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Abbreviations

CIS	Commonwealth of Independent States
DAMU	Small Entrepreneurship Development Fund
FDI	Foreign Direct Investment
IOC	International Oil Companies
ISC	Investor Service Centre
JV	Joint Venture
R&D	Research and Development
SEC	Social Enterprise Company
SME	Small and Medium sized Enterprise

EXECUTIVE SUMMARY

This report examines the steps that need to be taken by government authorities in Kazakhstan to exploit the potential of inward foreign direct investment (FDI) for local economic development by contributing to the growth and development of small and medium sized enterprises (SMEs) in the regions in which they operate. It presents policy strategies and action plans for FDI-SME linkage building in three regions of Kazakhstan: Atyrau, East Kazakhstan and Kyzylorda. It also presents a set of international learning models to illustrate the types of actions that governments and development agencies at national and local levels can take to support FDI-SME linkages and local economic development in Kazakhstan.

Development of linkages requires actions to create favourable conditions in three areas:

1. The institutional capacity of both public institutions and the SME sector itself, for example in organising supply chains and clusters, and in having sufficient collective mass to deal with FDI.
2. The policy support structure for local SMEs, ensuring that they understand the requirements to deal with FDI and have appropriate support in upgrading their products and processes for this purpose.
3. The existence of appropriate skills in the workforce and within SMEs.

In order for there to be an effective linkage programme there further needs to be: clear responsibility, accountability and resources available; adequate information and intelligence on both the local SME sector and existing and potential FDI; and effective engagement of both the SME and FDI sectors in the work.

The linkage strategies need to take account of the scale, nature and distribution of FDI and SME activity in Kazakhstan and anticipated trends and ambitions. There are quite limited numbers of foreign investments taking place currently in sectors which have been chosen for promotion (specifically related to diversification away from extractive industries) and which are appropriate for developing SME linkages. The targets for the number of linkages created should therefore not be too ambitious and policy should start with pilot actions. At the same time, the local SME sector is still relatively weak. There is therefore a need for public SME development actions, which should seek to build SME capabilities both for linkages with FDI and more generally for the support of local economic development.

Work on the FDI-SME linkage strategies will be a challenge for public sector support institutions owing to limited existing resources and the need to move away from a generally reactive approach (responding to requests from the private sector as they come in) to a more strategic and proactive one (finding opportunities by networking with the private sector and working with them on a collective basis).

In none of the three regions are there either immediate large foreign investments, or investors in target sectors, who are expected to expand significantly. Accordingly, the linkage strategies will be based around creating the conditions for linkages and developing the SME sector, and a set of pilot actions which will which bring the SME sector together and at the same time give public institutions some experience in

dealing with linkage type projects. Pilot actions relate to either work with existing investors or work to improve networking and collaboration between SMEs.

In order to deliver appropriate actions, each region should undertake the following steps:

- The formation of a **linkage strategy team** with adequate skills and resources. It is essential that there is a focus for actions and for the use of resources. Any actions with foreign investors require clear accountability and account management.
- A set of **preparatory actions** which are to ensure that there is adequate information and understanding of the SME sector and of FDI needs before more targeted actions take place. Although these actions require some considerable amounts of research and interviews, they are essential if more concrete actions are to be effective. They include collating information on the SME sector and on existing FDI, organising finance, SME support, communications, and skills provision, and planning monitoring and evaluation.
- A set of **developmental actions** which keep up the impetus of the linkage strategy team, identifying future opportunities and maintaining the engagement of both FDI and SME sectors. These include development of a transparent system which gives comprehensive SME support, formalising networking and contacts with FDI, developing the research base and the development of more flexible skills, and promoting entrepreneurship.
- A set of **pilot actions** which are designed to demonstrate the effectiveness of linkages, develop networking amongst the SME sector, demonstrate to the SME sector the needs of foreign investors, and give experience to the linkage strategy team.

While the general direction and actions are similar for all three regions, there are some key differences in pilot actions, as follows:

- Atyrau should implement pilot actions for down-stream diversification by medium-sized domestic and foreign-owned oil-based companies in co-operation with domestic SMEs, research a property-led initiative to stimulate and support the SME sector, and consider a specific initiative for high-growth firms.
- East Kazakhstan should implement pilot actions to supply the proposed expansion of Azia Avto, work with Metro to increase their local supplier bases, and engage in discussions with the ore-processing industry to define actions that will support its development and use of local suppliers.
- Kyzylorda should develop existing domestic suppliers in the oil and gas industry, implement a property-led initiative to develop SME manufacturing, and examine the feasibility of opportunities resulting from infrastructure improvements, in particular in transport and logistics, tourism, and new technologies. This should be backed up by research into a special initiative concerning agriculture and food-processing and examination of the lessons from lost investment projects.

Learning model policy actions from other countries are described to give examples of how the strategies could be implemented including the development of the oil supply chain in Norway, the development of industrial zones in the Czech Republic and skills development in Singapore.

1. INTRODUCTION

The fragmentation of global supply chains is an opportunity for small and medium-sized enterprises (SMEs) to join in the supply networks of large firms and thus capture positive spill overs from the transfer of technology, skills and know-how. However, in developing market economies, linkages may not spontaneously emerge for a number of reasons. These include the fact that local SMEs require greater technological upgrading to meet the demands of foreign partners, local SMEs may not be of appropriate size or able to network appropriately, and that they may not have information on the opportunities available. In these cases an opportunity exists for public policy-makers at the national and regional levels or investment promotion practitioners to intervene and support the facilitation of business linkages between multinational companies and SMEs. Such support is referred to as an FDI-SME linkage programme.

The OECD is undertaking a project to support the Kazakhstan government to promote regional competitiveness. This report focuses on strategies and actions to help achieve this through building and exploiting linkages between SMEs and Foreign Direct Investment (FDI), based on an assessment of the specific challenges and opportunities in three regions of Kazakhstan (Atyrau, East Kazakhstan, and Kyzylorda). The work is based on analysis of statistics and published information as well as discussions with key stakeholders and is produced in the context of lessons learned in other countries in analogous situations.

An important part of the OECD Regional Competitiveness Project in Kazakhstan relates to FDI in general and includes the formulation of regional investment plans for the three regions. Clearly it is important that any linkage strategies coordinate with this, and the linkage strategies proposed in this report have been developed against this background, ensuring that the same stakeholders have been engaged in discussions. However, the projects recommended for the regional FDI-SME linkages strategies are not limited to the priority sectors for future FDI attraction, since it is also important to exploit the full range of existing opportunities. These actions are still important, since they give institutions and SMEs some experience in working with FDI (or larger companies) which will assist both in future linkage operations and in attracting new FDI. The strategies therefore identify both short term actions which include a number of pilot projects as well as readying institutions for operation, and longer terms actions which are more connected with aftercare for investments attracted through targeted FDI promotion strategies.

In order to support the development of this report, a local diagnostic paper was prepared setting out information for three selected regions in Kazakhstan on FDI and SME activities and on existing programmes to support SMEs (and potentially FDI-SME linkages). The report included information on numbers and sectors of FDI ventures and SMEs, their customer-supplier linkages and the development barriers they experience (based on a survey of SMEs and FDI ventures) as well as information on current programmes for SME and entrepreneurship development. This gave a clear context regarding barriers and opportunities to linkage promotion for the purposes of SME development.

A study visit to each of the three regions was then organised with an international team including both the OECD Secretariat and external experts. Each study visit lasted several days and provided the opportunity to meet with policy makers, development agencies, FDI ventures and SMEs in the region to

discuss in depth the barriers they face to linkage development, the contribution of current policies and how policies may be developed in the future.

The study visits were preceded by a seminar in Astana on international experience in linkage strategies to give stakeholders some context for discussions, as well as the opportunity for dialogue on the key issues facing the regional administrations (Akimats) in SME development.

The draft strategies presented here are the first step to developing coherent FDI-SME linkage programmes and will have to be developed as the result of further discussion, consideration of opportunities as they arise, and evaluation of the effectiveness of different actions.

This report is divided into the following sections:

- The rationale for linkage strategies, explaining the need to take actions and the key areas where the strategies should focus.
- An analysis of the general conditions for FDI-SME linkage development in Kazakhstan as context for developing the strategies.
- Assessment of the specific conditions for FDI-SME linkage development in each of the three regions.
- An outline strategy for regions in Kazakhstan showing objectives and general actions to support linkages.
- Specific pilot actions for each of the three regions.
- International learning models, showing how linkage strategies and actions have been developed in other countries, and their relevance to Kazakhstan.

2. THE RATIONALE FOR FDI-SME LINKAGE STRATEGIES

This chapter explains the rationale for developing FDI-SME linkage strategies.

There are clear benefits to all stakeholders – to the host country in terms of economic activity, to local suppliers in terms of new markets, and to multinational companies in terms of lower costs, for example. Moreover, there are a variety of linkages possible with local SMEs: these include not only the development of local supply chains (which will be the initial focus in Kazakhstan) but also forward linkages (local distributors), new standards, and technology transfer.

These benefits do not happen automatically and there is normally a need for action in three areas:

- Institutional capacity, of both the SME sector (clusters and associations) and the public sector (support mechanisms)
- The general level of SME development and support
- The level of skills in both SMEs and the wider economy

Taking action requires further preconditions, in particular the clear responsibility and accountability, adequate sources of information, and engagement of both SME and FDI sectors.

Developing strategies in Kazakhstan needs to take account of the situation: these includes the relatively low number of foreign investments, the continuing need for general SME support, the limited resources of the Akimats and the need to change to new ways of working in support institutions.

2.1 Rationale

Encouraging companies to maximise local inputs rather than importing them has a number of benefits. The benefits are there for a number of stakeholders:

- **For the host country** there will be increased economic activity, some import substitution, improved balance of payments, and a stronger enterprise sector.
- **For local suppliers** there will be better quality standards and competitiveness, market diversification, and possible transfer of technology.
- **For multinational companies** there will be lower production costs, increased specialisation and flexibility and better adaptation to local markets.

More specifically, the following types of benefits are available for local SMEs

Type of linkage	Definition	Results
Backward linkages with suppliers	Foreign investors purchase components, materials and services locally.	New market opportunities for local firms.
Forward linkages with customers	Foreign investors outsource the distribution of brand name products.	Leads to development of downstream relationships with local SMEs (i.e., franchising).
Linkages with competitors	Foreign investors set new standards for local firms to compete with.	Raises productivity and quality of final goods and services produced.
Linkages with technology partners	Foreign investors initiate common projects with SME partners (e.g., joint ventures, licensing and strategic alliances)	Source of new technology and know-how for companies in the host economy.
Other effects	Inward investors demonstrate new ways of doing things to local firms.	Stimulates innovation and human capital spillovers.

Some of these benefits will only appear over time and the initial focus will inevitably be related to backward linkages – developing local suppliers and supply chains.

However, these benefits will not happen automatically for a number of reasons

- A key reason for FDI not to engage with local suppliers is the lack of a full supply chain with critical mass and therefore institutional capacity is important. This applies to both public institutions and the SME sector itself, for example in organising supply chains and clusters, and in having sufficient collective mass to deal with FDI. The ability to organise supply chains may well in itself attract foreign investment.
- Local SMEs frequently do not fully understand how to deal with larger foreign companies, lacking information on opportunities and procedures. The support structure for local SMEs needs to be appropriate, ensuring that they understand the requirements to deal with FDI and have appropriate support in upgrading their products and processes for this purpose. Upgrading the quality of local products can have a major impact on the degree of linkage.
- The existence of appropriate skills in the workforce and within SMEs. Skills in the workforce in general are often of high importance in FDI making final decisions on location. In addition skills in the workforce will have an impact on the ability of SMEs to compete, and skills within SMEs will affect the degree to which they can exploit the opportunities represented by FDI.

Any FDI-SME linkage strategy needs to create institutions and actions which address these issues, which are described in more detail below.

2.2 Key action areas for an FDI-SME linkage strategy

2.1.1 Institutional Capacity

<i>What it should look like</i>	<i>Key Issues</i>
<p>There is an institutional landscape of SME and private sector organisations which represent the sector and are capable of articulating its strengths and weaknesses.</p> <p>There are appropriate fora for networking and the development of collaborative relationships.</p> <p>Cluster and sectoral organisations exist and are capable of acting as interlocutors with FDI.</p> <p>Cluster and sectoral organisations are capable of identifying problems with FDI linkages and addressing them.</p> <p>SMEs are innovative and follow the latest trends</p>	<p>Is the private sector organised in an effective manner?</p> <p>Are there local supply chains and clusters in existence?</p> <p>Are local SMEs appropriate in size and quality for links with FDI?</p> <p>Do SMEs know collectively what FDI requires/desires?</p> <p>What support is there for innovation and for innovative products?</p>

In general clusters and supply chains are not highly developed in Kazakhstan, so the key questions relate to which sectors/clusters are important and how something new can be developed, for example new clusters or supply chain organisations.

The development of linkages between an FDI project and SMEs in an area depends on the availability of facilitators with close links with the managers of foreign investment projects and knowledge of businesses in the local area.

Successful FDI-SME linkage programmes depend on the commitment and active support of the foreign firm's senior management teams both in the country and at their head office towards increasing local content. The two main drivers for this will be a wish to reduce costs and the need to improve the flexibility of their operations by having locally based suppliers. In some instances, there may also be a political requirement, particularly if the FDI operation depends on continuing national and local government support. A consequence of this is that the FDI-SME linkage programme depends on building up a good understanding of the FDI's supply requirements and securing the active support of key managers.

Because of the large distances, shortcomings in the transport infrastructure and poor commercial links between the major centres of population, the FDI-SME programme will depend at the outset on finding SME suppliers in the same local area as the foreign investment. Where there is already a possible source of supply, it may be necessary to for the SME to make improvements to the design, production capacity, quality, delivery or price to meet the FDI's requirements. Where there is not a source of supply, it may be possible to find an SME willing to diversify to meet this new market opportunity. But this will depend on the nature of the demand, the type of relationship that can be developed with the FDI client, the changes

and extra investment that an SME would need to make, and whether they can secure the additional funds required. There is clearly a danger of being over dependent on a single client unless the SME is confident of securing sales from other clients in the local area or in other regions.

Thus, care will need to be taken to select and work with FDI projects where there are realistic opportunities for creating linkages with SMEs in the local area. This requires a locally based facilitator(s)/business advisers with the knowledge and ability to understand the particular needs of an FDI and at the same time being able to search out and engage with those SMEs with the capacity, willingness, financial resources and management ability to adjust their business to meet the needs of a particular FDI client.

2.1.2 Support, addressing the individual needs of the SME sector

<i>What it should look like</i>	<i>Key Issues</i>
<p>There is an appropriate institutional network of SME support organisations and programmes.</p> <p>The need for support is clearly identified based on analysis.</p> <p>Certification and skills required by FDI are clearly identified, broadcast to appropriate SMEs, and financial and other support is in place to assist SMEs to meet requirements.</p> <p>SMEs are generally informed about the opportunities presented by FDI.</p> <p>SMEs know where to get support when they need it.</p>	<p>What support do SMEs need to work with FDI (information/approach/contacts/networking)?</p> <p>How well are opportunities from FDI known amongst SMEs?</p> <p>Why does FDI contract/avoid local SMEs? How could this be changed?</p> <p>What skills do local SMEs need to develop?</p> <p>Are products/services certified appropriately?</p>

There are, of course, a number of support schemes in place (including those funded by donors) as well as private consultants. The key question here is how well these support the needs of SMEs with regard to FDI linkages, rather than their effectiveness in general SME development.

Foreign direct investors rely on good quality and competent local suppliers. Therefore, a well-developed SME sector is essential for linkages to occur. A strong base of suppliers can also stimulate more FDI and enhance the developmental impact of investments.

In order to engage in business relationships with foreign investors, SMEs need to operate at a sufficient level of sophistication and become “partnership” ready: they are required to be competitive in price; meet safety, quality assurance and control requirements; provide timely delivery; be flexible and quick to change designs/product or service mix; be able to design parts and components; and assure long-term commitment. (OECD (2005)) However, domestic SMEs in developing and transition countries face important constraints in meeting these requirements. It is therefore necessary to develop SME capabilities to ensure that they capture linkage opportunities.

SME development actions mainly aim at bringing domestic enterprises up to international standards and usually include technology upgrading to improve product quality and production processes, access to information, development of human capital and managerial skills to compete in international markets, and access to finance to enable SMEs to invest in capital equipment and human resources. (UNCTAD (2011))

2.1.3 Skills among both entrepreneurs and the general population

<i>What it should look like</i>	<i>Key Issues</i>
The region has a skilled workforce, specifically in the sectors where it seeks to attract FDI.	What training institutions are there and how competent and flexible are they?
The region has a system for identifying future skills needs and this is integrated with training institutions.	What is the current level of skills both amongst entrepreneurs and the population in general?
Skills levels can be certified to international norms.	Does the region have a planning process for future skills needs?
There is the capability of developing new courses for new skills.	Are training courses certified?

Foreign direct investment (FDI) is generally expected to have positive direct and indirect effects on recipient economies. On the one hand, foreign enterprises directly increase the capital stock and create employment; on the other, they may bring new technologies, skills and human capital which can generate spill over effects on domestic firms and workers. Falk et al (2012)¹

The complementarities between FDI and skills as well as human capital development can initiate a so-called virtuous circle meaning that a host country such as Kazakhstan experiences an inflow of FDI by simultaneously reaching an upgrading of the levels of skills of the domestic workforce and enterprises (ADB (2010)). In this sense, FDI inflow creates a potential for knowledge and skills spill-overs to the local working force. Therefore, the host country's level of human capital determines to some extent the amount of FDI that can be attracted. Optimally, the FDI and skills virtuous circle results in the attraction of more FDI, which further contributes to skills development, which continuously results in higher value-added FDI and better skills (ADB (2010) p8).

The positive impact of FDI inflows on skills enhancement is however not automatic. If the local economy is to benefit from FDI, government policies must be designed and implemented to impact skills development. Falk et al. (2012) provides a summary of the literature on the FDI determinants. Skills development is driven by public policy designed and implemented by ministries of education, primarily, but also by other organisations such as ministries of economics if a demand-oriented labour policy is linked to education policy. Skills development is driven significantly by the secondary and higher educational system but also significantly by vocational training offered by private, small and medium-sized enterprises (SMEs) and big domestic and foreign firms, and through practical work experience. Skills development is, therefore, a demanding task because various private and public institutions and organisations are involved to align skills development in the context of FDI attraction and SME development and vice versa.

In the past, the following lessons have been learned with regard to skills development in emerging markets and developing countries and should be taken into consideration (ADB(2010): (1) There is no single model to skills development, the regional and country context matter. Kazakhstan is characterised by a well-developed educational system, a readily available, skilled working force, and physical and scientific infrastructure. Nonetheless, there is to some degree disconnectedness between these institutional assets and existent educational programs/contents and the skills demanded on the labour market by SMEs, large and transnational firms or corporations. (2) Government educational investment is critical for building a strong skills base. (3) In general foreign investors in Kazakhstan are currently not involved in *directly* investing in education, particularly in areas of skills shortages and skills-intensive industries. (4) The formulation of a national and regional policy on how to develop skills within a fixed time frame is still lacking. Therefore, it is recommended to develop a common vision of the skills system which each region aims at building; to facilitate coordinated and planned actions and reforms; and to bring coherence to the educational system. (5) Political will and commitment matters and has been expressed vividly by public actors interviewed at both regional and national levels. Nonetheless, the challenge of how to transfer national strategies and policies successfully to the regional level to encourage skills development in relationship with FDI attraction and the development of SMEs remains. In this context, the existent forms of communication and cooperation between private and public actors and between public actors and institutions at multi levels seem to be very limited at this stage and need be better aligned to co-ordinate the supply of education with skills demanded on the labour market.

2.2 Context for FDI-SME Linkage Strategies in Kazakhstan

2.2.1 Preconditions

While the areas above are important as prospects for development, in order to have an impact, actions need to be taken to ensure that a number of preconditions are met, in particular:

- *Clear responsibility and accountability* (public and private sector institutions which are capable of supporting the strategy and the SME sector in general). It needs to be clear which institutions are responsible for FDI-SME linkages, they need to have clear roles and responsibilities, and appropriate resources need to be mobilised. Resources include human resources and specifically ensuring that staff are appropriately skilled.
- *Adequate information/intelligence* (so that actions take place on the basis of objective information and resources are prioritised). Actions which relate to networking and connections between companies mean that there is a need for a good understanding of what opportunities exist. This means, for example, a comprehensive supplier database including individual capabilities as quantitative information, and clear understanding of the intentions and timetables of FDI and larger firms as more qualitative intelligence.
- *Engagement of SMEs* (so that the SME sector is actively involved in the programme). SMEs are frequently suspicious of state-run programmes and therefore some action has to be taken to “sell” any new programme to them and to show to them that it has tangible benefits.

- *Engagement of FDI* (so that FDI makes its own contribution). FDI needs also to be convinced of the benefits of participation in any programme. While there is local content legislation, participation of FDI needs to be deeper than at a bureaucratic level – companies need to find real benefits of linkages, and not just work with SMEs because it is a legal obligation.

Where appropriate these areas are included in the proposed action plans, either as preparatory actions before the strategy is implemented, or as part of the continuing work of any institution.

2.2.2 *The situation in Kazakhstan*

In developing strategies and actions, the following issues related to the current situation in Kazakhstan constrain what it is possible to put in initial strategies.

- There are quite limited numbers of foreign investments taking place currently in sectors which have been chosen for promotion and which are appropriate for developing SME linkages. Actions taken to promote FDI in these sectors will take some time to come to fruition.
- There is a need for SME development, whether or not there is new foreign direct investment.
- In order to work effectively the roles and responsibilities of different institutions at a local level need to be well defined and institutions need appropriate resources and skills. In view of the limited budgets and other resources of the Akimats this means targeted work and avoidance of duplication of effort.
- In order to have an impact on the SME sector (and on FDI), work of support institutions needs to be proactive, developing new solutions and challenging individual entrepreneurs and companies to take action, rather than reactive, waiting for them to take the initiative.
- Where possible existing economic opportunities should be used (even if they are not in target sectors to develop pilot sectors) because this will assist in training support institutions through action, give credibility to the approach amongst SMEs, identify any further blockages, and possibly assist in promotion of the regions to new FDI.

These points are explored in more detail in the next chapter which gives a general analysis of the context and opportunities for FDI-SME linkages in Kazakhstan.

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NOTES

¹ p151. Foreign direct investment (FDI) is defined as an investment involving a long- term relationship and reflecting a lasting interest and control by an entity resident in one economy (foreign direct investor or parent enterprise) in an enterprise resident in another economy (FDI enterprise or affiliate enterprise or foreign affiliate). There are two forms of FDI (1) establishment of an entirely new firm in a foreign country, including new operational facilities; (2) mergers and acquisitions (M&A) which includes a complete or partial purchase of an existing firm in a foreign country.

3. CONDITIONS FOR FDI-SME LINKAGE DEVELOPMENT IN KAZAKHSTAN

This chapter assesses the overall conditions for the development of FDI-SME linkages in Kazakhstan. Currently Kazakhstan is not perceived as an attractive target for foreign investment outside the extractive sectors and therefore any linkage strategies will have to be closely connected with promotional activities.

There are a number of state-funded programmes to support SMEs, but these suffer from lack of adaptation to local conditions, poor coordination between different initiatives, and a lack of resources for implementation at a local level. In a similar way, although there is considerable support for education, there is poor coordination between vocational and university education and it is unclear how well vocational educational institutions are able to adapt to the immediate and prospective demands of flagship foreign investors.

The overall structure organising the promotion and support of FDI is currently under review, but at present there appears to be poor coordination in terms of direction and information making the creation of a clear focus something of a challenge.

In none of the three regions are there either immediate large foreign investments, or investors in target sectors, who are expected to expand significantly. Accordingly, the linkage strategies will be based around creating the conditions for linkages, and a set of pilot actions which will bring the SME sector together and at the same time give public institutions some experience in dealing with linkage type projects. Pilot actions relate to either work with existing investors or work to improve networking and collaboration between SMEs.

3.1 Existing FDI and SME activity in Kazakhstan

3.1.1 FDI Activity

FDI activity has been constrained by a range of factors, many of which are not under the control of the government. Kazakhstan is a large country but relatively remote, landlocked, and with a small domestic market. Its primary attraction for FDI to date has been as a source of natural resources: it has the sixth largest reserve of natural resources in the world and the eleventh largest proven oil reserves. The Kashagan oil field under the Caspian Sea is estimated to represent the largest discovery worldwide in the past 30 years. Kazakhstan is also a source of gold, copper, cobalt, nickel and uranium, as well as iron and coal. Inevitably, therefore, both FDI inflows and exports from Kazakhstan are highly concentrated (more than 70%) in natural resources.

Growth in FDI inflows was slow after independence, although it picked up after 2000 (inflows in 2001-2005 were twice those in the preceding five years) and took off in 2005, with a peak in 2008 of USD 14.3 billion, seven times as high as three years previously (figures quoted in OECD(2012)). This shows performance which compares well in international terms, despite the concentration on natural resources.

The exact origin of FDI is hard to determine due to the usage of holding companies and special purpose entities – on official figures, the Netherlands holds 40% of total inward stock (USD 33 billion out of USD 89 billion in 2011), although this is 5 times the figures recorded in Dutch statistics. Using OECD home country statistics, US firms are the largest investors with a stock of USD 9.6 billion at the end of 2010, followed by France, the Netherlands, and the United Kingdom. The US oil company, Chevron has been prominent in exploitation of the Tengiz oil field. Investment from China has started to become more significant with significant M&A activity, for example USD 4.5 billion from the Chinese National Petroleum Corporation between 2006 and 2011.

The issue of diversifying sources of FDI remains a priority for Kazakhstan. Central Asian economies are successful in attracting their fair share of FDI. For example, for the period 2005-07, Mongolia, Tajikistan and Kazakhstan featured near the top of the UNCTAD rankings among 141 countries². However, according to results of Ernst and Young's 2012 Kazakhstan attractiveness survey there is a significant perception gap between existing and prospective investors. Among investors, who have already established their businesses in Kazakhstan, 85% see it as the most attractive destination among the CIS countries. Nonetheless, among investors, who have not established their businesses in the country, only 18% share this view, while 39% do not have sufficient awareness of the attractiveness of Kazakhstan in particular, and CIS countries in general.

Investors do not yet recognise Kazakhstan's potential to attract a variety of industrial and knowledge-based activities. Thirty per cent see oil and gas as the most attractive sector for investment in the country, while mining and metals (23%), agriculture (14%) and infrastructure (10%) are seen as the next most attractive sectors.

In this situation, any linkage strategies need to be clearly linked to promotional activities, both because this will be the source of opportunities through new foreign investment and because the existence of linkages and linkage support will assist in promoting the region to potential investors and perhaps changing the image of the country.

3.1.2 *SME Activity*

Economic reforms have contributed to the rapid growth of SMEs in Kazakhstan in the period from 2005 through 2008, when the number of registered SMEs increased by more than 38% and exceeded 1 million units and continued steady if unspectacular growth since then. However, although the number of SMEs has increased considerably, the share of active SMEs has been decreasing. The global economic crisis in the following years influenced on reduction in lending to SME sector by banks, which had a negative impact primarily on the activities of individual entrepreneurs.

The number of active SMEs per 1000 inhabitants of the economically active population in the regional context shows an average of 87 units in 2011, varying between 56 (Kyzylorda) and 120 (Almaty). Atyrau (99) and East Kazakhstan (88) are slightly above average.

The total number of actively employed in SMEs as of January 1, 2012 amounted to 2674 thousand people. The dynamics of this indicator in the period from 2005 to 2011 is on the rise. In this period the number of actively employed in SMEs increased by 43%.

The distribution of the population employed in SMEs by provinces is uneven. The greatest number of people employed in SMEs is in Almaty (353 thousand people). The smallest numbers of people employed in SMEs are accounted for Kyzylorda (69 thousands) and Atyrau (88 thousands) provinces, with 234 thousand people being employed in East Kazakhstan. The ratio of population employed in SMEs to a number of active SMEs is 4:1. Furthermore, this indicator is about the same for all oblasts and ranges from 3 to 5 employees per one active SME.

Output amounted to 8,105 billion tenge among Kazakhstan small and medium sized entrepreneurship in 2011. In the regional context the largest contribution were made by SMEs of Almaty and Astana cities, in which the outputs for 2011 were amounted to 1958 and 887 billion tenge respectively. In general, the output of SMEs of the two cities is more than a third of total output of SMEs in the country.

The sectoral structure of the SME sector in Kazakhstan also has some differences from its foreign counterparts. Almost 40% of SMEs in Kazakhstan are engaged in wholesale and retail trade and more than 25% of SMEs operates in agriculture. In the USA the structure of small business is different. There is an obvious dominance of the service sector (58%) and more than 20% of small businesses operate in the fields of construction and trade. In many European countries a lot of SMEs are concentrated in the service sector: in the UK – 23%, Poland – 35% and Turkey – 37%.

Comparative analysis of SMEs in Kazakhstan with other countries shows a noticeable lag of contribution of SMEs to GDP and number of employed population in SMEs sector. Even though SMEs in Kazakhstan as in many other countries represent over 90% of all businesses the share of SME's production in GDP is accounted only for 30% in 2011. On the other hand, in several countries in the Europe, Asia and North America share of SME's production ranges from 47% (Poland) to 59 % (Turkey) of GDP. The share of population employed in the SME sector in Kazakhstan is also much lower than in many developed countries. For the past five years in Kazakhstan this rate has stayed at 26%, whereas in the USA and Turkey it reaches 54% and 81% respectively.

Recent years the conditions for development of small and medium businesses have been improved significantly due to success of a number of reforms. In particular, administrative barriers reduced considerably, that was confirmed by the fact that Kazakhstan moved up on the World Bank's Doing Business Indicators for 2012, ranking 47th out of 183 countries (a 39 place jump from 2006) (see World Bank (2012)).

In connection with the entry into force of the new Tax Code in 2009, the corporate income tax and VAT was reduced from 30% to 20% and from 13% to 12%, respectively. This has a direct impact on reducing the tax burden in Kazakhstan, which generally supports a positive factor for attracting investors and business development.

In summary the share of SME production in GDP is low as well as the share of population employed. Furthermore, in the sectoral context most of the SMEs in Kazakhstan are concentrated in wholesale and retail trade. There appears to be a low level of entrepreneurial skills. As a result, only few of small companies become medium or large businesses, and growth in the sector can be expected to be relatively slow in the near future.

3.2 Policy support

3.2.1 Support to SMEs

The choice of priorities for SME development is carried out by several institutions, the primary one of which is the Entrepreneurs Council that is accountable to the President and the Unified Coordination Council for Entrepreneurship under the Government of the Republic of Kazakhstan. Composition of these two institutions and their high level of political positions imply their importance. In addition, there is the Council of Foreign Investors which is also accountable to the President. The main objective of the Council is to develop recommendations and suggestions on improving the investment climate and the strategy for attraction foreign investors into the country.

In the transition from the level of development of priorities to policy coordination of SME development the Ministry of Economic Development and Trade plays an important role. The Ministry of Economic Development and Trade of the Republic of Kazakhstan is a key body for implementation the governmental economic policy including its functions of coordination of SME support.

During the development and implementation of state support programme to SME the Ministry of industry and new technologies of the Republic of Kazakhstan and the Ministry of Economic Development and Trade of the Republic of Kazakhstan are the main public bodies.

It should be noted that in 2011 the Business Development Committee under the Ministry of Economic Development and Trade was established, which is within the competence of the Ministry of Economic Development and Trade performs control functions and realisation of business development.

The government aims to support SME development through a number of policy measures. The main measures addressing SMEs include the 'Business Roadmap 2020' implemented by the DAMU Entrepreneurship Development Fund; 'Productivity 2020' implemented by Kazakhstan Industry Development Institute; 'Programme for Investment Attraction, Special Economic Zone, Development and

Export Promotion in the Republic of Kazakhstan for 2010–2014’ implemented by KAZNEX INVEST, and ‘Programme for Post-Crisis Recovery of Competitive Enterprises’ implemented by the Company for the Rehabilitation and Management of Assets. Furthermore, the government, through Akimats, aims to launch a cluster development programme by 2013, and DAMU is in the process of establishing ‘entrepreneurship service centres’ which are planned to operate as one-stop-shops for SMEs to access information and assistance on a wide range of topics from company registration to finance opportunities.

It is believed that proactive state policy in supporting businesses has had a positive impact on the development of SMEs during the period of global economic downturn. In terms of scale, it is estimated that so far 11,000 SMEs have received more than \$3.7 billion as loans from banks and that more than 20,000 jobs were created.³

From this it is possible to understand that there is strong backing for private sector and SME development at the **national** level. This commitment manifests itself through a general willingness to adopt policies to support private sector development through a mixture of different measures and initiatives. The World Bank in its latest survey of “Doing Business” puts Kazakhstan in position 49 in terms of ease of doing business and rates it as one of ten economies improving the most across three or more areas (starting a business, registering a property and resolving insolvency).⁴ This improvement is a continuation of the trend which made Kazakhstan move from 80th place in 2008 up to 59th in 2011. Particular improvements have been realised in the field of business registration.

The government of Kazakhstan has realised that in order to improve the mechanisms of state support of SMEs and create conditions for sustainable business development there is a need to seek new tools of supporting business. In particular it is seen as important to strengthen entrepreneurial potential by enabling a business environment where private capital is available to implement business ideas. It is recognised that only then will SMEs be able to help in the development of a competitive environment and increase innovation.

Reflecting this underlying rationale, the main focus of the “*Business Road Map 2020*” is on the maximum use of market institutions. All measures of financial support are provided through commercial banks, thereby aiming to avoid excessive state intervention in the market. At the time the summary referred to before had been compiled, over 450 contracts on subsidies and guarantees totalling KZT 178 billion, or \$1.2 billion, had been signed as a result of implementation of the “*Business Road Map 2020*”.

The *DAMU Fund* is the programme’s financial administrator. The Fund was set up in 1997 to boost the development of small and medium sized enterprises. Its sole shareholder is the state-owned Joint Stock Company “National Welfare Fund” (Samruk Kazyna). The DAMU Fund has 16 regional branches (one in each region/oblast and two in Astana and Almaty) and employs around 270 employees in the head office and the regional offices. (DAMU (2012))

Support under the Road Map includes interest rate subsidies on loans to entrepreneurs, bank guarantees to entrepreneurs in obtaining credits. Support is given in the following areas:

- Providing financial support for new business initiatives by subsidising interest rates and loan guarantees for launching new industries in the regions

- Helping the recovery of the business sector by subsidising interest rates on previously issued problem loans and deferment of debt tax payment without incurring penalties
- Supporting export-oriented industries through interest rate subsidies on existing loans of businessmen who export products to foreign markets
- Strengthening the entrepreneurial potential including training for new entrepreneurs, service and consulting support for doing business, foreign training, improving the competence of top management of private enterprises, etc.

The Ministry of Regional Development is currently developing a Partnership Programme which will seek to facilitate the relationships between system-forming companies and local SMEs initially in four regions of Kazakhstan. System-forming companies are generally seen as large companies with state participation rather than FDI but the experience from this programme will be very relevant to FDI-SME linkages and support from the programme can be useful in developing wider linkages. The support will be a combination of financial and non-financial support as well as infrastructure.

There are also programmes implemented by international donors. An important scheme is the Business Advisory Services (BAS) implemented by the EBRD. BAS provides SMEs with a diverse range of consulting services by facilitating projects with local consultants on a cost sharing basis. The programme also helps development of a pool of consultants to provide professional services to SMEs. EBRD is in the process of transferring the programme to the government.

In addition to supervisory governmental bodies Atameken Union, which is a union of entrepreneurs, participates in evaluation of the current situation of SME development and policy outcomes.

There is local content legislation, which obliges larger companies and foreign investors to monitor the degree of local content. This is beneficial since it focuses attention on the degree to which local suppliers are used, but on the other hand, it is not coordinated with any actions to ensure that local companies are capable (or even exist), and enforces a set of procurement rules which do not encourage the creation of effective long term relations and supply chain development. In particular this applies to the fact that contracts have to be of limited duration, all have to be tendered in the same way and the decision of the tender is primarily on price (with a preference given to local suppliers).

From the point of view of local linkage strategies it can be seen that there is considerable national support for SME development but that national strategies do not yet fit well with the needs for support at a local level. Regional linkage strategies will therefore need to adapt the usage of national funds to local conditions.

3.2.2 *Actions at a regional level*

At regional level, the Department of Businesses and Industry of each oblast Akimat implements government policy for development and support of SME. In addition, technoparks, special economic zones, business incubators, industrial zones and socio-economic corporations contribute to the innovation activities of entrepreneurs in the region.

While nationally Kaznex Invest, an Agency reporting to the Ministry of Industry and New Technology is the primary body responsible for the promotion of Kazakhstan and the attraction of foreign investment, currently it appears that its links with bodies in the regions are weak. It was not clear what arrangements are in place in the Akimat and other bodies to support the investment promotion work of Kaznex Invest. In the regions, the Akimats have general ideas of investment priorities, but it is not clear what actions are being taken to attract potential investors, provide aftercare services to new investors or track the flow of foreign investments in the region. In general there is a lack of information on existing FDI, and past and potential enquiries. Currently Investor Service Centres are being established in each region which should assist in coordination.

To oversee local content policies a National Agency for Local Content Development was set up in June 2010. The Akimats are responsible for collecting statistics on local content. This appears to be limited to monitoring and they have no powers or resources to intervene. This will be an important starting point in identifying foreign investors with supply needs that could be addressed in the linkage programme

Another organisation responsible for SME support policies and measures at the local/regional level is the *Social Enterprise Company (SEC)*. SECs are 100% owned by the government and are overseen by the Akim Office. Their mission is to encourage investment and support SMEs. SECs can invest in companies but their share should not exceed 49%. Amongst SECs' responsibilities is the provision of sites and buildings for use by private sector occupants.

It seems likely that Social and Entrepreneurial Corporations (SECs) are best placed to implement the linkage programme because of their mandates.⁵ In the same way, they are likely to be candidates for the proposed Investor Service Centres.

As a general point, human resources at the regional level tend to be limited and allocated on a yearly budget. The fact that many institutions have greater responsibilities than they can easily fulfil means that they tend to work on a reactive basis, responding to requests from the private sector rather than trying to generate opportunities. Since time is spent answering requests and dealing with specific enquiries, the level of general information and knowledge naturally suffers.

The lack of coordination between different programmes and the lack of resources at the regional level has consequences for the implementation of linkage strategies: it will be important to have a clear focus and lines of responsibility, and enough resources will need to be allocated to allow staff employed under the strategy to work proactively, creating opportunities rather than merely responding to demands.

3.2.3 *Policies for skills and education*

Kazakhstan has made significant efforts to increase education provision in recent years. The gross enrolment rate in tertiary education increased by fifteen percentage points between 1999 and 2009, reaching 39% by the end of this period (UNESCO (2011)). Public spending on education has increased substantially, averaging 3.5% of GDP in 2007-2010. Despite the improvement, these indicators are still relatively low in comparison with other dynamic emerging economies. The shortage of qualified personnel across a range of sectors remains a constraining factor in economic activity.

Among the efforts to improve educational standards are recent policy initiatives, such as the provision of management courses as subsidised by the “Business Roadmap 2020” or the financing of experience in foreign companies within the Bolashak programme, which recognises the importance of developing the necessary skills.

Despite all these ambitious programs, it should not be overlooked that teachers are generally poorly paid, overworked and, therefore, partly unmotivated. The State Program of Education Development 2011-2020 aims, among others, to modernise “(...) the system of technical and vocational education in accordance with the demand of society and industrial-innovative development of economy” (State Program of Education Development in the Republic of Kazakhstan for 2011- 2020).

The number of technical and vocational colleges in Kazakhstan has increased from 274 to 480 colleges between 2000 and 2010; the number of students enrolled in those colleges has increased from 142,585 to 495,163. The numbers are impressive but do not necessarily indicate that the quality of education improved correspondingly.

The State Program for Development of Vocational and Professional Education in the Republic of Kazakhstan for 2008-2012 aimed at providing a collaborative approach to better manage instead of just administering Kazakh vocational and technical education. Diverse actors participating in a multi-level management scheme have been pinpointed to take action in a national, sectoral and regional council to better assess skills demand and supply at the regional level and facilitate the implementation of new public policy for human resource development top down and bottom up. A Board of Trustees was set up incorporating members of employers’ associations, non-governmental organisations and social partners to facilitate the assessment and coordination of modified technical and educational training.

The Akimat points to selected educational programs such as the Program of Occupation 2011 which follows diverse goals to contribute to improved education of high-skilled labour or the re-education of low-skilled and unemployed labour. It supports the development of entrepreneurship in villages together with DAMU (although it remains unclear what forms of co-operation exist at this stage and how skills demand and educational programs offered are assessed or communicated across both institutions). It also handles loans and “credits plus” education to increase the number of entrepreneurs specifically in the sectors of agriculture, forestry and tourism. The support of rural entrepreneurship emerged as a focal point of educational and entrepreneurial development. Nonetheless, the support of skills which are specifically needed in rural areas and related sectors (e.g. forestry, agribusiness) and which are promoted by existent training centres to successfully support small and new businesses, have not been assessed empirically and the real demand remains more or less unclear.

The Akimat is primarily responsible for vocational training and utilises diverse tools of communication to ensure access to information on educational and loan programs, such as the Akimat website, television advertisements, special occupation centres and information centres in every district. The Akimat is not responsible for university education and it appears that no forms of coordination regarding content exist to between vocational and higher education.

Entrepreneurship education is predominantly promoted through vocational schools in Kazakhstan. In 2000, the “Know About Business” (KAB) initiative was introduced to Central Asian countries⁶ and

Kazakhstan started to organise trainings for promoters of entrepreneurship education. This resulted in a pilot programmes in five vocational training schools during, in 2001-2002. In 2003, a curriculum on entrepreneurship education based on KAB modules was introduced in the national curriculum of primary vocational education highlighting the course “Basics of the Market Economy”. By the end of 2008, around 10 primary vocational schools in Kazakhstan were teaching KAB to 3,000 students. It was in 2009, however that with the financial support of the two largest oil companies in Kazakhstan - Chevron and Baker Hughes - USAID launched a project in support of KAB implementation which was administered by the Kazakhstan Small Business Development Project. Thanks to these new partnerships and private funding, within two years, the Ministry of Education & Science had decided to adopt the full version of the KAB course in the amount of 80 hours in vocational education, 619 new teachers had been trained to deliver KAB in all 14 oblasts, and the number of KAB students per year had increased from about 2,400 to about 114,800⁷.

As underlined by the President of Kazakhstan, Nursultan Nazarbayev, in his speech “Strategy of Kazakhstan to Join the Top Fifty Competitive Countries of the World” and further pinpointed by the country report of the Ministry of Education and Science of the Republic of Kazakhstan (2009), “higher education modernisation became one of the most important conditions of state system development and consolidation of independence in the sphere of economic and policy”. Therefore, major emphasis will be put, among others, on improving training of the staff; development of new educational programs; the development of basic research and the promotion of higher education institutions who should play a predominant role as scientific-research centres.

As context for linkage strategies this gives a picture again where there is real national support for skills development but that national programmes are not necessarily well adapted to the local situation. In particular it can be noted that there is poor coordination between vocational and university education, and that the degree to which vocational training relates to the real demands of the economy is difficult to assess. It is not clear how easily vocational training can be adapted to needs of individual flagship foreign investors.

3.2.4 Coordination of FDI support

To realise the greatest benefit from FDI, it is important to have an integrated system of support. At the current time, there are some weaknesses in the system in Kazakhstan, which have a bearing on regional linkage programmes, as follows:

- Kaznex Invest operates nationally but does not have regional operations (although Investor Support Centres are being established). Accordingly there is little targeted promotion of individual regions and their differences. It is not clear how Kaznex Invest directs enquiries to the regions or, indeed, how the regions articulate which investors they want to national bodies and promotion agencies.
- Kaznex Invest concentrates on promotion, but there is very limited aftercare of investors, and what does happen is at the regional level. Aftercare is where the most beneficial linkages can be developed, through adding value to existing investments and there is a need to do this systematically, with a clearly targeted approach.

- There is no coordination of investment promotion activities of different regions and therefore potentially investors can play off one against the other. In practice this may not be significant, since investment incentives are determined nationally and in any case the regions are so widely dispersed geographically and economically that the competition between them is limited.
- Assets such as local supply chains (however nascent) are not clearly identified and marketed as part of FDI promotion.

Clearly linkage programmes should form part of the reform of the system which is currently going on, but at present the lack of coordination and information is a hindrance to creating clear focus for regionally-based linkage strategies.

3.3 Implications for linkage strategies

In none of the three regions are there immediate new FDI investments (nor existing FDI investments in priority sectors) which are likely to have significant expansion. As a result any linkage strategy will need to be wide-ranging and adaptable to changing circumstances.

It is important that support for SMEs is put in place and is not predicated on FDI arriving. This is so that there is the capability to support new FDI investments and expansions, and because the existence of a supportive structure for SME in the region will assist in attracting FDI in the first place.

Accordingly each of the three regions will have a strategy which does the following

1. Clarifies the roles and responsibilities for local institutions. In general the establishment of new institutions for the strategy is not suggested, though it is anticipated that the Investor Support Centres which are currently being created will have a vital role to play. Clearer accountability and coordination is important as can be seen from the learning models.
2. A set of actions which are preparatory to any targeted actions, including full understanding of the local SME sector. Without full knowledge of the sector it is difficult to provide effective services and to assist in developing supply chains together with foreign investors.
3. A number of pilot actions which bring the SME sector together and at the same time give public institutions some experience in dealing with linkage type projects. Pilot actions relate to either work with existing investors or work to improve networking and collaboration between SMEs.
4. A set of institutional actions to maintain the momentum as more FDI comes in the future. It is important that there are continued visible actions in order to engage both the SME and FDI sectors. In addition, information needs to be kept up to date, which requires continued contacts with businesses.

The emphasis of pilot actions will vary between the three regions. In East Kazakhstan there are a number of possibilities for concerted action between clusters of SMEs which are possible to identify now. In Atyrau and Kyzylorda most of the immediate opportunities relate to the oil industry and therefore the pilot projects relate to how these are used for diversification and strengthening the sector for other possible

investments. Kyzylorda is the least attractive region of the three from the point of view of foreign investment and therefore strategy there will naturally concentrate on SME support.

Some actions, such as the development of skills, are long term actions and there is likely to be little direct impact in the timescale of the project. Nonetheless, the *capability* to deliver training and skills is important in interactions with investors and therefore a set of actions which could improve the situation is included.

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² UNCTAD’s Inward FDI Performance Index ranks countries by the FDI they receive relative to their economic size – it is the ratio of a country’s share in global inward FDI flows to its share in global GDP. For the 2007-07 period, Mongolia=3.269 (16th), Tajikistan=3.223 (17th), Kazakhstan=2.73 (23rd).

³ Bekszhan Kalibekov (Vice President of the DAMU Entrepreneurship Development Fund).
<http://portal.mfa.kz/portal/page/portal/mfa/en/content/news/ASTANA%20CALLING%2020111/2011-10-07>

⁴ The areas considered by the World Bank are: Starting a Business; dealing with construction permits; getting electricity; registering property; getting credit; protecting investors; paying taxes; trading across borders; enforcing contracts; resolving insolvency.

⁵ “The main purpose of the SECs is to support and develop SMEs in regions of the country (regional business communities), provide access to high technologies, financial resources and state development institutes. The primary difference between SECs and Commercial Corporations is the reinvesting of profits received from social projects. Each SEC must become a regional development institute, which will promote strengthening of cooperation.” (Source: http://www.unece.org/fileadmin/DAM/ceci/ppt_presentations/2007/eed/tox_e.pdf)

⁶ Know About Business (KAB) is an entrepreneurship education programme designed and developed by the International Labour Organisation (ILO) in partnership with the ILO’s International Training Centre (ITC-ILO). The KAB programme is mainly directed towards teachers in public and private vocational and technical training institutions and general secondary education.

⁷ <http://www.ilo.org/public/english/region/eurpro/moscow/areas/kab.htm>

4. ASSESSMENT OF CONDITIONS FOR FDI-SME LINKAGE DEVELOPMENT IN THE KAZAKHSTAN REGIONS

This chapter assesses the conditions for FDI-SME linkage development in each of the three regions. The regions vary in economic and institutional characteristics and in likely prospects for foreign investment, although there are some common themes related to, for example, barriers to SME development through access to finance and property.

Atyrau is Kazakhstan's major port on the Caspian Sea and is a major focus for investment by international oil companies – and this investment is projected to expand. It seems likely that natural resources (specifically oil) will drive FDI for the foreseeable future notwithstanding actions to promote diversification. Both FDI and SME were critical of aspects of the business operating environment and both groups of stakeholders had specific criticisms of local content legislation in the oil industry, which does not seem to be performing well relative to its objectives. The SME sector generally lacks scale, quality and dynamism and requires development support in order to become a credible part of a supply chain to foreign investors. As well as finance, this will require the establishment of effective sources of advice and support, development of better bases of information, and addressing issues related to property. There are a number of different private sector institutions supporting the sector but these are generally small and lack impact. With regard to skills there seems to be limited coordination between private sector demands and public sector supply in education. Although Chevron has taken an initiative to improve vocational training, it can be supposed that this will be orientated towards the oil industry and may not be appropriate for the needs of diversification.

East Kazakhstan is the centre of metallurgical industry in Kazakhstan, and was designated as a pilot cluster by the government in 2005. Nonetheless, there appears to be a mismatch between demand and supply of R&D facilities. As well as generic issues of SME development including access to finance and advice, it appears that there is a need for support to innovation and standards and better mechanisms to support technology transfer. In general the current national support programmes are not seen by SMEs to meet the needs. A similar pattern can be seen with regard to skills: although there is a well-developed system it is not adequately responsive to demand and in some cases there is poor coordination, particularly with regard to R&D. It can be seen that the larger firms, such as Kazzinc, do train their employees, but this is not reflected in support to SMEs.

Kyzylorda has experienced a growth in oil and gas related activities and a decline in the importance of agriculture and trade over the last five years. Outside oil and gas there has been little significant FDI recently owing to the distance from main markets and the lack of suitable skills. A potential flagship investment from Pilkington to establish a glass factory came to nothing for reasons which are not clear. Discussions with oil industry and subcontractor representatives suggested that there were gaps in the regional and national supply chain but that smaller subcontractors encounter problems due to tendering requirements under current procurement laws. There appears to be a low demand for generic education and training with the main problem reported being related to the need to augment vocational education with post recruitment on-the-job training. Currently coordination between business and vocational education appears to be poor in this respect.

4.1 Analysis - Atyrau

4.1.1 Characteristics of Atyrau city and region

Atyrau is Kazakhstan's major port on the Caspian Sea. The city is located at the mouth of the Ural River which divides it into an Asian and a European part. The economy of Atyrau and its surrounding region is strongly influenced by the resources extracted from the Caspian Sea, in particular oil and gas and fisheries. In terms of oil and gas, the Tengiz field is one of the largest oil deposits in the Commonwealth of Independent States (CIS) region while the Kashagan field is considered one of the most important discoveries of the last decade outside the Middle East. In terms of fisheries, the Caspian Sea is one of the major breeding grounds for sturgeon, a fish of great value for its flesh and its caviar.

Atyrau region has been growing rapidly over the last ten years and has doubled its contribution to Kazakhstan's GNP from 6% in 1998 to 13% in 2010. Much of this growth has been generated by foreign direct investment, in particular in oil exploration and exploitation.

Kazakhstan's largest private oil producer is Chevron. The company became the first major Western oil company to operate in Kazakhstan when it formed Tengizchevroil (TCO) in 1993 of which it owns 50%. TCO is holding important stakes in the nation's two biggest oil producing projects, the Tengiz and Karachaganak fields. Chevron/TCO has a range of interests upstream and downstream the oil and gas supply chain. It is the largest private shareholder in the Caspian Pipeline Consortium pipeline which provides a critical export route for crude oil from TCO and Karachaganak. To service its raw material needs, Chevron/TCO has developed a polyethylene pipe plant in Atyrau.

Atyrau is home to a number of dynamic local small and medium sized enterprises which are benefitting from the opportunities posed by the oil & gas sector and the general prosperity of the city. In comparison, Atyrau's population of SMEs per 1000 inhabitants (99) is higher than the national average (87) but not as high as in other cities including Almaty and Astana.

Prominent sectors other than oil and gas include food processing and manufacturing (partly related to fisheries), transport and communications, building and construction and services.

4.1.2 Issues for FDI

This section examines the key issues driving FDI, since this is the context against which any linkage programme has to be set.

What will drive FDI in the foreseeable future?

As a region, Atyrau's most distinctive advantages lie in its extensive natural resources, especially oil and gas, and its location as an important land/sea corridor to Russia, the Commonwealth of Independent States (CIS), Europe and the West. Analysis of current activities identifies six key factors that can be expected to drive FDI in the region over the next 3-5 years. These are:

- The Expansion of Oil and Gas Recovery Activities (planned and underway)

- Oil Pipeline Expansion (planned and underway)
- Downstream Modernisation and Expansion of Refining and Processing Capacity (planned and underway)
- The Development of Other Natural Resources (especially the planned extraction and chemical processing of salts)
- Key Infrastructure Projects (especially the planned extension and upgrade of the national grid and the planned expansion of air terminal facilities at Atyrau)
- Speculative Investment Opportunities (e.g. wind turbine manufacture)

This analysis does not consider the effects of targeted promotion for the purposes of diversification but rather considers the logical consequence of current investment patterns and economic trends. However, this is important context for the linkage strategy, since the effect of any promotion for diversification will not be felt in the short term.

What type and form is future FDI likely to take?

Based on the “Flagship Investor” framework (see Rugman and D’Cruz (2003)), four investor “types” relevant to FDI-SME linkages can be identified. These are:

- Flagship Investors, for example:
 - Leading International Oil Companies (IOCs) engaged in oil and gas recovery, initial processing of crude and oil transmission and distribution;
 - Petrochemical specialists;
 - Natural resource-based chemical companies; and
 - Construction materials providers (both raw materials based, and manufacturers).
- Supply-Chain Specialists supporting Flagship Investors, for example:
 - Sub-contract manufacturers, component manufacturers, equipment manufacturers, raw material manufacturers etc.
- Sub-contract service providers (sourcing key components and equipment); and Specialist service providers, for example:
 - Geological survey and analysis
 - Core testing
 - Engineering (electronic, electrical, flow systems, mechanical, civil etc.)

- Maintenance, repair, replacement and upgrade of key capital equipment etc.
- Transport and Logistics Companies
 - International multimodal operators (air, road, rail and sea)
 - Specialised warehousing and distribution companies.

This pattern of “types” is expected to remain stable in the short to mid run.

The FDI entry modes evident in Atyrau Oblast at present are joint ventures (JVs) and wholly-owned subsidiaries (e.g. Chevron) – with JVs dominating the mix.

Leading IOCs tend to operate with and through JVs, while wholly-owned subsidiaries are perhaps more typical of specialised, high-value service providers and manufacturers (see, for example, the Akimat’s listing of JVs and foreign companies for Atyrau). Acquisitions are either not prevalent or not recorded.

The current modal mix reflects, at least to some extent, 1) the government’s preferred approach to partnering with leading IOCs through JVs and 2) the governments preferred approach to funding SME development at the regional level through, for example, equity joint-ventures with Social Enterprise Companies (SECs). Continuance of the present policy framework means this modal mix can be expected to continue in the short to mid run.

4.1.3 The business operating environment

Business attitudes and perceptions of the current operating environment have been captured in recent surveys (for example the World Bank Doing Business Indicators) and through the main responses from the Atyrau interview programme.

These sources provide an initial indication of the likely nature and extent of market imperfections and failures constraining the current business environment for both flagship investors and SMEs.

The following section illustrates the range of specific business concerns which flagship investors and SMEs had on issues which have a possible market failure dimension:

FDI-perspectives:

- The tariff regime⁸ under the newly formed Customs Union with Russia has increased the cost of importing specialised capital equipment for outside the Customs Union;
- Recognised difficulties with customs and border controls constrain the import/export activities of flagship investors and add to transaction costs⁹;
- There is a fear that fuller economic integration with Russia and Belarus could bring more intense (and perhaps unfair), price-based competition¹⁰ to the detriment of product quality, innovation and capability building in Atyrau;

- In one flagship investor’s opinion, “local content rules” in tendering should be “territorially based” rather than based on the investor’s legal status. If the current rules were altered, it was felt that more investment would follow;
- The checks which accompany a highly regulated business environment impose hidden costs which can be significant. One Atyrau investor stated that on average his plant hosts six checks a month by government officials - diverting staff and management time from the running of the day-to-day business.
- Investors should receive more financial help from the government with manufacturing “process” development costs as part of building higher value capacities and capabilities in Atyrau;
- The local availability of suitable technical skills is an issue for manufacturing investors – especially technicians and engineers (mechanical, chemical and process etc.) The Akimat should do more to address this through more appropriate training and skills initiatives which are demand-led;
- Property speculation constrains the local availability of appropriate sites for industrial development at reasonable market prices. *De facto*, this is seen as 1) the by-product of what amounts to being a government-land monopoly and 2) weaknesses in the planning process controlled by the Akimat giving rise to instances of possible insider dealing;
- In such a large country, a more integrated multimodal transport strategy and policy is needed to reduce the direct costs (e.g. inadequate and poorly maintained road network) and indirect costs (e.g. multiple police checks delaying commercial journey times) of distance to market for investors;

SME-perspectives

- Lack of appropriate finance: the high cost of credit and lending from banks, for example. The type of finance available is felt inappropriate to the business development needs of SMEs in Atyrau.
- Bank lending is secured, often tied to property (homes and/or business premises) which many small firms simply do not own. Where SMEs have collateral, disputes with the bank can arise over property valuations ; this, in turn, can undermine the lending process or lead to an over-extended application process ;
- While lending from the DAMU is now more favourable under the 2020 Business Road Map initiative – this lending is also secured and similar problems can arise.
- More open and flexible procedures are needed where SMEs are tendering from large investors. It was suggested the government set up a new dedicated body to oversee such tendering;
- Entrepreneurial activity in Atyrau is strongly influenced by oil and gas which slows diversification;

- Outside the hydro-carbon sector, it is easier and more attractive for entrepreneurs to establish import/export businesses (trading companies); entrepreneurs tend to be more short-term and opportunistic in their outlook – so there is a tension between what needs to be done and how the government can stimulate and support more rapid diversification through encouraging local entrepreneurship.
- The attractiveness of salaries in the oil and gas sector is another related factor constraining young people from entering the entrepreneurial talent pool in Atyrau Oblast. Sector wage relativities for Atyrau show that the average wage level in mining (dominated by oil and gas) is over twice that in manufacturing and four times greater than the average for public administration.
- There do **not** appear to be any problems with new company registration. This is a field where concerted efforts have been made to address obstacles and registering a business is now a matter of days. However, companies do encounter problems when dealing with utilities and public services providers (many of which are monopolies). This includes those operating in the field of waste disposal, water, electricity, gas and road infrastructure. Problems include lack in the availability of services and costs involved in accessing them. Companies often have serious problems and that this is one area where organisations such as the Chamber of Commerce or the Business Association can help as lobbying groups.
- There are opportunities – as well as obstacles – concerning local content legislation. While local content legislation is principally advantageous for small companies which have developed sufficiently to be able to sell quality goods and services to larger businesses, the legislation is not helping very small and young businesses who fall short of quality standards. Moreover, local content certificates need to be renewed on a yearly basis which is a very time consuming and protracted process and seems to be driven more by bureaucratic requirements than the desire to create mutually beneficial long-term business opportunities for large and small businesses.

4.1.4 The SME Sector

Relative to its CIS neighbours, Kazakhstan's SME sector is under represented in the economy as a whole, especially medium-sized companies, manufacturing SMEs and export-oriented SMEs. Atyrau Oblast shares these characteristics, only more so.

The available statistics on the SME sector in Atyrau Oblast have been collated and analysed more fully elsewhere. The general picture which emerges is that:

- Against other main cities and regions, Atyrau Oblast ranks poorly in terms of the number of active SMEs and in terms of the level of SME output;
- When farms and single entrepreneurs are discounted, the growth in the number of SMEs has been slow.

In short, the SME sector in Atyrau Oblast generally lacks scale, quality and dynamism. Moreover, there appear to be a number of structural weaknesses underpinning this. For example, the dominance of

general services and the lack of a significant manufacturing and export capability came through the statistics and were reinforced by interview feedback.

This may in turn point to other explanatory factor prevalent at the level of the firm including, for example, limited capacity to absorb and apply new technology, deficient skill sets, especially technical and management skills.

Such weaknesses will constrain the ability of the SME sector to engage profitably and productively with flagship investors. However, the apparent absence of a robust baseline understanding of the nature and extent of this problem and how it impacts on the development of FDI-SME linkages will continue to hamper proper appraisal and the development of appropriate solutions.

Albeit anecdotal, interview feedback helped to shed some light on local supply chain capability. Chevron's sourcing experience, for example, highlighted some of the more obvious gaps which exist with respect to manufactured raw materials (resins imported from Russia) and manufactured components (valve parts brought over from East Kazakhstan).

Chevron's past experience also provides an indication of the challenges faced by local SMEs in building capabilities to international standards. Through, Tengizchevroil, Chevron supported a 12-year small business development programme in Atyrau which ended in 2008/9. A major objective of the project was to increase local-SME participation in the Tengizchevroil supply chain. Part of this programme included a UNDP-TCO partnership incubator initiative (see below).

Over its life, the project supported 174 start-ups and small business by providing advice and loan funding of around \$7 million (KZT 840 million). While close to 2,000 new jobs were created, only 6 of start-ups joined Tengizchevroil's supply chain: a success ratio of 1:29.

Furthermore, these businesses were largely service suppliers, providing printing and electrical services, for example. The one manufacturer, TauKen LLP, was a raw materials production and processing firm providing broken stone.

In considering policies for SME support, the following issues are apparent

- It seems that there is strong national awareness of the importance of developing SMEs and the Roadmap and the DAMU Fund are significant initiatives to address problems, for example through business loans. However, to be effective the fund requires professional support from SME advisors and trainers and consultations did not suggest that institutions are geared up to offer this support. There appear to be a number of organisations operating in the field of SME support (including the Associations and the Chambers of Commerce) but all of these providers are small, employing around 5/10 people and do not appear to have the necessary skills in all aspects of SME development. One set of suggested policies therefore relates to the development of a professional network of SME advisors/consultants, possibly enhanced through international twinning projects which could help with globalisation at the same time.
- During the various consultations as part of the study visits, there was some difficulty in finding detailed information on the SME sector and the detailed capabilities and intentions of individual

SMEs. This suggests that relations between SMEs and the SEC or the Akimat could be improved, in particular with regard to information.

- Property was mentioned by many as a constraining factor for enterprise development in Kazakhstan in general and in Atyrau in particular. There is a shortage of serviced sites appropriate for the needs of businesses generally and small businesses in particular. The price of land is very high and there are sometimes uncertainties about ownership.

Outside national programmes, the following private sector institutions operate, which could be used in the implementation of any linkage programme.

The *Chamber of Commerce* has been in existence since 1959. It has a staff of seven people and supports businesses through providing various types of certificates and registrations (including trade mar. Since 2010 this includes Kazakh content certification. The Chamber of Commerce is planning to expand its services including the provision of expert advice on strategic business matters. The Chamber is also planning to provide more exporting support to companies, for example with respect to exports to other countries of the Former Soviet Union. It was not entirely clear how it would acquire the necessary skills and competencies for a more general offer.

The *Atameken Association* has a membership of 160 businesses which included larger as well as smaller companies. It was governed by a board with “popular and/or important” people. The association was financed partly with a grant from the Soros Foundation. In terms of service offer, there was not a clear distinction with the Chamber, The association also provides advice, consulting, training and general support. It offers advice on legal issues, in particular helping entrepreneurs who want to change from black market to “legal” operation.

There is an *incubator project* which was established in 2002 as a follow-up initiative from a more general entrepreneurship development project initiated by the UNDP and UNIDO ¹¹ and later supported by the Regional and City Akimats and companies including Chevron, Citibank and TCO and the Association.

The project is located on a 4 hectare site on an industrial area to the south of Atyrau (previously used by a transport business) and offers 400 square metres office space and 7,000 square metres production premises. The rent level is very low at around 1\$ per square metre per month. Clients can opt for offices, production or storage space. The available (refurbished) space is almost taken up.

The incubator plays a vital role in offering a supportive environment to small businesses. Apart from the different types of space it offers to companies – who would otherwise struggle to source their premises needs – it gives companies easy access to utilities (power supplies, water, road infrastructure). This latter point is far from being a trivial matter in Atyrau and in fact poses a major obstacle to small businesses establishing themselves and growing.

The management team consists of 13 people of whom a large number are engaged in the physical aspects of running the site/centre and only one person (the manager) is actually engaged in the delivery of business support. Companies are active in a range of sectors/industries including printing, advertising, wood working and dressmaking. There are currently 29 enterprises in the incubator employing 200 staff. The incubator focuses on attracting production companies rather than enterprises engaged in trading

activities. Since the incubator opened, 19 companies have graduated and moved elsewhere. The incubator management team is engaged in a range of activities to generate revenue. It is suggested that from around 2008, about 70% of income comes through own revenue. Revenue sources include fees generated from service delivery such as business planning as well as publishing an extensive Atyrau business directory (similar to the Yellow Pages).

The incubator is close to being fully occupied and a strong case can be made for further provision of space and services. Moreover, companies who are outgrowing the available space and need to move to another location do not find it easy to satisfy their space requirements. One option could be to develop an industrial park on available land on the current site.

4.1.5 *Employment and labour market trends*

The region's population is growing, as well as the number of job seekers. As of the first quarter of 2011, Atyrau's unemployment rate was 5.2%. While economic activities are concentrated in the city of Atyrau and around oil and gas deposits, most of the unemployment problems concern residents of villages and rural areas.

The local workforce faces stiff competition from job seekers coming from neighbouring countries and other regions of Kazakhstan, attracted by Atyrau's significant economic development and higher salary expectations. The average monthly salary in Atyrau is the highest in the country and almost twice the national average.

Information from DAMU details the key labour market trends in the Atyrau region. They reflect the buoyancy of the economy of the Atyrau region with low unemployment, rising levels of employees and numbers in employment. The numbers of self-employed have dropped consistently and considerably over the 10 year period from 2001 to 2011 apart from a rise in 2004. This reflects the buoyancy of the labour market and the quantity and quality of well-paid employment opportunities.

Unlike many rural areas, Atyrau has retained rather than lost population. Indeed the largest shares of local population living continuously in their places of residence are reported by the National Census 2009 to be Atyrau (86.0%). The discovery of oil and gas fields, the construction 'boom', creation of new jobs in various industries, especially in the trade and service sectors, also attracted a large inflow of internal migrants, primarily of working age, to these regions.

Educational and training infrastructure

Whilst only 3 of the 148 universities in Kazakhstan are based in the region, there a number of sectoral technical training colleges covering sectors such as oil and gas, construction and retailing although most of the region's academic offerings are concentrated in the oil and gas sector. For example, the Atyrau Institute of Oil and Gas is a well-respected university providing highly skilled technical personnel to the oil and gas industry in Kazakhstan. Given this lack of diversity as a consequence, non-oil related businesses may find it difficult to recruit local specialised workforce to satisfy their employment needs.

Employers views on the importance of skills issues

According to the private sector, the human capital in Atyrau is capable of satisfying the demand of skilled workforce from local businesses, in spite of a limited regional offering in terms of higher education and vocational training. 70% of surveyed companies mentioned availability of skills as the top strength making Atyrau attractive for investments. This goes some way to explaining why the skills and human resource development was not raised as a particular issue during the study visit to the region.

However, the survey results also highlighted limited co-operation between private sector and higher education in Atyrau, as and none of the surveyed companies declared to have an internal training structure in Atyrau or a partnership in place with a local higher education and vocational training institute. Human capital development is often encouraged through co-operation and dialogue between higher education institutions and the private sector, to identify the technical skills and profiles that will meet the needs of the job market.

Despite employers' positive views, there are further indications of challenges in the Atyrau labour market. As reported in the State Program on Development of Technical and Professional Education for 2008 -2012, the demand for qualified specialists is being satisfied only at a 30-40% by the vocational educational system of Kazakhstan. An analysis of the content of vocational training programs and their methodologies shows that they do not meet the requirements of employers, nor the expectations of students who seek to obtain advanced skills and competencies. The low level of educational methodological support, deficit of modern training materials, especially of technical character in Kazakh language, and lack of institutions responsible for development of methodological materials poses a serious obstacle for improving the quality of vocational training process in Kazakhstan.

Chevron has partnered with the Eurasia Foundation of Central Asia (EFCA) to find solutions to these problems, launching a vocational education initiative based in Atyrau Oblast. The main purpose of this project is to improve the quality of vocational schools in key technical areas that are in demand in the market place. The main milestones of the project include identifying the priority training area and specialisation; involving international experts into curriculum development of the selected specialisation, and testing it in a pilot vocational school; and promoting the developed curriculum as a pilot case for replication in the area of vocational education.

4.2 Analysis – East Kazakhstan

4.2.1 General situation

The majority of registered legal entities in East Kazakhstan are small enterprise (93%). Medium enterprises account for 6% and large enterprise for 1% of the total number of enterprise. State-owned companies dominate medium and large companies in East Kazakhstan and foreign presence is not highly developed. When combining the number of foreign companies with the number of foreign joint ventures in East Kazakhstan, foreign investments only impact 7% of the total number of legal entities with a focus on large companies.

In order to identify the main barriers to the SMEs development questionnaire was conducted among representatives of the oblast Akimat, the public services centre and business associations. According to the

opinion of respondents, the main barriers are access to land, environmental pollution, underdeveloped stock market, cost and access to finance.

In East Kazakhstan oblast there has seen a steady increase in investment in fixed assets. So in 2011 investments in fixed assets amounted to 241.6 billion tenge, which was more than in 2009 by 74%.

The most attractive sector for investors is industry; its share in total investment was 60%. In 2011 75 010.9 billion tenge were invested in the manufacturing sector (31%), mining – 36 159.2 million tenge (15%), transport and storage - 22,893.2 million tenge (9%), electricity, gas, steam and air conditioning - 19328.8 (8%) and real estate operations - 14819.5 (6%). In 2009-2010 the largest amount of investments by foreign investors was observed in the manufacturing sector. In 2011 and first half of 2012 foreign investment flow in this sector was declined to 7.4 and 10.6% respectively. In 2012, the most attractive sectors for foreign investors are wholesale and retail trade (53.1%), real estate transactions (23.3%), mining and quarrying (10.9%) and education (1.4%).

Major enterprises with a foreign shareholding are involved in non-ferrous metal production, which are Kazzinc, the Ust-Kamenogorsk Titanium and Magnesium Plant, and VostokKazmed (a branch of the Kazakhmys Corporation).

4.2.2 Policy Measures

In line with the national policies, both the East Kazakhstan Development Strategy 2011-2015 and the Programme for Territorial Development of East Kazakhstan 2011-2015 attach importance to the development of regional SMEs. The latter includes specific targets for SME growth by 2015; such as increasing the proportion of SMEs in the structure of the Gross Regional Product to 7% and reducing the transaction costs associated with registering and doing business (including total time and costs incurred) by 30%.

There are various public sector actors engaged in SME development actions at regional level in Kazakhstan. Akimats, DAMU and Social and Entrepreneurial Corporations (SEC) are the most active players on the subject. However, based on the interviews and desk research, the distribution of roles and responsibilities between them about the design and management of SME development measures is not sufficiently clear.

Interviews in East Kazakhstan indicate that a much closer interaction between business and government is needed to ensure successful and sustainable development of SMEs. According to the interviews, currently communication and cooperation between the government and the private sector is weak, and the latter is not actively involved in the design of policies and policy measures. One example given by the business sector is the frequent change of legislation without communication and consultation with the private sector. It is also observed that the level of cooperation and communication is limited between implementers of various programmes focusing on SME development.

Interviews with the local businesses indicate that public support programmes are not well received by SMEs in East Kazakhstan. Local businesses are of the opinion that these programmes do not sufficiently meet their needs and requirements. Also, it is stated that the rules and regulations of government programmes are not suitable for SMEs: for instance, as noted by interviewees, the majority of SMEs fail to

provide matching funds to be able to benefit from public funds provided by the Business Roadmap 2020 Programme. In addition, excessive bureaucracy involved in the programme discourages SMEs from applying to it, according to the interviews. The quality of trainings and study visits provided under the programme is also found insufficient mainly due to the quality of service providers. It is expressed that the restrictive eligibility criteria used by DAMU in selection of trainers/consultants do not adequately assess the quality of service providers. Finally, the need for eliminating duplications and overlaps in support programmes are emphasised by interviewees.

It is observed that the lack of information and reliable data on business sector in the region is a problem for SME policy-making and implementation and for the enhancement of FDI-SME linkages.

4.2.3 Assessment of SME development needs

There is an evident need to increase the number of local suppliers with capabilities to supply foreign investors in the region. The challenges faced by Kazakhstan in this respect are also evident by the research done by the World Economic Forum: according to the Global Competitiveness Report 2011-2012, Kazakhstan ranks 124th in terms of local supplier quantity and 105th in local supplier quality among 142 economies. (World Economic Forum (2012))

According to the interviews, the main barriers to SME development in the region are the following:

1. The large distances to other regions as well as the low quality of transportation infrastructure are important problems hindering SME growth. According to the OECD, Kazakhstan's transportation system, inherited from Soviet times, has not undergone sufficient modernisation. Also, operational capability and logistics knowledge is inadequate (OECD (2011)). The quality of logistics services supplied by local firms is also insufficient, according to the interviews conducted.
2. Difficulties in accessing business information are major constraints to regional SMEs. The channels for communication and information dissemination about potential markets, buyers and business opportunities as well as government support programmes are limited and underdeveloped.
3. An important barrier faced by SMEs is the adoption of new technologies. Specific knowledge and expertise is missing in identification, selection and acquisition of technologies. The restricted financial resources of SMEs also reduce access to new technologies or innovation. Technology upgrading is particularly required to strengthen production capabilities, and enhance quality, cost and delivery of products and services of SMEs.
4. SMEs in the region are required to incorporate high quality management practices (in the areas of production, accounting and finance, marketing, human resources, intellectual property rights, health, safety and environment, etc.) in order to be able to meet the demands and requirements of foreign investors.
5. According to the interviews, while many regional SMEs hold quality certifications (such as ISO 9000), many of them do not comply with the requirements of quality standards. Therefore, there

is a need to increase awareness and capacities among SMEs on compliance with quality regulations.

6. Access to finance is a key constraint to SME development in the region. Bank financing is the most important source of external finance to SMEs and alternative sources of finance, such as equity capital, are missing in the financial system. The lacking of confidence in SMEs by banking sector (UNDP (2010)), as well as the insufficient technical expertise within domestic banks to evaluate the specific risks of SMEs and adapt their policies to their needs are the major barriers (OECD (2012)). High cost of finance (interest rates goes up to 18% or more – see UNDP (2010)) and difficulties in providing collaterals severely limit SMEs' access to bank credits. While there exists government programmes for subsidising interest rates on bank loans (in particular, Business Roadmap 2020 and Post-Crisis Recovery of Competitive Enterprises) take up of these measures by SMEs seems low.
7. SMEs in the region compete on price, producing low quality and low value added products and services. This is recognised as a major impediment to SME growth both by small and large companies in the region. Also, it leads to a perception among foreign investors that regional SMEs are not capable of being competent suppliers. Linked with this problem are the low innovation capabilities of regional firms, as also cited as a weakness by the interviewees. The lack of SME attention to this issue also results in excessive dependence on a few regional large firms as buyers. Therefore, SMEs are required to develop innovation capabilities to differentiate themselves and achieve customers' satisfaction with high quality products and services.
8. In various studies, East Kazakhstan appears as one of the regions with high R&D capacity and performance – see USAID (2006) and UNECE (2012). Given that this is the case, low innovation performance of SMEs suggests that transfer of R&D results, knowledge and skills to SMEs is insufficient, in spite of the existence of various structures such as technoparks.
9. Formal networking among firms is limited. Although the government prioritise cluster development through the design of cluster strategies as well as a cluster support programme which is planned to be launched by 2013, measures to support and stimulate networking between regional firms are almost non-existent, according to the interviews. For example, DAMU, the organisation responsible for SME development, states that they have not organised any networking or matchmaking events in the region so far.

4.2.4 *The metallurgical cluster in East Kazakhstan*

The metallurgical cluster was selected as a pilot cluster by the government in Kazakhstan, in 2005,¹² with geographical concentration in Central and East Kazakhstan. The metallurgical sector plays an important role for the East Kazakhstan economy and innovation processes. Because of the lack of specialised facilities, almost all extracted metals and metal products are still exported for further processing; internal processing is still an exception. Existing production facilities are, furthermore, characterised by causing a high degree of environmental pollution and technological backwardness. The lack of specialised facilities points to bad investments in R&D; evidently a mismatch exists between the demanded and offered R&D facilities in the metallurgical cluster.

All mining and manufacturing firms are privately owned. Metallurgical processing is, if at all, dominated by the three above-mentioned medium-sized or big firms in the region, Kazzinc, Titanium Magnesium Plant (UKTMP) and Ulba Metallurgical Plant (UMP). Researchers refer to high scientific and technological potentials of UMP (see Fernandez-Grela et al (2011)); the total economic “effect” of the introduction of inventions at UMP in 2001-2009 is estimated to amount to 500 mio. tenge (around €2.6 m). Nonetheless, innovation activities seem to be disconnected from any engagement by other actors, such as researchers from universities or local research institutes or SMEs. Research linkages across various actors are apparently non-existent. The idea to promote spin-offs or to interlink vertically within a cluster has apparently not been developed, yet.

Further, the number of the total patent applications (four) registered for metallurgical products in East Kazakhstan, in 2010, is very low and does not reflect any special innovativeness in this sector.

The majority of employees in the mining sector prefer to work for those big firms due to higher wages, social infrastructure (kindergarten, medical service etc.).

4.2.5 Consequences for skills development

The role of universities and other knowledge-generating organisations in the regional innovation system must be strengthened. At this stage, there is a lack of financial and other incentives to work in the R&D sector; there is a lack of initiatives to raise the attractiveness to work in high-skilled technical fields and the R&D sector. The latter would also be essential to increase the number of post-graduate researchers and academic staff at universities to improve the quality of study programmes. From the perspective of skills development and innovation/entrepreneurship activity, the following steps could be taken¹³:

1. Strengthening of at least two, East Kazakh, leading universities and affiliated Technoparks and Business parks.
2. Promotion of university start-ups and spin-offs as a mechanism to increase the number of new firms.
3. Promotion of business plan competitions, innovation awards, entrepreneurship education.
4. Promotion of patent applications and the commercialisation of academic innovation through specific programs (see Learning Model 9 on the United States Small Business Innovation Research Program).
5. The development of linkages, in particular between large and small domestic companies and between foreign and domestic companies, as well as the enhancement of connectivity in the regional innovation system, should remain a major focus of regional policy-making. The authorities should consider developing further innovation support measures which are conditional on the collaboration between several innovation stakeholders and develop further existing initiatives to increase subcontracting by large national companies to SMEs and foster international partnerships.

6. Creation of networks through a “Regional Innovation Council” with representatives from the business sector, local public and educational organisations, academics, scientists etc. – see UNECE (2012) for further recommendations.

Currently, skills development and education do not match adequately with the demand by SMEs and large companies, resulting in skills shortages in some areas and a surplus of workers with skills that are not in demand on the labour market, hence contributing to unemployment of lower skilled labour and an out-migration of higher skilled workers who are attracted by better wages and working conditions in other parts of Kazakhstan and abroad. Currently, East Kazakhstan is challenged by a limited involvement of social partners such as educational, employers’ and workers’ organisations in co-ordinating skills with SME development and FDI attraction which is essential to ensure the provision of relevant and appropriate training. Optimally, a large number of actors and providers (ministries, agencies, central and regional governments, NGOs, employers and workers) are involved in skills development while few, selected actors take the lead to co-ordinate skills demand and supply as the successful Singapore example shows (see Learning Model 8). In (East) Kazakhstan, the responsibilities of various institutions (national and regional ministries, Akimats, DAMU etc.) overlap and are not well coordinated from a multilevel governance perspective.

Further, training courses on public administration questions related to the important role of innovation and technological development are lacking and should be developed to facilitate the understanding of innovation issues among public officers. The authorities should strengthen ongoing efforts to enhance human capital and increase labour force skills, so that they are appropriate to serve the needs of a diversified knowledge-based economy.

The overview of higher education institutions and programs points to a well-developed educational system. Nonetheless, access to information about the various universities and programs turned out to be a tedious task. It is recommended to develop an East Kazakh higher educational website which offers access to all university programs offered in this region. Further, the summary of findings indicates that many university study programs are overlapping. There seems to be an excessive supply of programs focusing on accounting, finance, jurisprudence, management and marketing. If future priority sectors are to be metallurgical processing (as highlighted by the government of Kazakhstan) or agribusiness and food processing – as recommended by the OECD EURASIA competitiveness programme or Akimat East Kazakhstan – the study programs must reflect skills development in exactly those fields. Currently, training in the fields of agriculture and agribusiness is fully missing though it is one of the most important sectors of development in East Kazakhstan. Therefore, new fields of specialisation are recommended to be developed and implemented at the higher educational level in fields such as agricultural economics, agricultural biology, agricultural science, agricultural food production, organic agriculture and food systems, sustainable agriculture and integrated watershed management – to name a few. The prioritising in agribusiness and food processing will then be accompanied by a regional educational specialisation in these fields and will enhance (rural) SME development as well as FDI attraction.

Further, education in “entrepreneurship” is currently fully missing. Business start-up competitions, workshops on how to write business plans, entrepreneurship education and other related programmes are crucial to develop an entrepreneurial culture at universities and within the region and to study entrepreneurial skills.

In the context of the explicitly pursued promotion of higher education, scientific-research centres and business incubators as mechanisms to transfer new knowledge and to closer co-operate with the private sector, many deficits are still evident. The D. Serikbayev East Kazakhstan State Technical University as well as the Sarsen Amanzholov East Kazakhstan State University offer promising programs and aim at developing spill over mechanisms through business incubators to better transfer knowledge generated at universities to third partners' organisations. As a matter of fact, the business incubators are hardly known by staff, students and private sector organisations (personal interviews). It is strongly recommended to enhance a closer cooperation between academia and the private sector which is a crucial step to promote innovative start-ups and SMEs and contribute to human capital and technological development (see Learning Model 9 which explains the success of the Small Business Innovation Research Program in the United States). The current staff shortage and lack of expertise of staff members at universities to transfer knowledge and innovation to the private sector is preventing the innovative entrepreneurial sector to take off and to develop. Further, a very low number of teachers with post-graduate education and experience is involved in R&D across all universities.

4.2.6 Skills development through large firms and SMEs

To ensure the required qualification level, Kazzinc arranges and conducts, for example, regular employee trainings, including professional training, retraining and advanced training. In 2011, around 12,000 people were trained with costs amounting to US\$ 2.1mio. (in total). The training programs are available to workers, leaders and managers of all levels and include environmental and occupational safety and health protection. Each worker is allowed to run through several raining programmes or may upgrade his or her skills. The company also has a Corporate University, which was established for specialists and management development. The university has 11 core faculties: mining, power generation, geology, mineral processing, metallurgy, automation and IT, personnel safety, environmental protection, maintenance of fixed assets, economics and management, and human resources. Kazzinc managers can also participate in advanced training courses at Kazakh and Russian universities, with more than 130 Kazzinc managers receiving MBA degrees since 2006.¹⁴

This is just one example highlighting the efforts of large companies in the region to accomplish advanced, internal skills training.

Internal education is offered by SMEs in Ust Kamenogorsk as confirmed in interviews with local stakeholders. The internal education is primarily taken care of by internal consultants. The expertise of external consultants was not perceived as valuable or value-adding.

4.3 Analysis - Kyzylorda

4.3.1 Characteristics of Kyzylorda city and region

Kyzylorda city and region are located in the south-west of Kazakhstan, close to the border with Uzbekistan. The city has a population of just under 200,000 and the population of the province is around 700,000. Kyzylorda is the fourth largest region by land size in Kazakhstan and the second most sparsely populated province with a population density of 3.1 people per square kilometre.

The city and region of Kyzylorda have experienced significant growth over the past decade, due to recent discoveries of hydrocarbon deposits and increasing investment from foreign multinational in the oil and gas sector. One of the major foreign investors is the China National Petroleum Corporation (CNPC). Kyzylorda's contribution to the national GDP has increased from approximately 2.2% in 1998 to 3.9% in 2010. However, due to the weight of oil & gas resources in the regional economy, the world economic crisis has recently negatively impacted on the growth of GDP.

Kyzylorda has its own airport with flight connections to Almaty, Astaba, Karagandy and Oskemen. It is located on the old silk route and is in relative proximity to the huge new motorway project which will connect Europe with China.

The Aral Sea is shared between Kyzylorda province, Aktobe province in Kazakhstan and Uzbekistan. Formerly one of the largest lakes in the world, the Aral Sea has been shrinking radically since the 1960s after the rivers that fed it were diverted for irrigation projects of the old Soviet Union. Recent attempts to reverse the trend have had some success and the water level in the lake has risen and salinity has reduced.

Kyzylorda province is also home to the Baikonur Cosmodrome, the world's first and largest space launch facility and the launching point for Vostok 1, the first manned space flight in history. The facility and its surroundings are currently rented by the government of Russia until 2050 and are a central focus of the Russian space programme.

Kyzylorda trails behind other Kazakh regions in terms of its SME performance, both in absolute terms as well as in terms of SMEs per 1,000 inhabitants.

Prominent sectors other than oil and gas include agriculture, manufacturing, construction, wholesale and retail trade, and transport and communications. However, while there has been a strong increase in oil and gas related activities, there has been a strong reduction in the importance of agriculture and trade over the last five years. There may be complex reasons underlying these trends; the reduction in agricultural output may be partly explained by the environmental issues faced by the communities around the Aral Sea where fishing and related activities used to be a major component of income.

4.3.2 Issues related to FDI

This section examines the key issues driving FDI, since this is the context against which any linkage programme has to be set.

What will drive foreign investment in the foreseeable future?

As a region, Kyzylorda Oblast's most distinctive features, which could convert to economic spatial advantages, lie in:

- its extensive natural resources, especially oil and gas:
- its continental climate (characterised by the high average number of days of sunlight throughout the year); and

- the city of Kyzylorda’s position at the regional intersection of two major nation programmes of transport network upgrade (the West Europe- West China Road Corridor and National Rail Network Upgrade).

An initial baseline analysis of main sector and company activity in the region identifies a number of factors which are expected to drive foreign investment in the region over the next 3-5 years plus. These are:

- Oil and Gas Exploration, Extraction and Distribution (planned and underway);
- The Extraction and First-stage Processing of Other Natural Resources especially:
 - Uranium
 - Lead and Zinc
 - Salts and
 - Silicon
- Major Infrastructure Projects especially
 - The West Europe-West China Road Corridor; and
 - National Rail Network Expansion
- Specialised/Speculative Investment Opportunities
 - Baikonur Cosmodrome
 - Solar Power Development

What is also clear from analysis is that, unlike (for example) Atyrau Oblast, there are no obvious investment drivers of the power and scale of the Kashagan oil field (and related downstream opportunities in oil refining, specialised petrochemicals etc.) which can provide a critical focus for significant amounts of new investment and investment upgrade in the short to mid run.

What type and form is future foreign investment likely to take?

Based on the “Flagship Investor” framework (Rugman and D’Cruz (2003)), four investor “types” relevant to SME-Investor linkages in Kyzylorda Oblast can be identified. These are:

- Flagship Investors, for example:
 - Leading International Oil Companies (IOCs) engaged in oil and gas recovery, transmission and distribution;

- Natural resource-based mining and first-stage processing and chemical companies; and
- Construction materials providers (both raw materials based, and manufacturers).
- Supply-Chain Specialists (especially in oil and gas), for example:
 - Sub-contract manufacturers, component manufacturers, equipment manufacturers, raw material manufacturers etc.
- Sub-contract Service Providers (sourcing key components and equipment) and Specialist Service Providers (especially in oil and gas), for example:
 - Geological survey and analysis
 - Core testing
 - Engineering (electronic, electrical, flow systems, mechanical, civil etc.)
 - Maintenance, repair, replacement and upgrade of key capital equipment etc.
- Transport and Logistics Companies
 - Multimodal transport companies (air, road and rail)
 - Specialised transshipment and goods handling companies, specialised storage and warehousing companies and distribution companies etc.

This pattern of “types” is expected to remain stable in the short to mid run.

Outside the oil and gas sector there is little evidence of significant FDI being attracted to Kyzylorda Oblast in recent years. The impression formed is that the cost of distance from main markets and the absence of 1) a sizeable pool of suitable skills and 2) suitable investment sites and infrastructure, may well be major and overriding constraints on FDI which is anything other than resource-seeking.

The most recent example of a potential flagship investor from outside the oil and gas sector was Pilkington. After some years developing a local investment opportunity around flat glass making, Pilkington withdrew from the project for reasons as yet unknown.

Typical of the oil and gas sector, the main IOCs in Kyzylorda Oblast (i.e. Petro Kazakhstan Inc. and Turgai Petroleum) operate through joint ventures. An ownership trait which emerged from the evidence gathered is the dominance of Chinese and Russian operators in the Kyzylorda oil and gas sector. This has not been without its tensions (for example, disputes between Petro Kazakhstan and Lukoil). Western companies have been present in the past (i.e. perhaps 5-10 years ago or longer) but it seems that these companies have sold their interests on to Kazakh companies which in turn have entered into JVs with Chinese or Russian companies. (NB Reference was made during interview to “contractual risks” which may have driven some Western companies away).

The current modal/ownership mix, at least to some extent, will reflect:

- the preference of oil and gas-related Kazakh companies to enter JVs with Chinese and Russian companies;
- the government's preferred approach to partnering with leading oil companies through JVs; and
- the government's preferred approach to funding SME development at the regional level through, for example, equity JVs with Social Enterprise Companies (SECs).

Continuance of the present policy framework means this modal mix can be expected to continue in the short to mid run.

4.3.3 *How supportive is the business operating environment?*

Business attitudes and perceptions of the current operating environment have been captured in recent surveys (see, for example, the World Bank Doing Business Indicators) and through the main responses from the Kyzylorda interview programme.

These sources help provide an initial indication of the likely nature and extent of market imperfections/failures which may constrain the current business environment for both flagship investors and SMEs. Based largely on the feedback obtained from interview, the following section illustrates the range of concerns which could have a possible market failure dimension and provide a basis for new interventions.

Perspectives of oil and gas producers:

- On supply chain development:
 - One leading investor stated that whilst 67% of goods purchases (pipes, cases, pumps etc.) are sourced from manufacturers in Kazakhstan, 80% of equipment needs have to be imported. Much of the specialised equipment needed for oil and gas extraction is not manufactured or available in Kazakhstan.
 - Significant gaps exist in the regional and national supply chain, especially in manufacturing. There are growing opportunities for import substitution: pipes, casings and other tubulars which used to be purchased abroad and are now made in Kazakhstan – but not locally. Similarly, down-hole pumps can now be sourced nationally as two pump-manufacturers now have facilities in Kazakhstan. Interviews indicated that other opportunities for future import substitution could lie in compressors and lubricants - the latter being driven by sub-station needs.
 - Seventy per cent of services are sourced locally: general service provision in the region is seen as adequate to need. The view was also expressed that oil and gas producers enter JVs with sub-contractors largely to exploit lower wages.

- The corollary to this, however, is that Kazakh JV partners over time come under greater wage pressure through linkage with leading oil companies.
 - From an investor perspective there are really only one or two key service providers locally and one or two key transport-service providers in the region. More competition is needed.
 - For specialised equipment (e.g. oil pumps) or equipment purchased from abroad (e.g. lubricants and compressors), key local service providers must send staff overseas for training at their own expense.
 - Foreign oil service companies have been present in the region in the past, primarily during the early and main phase of field installation, but subsequently left. These businesses required solid and certain contracts. Having a more “risk averse” attitude meant these businesses were less willing to invest for the long run.
- The view was expressed that regional development is not yet at a sufficiently high level to support technology transfer from flagship investors to local SMEs in the oil and gas sector: this was reinforced during interview by a well-established oil producer who confirmed it had never licensed any of its technology to a local company.
 - Local shortages of key skills are an issue, especially the availability of professionals and specialists. Investors adjust the terms and conditions of their wage contracts to recruit key skills from other regions; foreign skills are recruited, but this is done under Akimat supervision.
 - Investors confirmed that smaller sub-contractors can encounter problems the tendering requirements under current procurement laws (see Box).
 - Disintegration of the local value chain is a concern to some investors: as SMEs grow and diversify they tend, either in whole or part, to move away to other oil regions such as Atyrau, for example.

Box 1. KMG: Supply-Chain Management Consortium

KazGerMunai (KGM) was established in 1993. KGM is a JV between Petro Kazakhstan (50% stake taken in 2005) and KMG¹⁵ (50% stake taken in 2007). The previous main partner was German. KGM is one of largest oil and gas producers in the region: 70% of production is exported; 30% is for local consumption. The business is profitable.

KGM stated during interview that a “Holding Company” (which was referred to during interview as “The Consortium”) had been established to help structure and organise the oil and gas supply chain. 50% of the Consortium’s shares are owned by the government and 50% are owned by private companies.

KGM has established a number of JVs with suppliers through the Consortium. The main by-product of this arrangement is that it has enabled KMG to enter into more beneficial longer-term (i.e. 3 year) supplier contracts (a casing company was cited as an example).

If smaller suppliers cannot afford to take a 50% stake in the Consortium, they then are subject to annual re-tendering of contracts. According to KMG, managing re-tendering can be difficult for smaller suppliers, but not impossible with good forward planning. And meeting the tender pre-payment requirement can also expose suppliers to greater financial risk.

The issue that arises is that of the opportunity cost which small suppliers face in relation to the use of scarce resource and any forced trade-off between the resources needed to manage and plan the regulatory requirements of tendering and the resources needed to manage and plan for business growth.

Sub-Contractors and specialist services suppliers (including trading companies):

- On procurement:
 - For small and mid-sized suppliers, under current procurement rules contracts require to be re-tendered annually: one sub-contractor reported that this involved re-tendering around 100 contracts a year. This affected contracts for pipes, transformers and heaters, for example. The pre-payment of \$1 million is also a legal requirement which exposes firms to unnecessary financial risk.
 - A maintenance and repair programme for an oil rig typically run over a 3 year period. Annual re-tendering is seen as out of sync with the typical maintenance and repair cycle. This also adds to the financial exposure and risk of smaller sub-contractors.
 - Tensions can arise when oil producers specify the need for specialised equipment (e.g. power tongs from Canada) and actual equipment availability is at odds with timing in the tender.
 - There is suspicion among sub-contractors pursuing mid-price strategies that the legal obligation to award tenders on the basis of “lowest price” compromises quality and value for money. This potential problem may also be reinforced by the indirect influence of “price discounting “in the tendering process. (For example, poor heating due to low voltage heaters

being wrongly supplied to rigs was cited as a recent example of compromised quality under present tendering rules.)

- The relatively low margins for sub-contractors on tendered work means salary increases for employees are not as generous as companies would like.
- Procurement procedures are a problem: small administrative errors can delay the opening of tenders and cause unwanted work delays. On “all parts” tenders the level of paper work required of companies is regarded by some sub-contractors as “trivial and inefficient”.
- On employing foreign workers: permissions and visas are difficult to obtain and operations can suffer if foreign managers are not there when needed.
- Taxes and Customs: it was stated that as well as customs duties there is a “rental” tax which rises with the level of imports. Effectively, the business ends up paying a double tax.
- The current export tax is calculated on the basis of “Brent Crude” not the actual price charged which may, for competitive reasons, be offered at discounted prices.
- English speakers, especially those with appropriate management and technical skills, were highlighted as especially difficult to recruit locally. And the cost of hiring students is rising.
- Sub-contractors rely on specialist technical skills such as qualified welders. This can require a lot of in-house training. Key staff also require in-house training when advanced specialised equipment is being procured. All in-house training is at the contractor’s expense.
- The local university could play a bigger role in key skills provision, especially well- trained graduate welders and graduate electrical engineers. It was suggested that it would be good to have a course where one year in university-based complemented by practical in-company training.
- There is a possible tension in key skills provision and related training in the sub-contract sector: graduate training by its nature is time intensive. But labour contracts are typically short-term (i.e. 1 year duration). To an extent this reflects the regulatory effect of the annual tendering cycle. People simply follow the work (i.e. where contracts are placed) and need to be mobile. A result of this tension is that good specialist employees tend to leave the sub-contract sector to go and work with customers (i.e. the main oil companies) where employment prospects are more stable and lucrative.

SME Perspective:

- Access to finance (business loans and credit) is the top SME constraint in the region, especially for start-ups. It was stated during interview that to obtain start-up lending from the banks, 70% collateral is needed. Property usually underpins this. But property valuations in the City and Region are generally insufficient to meet the banks’ requirement.

- Availability of suitable premises was also cited as a major constraint: whilst the DAMU helps provide small office space (e.g. for lawyers), the lack of flexible space for new businesses and SME manufacturers is a key issue. (NB Work is due to start next year on the construction of on a new business incubator with financial support from the Akimat. It is felt that this should help boost the success rate of new firm formation).
- Obtaining building permission (form filling and the approvals process) was also cited as a significant SME constraint. Accurate maps on land availability would be useful, for example.
- The “Regulatory Environment” was frequently raised as an issue for SMEs, especially “procedural transparency”. For example, it is not as clear how many government departments/agencies require to be approached; time-scales are unpredictable and rejected applications must be re-submitted for approval etc. So the regulatory approval procedures and business planning cycles cannot be synchronised. This adds to risk and uncertainty and dampens investment and business growth.
- A single source of information on all the basic regulatory approvals which SMEs must obtain (i.e. building permissions; gas, water, electricity approvals etc.) would be more efficient from a business planning view point. An e-government portal would help provide easy access and a more integrated approach to managing the regulatory requirement. A tool is currently being developed in Astana.
- The view was expressed that in education the issue is not the number of schools or colleges, but the quality and relevance of the schooling, especially the lack of international experience of teachers. In this context, it was suggested that more international teacher and student exchanges would help and that the President’s “Bolashak Programme”¹⁶ should be extended.
- There do **not** appear to be any problems with new company registration. This is a field where concerted efforts have been made to address obstacles and registering a business is now a matter of days. However, companies do encounter problems when dealing with utilities and public services providers (many of which are monopolies). This includes those operating in the field of waste disposal, water, electricity, gas and road infrastructure. Problems include lack in the availability of services and costs involved in accessing them
- There are opportunities – as well as obstacles – concerning local content legislation. While local content legislation is principally advantageous for small companies which have developed sufficiently to be able to sell quality goods and services to larger businesses, the legislation is not helping very small and young businesses who fall short of quality standards. Moreover, local content certificates need to be renewed on a yearly basis which is a very time consuming and protracted process and seems to be driven more by bureaucratic requirements than the desire to create mutually beneficial long-term business opportunities for large and small businesses.
- Other issues:

- Narrow focus to SME activity: many city-based SMEs only provide services to the oil and gas sector. In large part this is explained by the fact that oil and gas related SMEs are making margins up to 85% while non-oil SMEs are only achieving margins of 10% - when they should be achieving 40%-60% margins. This was regarded as another example of the “Dutch Disease” phenomenon¹⁷.
- Elsewhere, it was stated that construction drives SME activity.
- New business ideas are in short supply. Most businesses copy others.
- More support on infrastructure (roads, lighting and schools) should be provided through Akimat social funds.

4.3.4 How capable is the SME sector in Kyzylorda?

Relative to its CIS neighbours, Kazakhstan’s SME sector is under-represented in the economy as a whole, especially: medium-sized companies, manufacturing SMEs and export-oriented SMEs. Kyzylorda Oblast shares these characteristics, only more so.

The available statistics on the SME sector in Kyzylorda Oblast have been collated and analysed more fully elsewhere. The general picture which emerges is that:

- Compared with 16 other City/Regions, Kyzylorda Oblast is bottom ranked in terms of the number of active SMEs and next to bottom in terms of the level of SME output;
- When farms and single entrepreneurs are discounted, steady, if unspectacular, growth has been sustained over the period 2005-2012, albeit from a very low base

In short, in terms of the number of active businesses, the SME sector in Kyzylorda Oblast lacks significant scale. The message on sector dynamism appears more mixed: while the percentage of active to registered SMEs appears to have fallen significantly in recent years, the absolute number of active SMEs has grown slowly but steadily year on year.

A number of structural weaknesses characterise the SME sector in Kyzylorda: for example, the dominance of general services: wholesale and retail, construction, transport etc. - and the absence of a significant manufacturing and export business presence and capability.

The above may in turn point to other explanatory factors which exist at the level of the firm including, for example, limited capacity to absorb and apply new technology, deficient skill sets - especially technical and management skills, lack of an export capability and focus etc.

Such weaknesses will clearly constrain the ability of the SME sector to engage productively with flagship investors. Moreover, the apparent absence of a robust baseline analysis of this issue (and how it

may impact on SME-Investor linkages), continues to hamper proper appraisal and the development of appropriate solutions.

In considering policies for SME support, the following issues are apparent

- It seems that there is strong national awareness of the importance of developing SMEs and the Roadmap and the DAMU Fund are significant initiatives to address problems, for example through business loans. However, to be effective the fund requires professional support from SME advisors and trainers and it is questionable whether institutions in Kyzylorda are geared up to offer this support. There appear to be a number of organisations operating in the field of SME support but all of these providers are small and it is doubtful whether they have the necessary skills to support companies in their growth. Moreover, there appears to be a lack of consistency in the way project applications for public sector support are being evaluated by DAMU and the SEC. One set of suggested policies therefore relates to the development of a professional network of SME advisors/consultants, enhanced through international twinning projects which could help with globalisation at the same time.
- The study visit included visits to a number of entrepreneurs in Kyzylorda, some of them very successful (for instance in the field of bottled water/water cooling provision and in the restaurant/catering industry). There already appears to be a dialogue between entrepreneurs and the Akim office business-related office. Indeed one of the entrepreneurs met on the study visit has just been co-opted onto a committee convened by the local authority regularly to discuss and address potential obstacles to enterprise development and growth. Nevertheless, there may also be scope to develop a business club with regular events and dissemination of information.
- The oil and gas sector is driving economic development in Kyzylorda. Even though the focus is on diversification, becoming a supplier to the oil and gas sector may help because it enables diversification in later phases. Another sector focus may be offered by the agriculture and food processing sector which could be the focus of a concerted effort to increase opportunities for small scale production.
- Property was not always mentioned as a key barrier but even though there might not quite be the shortage of sites and premises, targeted provision at small and medium sized enterprises would still appear to be useful way of creating easy start-up and growth conditions.

Outside national programmes, the following private sector institutions operate, which could be used in the implementation of any linkage programme.

One organisation responsible for SME support policies and measures at the local/regional level is the *Social Enterprise Company (SEC)*. SECs are 100% owned by the government and are overseen by the Akim Office. Their mission is to encourage investment and support SMEs. SECs can invest in companies but their share should not exceed 49%. Amongst SECs' responsibilities is the provision of sites and buildings for use by private sector occupants. However, this does not appear to expand to an advance factories programme which may encourage smaller occupants.

Both the local representative of the DAMU Fund and the SEC in Kyzylorda appeared well advanced in assessing project proposals to be given grant and equity support. Surprisingly, it appears that the evaluation processes adopted by DAMU and the SEC were fundamentally different. All 50 proposals submitted to DAMU were granted support while the SEC went through a more rigorous selection process selecting 15 projects from a total of 50 submissions.

Other players in the field of SME support are the Chamber of Commerce and two Associations of small businesses/entrepreneurs.

The *Chamber of Commerce* focuses predominantly on issuing official documents such as certificates of origin. It has 93 members. There appear to be no links between the Chamber and others working with small businesses such as DAMU and the SEC.

The *Atameken Association* has a membership of between 200 and 300. Their main function is to identify obstacles to business development and growth.

The *Association of Entrepreneurs* was established in 2000 with the main objective to promote private business. The Association works with companies from a wide range of sectors on legal issues and questions of tax, marketing and the implementation of state programmes. The Association offers training and one-to-one advice.

4.3.5 *Employment and labour market trends*

The growing working age population suggests there are an increasing number of job seekers in Kyzylorda. However, the unemployment rate was just 5.5% in 2011 – significantly lower than the rate of 13.9% recorded in 2001. Indeed unemployment has fallen to almost the lowest sustainable rate of unemployment. That is, the lowest rate to which unemployment can fall before shortages of labour lead to excessive wage increases and start pushing up the rate of inflation.

Official statistics also show a considerable decline in the rates of long term unemployment, and youth unemployment over the period 2001-2010 as well as a substantial rise in the economically active population, the number of persons employed in the economy and the number of employees in businesses.

However a substantial proportion of the population are considered self-employed – 17.7% in 2010. Whilst many of these have employment in the service industry particularly retailing, In addition, 130 944 people, or 19% of the entire population, were counted as “economically inactive” in 2010. Taking into account a large youth population (29.9%) that will progressively enter the job market over the coming years, there is an imperative to continue economic growth to generate jobs.

Educational and training infrastructure

As is highlighted above, education is an important factor contributing to private sector development in Kyzylorda. At its most basic this is because both domestic and foreign companies need a qualified and skilled workforce to grow and expand in the region.

In comparison with other regions of Kazakhstan, only five universities and vocational training institutes are located in Kyzylorda (the average number of universities in each region is 6, excluding the capital cities Astana and Almaty). In the light of the forecast trends in the labour market, in order to support the process of economic diversification, Kyzylorda should sustain and extend its education facilities and introduce measures to increase the accessibility of education in rural areas. This could be assisted by the introduction of new learning technologies.

Employers views on the importance of skills issues

Private sector companies (both foreign and national) were surveyed to assess their needs and expectations with regards to public services in the region. Respondents were invited to evaluate the quality and relevance of public services dealing with inter alia human capital development. In addition interviews conducted during the study visit to Kyzylorda provided a further qualitative assessment of the issues and challenges employers faced in the recruitment and employment of suitably qualified staff.

The private sector feels the regional government should do more to fight corruption, which was identified as a major barrier by 68% of surveyed firms. Other major barriers identified include issues pertaining to property rights, overly burdensome regulations and macro-economic pressures. Whilst skills shortages were identified by 60% of respondents, this was third lowest ranking in the list of 10 issues.

After reviewing the ways in which businesses were impeded by various policy barriers, the respondents were asked to determine policy priorities for the regional administration. When questioned on top reform priorities issues were identified included improving transparency, promoting protection of intellectual property rights, and reducing excessive regulatory and administrative procedures.

These recommendations correlated well with a number of major barriers expressed by the surveyed companies, including the lack of quality business support services, the lack of public support for innovation, limited availability of property and land, difficulty in complying with administrative and tax regulations, and entrenched informal sector activities. Only 10% identified the need to improve the quality of schools, universities, training centres etc.

This low priority for education and training reinforced with interviews with employers during the study visit. Both local Kyzylorda SMEs and Foreign investors reported few difficulties in recruiting suitably qualified labour and were achieving Kazakh indigenisation targets. One respondent company in the oil exploration and production industry employing 720 staff reported that they employed only 5 expatriate staff in the company with 90% of the workforce coming from Kyzylorda with the remaining 10% coming from other regions of Kazakhstan.

The main problem reported by companies were related to the need to augment vocational education training with post recruitment on the job training particularly in company specific job training. It would appear that this extended to augmenting basic skills as well as induction and other specific company skills sets suggesting a mismatch between vocational training provision and business requirements. Indeed as not all companies appeared to carry out such training and in the context of buoyant labour market, trained staff were frequently 'poached' i.e. the recruitment of trained staff by other companies offering higher salaries. This often leads to reluctance on the part of employers to invest in training because they fear trained employees will be poached by competitors.

4.4 Conclusions

Analysis of the three regions shows that, although they have very different economic bases, they have similar issues with regard to promoting linkages between FDI and SME. In particular these relate to:

- A lack of SME support institutions, or coordination between them
- A lack of information on both the SME and FDI sectors
- The need to mobilise financial resources for any action
- An SME sector finding it difficult to participate in opportunities for supplying FDI owing to a combination of finance, skills, tendering procedures and information
- SMEs needing to upgrade their products and skills in order to compete

However, there are differences in opportunities for work with actual investors. In Atyrau the oil and gas industry continues to expand alongside some downstream investments (for example in plastic piping). East Kazakhstan has a metallurgical cluster and a car manufacturer about to expand significantly, as well as investment by a retailer which could use local products. Kyzylorda has oil and gas investment, but opportunities may also come from the major East-West highway currently under construction. In the longer term all three regions will have targeted sectoral promotion for FDI which it is anticipated will bring in further investors.

Accordingly the main focus of the linkage strategies will be the same, concentrating on SME support and skills development, but based around opportunities coming from larger companies and foreign investors. Alongside this there will be specific opportunities which can be used to continue engagement of SMEs and build experience in the linkage strategy team.

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⁸ Kazakhstan and Russia abolished their internal customs borders on 1 July 2011 as part of the tripartite Customs Union with Belarus. As a result, the average tariff rate in Kazakhstan increased from about **6 to about 10 per cent**, as it had to be equalised with the Russian rate.

⁹ Tariff and customs also impact directly on Atyrau in its role as a strategic border region and an important East-West transport corridor with the potential to develop further as a key transport and logistics hub within the wider region. The Akimat should monitor the effects of the Customs on Atyrau's competitive position as location with this in mind.

¹⁰ Early indications are that the new Customs Union is bringing trade benefits to its members and improving customs and border controls, albeit from a low base (see Chapter 4, Transition Report, EBRD, 2012).

¹¹ http://www.unido.org/fileadmin/import/45737_UNIDOatWorkredKAZ.pdf

¹² Further pilot clusters not related to the extraction of natural resources are transport and logistics, tourism, oil and gas machinery, construction materials, food and textile industries according to the program of Industrial and Innovation Development 2004-2015.

¹³ These actions would support innovation *in general* and are therefore not included in the specific action plan for the linkage strategy. Nonetheless they would complement specific linkage-orientated actions by providing a better background to support innovation and entrepreneurship.

¹⁴ <http://kazzinc.vestnik.com.kz/#en/Social%20responsibility/Personnel%C2%A0training/> accessed on 10 October 2012.

¹⁵ KMG is Kazakhstan's National Oil and Gas Company

¹⁶ The Bolashak Programme (the Bolashak International Scholarship) is a scholarship which is awarded to high-performing students from Kazakhstan to study overseas all-expenses paid, provided that they return to Kazakhstan to work for at least five years after graduation. Since its implementation in 1993, more than 6,000 students have been awarded the scholarship. Most of these students travel to study in the United States, but also elsewhere around the world.

¹⁷ The dominant position of the oil and gas sector is also reflected in the operation of the labour market. As in Atyrau Oblast, wage relativities in Kyzylorda Oblast highlight the significant difference that exists between mining and extraction (including oil and gas) and the rest of the regional economy: in 2011, for example, the level of average wages in the mining and extraction sector was two and a half times greater than the average for all sectors and for the manufacturing sector.

5. AN FDI-SME LINKAGE STRATEGY FOR THE KAZAKHSTAN REGIONS

This chapter elaborates a set of actions which are common for all three regions (and potentially for other regions of Kazakhstan) aimed at developing institutions and systems for the design and implementation of FDI-SME linkage support actions. These are required as a framework for the region-specific actions set out in the following chapters.

In order to develop linkages, the region and its institutions need to understand which sectors and types of investment they are looking for. FDI-SME linkages form part of FDI aftercare and therefore any strategy needs to work in cooperation with individuals and institutions involved in this.

In general, questions related to the overall vision for FDI promotion and regional development can be found in the regional sector strategies being developed, and the regional development programmes.

Building on this vision, the following common actions are required in each of the three pilot regions :

- Establishment of a linkage strategy team.
- Preparatory actions which are needed in order to implement the strategy effectively, for example finding information on the SME sector and FDI, mobilisation of financial resources, and organizing consultancy and training.
- Developmental actions which should continue on a regular basis, for example organising SME support, having regular meetings with FDI, organising support to training and flexible skills and maintaining a clear vision of the local labour market.
- Actions related to national matters which affect the implement of the strategy, for example coordination of national programmes, and creating transparent system for regulations under regional control.

5.1 Objectives

The overall objectives of the linkage strategy are

- To increase the amount of economic activity and employment in the region (because better linkages will grow the local SME sector).
- To seek to maintain skilled employment in the region (because skilled jobs will not be related only to imported goods and services).

- To maximise the positive impacts of FDI (because FDI without linkages will not be anchored and will not necessarily flourish).
- To attract more FDI to the region (because there is an existing support network of suppliers etc. in the region).

In order to reach these objectives, action needs to be taken both in the area of SME support and in skills. In order to have as much impact as quickly as possible, a series of pilot actions is proposed, focused on work with particular companies and sectors.

In summary it is proposed:

- The formation of a **linkage strategy team** with adequate skills and resources. It is essential that there is a focus for actions and for the use of resources. Any actions with foreign investors require clear accountability and account management.
- A set of **preparatory actions** which are to ensure that there is adequate information and understanding of the SME sector and of FDI needs before more targeted actions take place. Although these actions require some considerable amounts of research and interviews, they are essential if more concrete actions are to be effective. They include collating information on the SME sector and on existing FDI, organising finance, SME support, communications, and skills provision, and planning monitoring and evaluation.
- A set of **developmental actions** which keep up the impetus of the linkage strategy team, identifying future opportunities and maintaining the engagement of both FDI and SME sectors. These include development of a transparent system which gives comprehensive SME support, formalising networking and contacts with FDI, developing the research base and the development of more flexible skills, and promoting entrepreneurship.
- A set of **actions relating to national matters** where barriers which are related to national policy are identified as are local actions to mitigate the effects of these.
- A set of **pilot actions** which are designed to demonstrate the effectiveness of linkages, develop networking amongst the SME sector, demonstrate to the SME sector the needs of foreign investors, and give experience to the linkage strategy team. These actions are not necessarily in future priority sectors. These actions are elaborated in more detail in the following chapters.

5.2 Action Plan

5.2.1 Linkage Strategy Team

Establishment of the linkage strategy team is clearly a first step to any actions. This should be focused in a specific institution, and coordinated with the Investor Support Centre and any actions taken to promote FDI. It seems likely that the SEC will be seen as the most logical choice. However, it is suggested that the Akimat establishes a working group of relevant stakeholders to come to a final decision.

In the selection and appointment of a dedicated team of professionals to manage the linkage programme the following should be noted: the team members should be experienced in SME capacity building, supply chain development and business networking, and have good understanding of SMEs and FDI in the region/country. As explained in Learning Model 1, the EDTP team in Azerbaijan possess high levels of knowledge and experience in the key components of a linkage programme, and plays a crucial role in making the programme a success. It is likely that the leader of the team will come from a private sector background, having the credibility to talk to senior managers from FDI companies.

There is a need to provide training, consultancy and study visit/staff exchange opportunities to the team to develop capabilities in linkage programme management.

5.2.2 Preparatory Actions

The actions below are ones which need to take place before the main part of the strategy is implemented. They put in place the information and support structures which are necessary for any effective pilot and developmental actions.

1. Information on the SME sector

Conduct a survey to collect data on and create a database of regional SMEs. During this stage, interact closely with regional SMEs through company visits and focus groups, and identify basic needs, strengths and weaknesses. The survey should raise questions on business/sector development (past, present, future expectations) and future skills development to facilitate the development of a tool of forecasting or at least scenario playing to promote demand-related skills development within the next 3-5 years. The following actors should be responsible for the survey procedures and implementation: The Agency of Statistics providing data, access to SME addresses etc., the department for economic development (if possibly SME development) of Akimat, the department for entrepreneurship of Akimat both instructed by the Akim of the Oblast, and DAMU (Small Entrepreneurship Development Fund), and a non-Kazakh private or public consultancy which should be authorised to support the questionnaire designing, survey procedures and professional evaluation of the survey to guarantee a high objectivity and an outcome-oriented operational management resulting in clear, demand-oriented instructions on how to improve skills development, practically.

Using the data collected, prepare a list of SMEs with highest potential of becoming suppliers to foreign investors. Conduct preliminary assessments for the SMEs identified to make sure that they have the potential and commitment to pursue the goal of becoming competent suppliers. Include these SMEs and regional business unions/associations in programme design process.

2. Information on existing FDI

Seek to identify and motivate at least one foreign investor in the region to voluntarily to participate in the programme. As seen in several of the Learning Models, leadership and volunteerism of foreign investors play the most crucial role in the success of a linkage programme. Ensure that a Memorandum of Understanding/Charter is prepared and signed with investor(s) involving in the programme (see Learning Model 2). At this stage as many foreign investors as possible should be engaged, regardless of the sector or the degree to which linkages are a priority.

An immediate action is to identify the needs and expectations of investor(s) from regional SMEs. As part of this it will be important to further **specify the skills demand by large and foreign companies**. It is recommended to accomplish a survey among significant privately owned large companies and foreign investors (aiming if possible for at least 50) within the next 12 months. The survey should raise questions on business/sector development (past, presence, future expectations) and future skills development to facilitate the development of a tool of forecasting or at least scenario playing to promote demand-related skills development within the next 3-5 years.

3. *Financial Resources*

Collaborate with DAMU to use Business Roadmap 2020 programme funds as a resource for financing SMEs involved in the programme. Make sure that the programme funds are easily accessible and used by SMEs since access to finance is a particular challenge for SMEs in the regions. In Azerbaijan, for example, BP and its co-venturers together with the Micro-Finance Bank of Azerbaijan and IFC launched the Supplier Finance Facility (SFF) as an initiative aimed at supporting local business development through the provision of transparent sources of funding for SMEs (see Learning Model 1).

4. *Organise local consultants and trainers*

Identify local SME consultants and trainers and ensure that there is an adequate supply of high calibre local consultants. Engage consultants who were already trained on the subject through other programmes, such as EBRD Business Advisory Services (BAS). Organise meetings with the consultants and facilitate exchange of knowledge and experience among them. Also consider the needs and means to upgrade their capacities (see Learning Model 1). Support for consultants will be a continuing action – see section 5.2.3 action 2.

5. *Communications*

Develop and maintain a robust system for provision and dissemination of information. For this purpose, prepare and disseminate brochures and handouts. Fundamental co-ordination failures between businesses and business service providers can often be rooted in basic information failures. This can affect the inter-regional, intra-regional and cross-border flow of business intelligence and thereby constrain business to business contact.

Communications problems were often encountered during the study visits and are perhaps best illustrated by the inability to quickly obtain basic company information. Subsequent desk research has also shown that publicly available websites which offer quick and easy access to comprehensive, current and reliable business information (with an English language option, for example), simply do not exist at present.

It is recommended that the City and Regional Akimats undertake a feasibility and scoping study that would inform and drive the development of a business web-site for the region which would become a definitive source of business to business and investor information.

A working group should be established comprising key partners and stakeholders from within the Akimats. This should be established under the joint supervision of the Akims and run by a jointly appointed project leader.

The scope of the study should be informed by the experience of exemplar websites elsewhere in the CIS (suggest no more than 3) which the project leader should visit. The planning of the resources required for the study should be informed by the feasibility and development costs attached to these websites.

In any case there should be a web portal promoting FDI-SME linkages and the programme itself. This should present information on regional SMEs as possible suppliers to foreign investors. The portal should also be capable of providing a virtual matchmaking service if possible.

Communicate the results of the sector and skills analysis to potential start-ups, potential entrepreneurs and existent SMEs through media, business associations and local consultants. It is important to use the findings on sector development (“what sectors have the potentials to develop”; “in which sectors do entrepreneurial initiatives have highest potentials to become successful?”) and skills development not only by public administration but, above all, to inform the entrepreneurial private-sector actors in the oblast on where to invest and on whom to hire. The communication of the results must be enhanced by the leading actors accomplishing the survey (Akim of the Oblast, Akimat departments of economics and entrepreneurship, DAMU) and by using all potential communication channels (websites, TV and newspaper articles, distribution of leaflets etc.) within 3-5 months after the survey findings have been assessed.

6. *Organising skills provision*

Establish a skills training council as curricula coordinator between educational institutions, SMEs, large companies, FDIs and regional development organisations (or sustainably strengthen “**Regional and Sectoral Councils**” at the local level which have vaguely been implemented). Such a new organisation labelled “**Regional Manpower Council**” should be directly supported by an already existent, non-governmental, strong regional actor promoting SMEs interests such as sector associations. The leading managers of the Regional Manpower Council should be appointed by the Kazakh Ministry of Education and Sciences and the Ministry of Economic Development and Trade after having been approved by the Akim of the Oblast, the Maslikhat of the region, the leading managers of the oblast’s Akimat, DAMU, and the Chamber of Commerce and selected business associations (the Association of Constructors, the Trade Union of Workers of SMEs, the Regional Association of Manufacturers) to serve as mediator, communicator and coordinator between the educational system, SMEs, large companies, FDIs and regional development organisations. It is essential that professional, full-time staff manage the Council.

7. *Monitoring and evaluation*

Develop and implement a robust monitoring and evaluation system for the programme. Regularly monitor the programme to immediately identify and address any problems and changes in market conditions. Set specific quantifiable targets and performance indicators for the programme on the short, medium and long-term achievements. Collect baseline data from participating and comparable non-participating SMEs so that outcomes and impacts of the programme can be evaluated.

5.2.3 *Developmental Actions*

A set of continuing actions are proposed which will develop the SME sector and maintain the visibility of the linkage programme. These need to continue both as part of the pilot actions and as work in order to develop new opportunities for linkages with new FDI.

In the future, the sectoral promotion strategy will concentrate on a few specified sectors. Clearly, therefore, work should have some focus on SMEs related to these sectors. Nonetheless the linkage strategy team should build up capability in all sectors where there may be foreign investment, since it is important to support local SMEs and to maximise the impact of any new FDI.

1. *Organise a clear and transparent system*

Ensure that the linkage programme is implemented in a transparent manner. In Azerbaijan, beneficiaries of the EDTP pass through the robust and competitive tender processes to become a supplier (Learning Model 1). In Peru, a portion of the linkage budget was used to finance a programme to simplify the license registration system in the region (Learning Model 2).

Sign service agreements with the SMEs involved in the programme. Conduct detailed gap analysis for SMEs to understand precisely their deficiencies and needs, so that critical areas for improvement can be identified and addressed. Using the results of gap analysis, prepare individual action plans for each SME with the aim of developing capabilities to meet buyer requirements. Make sure that the owners, general managers, management teams, and staff of SMEs are actively involved in the design of the action plans. Assist SMEs in the implementation of these action plans by engaging appropriate consultants and in close liaison with foreign investors. Closely monitor and regularly assess the progress in the implementation of SME action plans (see Learning Model 1).

Our needs analysis highlighted some gaps in local supply and an inability of some SME suppliers to meet international standards. In order to inform the development of dedicated supplier development support programmes and to ensure that support is given in a transparent and objective manner, it is recommended that the SEC and DAMU jointly undertake a benchmarking study to systematically measure and assess the extent of the capability gap which exists amongst local SME suppliers. This should be repeated on a regular basis to monitor improvements in the situation.

The study should verify the nature and extent of the problem by benchmarking SME capabilities against the international standards most used by the foreign investors. This should be done for the following areas:

- Product quality and reliability
- Quality assurance of manufacturing processes
- Quality assurance of transport and logistics
- Training standards

- Health and safety standards

The study should establish the implications for the support mix to be delivered under any dedicated programmes developed in the future.

2. *Provide business development services to SMEs*

Based on the individual needs and requirements of each SME as identified in their action plans, provide advice, training or financial support to upgrade products/services and processes through the identification, selection and acquisition/transfer of new technologies. Also provide training and coaching services to upgrade their technical and management capabilities. These services can include the following: health, safety and environment requirements, quality management, business process streamlining, accountancy and financial management, human resource management, marketing and sales, strategic planning, project management, management of intellectual property, energy efficiency, risk management, etc. Engage competent consultants for the delivery of above services. If some of the services required cannot be provided by local consultants, seek and hire consultants from other regions or abroad.

Provide brokerage services during negotiations, as well as a complete legal service to SMEs at the stage of contract signing.

Assess progress with SMEs and provide feedback to them in terms of their meeting the buyers' standards of production and management.

Provide market information to SMEs on a regular basis so that they can pre-position themselves and get ready for changes ahead.

As part of this action two specific initiatives are suggested:

- Development of a network of consultants and advisors
- Establishment of a training and employment grant scheme

These are explored in more detail below.

There are a number of national initiatives underway to support small and medium sized enterprises at the local/regional level, in particular assistance under *Business Roadmap 2020* and provision by the Social Enterprise Company. These programmes specify the need for companies to work with qualified advisors and trainers to submit good project proposals and to make the most of available assistance. However, consultation did not give confidence that there is a sufficiently large pool of qualified consultants and trainers to work with SMEs. Therefore it is suggested that an initiative designed to develop a cadre of high quality SME advisors and trainers associated with host organisations is established which can ensure sustainability of this provision over time.

If there was interest in developing more a more extensive business advice capability, the following would need to be explored:

- how to share responsibility for developing a business support capability between the national and regional level; given the experience of a similarly large country like Canada, there would appear to be merit in a joint approach (see Learning Model 5);
- whom to task with educating and training advisors; there are a number of organisations that could play a role in developing expertise including universities and private sector organisations such as accountants and tax consultants. It is unlikely that any of them would have sufficient experience to develop an effective development programme for small business advisers on their own and the best approach might be to encourage partnerships between educational institutions such as universities and colleges and private sector organisations such as large consultancy practices. Most of the large international practices such as Deloitte, Grant Thornton, KPMG and PWC are represented in Kazakhstan and may be interested individually – or jointly – to be part of an initiative to improve the chances of survival and growth of small businesses (thereby indirectly growing their own client base);
- how to recruit individuals to become advisers – the best small business advisers have experience of running their own companies as well as having good generic knowledge and skills to bring to other businesses. Such individuals may be in short supply in Kazakhstan at the moment because those experienced in running their own businesses may be too pre-occupied with their own companies to be prepared to help others. There should be some scoping work to be undertaken to explore how to tap into networks – including managers of foreign direct investors – that may be a source of effective business advisers;
- how to take on board international best practice – as illustrated earlier in this report, there are a number of organisations elsewhere in the world that have plenty of relevant experience as to how to provide effective advice to small businesses. There may be scope to enter bilateral twinning arrangements whereby members of these organisations provide advice to counterparts in Kazakhstan on how best to develop and maintain business advisory services.

This initiative could be included in the portfolio of measures to be discussed and agreed on by the steering group with representatives from national and regional/local organisations (ideally with representation from the private sector) to move this – and other proposals – towards implementation. This would include setting a budget, recruit/nominate a professional senior consultant/advisor/project manager (project champion) to move this proposal – and other initiatives – forward and convene a high level workshop/conference with representatives from a wide range of stakeholder/partner organisations to discuss this initiative (as one of a portfolio of SME and linkage measures) and gain in principle backing for it. As before, if there is broad support, the project champion will then set out terms of reference for this initiative and organise a tender competition for an organisation to take it on. There should be a clear set of evaluation criteria including competence of the organisation, proposed range of activities and qualifications of individuals tasked with managing and implementing the proposal. Given the wealth of expertise in this field around the world, this could also be an initiative where the Government of Kazakhstan may ask for bilateral or multilateral budgetary and/or technical support.

3. *Establish a training and employment scheme for SMEs*

It is suggested, if funding is available, that consideration is given to a Training and Employment Grant Scheme (TEGS) designed to recruit and re-skill local people.

The purpose of Training and Employment Grants schemes is to provide governmental finance and other support to employers to assist in the identification, recruitment and training of new employees. They are often used in other countries to encourage and support employers in recruiting those long term unemployed who need the most help to get back into the labour market. They could be adapted in Kazakhstan to assist SMEs to hire and train staff from the general population. This would have the advantage of changing business attitudes to training and enhancing business development through employee skills upgrading.

Typically schemes of this type have the following elements

- A grant equivalent of up to 60% of the employees' wages over a 12 or 24 month period payable to employers for each individual employed on a permanent contract. This wages subsidy which is subject to a maximum amount of both wages and grant reflects the initial under productivity of a newly recruited employee.
- A grant to meet the costs of the agreed training programme.
- The use of vocational qualifications to certify skills and learning and assist the career development of the employee.
- External management and monitoring of progress with employment and training through a dedicated client manager.

The advantages for employers in entering such a scheme (apart from the obvious financial support) are as follows;

- An easy and efficient recruitment process.
- Saves the normal costs associated with recruitment
- Additional support given to candidates who need it during the first year of employment
- A sustainable local workforce

Administratively the process is relatively straightforward and non-bureaucratic with the following steps;

- The employer contacts the managing body for the scheme with a vacancy and to source potential candidates.
- A short list of potential candidates are identified by the managing body

- The employer interviews potential candidates in association with the managing body and selects the most appropriate candidate(s)
- The employer provides evidence to the managing body to confirm appropriate contracts
- A programme of training for the selected candidate including pre-recruitment and post recruitment on and off the job training is prepared for the trainee
- The managing body delivers pre-recruitment appropriate training prior to the employees appointment
- The managing agent implements and monitors the training plan in conjunction with the employer over the period of training
- Employer claims wage support payments and any agreed costs of training

4. *Formalise networking and contacts with Foreign Investors and assist in collective promotion*

Biannually organise ‘meet-the-buyer’ events and facilitate close interaction between potential suppliers and buyers during these events (Learning Model 1). Work closely with foreign investors to facilitate the access of SMEs to tenders and contract opportunities. Also quarterly organise study visits for SMEs to interact with specific departments of the investors to provide social, professional and technical insights, and create a learning platform for key participants of the programme.

Create a formal network(s) between SMEs participating in programme -for example by promoting the establishment of a supplier association- facilitate exchange of knowledge and experience for upgrading capabilities, and promote business collaborations between them. Make sure that the cluster support programme to be launched by 2013 supports the linkage programme.

Strive to grow local supplier base in the region by promoting the linkage programme also through dissemination of early success stories, and encouraging other SMEs to participate.

Provide SMEs with additional business opportunities and encourage them to diversify their customer base by actively promoting their products and services to a wider a range of potential buyers in the country and abroad through various means (exhibitions and fairs, trade missions, e-business portals, newsletters, magazines, visits to potential customers, etc.).

Also provide a virtual matchmaking service on the portal. Organise exhibitions, information days, meetings and site visits between investor(s) and SMEs. Include SME consultants in all events so that they better understand the cultural issues, needs and requirements of both potential buyers and suppliers.

Enforce regular meetings and workshops between the “Regional Manpower Council” (skills training council), the departments responsible for skills development of Akimat, DAMU and Chamber of Commerce, the presidents of local educational higher and other institutions (vocational training institutes, secondary schools etc.) and representatives of local business associations (above all the Association of Constructors, the Trade Union of Workers of SMEs, the Regional Association of Manufacturers), selected

SMEs, large companies and FDIs which stand out in the region as assessed through the above described survey. The organisation of regular meetings and workshops is recommended **twice per year** to guarantee an improved coordination and communication mechanisms which will support the new skills training council to coordinate future, demand-oriented skills training and curricula development at higher educational institutions in order to meet business' demand. The participation in such meetings should be **mandatory**.

The prestige and **reputation of technical specialised personnel** in Kazakhstan must be raised through media, newspaper ads, brochures etc. If wages are too low and cannot be increased, non-monetary incentives for technical, high skilled labour should be considered by SMEs and large companies such as flexible working hours and public subsidies or incentives must be taken under consideration to decrease the out-migration of technical professionals.

There appears to be scope to strengthen networks where entrepreneurs can come together to express any concerns they may have with the business environment and where they can jointly formulate actions which they see as crucial in addressing their issues. Such networks often also support the information and advisory needs of entrepreneurs through organising information sessions on topics of interest and relevance.

The objectives of this initiative would be to develop opportunities for entrepreneurs to meet up, exchange views and information and formulate cohesive view to express to government at the local, regional and national level. See Learning Model 4 as an example.

Other advantages of having an SME network or association would be to provide stronger visibility of small and medium sized enterprises for inward investors interested in forging closer supply chain linkages with such companies.

Any kind of network and/or association needs to reflect the particular needs of its environment. It is therefore difficult to be too prescriptive as to the scope and characteristics of a network in Atyrau and/or Kazakhstan.

In Atyrau, the Incubator is already regularly compiling a business directory and might be interested – with support – to become a hub for a more active SME network and/or association. However, other organisations such as the Chamber of Commerce or the Business Association may be interested in this role both in Atyrau and in the other regions.

If there is national and local support to pursue this initiative, the following next steps are suggested:

- Set up a steering group with representatives from national and regional/local organisations (ideally with representation from the private sector) to move this – and other proposals – towards implementation.
- Set aside a budget sourced from national and regional/local organisations to fund the first wave of activities with a view to make them self-sustaining over time.

- Recruit/nominate a professional senior consultant/advisor/project manager (project champion) to move this proposal – and other initiatives – forward if there is sufficient support/interest for it. This individual needs to be well connected and highly regarded at the local/regional and national level - without being too closely associated (on the basis of vested interests) with any particular organisation. The champion should work on the basis of a specified job description.
- Convene a high level workshop/conference with representatives from the public sector (at the national and local/regional level), the SEC, the DAMU Fund, existing intermediaries (Chamber, Business Associations, incubator) and the private sector to discuss this initiative (as one of a portfolio of SME and linkage support measures) and gain in principle support for it. The meeting needs to be facilitated by the project champion aware of the range of proposals and how they fit into an overall approach.
- If there is broad support, the project champion will set out terms of reference for this initiative and organise a tender competition for an organisation to take it on. There should be a clear set of evaluation criteria including competence of the organisation, proposed range of activities and qualifications of individuals tasked with managing and implementing the proposal. Public support should be provided for a period of around three years after which there should be sufficient proof of the concept to gain finance from other sources.
- Decide on the best tender submission and commission the organisation to proceed with implementing the initiative. The idea would be for this proposed range of activities initiative to start with pump-priming support but during its first three to five years to gain sufficient support from the private sector to be more or less self-sustaining.
- This could be an initiative where the Government of Kazakhstan may ask for bilateral or multilateral budgetary and/or technical support.

5. *Develop the research base*

Design and implement schemes (such as researcher mobility programme, incentives for contract product development/improvement, etc.) to pro-actively promote transfer of knowledge and skills from the research base in the region to SMEs, and provide consultancy and trainings to develop innovative capacities of SMEs.

Strengthen R&D development in academic technoparks to facilitate spin-offs, entrepreneurial activities and forms of cooperation between academia and innovative SMEs and large companies.

6. *Support the development of more flexible skills*

DAMU should establish and financially support **foreign exchange programs** between local SME and linkage advisors and relevant institutions in foreign countries. In addition, consideration can be given to exchanges between local SMEs and foreign SMEs and FDIs to promote high-skilled labour, though this needs to be organised on a targeted basis and noting the availability of staff from smaller enterprises for placements. It should strengthen exchange programs with foreign specialists by developing public instruments and financial support schemes to improve the exchange of knowledge and skills spill overs

through such exchange programs which may further contribute to incentives such as “travelling plus learning” instead of out-migration of skilled labour. Further, foreign investors should be motivated by the Kazakh Ministry of Economic Development and Trade to invest in **local training centre(s)** focusing on metallurgical processing or agribusiness and related fields. This would help to align sectoral priority setting and clustering with skills development and to create spill overs between the local labour force, foreign investors and optimally also local firms (see Learning Model 8 which highlights the policy of the Ministry of Trade and Industry and the Economic Development Board in Singapore to establish local training centres with foreign investors and partners).

The presidents of the local universities and the heads of local vocational trainings centres together with the Akim of the Oblast as well as representatives of Akimat (departments of economics and entrepreneurship) and DAMU must modify and specialise academic and other study programs in joint workshops to improve technological and managerial expertise in priority sectors. New fields of specialisation are recommended to be developed based on the priorities and implemented at the higher educational level. Further, advanced and specialised education goes along with high-skilled staff employed at universities. In other words, next to new programs, the number of specialists in the new fields of studies must be increased.

There will be a need for continuing development of Labour Market intelligence (LMI) to underpin any decisions which are made on skills development and, for example, changes in the design and implementation of curricula.

LMI is a term that is used to describe key facts about what is happening in the labour market or in employment. It is descriptive, and can be in the form of ‘hard’, quantitative information, or ‘soft’ qualitative information. It can include, for example, facts related to the numbers of employers or people working in particular sectors or occupations, about salaries or about which skills are needed to do certain jobs. LMI is collected by a variety of organisations, including government departments and agencies, employer and professional organisations, trade unions, academics, as well as Skills Councils.

LMI is useful to those working across the employment and skills system as it can provide data on key issues such as skills needs and shortages, enabling policy to be developed in a more responsive and strategic manner. Indeed, there is evidence that, as in the UK, many governments across the world are beginning to deliver approaches to skills development in which the provision of high quality LMI is key. In addition to policy makers, citizens and employers are also important potential users of LMI, with the availability of good quality information helping to ensure that they are as well informed as they can be about the labour market and the decisions that they make.

The provision of high quality and timely LMI is also particularly important in countries where the economic and social context is rapidly changing such as Kazakhstan.

When looking at the specific role of skills councils in LMI (see learning model 10), it is important to make a distinction between information and intelligence. Whilst labour market information is data found in original sources, labour market intelligence is a term that is used to refer to information that has been interpreted and analysed, with insights and conclusions drawn from it. It might look for example at trends

over time and the implications of these trends for employers and government, and often involves bringing together information from several sources. It also points to possible recommendations and action. In other words, labour market information is used as a tool in creating labour market intelligence.

Crucially, the role of skills councils does not stop with the collection of labour market information or facts - instead, a central aim of skills councils is to be the authorities on skills issues in their sectors across the whole of the country, and key to achieving this involves them collecting, collating and analysing labour market information, and turning this into high quality sectoral labour market intelligence that is communicated effectively to inform policy and practice.

A template for the structure and content of an LMI report can be seen from Learning Model 10. Whilst there may be scepticism about ‘importing’ solutions or approaches from other countries, labour markets function in a consistent way across the world so there is considerable relevance for Kazakhstan in this approach.

7. *Promote entrepreneurship*

Strengthen education programs on entrepreneurship in existent curricula of vocational training institutes and, above all, at universities through presidents of universities. **Entrepreneurship education at universities** should include modules such as entrepreneurial thought and action, creativity and idea generation, opportunity evaluation and business planning, entrepreneurial marketing, technology entrepreneurship or entrepreneurial finance. It is recommended to involve local business consultancies and successful local entrepreneurs in developing such curricula. The implementation of the programme “Know about Business” at vocational and other schools is good practice especially because foreign investors were involved in the establishment of entrepreneurial education modules, from 2009 onwards. Further, DAMU, the Akim of the Oblast, local business associations and the Chamber of Commerce should organise regular business start-up competitions (once per years), innovation award competitions (once per year) and organise far more workshops on how to write business plans, on how to start-up a business etc.

Further strengthen **entrepreneurship education within public administrations**. A lack of knowledge on the role of entrepreneurship, innovation and SME development as well as on how effectively promote them is hindering the implementation of strategic development plans designed at the national and regional levels. Advanced training will contribute to skills and capacity building within public administrations.

5.2.4 *Actions to improve the business environment*

Confusion between the roles and responsibilities of different institutions supporting SMEs is a problem for SMEs. To mitigate this problem, central programmes should be better coordinated and an effective governance system instituted for all SME programmes. The resulting simple structures and co-ordination arrangements at national level should be replicated at regional level. Actions could include:

- Regular meetings between all stakeholders in SME support;
- Ensuring that SME service providers operate under the same brand and are able to refer clients to each other based on their specific specialist offerings.

Procedures and permits, together with the degree of checking by different officials is an unnecessary time-wasting exercise for SMEs (and FDI). Administrative simplification should therefore be promoted at national level, with some involvement from regions. This includes:

- Providing a roadmap for regulations and operating one-stop shops so that SMEs know which procedures they have to use and what regulations they need to adhere to;
- Seeking to streamline and schedule inspections;
- Developing a forum for private-public dialogue and using this to identify particular regulations which form a barrier to development and identifying actions which can be taken.

Regarding FDI, it is important that any FDI promotion activities are linked to aftercare and linkage strategies, including procedures for handover of contacts and clear allocation of responsibilities.

6 RECOMMENDED PILOT ACTIONS - ATYRAU

Atyrau is dominated by the oil industry and its offshoots. It is proposed that there should be strategic conversations with oil companies in order to develop the local supply chain, as well as with medium sized downstream companies. To support this it will be important to address questions related to property and the creation of an appropriate industrial zone is envisaged. Finally, in order to stimulate the local SME sector which appears to lack dynamism, a specific initiative to support high growth companies is proposed.

6.1 Rationale

In addition to the general actions to enable and support linkages, the following specific pilot actions are proposed for Atyrau:

- Piloting “account managed” approaches to medium sized investors. By choosing a limited number of targets and spending time with them, the Linkage strategy team will learn more clearly what investors need and how this can (and cannot) be supplied by the local SME sector. These types of companies are ones which will diversify away from extraction, for example in working with plastics. Discussions suggest that there are ready opportunities to supply items which are currently imported or come from other regions of Kazakhstan.
- Strategic conversations with International Oil Companies. Although this may seem counter to support for diversification, it will give the strategy team valuable insights into the way in which foreign investors think and the opportunity to develop SME suppliers who may be able to supply a wider range of companies, including investors in other sectors. The oil sector is the most important and fastest growing sector in Atyrau and it would be wrong to ignore this. Although the previous attempts at linkage (through UNDP and developing the incubator) have met with limited success, it will be important to learn the lessons, since such activities have been successfully implemented in other countries, and there will now be more direct support under the Partnership Programme.
- A property-led initiative to stimulate and support SME supplier capacity building. It is clear that access to appropriate property (and utilities) is a serious constraint to SME development. In addition, co-location can assist in networking and creating a clearer local supply chain. In other countries such initiatives have been of assistance in attracting foreign investors since a well-coordinated supply chain can be seen to exist.

- Consideration of specific support to high-growth companies. Analysis shows that the SME sector in Atyrau lacks dynamism and those companies which do seek to grow quickly therefore need to be supported. In addition this can assist by giving high profile examples which can encourage other entrepreneurs.

6.2 Promote downstream diversification through piloting “account managed” approaches in support of mid-sized investors

As part of regional diversification, a pilot project should be undertaken to determine the feasibility of developing a new programme of dedicated on-going support for production-oriented, mid-sized inward investors (i.e. fixed capital investment of under \$25 million) is proposed. The pilot project should be used to test the practicality of local government adopting an “Account Managed” approach to supporting investors. There are a number of possible targets including Knauf (construction materials) and Sinopec (chemicals) and Chevron (polyethylene pipes).

Chevron’s Polyethylene Pipe Plant (see Box 2) illustrates the concept of downstream diversification from within the hydrocarbon sector, where the national construction-material supply chain has been augmented through import-substituting FDI.

The pilot project should be used to help the Akimat find new and better ways of working with production-oriented inward investors which are not in membership of the Foreign Investors’ Council.

The responsibility for securing the participation and agreement of targeted companies should jointly lie with the Regional and City Akims. The project should be run on a day-to-day basis through the SEC and involve the newly established Investor Service Centre (ISC) with its links to Kaznex Invest.

The project should be integrated into the SEC’s existing work programme and led by an experienced business development manager who could act as the main interface with the targeted company. The manager should be jointly appointed.

The pilot project would be designed as a learning model to aid deeper understanding of:

- How the targeted company’s investment plans for expansion can be pro-actively supported by local government?
- What the targeted company’s future supply needs will be?
- How can the role of existing local suppliers be maximised in satisfying these?
- What scope exists for future import-substitution within the targeted company’s local supply-chain?
- What opportunities does this provide for local suppliers to build more capacity and capability?
- What are the practical implications for supporting institutions with respect to

- the range of support needed/provided,
- how this may be best organised, and
- the working practices, resources and skills that will be needed?

Box 2. Chevron Polyethylene Pipe Plant: Downstream Diversification

Since 2003, Chevron has owned and operated polyethylene pipe production facilities in Atyrau. These facilities house five production lines which manufacture 17,000 tons of polyethylene pipe per year and are the first of their size and type in Kazakhstan. This represents an investment to date of around \$15 million. One hundred and forty people are employed and this is expected to more than double under current expansion plans. The facilities are wholly managed and operated by nationals.

The investment was made following Chevron's decision to support the government's strategy for diversification and as part of a wide review of all Chevron's activities in Kazakhstan.

The original production capacity of 15,000 tons per annum was dedicated to the manufacture of plastic pipes. These have non-corrosive, long-term benefits over steel pipes. The main input to the manufacturing process is polyethylene resin imported from Europe. Resin accounts for 70% of supply costs. In 2011, the plant began producing bonded metal-plastic pipes which can be used for heating and hot water supply. This has added 2,000 tons to the plant's total production capacity.

Both production lines bring new technology to Kazakhstan and supply products which previously were imported from Turkey, China and Russia. Product demand lies mainly in construction where there is also the potential to export across the CIS.

Chevron is currently building another plant on-site in Atyrau. This will produce up to 30,000 iron valves per year. German technology is used under license from Dravak. Local component suppliers have been difficult to find and Chevron is likely to source some of its "local" requirement from East Kazakhstan. As with the polyethylene pipe facilities, the new production line will be managed and operated by nationals. It is expected that around 180 additional jobs will be created, including a good number of engineers.

Chevron's decision to invest further in Atyrau, rather than Russia, was based on lower operating costs. Some of the future proceeds from pipe and valve manufacture may also be directed into renewable energy projects such as wind power.

6.3 Strategic conversation with local IOCs

Although there have already been a number of attempts to engage TCO, which have had limited success, it is nonetheless important to maintain and develop contacts with international oil companies since they are the key strategic large company in the region. Approaches to TCO should be done in the context of the Partnership Programme where they are listed as one of the targets, since this will also allow coordination with contacts at national level.

After having sought advice from the Ministry of Regional Development, the Ministry of Industry and New Technology, the Oblast and City Akims should pro-actively initiate a strategic conversation with appropriate IOC senior management to determine:

- whether scope exists for jointly developing diversification initiatives;
- whether interest exists in supporting and funding (in whole or in part) the design and preparation of an industry web site for the Atyrau Oblast which provides:
 - business information facilitating business to business contact between buyers and suppliers (including good businesses descriptions, current address and contact details etc. and sufficiently interactive to enable buyers and suppliers to safely update business details in real time etc.);
 - a consolidated picture of projected expenditures by IOCs on goods and services; and
 - real- time industry news on investments, contracts, jobs etc.; and
 - the facility to run real-time business surveys.

If the development of more intensive supply chain linkages in oil and gas-related activities is seen to be useful then the followings steps should be taken:

- bring together key representatives of the industry and responsible public sector bodies at the national, regional and local level to explore the shape and scope of an initiative in this sphere. This could be organised at a local/regional or a national level and therefore at this stage the identity of the organisation which should assume the lead in taking it forward is left open
- engage educational and research institutions who may support such an initiative through training and applied research
- forge twinning relationships with others (for example intermediaries in other countries such as Norway – see Learning Model 3) to learn from their best practice experience
- map out budgetary support needs for a supply chain development initiative and explore public and private sector interest in sponsoring activities
- specify the management needs for a targeted supply chain initiative
- evaluate possible host organisations as managers and nominate the preferred organisation.

6.4 Property-led initiative to stimulate and support SME supplier capacity building

Property-led initiatives are known to have something of a mixed track record of success. In the right context and circumstance, however, such initiatives can be an important and tool for business development. See Learning Model 7 for a successful example from the Czech Republic.

Where the Special Economic Zones in Kazakhstan are primarily promoted on the basis of industrial specialisation and tax incentives, the emphasis here would firmly be on the property component and the SME need for modern, well-serviced sites and premises for manufacturing, providing flexible spaces for

expansion, available at attractive and affordable rents, in preferred locations - and prepared in advance of need.

Moreover, adopting the “industrial park” concept could help reduce the unit cost of providing modern utilities and infrastructure (roads, power, water and waste disposal etc.) compared with the equivalent cost of individual provision.)

Our consultations revealed that finding affordable property of the right size and quality poses significant problems for small businesses in Atyrau. More generally, appropriate sites and property appear to be very scarce and only available at prohibitive costs. In addition to finding appropriate premises in this first instance, problems in accessing utilities provides further hurdles for businesses to get started. This set of issues is a significant obstacle to the development of a thriving small business sector and needs to be addressed urgently.

The existing incubator project in Atyrau has been operating since 2002 and has been home for a number of small businesses, some of which have since graduated and are operating elsewhere in the city. The scheme is managed with a very small management team with limited scope to offer business advice.

From the interview with the incubator representative it is understood that the demand for property and services outweighs supply and that there is a strong case for the provision of additional space and services, either on the site of the existing incubator (where there is expansion space) or elsewhere in Atyrau.

In the context of Atyrau Oblast, a feasibility study is recommended to be jointly undertaken by the SEC and DAMU to establish the viability of establishing an “Industrial Park” focused on the property needs of SME manufacturers with proven growth potential in priority sectors.

The study should draw fully on exemplar experience elsewhere within the CIS and Eastern and Central Europe (see Learning Model 7).

In line with proposed next steps for the other initiatives, it would be helpful to have a project champion tasked with moving it along. To make the case for further investment, the most common approach would be to explore the feasibility of a new and/or enhanced scheme covering:

- likely demand for premises and services – looking at the experience with the existing incubator and gauging demand from small business start-ups and established businesses more generally
- competing supply - assessing whether there are other incubator or industrial park schemes already on the market or about to be developed
- key partners and stakeholders – assessment of who might be interested in supporting the initiative in-kind or financially
- physical and service specification – assessment of how much extra land/space to develop, what unit sizes to offer and what architectural design/refurbishment standard to adopt

- budget and funding – a break-down of capital and running costs and likely sources of sponsorship and revenue
- organisation and management – who should be tasked with running the centre/park. This could be the existing incubator team who already have a relevant track record
- implementation – a detailed action plan with milestones.

6.5 Support to high growth firms

Access to finance is a major constraint to SME development. A key component of the problem is limited availability of start-up funding. There is also a dearth of SME services focused on key issues such as a) developing the fundamental strategy of the business and b) developing a strategy to scale the business and c) supporting the building of strategic capabilities in: marketing, exporting, product and process development, IT, IP creation and management, acquiring and using new technology, developing appropriate partnership strategies etc.

At the same time, the Atyrau City incubator met with only mixed success with respect to high-growth start-ups in the period 2000-2008/9, which may indicate a need for a change in focus.

It is recommended that a dedicated and fully integrated programme of support be developed for “high-growth start-ups” in the region. A feasibility study should be undertaken to drive the development process and ensure that the programme meets the region’s needs. The feasibility study should be jointly undertaken by the SEC and DAMU. The study aims should include the following:

- to develop an appropriate definition of high-growth start up for the region;
- to measure market need on the basis of this definition;
- to determine the scale and mix of support needed;
- to establish the level of resources (finance, skills etc.) required;
- to design a service delivery mechanism, based on a partnership approach; and
- to establish where such a mechanism best resides within the present institutional framework for SME support.

7 RECOMMENDED PILOT ACTIONS – EAST KAZAKHSTAN

Focused action is proposed around three initiatives: work with Azia Avto (to build a supply chain to an expanding car manufacturer); work with Metro (to build local supply to a major retail investment); and work with ore-processing industries (to develop suppliers that can supply to diversified investors).

Other opportunities will come along as there is more investment promotion, but these three projects will give the linkage team experience in working with SMEs and should assist in creating local networks, supply chains, and support structures.

7.1 Rationale

There are a number of different large companies and investments in East Kazakhstan and these can form the basis of pilots to demonstrate the ability to support linkages, build up credibility with the SME sector, and help the linkage team to better understand their potential role. Three specific initiatives are proposed:

- Continued work with Azia Avto since this company is known to have short term expansion plans and will require supplies which could be manufactured by companies within the East Kazakhstan metallurgical cluster. This gives the linkage strategy team a reason to visit SMEs and the possibility of developing a better local network.
- Work with Metro which has recently opened a retail store in Ust-Kamenogorsk, and has a stated policy of looking for local suppliers. Although currently purchasing for Kazakhstan is centralised in Astana, there is scope for the development of local suppliers and for the linkage strategy team to act as an intermediary.
- Work with suppliers to the ore-processing industry. Although this is, of course, no diversification from the extractive industries, on the other hand there will be opportunities to develop suppliers who may be able to supply other investors. Again work here will give the linkage strategy team experience in dealing with larger companies and foreign investors, and acting as an intermediary with local SMEs.

7.2 Azia Avto – the production of a range of cars with foreign partners¹⁸

Azia Avto is both a major distributor/car dealer with branches in all major cities across Kazakhstan and in 2003 established the only car assembly plant in Kazakhstan in Ust Kamenogorsk when it started producing Nivas of AvtoVAZ. In 2005, the company reached an agreement to manufacture Skoda cars. Two years later Azia Avto launched assembly lines to produce three new Chevrolet models, which were Chevrolet Lacetti, Chevrolet Epica and Chevrolet Captiva. The assembly plant has a capacity of 45,000 cars a year.

In the first half of 2012, it produced a total of 6,500 cars – an increase from 2,600 in the first half of 2011, 1,000 in 2010 and 269 in 2009. In 2012, output was split between four companies –Skoda 9% (Fabia, Octavia, Superb, Yeti), Chevrolet 22% (Aveo, Captiva, Cruze, Epica, Lacetti), Lada 33% (4x4s) and KIA 36% (Sorento, Mohave, Cerato, Sportage, Soul, Cadenza, Optima). The market share in Kazakhstan of new cars assembled by Azia Avto has increased from 46% (2,630 units) in 2011 to 52% (5,960 units) in 2012. The balance (around 640 units) was exported to Russia.

Though not strictly a foreign investor, Azia Avto represents a significant green field investment in a final assembly plant, which is dependent on the transfer of technology from its foreign partners to help it build up a plant with the capability of assembling a range of different cars which meet the particular quality standards of each partner.

A joint venture between Azia Avto (51% share), the Russian company AvtoVAZ (26%) and the private/state institution Supranational Company Social-entrepreneurial Corporation “Ertis” (23%) was established to invest \$400m in a new car plant in Ust Kamenogorsk. It will have with welding, painting and final assembly facilities and is expected to be in operation by 2015 with an initial output of 60,000 units, increasing to 90,000 by 2017 and a maximum capacity of 120,000 units in the future.

Currently the local supply of parts and services to Azia Avto is very low. It has tried to use local transport firms but had to invest in his own fleet due to the unreliability and poor quality of local haulage firms. However, the level of local content will need to increase with the opening of new assembly facilities. Initially it is envisaged that wiring harnesses, plastic parts and bulky metal parts such as fuel tanks would probably be the first components to be produced locally. No actions appear to have taken yet to develop the capacity of local firms to become acceptable suppliers to Azia Avto. Whilst some of the suppliers are likely to be foreign investors, the company would welcome the development of a programme to identify local firms interested in becoming local suppliers. It will be necessary to work with those with the best potential, assisting them to build up their production capacity and systems to meet the quality, delivery and price requirements of Azia Avto.

Although there has been considerable discussion between the company and the Akimat, before more action takes place it would be valuable to have a feasibility study to formally map the automotive value chain and to identify its main sources of international competitive advantage and the key productivity drivers. This in turn may help focus and direct the development of appropriate linkage strategies with the local supply and R&D base.

After this feasibility study, the following actions will need to be undertaken to increase the proportion of locally sourced parts and services:

1. A key role of supply chain adviser(s) employed on the FDI-SME linkage programme in East Kazakhstan will first need to understand the company’s strategic approach towards procurement and local sourcing and then secure the support of their senior management to engage in a supplier development programme along the lines set out below. The next step will be to build up an understanding of the short and medium term supply needs of Azia Avto – in terms of products, volumes, prices, timescale and the conditions that would have to be met before they could become an approved supplier. At this point the adviser and the management will need to agree a shortlist of items for local procurement for piloting the process.

2. For each product and service identified by Azia Avto (above), the supply chain adviser(s) will then need to search out and identify locally based companies (and perhaps potential inward investors from other parts of Kazakhstan and other countries though this will take time) wishing to be considered as potential suppliers. These will be identified from existing databases, local knowledge, referrals and 'meet the buyer events'. The adviser will then need to talk to the companies on the telephone. If they appear to be interested and suitable, the adviser will make a visit to carry out an initial diagnostic to assess their technical, managerial and financial capacity. The supply chain adviser will need to prepare a profile of each supplier for discussing with Azia Avto's Purchasing Department.
3. When an SME has been identified with the potential to be considered as a prospective supplier to Azia Avto, and also has the desire to be considered, the supply chain adviser will then need to broker a series of meetings between the parties. At these meetings the SME needs to understand Azia Avto's supply requirements including the full commercial, technical and financial implications, and Avto Azia would need to consider the suitability of the SME's current operation and capacity. As a result of these initial meetings, both sides will need to decide in principle whether the SME could become a possible supplier.
4. For those SMEs that wish to take discussions to the next stage, the SME will need to develop a detailed business plan which sets out what they must do to be a competitive supplier, the level of investment that would be required, the expected financial return that could be achieved (based on a set of pricing, income and expenditure assumptions) and how the investment will be funded. In many instances, this will require an input from the supply chain adviser and the financial specialist to help the SME to address all the implications that would arise.
5. In parallel, the adviser will help each potential supplier to build up a relationship with Azia Avto leading to supply discussions, trials and contracts or the provision of an appropriate undertaking from Azia Avto to justify going ahead with the improvement and investment plans.
6. It will be critical that when contracts are awarded, the local supply chain adviser continues to maintain close relationships with staff in Azia Avto and their new suppliers, to monitor performance and ensure that the supplier carries out the work that has been agreed with Azia Avto.

The process will require a supply chain adviser with a production engineering background with experience of working with SMEs particularly to help them strengthen their production capability and build up an effective relationship and a deep understanding of major customer's requirements and procurement processes. It will also require access to funding for those small firms needing to invest in new plant and equipment. This is a critical issue; in some countries, government grants are available to qualifying suppliers to fund this investment. The supply chain adviser will also have to work closely with Azia Avto to ensure that they provide a realistic level of commitment to provide confidence for the potential suppliers to go forward with their improvement and investment plans. The adviser will also need to liaise closely with relevant bodies in Astana to ensure that feedback is provided to the appropriate people responsible for the provision of Government financial assistance to Azia Avto, as this is likely to include commitments to increase local content.

7.3 Suppliers to Metro (and other possible foreign owned supermarket chains)

In March 2012, Metro, the German Cash and Carry Group opened a large food and non-food supermarket with an area of 4,900 sq m on the outskirts of Ust Kamenogorsk. It is the eighth store to be opened since 2009. All purchasing is handled centrally in Astana. Metro's web site¹⁹ makes clear that it is committed to local sourcing. "A special characteristic of the METRO sales concept is that the product range of each store is tailored to the requirements of the local target group. All METRO outlets purchase approximately 90 per cent of their merchandise from local producers and suppliers within their countries. Also the company generates new business for manufacturers and farmers and helps producers and suppliers in developing modern cultivation, processing and distribution methods." Its 10 principles of operation include:

1. Excellence in supply chain and quality management.
2. Strengthening of local suppliers.
3. Development of national infrastructures.

Given these principles, there are opportunities to develop a local sourcing programme linked to the company's 8 outlets.

It is noted that the company is in discussions with Kaznex Invest centrally regarding setting up a central unit to support promotion in agri-processing and supply to retail. In this case it would be helpful to coordinate actions, since involvement in aftercare will increase understanding, possibly help to attract further investors, and in any case purchasing by Metro is organised centrally. In what follows, it is therefore assumed that there will be a centrally located "supply chain specialist". If such a person does not exist then it will be important that someone from the Linkage Strategy Team in East Kazakhstan should perform this role, liaising with Metro centrally.

It is noted that there may be problems with the competitiveness of local food products relative to those from Russia, and also due to problems of transport. It is important that appropriate analysis is made to determine the feasibility of supply before extensive work is undertaken.

The following actions would need to be taken (assuming that the results of the feasibility study are positive):

1. The centrally-based supply chain specialist will hold a series of discussions with the senior management and the purchasing department of Metro (and other foreign owned supermarket chains in Kazakhstan) to see whether they would be willing in principle to set up a supply chain development programme aimed at increasing supply of goods and services from SMEs based in the pilot region. The supply chain specialist will then need to draw up a practical implementation programme with them, covering the following actions set out below:
2. The supply chain specialist will need to carry out a sourcing study with the purchasing department of Metro (and other supermarkets) to identify products (with information on specification, quality, volume and price) likely to be the best opportunities for being sourced

locally, due to potential savings arising from high import prices, transport costs and the need for fresh produce. This will need to take into account products that are already being sourced locally.

3. Based on this information, the supply chain specialist will then work with the local supply chain specialist in East Kazakhstan (and other pilot regions as appropriate) to identify potential SMEs who might have the potential of meeting Metro's specification, adopting the same procedure as outlined in the Azia Avto case study above.
4. For each product and service identified by Metro (centrally), the local supply chain adviser will then need to search out and identify locally based companies to be considered as potential suppliers. These will be identified from existing databases, local knowledge, referrals and 'meet the buyer events'. The adviser will then need to talk to the companies on the telephone. If they appear to be interested and suitable, the adviser will make a visit and carry out an initial diagnostic to assess their technical, managerial and financial capacity. The supply chain adviser will need to prepare a profile of each supplier for forwarding to Metro's Purchasing Department via the central supply chain adviser in Astana
5. When a group of SMEs have been identified with the potential to be considered as prospective suppliers to Metro, and also have the desire to be considered, the supply chain adviser will then need to arrange for the Metro central purchasing team to visit region and meet them. At these meetings each SME will need to understand Metro's supply requirements including the full commercial, technical and financial implications. At the same time Metro would need to consider the suitability of the SME's current operation and capacity. As a result of these initial meetings, both sides will need to decide in principle which SMEs could become possible suppliers.
6. For the shortlisted SMEs that wish to take discussions to the next stage, the SME will need to develop a detailed business plan which sets out what they must do to be a competitive supplier, the level of investment that would be required, the expected financial return that could be achieved (based on a set of pricing, income and expenditure assumptions) and how the investment will be funded. In many instances, this will require an input from the local supply chain adviser to help the SME to address all the implications that would arise.
7. In parallel, the local and central supply chain advisers will help each potential supplier to build up their relationship with the purchasing department in Metro, leading to supply discussions, trials and contracts.
8. It will be critical that the local supply chain adviser continues to maintain close relationships with Metro's new suppliers, monitoring performance and ensuring that the supplier carries out the work that has been agreed with Metro. Where necessary, the local supply chain adviser will need to help these potential suppliers to upgrade their production facilities and production/quality control systems to meet Metro's delivery, quality and pricing requirements, drawing on specialist consultants as required.

The process will require the support of supply chain advisers with a background of the food industry and experienced in working with SMEs to strengthening their production capability. The advisers may also require additional training in carrying out diagnostics and understanding the purchasing and supply policies

and procedures adopted by large supermarkets. The supply chain advisers will also need to be aware of all the main sources funding for the purchase of new plant and equipment and the expansion of the business. The local adviser and the central adviser will also need to work closely with Metro to ensure that they provide a realistic level of commitment so that potential suppliers have the confidence to go forward with their investment plans.

This approach should also be extended to other foreign supermarkets committed to increasing their local content.

7.4 Suppliers to the ore processing industry

There are three major companies in and around Ust Kamenogorsk, which are engaged in the extraction and processing of ores as follows:

- Kazzinc
- Ust Kamenogorsk Titanium Magnesium Combine
- Ulba Metallurgical Plant

Kazzinc is a fully integrated zinc producer, with considerable capacity for the refinement of copper, precious metals and lead production. The company is 69.9% owned by Glencore since its formation in 1997 through the merger of Eastern Kazakhstan's three main non-ferrous metals companies. The three were majority Government-owned, together with the Bukhtarma Hydro-Electric Power station (in East Kazakhstan), which provides sufficient power to cover, all Kazzinc's energy needs. Since the acquisition by Glencore's subsidiaries, the output of all the major products has increased by more than 50%.

It employs around 24,000 people in 4 locations in East Kazakhstan and 2 other locations. It has 6 mines, two zinc smelters and a lead smelter. It also has interests in gold and silver mining. In 2011, it produced 300,000 tons of zinc metal, 100,000 tons of refined lead, 53,000 tons of copper, 500,000 toz of gold and 5m toz of silver.

Ust-Kamenogorsk Titanium-Magnesium Industrial Complex of Kazakhstan (UKTM) is a former Soviet metallurgical Combine, which was floated on the Kazakh stock exchange in 1997. Based in Ust Kamenogorsk, the firm is engaged in the refining of titanium and magnesium products. It has recently set up a joint venture, Pusak Titanium, with a Korean company, Pohang Iron and Steel Company (POSCO), Asia's most profitable steelmaker. It involves an investment of \$50m to build a new titanium slab factory used to produce tubes and sheets, in Ust Kamenogorsk, which will begin production in 2013.

Joint Stock Company ULBA Metallurgical Plant, a subsidiary of the state enterprise Kazatomprom, has three main production divisions with a total employment of around 6,000 people in Ust Kamenogorsk. Its uranium division is the world's fifth largest producers of uranium fuel pellets for nuclear power plants. The main products include: natural U_3O_8 from ore, Uranium dioxide ceramic powder, Uranium fuel elements for VVER, RBMK and PWR reactors and services to recover spent uranium. The Beryllium Division is one of only three enterprises in the world with the capacity to process ore and produce finished products. During the last four years, more than US\$ 4 million was invested into the implementation and

development of new processes for Beryllium production. The main outputs are Beryllium metal ingots, Aluminium, Copper and Nickel Beryllium alloys, Beryllium oxide powder, Beryllium metal powder and metal-ceramic Beryllium products and billets. The third division is engaged in the processing of tantalum and niobium containing raw materials to produce a range of intermediate and finished products.

Follow up actions with the metallurgical plants. The companies operate a number of plants which were set up in the Soviet period, each of which are likely to have well established supply lines. Current procurement arrangements may not to be very transparent and it may be difficult secure their agreement to release information on their purchasing requirements. A high proportion of their purchases will consist of:

- bulk products (purchased on the basis of delivered price and delivery),
- specific specialist equipment with a proven performance purchased via importers and foreign specialist suppliers,
- a range of more basic products and services which are already being procured locally.

As a result, the scope for developing new linkages with locally based SMEs may be limited initially. Nonetheless, Kazzinc, is part of the new Partnership programme, which shows a willingness to open itself to the local supply chain and this programme should be used as a lever for further discussions and development. The local supply chain advisers should arrange a series of face-to-face discussions with each company's senior management team to establish whether new procurement policies are being introduced which might open up new opportunities for locally based SMEs. It is likely that that there are a number of common imported products and services required by each plant which would warrant being produced locally, because of the concentration of metallurgical plants in East Kazakhstan. An example is the supply of thermocouples, which are currently imported. A spin off company has been set up by Institute of Atomic Energy in Kurchatov to develop and produce a new range of thermocouples to service the nuclear and the metallurgical industries. Once these initial discussions have been held, a more detailed supply chain development programme should be developed, based on the same principles set out in the Azia Avto and Metro examples above.

NOTES

¹⁸ Azia Avto Half-year report 2012 and various web site references

¹⁹ See Metro's web site: www.metro.com.kz/servlet/PB/menu/1099370_12/index.html

8. RECOMMENDED PILOT ACTIONS - KYZYLORDA

Kyzylorda will find it difficult to attract foreign investment outside the extractive industries and all aspects of dealing with FDI will need to be coordinated. It is proposed that there are studies to determine what can be learned from previous investments which failed to materialise and whether it is possible to create better networking around agriculture and food-processing. More immediately there should be work examining opportunities presented by the supply chain to local oil companies, and a developing property based initiative to support SMEs. In the longer term opportunities will come from infrastructure improvements and this needs to be examined in more detail.

8.1 Rationale

Outside the extractive industries, it will be difficult to attract foreign investors to Kyzylorda. As background to further work two preparatory studies are proposed:

- A study to explicitly learn the lessons from lost investment projects. In view of the difficulties of attracting investors, there needs to be every effort not to repeat past mistakes. Specific note is taken of the failed investment by Pilkington which has only more recently been taken up by a Chinese investor.
- A study to discover whether it would be possible to establish better networking in agriculture and food-processing. This appears as an opportunity, but more work needs to be done to define the possible linkages and actual interest of companies involved.

For more explicit dealings with larger companies three additional initiatives are proposed:

- Strategic conversations with International Oil Companies. Although this may seem counter to support for diversification, it will give the strategy team valuable insights into the way in which foreign investors think and the opportunity to develop SME suppliers who may be able to supply a wider range of companies, including investors in other sectors. The oil sector is the most important and sector in Kyzylorda and it would be wrong to ignore this.
- A property-led initiative to stimulate and support SME supplier capacity building. It is clear that access to appropriate property (and utilities) is a constraint to SME development. In addition, co-location can assist in networking and creating a clearer local supply chain. In other countries such

initiatives have been of assistance in attracting foreign investors since a well-coordinated supply chain can be seen to exist.

- Examination of the opportunities for Kyzylorda coming from changes in infrastructure, associated with the proposed national rail network upgrading and completion of the West Europe-West China road corridor in 2015. Opportunities will not come instantly, but planning, in particular with regard to property needs will help to make the region more attractive and help SMEs to participate in any business.

8.2 Preparatory Studies

8.2.1 Key lessons from lost investment projects

Based on the experience of the difficulties of attracting investors, it is recommended that a joint study be commissioned by the City and Regional Akimats, to review all mobile-projects involving a flagship investor which have been lost in the last 5 years.

From the investor's perspective, the review should provide answers to the following:

- What were the telling spatial advantages of the location where the investment was eventually made?
- What were the relative spatial disadvantages which ultimately counted against Kyzylorda Oblast as the preferred location?

From the Oblast's perspective, and based on the above:

- Which relative spatial disadvantages could be strengthened through action at the regional level?
- What specific set of actions does this suggest? How could/should any related action plan be implemented by whom and when? And what resources and capabilities would be needed to implement any action plan?
- What are the key lessons, if any, for the working practices of the main business support agencies in the Oblast (Regional and City Akimats, SEC and ISC etc.)?
- How, going forward, can the main support agencies within the Oblast better partner a) with each other and b) with the relevant Ministries and their agencies?

The study should be jointly funded by the Regional and City Akimats. A project leader should jointly be appointed.

8.2.2 *A special initiative concerning agriculture and food processing*

There is scope further to support the agriculture and food processing sector in Kyzylorda, in particular as it relates to rice, since this is a particular speciality of the region.

If there was interest in moving the concept of a food processing/agriculture cluster in Kyzylorda forward, the next steps would be:

- explore interest amongst key stakeholders in the private and public sphere
- assemble a steering group involving local/regional and national organisations. This could be organised at a local/regional or a national level and therefore it is left open at this stage which organisation should assume the lead in taking it forward
- gather support for a technical assistance project supported by multinational agencies or bi-lateral donors (such as DANIDA, the Danish Agency for International Development).

8.3 SME supplier development in oil and gas

The interview programme identified a number of issues, especially regulatory issues (i.e. 1 year vs. 3 year contract tendering in the sub-soil sector) which may be constraining the growth and upgrading prospects of some SMEs, especially SMEs in the oil and gas supply chain.

A study should be commissioned:

- to clarify the regulatory issues that may exist round one and three year contract tendering;
- to establish the number of SMEs affected by this issue;
- to measure and assess how growth and upgrade prospects of these SMEs are being effected, especially where sub-optimal resource trade-offs are being forced on SMEs;
- to provide recommendations on actions which could/should be taken at the national and regional levels to alleviate any related regulatory constraints on SME growth and development;
- to develop a fully-resourced and well integrated action plan for appropriate business support agencies to implement within the region.

The study could/should be led by the SEC in partnership with DAMU and appropriate trade and industry bodies from the private sector. If the SEC does not have an appropriate study budget, the Regional Akimat should be approached for funding.

If the development of more intensive supply chain linkages in oil and gas-related activities is seen to be useful then the followings steps should be taken:

- discuss the possibility of a programme parallel to the Partnership Programme in other regions, noting that KazMunaiGaz is one of the partners in other regions in the initial implementation of

the programme and therefore may be able to bring experience from elsewhere to the context in Kyzylorda.

- bring together key representatives of the industry and responsible public sector bodies at the national, regional and local level to explore the shape and scope of an initiative in this sphere. This could be organised at a local/regional or a national level and therefore at this stage the identity of the organisation which should assume the lead in taking it forward is left open.
- engage educational and research institutions who may support such an initiative through training and applied research
- forge twinning relationships with others (for example intermediaries in Norway – see Learning Model 3) to learn from their best practice experience
- map out budgetary support needs for a supply chain development initiative and explore public and private sector interest in sponsoring activities
- specify the management needs for a targeted supply chain initiative
- evaluate possible host organisations as managers and nominate the preferred organisation.

8.4 Property-led initiative to develop SME manufacturing capability

Property-led initiatives are known to have something of a mixed track record of success. In the right context and circumstance, however, such initiatives can be an important and useful tool for business development. Enterprise Zones (e.g. in Scotland), Export Zones and Special Economic Zones (e.g. in the Ukraine) probably have the most chequered track record based on the balance of costs and benefits identified via *ex post* impact assessment. See Learning Model 7 for a successful example from the Czech Republic.

A feasibility study should be undertaken. The study would be designed to address 1) the under representation of manufacturing in the SME sector in Kyzylorda and 2) to promote diversification through SME manufacturing development. It is recommended that the study should determine the viability of establishing an “Industrial Park” focused on the property needs of SME manufacturers with proven growth potential which are either already located in Kyzylorda Oblast or could be targeted and attracted to the Oblast. The study design should take the following into consideration:

- The study should be demand-driven and focus in part on the immediate supply chain needs of the oil and gas sector.
- In particular, it should identify and scope opportunities which may exist for imported manufactured parts and equipment (either from other regions or from abroad) being substituted with local manufacturing. SME company targets should also be identified as part of study scoping.

- Using this company baseline, the study should assess future property needs against individual business growth strategies, related business plans and intentions, and the property needs associated with any related investment projects (planned or underway).
- Moreover, the study visits established there was “in principle” interest among leading oil companies to support initiatives designed to address manufacturing gaps in the local supply chain. Accordingly, the study should verify this interest and establish the exact type (financial or in-kind) and level of support that could/would be factored into any new government support initiative.
- The study should also take a longer view of manufacturing-related supply-chain needs which may possibly emerge from
 - the planned future development of non-military space activity at the Baikonur Cosmodrome; and
 - any future plans for the development of larger-scale solar power stations in the region.
- The emphasis of the study throughout, however, would be on the need of SME manufacturers for advanced/modern, well-serviced sites and premises, providing flexible spaces for expansion, available at attractive and affordable rents, in preferred locations - and possibly prepared in advance of need.
- Moreover, adopting the “industrial park” concept could help reduce the unit cost of providing modern utilities and infrastructure (roads, power, water and waste disposal etc.) compared with the equivalent cost of individual provision.)

The study should draw fully on exemplar experience primarily from elsewhere within the CIS and Eastern and Central Europe (especially the experience of the Czech Republic, for example). However, US experience of SME development round space technology infrastructures may also be relevant.

The study should be jointly undertaken by the Regional and City Akimats with SEC/ISC and DAMU providing project leadership and dedicated support. A joint working group should be established for this purpose.

In exploring the feasibility of such a scheme, it could be explored whether a sector-specific focus, for instance in the field of food processing, could help with sector-specific ambitions.

In line with proposed next steps for the other initiatives, it would be helpful to have a project champion tasked with moving it along. To make the case for further investment, the most common approach would be to explore the feasibility of a new and/or enhanced scheme covering:

- likely demand for premises and services – gauging demand from small business start-ups and established businesses more generally

- competing supply - assessing whether there are other incubator or industrial park schemes already on the market or about to be developed
- key partners and stakeholders – assessment of who might be interested in supporting the initiative in-kind or financially
- physical and service specification – assessment of how much extra land/space to develop, what unit sizes to offer and what architectural design/refurbishment standard to adopt
- budget and funding – a break-down of capital and running costs and likely sources of sponsorship and revenue
- organisation and management – who should be tasked with running the centre/park. This could be the existing incubator team who already have a relevant track record
- implementation – a detailed action plan with milestones.

8.5 Opportunities resulting from the improvements in transport infrastructure

Change in the transport infrastructure will affect a number of different areas and provide new opportunities for development. There needs to be a feasibility study to examine how the developments will affect growth prospects in a number of sectors, in particular transport and logistics, tourism, and new technologies (for example aerospace and solar power). It is suggested that a combined feasibility study would avoid duplication and provide a quantitative baseline against which prospects can be evaluated. It is important that realistic figures are produced, for example, for the potential number of tourists, before detailed actions take place.

With regard to transport and logistics, it is recommended that a study be commissioned to undertake an initial appraisal of SME property needs associated with Kyzylorda City's possible emergence as a regional transshipment and logistics hub following the proposed national rail network upgrading and completion of the West Europe-West China road corridor in 2015.

- In scoping future property needs, the study should be demand-driven and focus on the needs of SME transport and logistics specialists with good growth prospects, especially rail/road transshipment specialists.
- As part of any property needs assessment, the study should identify:
 - Relevant SME transport and logistics specialists which are already present in Kyzylorda Oblast; and
 - Relevant SME transport and logistics specialists who could possibly be attracted to Kyzylorda Oblast in the future.
- Using this company baseline, the study should determine the scope which may exist for:

- aggregating future SME property needs (transport, depots, container depots, storage depots and warehousing, office premises, customer service centres for goods transshipment etc.) and
- assessing the potential which may exist for developing “regional transshipment hub” as a possible best means of meeting SME property needs in aggregate.
- “Aggregation of need” should be based on an assessment of business property needs derived from individual business growth strategies, related business plans and intentions, and the property requirements associated with any related investment projects (planned or underway).

The study should be jointly undertaken by the Regional and City Akimats with SEC/ISC and DAMU providing project leadership and dedicated support. A joint working group should be established for this purpose.

9. LEARNING MODELS

This chapter includes 10 learning models, showing different aspects of support to FDI-SME linkage in other countries. They are:

1. The enterprise development and training program in Azerbaijan, financed by BP and designed to support local SMEs to a standard where they could become part of the supply chain to oil companies
2. Work around the Minera Yanococha gold mine in Peru, assisting in local diversification in the SME sector
3. The Norwegian experience in developing a local supply chain for the oil industry
4. Development of a business network in Cambridge, UK
5. Development of a unified network of business support institutions in Canada
6. Use of major public investment in the railway industry to attract foreign investment to the UK
7. Strategic planning of industrial zones in the Czech Republic
8. Overall strategies for skills development in Singapore
9. Support for innovation in the US
10. Development of labour market intelligence in the UK

1. EDTP Azerbaijan

Description of the approach

BP supports enterprise development in Azerbaijan in order to build a sustainable local supply chain, stimulate domestic industry and underpin the company's license to operate in the Caspian region. The Enterprise Development and Training Program (EDTP) was launched in Azerbaijan in June 2007 to boost BP's localisation efforts by offering targeted training and development services for SMEs. It is a good example of FDI being an important source of demand for local SMEs and raising the capabilities and quality to international level quickly and effectively. It is sponsored by BP and its co-venturers in the Sustainable Development Initiative (SDI) department and managed by the SDI. Currently, the scope of the programme focuses on SMEs located in Baku and Sumgait, the two largest cities of Azerbaijan.

EDTP aims to assist local SMEs to improve their capability to supply the oil and gas industry in the country. The ultimate goal of the programme is to contribute to the healthy and transparent development of the local economy.

It is a hands-on outreach programme which assists companies in three main areas:

- Marketing and sales;
- Compliance with buyer requirements for quality, safety and the environment;
- Training and education.

The participating SMEs are chosen by both market research as well as self-enrolment. SMEs, which complete the EDTP process successfully, are prepared and qualified to participate in BP supply tenders in Azerbaijan. They are also expected to be well positioned to meet the opportunities offered by the oil and gas industry across the wider Caspian and Black Sea regions and beyond.

The programme is implemented by an independent local contractor (AZERMS LLC-Azerbaijan Enterprise Risk Management Services). The service is completely free for beneficiary SMEs and the cost of the programme is covered by BP and co-venturers.

The assistance provided through the programme comprises a 4-step process that analyses companies' technical and commercial gaps, designs a customised upgrade plan, provides targeted technical assistance to implement the plan, and then follows up and monitors the progress.

There is no selection process and/or criteria for SMEs to benefit from EDTP. An SME is eligible to participate in the programme if it is an existing enterprise with ongoing business registered in Azerbaijan, and provides products or services of interest to the oil and gas industry. It should also be a private local company and/or a joint venture with the State Oil Company of Azerbaijan Republic (SOCAR).

Activities

The process through which SME development services are delivered is highly interactive. This interaction is very important for the success of the programme. If an SME meets the eligibility requirements, it undergoes a preliminary gap analysis, which is actually a business assessment, by the EDTP team.

During this stage, the company is mainly required to demonstrate its willingness and commitment to development, and show that it is ready to work with the EDTP team and fulfil the requirements for becoming a competitive supplier.

After agreeing on the way forward, a service agreement is signed between the SME and the EDTP. Once the agreement is signed a detailed gap analysis looking at both technical and commercial areas for improvement is performed.

Then EDTP team meets with SME and works with them to develop an action plan based on the results of gap analysis. At this stage, the EDTP team works closely with owners, general managers, senior management, and staff of the SME to ensure that the approaches taken are suitable for the company. The action plan elaborates the quality management requirements, actions to meet international standards and requirements for technical upgrades as well as staff training needs.

To work on the technical issues, EDTP arranges one-on-one visits and meetings with an industry expert to provide assessments and recommendations. These specialised consultants provide highly technical insight and guidance to SMEs. They also advise on international quality certification requirements.

It is the SME's responsibility to implement the actions; so the EDTP team mainly facilitates and guides, and works closely with the SME to ensure the full and effective implementation of the action plan.

SMEs which implement their action plans are required to maintain performance records and meet all the requirements set in the action plan. An SME graduates from EDTP when the action plan is successfully implemented. SMEs benefited from EDTP find this approach very useful as it helps them build capacities and internalise the whole process of developing their management and technical capacities. More importantly it leads to a change of culture in SMEs which is quite crucial for them on the way to becoming a competent supplier.

Results

The EDTP yielded quite impressive outcomes in 5 years:

- More than 1,000 companies have taken part through trainings and preliminary assessments.
- Detailed gap analyses were performed and action plans were produced for 360 SMEs.
- More than 100 companies have completed the programme successfully.

- Beneficiaries of the EDTP passed through the robust and competitive tender processes of the buyers, and more than a half of the graduated SMEs won big contracts with them.
- It has assisted local companies in securing contracts valued at more than \$184 million with other local and international companies. \$125 million of this amount has been with BP in Azerbaijan.
- In 2011 alone, contracts worth more than \$62 million were signed by EDTP graduates with BP.
- There are also other remarkable results in relation with development and competitiveness: since EDTP's inception participating local SMEs have invested about \$9 million in new capital equipment and technologies. They hired approximately 530 new employees.

Lessons for Kazakhstan

- The outcomes of the programme show the importance of SME-FDI linkages in increasing competitiveness and upgrading of SMEs, which in turn leads to job creation and economic growth.

The whole process results in raising productivity, developing skills and competencies and reaching international standards at SMEs.

- It is very important to have basic key determinants at the beginning. When EDTP started the local conditions were ready for a linkage programme: there was the critical mass -FDI in oil and gas sector (some 15-20 investors)- and a pool of local SMEs looking for new clients and new markets. And there was the leadership of BP which wanted to build a strong supplier base and increase local content of its contracts. Even if in the case of government-driven programmes it is important to be sure from the beginning that FDI is involved in and committed to the linkage programme; and that they have ownership as potential customers.
- On the programme implementation side, the main reason for success is having a dedicated team – AZERMS- with required qualifications. The team was provided clear tasks, responsibilities, business processes right at the beginning. During implementation stage, they continuously monitored the progress and learned from mistakes. This way, they kept improving their processes and systems in order to serve SMEs in a better way.

Equally important is the quality of services provided to SMEs. The team implementing EDTP is formed by a group of professional certified consultants who have experiences in similar type of activities. The core staff is local, however foreign experts are invited to join for the high-complexity sectors and some specific development needs.

The core staff implements an on-going institutional development programme for themselves. International experts engaged share their experience with the local staff with the aim to advance the consulting capacity in the region.

Also, SMEs express their satisfaction with the quality of services and service providers.

- The promotion of such a programme among SMEs can be a problem, at least at the beginning. EDTP team also had issues in attracting SMEs and convincing them to participate in the programme. They started with organising introductory workshops, tried to reach SMEs through

various channels such as the chambers, unions, government departments responsible for SME supports.

However they realised that none of these approaches are sufficiently effective. So they decided to identify and visit companies one-by-one, sit with them and discuss their growth and competitiveness problems.

This approach made a big difference and they started to build a good portfolio of beneficiaries. So, it is very important to be in close interaction with SMEs. Today, the programme is well-known in the region and SMEs approach them directly and express their need to benefit from the programme.

- The SME development process should be supported with additional, complementary services involving FDI. One important service provided by the EDTP is the ‘meet the buyer events’.

In a recent example, the beneficiaries of the EDTP –some 100 SMEs- were able to present their business services, ranging from operations support, engineering, construction, and logistics to waste management and other sectors. More than 150 international companies and organisations also participated in the event, which was set up as an exhibition. Local SMEs were given the opportunity to exhibit their products and present their services, and met representatives of leading FDI in the sector. Potential foreign buyers explored the local market and found out first-hand what is available. The event included special meeting facilities and translation services provided as part of its support to the business linkages. There were also facilitators from the EDTP team to offer any support that the exhibitors and guests may need. At the end of the event, companies reported about 400 interactions with buyers and were able to make about 300 business linkages with potential suppliers and partners, finding new opportunities to work together. In total, companies signed 52 new contracts as a result of the event.

- Another important issue is to follow good practices in programme design and implementation. Also monitoring and evaluation has become an integral part of the programme. An ex-post evaluation is being conducted in the 5th year of implementation following international good practices. The process is managed externally by the IFC for the sake of neutrality. The evaluation looks at
 - the results of the programme relative to its objectives and the effectiveness of it in supporting entrepreneurship and supplier development;
 - its processes to provide recommendations to strengthen programme management and help ensure its continued success; and
 - successes and failures to identify lessons that might be applied to new programmes being considered in other parts of the world.
- Due to the high level of success, a decision has recently been taken to continue implementing the programme. BP is of the opinion that the EDTP should be expanded to cover other regions of Azerbaijan. Also, AZERMS emphasises the need for extending it to other sectors.

- Other components of local supplier development efforts of BP and its co-venturers complement the EDTP. One of them is the Supplier Finance Facility (SFF) which was launched in 2007 as an initiative aimed at supporting local business development through the provision of transparent sources of funding for SMEs. A pilot supplier finance facility project was launched in 2006 and its success has led to the development of this new initiative. SFF Phase Two provides access to a further \$15 million of financing to BP's local contractors. Of this, \$6 million has been funded by BP and its co-venturers. The IFC and Micro-Finance Bank of Azerbaijan (MFBA) have contributed \$6 million and \$3 million, respectively. The IFC has signed a separate agreement with the MFBA to implement the SFF.

Source: compilation from interviews with BP and EDTP team, and the materials provided by BP.

2. Minera Yanacocha, Peru

Background

Minera Yanacocha, Latin America's largest gold mine, is situated in Cajamarca, one of Peru's northern provinces. Rich in Incan history, the city boasts a population that is mostly indigenous. Since 1993, when IFC first invested in mine, the population has swelled from 30,000 to 240,000 in 2004. About 8,000 new jobs have been created, directly or indirectly related to the mining activity. In addition to being the primary employer in Cajamarca, Yanacocha is one of the country's largest taxpayers.

IFC partnership with the mine dates back to financing committed in 1993 and 1994, which was fully repaid. In June 1999, IFC's Board approved a new \$100 million debt financing package consisting of a \$20 million direct loan and \$80 million syndicated loan, now fully disbursed.

Drivers

Social and political controversy surrounding the mine, as well as a desire to strengthen the surrounding community, led IFC to undertake a programme of SME development to catalyse economic diversification and reduce dependence on Minera Yanacocha within the region.

Activities

The goal of Minera Yanacocha SME Linkages Programme is to build a diversified and sustainable economic base extending beyond Yanacocha's mining operations. Therefore, the program works to strengthen SMEs both within Yanacocha's value chain and beyond it. For SMEs within Yanacocha's value chain, primarily in the transportation and construction sectors, supplier development efforts centre on a total quality management programme to improve productivity and optimise company management abilities. The program focuses on raising safety, environmental and business standards.

The Minera Yanacocha Programme extends to SMEs outside the company's value chain as well, particularly in the handicrafts (ceramics and textiles) and agribusiness sectors. For example, in the ceramics and textiles sectors, local artisans have received technical and managerial training to upgrade their skills in product design and production capacity.

Marketing, another main focus for cash-strapped SMEs, has been addressed through group marketing events such as "Business Encounters" which spread costs and offer broad exposure to firms shopping for

vendors. Finally, based on what local businesses identified as a critical need, the team developed an advisory services programme to improve financial management and business processes. This has helped participating SMEs become more creditworthy, opening up a wider range of financing options from local banks and microfinance institutions.

In parallel to these SME development efforts both within and beyond Yanacocha's own value chain, the program has worked to strengthen the enabling environment for business linkages. For instance, in conjunction with the local development, IFC developed an administrative simplification project which drastically reduced the number of days it took to register a small business -from 100 to 3- resulting in a sharp increase in registration of small businesses, bringing them into the formal sector in the first time. These SMEs are now legally able to compete for Minera Yanacocha and other firms' contracts, as well as access financial services from banks. In addition, Newmont asked IFC to work with local municipality to optimise its revenue management systems and ensure that Newmont's tax payments and other contributions to the budget effectively fund basic social and economic infrastructure. IFC also plans to provide assistance to help build the institutional capacity of the Asociacion Los Andes de Cajamarca (ALAC) so that it can manage regional SME development efforts over the long term, after IFC exits. And lastly, in parallel with these efforts, Newmont has made significant investments in underlying socioeconomic conditions in the region -for example, in healthcare and education.

Results

SMEs bidding for contracts with the mine and with other enterprises increased their cumulative sales to \$10,5 million by 2005, comprising a \$4 million gain in new sales over the previous 18-month period.

150 entrepreneurs from the emerging construction sector received extensive training, and 25 SMEs became more competitive by acquiring modern technology and know-how. A capacity building programme for small agribusiness enterprises generated 54 new jobs and tripled aggregate sales to more than \$2 million over the previous 15-month period.

Lessons for Kazakhstan

- Conduct extensive stakeholder consultations at the beginning of programme design to obtain buy-in from all parties involved. This ensures alignment of programme objectives with company and community objectives.
- Start small and scale up. Low-profile feasibility studies can become pilot projects. After pilot projects become viable, go for second round grant funding for a longer term project.
- A Memorandum of Understanding (MoU) is critical. The MoU should define clearly the roles and responsibilities of all parties involved in the SME Linkages Programme.
- Field-based implementation is key. At the beginning of the SME Linkages Programme, IFC did not have a local presence in Peru. Hiring a local SME coordinator was crucial for day-to-day programme management and ongoing programme coordination with the mine and partner organisations.

Source: Jerkins B., Akhalkatsi, A., Roberts B. and Gardiner A. (2007) Business Linkages: Lessons, Opportunities, and Challenges. IFC, International Business Leaders Forum, and the Kennedy School of Government, Harvard University

3. Oil supply chain, Norway

Large scale North Sea oil and gas reserves have been harvested by Norway since the 1960s. Against the backdrop of the 1972 Norwegian referendum not to join the European Union, the Norwegian Ministry of Industry moved quickly to establish a national energy policy. Norway decided to stay out of OPEC and to keep its own energy prices in line with world markets. Moreover, it decided to spend the revenue (known as the currency gift) in the Petroleum Fund of Norway. The Norwegian government established its own oil company (Statoil) and awarded drilling and production rights to Norsk Hydro and the newly formed Saga Petroleum.

The North Sea turned out to present many technological challenges for production and exploration, and Norwegian companies invested in building capabilities to meet these challenges. A number of engineering and construction companies emerged from the remnants of the largely lost shipbuilding industry, creating centres of competence in Stavanger and the western suburbs of Oslo.. Stavanger also became the land-based staging area for the offshore drilling industry.

Developing domestic capabilities on the basis of the oil & gas exploration was a clear priority for the Norwegian government. This was reflected in the establishment of Statoil as the national oil company and in specifying licenses which often required technology transfer from foreign companies. “The government was systematically evaluating and rewarding foreign oil companies who were contributing to domestic capacity building. Concessionary procedures were used as an instrument to force international companies to engage in technology transfer and local content development.”

“In Stavanger, Statoil, which has grown to become an internationally organised oil company known for its technology orientation, has played a major role in orchestrating collaboration as a demanding user, as a project sponsor and as a provider of information and expertise. Since 1991, Statoil has operated a program to develop and support innovative supply companies, providing opportunities for the development of local firms.”

An important role in furthering the supply chain was played by the University of Stavanger (UiS). “Established in 1969 as a regional college, UiS always saw its role as servicing the educational needs for local industry and developed key capabilities in relevant fields such as petroleum engineering.” Also based in Stavanger, Rogaland Research was created in 1973 by regional government authorities, initially as the research arm of the college. However, it soon developed into an independent research institute with capacities to undertake applied research and testing for the oil and gas industry.”

In the early stages of the development of Norway’s oil and gas industry, there was limited knowledge and expertise in the country about offshore exploration. Concerned about the need for Norwegian participation, the Government placed strong emphasis on developing capabilities in the local SME sector

as well as in universities. This was partly done by requiring foreign oil companies to set up fully operating affiliates in Norway, and partly by encouraging them to recruit Norwegian nationals.

Various policies were used to facilitate the entry of SMEs into the supply chains controlled by IOCs. Although foreign suppliers were not excluded, measures were enacted to enhance the competitiveness of domestic firms. All the policy measures mentioned below were in place until the mid- and late 1980s:

- Norwegian SMEs had to be included on the list of bidders, and the Government had to be informed about the firms listed on the bidders list before a tender was opened. The Government could insist that specific Norwegian firms be included, but it could not exclude foreign firms from the list. The appropriate Ministry also had to be informed as to which company the job would be awarded before the contract was signed. Only once, however, did a decision change after Ministry intervention.
- As part of the concessionary process, IOCs had to present plans on how the local content would be increased on a competitive basis.
- When negotiating concessions, IOCs were also encouraged to enter into R&D projects with Norwegian universities and research institutions, which resulted in both enlarging and deepening the Norwegian knowledge base on offshore oil and gas. It was enlarged in the sense that the education system was included, and it was deepened by including not only development projects but also scientific research. This helped boost the ability of Norwegian oil companies to adjust better to new challenges, such as price fluctuations, field development in deeper water and smaller petroleum fields etc.
- IOCs were encouraged to offer technical assistance to local SMEs so that they could learn the business from experienced organisations and personnel. Joint ventures or cooperative agreements in engineering were also fostered. Associated transfers of technology helped improve the country's industrial position.
- Statoil and other Norwegian oil companies started a practice of informing the domestic industry about plans and solutions for future field developments, which helped domestic SMEs prepare future business opportunities. IOCs also adopted this approach, thus giving domestic suppliers a competitive edge vis-à-vis their foreign competitors.
- The Government had a deliberate strategy to "Norwegianise" the domestic oil business through contracts and labour relations. This worked in favour of domestic SMEs relative to foreign firms, without jeopardising economic efficiency.

Lessons for Kazakhstan

- It is possible to use the terms of oil concessions to influence the way in which international oil companies link with local SMEs. The Norwegian example shows that this can be more sophisticated (and effective) than current Kazakh laws related to local content and procurement.
- The approach taken has encouraged technology transfer and local SMEs are not limited to participation in low technology projects and products.

- An approach which gives SMEs the chance to understand future directions and plan for this is beneficial to both local SMEs and to the oil companies.
- The approach has had spin-offs in terms of technological development and education which are not directly related to the oil industry.

Source: UNCTAD, based on Heum, 2002, and Sachi Hatakenaka, Peter Westnes, Martin Gjelsvik and Richard K. Lester: The Regional Dynamics of Innovation: A comparative case study of oil and gas industry development in Stavanger and Aberdeen. Massachusetts Institute of Technology Working Paper Series.

4. Cambridge Network, UK

The *Cambridge Network* (www.cambridgegnetwork.co.uk) was established in 1998 by an influential group comprising the Vice-Chancellor of the University of Cambridge and a number of successful local business men. Cambridge Network is a membership organisation based in the vibrant high technology cluster of Cambridge. The network brings together people from business and academia to meet each other, share ideas, encouraging collaboration and partnership for shared success. Deliberately mixing sectors and ideas, the Cambridge Network has been the trigger for many productive relationships as business in the region has grown.

The mission of the organisation is to encourage collaboration for shared success. The network helps to “raise Cambridge’s game” to compete on the world stage through the following activities:

- Fostering closer relationships and sharing ideas between businesses, academia and individuals through a calendar of Member *events*
- Facilitating peer learning groups and sharing high quality training under the umbrella of the *learning collaboration*
- Connecting people and companies for research and partnering through the network’s knowledge of local expertise and its comprehensive *member directory*
- Enabling member companies to find and attract quality candidates to work in Cambridge through a Recruitment Gateway
- Facilitating co-operating, action and resource sharing by being a focal point for organisations in the Cambridge region.

Lessons for Kazakhstan

- Networking, and institutions which support networking, are important for local SME development. This has an impact through allowing chance meetings to happen and SMEs to become aware of opportunities.
- The network is the result of effective partnership working – it is not set up as a government programme and works because it is seen as an “honest broker”, rather than an official institution.

5. Canada Business Network, Canada

Canada Business Network (www.canadabusiness.ca) is supported by the National Government of as well as the Provincial Governments through a network of service centres across Canada. The aim of the network is to provide small businesses with the resources they need to grow and prosper, including a wide range of information on government services, programmes and regulations.

The network is organised as a collaborative arrangement among federal departments and agencies, provincial and territorial governments and not-for-profit entities. It has an electronic national portal which includes information and referral organisation as well as links to the relevant provincial/local contact points. There is a centre in each province/territory working with partners in communities across the respective region, providing businesses with numerous service access points.

The organisation's aims are to promote entrepreneurship and innovation through:

- Reducing the complexity of dealing with multiple levels of government
- Consolidating business information in one convenient service
- Enabling businesses to make well-informed business decisions in a global economy
- Contributing to success through sound business planning, market research and the use of strategic business information.

Canada Business Network is closely integrated in a wide network of partners and organisations who work in related fields. This includes organisations focusing on community development and community enterprise. For example, the Community Futures Network (www.communityfuturescanada.ca) works closely with Canada Business Network. Community Futures was established in 1986 by the federal government in response to the severe economic and labour market changes faced by rural Canadian communities. There are 269 Community Futures Offices across the country which are offering a wide range of services to entrepreneurs (and would-be entrepreneurs) to help them with their business planning and development.

Lessons for Kazakhstan

- There is considerable value in a unified business support network, allowing SMEs to know where to go and what services are available and giving the opportunity for cross-referrals.
- The network is effective because it works on the basis of partnership and mutual interest.

6. Hitachi Rail Project, UK

This case study shows the way in which a single large foreign investment has come to a relatively poor region of the UK and the ways in which local and regional bodies are seeking to exploit the opportunities for local SMEs.

Summary

Hitachi Rail chose to base its European headquarters in the UK as the result of a large public procurement contract to upgrade intercity express trains. The contract was initially announced as being worth up to £7.5bn and lasting 30 years, although it has subsequently been reduced with current estimates around £4.5bn.

Durham won the competition to be the location for a new £70 million factory creating directly 500 jobs, despite not being on the initial shortlist.

The local Council and its business support services, as well as local business associations have performed a number of actions to try to ensure that the supply chain stays within the region.

Timeline

March 2007	Announcement of tender for Intercity Express Programme
March 2009	Announcement of preferred bidder – consortium including Hitachi Rail Europe Hitachi announces new plant in one of three locations on confirmation of the contract Hitachi announces that it “wants to involve a large number of UK-based suppliers in the contract”
March 2011	Contract announced and location confirmed as Durham, new 42,000m ² factory
May 2011	Supplier event – 1800 people from 1000 companies attend Quote from head of European operations: <i>Mr Dormer declined to give an estimate of supplier jobs or procurement spend but said Hitachi was keen to build firm, long-term relationships. “The IEP contract is for 30 years. It’s clearly advantageous for suppliers to be as close to us as possible. We are looking for value and quality.”</i> <i>He said the north-east’s tradition of manufacturing, its skills base and access to rail, roads and ports all influenced the choice of site. So too did Nissan.</i> <i>“We spoke at length to Nissan. They were highly complimentary for the people of the north-east and the skills they have.”</i>
May 2012	Event for construction related companies
July 2012	Contract finally signed

Activities

Existing company database collated by the local council – used to generate support during the negotiations and also to find suppliers when opportunities are available.

Clear focus by the local council regarding FDI – this opportunity was pursued because it fits with the local supplier and skills base.

Organisation of local engineering firms – existing engineering forums (partly subsidised) and annual exhibition event including opportunities to “meet the buyer”

Organisation of specific supplier engagement events, including ones on a sectoral basis.

Development of a website to keep suppliers informed and to help to keep the database up to date.

Council has strategic account managers for biggest firms and investments – aftercare is important, including in developing linkages with local companies.

Lessons for Kazakhstan

Coordination between public and private sector is important for success. Lobbying for the location was not only done by the local council but also by business representative organisations who provided evidence of interest and skills in the region.

Work after the investment is important in order to maximise local benefits. It is important to have an identified local contact with large investments in order to keep them in touch with local suppliers and opportunities.

Existing skills and supplier base is important. The location chosen was an area where there was formerly a large train factory (it closed in 1984 with the loss of 1,200 jobs). Although this is some time ago, local SMEs still have skills and focus which was developed from that time.

FDI investors talk to each other and will advise each other, even from different sectors. This is another reason to emphasise aftercare.

Skills and infrastructure are vital in forming the context which attracts FDI.

7. Industrial Zones, Czech Republic

Background

Property-led initiatives are known to have something of a mixed track record of success. In the right context and circumstance, however, such initiatives can be an important and useful tool for business development. Enterprise Zones (e.g. in Scotland), Export Zones and Special Economic Zones (e.g. in the Ukraine) probably have the most chequered track record based on the balance of costs and benefits identified via *ex post* impact assessment. The Special Economic Zones in Kazakhstan are currently promoted on the basis of industrial specialisation and tax incentives

Industrial Zones in the Czech Republic

The Industrial Zone initiative in the Czech Republic is an example of an alternative approach which highlights how a property-led approach to economic development can attract flagship investors and promote SMEs linkages and bring economic benefits to a wide range of regional economies including less favoured regions.

Following two pilot programmes in 1998, Industrial Zones were rolled out on a national basis out in the period between 1999-2006. Thereafter the programme has largely focused on the establishment and support of Strategic Industrial Zones (see below).

The programme is administered by the Ministry of Industry and Trade of the Czech Republic and is designed to provide support which will stimulate and support the construction and regeneration of industrial sites and related infrastructure by municipalities, associations of municipalities, regions, development companies, and significant investors.

Programme funding, in the form of direct grants, interest subsidies, returnable financial assistance, special-rate transfer of state assets, is distributed through the Ministry from the national budget. The Ministry defines the rules and lays down the conditions for the provision of assistance which will help:

- to sharpen the competitiveness of the local investment environment, especially in economically weak and structurally backward regions; and
- to lay the foundations for the creation of new jobs.

The initiative includes four sub-programmes focused on “building individual capabilities” and the “revitalisation” of industrial zones:

- Preparation of industrial zones;
- Regeneration of abandoned “brown-field” industrial sites;
- Construction and renovation of rental buildings; and
- Accreditation of industrial zones – (skills training and development for inward investors).

Strategic Industrial Zones

In 2006 the initiative was expanded to include Strategic Industrial Zones (SIZs). These cover a minimum of 200 hectares (or minimum of 100 hectares when the zone is in a built-up but unused area). SIZs are prepared for flagship investors committed to significant investment and create a guaranteed number of jobs. These zones are built on the basis of Government Resolution and are an important instrument for attracting strategic investors in:

- advanced industrial technologies
- construction and development of technology centres and centres of business support services
- science and research

NOŠOVICE is an example of SIZ success. It is the largest industrial zone in the Czech Republic located in the one of the most development territories of the Region of Moravia- Silesia. The zone comprised a 322 hectare site which was prepared for the South-Korean carmaker, Hyundai. It is the largest project tied to the interest of a single flagship strategic investor in the Czech Republic. Strong linkages were developed with suppliers in near neighbouring industrial zones.

Achievements:

- 101 industrial zones supported, including 8 strategic industrial zones, (see main sites below);

- Subsidy from the national budget worth CZK 9 billion
- Private sector investment worth to CZK 210 billion
- Average occupancy of 70%
- 606 (mostly SMEs) located in industrial zones
- 103 054 people employed

Lessons for Kazakhstan

- Property based initiatives are important even if it is sometimes difficult to identify the exact added value. Through planning, industrial zones can work to assist SMEs in supplying FDI. The existence of suitable industrial zones and the possibility of locating supply chains there can be a reason for investors to choose a particular location.
- There is a need for an overall strategy in dealing with property and in any explicit or implicit government subsidies.

8. Singapore Skills Development

Background and Description of the Development System

Singapore represents a very successful model of FDI-related skills development and a rare example of a concerted national effort operating at different levels, involving multiple institutions and policies and private-public sector collaboration. The Singapore case exemplifies a tight “coupling” between economic development strategies and skills development policies. The so-called Singapore Skills Development System (SSDS) is a unique example of a concerted, long-term national effort to align the attraction of FDI with skills development to promote economic growth. The Singapore system is a national government-driven initiative which incorporates multiple institutional levels and diverse policies. It is characterised by very close public-private collaboration.

The Singapore model is prominent due to the fact that three major institutions aligned successfully the demand and supply of skilled labour by continuously modifying education and training. The **Ministry of Trade and Industry** (MTI), responsible for broad economic development policies, has been supported by a range of semi-autonomous agencies, firstly by the **Economic Development Board (EDB)**, an agency that had the primary function of attracting FDI and meeting foreign investors’ demands for the required skilled personnel. This linkage (economic development and skills) is important in and of itself. In addition, the EDB has worked with other agencies to meet the skills demands of foreign investors. Initially, the EDB was given the authority to grant incentives. Tax incentives have played an important part in encouraging FDI and its expansion in Singapore. Further, the EDB functioned effectively as a one-stop centre for investors by working closely with all government ministries, and also linked to other government bodies.

Apart from key financial incentives, the EDB, acting as a single point of entry and communication, took a wide view of managing investments, including assisting potential investors with accommodation and schooling. The relationship did not end with the investment, but acted as an important ongoing

diagnostic tool, while further opportunities were explored, after the investment took place, for the size and complexity of the investment to be extended. In the 1970s, EDB started offering support for training through grant and scholarship schemes, such as the Industrial Training Grant Scheme and the Overseas Training Grant Scheme. The EDB also started working with foreign transnational companies to set up joint training centres for various industries.

A second key institution in the SSDS is the **National Manpower Council (NMC)**. It brings together stakeholders from the Ministry of Trade and Industry (MTI), the Ministry of Education (MOE), and the Ministry of Manpower (MOM) to jointly manage the supply of skills given current and estimated future demand. To accomplish this task, the NMC sets targets and coordinates with universities, polytechnics, institutes for technical education, and other industry-specific training institutes.

Third, the **Ministry of Education (MOE)** has formal jurisdiction over education and training institutions and is responsible for setting and implementing long-term human resource development plans. Early in Singapore's industrialisation, the government and the Ministry of Education initiated an accelerated school building program:

- To meet the dramatic increase in primary and secondary school enrolment, large numbers of teachers were recruited and trained.
- Two-year vocational education was introduced in secondary schools.
- Greater emphasis was given to technical education.

The three institutions excelled by distributing the tasks as follows:

- The EDB focused on skills to meet investors' skills needs;
- The NMC focused on coordination of skills supply;
- The MOE focused on long-term human resource development, while a range of other institutions focus on short- and medium-term skills needs, notably vocational skills.

An important aspect of the SSDS is the channels of communication across different institutions. These channels of communication exist at different levels in the SSDS, and include high-level official inter-ministry and interagency meetings among bodies such as the MTI, the EDB, the NMC and the MOE. The result is a coordinated and inclusive governance model resulting in Singapore's advanced education and technical training policies.

Activities and Results

One of the most important features of the SSDS has been the provision of incentives for foreign investors to establish training facilities and centres from the late 1960s onwards in collaboration with the state, while guaranteeing the foreign investors the right to hire a proportion of the graduates from these training centres. For example, 44% of the Rollei institute graduates were employed by Rollei and other German firms. Further, the EDB participated in the management of these centres, sometimes taking them

over after some years, or integrating these centres with the existing vocational training apparatus in Singapore.

The model initially started on a small scale where the EDB targeted specific companies such as Rollei (Germany), Phillips (Netherlands) and Tata (India). The Singapore Government used a combination of tax and grant incentives to convince transnational corporations to locate in Singapore and then to get involved in the establishment of training centres.

With the success of these individual centres in the early 1980s, and the need for a much higher flow of skills given the higher levels of foreign investment, the EDB expanded its focus: the Japan-Singapore Government Training Centre (specialising in metal machining, electrical fitting, electronic instrumentation), the German-Singapore Institute for Production Technology, the French-Singapore Institute for Electro-Technology, and the Japan-Singapore Institute of Software Technology were established during 1979–84.

Lessons for Kazakhstan

The success of the Singapore model in the context of sustainable, demand-oriented skills development was and still is dependent on the identification of lead agencies, ministries or actors for policy implementation with clearly defined responsibilities; the existence of clear implementation plans at multiple levels (e.g. national, state/province and institutional); the setting of achievement targets and milestones within a fixed timeframe; the assessment and improvement of the fit between existing institutions and mandates and the policy and, if applicable, their capacity building in implementing the policy.

Transferred to the Kazakh context, the Singapore model may address the following actors while specifying the following duties and responsibilities:

- The “Regional Manpower Council” assesses what skills are demanded by foreign investors’, large companies and SMEs. A first step is the assessment and survey as suggested in the Action Plan above. The assessment should be accompanied by professional evaluations and surveys and tools of forecasting. The Council adjusts the forecasting of skills demand at a yearly basis and based on two mandatory meetings per year with local stakeholders (see Actions 4 and 5 of the Action Plan). It serves as platform for communication and as tool of assessment with regard to regional skills demand.
- The oblast’s Akimat (departments of economic development and entrepreneurship), DAMU and representatives (preferably presidents) of higher educational institutions which participate regularly in meetings with the Regional Manpower Council focus on skills supply and are responsible for aligning skills demand (as assessed by the Regional Manpower Council) with specified and modified vocational training, study programs, internal coaching etc. at the regional level. The modification and implementation of the development of curricula, vocational training, internal coaching etc. must be reached within the next three years. Further, regular exchange programs between highly skilled local and foreign labour and firms should be enforced which may serve as a temporary substitute of currently non-existent training centres set up by local and foreign actors which have successfully promoted skills development in Singapore.

- The Kazakh Ministry of Education and Science (specifically the regional Department of Education executing the national strategy), the Akim of the Oblast and the Ministry of Economic Development and Trade focus on long-term human resource development and have the task to better reach the local level through direct interaction with the Regional Manpower Council (or Regional and Sectoral Councils) to support long-term skills development planning. Further, the Ministry of Economic Development and Trade is best suited to address and put pressure on foreign investors to directly invest in skills development, for example through establishing local training centres or at least through facilitating labour exchange programs.

Reading: Kuruvilla, Sarosh; Erickson, Christopher L.; Hwang, Alvin (2002): An Assessment of the Singapore Skills Development System: Does it Constitute a Viable Model for Other Developing Countries? In: World Development, Vol. 30, No. 8, pp. 1461-1476.

9. USBIR, USA

Background

The Small Business Innovation Research (SBIR) program is a highly competitive program that encourages United States small businesses to engage in federal research and development (R&D) which has the potential for commercialisation. Through a competitive awards-based program, SBIR enables small businesses to explore their technological potential and provides the incentive to profit from its commercialisation. By including qualified small businesses in the nation's R&D arena, high-tech innovation is stimulated and the United States gain entrepreneurial spirit as it meets its specific R&D needs. The mission of the SBIR program is to support scientific excellence and technological innovation through the investment of federal research funds in critical American priorities to build a strong national economy and create spillover mechanisms and networks among small innovative business, public research institutes and universities.

The SBIR program was established under the Small Business Innovation Development Act of 1982 with the purpose of strengthening the role of innovative small businesses. Enactment of the SBIR was a response to the loss of American competitiveness in global markets. Congress mandated each federal agency with allocating around four per cent of its annual budget to funding innovative small firms as a mechanism for restoring American international competitiveness (Wessner 2000). Subsequently, Congress passed numerous extensions, the most recent of which extends the SBIR program through 2017.

SBIR targets the entrepreneurial sector because that is where most innovation and innovators thrive. However, the risk and expense of conducting serious R&D efforts are often beyond the means of many small businesses. By reserving a specific percentage of federal R&D funds for small businesses, SBIR protects the small business and enables it to compete on the same level as larger businesses. SBIR funds the critical start-up and development stages and it encourages the commercialisation of the technology, product, or service, which, in turn, stimulates the U.S. economy.

The US Small Business Administration serves as the coordinating agency for the SBIR program. It directs the agencies' implementation of SBIR, reviews their progress, and reports annually to Congress on its operation.

Activities

The SBIR Program is structured in three phases:

Phase I. The objective of Phase I is to prove the feasibility and commercial potential of the proposed R&D efforts. SBIR Phase I awards normally do not exceed \$150,000 total costs for 6 months.

Phase II. The objective of Phase II is to continue the R&D efforts initiated in Phase I. Funding is based on the results achieved in Phase I and the scientific and technical merit and commercial potential of the project proposed in Phase II. Only Phase I awardees are eligible for a Phase II award. SBIR Phase II awards normally do not exceed \$1,000,000 total costs for 2 years.

Phase III. The objective of Phase III is for the small business to pursue commercialisation objectives resulting from the Phase I/II R&D activities. The SBIR program does not fund Phase III. In Phase III, the innovative small business must find co-financing by private or other partners. In the third stage, public funds are matched with private and/or other investments. The applicant has to find a strategic cooperation partner and an investor who provides matching funds. The partner might be a large industrial company, a venture capital firm, an individual “angel” investor, or any combination of the above mentioned options. Phase III is promoting the product development to commercial markets using private sector financing. The creation of public-private partnerships is a major goal of the U.S. SBIR Program. This enforcement of collaboration together with co-financing contributes considerably to establish spillovers and innovative research networks. The active involvement of private actors further enhances the chances of success to commercialise an invention.

Results

Until 2009, over 112,500 awards have been made totalling more than \$26.9 billion. Around 15,000 firms and 400,000 scientists and researchers have been involved in the Program, and around 50,000 patents (7 per day) have been generated.

The SBIR induced scientists involved in biomedical and other research to change their career path. By applying the scientific knowledge to commercialisation, these scientists shifted their career trajectories away from basic research towards entrepreneurship. The SBIR awards provided a source of funding for scientists to launch start-up firms that otherwise would not have had access to alternative sources of funding. SBIR awards have had a powerful demonstration effect. Scientists commercialising research results by starting companies induced colleagues to consider applications and the commercial potential of their own research. New forms of networking and collaboration among diverse research partners have had been promoted inducing valuable spillovers.

Lessons for Kazakhstan

Transferred to the Kazakh context, the careful adaptation of the SBIR Program may contribute to better access to financing for small businesses to fund innovative R&D which is still a challenge for Kazakh businesses due to a non-existent venture capital market and limited access to funding for R&D. More importantly, an adapted program may contribute to better align innovative actors from diverse research institutions and departments (small business, large business, public research institutions,

universities and related Technoparks and Business parks). Financial promotion of innovative projects should be linked to close forms of collaboration resulting in the promotion of spillover effects. This form of financial support linked to active research collaboration is essential to establish not only formal but, above all, informal institutional changes and modifications. DAMU is in the leading position to administer such as program similar to the role of the Small Business Administration in the United States. It should be underlined that the success of the SBIR program depended and still depends on the high degree of transparency regarding application procedure, selection process and research outcomes and a continuous transparent and highly professional monitoring and evaluation of the Program. Further, the staff managers of the SBIR have a comprehensive knowledge and understanding of new and innovative technologies. They are able to assess the economic dimension of a new idea and product as well as the potentials of its commercialisation. Therefore, it is not about implementing a new program; it is about managing a program highly professionally to contribute to innovative development and network building in a regional innovation system.

Sources: <http://www.sbir.gov/about/about-sbir> accessed on 28 and <http://www.nist.gov/tpo/sbir/> accessed on 28 November 2012.

Reading: Wessner, C. (Ed.). 2000. *The Small Business Innovation Research Program (SBIR)*. Washington D.C.: National Academy Press. Wessner C. (Ed.). 2009. *An Assessment of the SBIR Program at the Department of Defense*. Washington D.C.: National Academy Press.

10. Labour Market Intelligence, UK

Sector skills assessments undertaken by Sector Skills Councils (SSCs) should be authoritative, high quality analyses of sectoral skill needs in the UK. They will be major research projects for SSCs that will result in a main report (as well as supplementary outputs, outlined below) that will be produced and disseminated on an annual basis.

In terms of content, sector skills assessments should cover, at a minimum, the four key elements outlined below. They should also identify the implications for concrete action, setting out the key skills priorities that the SSC will be taking forward. They should draw on a wide range of data sources, including robust, recognised secondary data such as national statistics, as well as an SSC's own primary research. To ensure assessments are truly authoritative and have distinct value, SSCs also need to design methodologies that enable the views of employers in the sector to be incorporated into the analysis.

What drives skill demand?

This element should include a rigorous analysis of the current and recent performance and competitive position of the sector (and/or key subsector(s) as appropriate); the economic structure and condition of the sector; the factors driving this performance and position; and the skills implications.

The section should address the following sorts of questions:

- How does the sector define success, competitiveness and good performance?
- How well is the sector performing? What role do skills play?

- What market and regulatory pressures are employers facing?
- What are the current and historical economic conditions of the sector?
- What are the characteristics of the key markets, its products and services?
- How has the current position been shaped, and what external factors are driving change e.g. demographics, globalisation, technological developments, legislative and regulatory requirements?
- Are consumer tastes in the sector changing? To what effect? Is the sector responding effectively?
- How is the sector responding to changes in demand? What business strategies are being pursued to secure competitive advantage?
- What impacts do these changes have on skills demand, and are skill deficiencies contributing to any difficulties?
- How is this influencing the performance and competitiveness of the sector?

Current skill needs

Leading on from the assessment of the drivers of change, the assessment should include a high quality and robust analysis of current and expected skill needs in the sector and recruitment issues. This section should include an assessment of the detailed character of skill needs, and differentiate across the full spectrum of skills including basic skills and employability skills, intermediate skills, and higher skills. It is important for the assessment to establish the balance between varying levels of skills to assess whether the balance of skills is right to enhance future competitiveness.

In assessing the nature of sectoral skill needs, the section also needs to explore the character of these needs more generally, focusing on the type of skills (e.g. whether technical, generic and/or transferable skills) and also the diversity and makeup of the workforce holding different skills.

The assessment needs to fully understand these changes in respect of the sector as a pointer to appropriate action, and influencing employer practices.

This section of the assessment should also link back to the analysis of performance and product/service market strategies within the sector to explore whether there exists now, or there is a possibility of, a low skills equilibrium in the sector, the impact that this might have on growth and productivity, and whether steps are being taken to move the skills position up market.

Anticipating what lies ahead

This part of the assessment is particularly important if Sector Skills Assessments are to offer strategic insights, and to have value over the longer term. It will build on the analysis of current drivers of skill demand/skill needs, turning to examine the possible/likely future trends in the sector and anticipating the associated skill needs these may bring. SSCs are expected to undertake foresight research looking at the potential drivers of skill demand in the future, the likely character of future skills demand, the factors that

will underpin such demand, and associated development needs in their sectors. These factors might include, for example, economic and labour market trends, developments in science and technology as well as environmental change, and changing perceptions and values.

A range of methodologies should be used in this foresight work. It is expected that SSCs will undertake and/or analyse existing employment forecasts for their sectors. They will also produce skills scenarios for the future, constructing a plausible, preferred future for the sector. These involve examining economic/sectoral/occupational trends and looking at likely future prospects. They can give a good insight into future trends (although they are dependent on the future relationship between economic variables being themselves similar to those in the past or, at least, predictable). SSCs may also want to supplement forecasts from existing sources with specially commissioned sector forecasts. SSCs should draw conclusions about the skills implications of these forecasts, adding interpretation and further contextualisation.

These 'hard' quantitative projections should be supplemented by analysis of 'softer' data that also gives a feel for the likely 'shape' of the future through 'scenario building'. A range of scenarios for the sector should be developed that will demonstrate what the next 5-10 years may hold. Great value can be added to attempts to understand future trends by developing 'alternative' future states and trends, allowing for the possibility of different and perhaps more unexpected outcomes and conditions. A small number of scenarios should be developed, across a plausible range of outcomes, which are both relatively high possibility and likely to have a high impact on the sector. From this, a preferred scenario should be developed, and its implications for skills identified. The preferred scenario or vision - should set out the ambition for the sector: the optimum skills mix needed in order to maximise future performance and competitiveness. In doing this, the assessment will help set out clearly where policy action is needed to fulfil future ambitions for the sector, enabling a more strategic approach to skill development.

Geography

It is crucial that the assessment pays attention to geographical differences in the sector, highlighting where specific skills issues are particularly manifest. Data from robust secondary data sources at individual regional level must be used, and this should be supplemented by bespoke sector information collected specifically for that sector where there are significant gaps in knowledge. Any primary research carried out by SSCs should complement and not duplicate national data. Sector skills assessments should also include analysis of regional differences to enable regional partners to identify key sector skills issues. Any key differences in skill needs in volume, intensity and character by region should be clearly articulated. Where skill needs are common across some, or all, regions this needs to be clearly stated.

Assessments should also ideally benchmark sector data in the UK against other countries (e.g. major competitors like the USA) and global blocs (e.g. European Union and the OECD countries) to establish the relative position of the sector internationally, drawing on robust, recognised data sources.

Lessons for Kazakhstan

- Although prediction of future skills demands is important, it is difficult to do and requires input from a variety of different stakeholders. Partnership working is important, and information cannot be derived purely from official statistics.

- The operation of labour markets is not simple and work needs to continue over a period of time in order to understand what is happening.
- At the point that skills lacks become apparent it is often too late to do anything, since development of skills is a long term process. Some form of prediction, even if it is qualitative, is therefore necessary, and this needs to be used to influence the offerings of educational institutions.