and leadership. In this section we outline international best practice in supporting the most growth oriented 5-10% of Abu Dhabi's small firms.

Guidelines for implementing high growth support measures

First, it is clear from international best practice that a strong element of self-selection into high growth support measures is desirable. Typically such schemes require significant investment of managerial time by the firm and a commitment to attend training and consultancy sessions. Not

all firms, whether aspiring to achieve high growth or not, will be willing to make this type of commitment over a significant period of time. The first key operational point therefore is that the requirements of any support scheme and the anticipated results are clear to potential applicant firms so that firms can effectively assess the cost-benefits balance. For example, in the Dutch Growth Accelerator (see Box 33) a key element of the self-selection criterion is that firms need to be willing to commit both financial resources and time to the programme and be willing to participate in peer-learning activities. The benefit in return is that the firm will receive high-quality support from the staff of the industry leading consulting companies which are part of the consortium delivering the programme. Enabling effective self-selection into fast growth schemes therefore requires a clear proposition from the scheme as well as a clear statement of required commitments. The proposition needs to be both ambitious and engaging.

The second guideline is that a strong element of selectivity by the scheme operators themselves is necessary to make fast growth programmes effective. This inevitably limits cohort size in any particular programme with the Dutch Growth Accelerator (see box in this chapter) working with cohorts of around 15-20 firms at any one time. The limited size of each cohort may also be seen by firms as a reflection that they belong to a small and elite group of firms reinforcing a sense of the prestige of being accepted onto the programme. This aids both programme commitment and individuals' willingness to engage in shared-learning activities. Alumni networks can also provide a valuable source of new business for participants.

A third guideline is that this selectivity should include the notion of 'national benefits'. Here the idea is that firms are selected not simply on the basis of the value they themselves are likely to derive from the programme and their willingness to participate, but also on the basis of the social value (or spill-overs) which might be gained from their participation.

The fourth guideline is that schemes to support rapid growth are likely to involve engagement with a business for a period of many months if not years. For many owner-managers much of the value is in the opportunity for reflection and the ability – through a shared learning experience – to develop new perspectives on the business. Short high growth programmes such as Ireland's Management 4 Growth offer a valuable injection of insight and new knowledge and connections into a business with positive outcomes (see case study in this chapter). A key issue for many SMEs, however, is sustaining growth through the medium-term and here the experience of the longer Dutch Growth Accelerator programme provides valuable insight. The Dutch Growth Accelerator

programme requires a five-year commitment by the business. The quid pro quo is that the programme aims to help businesses to grow sales from around USD 2 million to USD 10 million over that period.

A fifth guideline is that sustained growth is likely to require a holistic rather than thematic support model, with a dual focus on the development of the business and the capabilities of the entrepreneur. Providing this type of holistic support requires expertise in both business and leadership development and suggests the potential value of partnership in the delivery of programmes intended to support sustained growth.

A sixth guideline might therefore be that measures to support high growth should be partnership-based. Academic partners might provide input on leading edge thinking, leadership development and the facilitation of peer-group or shared learning; other partners such as the banks, Chambers of Commerce etc. might provide mentoring and other aspects of a support package. Partnerships can take different forms: long-term collaborations through, for example, the establishment of consortia where members jointly deliver the programme; short-term collaborations where the government agency in charge with the scheme recruits private-sector organisations to deliver some parts of the scheme; simple signposting where the public government body, after a diagnostic assessment of the strengths and weaknesses of client firms, address them to private-sector consultants and business support providers.

Finally, central to most high growth programmes is the idea of peer learning, the idea that entrepreneurs learn best from others who may be facing similar challenges. To be effective, however, peer learning sessions should not host entrepreneurs closely competing in the same industry, since this hampers the brainstorming of ideas which is at the core of this activity.

To summarize the international experience of running high-growth support measures suggests seven major policy guidelines for measures aiming to support high-growth firms. These are listed in Box 32.

The Dutch Growth Accelerator described in Box 33 follows the first model of partnership and is operated by a consortium of four industry leading groups which together tackle issues related to business development and the leadership skills of the management team. An alternative shorter programme is represented by Ireland's Management 4 Growth, which also focuses on leadership developed but is delivered through a public agency (Enterprise Ireland) contracting out some of programme activities to external consultancies (see box 34).

Box 32. **The seven main operational guidelines for business accelerators**

1. **Enabling effective self-selection** - a strong element of self-selection is inevitable in the provision of support for sustained growth. Enabling effective self-selection by firms requires a clear proposition from the scheme as well as a clear statement of required commitments. The proposition needs to be both ambitious and emotionally engaging, participating in the scheme needs to carry a certain cachet.
2. **Selecting participants** - a strong element of selectivity by the scheme itself is also necessary as these programmes are typically intensive and often involve peer-group and shared-learning activities.
3. **Recognising spill-overs** - selectivity should include the notion of 'national benefits', positive spill-overs which may be stronger from some SMEs than others.
4. **Sustained engagement** - schemes to support sustained growth are likely to involve continued engagement with a business over a period of months at least.
5. **Holistic approaches** - Supporting sustained growth is likely to require a holistic rather than thematic support model, with a dual focus on the development of the business and the capabilities of the firm's leadership team.
6. **Partnership based** - measures to support sustained growth should be partnership based drawing on the expertise and networks of a range of support organisations.
7. **Peer learning**: measures for high-growth firms should include peer learning activities where entrepreneurs learn from each other's experience, although attention should be paid not to set up groups with entrepreneurs from competing sectors.

Box 33. **The Dutch Growth Accelerator Programme**

Description of the approach

There have been longstanding concerns about the lack of high growth firms in the Netherlands. To address these concerns the Growth Accelerator Programme was established in 2009 with an initial budget of EUR 5m. The objectives of the Growth Accelerator Programme were twofold:

- To support and facilitate the growth of two hundred SMEs from a turnover of approximately EUR 2m to a turnover of EUR 20m over a period of five years;
- To ensure that each company has a Strategic Picture, a Growth Strategy and Growth Path, including milestones and a Personal Development Plan.

The Growth Accelerator programme is open to all companies running at a turnover of at least two million Euros with the ambition and the drive to grow significantly within 5 years. The average firm participating in the programme is five to ten years old at the beginning of the programme, has fifteen employees, and operates at 3.6 million Euros turnover in a fast-growing sector such as IT, Services, High-tech industry, and Healthcare. It has a highly ambitious Director-Manager of approximately 40 years old on average who has full ownership of the company.

Firms interested in participating in the programme go through a rigorous selection process designed to assess the robustness of the business and the extent of ambition of the leadership team. Crucially too the selection process also assesses business leaders' willingness and commitment to the peer learning element of the programme. Demanding a matching contribution by the participants (€75 000 for the five-year period) also secures their commitment. A new group of participants starts once or twice a year.

Central to the programme is structured peer group learning. Thus, companies are supported by their colleagues, and in addition to this, by experienced professionals on a number of growth related topics. Another characteristic of the programme is that it is not only centred on business development, but also on personal development of the companies' Director-Managers. The programme consists of four phases:

1. Planning (year one): participants work on their 'Strategic Picture' – the vision for the firm - and based on this, a growth strategy and path is developed. This first phase also centres on personal development and teambuilding resulting in a "Personal Picture" – the individuals vision for their own future
2. Realisation (years two and three): the firms are prepared for growth through six different knowledge modules per year, personal development workshops, mentoring and leadership coaching
3. Growth start (year four) – this starts with an assessment to judge whether there are any remaining weaknesses in the firm. Personal development workshops, mentoring and leadership coaching continue to support the development of the business and its directors.
4. Growth (year five) – continuing support is provided together with the development of a new Strategic Picture and Personal Picture. Year five concludes with an official graduation event and an alumni group.

Box 33. **The Dutch Growth Accelerator Programme** *(Continued)*

Factors for success

The programme follows a proven growth model validated by feedback from 140 high growth entrepreneurs from companies varying in size, sector, from different regions. This involves the use of the Strategic and Personal pictures and developing a consistent strategy. Finally, the company groups the strategic choices made into so-called combined strategies and incorporates combined strategies into a strategic roadmap.

The programme also puts a great emphasis on personal development of the participating company's Director-Manager. It starts with a test to provide insight into the Director's personal profile and development of a 'Personal Picture'. This picture constitutes where the Director-Manager sees him or herself in five years in terms of personal development. Groups of five people come together periodically to discuss personal issues in sessions lead by moderators to work on achieving the personal goals set in the Personal Picture.

Also key to the success of the programme is the quality of the delivery partners. In the Netherlands the delivery partners are: Port4Growth a support group for high-growth firms; PricewaterhouseCoopers (PwC) provide management and strategic support; De Baak Management Centre who provide leadership training; AKD who provide legal advice and services and Philips Innovation Services.

Results of a control group analysis showed that programme participants' performance is better than the performance of other similar companies. Firms that started the programme in 2009 had a 22 % higher gross turnover increase than firms in the control group. Other results showed an eight % average employee increase and a 55 % higher foreign turnover increase.

Obstacles and responses

The five-year length of the programme is a relatively long period and this limits the pool of firms which are willing to commit to the programme. As a result a relatively small number of companies participate in the programme. There is also perhaps also a need to link this programme more strongly to other measures which support entrepreneurs.

Relevance to Abu Dhabi

No programme for supporting high growth firms currently exists in Abu Dhabi. This type of small company has very specific support needs relating to leadership development and strategy support and this is currently unavailable in a programmed form in the country. Current programmes of support for export development, training and access to finance run by the Kalifa Fund are perhaps the closest available measures in AD. These could be brought together – integrated and extended – to provide a structured support measure for small firms with high growth potential.

Box 33. **The Dutch Growth Accelerator Programme** *(Continued)*

It is worth noting that this is not a support measure for start-up companies. This type of scheme works best where the participating firms have been operating for some time and already have some established market position and sales network. The key factor then is the aspiration for fast growth. The existence in Abu Dhabi of a significant number of younger companies which may have the potential for growth highlights the value of this type of initiative.

Further information

A longer description of the Dutch Growth Accelerator and a comparison with other high growth from support measures from around the OECD is available in: OECD (2012), "An International Benchmark Analysis of Public Programmes for High Growth Firms", Paris.

A useful internet resource relating to the Growth Accelerator, with some English language material, is the Growth Accelerator website: *www.groeiversneller.nl*.

Box 34. **The Management 4 Growth Programme, Ireland**

Description of the approach

The Management 4 Growth Programme was initiated by Enterprise Ireland which is the government organisation responsible for the development and growth of Irish enterprises in world markets. The purpose of the Management 4 Growth Programme is to develop a cohort of world-class, highly competent and confident management teams who can, through the development of the productivity, innovation and competitiveness of their firms, grow their businesses internationally. The ultimate ambition of the programme is that it will support participating SME management teams to further develop their strategy, operations and people management practices to drive sales and export growth.

The programme is open to the Management Teams of SME client companies of Enterprise Ireland that are classified by Enterprise Ireland as 'established' and are now ready to grow their international sales/exports. The firms can come from any industry sector, with particular attention being given to companies in the Food, Services, Software, Life Sciences, Clean Tech, Electronics, Construction and Consumer industries. The maximum participation per company is limited to three individuals (CEO + 2 senior managers).

The Management 4 Growth Programme presents an unprecedented opportunity for SME management teams to develop themselves into highly effective managers of their firms through three elements:

- Executive education learning modules specifically geared towards companies ready to make a more significant footprint in international markets;
- Appointment of a business advisor/coach (BAC) working directly with each participating management team;
- Peer networks established to support participants from multi sector backgrounds and focusing on individual participant challenges.

Box 34. **The Management 4 Growth Programme, Ireland** *(Continued)*

The Management 4 Growth Programme is an integrated management team development programme which is delivered in partnership with Dublin City University and the Irish Management Institute. The programme is delivered by experts who are from a range of academic and training institutions (from Ireland and abroad) and are supported by contributions from successful entrepreneurs and enterprise support agents.

The programme consists of the following activities:

- 12 days of educational workshops delivered by Irish and International experts covering areas of Management Practice and Leadership Competence;
- Peer Networks facilitated at each educational workshop to support peer learning and support in mixed sector environment;
- Inputs from Industry Speakers talking about company success and pitfall stories;
- 6 half-days of in-company management team Business Advisory sessions to support specific in-company improvements;
- 3 "2-hour" individual leadership coaching sessions and 360 degree feedback;
- Signposting to other Enterprise Ireland services and management development supports

Participants are expected to pay one-third of the total costs of the programme, with the other two-thirds covered by Enterprise Ireland.

Factors of success

The two main factors of success were:

- *The integrated approach with the use of educational modules supported by Business Advisory and Coaching sessions* – This ensured that the learning is embedded in the real context of the company. This also has subsequent positive learning implications for other employees within the participating company and has led to the development of in-company learning cultures.
- *The multi-sector approach which considers the management practices and leadership challenges that are common to all* – This meant that, thanks to peer learning sessions, participants could understand that many of the challenges that they faced were not unique to their specific industry and together were able to identify solutions to key difficulties

Obstacles and responses

It can be difficult to customise module elements considering the diverse audience in the room. The core educational team have worked hard to deliver content that is directly relevant to the audience by designing 'just-in-time' material along with the support provided by Business Advisors and Coaches to help participants disseminate module content considering their own specific needs. However, no matter how well planned, some of the material will inevitably be irrelevant to some participants during specific modules. Constant feedback and communication with the participants is the only way in which this situation can be minimised (but not eliminated).

For further information

OECD (2013), "An International Benchmark Analysis of Public Programmes for High Growth Firms", Paris.

High-growth firms programme in the context of Abu Dhabi

There is currently no targeted support initiative for high growth firms in Abu Dhabi and introducing such an initiative would help to bring the business support infrastructure in the country in line with international best practice. Crucial to the success of any such initiative is that the delivery partners are seen as credible, independent and capable of supporting a firm over an engaged period of months and perhaps years.

The Khalifa Fund for Enterprise Development (KFED) currently operates a series of business support activities primarily focussed on small business management operations such as business planning, cash-flow management, marketing, etc. KFED also has substantial experience in supporting incubation and innovation programmes and strong links to other organisations internationally which can inform future developments. These existing initiatives provide a strong basis for the development of a more holistic High Growth programme, which could take the lines of the Dutch programme (i.e. long-term and delivered by a consultancy consortia) or of the Irish programme (i.e. shorter-term with some activities contracted out on an ad-hoc basis to private-sector consultancies).

In this regards, Abu Dhabi is also fortunate in terms of the presence of international management and business consultancies who could work with the KFED to provide expert input to such a programme. This suggests a co-ordinating rather than wholesale delivery role for the KFED, bringing together high quality expertise to meet the changing needs of growing firms. This is unlikely to be a high volume programme; perhaps one or two cohorts of 10-15 businesses may be accepted onto the programme each year. Organising the programme in cohorts would facilitate peer learning and the development of a communal identity among programme participants.

Policy recommendations

To wrap up, significant steps have been taken to strengthen the support for innovation and innovative entrepreneurship in Abu Dhabi in recent years. These changes – including the formation of the Abu Dhabi Research Council – should bring benefits in years to come. Further improvements are possible to reflect the non-technological nature of much innovation and to support effective commercialisation and small business growth. Specifically we recommend:

- Follow international best practices in the implementation of the R&D Council, including by ensuring that research funding leads to commercialisation, rewarding local and international industry-university collaborative research, and fast-tracking research projects in areas of relevance to the economic diversification agenda of the Abu Dhabi Vision 2030
- Pull in world-class research staff not only by offering attractive salaries and cutting-edge research facilities but also by ensuring that researchers reap most of the economic benefits from research commercialisation and by building up social and cultural amenities able to make expat life pleasant.
- Further develop incubator activity, where enhanced incubator capacity is strongly linked both to funded R&D activity – to ensure deal flow – and to sources of risk capital to support enterprises' early-stage development. The Abu Dhabi Research Council could play a valuable co-ordinating role in this activity.
- Develop intermediary organisations able to bridge gaps between universities and existing SMEs, for example by building a comprehensive database of commercially relevant research ongoing in Abu Dhabi and pooling university patents available for licensing by companies. The KFED Innovation Hub project has this objective and the Abu Dhabi Research Council could play a valuable role in helping to develop and strengthen this activity.
- Establish an Abu Dhabi Design Council to provide a lead body for the design and creative sectors and to support broadly based innovation. Like the R&D Council this organisation would play both a co-ordination and activating role, linking together existing initiatives to support design and creativity and potentially stimulating new initiatives. Staff at the Abu Dhabi Education Council or ADDED may be well placed to lead or co-ordinate the development of this Council. Alternatively, Research and Design Councils could be integrated into one single entity (e.g. the Innovation Council) covering both technological and non-technological innovation.
- Develop specific support measures for firms with high growth potential. Such 'gazelle' firms will arise in all sectors and will be the main stimulus for the type of industrial restructuring envisaged in the Abu Dhabi 2030 vision. The KFED is well placed to develop such a support measure building on its own experience in supporting business incubation and on the experience of international programmes such as the Dutch Growth Accelerator or the Irish Management 4 Growth.

Notes

1. A description of the main innovation trends and innovation policies and programmes in the UAE and Abu Dhabi is available in the first chapter of the report under the section "thematic policy areas".
2. UAE 2021 Vision. *http://www.vision2021.ae/en/national-priority-areas/competitive-knowledge-economy*
3. See *http://www.zu.ac.ae* for more details of this programme.
4. Hackett, S.M., Dilts, D.M., (2004) 'A systematic review of business incubation research', Journal of Technology Transfer 29, 55–82.
5. See *http://www.designcouncil.org.uk/projects/growth-design*.

References

Abu Dhabi Department of Economic Development (ADDED) (2012), *The Abu Dhabi Innovation Index, Abu Dhabi*.

Avinimelech G., D. Schwartz, and R. Bar-El (2007), "Entrepreneurial high-tech cluster development: Israel's experience with venture capital and technological incubators", *European Planning Studies*, 15, 9, p, 1185.

Biggar Economics (2013), Evaluation of Interface – the knowledge connection for business, May 2013. *http://www.interface-online.org.uk/sites/default/files/Economic%20impact%20of%20Interface%20-%20executive%20summary%2021May13.pdf*

Bøllingtoft A and J. Ulhøi (2005), "The networked business incubator—leveraging entrepreneurial agency?", *Journal of Business Venturing*, 20:2, pp 265–290.

Brown T. (2008), "Design thinking", *Harvard Business Review*, June 2008, 84-92.

Dutta S., B. Lanvin, and S. Wunsch-Vincent, *The Global Innovation Index 2014: The Human Factor in Innovation*, World Intellectual Property Organization (WIPO), Geneva.

Ernst & Young (2011), *Doing Business in the UAE*.

Florida R. (2002), *The Rise of the Creative Class*, Basic Books, New York.

Hackett S.M. and D. Dilts (2004), "A systematic review of business incubation research", *Journal of Technology Transfer*, 29, 55–82.

Henrekson, M. and D. Johansson (2010), "Gazelles as job creators: a survey and interpretation of the evidence", *Small Business Economics*, 35, 227-244, p. 240.

Hertenstein J., M. Platt and R. Veryzer (2005), "The impact of industrial design effectiveness on corporate financial performance", *Journal of Product Innovation Management*, 22 (1), 3–21..

Nelson, R. (1993), *National Systems of Innovation: A Comparative Study*, Oxford: Oxford University Press.

OECD (2013), "An International Benchmark Analysis of Public Programmes for High Growth Firms", unpublished report, Paris. *http://www.oecd.org/cfe/leed/oecd-dba%20hgf%20programme%20report_second%20final%20draft%20(2).pdf.*

OECD (2007), *Competitive Regional Clusters: National Policy Approaches*, OECD Publishing. *http://www.oecd-ilibrary.org/docserver/download/9789264031838-sum-en.pdf?expires=1454581237&id=id&accname=guest&checksum=F5C2BFE1FA2C7337AE5F30975A18CA43*

Oxford Innovation (2014), Business Survival and Growth within Oxford Innovation's Centres, *http://www.oxincentres.co.uk/uploads//92838%20Business%20Growth%2024pp%20Report_lowres_email.pdf.*

Ravasi D. and I. Stigliani (2012), "Product design: a review and research agenda for management studies", *International Journal of Management Reviews*, 14 (4), 464-488.

Roper S., J. Love, P. Cooke and N. Clifton (2006), "The Scottish Innovation Systems: Actors, Roles and Actions," Report for the Scottish Executive.

Siegel (2007), "Quantitative and qualitative studies of university technology transfer: synthesis and policy recommendations", in A. Audretsch, I. Grilo and R. Thurik (eds.), *The Handbook of research on entrepreneurship policy*, Edward Elgar Publishing.

Talke K., S. Salomo, J. Wieringa and A. Lutz (2009), "What about design newness? Investigating the relevance of a neglected dimension of product innovativeness". *Journal of Product Innovation Mangement*, 26, 601-615.

US Dept. of Commerce (2008), "Innovation Measurement: Tracking the State of Innovation in the American Economy," The Advisory Committee on Measuring Innovation in the 21st Century, Washington.

Chapter 5

Entrepreneurship and SME financing in Abu Dhabi

Introduction

Stimulating the emergence of a strong entrepreneurial culture through small and medium-sized enterprise (SME) is at the heart of Abu Dhabi's aim to become a competitive, knowledge-based economy. The local government of Abu Dhabi, as well as the federal one of the United Arab Emirates (UAE), understands that in modern economies SMEs play a critical role of drivers of innovation and employment creation. As a result, both the federal and local governments are heavily investing into building a more diverse and sustainable economy which relies less on the oil sector and more on endogenous SMEs.

A number of visionary development plans have been designed and are currently being implemented, most of which have been illustrated in greater detail in previous chapters of this report. From these strategic documents, it is evident that the UAE and Abu Dhabi have a strong focus on expanding, diversifying and increasing the competitiveness of local SMEs. Although not always specifically stressed, entrepreneurship and SME financing play a crucial role in this overall strategy. Access to finance is the number one issue highlighted by SMEs in many surveys across OECD countries and critical throughout the whole business lifecycle, from the start-up phase to business expansion (OECD, 2015).

The state of entrepreneurship and SME financing in Abu Dhabi[1]

Institutional lenders

The main institutional lender in Abu Dhabi is the Khalifa Fund for Enterprise Development (KFED), which focuses on UAE nationals (16% of the total population) who want to set out a business or expand the current one. According to KFED's own estimates stemming from the

active labour force of the country (i.e. population aged 18-60 who has a job or is looking for one), the mandate to cover only UAE nationals means that its potential client base is of about 350 000 people.

A potential "competitor" to KFED is the Mohammad Bin Rashid Establishment for SMEs, also known as Dubai SME, which supports start-ups and high added-value SMEs in the neighbourhood Emirate of Dubai. The reason Dubai SME can be considered a competitor to KFED is that UAE nationals can equally apply to both. In this respect, some stakeholders have reported how the application requirements of Dubai SME are more relaxed than those applied by KFED, especially with regard to the obligation of undertaking entrepreneurship training before receiving financial aid. While it is true that lack of obligations about training makes life easier for prospective entrepreneurs primarily interested in the financial component of public support, it should be noted that the literature on public credit programmes often stresses the importance of combining the supply of credit with the provision of training to strengthen the chances of survival and growth in future entrepreneurs. This is especially true in the case of microcredit programmes and programmes for new entrepreneurs lacking managerial experience.

Commercial lenders

A large number of commercial banks (52) are registered with the national Central Bank, 24 of which are domestic institutions. An estimated 40 commercial banks are already active in lending to SMEs, with about 10 dominating the sector, including the National Bank of Abu Dhabi, Abu Dhabi Islamic Bank and Abu Dhabi Commercial Bank. In the case of Abu Dhabi, bank loan finance is however only available to a small number of SMEs due to unfavourable framework conditions such as the lack of an asset registry, of a well-functioning public credit bureau collecting comprehensive information and of a bankruptcy law. This results into a "financing gap", which prevents SME growth in Abu Dhabi (OECD, 2006).[2]

Commercial banks are regularly criticised for their apparent lack of engagement with the SME sector. The usual criticisms include the perception that they do not lend to start-ups, do not lend enough to SMEs and that the terms and conditions are excessive. Nonetheless, the banks the OECD team met with in the fact-finding mission (November 2014) reported that the amount of SME lending over the last years has increased – in one specific case from AED 750 million (approx. USD 205 million) in 2012 to AED 2 billion (approx. USD 545 million) in 2014 – although this has admittedly been the consequence of reduced opportunities in other sectors

such as construction which had previously absorbed a large proportion of commercial credit. In the future, it is also expected that the Emirates Development Bank invest at least 10% of its annual lending facilities in the SME sector, though the enforcement of this commitment will require a clear definition of SME at the UAE level which is missing at the moment. It should be noted that the lack of a unitary SME definition at the federal level makes SME financing more difficult because in the absence of coherent data on this sector an element of risk is transferred to the process of lending, affecting the willingness of banks to engage in SME lending.

All in all, there are a fairly significant number of banks active in SME lending in Abu Dhabi, although the total volume of SME lending is not known because the Central Bank does not systematically collect and publish information on bank lending by firm size.

Microfinance providers

The OECD fact-finding mission revealed that no microfinance institutions (MFIs) exist in the UAE. There are only three providers of microfinance at present, namely the KFED and charities. The Fujeirah Welfare Association (FWA) is a charity providing loans to needy Emirati families living in the Fujeirah region. In 2012 FWA had 148 clients engaged in micro-enterprise activities such as women's taxi, production of henna and perfumes, beauty salons, crafts, seamstress and food products. The MENA Microfinance for Women initiative serves people living in Ajman and targets widows and divorcees. There are also charities such as Al Ihsan working on an ad-hoc basis across the UAE. The potential of the microfinance market has been explored by commercial banks such as Noor Islamic Bank and National Bank of Abu Dhabi but none has entered it so far. A key reason is that the potential market amounts to under 20 000 Emiratis or about 2% of the total national population (KFED, 2013b). This represents too small a market segment for commercially-oriented MFIs to be viable in the long-term.

Equity finance providers

Equity finance is key to the expansion of mid-sized growth-oriented companies. In this area, the UAE has been successful in attracting large-scale venture capital investment. The Private Equity Association of the MENA region notes that one-third of its participating private equity firms are based in the UAE, even though their investment focus involves the wider region and not just the country. In 2013, eight VC investments concerned UAE-based firms, three of which were ranked in the top ten regional investments by size (MENA Private Equity Association, 2013).

While the top end of the equity finance scale seems to be adequately covered in the UAE, the same does not hold true for mid- and small-sized investments. Some venture capital funds are present in the range of AED 5-10 million, but it is not known if they actively support SMEs. By contrast, there is a lack of supply of equity finance for anything below AED 5 million, including very small equity investments below AED 250 000 (MENA Private Equity Association, 2013). Some peer-to-peer initiatives such as Beehive and Eureca crowdfunding could partly contribute to filling up this gap, but they are still in the process of being established and regulated, while Business Angels Networks (BANs) which combine business advice with financing are still missing in Abu Dhabi. According to KFED there is an urgent need for more venture capital and business angel investments in the UAE, not least because of the significant proportion of high net worth individuals in the country (KFED, 2013a).

Major issues and gaps in entrepreneurship and SME financing

Table 14 presents a summary of the key challenges in access to finance for SMEs; it is based on the report "SME Financing in the United Arab Emirates" by the Khalifa Fund and is updated with findings from the OECD mission in November 2014.

Table 14. **Key supply and Demand Side Challenges in Accessing SME Finance**

Supply Side Challenges	Demand Side Challenges
Weak legal and regulatory framework • Absence of bankruptcy law • UAE law does not permit the registration of collateral • Limited credit bureau information • No legal requirement for information sharing in the UAE Lack of data on potential borrowers increases risk	**Opaque Borrowing Requirements** • Procedures and regulations are unclear • Several hidden fees which increase the cost of lending
Insufficient information • Lack of business plans & reliable accounting/auditing • Borrowers do not use loans for their intended purposes • Loans are often issued based on salary information, which results in false salary declarations by some borrowers • Difficulty to assess creditworthiness of potential SME borrowers	**Awareness on being 'bankable'** • Lack of understanding of requirements for obtaining loans • Capacity building needed
Limited sources of funding • No financing products at seed and start-up phase • Relatively high interest rates	

Source: OECD based on KFED (2013a), SME Financing in the United Arab Emirates.

Low levels of SME lending

Commercial lending currently accounts for a small proportion of bank lending in the UAE (4% of vs 9.3% of the MENA average), although this figure is skewed by the prevalence of the hydrocarbons sector in the UAE economy which absorbs so much investment and lending that it belittles the importance of lending to other industries. In fact, the interviews conducted with banks in the OECD fact-finding mission show that they start considering the SME sector as a potentially interesting customer especially in light of the slowdown of the building industry which had been a key driver of credit supply in recent years.

It follows that some commercial banks have established SME units, although loan conditions for SMEs remain relatively unfavourable in international comparative terms. To be bankable, a local enterprise must have existed for 1 to 3 years, have financial statements that are preferably audited, have minimum turnover of AED 100 000-250 000, and have collateral for loans from AED 500 000 onwards (the bigger the loan, the bigger the collateral requirement).

Commercial banks are cautious about lending to SMEs, as illustrated by rejection rates in the range of 50-70%. These are values far from those in the OECD area, where rejection rates in the range of 10-20% depending on the economic cycle are more common (ECB, 2013). In 2013, for example, some 11% of SMEs in the Euro area reported that their credit application was rejected outright (Deutsche Bank, 2014).

Limited lending is primarily the result of lack of information about the assets and track-record performance of applicant SMEs. This heightens the risk profile of prospective borrowers and cramps the willingness to lend by banks, whose interest rates reflect the perceived risk.

Gaps in legislation affect the willingness of banks to lend

The lack of an asset registry, of adequate Credit Bureau information and of a bankruptcy law negatively impacts on the propensity of UAE banks to lend to SMEs.

First, the lack of collateral registration (except for cars and property) means that the assets of SMEs such as equipment and inventory cannot be leveraged by commercial banks since there is no way of knowing what has been already pledged. In this respect, a moveable asset registry would allow SMEs also to use moveable assets as collaterals, facilitating loan transactions which are currently based on personal relationships more than on formal credit scoring methodologies, as reported by one of the banks met in the OECD stakeholder consultation. An example of reform in this direction comes from Mexico which has recently introduced a Unified Registry of Movable Property Collateral (see box 35).

Box 35. **Mexico's Unified Registry of Movable Property Collateral**

Mexico introduced in 2010 a Unified Registry for movable collaterals to facilitate the use of assets such as equipment and machinery as collaterals in loan contracts. Before the establishment of this unified registry, only few creditors would register collaterals since the old registry was expensive and impractical. Thus, they had to assume greater credit risk which would result in increased costs for borrowers. The main objective of the Unified Registry of Movable Property Collateral was therefore to make up for information asymmetries in credit markets and enhance access to debt finance by enlarging the base of collateral assets SMEs could use.

The Registry collects information on which assets have been registered to claim a loan. This information is made available online to anyone, from notaries, lawyers and state officials to bank creditors, without any registration fee required. This represents a big improvement compared with the past when the registries were locally-based (there were 260 of them across the country) and paper-based, the fees hovered around 2% of the registered amount, and average registration time was 17 days.

In the period October 2010-May 2012, nearly 67 000 collateral assets were registered. A study by the World Bank estimates that with the new registry lenders have multiplied the number of loans to businesses by 4, for an estimated value of more than USD 50 billion in additional financing to firms, and that borrowers have saved USD 1.1 billion in registration fees associated to registration of collaterals.

Source : OECD (2013a), OECD Studies on SMEs and Entrepreneurship – Mexico: Key Issues and Policies, Paris and Power-point presentation by the Director of the Mexican Collateral Registries (RUG) on the IFC website: *http://www.ifc.org/wps/wcm/connect/b68da5004bea0a39a1e0e71be6561834/Day1-session3-Gabriel-A-S-Araujo-Mexico+experience.pdf?MOD=AJPERES*

Second, although a federal credit bureau was launched in 2012 (Al Etihad), credit history information is not fulsome yet, which is in part the result of its recent creation. Al Etihad Credit Bureau has started to work with financial institutions to collect credit data on individuals and companies, with future plans to collaborate with utilities and government entities too in the future. Until now the main entity in charge with collection of credit information has been the UAE Central Bank's Credit Risk Bureau, which however also has some limits: i) information is collected on individuals but not on legal entities; ii) the reporting threshold is AED 250 000, which means that multiple loans below 250 000 can be taken without being reported; and iii) there is no information on the number of credit enquiries made by an existing or prospective entrepreneur. In this context, the Abu Dhabi Chamber of Commerce and Industry (ADCCI) offers a credit rating service to companies, but it is mainly used to assess the reliability of commercial partners in business-to-business relationships rather than to obtain loans from commercial banks. This suggests that credit bureau information needs to be enhanced and brought in line with international standards (see box 36).

Box 36. **Model credit bureau**

A Credit Bureau exists in the UAE but only covers individuals, not commercial entities. A private credit bureau also operates in Dubai. The existing information on individuals needs to the enhanced, but the lack of commercial orientation is making the credit gap larger than needs to be in an environment which is already imbalanced from an SME access to finance perspective. There is a need to make use of international good practice to overcome this issue. An effective credit reporting system in the form of an enhanced Credit Bureau, would address information asymmetries between creditors and borrowers or potential borrowers thus facilitating faster, cheaper and more effective credit risk assessment.

Description of the approach

A key issue constraining SMEs access to finance is information asymmetries. Assessments of creditworthiness of SMEs and others rest on two main criteria: the financial capacity, as well as willingness to repay a loan. But the asymmetry of information problem (there are others such as the size of the credit requests, less sophisticated management of SMEs, etc.) means that some or all the data required to assess creditworthiness of applicants is unavailable, data collection and analysis may be difficult or costly, etc. These are issues which may be exacerbated in the case of SMEs, resulting in the denial of finance.

Credit Bureaus and other forms of credit reporting can help creditors to carry out factual credit risk assessments quickly and affordably, thus facilitating access to financing for all enterprises, including SMEs. A problem that needs to be overcome is that while credit information and data on individuals and large firms are generally broadly available, this is often not so in the case of SMEs.

Potential debtors such as SMEs are assessed on two criteria: capacity to repay the credit facility or loan (taking into account the prospects of the SME's business, and often also the prospects for its broader market segment or niche); and *willingness* to repay the credit/loan (based on historical patterns such as previous contractual financial obligations, such as trade credit, loans and other forms of finance). Payment history relating to non-financial obligations such as payment of taxes, utilities, etc. may also be taken into consideration.

Factors for success

The World Bank prepared a comprehensive analysis of the factors for success in terms of the development of credit reporting systems (General Principles for Credit Reporting, 2011), which identifies five key issues: i) credit reporting systems should have relevant, accurate, timely and sufficient data (including positive information) collected on a systematic basis from all reliable, appropriate and available sources; ii) credit reporting systems should have rigorous standards of security and reliability, and be efficient; iii) the governance arrangements of credit reporting service providers and data providers should ensure accountability, transparency and effectiveness in managing the risks associated with the business and fair access to the information by users; iv) the regulatory framework for credit reporting should be clear, predictable, non-discriminatory, proportionate and supportive of data subject/consumer rights; v) the legal and regulatory framework should include effective judicial or extrajudicial dispute resolution mechanisms; and cross-border data transfers should be facilitated, where appropriate.

Box 36. **Model credit bureau** *(Continued)*

A follow up analysis by the World Bank specifically for the SME sector highlighted 10 other factors for consideration (Facilitating SME financing through improved Credit Reporting, 2014): i) increase reporting of SME positive and negative data by all relevant data providers; ii) increase transparency of SME activities and performance through mandatory reporting of key financial information to the relevant public registers or public sector authorities; iii) SMEs to ensure that the information in applications for external financing is sufficient and reliable; iv) ensure access to national ID databases for verification/validation purposes; v) Public records agencies/registers must improve the quality of their record holdings and ensure easy access; vi) define clear policies regarding the permissible uses of the information that is collected by public sector agencies and information available in public records; this may require changes to the legal framework; vii) commercial credit information companies and credit bureaus should collaborate and share data useful to each other and to their respective users, and develop joint credit reporting products; viii) scale-up oversight capacity on the commercial credit reporting system; ix) increase harmonization of key characteristics/core variables that are shared across borders on SMEs, covering both financial data and credit performance; x) participate in periodical surveys to obtain comprehensive information about credit reporting activities.

Obstacles and responses

There are typically two forms of Credit Bureau: public or private. A public registry is maintained by the public sector, generally the central bank, while a private bureau is managed by the private sector. In theory, it should not matter whether the information is supplied by one or the other. However, studies suggest that public credit registries had no impact on perceived financing constraints. A recent OECD report (OECD, undated, "Discussion Paper on Credit Information Sharing") found evidence that credit sharing institutions have a positive effect on lending to the private sector, that information sharing reduces moral hazard and concluded that public credit registries are associated with higher perceived financing constraints.

The same study also found that private credit bureaus tend to do better than public credit ones in terms of the comprehensiveness of the data and services they provide to lenders. However, public credit registries can be an effective tool to improve the amount and quality of information available on borrowers in emerging economies where information sharing institutions are non-existent or under-developed.

Other issues are that data protection and the right to privacy are fundamental to the establishment of private credit bureaus. Countries which have less efficient judicial procedures should establish a powerful regulatory authority to enforce data protection, monitor information-sharing institutions and ensure enforcement. In this respect, it is generally recommended that before regulating or building institutions connected with information sharing, policy makers engage with the private sector and international private and public credit bureaus to gain information on obstacles and unintended consequences related to sharing credit-related information.

Box 36. **Model credit bureau** *(Continued)*

Relevance for the UAE and Abu Dhabi

Although the UAE has a Credit Bureau it currently focuses only on individuals. There is therefore a need to examine international good practice to ensure not only that the Credit Bureau is extended to commercial entities but also to ensure that the specific needs of the SME sector are fully taken into consideration. In the specific context of Abu Dhabi, where there is currently a dearth of information-sharing institutions, government intervention through the creation of a public credit bureau also seems to be warranted compared with other countries, where these institutions are more common.

Further information

World Bank (2011), General Principles for Credit Reporting, Washington DC.
World Bank (2014), Facilitating SME financing through improved Credit Reporting, Washington DC.
OECD (undated), Discussion Paper on Credit Information Sharing, Paris.

A complementary tool to credit bureau would be credit mediation schemes, which have the objective of ensuring that credit is not refused to viable businesses with valid credit propositions. This objective is pursued through a credit review process and by facilitating communication between businesses and financial institutions (see box 37).

Finally, the lack of personal or corporate bankruptcy law complicates dealing with delinquent loans. In the case of KFED's credit programmes, discussions revealed that the absence of a bankruptcy law results in a reluctance to initiate legal proceedings towards defaulting borrowers since such a choice would lead to an automatic four-year jail sentence for its clients and impact negatively on their future job prospects. This undermines the willingness of Emiratis to take-up loans and to engage in entrepreneurship. For non-nationals, this legal gap is also of importance; there is a major "skip risk" by non-nationals not necessarily because of fraud, but because of the lack of legal recourse and possibility of imprisonment.

A well-conceived bankruptcy law should protect the rights of creditors without preventing a second chance for bankrupt entrepreneurs. Serial entrepreneurs are, indeed, key drivers of successful local entrepreneurial ecosystems worldwide, while re-assuring creditors is important because external finance fuels growth-oriented firms which are at the core of local job creation. Boxes 14 and 15 in chapter 2 provide good examples of bankruptcy legislation, although it should be noted that OECD stakeholder meetings in Abu Dhabi have highlighted how any bankruptcy law in the UAE would have to be consistent with the precepts of Sharia law.

This means that any model imported from abroad would have to be tailored to the specific circumstances of the UAE.

Box 37. **Examples of credit mediation schemes**

France

The first credit mediation scheme was introduced in France in 2008 in the framework of the anti-crisis measures. The missions of the credit mediator included to ensure that no company experiencing financing problems is left alone and that financial institutions' commitments are respected. The Bank of France is the key player in the mediation process, since the French credit mediation scheme consists of a network of 105 local mediators who are the departmental directors of the Bank of France. Credit mediation relies on the competence and neutrality of the directors of the Banque de France and enhanced cooperation between financing partners. These are also supported by national and local teams of OSEO (now Public Investment Bank), the Government-backed SME development fund, which in some circumstances can also provide credit guarantees.

In addition, other "trusted third-party mediators" are appointed in each department. These are generally experts from local professional networks, as well as trade associations, employers' federations and associations. Indeed, before applying for mediation, any company can request the assistance of one of these experts. The support of the professional network is intended to ensure that in-depth, specific and contextual knowledge is part of the mediation process.

Over time, the scope of the credit mediation has been extended to issues related to credit insurance and equity financing needs. In particular, in April 2009, the credit mediator and the main private equity funds signed a partnership agreement aiming to meet firms' equity financing needs through funds stemming, in particular, from wealth tax revenues.

Ireland

The Credit Review Office (CRO) was established in March 2010 by the Irish Minister for Finance and started operation in April 2010. It is an independent body consisting of the Head of the Credit Review Office and a panel of experienced senior lenders, who have previously worked in the financial services industry for major lending institutions. Furthermore, the CRO consults with a small group of non-bankers, which includes a highly experienced Chartered Accountant, a senior executive in one of the trade organisations, and a retired executive from a County Enterprise Board. Finally, a non-banker who is an experienced public sector commercial evaluator and Chartered Accountant sits on every credit panel. In its daily operations, the CRO is also assisted by Enterprise Ireland, the government organisation responsible for the development and growth of Irish enterprises in world markets. The mission of the office is to "ensure that the credit system is operating effectively for SMEs, including sole traders and farm enterprises".

Box 37. **Examples of credit mediation schemes** *(Continued)*

The CRO has no regulatory or statutory powers to override bank lending decisions, which are a matter for the internal policy and governance of the banks. In the event that the CRO's opinion is that the lending could have been made within acceptable risk boundaries, the bank is required to comply with the recommendation or explain to the CRO why they will not do so.

Two criteria explicitly guide the assessment of the CRO: i) that the borrower's business can generate enough cash to service the loan principal and the interests and that the borrower is demonstrating confidence in the business as a going concern; ii) that the bank's risk tolerance is not being set too high and that the covenants such as security requests and pricing are not unreasonable for the levels of risk involved.

The mediation process applies to the customers of the banks engaged with the National Asset Management Agency (NAMA), established in 2009 as one of a number of initiatives taken by the Irish Government to address the serious crisis in its banking sector.

The CRO has also encouraged the standardisation of loan application information, with the aim to shorten the lending process. In the view of the CRO, a standardised format for formal credit application would reduce the problems related with serial requests for information from banks.

United Kingdom

In April 2011, as part of the 17 commitments to businesses by the Business Finance Taskforce, the six largest banks in the UK launched the Appeals Process, a new set of principles for a fair, prompt and transparent appeals process, for businesses that are dissatisfied with their lending decisions. Under these principles, an appeal can be made by any business with a group turnover of GBP 25 million or less, including potential start-ups, after any formal request for lending has been declined.

To ensure transparency and accessibility, banks have agreed to the following operational principles: i) the decision is reviewed by a second person from within the bank who was not involved in the original decision; ii) the bank considers all the information originally provided by the company and asks for more when deemed necessary; iii) the result of the appeal is communicated to the entrepreneur within 30 days; iv) if lending is still declined after an appeal, the bank provides information on alternative sources of finance that may be more appropriate or provide support in another form, such as referring the entrepreneur to a business mentor.

The banks participating in this initiative have also agreed on the appointment of an external Independent Reviewer, supported by an independent Operational Review Team from a consultancy, whose selection has been endorsed by the UK Department for Business, Innovation and Skills and HM Treasury. The Reviewer monitors and scrutinises the appeals process, providing direction to the consultancy, which conducts on-site and off-site monitoring of the banks' appeal process throughout the year. The Reviewer and the Operational Team produce an annual report, which is submitted to the banking sector, the government, and the general public.

Source: OECD (2011a), *Credit Mediation for SMEs and Entrepreneurs*, unpublished paper, Paris.

Limited financial literacy

Another issue in Abu Dhabi's credit market, this time from the demand-side, is limited financial literacy in the population. This is not unique of the UAE. A recent OECD survey on knowledge, attitudes and behaviours around financial issues points to significant knowledge gaps within the adult population (Atkinson and Messy, 2013). The proportion of the population with high scores in financial knowledge ranges between 40%-70% across OECD countries, although women, young and senior people show scores lower than the average in their respective countries.

In Abu Dhabi, for example, it is common for borrowers not to use bank loans for the intended purpose, such as using consumer loans to set out a business activity. This is on top of related issues such as little understanding of the loan application process and its regulations or lack of business plans and audited financial statements. Likewise, it has been common practice until very recently for financial services providers to charge UAE investors with very high and opaque fees, to the point that a new code of conduct has been published by UAE regulators with a view to improving standards in the financial sector.[3]

In this respect, the UAE government has introduced programmes to strengthen financial literacy in the population. For example, the Emirates Foundation for Youth Development runs a financial literacy initiative in malls and other public spaces to provide Emiratis aged 15-35 with skills on savings and investment management.

A basic palette of financial products is offered to SMEs

The drawbacks reported above results into a relatively narrow palette of financial products, which comprise letters of credit (ca. 55% of bankable SMEs make use of them), overdrafts (ca. 44% of bankable SMEs make use of them; interest rate of 10%), secured loans (ca. 24% of bankable SMEs make use of them; interest rate of 4%) and unsecured loans (ca. 13% of bankable SMEs make use of them; relatively high interest rate of 15% or more).

This is less than what is commonly available in other developed countries where banks tend to provide a wide range of products and services such as deposit accounts, investment products, factoring, leasing and international trade financing tools, among others. An analysis by IFC, for example, shows that in developed countries banks offer on average 5.3 deposit products, 9.4 credit products, and 7.7 payment and other transactional products Moreover, each SME client uses an average of five deposit and credit products together (IFC, 2010). However, the same study

also finds that only banks that can sell these products on a large scale will be able to make meaningful profits out of them. This means that a wider offer of bank credit and deposit products will only become available in the UAE when the number of bankable SMEs increases through reforms improving financial information and financial literacy in credit markets.

Conclusions

Overall, the situation with entrepreneurship and SME financing in Abu Dhabi is relatively basic but not without potential. Start-up funding only takes place at the institutional level since, like pretty much anywhere else in the world, new firms are considered too risky by commercial banks. KFED is the main operator in Abu Dhabi while Dubai SME is the main one in Dubai, although the geographical proximity of the two emirates means that the two agencies effectively compete for the same relative small niche of potential Emirati entrepreneurs. Both commercial banks and institutional lenders provided lending for existing SMEs but, owing to high information asymmetries in the local credit market, few SMEs manage to obtain commercial loans and these are often in the form of unsecured loans at premium risk rates. Until some of the systemic issues highlighted above are addressed, not least the creation of a bankruptcy law, an assets register and a workable commercial credit bureau, the situation is not likely to change dramatically for SME lending. Notwithstanding these major constraints, however, the discussion to follow reveals indications that the volume of commercial bank lending has increased over time. As to equity finance, instead, large-scale investments are well covered, while obtaining investment capital for sums lower than AED 5 million, let alone AED 1 million, is far more complicated.

Major stakeholders in entrepreneurship and SME financing

This section provides an assessment of the current and future roles of the main stakeholders with a say on entrepreneurship and SME financing in Abu Dhabi.

The Khalifa Fund for Enterprise Development (KFED)

The KFED is the main government agency of Abu Dhabi in support of entrepreneurship and SMEs owned by UAE national. It was established in late 2007 and its main financing products and services include the following:

- Micro-finance: it funds home-based and micro businesses with loans of up to AED 100 000 (approx. USD 27 000). Financing is combined with training on aspects such as micro-enterprise management and financial literacy.
- Khutwa: this programme also falls within the microfinance category and backs small enterprises run by specific social target groups with flexible loans of up to AED 250 000 (approx. USD 68 000);
- Al Hasela: in collaboration with the Abu Dhabi Fishermen Association, it funds young fishermen with loans of up to AED 500 000 (approx. USD 136 000) to increase their efficiency including through improved equipment and boats.
- Zaarie: it helps farmer to convert to hydroponic farming, i.e. a method to grow plants and vegetables directly on the water rather than on the soil. Loans of up to AED 1 million (approx. USD 272 000) are given as part of this programme;
- Bedaya: it funds new SMEs in priority sectors which do not rely on intensive unskilled labour with loans of up to AED 3 million (approx. USD 816 000);
- Zeyada: it funds the expansion of early-stage SMEs through loans of up to AED 5 million (approx. USD 1.35 million).
- Tasneeaa: it supports Greenfield light-scale manufacturing projects in sectors of strategic priority as per the *Abu Dhabi Economic Vision 2030*. Loans can be of up to AED 10 million (approx. USD 2.7 million);

Three programme categories emerge from this list: i) those that favour social inclusion for specific target groups through the provision of microcredit combined with the supply of training (i.e. microfinance and Khutwa). This line of activity can be considered part of the social mission of KFED which also includes other small-scale programmes targeted at hard-to-reach social groups such as prison inmates (Al Radda programme) and former drug abusers (Ishraq programme); ii) programmes in the fields of farming and fishing (*i.e.* Al Hasela and Zaarie), whose mission is both economic and social (*i.e.* support sectors which employ small shares of the population which are nonetheless important to the region such as farming) but whose loan size starts being relevant in international comparative terms; iii) programmes targeted at "productive projects" (Bedaya, Zeyada and Tasneeaa) which provide large-sized loans for projects mainly in manufacturing sectors in need of significant initial or expansion investments.

A larger number of KFED's projects and clients are in programmes which have primarily a social nature. However, when the total loan volume is taken into consideration, the last category of "productive projects" takes the lion's share of finance. Thus, KFED actively pursues both an economic and social mission. The economic mission appears more important if the pure size of outstanding loans is taken into consideration; this means that applications for these projects presumably go through closer scrutiny than those in the other two categories. The social mission is, however, also important to the extent that approximately 40% of active clients are found in programmes under the first two categories (see table 16 for further details). Given the current distribution of resources, the direct reporting of KFED to the economic sector rather than the social sector of the Abu Dhabi Executive Council appears justified.

Tables 15 and 16 provide an overview of KFED lending activities and some interesting elements of consideration.[4]

- Since its establishment in late 2007, KFED has received approx. 12 500 applications for financial support. Considering that the target population of potential UAE entrepreneurs is of about 350 000 people, it means that 3.6% submitted a request for funding. This is a significant proportion which shows that KFED has become well-known in its area of work to the locals and that UAE nationals show an interest for entrepreneurship within the KFED support framework, which is admittedly generous.

- Of the 12 500 applications 860 have been approved, which corresponds to around 7%. Thus, KFED supported over the period 2008-2014 about 123 projects per year (the establishment year of 2007 has not been taken into account). The current target of KFED is of 225 project approvals per year, with the expectation that 60% of them will be successful (i.e. the business becomes viable and the loan is reimbursed). These expectations are in line with the experience of microfinance institutions in the EU, where a recent survey showed a repayment ratio of 63% (EMN, 2010). However, KFED is not just a microfinance institution but, as seen earlier, also covers productive projects. Success expectations have purposely been set low in the effort to boost entrepreneurial attitudes and behaviour in an ecosystem where entrepreneurship is still at an incipient stage. In the future, as the ecosystem matures, more ambitious success targets could be set.

- By OECD standards, the KFED's enterprise financing support is generous in different ways:
  - Loan sizes are significant across the whole spectrum of programmes; for example, the two microfinance programmes give loans of up to USD 27 000 or USD 54 000 whereas in most OECD countries microcredit is more in the range of USD 10 000-15 000 and in the EU it is defined as being under the EUR 25 000 threshold.
  - Loans carry no interest-rate in a country where spurts of inflation have not been uncommon in recent years (i.e. the UAE experienced two-digit annual inflation growth rates in 2007 and 2008, although since then price growth has subdued) and commercial banks apply interest rates of 5%-15% depending on whether loans are secured or not.
  - Loan maturities are in line with the experience of concessional loan programmes elsewhere in OECD countries, *i.e.* 5 years in most programmes except for microfinance which carries a repayment period of two years. However, a grace period of 2-3 years is applied to all programmes (except for microfinance, i.e. 6 months), which means that in the reality most KFED clients have 7 years to redeem their loans (2.5 years in the case of microfinance and 8 years in the case of the Tasneeaa programme).

- Table 16 shows that KFED activities are dominated by the Bedaya programme for start-ups (50.4% of approved limits and 286 projects), followed by the Zeyada programme for the expansion of early-stage SMEs) (26.8% of approved limits and 146 projects), the Zaarie programme on hydroponic farming (10.4% of approved limits and 94 projects) and the Tasneeaa programme for greenfield manufacturing (9.2% of approved limits but only 9 projects and an average outstanding loan of 7.6 million).

- Geography-wise, supported projects are concentrated in the municipality of Abu Dhabi both in terms of numbers (48%) and loan volume (62.3%), followed by Al Ain (22% and 25.4%) which is the second-largest city of the Emirate of Abu Dhabi. One-quarter of the projects are, however, outside the Emirate of Abu Dhabi and this figure is projected to increase to 40% in the next two years. Sector-wise the majority of KFED portfolio is service-oriented (44%), followed by industry and manufacturing (32%), agriculture and mining (17%) and trade (7%).

- Out of the ongoing 250 operational projects, KFED has audited accounting results for 150. Of these, 54% originated less than one year ago, 31% between 1-2 years, 19% between 3-5 years and 6% more than 5 years ago. The average loan per project is AED 1.39 million while

the average outstanding loan is AED 990 021, *i.e.* 71% of the average loan per project. This figure is influenced by the fact that most projects for which data is available have been initiated recently.

- Of the supported projects for which data is available, 58% generate profits while 42% are at a loss. This performance indicator does not therefore diverge very much from the objective of 60% of successful projects in the KFED portfolio.

- Nonetheless, the loan collection ratio of KFED has been around 50% since 2009 and stood at 48% in the first half of 2014. Half of KFED loans are, therefore, "troubled loans" which feature late or non-payment. This rate is high by international standards even among microfinance institutions which are used to enduring bigger losses than local development agencies such as KFED which cover a broader range of credit programmes. In Europe, as mentioned, a survey of MFIs showed a collection ratio of 63% (EMN, 2010).

- Such high levels of loan defaults are currently tolerated owing to the incipient stage of development of the local entrepreneurial ecosystem of Abu Dhabi and the serious legal consequences for those who default a loan (i.e. four-year jail sentence) in the UAE. The rationale behind this acceptance is that in a country where business ownership is uncommon, strong subsidisation and learning-by-doing are necessary to trigger first the interest and then the success of UAE nationals in entrepreneurship. In the near future, however, repayment rates around 60% would be desirable considering that the portfolio of KFED is not only social (*i.e.* microcredit) but also economic (*i.e.* industrial and productive projects).

This analysis points to some issues for consideration. First of all, it has been noted that KFED has both an economic and social mission. Some programmes, e.g. micro-finance or Khutwa, target small economic activities, including women-owned home-based businesses; others aim at difficult social groups such as former prison inmates; while still others provide sizeable sums for industrial projects. In spite of this variety of schemes, loan terms and conditions are pretty much the same across the whole spectrum of programmes. For example, clients of Khutwa and Bedaya benefit from the same conditions although the loans of Bedaya can be up to fifteen times as large as those of Khutwa. While a certain degree of subsidisation is common to any public credit programme, there is room for a more differentiated loan offer by KFED depending on the programme's nature and target group.

Table 15. **Main characteristics of KFED lending activities**

Name	Target Group	Conditions	Type of Funding	Maximum Loan (size (AED)	Co-financing	Grace period (months)	Maturity (months)	Interest
Al Hasila	small scale fishermen	UAE, 21	Loan	500	10%	24	60	0%
Al Radda	inmates	UAE, 21	Loan	3 million	10-20%	24	60	0%
Bedaya	seed capital for new SMEs / start-ups	UAE, 21	Loan	3 million	10-20%	24	60	0%
Khutwa	micro enterprises e.g. widows, retirees, divorced women	UAE, 21	Loan	200	10%	24	60	0%
Micro-Finance	raw materials for home-based business	UAE, 21 3 months sales	Loan	100	0%	6	24	0%
Tasneeah	green field manufacturing in priority sectors	UAE, 21	Loan	10 million	10-20%	36	60	3-4% after 1 million
Zaarie	hydroponic farming in AD	UAE, 21 4 000m^2 farm	Loan	1 million	5%	24	60	0%
Zeyada	existing early stage SMEs for growth and expansion	UAE, 21	Loan	3-5 million	10-20%	24	60	0%

Source: KFED portal (*www.khalifafund.ae*) and Appendix 1 – KF Programmes, KFED)

Table 16. **Main financial information of KFED lending**

							Based on 150 projects with financial					
Name	**Target Group**	**Approved**	**Cancelled**	**No. Active Clients**	**Composition (approved limits)**	**Average outstanding loan per account**	**Net Profit**	**Net loss**	**Total revenue**	**Total Profits**	**Average Revenus / project**	**Average Profits / project**
Al Hasila	small scale fishermen	62	4	58	1	130 670	5	0	779 238	166 833	155 848	33 367
Al Radda	inmates	2	0	2	0,3	526 976	NA	NA	NA	NA	NA	NA
Bedaya	seed capital for new SMEs / start-ups	369	83	286	50,4	1 096 224	44	41	126 581 450	11 416 462	1 489 194	134 311
Khutwa	micro enterprises e.g. widows, retirees, divorced women	96	21	75	1,7	1	12	0	3 233 037	739 986	269 420	61 666
Micro-Finance	raw materials for home-based business	58	3	55	0,2	23 925	NA	NA	NA	NA	NA	NA
Tasneeah	green field manufacturing in priority sectors	13	4	9	9,2	7 660 013	0	4	7 441 559	4 978 946	1 860 390	1 244 737
Zaarie	hydroponic farming in AD	96	2	94	10,4	231 554	NA	NA	NA	NA	NA	NA
Zeyada	existing early stage SMEs for growth and expansion	164	18	146	26,8	1 125 710	26	18	133 882 842	13 598 840	3 042 792	309 065
		860	**135**	**725**	**100**	**1 349 384**	**87**	**63**	**271 918 126**	**30 901 067**	**6 817 644**	**1 783 146**

Source: KFED, Credit Department, 31st Aug 2014; and Enterprise Development and Support Department, 9 November 2014

Secondly, KFED's generous terms of support (*i.e.* no interest rates, long maturity once the grace period is taken into account) and the acceptance of low collection rates entail that although the mission of KFED is both social and economic, the social nature currently prevails in its *modus operandi*. At present, this is justified by very low entrepreneurial dynamics and business ownership rates in Abu Dhabi. In the future, it would be desirable that a better balance between the two dimensions were found, for example through a more variegated offer of credit instruments inclusive of different types of loans, grants and possibly credit guarantees.

Thirdly, a knock-on effect of the current situation is that the economic development role of KFED is not being pursued as much as it could. In particular, an important role for KFED would be to generate "bankable" clients which can then be passed on to commercial banks and other financial institutions. However, it is likely that the generation of bankable clients is being undermined by generous loan terms across-the-board; indeed, only the Tasneeaa programme charges interest rates of 3-4% for loans above AED 1 million. At the moment, therefore, there is little or no incentive for the entrepreneur to move to the commercial banking sector once their business attains the bankable status. For KFED to generate bankable clients there is a need to consider restructuring the palette of financial products to allow for a gradual progression from very soft loans to more commercially-oriented ones, including the possibility of offering grants rather than loans for certain categories of client.

As a result, consideration might be given to restructure the KFED products into three categories:

- **Social category**: these initiatives should be converted into grants, rather than loans. The highly vulnerable nature of the clients involved (e.g. inmates, drug addicts, widows, retired, etc.) calls into question the rationale for offering loans rather than grant support, even if the terms and conditions are very soft. If these loans were to be converted into grants, with no question of repayment, the KFED would perform its social role more effectively. Furthermore, it would remove the expectation that these sums would be repaid, with the financial performance of KFED's overall portfolio improving overnight. Should KFED decide to continue applying loans to this target group, current conditions of zero interest rates and repayment periods of 7 years or more would be appropriate since there are little expectations that these clients would become bankable one day.

- **Intermediate category**: these loans would be for clients with a sound business proposition. There would be expectation of 100% repayment; a low degree of co-financing in the range of 10-20%; an interest rate which could be either zero or less than half the average interest rate applied by commercial banks to asset-backed loans; maturity in the range of 2-4 years depending on the size of loan. Current KFED programmes that would fall under this category are the microfinance ones, those targeting fishermen and hydroponic farmers, and the start-up programme Bedaya. Similar terms would help create a more entrepreneurial and commercial mind-set in this group of clients. Access to advanced support (see below) would also be made available for those that are successful and well on the way towards the attainment of bankable status.
- **Quasi-commercial category**: these loans would be for existing SME owners with expansion prospects. The main features would include: expectation of 100% repayment; higher co-financing requirement in the range of 50% of the total value of the project being financed; an interest rate around half the average interest rate (e.g. between 40%-60%) applied by commercial banks to asset-backed loans; maturity in the range of 5-7 years in line with the bigger size of these loans. Current KFED programmes that would fall under this category would include Zeyada and Tasneeaa.

The three types of support would operate separately, which means that clients would go to one or another type of support without necessarily having to go through all three elements. Applicants would be considered on their own merits. The training unit of KFED should also preferably specialise along these lines, allowing for increasing levels of technical expertise in the delivery of tailored business management training and advice.

A similar change would, over time, begin to deliver more financially viable KFED operations. The interest earned from the intermediate (*i.e.* socioeconomic) and advanced (quasi-commercial) support could be recycled towards the social support in the form of grants and add to the sustainability of the overall Fund. The sustainability of the Fund may become more of a priority in the coming years than has been in the past, given that oil prices at levels half those of the years when KFED was established might heighten pressure sooner or later on government budget.

The KFED should also experiment with alternative ways of facilitating access to finance for local entrepreneurs while engaging with the banking sector. A first option would be to subsidise the difference between banks' commercial interest rate and the one that KFED wishes to apply, thus ensuring the active engagement of entrepreneurs with commercial banks, which would lead to familiarisation with banking principles and procedures.

A second option would be for KFED to revive its credit guarantee programme which has until now failed to draw much interest by local entrepreneurs primarily because of the better terms of KFED's interest-free loans. The current loan guarantee programme of KFED was established in 2011 in collaboration with Abu Dhabi Commercial Bank (ADCB), with KFED guaranteeing 100% of the loan principle in exchange for a reduction in the interest rate by 5%. ADCB was also given the possibility to increase its risk and apply a lower reduction on the interest rate, but in this case KFED would only cover 70% of the value of the principal. Until now, the loan guarantee scheme has only attracted three clients, although from 2015 all transactions in the Zayeda programme above AED 1 million will automatically fall under this scheme. Loan guarantees would be able to attract more interest in Abu Dhabi if the current financing offer of KFED would be reshaped along the three lines of social, intermediate and quasi-commercial SME finance outlined above.

Should the loan guarantee programme be revived and, indeed, expanded, KFED could benefit from the lessons learned by the many similar programmes in OECD countries which are summarised in Box 38.

There would be a number of expected benefits from these changes: a) KFED would play a more comprehensive role in the domain of access to finance for new entrepreneurs and existing SME owners by expanding its services offer beyond the current set of standard soft loans; ii) KFED would become more sustainable, with some of its activities cross-subsidising others, although the full accomplishment of its mandate will continue to depend on government support as is normal for any local development agency; iii) the distinction between economic and social missions of KFED would become explicit; not only would transparency increase, but there would also be an increase in the supply of bankable clients to commercial banks with positive impacts on the overall volume of SME lending in Abu Dhabi, a goal which policy makers in the Emirates are actively pursuing as shown by the future 10% requirement of SME lending for the Emirates Development Bank.

Box 38. **Credit guarantee schemes**

Description of the approach

Credit Guarantee Schemes (CGSs) are a common feature of financial systems across OECD and non-OECD countries alike. CGSs are commonly deployed as an important tool to ease financial constraints for SMEs and start-ups.

SMEs and start-ups are typically limited in their capacity to access credit because of a number of issues including under-collateralisation, lack of or limited credit history and/or financial statements, etc. The resulting information asymmetry between the potential entrepreneur and the lender results in a perceived or actual high risk of default on the part of the borrower and, in the absence of collateral, stifles the supply of credit to SMEs and start-ups. The demand for collateral increased significantly during the crisis (OECD, 2013) but the drop in property prices has reduced the value of collateral, impacting on the availability of credit to SMEs.

The CGS is a response to this market failure. By reducing the financial loss suffered by the financial institution (usually a commercial bank) as a result of default, CGSs reduce the lender's credit risk and increase the flow of funds to SMEs. CGS can also improve the relationship between borrowers and lenders in respect to the creditworthiness of the SME, resulting in trust-based relationship once the information asymmetries are reduced.

There are three main different models of loan guarantee programmes, often called also credit guarantee schemes (CGSs): public, public-private and mutual:

- *Public schemes*: they can be either managed directly by the government or implemented in a more decentralised manner via the banking system, although the capital in the fund still comes from the public sector. The first approach, which is more common in Eastern Europe (e.g. Slovenia and Slovakia) tends to see a stronger involvement of government agencies in the decision-making process about the provision of the loan guarantee. The second approach, shared by the United Kingdom and the Netherlands, is implemented via the banking sector with little if any direction on how the guarantee scheme is managed and for which loans the public guarantee is used.
- *Public-private schemes*: these involve both public and private sector players. The government's role can be more or less active, for example in facilitating the creation of the programme. Irrespective of the degree of public sector involvement, the management of the programme (e.g. risk assessment and monitoring of the loan) is left to the lending institution. An example of more active involvement is given by the Hungarian government, which sought the involvement of both lending institutions and SME associations when launching its national guarantee Fund.
- *Private schemes*: they see the strongest commitment by the private sector, generally through bottom-up mutual guarantee associations that group entrepreneurs from the same local business community (e.g. Italy) or from the same industry (e.g. Spain). In this type of CGS, it is the mutual guarantee associations that provide a first assessment of the member who intends to borrow and that are involved in the recovery of losses in case of default.

Box 38. **Credit guarantee schemes** *(Continued)*

- *Private schemes*: *(Continued)* The final lending choice, nonetheless, remains with the bank, which carries out its own full credit risk assessment. The role of the government is limited to setting the regulatory and legal framework and supplying financial assistance, which can take the form of direct funding or counter-guarantees. An example of private CGS is Italy, where the government provides a sizeable last-resort counter-guarantee to banks on top of first-level guarantees offered by local mutual guarantee associations (*i.e.* called *confidi* in Italy).

Factors of success

A key characteristic of loan guarantee programmes is that the final lending choice is left with banks to the extent that they still carry a part of the risk of default, generally anything between 20% and 50%. Governments should therefore rely on the expertise of private sector lending institutions for credit risk assessment, while lenders should always carry a part of the default risk, so that they have an incentive to apply due diligence in the assessment of loan applications. Maximum loan default rates should also be set beforehand by the government to make CGSs financially sustainable for public finances.

Loan guarantee programmes have several advantages from a government point of view. They leverage on the expertise of the banking sector, which lowers the risks of government failures in small business financing. The cost of these schemes is in large part proportional to the loan default rate, so that if the programme is run properly it will be a low-cost policy option (although large funds will have to be set aside to cover for possible defaults and convince banks to participate). Finally, they favour the integration of local small businesses into the mainstream credit system and show to commercial banks that small businesses can be profitable clients as well.

Obstacles and responses

On the downside, CGSs have traditionally been conceived for the average existing SME; i.e. new entrepreneurs and hard-to-reach social groups have not generally been part of CGS's typical client. Moreover, if the default risk is not fairly shared among the parties, the scheme lends itself to opportunistic behaviour by lenders and borrowers. Finally, public schemes where the government plays an active role in the monitoring and assessment of loan guarantees present higher operating costs and are subject to picking-winner problems.

Relevance for UAE/Abu Dhabi

Abu Dhabi has an increasingly active commercial banking sector but few other sources of access to finance for SMEs. Furthermore, the legal and regulatory barriers are extremely important, which means that commercial banks are highly risk averse in lending to the SME sector. The result is limited lending, short maturities and high risk premiums in interest rates. A suitably developed and customised CGS, based on a feasibility study, could help stimulate lending to SMEs if CGSs take a share of the risk of lending. There are at least two institutions that could help stimulate the development of CGS instruments in cooperation with commercial banks, i.e. the KFED and the Emirates Development Bank.

Box 38. **Credit guarantee schemes** *(Continued)*

Additional information

Operational characteristics include:

- *Types of services*: the core service is the provision of a partial credit guarantee on a bank loan or loan portfolio. Mutual schemes are dedicated exclusively to the guarantee activity, but non-mutual ones generally combine this with other functions. Complementary services may be offered to improve SMEs' capacity to interact with the financial system, such as information on financial markets, help with accounting statements and consultancy services to improve competitiveness and productivity.
- *Firm eligibility*: guarantees are typically issued only to SMEs below a certain size threshold of sales or number of employees, which may vary by sector, export orientation, type or firm such as start-ups or innovative firms, geographical areas, etc. SMEs often have to prove that they have been denied finance by commercial banks due to a lack of collateral. CGSs may be directed in accordance with specific or general enterprise policy objectives.
- *Guarantee assignment* process: three broad types of schemes exist, namely:
  - *Retail*: examine the eligibility of firms, assess the risk of credit on a case-by-case basis and decide whether a guarantee will be granted; specialist expertise is required),
  - *Portfolio*: decision based on some common characteristics such as volume of loan, minimum level of creditworthiness based on financial statistics, use of funds, geographical location, sectoral focus, etc.
  - *Wholesale*: indirect relationship between the CGS and the borrower and/or lender, with the CGS just providing counter-guarantees for non-banking intermediaries such as microcredit institutions.
- *Risk management:* this is critical for the performance, impact and sustainability of CGSs, since it affects the incentives and disincentives faced by the borrowers and lenders, as well as degree of moral hazard. The key issues include the coverage ratio (the defaulted loan is guaranteed in the 20% to 100% range), length of the guarantee (ranges between 5 and 25 years) and price (guarantee fees, administrative fees, annual fees, etc.).

Further information

SME and entrepreneurship financing: The role of Credit Guarantee Systems and Mutual Guarantee Societies in sustaining finance to small and medium-sized enterprises, Final Report (OECD, 2013b).

Green, A. (2003), "Credit Guarantee Schemes for Small Enterprises: An effective Instrument to Promote Private Sector-led Growth?" United Nations Development Organisation (UNIDO), Working Paper No. 10, August 2003.

Commercial banks

In a well-functioning local entrepreneurial ecosystem the role of commercial banks is of utmost importance in guaranteeing access to external finance for those SMEs which need it and have viable projects. The public sector plays an important role in facilitating the match between the demand and supply (e.g. through credit guarantees) and in filling areas which commercial banks are unlikely to cover (e.g. start-up lending), but in the long-run it cannot replace the size and scope of private-sector lending.

It has been noted earlier that there are a large number of registered commercial banks in the UAE, most of which are active in SME lending but whose product offer is basic and costly. In the stakeholder consultations of the OECD fact-finding mission three main criticisms have been levelled to the banking sector in relation to SME lending: i) commercial banks do not lend to start-ups; ii) commercial banks do not lend enough to SMEs; iii) commercial banks charge excessively high interest rates. Each of these is examined in more detail below to show that they are only partly grounded.

Commercial banks do not lend to start-ups: That commercial banks in Abu Dhabi do not lend to new entrepreneurs is true, but this is a trend that occurs pretty much everywhere. Start-up funding is typically not the business of banks because of the very high rate of mortality among new firms. The OECD, for example, finds that on average survival rates in manufacturing are 82.5% after one year, 68.8% after two years and 57.4% after three years, while in services they are respectively 80.7%, 70.2% and 50.5% (OECD, 2012). Thus, nearly half of new firms do not survive the first three years of life, with survival rates lower in services than in manufacturing. This means it would be highly risky for banks to engage in start-up lending and a change in this direction could endanger the sustainability of the banking system. Instead, start-up funding has always been the realm of the so-called three Fs of family, friends and fools as well as of the public sector whose intervention is precisely aimed at tackling this market failure. In this respect, the role of KFED in supporting financially new start-ups makes sense and is coherent with the experience of many other OECD and emerging economies where credit programmes to support business creation are common, especially for disadvantaged groups.

Commercial banks do not lend enough to SMEs: There is evidence that SME lending in the UAE as a whole is only 4% of total bank lending, compared with the 9.3% average of the MENA region. The comparison

is however partly misleading due to the very large impact of the oil sector in the UAE economy which skews lending statistics towards large companies. Moreover, interviews with local banks have revealed that since the last financial crisis commercial banks have been actively diversifying their investment portfolio from construction and retail into other areas, including SME lending. Combined with good liquidity in the banking system, this has reportedly resulted in a significant increase in lending to SMEs. For example, as noted earlier, one bank reported that its volume of lending to SMEs went up from AED 750 million (approx. USD 205 million) in 2012 to AED 2 billion (approx. USD 545 million) in 2014, while another reported that the top ten SME-oriented commercial banks in the UAE lent an estimated AED 22 billion in 2013 and that overall lending volumes had increased to about AED 32 billion in 2014.

There are expectations in the banking sector that SME lending will increase further in the future. Moreover, the idea of the government imposing by law SME lending quotas does not seem to make banks too uncomfortable if this is in compliance with the Basel II framework which applies to the UAE banking sector. In this respect, collecting more detailed statistical information on the levels of SME lending would be useful to keep track of improvements. Commercial banks are asked to share information on SME lending with the UAE Central Bank, but this information is not aggregated and/or made available. A change in this direction would help not only to analyse lending trends in the UAE but also to benchmark these internationally, for example through participation in the *OECD Scoreboard on Financing Entrepreneurs and SMEs*.

Commercial banks charge excessive interest rates: In the case of unsecured loans for existing SMEs (as said, start-up lending is virtually inexistent), commercial interest rates are admittedly high for first-time users, between 15%-25%, and only partly justified by the risk premium unsecured loans carry along. The UAE central bank's base interest rate has, indeed, been 1% since 2009, so that it can reasonably be argued that banks make significant profits on SME unsecured loans (when they are repaid). In this case, the "moral hazard" is that high interest rates serve banks the purpose of having losses on defaulting loans "subsidised" by loyal borrowers, although gaps in the legal framework of the UAE do not help correct loan pricing. In the case of secured loans (i.e. asset-based lending), however, interest rates are 4-6%, which is more in line with international experience but still higher than what found in OECD countries for collateralised loans (OECD, 2015).

On the whole, it can be concluded that not all criticisms levelled at commercial banks are well addressed, although some do contain a grain

of truth (e.g. very high interest rates on unsecured loans). However, until some key structural reforms (i.e. bankruptcy law, moveable asset registry and better credit bureau) are introduced, lending to the SME sector, both in terms of volumes and in terms of range of products and terms and conditions, is unlikely to expand dramatically.

The UAE Federal Ministry of Economy

The federal Ministry of Economy is clearly an important player in the entrepreneurial and SME ecosystem of Abu Dhabi. For example, the SME law which was issued in 2014 has been an initiative of this Ministry (see chapter on "overall assessment" for more details on the law). With respect to access to finance, the SME Law requires the Emirates Development Bank to contribute no less than 10% of its total annual financing facilities to SMEs which are part of the SME national programme. In fact, it has been argued by some stakeholders in the OECD fact-finding mission that a similar quota should be applied to every commercial bank operating in the UAE.

There are several areas where in the future the federal Ministry of Economy could help boost SME lending in the UAE, namely: setting a unified definition of SME, strengthening credit bureau, creating a registry of moveable assets and introducing legislation on new financing tools.

A unified SME definition: The SME law remains vague about the definition of SME in the UAE by simply saying that a future choice will be made by the cabinet based on standard criteria such as levels of employment, turnover or capital investment. It is important that this choice is made soon, as it would help overcome the current situation where commercial banks and other financial institutions are left in the dark on the state of health of the SME sector and how much of their activity caters to SMEs. This should reduce the risk premium in the form of interest rates with which SMEs are charged.

In proposing a definition of SMEs, it would be important for the Ministry of Economy to bear in mind both local conditions and internationally accepted definitions. The first will make size classes relevant to the reality of the UAE, which will help policy makers take well-informed decisions. The latter will make UAE data internationally comparable, helping local policy makers benchmark the country with others. Both conditions can be met by collecting information in several size-class groups which can then be grouped together. For example, if the number of employees is taken as the measurement unit (this is the easiest and most reliable variable to collect), then the following size classes could be envisioned:

- Self-employed (0 employees);
- Lower-end micro enterprise (1-4 employees);
- Upper-end micro-enterprise (5-9 employees);
- Lower-end small enterprise (10-19);
- Upper-end small enterprise (20-49);
- Lower-end medium enterprise (50-99);
- Upper-end medium enterprise (100-249).

Data could then be aggregated to allow for international comparison,[5] but at the same time policy makers could target certain public programmes to a more narrowly defined group, for example employer micro-enterprises with between 1 and 10 employees.

Registry of moveable assets: It has been mentioned earlier how creation of a registry of moveable assets – inclusive of machinery, equipment and inventory – would help UAE commercial banks to better assess the assets of borrowers, thus boosting the credit flow to SMEs. The UAE Ministry of Economy can have an important role to play in setting up a similar registry, as shown by the experience of Mexico reported in a previous box. Alternatively, the Abu Dhabi Department of Economic Development (ADDED) could also fill this gap, although for a country of the size of the UAE it would make sense to create a single federal registry.

Credit bureau: since 2012 the UAE government has launched the Al Etihad credit bureau, which is to provide "credit reports" to both individuals and corporate entities. However, as noted, the credit information provided is not yet fulsome, whereas the main aim of a credit bureau should be to supply the most comprehensive possible information to reduce information asymmetries and strengthen the bargaining power of borrowers in credit markets. There is room for building on the experience of the existing credit bureau and further strengthening it, something which is within the remit of the UAE Ministry of Economy.

Legislation on new enterprise financing tools: At the moment, the offer of SME financing services is quite limited in Abu Dhabi. The public sector through KFED primarily offers concessional loans for both new firms and existing SMEs, while in the private sector commercial banks provide loans at a risk premium and a few venture capital funds primarily cover large investment deals of above AED 10 million. There is a need to widen the range of financial products in Abu Dhabi, including through new instruments such as crowdfunding and business angel investment which first require the design of legal frameworks by

the Ministry of Economy. Crowdfunding can be of both debt and equity type; an interesting element for the UAE is that the most common equity version does not foresee interest rates, which makes it consistent with the principles of Islamic Finance. More business angels in the UAE, on the other hand, would help fill the small-scale equity gap which is currently present in the country.

Crowdfunding

Crowdfunding responds to the idea that enterprise financing comes from a multitude of people who invest (small) sums, rather than from a single large institution, usually via the Internet. The main advantage for both entrepreneurs and investors lie in the low intermediation costs of crowdfunding, which makes it a cheaper source of finance compared to loans. Intermediation costs drop for three reasons. First, the assessment of business proposals is less thorough than for bank loans because crowdfunding companies do not carry the risk of failure related to the proposals they endorse on their platforms. Although a health-check of business pitches is common to many platforms, there is no incentive for crowdfunding companies to undertake a systematic risk analysis. Second, the project follow-up (i.e. monitoring costs) is also minimal and generally left to the direct contact between the entrepreneur and the investors, with the crowdfunding website acting as a virtual meeting point. Third, strongly relying on the Internet, crowdfunding portals have low fixed costs (e.g. staff and office space) than banks.

Crowdfunding comes under four main categories, the first two of which are consistent with the principles of Islamic Finance:

- Donations: in crowdfunding donations are collected and earmarked for specific projects, which have often a social nature.
- Rewards: the investee provides the investor with a reward that can be of non-monetary nature (e.g. the product that the investor is financing) and which is of lower value than the sum offered.
- Lending: thanks to lower intermediation costs, borrowers pay a lower interest rate than for bank loans, while lenders receive a higher interest rate than for savings deposits.
- Equity: this is less common than the other three options and involves larger sums. Equity crowdfunding is similar to the activity of business angels, although in crowdfunding the local dimension of the investment and its business advice component are less strong (Agrawal *et al.*, 2011).

One of the first countries to introduce legislation on crowdfunding has been the United States, whose case is reported in Box 39.

Box 39. **The Crowdfund Act under the JOBS Act in the United States**

The Jumpstart Our Business Startups Act (JOBS Act) was passed by the US Congress and signed into law in April 2012. The JOBS Act removed a Securities and Exchange Commission (SEC) regulation preventing small businesses from solicitation of investors to obtain capital, thereby enabling them to solicit securities-based funding from the general public through the Internet, social media or elsewhere – known as "business crowdfunding". Securities-based crowdfunding allows investors to receive a financial return through the purchase of equity, debt, or revenue-based securities. The JOBS Act also expands investment opportunities to non-accredited investors, who have been historically excluded from this process. This opens up the opportunity for every American to have access to investing in start-ups and small businesses and sharing in their financial success. This dramatic institutionalisation of crowdfunding as a form of start-up financing has been alluded to as an important step towards the "democratisation of access to investment".

Key points of the Crowdfund Act include:

- A company will be able to crowdfund up to USD 1 million over a 12-month period without the requirement to register the shares for public trading with the SEC. The fewer rigorous compliance requirements for start-ups mean less onerous costs, although the company must still file some basis information with the SEC.
- Companies that seek to crowdfund a securities-based round must have background checks done on all principles with 10% or greater ownership in the company and provide full and adequate disclosure with a business plan and a full description of their ownership and capital structure. Companies seeking to raise up to USD 100 000 must provide tax returns and a financial statement, while those raising up to USD 500 000 must provide financial statements reviewed by an independent public accountant. If the amount is over USD 500 000, the company must provide audited financial statements.
- Crowdfunding portals must, alongside the legally required background checks, do a full review of the company, disclosures, and the raise in order to approve a company prior to fundraising.
- Intermediaries seeking to help companies raise capital through crowdfunding are required to register with the SEC, make sure investors are advised of the risks and take measures to avoid fraud. The Crowdfund Intermediary Regulatory Association has formed as a self-regulating organization representing the crowdfunding industry.
- Individuals with annual income or net worth of less than USD 100 000 may invest up to USD 2 000 or 5% of their annual income or net worth, whichever is greater, over a 12-month period. Individuals with annual income or a net worth of USD 100 000 or more may invest up to 10% of their annual income or net worth, capped at USD 100 000 maximum aggregate amount, over a 12 month period. Investors can fund one company or several companies as long as they remain within these annual limits.

Box 39. **The Crowdfund Act under the JOBS Act in the United States** *(Cont.)*

- An investor must wait a minimum of 12 months before selling her/ his securities unless the sale is to a family member, the issuing company or an accredited investor, in addition to other restrictions normally placed on the transfer of securities.
- A crowdfunding round does not prevent a company from raising capital through other legal channels.
- Companies crowdfunding are also exempt from the 500 shareholder cap pursuant to rules and regulations of the SEC, increasing the number to 2 000 before being required to register with the SEC. This allows companies to grow with greater flexibility before choosing to go public or selling out to a larger company.

Source : *https://www.crowdfunder.com/blog/crowdfunding-law/*

Business angels

Angel investors or business angels are affluent individuals who provide capital and advice for a business start-up, usually in return for an equity stake. A number of angel investors organise themselves into business angel networks to share research and pool their investment capital, as well as to provide advice. The UAE has a large number of high net worth individuals, although only a few with business experience. There is, therefore, a potential for business angel networks if appropriate policy measures are taken.

In particular, there is a need for training on both the demand and supply side. Groups of potential business angels can be formed and trained on the assessment and due diligence of business pitches, while investment readiness programmes can help entrepreneurs make a better case for their business ideas. Public co-investment in business angel networks is another policy option to boost the size of early-stage equity finance, although policy makers should leave investment decisions to private investors who are better placed to assess the growth prospects of the financed business (see box 40 for an example of a programme which does this). Finally, initiatives that facilitate matchmaking between investors and entrepreneurs are a low-cost policy option that can help trigger initial interest in early-stage equity finance in Abu Dhabi.

Box 40. **The Vigo Accelerator Programme, Finland**

Description of the approach

The Vigo accelerator programme is an example of a support initiative which combines high-growth new ventures with entrepreneurially experienced equity investors (or business angels) who then take an active, hands-on role, in the development of the new venture. Vigo is basically an accelerator for dynamic start-ups with high growth potential.

Although debt financing is the most common form of SME finance, innovative and high-growth firms tend to seek equity financing more often than other small firms. The policy issue is how best to support innovative and high-growth firms, especially those with international growth potential. The first option after own capital, friends and family, is angel investors, who are typically experienced high net worth entrepreneurs and an important source of equity capital at the seed and early stage of company formation. The next step would normally be formal venture capital investors. The Vigo Accelerator Programme lies somewhere between an angel investor and a formal venture capital fund.

Vigo is an acceleration initiative complementing the Finnish innovation ecosystem by bridging the gap between early stage technology firms and international venture funding. The Vigo Accelerators are independent companies run by internationally proven entrepreneurs and executives. They are not consultants but co-entrepreneurs who invest in the brightest start-ups to help them grow faster and more profitably in the global market. The Vigo programme offers entrepreneurs the following:

- *Funding*: selected start-ups receive funding from one of the 11 Vigo Accelerators, which play a key role in attracting growth funding from other sources.
- *Expertise and experience:* the personnel are highly experienced business leaders with a proven track record in serial entrepreneurship, as well as international business development, able to offer valuable expertise.
- *Networking and Connections:* the participating firms gain access to broad networks offering a wide range of contacts that can significantly speed-up the growth of the selected companies.
- *Risk Sharing and Credibility:* Accelerators actively participate in business development and carry part of the business and financial risk to improve the quality and the credibility of the companies. They can take a very hands-on approach in developing selected companies or concentrate on providing funding and networks.

Factors for success

Vigo sought to address perceived gaps in the high-growth venturing capital system namely the insufficient number of new ventures with potential for high growth and the equity funding gap in the range of EUR 20 000-200 000. By 2013 it had achieved a portfolio of EUR 100 million in equity investment in high-potential start-ups with a target of double the figure by 2015, which it is on-track to achieve. The Vigo Programme Mid-Term Evaluation (2013) highlights some of the key success factors:

Box 40. **The Vigo Accelerator Programme, Finland** *(Continued)*

- The mandate needs to be clear: Accelerators are a venture capital tool, with shareholders, so the mandate will need to be devoted to rapid growth with the ultimate aim of being profitable. The accelerators will need to be legal, professional and ethical, etc. but a focus on other criteria, such as jobs generation, community involvement, etc. should not be the priority of the mandate, even if public funding is involved.
- Experienced accelerator teams are critical to success: Teams need to have track-record with other companies or investments such as the creation of either profitable stable businesses or high-return exits. The integrity of the team is also important. Moreover, expertise gaps can also be filled by business consultancy rather than through an equity stake.

There are five defining characteristics that need to be taken into consideration:

- An application process that is open yet highly competitive: the selection must be made by a qualified and experienced evaluation panel that can assess the applicants and their potential (usually with a 1% success rate).
- Provision of pre-seed investment, usually in exchange for equity: accelerators typically invest between £10 000 and £50 000 in the start-ups, usually funded by external investors.
- A focus on small teams not individuals: running a start-up is too much work to handle for just one person.
- Time-limited support comprising programmed events and intensive mentoring: The start-ups receive mentoring from experienced founders and investors usually limited to months so as stimulate intense work and rapid progress.
- Start-ups supported in cohort batches: peer support is an important advantage for start-ups. Some accelerators provide office space while others do not.

Obstacles and responses

New or emerging instruments evolve over time but three issues are worth noting, based on the first phase of implementation the Vigo Accelerators programme:

- Use of management fees in incentivising entry by experienced accelerator teams: It is necessary to have clear and transparent rules governing the management fees that can be charged to portfolio firms, so as to avoid potential agency problems that might arise from the use of public funding to incentivise private profit seeking. For example, non-viable portfolio firms may be sustained longer than optimal because of the possibility to continue charging management fees. It is therefore important to restrict the time period during which management fees can be charged.
- Allocating public support to Vigo portfolio firms: This concerns who should have the final say about the allocation of public support towards portfolio ventures. At Vigo, public-sector agencies such as Finnvera and Tekes uphold their right to have the final say as to whether the support is approved or not, as the custodians of public funds, which is not always liked by the managers of the accelerators who invest their own money. An appropriate balance needs to be struck somewhere between the two positions.

Box 40. **The Vigo Accelerator Programme, Finland** *(Continued)*

- Relationships between accelerators and their portfolio firms: Accelerator teams tend to be more experienced than prospective portfolio firms and are therefore better positioned to negotiate favourable terms to themselves, especially if the accelerator is perceived by the prospective portfolio firm to be acting as a gatekeeper to public funding. For example, inexperienced entrepreneurs may give away too much ownership too cheaply to the accelerator, thus creating potential problems. In setting the level of management fees, it should be clear what the portfolio firm should expect in return for such fees.

Relevance for Abu Dhabi

A recent OECD report concluded that the angel market has either not yet developed or failed to gain traction across the Middle East. An accelerator programme, which is a half-way house between Angel Investors and Venture Capital Funds, could be the way forward in the case of UAE and Abu Dhabi mainly by filling up the early-stage small-scale equity gap.

Further information

Chalmers University of Technology (2011), Accelerating Success: A Study of Seed Accelerators and Their Defining Characteristics, pp. 8-9.

OECD (2011b), Financing High-Growth Firms: The Role of Angel Investors, Paris.

The UAE Central Bank

The UAE Central Bank has the responsibility to preserve the macroeconomic financial stability of the country. Since 2009 it has kept the base interest rate very low, 1%, in line with what observed in other major economies such as the US and the EU. This has shored up investment and economic growth rates, which have hovered 4%-5% since 2012. With respect to access to finance for new entrepreneurs and small businesses, the Central Bank can play a role in collecting data on SME lending, monitoring loan terms and conditions of commercial banks, and possibly encouraging SME lending quotas to state-owned banks.

Data on SME lending: commercial banks are required to submit information to the Central Bank on SME lending. However, at present, the Central Bank chooses not to publish this information. A relatively small but important change would be for the Central Bank to analyse and publish lending information by business size class so as to measure progress on this important aspect of economic development.

Monitoring loan terms and conditions of commercial banks: banks run a big risk in providing unsecured loans, but nonetheless the interest rates applied to first-time SME borrowers look very high. The Central

Bank might consider here some ceiling on the maximum interest rate, which could be pegged to the lending interest rate applied to commercial banks by the Central Bank (for example, maximum commercial interest rate = central bank's base interest rate +10%). The advantage is that official loan terms would become more appealing almost overnight, thus increasing the number of SMEs interested in borrowing from the private sector. However, possible disadvantages would include the retreat of some commercial banks from SME lending, due to reduced prospective profits from this activity, and as a consequence an increase in informal lending out of the banking system with interest rates even higher than those currently common. Thus, the Central Bank should use some caution in this direction, for example by testing the effects of a similar policy in the first 6-12 months to decide whether to keep it in place, expand it or simply suppress it if unintended effects exceed the expected benefits.

Imposing SME lending quotas: Imposing SME lending quotas is not common practice across OECD countries. However, SME loans in core OECD countries (e.g. Italy and France) are between 15%-20% of total business loans (OECD, 2015), which are values far from those observed in the UAE. Also, in the meetings the OECD had with two local banks, there was not open opposition to the idea of SME lending quotas, although it was noticed that this will have to happen within the capital adequacy rules of the Basel II legal framework. Imposing requirements of 10% of SME lending out of total lending or 20% out of total business lending could be pilot-tested in banks which see a majority participation of the public sector which would have to recapitalise them to continue complying with Basel II if necessary. As with the previous measure, this too should initially be tested for a short period of time and monitored closely. The risk is, in fact, that to comply with this requirement banks will be forced into offering subprime loans which could in turn lead to underperforming loan books. By contrast, it seems difficult to envisage a similar requirement for fully privately-owned commercial banks.

Conclusions and policy recommendations

Banks are reluctant to lend to start-ups because of the high mortality rates experienced by new firms in the first years of operation. This is true pretty much everywhere in the world and Abu Dhabi is not an exception. Start-up lending is therefore the responsibility of the so-called three Fs (family, friends and fools) and of the public sector, which in doing so contributes to filling this gap in the credit market. In the context of Abu Dhabi, the active involvement of KFED in start-up lending is therefore justified; indeed, at present, more than half of the KFED loan portfolio

involves start-up loans. At the same time, KFED should also strive to create "bankable clients" who can become sooner rather than later prospective clients of commercial banks which are the only ones able to provide the size and and scope of lending needed for further business expansion. In this respect, it has been suggested that KFED's grant/loan products be re-organised in three categories, each with different terms and conditions with respect to interest rates, maturity and co-financing requirements.

In the private sector commercial banks in Abu Dhabi are often blamed for not lending to start-ups, not lending enough to SMEs and charging high interest rates, although it has been reported how only some of these allegations are really grounded. In the short term, some rules on SME lending quotas might help increase the volume of SME lending, although they do require close monitoring because of possible unintended consequences. In the long run, improved framework reforms around insolvency regimes, credit bureaus and asset registries will help reduce structural information asymmetries in the local credit market that underpin the limited size and high price of SME credit in Abu Dhabi.

Finally, it has also been stressed that the current offer of enterprise financing tools is relatively limited in Abu Dhabi. The role of the public sector, both at the federal and local level, can also be one of encouraging the diffusion of new instruments. Initial discussions with commercial banks, for example, illustrate a willingness to partner-up with public institutions such as KFED in loan guarantee schemes, while enabling legislation on crowdfunding and business angels could help pump-prime these alternative sources of finance in Abu Dhabi.

The main recommendations on strengthening access to finance for new firms and SME in Abu Dhabi are therefore the following:

Khalifa Fund for Enterprise Development

- Consider restructuring the current enterprise financing offer, which is based on relatively standardised soft loans, along the threefold classification of social, intermediate and quasi-commercial SME financing, with differing terms and conditions in each case.
- In the first "social" category, which would cater for KFED's most disadvantaged clients (possibly including women-owned businesses run from home) consider replacing concessional loans with grants. Concessional loans, on the other hand, would apply to the other two categories (intermediate and quasi-commercial), but in each case with different co-financing requirements, interest-rate and maturity as defined above.

- Progressively increase the average repayment rate of loans under the intermediate and quasi-commercial categories through closer loan screening and monitoring, although the achievement of this goal will become easier if other reforms such as a new bankruptcy regime making the consequences of business failures less burdensome are introduced.
- To achieve increased repayment rate, additionally consider:
  - the design of financing programmes where the disbursement of the loan happens in more than one tranche (*e.g.* two or three maximum) and where the repayment of the first tranche starts before the disbursement of the last one (a similar scheme cannot be applied to programmes where entrepreneurs need the full sum to buy large equipment and machinery).
  - A change in the current ratio of start-up loans to SME loans, since start-ups are more exposed than existing SMEs to market exit.
- Experiment with the launch of new enterprise financing schemes in collaboration with the banking sector, firstly credit guarantee schemes and direct subsidisation of the interest rate offered by commercial banks to SME owners.
- Tailor the provision of training to the specific financing tool offered by relying not only on KFED staff but also on external private-sector business consultancies for more advanced programmes, such as those which will be part of the quasi-commercial category.

The Federal Ministry of Economy

- Legislate on SME insolvency (*e.g.* bankruptcy law) so that creditors' rights are protected but, at the same time, entrepreneurial attitudes are not discouraged. This will involve clear and transparent rules for the re-organisation plans of companies that experience solvency problems, as well as clear and transparent rules for the liquidation process, should this be the only option left available.
- After consultation with federal and Emirati-level stakeholders (*e.g.* KFED and Dubai SME), propose a unified definition of micro, small and medium enterprises, as well as of SMEs as a whole, which can help policy makers better target their programmes and banks better keep track of levels of SME lending.
- Encourage the UAE national Bureau of Statists and local statistical centres such as Abu Dhabi-based SCAD to gather information by enterprise size classes which are consistent with international definitions so that local policy makers can benchmark the performance of the country and Emirates with other countries and regions worldwide.

- Strengthen the existing credit bureau through the collection of more comprehensive information about the assets and liabilities of individual and corporate entities.
- Pursue the creation of a registry of moveable assets to expand the ability of SMEs to pledge collateral assets and thus enhance their access to bank secured lending.
- Introduce legislation on crowdfunding and business angel investment to increase diversification in the range of new and small enterprise financing tools.

The UAE Central Bank

- Collect, analyse and publish information on bank lending by business size class to monitor trends and progress in this area.
- Monitor terms and conditions of commercial loans and consider setting a ceiling to the maximum commercial interest rates by pegging it to the Central Bank's base interest rate. Monitor that this measure does not have unintended consequences such as reduced credit flow and increased informal lending.
- Consider imposing SME lending quota requirements to banks whose majority shareholder is the state, but do this within the Basel II legal framework (which the UAE is signatory of) and monitor that this does not result into a steep increase in defaulting loans.

Notes

1. The most recent and comprehensive information on access to finance in the UAE is the report "SME Financing in the United Arab Emirates" (Khalifa Fund, 2013a). The analysis in this section is based on the report, but also supplemented and updated with information and data collected during the OECD fact-finding mission and desk research.
2. A key issue in access to finance is that private-sector financial institutions may decide to offer interest rates that would leave significant numbers of potential borrowers without access to credit, due to uncertainties such as agency problems, asymmetric information, adverse credit selection, etc. This is the so-called financing gap, an issue that may be exacerbated in the case of SMEs because of their specific characteristics.
3. Financial Times, "UAE publishes code to end 'shocking' fees", 26 April 2015.
4. KFED, Credit Department, 31st Aug 2014; and Enterprise Development and Support Department, 9 November 2014
5. For example, the EU definition of SME covers enterprises with up to 249 employees; this encompasses micro-enterprises (1-10), small enterprises (10-49) and medium enterprises (50-249).

References

Atkinson A. and F Messy (2013), "Measuring financial literacy: results of the OECD/International Network on Financial Education", OECD *Working Papers on Finance, Insurance and Private Pensions*, n. 15, Paris.

Chalmers University of Technology (2011), *Accelerating Success: A Study of Seed Accelerators and Their Defining Characteristics*, Chalmers, Sweden.

Deutsche Bank (2014), *SME Financing in the Euro Area: New Solutions to an Old Problem*, Frankfurt

European Central Bank (ECB) (2013), *Survey on the Access to Finance of SMEs in the Euro Area: October 2012 to March 2013*, Brussels.

European Microfinance Network (EMN) (2010), "Overview of the Microcredit Sector in the European Union", *EMN Working Paper N. 6*, Fundación Nantik Lum

Green, A. (2003), "Credit Guarantee Schemes for Small Enterprises: An effective Instrument to Promote Private Sector-led Growth?", *UNIDO Working Paper No. 10*, Vienna.

IFC (2010), *Scaling Up SME Access to Financial Services in the Developing World*, World Bank Group, Washington DC.

Khalifa Fund for Enterprise Development (KFED) (2013a), *SME Financing in the United Arab Emirates*, Abu Dhabi.

Khalifa Fund for Enterprise Development (KFED, 2013b), *Khalifa Fund Microfinance White Paper*, Abu Dhabi.

MENA Private Equity Association (2013), *Private Equity and Venture Capital in the MENA Region*, Thomson Reuters and KPMG.

OECD (2015), *OECD Scoreboard on Financing Entrepreneurs and SMEs 2015*, OECD Publishing, Paris. *http://dx.doi.org/10.1787/fin_sme_ent-2015-en*.

OECD (2013a), *OECD Studies on SMEs and Entrepreneurship – Mexico: Key Issues and Policies*, OECD Publishing, Paris. *http://dx.doi.org/10.1787/9789264187030-en*.

OECD (2013b), "SME and entrepreneurship financing: The role of Credit Guarantee Systems and Mutual Guarantee Societies in sustaining finance to small and medium-sized enterprises", final unpublished report.

OECD (2012), *Entrepreneurship at a Glance 2012*, OECD Publishing, Paris *http://dx.doi.org/10.1787/entrepreneur_aag-2012-en*

OECD (2011a), "Credit Mediation for SMEs and Entrepreneurs", unpublished report, Paris. *http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=CFE/SME(2011)8/FINAL&docLanguage=En*

OECD (2011b), *Financing High-Growth Firms: The Role of Angel Investors*, OECD Publishing, Paris. *http://dx.doi.org/10.1787/9789264118782-en*.

OECD (2006), *The SME Financing Gap: Vol. 1 Theory and Evidence*, OECD Publishing.

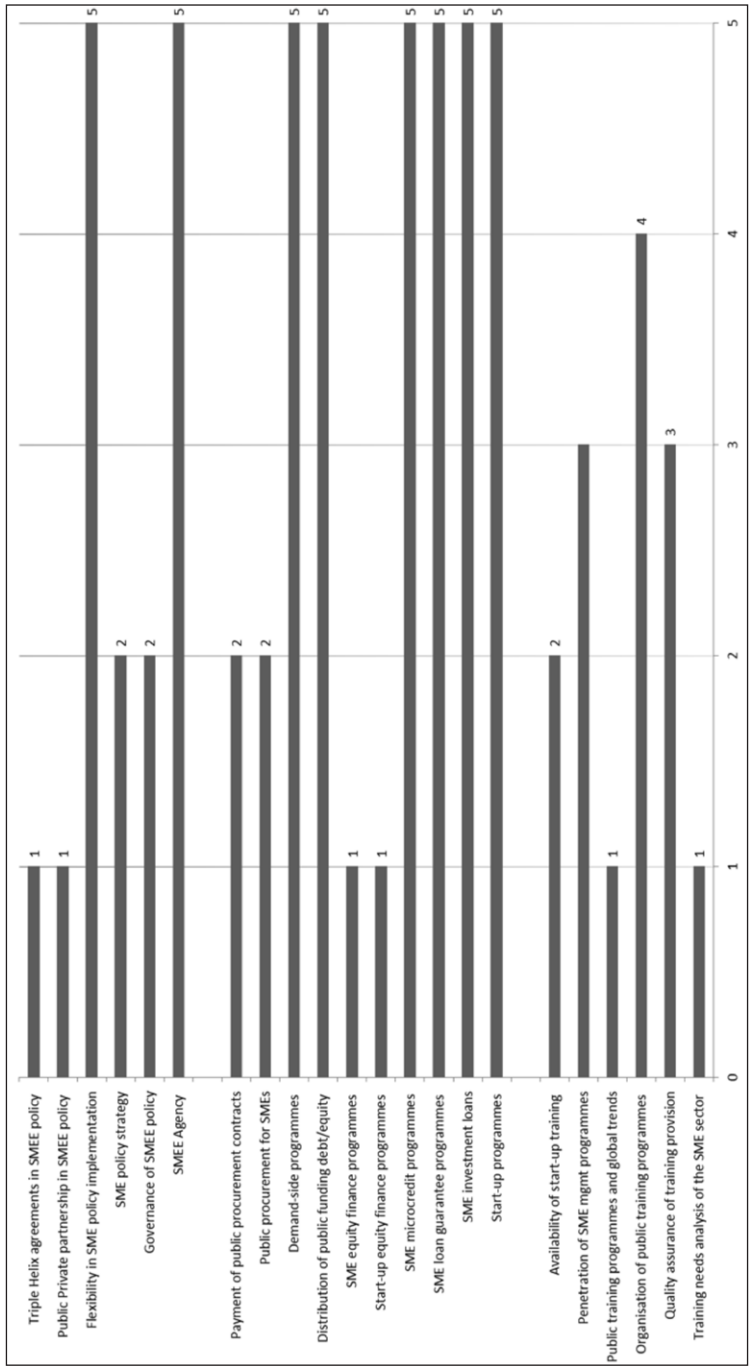
OECD (undated), "Discussion Paper on Credit Information Sharing", unpublished report, Paris. *https://www1.oecd.org/globalrelations/45370071.pdf*

World Bank (2014), *Facilitating SME financing through Improved Credit Reporting*, World Bank Group, Washington DC.

World Bank (2011), *General Principles for Credit Reporting*, World Bank Group, Washington DC.

ANNEX I.
General policy assessment scores

The scores assigned in these grids are based on a closed-ended questionnaire in which each indicator is linked to two-to-four specific questions. The questionnaire was delivered by a local consultant who interviewed selected policy makers in each policy area. The questionnaire is available upon request to the OECD LEED Programme (*marco.marchese@oecd.org*).


Triple Helix agreements in SMEE policy
Public Private partnership in SMEE policy
Flexibility in SME policy implementation
SME policy strategy
Governance of SMEE policy
SMEE Agency
Payment of public procurement contracts
Public procurement for SMEs
Demand-side programmes
Distribution of public funding debt/equity
SME equity finance programmes
Start-up equity finance programmes
SME microcredit programmes
SME loan guarantee programmes
SME investment loans
Start-up programmes
Availability of start-up training
Penetration of SME mgmt programmes
Public training programmes and global trends
Organisation of public training programmes
Quality assurance of training provision
Training needs analysis of the SME sector
1
1
5
2
2
5
2
2
5
5
1
1
5
5
5
5
2
3
1
4
3
1
0
1
2
3
4
5

ANNEX II.
Priority policy actions to strenghten the entrepreneurial and SME ecosystem of Abu Dhabi

Policy Action: Simplify the business registration system of Abu Dhabi	
Relevant Category	Business Environment
Issue to be addressed	The amount of regulation and red tape involving the local licencing system is not conducive to a positive business environment; this situation must be addressed in order to encourage real entrepreneurship and SME development.
Actions	• Make business licenses necessary only for business activities which present a risk for the environment or the health and safety of society at large. This would be established according to the sector classification of the company based on the UN ISIC 3- or 4-digit International Standards Industrial Classification (ISIC) Standard • Remove the obligation to renew the business license every year or, alternatively, lengthen the duration of the license from one to three years. • Eliminate the obligation to register with the chamber of commerce and make chamber's membership voluntary, turning the chamber into a lobbying business association.
Expected Outcomes	• Reduced time and costs to set out a business activity (especially if it does not present risks for the environment or the society) • Increased number of businesses in Abu Dhabi
Monitoring indicators	• Number of days to open a business • AED costs to open a business • Number of enterprises (not simply business licenses) in Abu Dhabi
Lead and supporting organisations	The Abu Department of Economic Development (ADDED) supported by the Abu Dhabi Chamber of Commerce and Industry (ADCCI), The Khalifa Fund for Enterprise Development (KFED) and the Abu Dhabi Council of Economic Development (ADCED)
Operational details	Resources required include the probable set-up of a dedicated office and budget for re-printing of all forms and documentation. A Monitoring Committee should be used from the outset to oversee changes in the licencing system, with reviews at three-monthly intervals to prevent divergences from the original timeline.

Policy Action: Introduce entrepreneurship education throughout the UAE national education system	
Relevant Category	Human capital development
Issue to be addressed	Entrepreneurial attitudes among UAE nationals are not strong enough and do not translate into entrepreneurial action. This is true also among the youths, who have a preference for government jobs and show little appetite for entrepreneurial undertaking. Some good practices of entrepreneurship education are in place in Abu Dhabi (Abu Dhabi School of Management and Zayed University); however, more comprehensive entrepreneurship education throughout first, secondary and tertiary education levels could help strengthen further entrepreneurial attitudes in the local population.
Actions	• Introduce entrepreneurship education promoting social skills (creativity, problem solving, team building, self-development, etc.), technical and management skills (e.g. marketing and communication, product, process, resource and quality management) and strategic skills (strategic thinking, time management, decision-making, etc.) at all levels of education. For the youngest, programmes might involve setting up a mock company; for older college students, programme could include direct mentoring geared towards real business creation. • Make sure that entrepreneurship education is based on interactive and experiential teaching methods. These would include: business plans, class discussions, guest speakers, case studies, in-class exercises, lectures by business owners, feasibility studies, company simulations, entrepreneurship internships, and on-site visits. • Develop train-the-trainer courses to generate a pipeline of skilled teachers able to implement entrepreneurship education on the ground. • Ensure that enterprise trainers and educators are adequately rewarded to shun the risk of leaving this professional field to volunteerism. • Partner with NGOs already active in entrepreneurship education, for example INJAZ-JA as far as primary and secondary education is concerned. • Involve universities which have already experimented with entrepreneurship education (e.g. Abu Dhabi School of Management and Zayed University) in the design of courses and curricula at the tertiary level.
Expected Outcomes	• Stronger entrepreneurial mind-sets among primary and secondary students • Stronger entrepreneurial skills among tertiary students and graduates • Higher rates of business creation among young Emiratis aged 15-35. • Higher employability of young Emiratis aged 15-35

Monitoring indicators	• Increased number of students completing entrepreneurship education courses at primary, secondary and tertiary levels.
	• Improved entrepreneurial attitudes and perceptions as measured by GEM indicators in the UAE young population
	  • Entrepreneurship as a desirable career choice
	  • Perceived entrepreneurial skills
	  • Fear of failure rate
	  • Total Entrepreneurial Activity (TEA) rate

Lead and supporting organisations	The Federal Ministry of Education supported by the Abu Dhabi Education Council, the Abu Dhabi Council of Economic Development (ADCED), NGOs such as INJAZ-JA, and HEIs such as Abu Dhabi School of Management and Zayed University.
Operational details	A taskforce would probably have to be created and led by the federal Ministry of Education. The taskforce should include national and local stakeholders but also international experts and NGOs familiar with the topic with a view to relying on international best practices in this field.

Policy Action: Support female entrepreneurship to improve women's participation in the labour market in Abu Dhabi	
Relevant Category	Human capital development and social inclusion
Issue to be addressed	Labour market participation of Emirati women is low (16%) while female unemployment rate is high by international standards (18%). Entrepreneurship can become a means to strengthen women's labour market participation.
Actions	• Make sure that women are exposed to enterprise training, at least as part of their secondary and tertiary education programmes (Emirati women already have higher rates of enrolment and completion in tertiary education). • Ease regulatory restrictions on home-based entrepreneurship, including on production and sale of home-based food in partnership with the Abu Dhabi Food Control Authority (ADFCA) • Support the development of intermediate structures such as women cooperatives to enable women-owned firms to take collective risks, benefit from mutual learning and achieve bigger economies of scale. In particular, the latter could enable women to enter higher value-added sectors (e.g. manufacturing-based ones) where they are currently underrepresented.
Expected Outcomes	• Increased participation of women in enterprise training. • Increased number of women who are self-employed and business owners. • Increased survival and performance of women-owned businesses.
Monitoring indicators	• Increased number of female students undertaking enterprise training (survey-based measurement). • Higher labour market participation rate and lower unemployment rate among women (to be measured by SCAD through labour force surveys) • Increased survival rate of women-owned business (to be measured by main entity responsible for business registry, e.g. ADDED or ADCCI). • Increased size of women-owned businesses (to be measured by main entity responsible for business registry, e.g. ADDED or ADCCI)
Lead and supporting organisations	The General Secretariat of the Executive Council (GSEC), in collaboration with the Khalifa Fund for Enterprise Development (KFED), the Abu Dhabi Business Women Council (ADWBC), the Family Development Foundation, and the Abu Dhabi Food Control Authority (ADFCA) (with respect to easing regulations on the sale of home-based food).
Operational details	This action is likely to require high-level coordination by GSEC. Considering that the role of women in the society has strong cultural connotations everywhere, government organisations, business association and NGOs working on women thematic issues should be involved and consulted since the very beginning on steps and actions most appropriate to buttress women's entrepreneurship in Abu Dhabi.

Policy Action: Support socially inclusive entrepreneurship through employment social enterprises	
Relevant Category	Human capital development and social inclusion
Issue to be addressed	Half of the unemployment in Abu Dhabi consists of youths aged 20-30. There is also a high rate of high-school dropouts in the male population (25%). On a positive note, the GEM TEA rate in the UAE is the highest (14%) among those aged 25-34. Employment social enterprises can provide socially useful goods and services (facilities management, landscaping, etc.) while also spurring entrepreneurship and job creation among Emirati youths in a private sector which works for the public sector.
Actions	• Introduce new legislation setting the legal framework for social employment enterprises. • Encourage through the provision of finance and training the establishment of the first employment social enterprises by young low-educated Emiratis, as well as by other social target groups such as women and long-term unemployed. • Create a market demand for the goods and services provided by employment social enterprises, for example through set-asides in public procurement for low value-added services such as catering and facilities management.
Expected Outcomes	• New business enterprise legal form introduced either at the emirate or federal level. • Provision of financial support and business management training to the first social employment enterprises established in Abu Dhabi. • Creation of new private-sector jobs for young Emiratis and other target groups. • In the long-term, reduced proportion in the share of young Emiratis directly employed by the government sector.
Monitoring indicators	• Number of employment social enterprises in Abu Dhabi (to be monitored by Abu Dhabi Department of Economic Development-ADDED) • Number of jobs in employment social enterprises in Abu Dhabi (to be monitored by SCAD) • Number and volume of public procurement contracts issued by Abu Dhabi local government for social employment enterprises.
Lead and supporting organisations	Legislation on the new legal business form of employment social enterprises will have to be introduced by the federal government in line with the federal company law. In Abu Dhabi, the role of financial support and training for employment social enterprises should be led by a partnership between the Khalifa Fund for Enterprise Development (KFED), the Emirates Foundation for Youth Development and the Tawteen Council (i.e. the local employment agency).
Operational details	A two stage approach may be needed. First at the federal level, the cabinet will have to introduce the new legal business form of “employment social enterprise” in the UAE. Then, at local level, the abovementioned partnership could financially facilitate the creation of the first enterprises of this kind and provide training to its members.

Policy Action: Set up the R&D Council of Abu Dhabi in line with international best practices	
Relevant Category	Innovative entrepreneurship and SME innovation
Issue to be addressed	R&D spending is very low in Abu Dhabi, i.e. 0.5% of the local GDP, although this is partly affected by the industry structure of the economy. There is a need to strengthen investment in R&D, research commercialisation and connect the islands of R&D good practices which are already in place in the Emirate (e.g. Masdar Institute, Aerospace Research and Innovation Centre and Petroleum Institute)
Actions	• Establish an R&D Council within the government with high-profile membership from each of the triple helix partners (i.e. industry, academia and government) and supported by staff that can monitor the development of the innovation eco-system to inform Council priorities and decisions and administer research funding. • Define research priorities of the R&D Council in line with the strategic objectives of the Abu Dhabi Economic Vision 2030 and concentrate resources on the identified key strategic research priorities to achieve scale and impact. • Ensure that research funding is targeted at commercialisable research and favours collaborative research, including with foreign institutions, to support industry-university collaboration and tap into global knowledge flows. • Allocate some funding for social sciences research as well (economics, public policy, etc.) to favour better understanding of the dynamics and interplays of the local innovation system.
Expected Outcomes	• Increased R&D spending (in absolute terms and as a percentage of GDP) in Abu Dhabi • Increased collaboration among Abu Dhabi research organisations and between Abu Dhabi research organisations and local companies, including SMEs. • Increased international collaboration between Abu Dhabi research organisations and international organisations. • Increased international competitiveness in key strategic sectors, as identified by the Abu Dhabi government.

Monitoring indicators	• R&D spending as a percentage of local GDP (to be monitored by SCAD)
	• Share of research grants for collaborative projects provided by the Abu Dhabi R&D Council (to be monitored by the R&D Council)
	  • University-university national/international collaborative projects
	  • University-industry national/international collaborative projects
	• Increased number of GCC patents and triadic patents (i.e. patents filed at the European Patent Office, the United States Patent and Trademark Office and the Japan Patent Office, for the same invention, by the same applicant or inventor) where one of the inventors is from an Abu Dhabi research organisation (to be monitored by the UAE IP office)
	• Increased number of GCC and triadic patents in sectors considered strategic by the Abu Dhabi government.

Lead and supporting organisations	The Abu Dhabi Technology Development Committee (TDC) would most likely have to take the lead on this action, with support from the main public and private research-based universities such as the Khalifa University of Science, Technology and Research (KUSTAR) and the Masdar Institute.

Operational details	As Abu Dhabi launches its own R&D Council, it would be useful to consult with a few international best practices to learn how these councils work elsewhere and which objectives they have set (some examples are provided in this report). Also, the experience of many countries shows that investment in R&D is not synonymous with research commercialisation; local stakeholders should make sure that enhanced investments result into increased intermediate outputs (e.g. patents) and increased number of new-to-market products.

Policy Action: Set up a Design Council in Abu Dhabi to take into account the role of non-technological innovation in economic modernisation.	
Relevant Category	Innovative entrepreneurship and SME innovation
Issue to be addressed	As much as R&D, non-technological innovation (e.g. management innovation, marketing innovation, design innovation, etc.) is also important to boost economic diversification and productivity in the economy. Emphasis on non-technological forms of innovation is at an early stage in Abu Dhabi, but there are good practices such as the College of Arts and Creative Enterprise at the Zayed University. In particular, design-related innovation will prove useful to increasing the value-added of manufacturing in Abu Dhabi, supporting innovation in non-R&D sectors where SMEs are often predominant, and helping female entrepreneurs in sectors such as food production and clothing.
Actions	• Set up a Design Council whose first task could be to define, map and measure the creative sector (e.g. media, publishing, etc.) of Abu Dhabi. • The Design Council would then engage into four main activities: a) support those universities which train creative and design talent; b) encourage a culture which values creativity and design, including by increasing awareness of its potential value among firms; c) foster partnership and networks among firms and between firms and universities around design-related projects; d) advocate within the government for the promotion of 'design' and 'design thinking'.
Expected Outcomes	• A stronger creative industry sector in Abu Dhabi • Increased performance in non-technological innovation in Abu Dhabi (e.g. trademarks and copyrights). • Increased design content in local manufacturing products.
Monitoring indicators	• Number of Abu Dhabi-based firms in the creative sector as defined by the Design Council and ADDED (to be monitored by ADDED) • Number of Abu Dhabi-based firms registering trademarks and copyrights (to be monitored by the UAE Patent Office) • Number of Abu Dhabi-based firms introducing new-to-market products (to be monitored through periodic enterprise innovation surveys)
Lead and supporting organisations	The newly-created Design Council would be the lead organisation, in collaboration with the Abu Dhabi Dept. of Economic Development (ADDED), R&D Council and the Abu Dhabi Chamber of Commerce and Industry (ADCCI).
Operational details	As Abu Dhabi launches its R&D Council, it could also set up a Design Council which draws inspiration from international best practices elsewhere. Alternatively, the R&D and Design Council could be merged into one wider Innovation Council with responsibility for the promotion of both R&D and non-technological innovation. Collaboration with the private sector through the ADCCI and major large companies will be of great importance if design innovation is to trickle down to the manufacturing sector and leads to greater new-to-market products generated by Abu Dhabi large firms and SMEs.

Policy Action: Support research commercialisation through the launch of a technology incubator programme in Abu Dhabi	
Relevant Category	Innovative entrepreneurship and SME innovation
Issue to be addressed	There is little research that is commercialised in Abu Dhabi, especially through technology-based start-ups. For example, in 2013, the Takamul Programme of the Abu Dhabi Technology Development Committee (TDC) supported only one start-up.
Actions	• Launch an Emirate-wide technology incubator programme where three-to-five incubators are created across the Emirate of Abu Dhabi. • Set out the range of support services offered by the Programme, which should include: training on IP management and strategic planning; market research clinics and marketing advice; investment readiness; individual mentoring on both technical and managerial aspects; network development opportunities with other businesses, experienced entrepreneurs and university faculty members. • Develop close linkages with science-based universities in Abu Dhabi (e.g. KUSTAR) to attract potential participants in the programme among both graduates and faculty members and to benefit from the knowledge and research carried out in the local university system. • Develop linkages with existing business support providers to reduce the overhead costs of the Programme and encourage private provision of business support services. • Train the management and staff who will work in the incubators with business diagnostic and business advice skills. • Open participation into the incubator programme to expats who have the adequate academic credentials and are residents in the UAE.
Expected Outcomes	• Increased research commercialisation. • Increased number of technology-based start-ups.
Monitoring indicators	• Number of start-ups in high-tech sectors (to be monitored by ADDED) • Number of technology licensing agreements in Abu Dhabi-based universities (to be monitored by TDC in collaboration with local research universities and institutes).
Lead and supporting organisations	The Abu Dhabi Technology Development Committee (TDC) and the Khalifa Fund for Enterprise Development (KFED) should closely work on the launch of this initiative, high-tech start-ups lying at the crossroad of technology and entrepreneurship support.
Operational details	It will be important to monitor the progression of tenant firms. This means that participant firms should only be allowed to stay for a pre-defined period of time so as to enable other firms to benefit from the same support and reduce displacement effects by which supported firms build a long-term advantage on competitor firms who do not receive support.

Policy Action: Experiment with a small-scale programme targeting high-growth firms	
Relevant Category	Innovative entrepreneurship and SME innovation
Issue to be addressed	There is a lack of high-growth SMEs, i.e. growth-oriented SMEs which grow fast over a short period of time, in Abu Dhabi. International evidence shows that these firms are innovative and have a strong impact on job creation. Thus, strengthening their presence locally would help advance innovation, diversification and job creation in the Emirate.
Actions	• Design and launch a business accelerator programme in close collaboration with private-sector business consultancies (e.g. intellectual property and marketing specialists); specialist skills required of high-growth-firm managers are, in fact, usually not available in government organisations. • Select firms by using a mix of quantitative criteria (e.g. recent turnover and employment growth, export sales) and qualitative criteria (e.g. new products or services, personal ambition), being aware that past growth is not always a good predictor of future growth. • Ensure that business accelerators keep a wide industry focus, as high-growth firms are not necessarily only found in knowledge-intensive sectors. • Deploy a heterogeneous set of skills development activities which use interactive and experiential learning. Make sure that peer-to-peer learning where entrepreneurs learn from each other is part of the business accelerator's activities. • Do not scatter resources thinly across too many firms; rather, work with firms that show a clear potential for growth while avoiding the extension of public support for too long without the achievement of development milestones by participant companies. • Consider co-funding by participant companies to ensure commitment to programme activities.
Expected Outcomes	• Increased number of local high-growth firms • Increased contribution to innovation by local high-growth firms • Increased contribution to job creation by local high-growth firms
Monitoring indicators	• Number of high-growth firms in Abu Dhabi (OECD definition or alternative definition decided locally) (to be monitored by SCAD or ADDED) • Number of jobs created by high-growth firms in the accelerator programme (to be monitored by the accelerator programme's managers) • Number of new products launched by high-growth firms in the accelerator programme (to be monitored by the accelerator's programme managers)
Lead and supporting organisations	The Khalifa Fund for Enterprise Development (KFED) should take the lead, with possible support from the Abu Dhabi Department of Economic Development (ADDED) if the latter also engages in active support measures such as export promotion.
Operational details	Experience from OECD countries shows that business accelerators are often public private partnerships between government and private-sector consulting companies. One approach would be to launch a call for tender for consulting companies interested in delivering the programme on behalf of the government. Another would be for the government agency to outline the contents of the programme but contract out some of the activities to private-sector consulting companies.

Policy Action: Improve the legal framework for access to finance by advocating for a bankruptcy law at the federal level and a registry of moveable assets	
Relevant Category	Entrepreneurship and SME financing
Issue to be addressed	There are severe credit constraints in Abu Dhabi. Banks are held not to lend to start-ups, not to lend enough to SMEs and, when they do lend, charge excessive interest rates. Information asymmetries in the local credit market are significant, which calls for an improved legal framework inclusive of an effective bankruptcy law and a registry of moveable assets at the federal level. Here, the role of the Abu Dhabi government would therefore be one of advocacy at the federal level.
Actions	• Advocate for a federal bankruptcy law where: the rights of both creditors and entrepreneurs are protected through clear liquidation and business re-organisation procedures; where fraudulent bankruptcy is dealt with as penal offense but normal bankruptcy is not; where bankrupt entrepreneurs who have gone through liquidation and paid creditors are not prevented from starting another business (i.e. give honest entrepreneurs a second chance). • Encourage out-of-court solutions to clear divergences between debtors and creditors to avoid an excessive burden on the court system and reduce the length of the bankruptcy process. • Provide training in universities for law professions specialised on bankruptcy law and the management process of bankruptcies. • Raise awareness in the broader population to relieve social stigma about business bankruptcy. • Advocate for the establishment of registry of moveable assets at the federal level to improve and expand banks' capacity to assess collateral assets and credit worthiness in SMEs. • Ensure that such registry is centralised to avoid fraudulent behaviour by which the same asset is registered in different registries. • Make the registry available online to legally certified stakeholders (i.e. banks, lawyers and relevant government officers) to reduce information asymmetries in the credit market and thus expedite credit provision and business enterprise liquidation.
Expected Outcomes	• A new bankruptcy law where the rights of both creditors and entrepreneurs are protected, thus strengthening access to credit for SMEs. • A centralised (and digitalised) moveable asset registry which gathers information on borrowers' collateral assets beyond car and real estate property.
Monitoring indicators	• Number of bankruptcy filings per year. • Average number of months to complete a bankruptcy procedure either through liquidation or business re-organisation. • Number of borrowers and moveable assets registered in the moveable asset registry.
Lead and supporting organisations	Both the bankruptcy law and a moveable asset registry would be better set out at the federal level: the former would be a prerogative of the federal Cabinet, while the latter would fall within the remit of the federal Ministry of the Economy. In Abu Dhabi, GSEC and KFED could respectively play an important advocacy role.
Operational details	If a bankruptcy law is indeed introduced, a number of parallel actions such as university training for law specialists and awareness-raising campaigns about the legal and social implications of such a law will be helpful.

Policy Action: Improve direct access to finance through a revamped credit guarantee scheme and SME lending quotas (for banks with significant government participation)	
Relevant Category	Entrepreneurship and SME financing
Issue to be addressed	There are severe credit constraints in Abu Dhabi. Banks are held not to lend to start-ups, not to lend enough to SMEs and, when they do lend, charge excessive interest rates. A revamped credit guarantee programme and SME lending quotas can help relieve the credit crunch and boost access to finance for SMEs in a more direct way than reforms in framework conditions.
Actions	• Establish a new credit guarantee programme in collaboration with private-sector banks targeted at existing SMEs. • Set clear rules and guidelines for the credit guarantee programme (i.e. firm eligibility, loan size, loan duration, coverage ratio, etc.) to reduce moral hazards and make sure that the programme is targeted to the intended beneficiaries. • At the same time, let commercial banks screen loan applications and decide on which SME clients apply the guarantee, as they are in a better position to assess credit risk and they should still carry part of the lending risk if the credit guarantee programme is to be successful. • Monitor the profile of borrowers and defaults rates on guarantee-backed loans. • Consider introducing SME lending quotas for banks which see a majority participation of the state in compliance with Basel II's capital adequacy rules. • Set up quotas in relation to either total bank lending or total bank business lending, taking into account the structure of the economy of Abu Dhabi where large state-owned companies prevail. For ex., 8% of total bank lending for SMEs would probably be a realistic target (i.e. approximately twice as much as now). • Monitor the effects of SME lending quotas in the short-term to ensure that it does not deteriorate banks' book loans. • Clearly define what an SME is at federal level, preferably relying on the size of employment which can be more easily tracked, in order to track the effectiveness of this policy.
Expected Outcomes	• Increased number of SMEs with access to bank loans. • Increased volume of SME lending out of total bank lending.
Monitoring indicators	• Number of SMEs in Abu Dhabi which have received a loan guarantee (to be monitored by the agency running the programme) • Default rate on government-guaranteed loans (to be monitored by the agency running the programme) • Average loan size, maturity and interest rate on government-guaranteed loans(to be monitored by the agency running the programme) • Number of SMEs in Abu Dhabi which have received a bank loan (to be monitored by the UAE Central Bank) • Volume of SME lending out of total bank lending (to be monitored by the UAE Central Bank) • Average credit conditions (e.g. interest rate, loan size, loan maturity) applied to SMEs (to be monitored by the UAE Central Bank)

Lead and supporting organisations	For the credit guarantee programme, the lead agency would be KFED, which would have to establish partnerships with commercial banks interested in working with SMEs. For SME lending quotas, the lead stakeholder would be the UAE Central Bank collaborating with banks with government participation in the country.
Operational details	Setting lending quotas for SMEs is an unconventional policy by OECD standards. The international experience from developing countries is that they may lead to capture by vested interest, winner-picking problems and, as a result, to an increase in troubled loans. Close monitoring of the policy would have to be put in place in the very short term to ensure that these effects do not occur in Abu Dhabi. The measure should also be temporary and phased out as lending conditions in the Emirate improve.

ANNEX III: UAE federal laws affecting doing business in Abu Dhabi

This Annex summarises the main federal laws which govern the business environment in the UAE and which, as a result, affect doing business in Abu Dhabi.

Policy theme	Main features
Taxation	• There is no withholding, personal income, value added, or capital gains tax in the UAE. • The UAE has a number of tax treaties in place, which benefit UAE Nationals and locally incorporated entities. • Currently, taxes are only imposed on foreign oil and gas producing companies, and branches of foreign banks. Their capital gains are taxed as part of business profits. • Discussions on introducing a VAT in the UAE and across the six GCC members have taken place, but according to local government officials a VAT is not imminent.
Foreign Exchange Controls and Anti-money Laundering	• The UAE does not have currency exchange controls or restrictions on remittances of funds. • The Federal Government does not impose debt-to-equity ratio requirements on corporations. • The UAE has a comprehensive anti-money laundering system, which is further enforced by the federal Law on Money Laundering Criminalization (No. 4 of 2002) and is compliant with the Financial Action Task Force on Money Laundering (FATF).
Doing Business with the Public Sector	• To do business with the federal government or local government, foreign businesses must comply with public sector procurement rules outlined in the Financial Order No. 16 of 1975 the Federal Regulations of Conditions of Purchases, Tenders, and Contracts. Compliance requires the foreign business to have a UAE national as a representative, an entity that is majority owned by UAE nationals, or work through a joint participation venture with a locally licensed entity.
Import and Export Regulations	• The UAE is a member of the WTO. • The Federal Government does not impose duties or tariffs on exports. • The UAE is part of the GCC customs union and has a unified customs duty rate typically around 5 % on dutiable imports. The duty is levied based on the cost, insurance, and freight. • Import duties are normally charged variable rates on products imported into the UAE, but certain exemptions can apply based on the importer's status (e.g. free zone entity, majority owned by a GCC national, etc.) or by the type of product. • Typically, foreign parties cannot import goods into the UAE for the purpose of resale other than a free zone entity wherein the sale will occur within the relevant free zone or be used for its own use. Normal importation rates apply for free zones if the imports are then resold in the UAE through a local service agent.
The Commercial Agencies Law	• The Federal Commercial Agencies Law requires that foreign businesses must distribute their products in the UAE through exclusive commercial agents that are either UAE nationals or companies wholly owned by UAE nationals.

Industry Law	• The law stipulates that industrial projects must have 51 % UAE national ownership, and requires that projects either be managed by a UAE national or have a board of directors with a majority of UAE nationals. • Exemptions from the law are provided for projects related to extraction and refining of oil, natural gas, and other raw materials. • Projects with a small capital investment or projects governed by special laws or agreements are also exempt from the industry law.
Intellectual Property, patents, copyrights and trademarks	• The UAE is a member of worldwide conventions on intellectual property including the Madrid Convention, the WTO, TRIPS, Patent Cooperation Treaty, etc. • UAE law recognizes the broad range of national intellectual property rights, which are similar in form to those under the UK, European, and US systems. • Registration of intellectual property is monitored by the Ministry of Economy. Patents are protected under the Federal Industrial Property Law (No. 17 of 2002), and the law imposes fines and imprisonment for infringement of patents. • UAE is also part of the GCC Patent system which provides a mechanism for regional filings of patent applications with the GCC countries. • Copyright protection on a wide range of works is provided under the Federal Law Concerning Author's Rights and Neighbouring Rights (no. 7 of 2002). • Trademarks and trade names are protected under Federal Law No. 27 of 1992

Anti-trust Laws	• Federal Law No. 4 of 2012, which came into effect in 2014 protects competition and prohibits anti-competitive practices.
	• The law applies to all entities with respect to their business activities and intellectual property rights, as well as activities abroad that affects competition within the UAE. However, certain economic sectors are exempt from the law's application including: telecommunications; pharmaceuticals; postal services (not including express mail); financial services; oil and gas; electricity; water; waste disposal; as well as land, air and rail transport).
	• The Law has three main areas of focus: (1) restrictive agreements, (2) abuse of dominance, and (3) mergers and acquisitions
	  • The Law prohibits "restrictive agreements," defined as agreements (whether formal or informal) aimed at prohibiting or minimizing competition.
	  • The Law also prohibits entities (either acting on their own or with others) from abusing a dominant position. However, exemptions can be applied with the Ministry of Economy if it can be shown that the activity promotes economic development, etc.
	  • Concerning mergers and acquisitions, the Law states acquisitions or mergers satisfying certain thresholds must submit applications for approval to the Ministry of Economy.

Bankruptcy and Insolvency	• Book 5 of the Commercial Transaction Law, Federal Law No. 18 of 1993 ("Commercial Code") covers the rules and procedures in relation to the bankruptcy of individuals and commercial entities. Experts agree that the UAE bankruptcy rules are cumbersome, lengthy, court-driven, and expensive to apply, all of which are reflected in the 2014 World Bank's Doing Business Report where the UAE ranked 92 out of 189 countries in resolving insolvency. While there is a draft law in place, it has yet to be approved. The main issues with the current law include: • The Commercial Code lacks definition with respect to the term bankruptcy, rather it merely highlights the circumstances in which the trader is considered bankrupt. • The Commercial Code does not provide a mechanism for the orderly evaluation and distribution of assets of a bankrupt entity. As a result, bankruptcy has not been frequently tested in the courts, as many opt for out-of-court settlements due to the time, cost, and the anxiety of not knowing how the courts will administer the provisions of the Commercial Code relating to insolvency. Indeed, reports suggest that a trend has emerged where Courts have been reluctant to apply the bankruptcy law and proceed straight to liquidation. • While the Commercial Code is aimed at preventing individual proceedings against the debtor, verifying creditor claims, prioritizing them and then encouraging agreement on a settlement plan among creditors, the process is time consuming especially if the creditors do not agree on a settlement plan. In such cases, the only viable option is to liquidate the debtor under the supervision of a court or a creditor-appointed trustee. • For companies undergoing restructuring out of court, they risk dissenting creditors holding up the process by disagreeing with the terms, as well as the threat of jail time if cheques where bounced, which is a criminal offense in the UAE . Payees can lodge a criminal complaint against the signatory, even when the cheque is issued on behalf of a company. • The law firm Afridi & Angell Bowden, estimates that under the current law, it would take approximately 3 years to complete the court-driven insolvency process set out in the UAE Commercial Code. • Though the draft insolvency law incorporates elements from the French, German and US systems and reflects a debtor friendly and court-driven process it is not expected to come into force anytime soon as it is considered one of the most challenging legal reforms attempted cutting across contractual rights, property rights, banking practices, debt recoveries, and family law.