A Framework for Dialogue on National Market Participation and Competitiveness
Acknowledgements

The WBCSD National Market Participation Initiative
In October 2009, the WBCSD launched the National Market Participation Initiative, led by BG Group, to help companies engage in dialogue with governments on how to unlock the win-win benefits of participation in markets by competitive local firms.

Member Participation

The Initiative was chaired by Charles Bland (BG Group) with valuable assistance provided by Michael Zarin (Vestas). Important contributions were made by Kate Sullam, Phillip Siegle, Louise Vendelbo Mogensen, Patrick Grover, Kevin McKnight, Fabio Abdala, Francesca Palmisani, Tamara Fabric, Beth Stewart, Stephen Blakeley, Ediane Monteggia, Jeffrey Davidson, Anita Malhotra, Elizabeth Wild, Khalid Rajabov, Jamal Tagiyev, Karl Fennessey and Cecile Ortlieb.

The Initiative chair would like to acknowledge the contributions to the development of this document from Dalberg Global Development Advisors, Dr. Michael Warner (Local Content Solutions) and Jill Shankleman. The Initiative chair would also like to thank Matthew Lynch and Marcel Engel for their contributions and coordination of the publication.

About the World Business Council for Sustainable Development (WBCSD)

The World Business Council for Sustainable Development is a CEO-led organization of forward-thinking companies that galvanizes the global business community to create a sustainable future for business, society and the environment. Together with its members, the council applies its respected thought leadership and effective advocacy to generate constructive solutions and take shared action. Leveraging its strong relationships with stakeholders as the leading advocate for business, the council helps drive debate and policy change in favor of sustainable development solutions.

The WBCSD provides a forum for its 200 member companies - who represent all business sectors, all continents and a combined revenue of more than $7 trillion - to share best practices on sustainable development issues and to develop innovative tools that change the status quo. The Council also benefits from a network of 60 national and regional business councils and partner organizations, a majority of which are based in developing countries.

www.wbcsd.org

Disclaimer

This publication is released in the name of the WBCSD. Like other WBCSD publications, it is the result of a collaborative effort by members of the secretariat and senior executives from member companies. A wide range of members reviewed drafts, thereby ensuring that the document broadly represents the perspective of the WBCSD membership. It does not mean, however, that every member company agrees with every word.

Copyright © WBCSD, March 2012
ISBN: 978-3-940388-69-8
Photo credits: ENI, Flickr, Istockphoto, World Bank
Table of Contents

Acknowledgements

Executive Summary

Introduction
  Background
  Why focus on competitiveness?
  The WBCSD National Market Participation Initiative
  Local content requirements
  Supporting improvements in competitiveness
  Towards a virtuous circle

Dialogue Framework

First Stage:
  Identification of shared objectives and key competitiveness issues / drivers
  Overview
  Shared interests & objectives
  Key competitiveness issues and drivers
  Outputs from Stage 1

Second Stage:
  Develop a plan and define success
  Overview
  Options for action
  Measurement & metrics
  Outputs from Stage 2

Third Stage:
  Implementation
  Overview
  Evaluate and manage performance

Conclusion

Footnotes
References
Annex A – Metrics Summary
The World Business Council for Sustainable Development (WBCSD) National Market Participation Initiative has developed a Framework for dialogue between large companies and governments on local firm competitiveness. Competitiveness is a key enabler of the participation of local firms in the value chains of large investments and of local economic development more broadly.

Governments and investing companies often have closely-aligned interests and shared objectives regarding local firm participation. This document presents the case that these shared interests are best realized through working to improve the competitiveness of local firms rather than through mandatory requirements (‘local content rules’). While such mandatory requirements can boost local firm participation in the short term, substantial evidence suggests these measures can be counterproductive and often impose significant costs on consumers and investing firms, increase project risk, reduce competition and innovation, and discourage investment.

Competitiveness means the ability of a firm to deliver orders with levels of cost, scheduling, reliability, and quality equal to, or better than, those of its peers, and to win contracts in an open market. The competitiveness of local firms is affected by a number of microeconomic drivers, to which investing companies can make important contributions, and macroeconomic drivers, which are primarily the responsibility of national public policy. While requiring time and resources, dialogue and collaboration between investing companies and governments in this domain is warranted for three key reasons:

- **Maximization of investor contributions.** The impact of many investor-led programs to improve local firm capabilities and competitiveness will be determined by the surrounding environment created by government, via policy instruments and key public goods such as infrastructure and education.
- **Collaborative action.** There are actions that can deliver clear benefits for all parties but which require a level of formal collaboration between the company, governments and other stakeholders (e.g. training and skills development partnerships, cluster formation).
- **Better policy development.** Government policies and programs often need insight and information which only the private sector holds, such as employment and training needs, or hidden constraints to improved productivity.

The Framework described in this document is based on identification of the shared interests of companies and governments to facilitate a constructive dialogue on appropriate policy and corporate responses, and in some cases, coordinated or collaborative action. It is primarily addressed to an investing company audience, but could also be a useful resource for governments and other key stakeholders.

The key elements of the Framework are:

- **Shared interests and objectives.** The starting point of the Framework is the identification of the shared interests of companies and governments for the specific context in which a dialogue is to take place.
- **Drivers of competitiveness.** A simple model of the key microeconomic and macroeconomic drivers of competitiveness is presented, to create a platform for a more focused dialogue on priority areas for improvement.
- **Menu of potential actions.** The Framework assists the identification of appropriate actions by companies and by governments and other stakeholders to support the realization of shared objectives, including options for collaboration or collective action.
- **Metrics.** A simple measurement model is presented to help evaluate progress and to guide effective management of actions, supported by a set of metrics to assess the performance of local firms, as well as impacts on local economic development and the business of investing companies.
- **Case studies.** The Framework is supported by a number of case studies demonstrating the contribution of WBCSD member companies to sustainable local capacity development.

The following graphic presents a summary of the Framework, highlighting critical outputs at each stage, and how these outputs inform the dialogue process.

This Framework is not presented as a comprehensive or definitive treatment of the complex issues regarding firm competitiveness and national market participation. However, it is a general guidance resource which investing companies and other stakeholders can use to better navigate the specific issues they face in a particular context.
1. Identify the key competitiveness drivers.
2. Develop a plan and set tangible actions.
3. Evaluate and manage success.
Introduction
Background

Companies engaged in foreign direct investment can have a significant positive impact in the countries and communities where they do business. They can provide jobs, procurement opportunities, new ideas, and an infusion of cash to the local economy, bolstering growth and fostering stability. These positive impacts can have the effect of increasing the economic value of investments as well as strengthening host government support.

Large investors have clear incentives to utilize local suppliers of goods and services where these suppliers meet quality and performance specifications and are competitive on price. The availability of competitive suppliers is often a key factor in decisions regarding location of production. In some sectors, such as oil, gas and mining, companies may have additional important incentives to use particular local suppliers (e.g. as part of building relationships with communities in proximity to operations); however, these local firms will, in practically all instances, also be required to meet quality and price benchmarks.

Many governments are increasingly focusing on the involvement of local firms in the investor’s value chains as a primary lever for achieving many policy objectives, often through instituting mandatory requirements for local hiring and procurement. While such requirements can boost local firm participation in the short term, evidence suggests that these measures can be counterproductive and often impose significant costs on consumers and investing firms, increase project risk, reduce competition and innovation, and discourage investment. As a result, such policies rarely generate the greatest possible benefits, either for government or for the investing company, in the long term.

Why focus on competitiveness?

An alternative option is to pursue enhanced competitiveness. For the purposes of this document, we define competitiveness as the ability of a firm to deliver orders with levels of cost, scheduling, reliability, and quality equal to, or better than, those of its peers, and to win contracts in an open market. For a small carpentry shop in a remote region, this definition can mean enhancing their ability to win contracts both from the investor and (for example) local homeowners. For a large equipment manufacturer or a steel fabricator, this can mean elevating technical skills to compete for regional or global subcontracts to an engineering procurement and construction contract (EPC) bid. In each of these simple cases, there may be opportunities for the both investor and government to play a role in enhancing sustainable improvement in competitiveness.

When a firm’s competitiveness improves, the benefits do not accrue only to its owners or shareholders. There are also benefits for investing companies and for government. For an investing company, improved competitiveness among the local firms it engages can mean lower costs, tighter scheduling, greater reliability, higher quality, or any combination of the four, as well as reducing the need to seek suppliers from further afield. In each case, an executive could expect a positive commercial impact. These benefits go beyond profits in the short term; with a trustworthy supplier, an investor can sign long-term contracts that allow supply-chain planning to reach further into the future.

Governments benefit from improved competitiveness as well. Their populations acquire skills and new technologies, and a stronger flow of contracts to local firms brings more money into the community and strengthens the tax base. Expanding production means expanding employment too, and not just...
by the local firms themselves; their new workers’ demand for goods and services creates additional jobs. Also, as firms in one industry become competitive, their expertise may be shared with firms in other industries, so that competitiveness in one area can lead to growth in others. All of these outcomes can help the economic development of a country, boosting living standards and contributing to stability.

Governments may have concerns about the short-term consequences of focusing on competitiveness. It may require investment of public resources and may take time to translate into improved performance; this could result in reduced business activity for some firms and uncertain employment outcomes. The body of evidence presented in this document suggests that even taking these immediate issues into account, governments and host countries will be better off actively seeking to improve the capabilities and competitiveness of locally-based firms. For example, the perceived short-term employment gains from local content requirements may actually be the result of the transfer of jobs between sectors of the economy, rather than genuine employment growth.

Case Study 1 documents an illustrative example of how a focus on competitiveness and an appropriate enabling policy environment can have significant benefits for local firms, investing companies and the host country government.

The WBCSD National Market Participation Initiative

Members of the WBCSD are among the world’s most active cross-border companies, and they regularly encounter issues relating to national market participation (NMP) – the involvement of local firms in the companies’ supply or value chain. In October 2009, WBCSD launched the NMP Initiative to help its members elevate the discussion of NMP to a new level of cooperation and collaboration with government and other partners.

The first phase of the WBCSD initiative used a series of interviews with companies, industry associations, and international organizations, to take stock of the main challenges and opportunities in this evolving field. The second phase was intended to extend the analysis and explore ways in which local firms and economies could participate in, and benefit from, large inward investments in their countries.

This document is the result of that second phase. It presents a Framework for evidence-based dialogue on NMP between investing companies and governments. It offers a stepwise process and a menu of options for investing companies to pursue this dialogue, but it does not make specific prescriptions for managing the relationship with government. The Framework has been composed to be accessible to non-experts; the depth of technical detail is appropriate for corporate decision-makers, ranging from procurement managers to executives overseeing country-level or regional-level strategies. To the furthest possible extent, the Framework tries to account for the wide differences that may exist between countries, industries, types of companies, and degrees of local economic development.

With this document the WBCSD hopes to advance three objectives:

1. To move the discussion of NMP past negotiations over restrictive requirements and towards a search for strategies and actions that achieve long-term benefits for both sides.
2. To transform what can be an adversarial relationship with government to one that is cooperative and can draw in other partners from the public, private and non-governmental sectors.
3. To broaden the NMP discussion to include spillover benefits to firms that may be outside the investing companies’ supply chains.
Vestas’ role in the creation of an internationally competitive wind power supply chain in China

Vestas’ investment in developing the capacity of local firms

In 2005 Vestas Wind Systems, the world’s largest wind turbine manufacturer, decided to fully localize its supply chain in China. It has now built up a complete production value chain creating 3000 Chinese ‘green’ jobs in the process. Vestas has contributed extensively to the creation of an even more robust Chinese wind energy industry. The partnerships and collaboration Vestas have build up with local suppliers are a critical aspect of these efforts. Vestas’ local supply chains, and the partnerships that form them, support the construction of high-quality wind turbines from large factory complexes in Tianjin, Jiangsu and Inner Mongolia, while serving to raise the capacity of local companies and producing high-quality components on a global basis.

Competitive supplier development: impacts and benefits

At present, Vestas is partnering with over 80 local suppliers throughout the industry. Through these partnerships, Vestas have been transferring technology and know-how to supply chain partners in China for several years. All of the suppliers in China join Vestas in a ‘win-win’ business partnership aimed at jointly improving the suppliers’ manufacturing systems and component quality, as well as strengthening the supplier’s ability to achieve a consistently high-level of performance. This process involves long-term close cooperation, training, knowledge and technology transfer – ultimately benefiting China’s wind industry as a whole and ensuring Vestas has high-quality, locally-produced components. As a result, Vestas is increasingly able to produce more quickly, and with improved quality.

For the turbine designed for China (the V60-850 kW turbine), Vestas is using 20 existing local suppliers and has begun new partnerships with an additional 75 component suppliers, sourcing over 2,000 parts for the turbine’s development. In addition, Vestas has 25 new local suppliers for approximately 2,500 indirect materials (such as tools and equipment). Every year, Vestas continues to improve Chinese sourcing capabilities; with the exception of the V60-850 kW, which has over 90% localization, Vestas turbines currently have more than 80% localization, with a goal to achieve 100% local sourcing. Vestas’ interlinking China-based and global supply chains not only benefit local economies in terms of employment and revenue. They also provide an important catalyst for the development of the national wind energy industry ecosystem, in line with government goals to develop a strong wind energy industry in China that is internationally competitive.

Evolution of a supportive policy environment

China was listed as the most attractive renewable energy market in the world, according to Ernst & Young’s latest Renewable Energy Country Attractiveness Indices from September 2010. The international equipment manufacturers have responded to this development through local investments and local supply-chain build-out, creating thousands of new Chinese jobs in the renewable energy sector.

Initially, China put in place a 70% local content requirement in the wind energy sector. However, a key learning from the Chinese success story is that the right mix of long-term government support mechanisms will result in strong national market participation from international investors. The local content regulation was not a driver behind national market participation. In fact, the Chinese decision to abolish the local content rule in 2010 can, in many ways, be seen as an acknowledgement by the Chinese government of the undesirable effects of local content on the investment regime and China’s long-term development goals.

The key lessons learned from China is that “artificial” policies, such as local content requirements, are less important than creating the solid foundation of other policies that have a much more direct and enduring impact on the market place. If the government creates a sound market place, industry will be there to supply it. Given the cost structure of the wind industry, it makes competitive sense to supply it as locally as possible. Vestas looked at China and found an abundance of wind energy resources yet to be utilized, far-sighted government strategies and support; fast-developing innovation capacity and human capital, and a rapidly expanding domestic wind industry.
Local content requirements

At present, the focus of NMP policies in many countries is on requirements or preferences for the use of local content by companies engaged in foreign direct investment. Despite generally being considered incompatible with international trade rules, there is a global trend toward use of local content requirements, as part of a broader revival of the application of industry policy. There are a range of objectives that governments are seeking to achieve with these policies including: employment creation, development of specific sectors or industries, skills and technology transfer, and the amelioration of trade imbalances.

Though clearly advantageous in the short term for some local firms, these regulations do not benefit other firms, whose products are outside the companies’ procurement needs. The impact on the local economy is further restricted when the products provided to investing companies are not produced locally but rather imported, repackaged and resold by local firms. Moreover, even those firms meeting the procurement needs of investing companies may only benefit during the period of procurement, especially if awarded a contract on a preferential basis.

In addition, a significant body of economic theory and practical experience suggests that local content rules and related performance measures are often counterproductive. As the definitive analysis by Gene M. Grossman demonstrates, policies designed to expand the use of local content and thus increase local value-added can quite easily do the opposite. The analysis presented by Moran in Foreign Direct Investment and Development (1998) indicated that the imposition of domestic content requirements on foreign firms can damage the prospects for economic development of the countries that adopt them.

Empirical research generally confirms these analytical findings. A survey of the empirical evidence on the economic effects of local content requirements, from the 1960s through to the past decade, has been compiled by the World Trade Organization (WTO) and the United Nations Conference on Trade & Development (UNCTAD). The bulk of evidence suggests that local content rules do not create sustainable improvements in local economic conditions and can often have adverse consequences. An illustrative case study comes from Australia, a country that historically was a frequent adopter of local content policies, but which subsequently moved away from this approach in the 1980s. A review of evidence by the World Bank of the experience of the Australian car industry with local content found multiple adverse effects: fragmentation of the industry, lack of economies of scale, rising costs of inputs, reduced net employment, and slowed technological change. See Case Study 2.

With regard to technology transfer, a review of empirical evidence by the United Nations Industrial Development Organization (UNIDO) found that local content rules “...have often failed to contribute to the indigenous technological development of the country and represented only a pseudo-transfer of technology, not trained entrepreneurs or managers in the developing countries and therefore led to poorly managed enterprises, and not generated significant – if any – foreign exchange savings.”

A further lesson from empirical evidence is that local content requirements generally do not support the development of competitive local industries. Using the infant industry argument, it has been proposed that local content requirements can be used as a policy instrument to support the development of local enterprises until they are able to compete with outside firms. However, for this to be effective in the long term requires well-designed policies and disciplined implementation, which progressively exposes local firms to greater competition in order
Microeconomic drivers

Have a direct effect on the productivity and competitiveness of local firms and can be influenced by investor procurement and supplier-development activities.

- Human resources & management capabilities – Skilled human resources and supporting management capabilities and systems are the most important element of the bundle of resources a firm owns.
- Technological capabilities – The ability of a firm to adopt and deploy technology to enhance productivity.
- Access to finance – Access to finance (whether it is working capital, equity investments, or long-term loans for capital expenditure) is critical for the survival and growth of all firms, and is additionally challenging for SMEs as their financing requirements are often too large for microfinance but too small to be effectively served by corporate banking models.
- Access to procurement – Access to procurement is the awareness of, and ability to, apply for opportunities to supply to other firms, and is a critical capability for local firms seeking to enter the supply chains of large investing companies.
- Local infrastructure – The quality of local infrastructure (especially transport, energy and communications) is often a significant driver of the cost performance of local firms and their ability to access and service customers.
- Clusters & support structures – The presence of clusters and organizational support structures – such as industry commissions and trade associations – generate additional synergies and opportunities for local firms.

Macroeconomic drivers

Compose the setting for doing business and the overall economic environment for local firms, and are largely the sphere of government policy.

- Capital markets – While a variety of actors can supply funds to local firms at the microeconomic level, all of them are at the mercy of the macroeconomic financial situation: the availability of credit, the maturity of equity markets, and the size of a country’s overall liquidity pool.
- Regulatory environment – Regulation is essential to ensuring that markets function smoothly, but it can also present a burden to local firms and foreign investors – both in the operational difficulties inherent in complying with regulations and in the bureaucratic processes used to certify compliance.
- Import and export regimes – The nature of import and export regimes are of particular importance for any firm that requires inputs from abroad, competes with imports, or hopes to export its products.
- Investment incentives – Well-designed investment incentives can encourage additional investments by SMEs or by larger firms that source from SMEs.
- National infrastructure – The extent and quality of a nation’s infrastructure fundamentally drive the functioning of the national economy, determining the location of economic activity and the kinds of activities and sectors which are competitive.
- Workforce improvement – The broader educational and training policies of a country determine the size and quality of the pool of workers a firm can draw from; this is particularly important for SMEs who may have limited resources to conduct their own training and workforce development activities.
Supporting improvements in competitiveness

A variety of programs and policies have been shown to have a lasting effect on competitiveness with positive results for investing companies, local firms, and local economic conditions. These actions can be undertaken by investing companies alone, by government, or through a partnership – often in combination with other entities such as financial institutions, and development agencies.

To facilitate a dialogue on such initiatives, this Framework presents a simple model for the drivers that affect firm competitiveness (with a focus on small and medium-sized enterprises (SMEs)\(^\text{15}\)). These drivers underpin the ability of firms to be competitive: i.e. being able to deliver orders with levels of cost, scheduling, reliability, and quality equal to, or better than, those of its peers, and to win contracts in an open market. The model was developed through a review of the academic and gray literature\(^\text{16}\) and by drawing on the significant experience of WBCSD Member Companies in supporting efforts to build the capacity and competitiveness of their suppliers. The model should not be considered definitive or comprehensive, but is designed to provide a sound basis for an informed dialogue between investing companies and governments on competitiveness.

Successful initiatives target one or more drivers of competitiveness at the microeconomic or macroeconomic level (a distinction originally made by Michael E. Porter\(^\text{17}\)). These drivers are summarized in Figure 2 and described in more detail in Table 1.

The division between microeconomic and macroeconomic drivers can be somewhat permeable, for example, in areas such as finance and capital markets, or the distinction between local and national infrastructure. Generally, however, government will have responsibility for macroeconomic drivers\(^\text{22}\), while the others will come under the joint influence of investing companies, government, and other partners.

Figure 2: The drivers of competitiveness

Microeconomic drivers and investor NMP programs

Programs implemented by individual investors or coalitions of investors and targeted at improving specific microeconomic drivers can demonstrably increase the competitiveness of local firms. Examples include the following:

- **Human resources & management capabilities.** A program led by BHP Billiton, in cooperation with the International Finance Corporation and the Mozambique Investment Promotion Center, trained more than 3,000 employees at 100 small and medium-size enterprises so that they could meet the standards necessary to support BHP Billiton’s Mozal aluminum smelter outside Maputo. The suppliers work in areas including construction, cleaning, tool repairs, and preparation of smelting pots. In 2007, five years into the program, Mozal had more than tripled its procurement from local suppliers, whose numbers had grown from 40 to 250\(^\text{23}\).

- **Technological capabilities.** Unilever, the consumer products industry-leader, has achieved strong results in this area. Its South African operation uses more than 3,000 local suppliers, and has supported many of them with a combination of technical assistance ranging from informal technical advice to direct provision of complex physical capital\(^\text{24}\). Beginning in the 1990s in Indonesia, Unilever spent more than $350 million on procurement from local suppliers, after investing significantly in training and equipment. In the meantime, the company managed to increase sales while cutting its imports of inputs\(^\text{25}\).

- **Access to procurement.** BP, along with partners including Chevron, Esso and Total, set up a Business Support Center (CAE) in Angola to help local firms find out about, apply for, and win procurement opportunities with investing companies. Founded in 2005, the CAE assisted its clients in winning 126 contracts worth more than $59 million in its first three years, resulting in the creation of 1,463 jobs\(^\text{26}\). Access to procurement can also be enhanced by adapting product design or procurement needs to the local market. In Uganda, SABMiller launched a new brand of beer made from sorghum sourced from local smallholder farmers rather than imported barley. Local raw materials and lower taxes meant that the beer could sell for a third less than similar products made from barley\(^\text{27}\).
Access to finance. The mining group Anglo American has operated an enterprise investment and development fund called Anglo Zimele in South Africa since 1989. The fund has offered financing to more than 150 enterprises, resulting in a substantial increase in procurement from local SMEs. SMEs that participate can receive a combination of small equity stakes and loans, in addition to technical assistance and access to procurement. Since 1997, their survival rate has been triple the national average.

Local infrastructure. In countries with inferior infrastructure, manufacturers hold higher inventories of critical inputs—a sure sign that supply chains are not as efficient in these countries. A study of Japanese manufacturers operating in emerging economies found more use of local firms in areas with better infrastructure, and research conducted in China also found investments in infrastructure to be a key driver of competitiveness in local firms.

Clusters and support structures. By developing a support structure around an industry cluster, the Brazilian Service to Support Micro and Small Businesses (SEBRAE) and the National Industrial Training Service (SENAI) have had a notable success in promoting footwear sales from Cariri, where supply chains have been integrated logistically and products upgraded; employment in the industry has grown by about 350 percent within the region since 2000—a rate twice as high as the growth rate of manufacturing overall.

Macroeconomic drivers and government policies

While investors can help build competitiveness at the microeconomic level, these initiatives all operate within the context of the macroeconomic environment. Improvements to this environment are overwhelmingly the responsibility of government. Examples of government policies which have improved competitiveness by addressing macroeconomic drivers include the following:

Capital markets. There is a significant body of evidence linking the depth and integration of capital markets to economic growth, most notably the contributions of Geert Bekaert of Columbia University and Campbell R. Harvey of Duke University. They found, for example, that liberalization of a country’s stock markets can lead to an increase of one percentage point in the annual growth rate of its economy.

By contrast, development of SMEs in India has been slowed significantly by difficulty in obtaining credit in local markets.

Figure 3: The dynamics of competitiveness of local firms
- **Regulatory environment.** A growing body of empirical research by the World Bank and others has established a link between the regulatory environment for firms and such outcomes as the level of informality, employment and growth across economies\(^\text{36}\). A country’s legal and regulatory system is consistently ranked by executives as a top driver of competitiveness, achieving equal importance to the quality of physical infrastructure in the surveys supporting the Global Manufacturing Competitiveness Index\(^\text{17}\).

- **Investment incentives.** Investment incentives can foster sustainable investments, particularly in sectors where labour, capital and raw material are genuinely being underutilized. However, other essential conditions for doing business need to be in place for such incentives to be effective. As an example, in the early 1990s the Sri Lankan government offered a package of incentives, including offshore borrowing facilities and duty-free importation of inputs, to potential investors in the higher value-added areas of its garment industry. The program failed to attract much foreign investment because the country’s infrastructure was not up to par\(^\text{38}\).

- **Import and export regimes.** A study of Colombian industries facing different trading regimes from the 1970s through the early 1990s found that opening markets for competing products by lowering import tariffs led to strong gains in productivity among Colombian manufacturers\(^\text{39}\). A study of South Korean manufacturers from the 1960s to the 1980s found lowering tariffs yielded similar results\(^\text{40}\), as did a survey of 4,484 Brazilian manufacturers\(^\text{41}\). In the Brazilian case, an added surge in productivity came from local firms’ improved access to imported inputs (and thus to technology of foreign origin).

- **Workforce improvement.** In Hong Kong, Singapore, South Korea, and Taiwan, for example, sustained public investment in education and vocational training led to huge accumulations of human capital that were pivotal to their rapid growth in the second half of the twentieth century\(^\text{42}\). These investments involved a series of approaches, including raising the years of compulsory education and changing high school curricula, to the encouragement of university students to study science and engineering\(^\text{43}\).

---

**Towards a virtuous circle**

The evidence supporting this Framework affirms that the public and private sectors have distinct opportunities and responsibilities in enhancing the competitiveness of local firms, and that enhancing this competitiveness can unlock substantial gains for both sectors.

Improving the drivers of competitiveness helps local firms to enhance their operations, win more contracts and expand in both number and size. These changes generate benefits not just for the firms themselves but also for the public and private sectors more broadly. The public sector comes closer to its goals for economic development and may receive a boost to stability and popular satisfaction. In the private sector, financial institutions can participate in more transactions, and contractors have more, and better, options for subcontractors. Investing companies receive better service from local firms, helping them to engage in more local procurement, enjoy a better relationship with local communities, and grow in new markets. For both the investing company and the host government, there can be a virtuous circle of investments and benefits that runs through the competitiveness of local firms, both inside and outside the company’s supply chain. (see Figure 3).
The remainder of the document presents the Framework for dialogue between large companies and governments on local firm competitiveness as a key enabler of the participation of local firms in value chains and local economic development more broadly. The Framework is based on identification of the shared interests of companies and governments to facilitate a constructive dialogue on appropriate policy and corporate responses, and in some cases, coordinated or collaborative action. It is primarily addressed to an investing company audience, but could also be a useful resource for governments and other key stakeholders.

Clearly, investing companies and governments could pursue their interests in this domain independently. However, despite the investment in time and resources it may require, dialogue and collaboration between investing companies and governments is warranted for three key reasons:

- Maximization of investor contributions. The impact of many investor-led programs to improve local firm capabilities and competitiveness will be determined by the surrounding environment created by government, via policy instruments and key public goods such as infrastructure and education.
- Collaborative action. There are actions that can deliver clear benefits for all parties but which require a level of formal collaboration between the company, governments and other stakeholders (e.g. training and skills development partnerships, cluster formation).

- Better policy development. Government policies and programs often need insights and information which only the private sector holds, such as employment and training needs, or hidden constraints to improved productivity. A recent review by the McKinsey Global Institute highlighted that the chances of success of policy-making to enhance competitiveness is boosted by a high degree of interaction between government and the private sector.

Evidently, not every government is prepared to engage in such a dialogue. Even in these situations, drawing a clear line between the responsibilities of government and the capabilities of investing companies is a valuable step. A single investing company may do much to improve local economic conditions through its engagements with firms and communities, but it cannot generally affect the deeper factors that determine the long-run potential of an economy to grow and prosper.

This Framework is not presented as a comprehensive or definitive treatment of the complex issues regarding firm competitiveness and national market participation. However, it is a general guidance resource which investing companies and other stakeholders can use to better navigate the specific issues they face in a particular context. In many instances users of the Framework may want to mobilize additional and/or external expertise to gain sufficient insight into context-specific competitiveness challenges or opportunities. The suggested stages are summarized in Figure 4.
First Stage
Identification of shared objectives and key competitiveness issues/drivers
Overview

The first stage of the Framework assists with the identification of the shared interests and objectives of the investing company and governments regarding national market participation, and then supports the identification of the competitiveness issues and drivers which are most relevant to these shared objectives.

Shared interests & objectives

A key assumption underpinning the Framework is the concept of shared interests between investing companies and governments. However, this needs to be confirmed and defined for the company’s specific operations and the local context. This can be achieved through the following data gathering and analysis:

- Clarifying the company’s own interests and objectives with regard to local firm capability and competitiveness;
- Identify the relevant stakeholders (governments and third parties) and respective interests of these stakeholders;
- Establish the shared objectives that could be the basis for dialogue on national market participation.

A simplified example of this form of analysis is presented in Figure 5 below.

Company objectives

In addition to the overall commercial and strategic objectives of the company’s investments and operations, specific objectives relevant to the participation of local firms in the value chain of the investing company may relate to:

- Supply chain performance. Supporting the improvement of local firm capabilities may improve the reliability and quality of the company’s supply chains, managing risks and supplier scarcity, as well as creating opportunities to reduce costs.
- Compliance. A company may already have regulatory or investment agreement requirements regarding engagement with local firms. Where these requirements already exist or are non-negotiable, investor companies may have clear interests in improving the capability and competitiveness of local firms to reduce the costs and risks associated with compliance.
- Social license to operate. Local firm participation may be a key mechanism for building social license to operate through catalyzing local economic opportunity and by creating meaningful relationships with local groups (such as civic associations and cooperatives). Supply opportunities may be particularly important in capital-intensive sectors where direct employment opportunities are limited.
- Strategic relationships. Supporting local capacity development and local firm participation may help a company to improve its access to new markets and opportunities, both by generating good relations with government and local communities in an existing host

Figure 5: Example mapping of shared interests
Information-gathering within the company can be achieved through operational activities and (in some cases) decommissioning. Rising incomes may contribute to consumer demand and workforce quality, which may in turn allow the company to expand its operations in a country.

It should be noted that the company’s objectives will be framed by key contextual factors governing its operations within a particular country or region. The stage of the investment cycle is of particular importance, as it is likely to determine the key issues of relevance to the company, and the time horizon for company decision-making. Key parameters will evolve as the company moves through its initial decision-making on the investment (e.g. whether to invest), through construction and commissioning, to operational activities and (in some cases) decommissioning.

Information-gathering within the company can be achieved in a variety of ways and will optimally involve executives with responsibility for country or regional management, business development, procurement and public affairs. During the internal process of clarifying objectives, the focus may be on the business case for a specific investment. However, it may also be appropriate to consider existing declarations of company policy, such as a mission statements, strategy documents on cross-border operations, and key company policies statements (e.g. procurement, sustainable development, community development, HSE).

### Table 2: Examples of government & other stakeholders with potential interests in a dialogue on national market participation

<table>
<thead>
<tr>
<th>Government: Key Ministries</th>
<th>Other Government Agencies and Institutions</th>
<th>Industry &amp; Private Sector</th>
<th>Other Stakeholders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministries with overall economic development mandates: e.g.</td>
<td>&gt; Ministries with sector mandates: e.g.</td>
<td>Equity holders (e.g. country subsidiary of international company).</td>
<td>Development agencies and NGOs working on private sector development and SME linkages</td>
</tr>
<tr>
<td>- Economic Development</td>
<td>- Industry</td>
<td>Other investing companies in the sector</td>
<td>SME financing institutions</td>
</tr>
<tr>
<td>- Planning</td>
<td>- Energy</td>
<td>Financial institutions, credit lenders and guarantors</td>
<td>Affected communities</td>
</tr>
<tr>
<td>- Labor and Employment</td>
<td>- Agriculture</td>
<td>Trade associations and bodies</td>
<td>National and/or regional development plans. The government may already have in place a national or regional plan for economic development and/or poverty reduction. These documents will likely include high-level objectives for job and/or income growth, as well as more specific sector-level development objectives.</td>
</tr>
<tr>
<td>Ministries with sector mandates: e.g.</td>
<td>&gt; Quality standards</td>
<td>Other investing companies</td>
<td>National &amp; regional content legislation</td>
</tr>
<tr>
<td>- Industry</td>
<td>&gt; Procurement regulation</td>
<td>Financial institutions, credit lenders and guarantors</td>
<td>Procurement regulation</td>
</tr>
<tr>
<td>- Energy</td>
<td>&gt; Specific local content legislation</td>
<td>Trade associations and bodies</td>
<td>Specific local content legislation</td>
</tr>
<tr>
<td>- Agriculture</td>
<td>Industrial Promotion Boards (focusing on inward investment and/or exports)</td>
<td>Major contractors (1st tier), sub-contractors and suppliers</td>
<td>NGOs and international NGOs</td>
</tr>
</tbody>
</table>

The political economy in which the NMP dialogue takes place greatly influences its trajectory and success. In particular, the motivations and constraints of counterparts in government and the opportunities presented by the local environment inform the context for this dialogue. The existing relationship between an investing company and its host government are also a critical aspect, as are the stage of the investment life-cycle and the likely duration of the company’s investment(s).

### Interests of governments & other stakeholders

Once this stakeholder identification and analysis is conducted, it will be possible to define more explicitly the interests and objectives of relevant key stakeholders. Identifying government objectives can be supported by reviewing planning and policy documents. Meetings or interviews with relevant officials and experts can yield useful insights, if such meetings are consistent with the government’s culture and the investor’s relationship with government. Additional partners may include multilateral groups, donors, and non-governmental organizations offering strategic or technical assistance. Within the context of what NMP initiatives can plausibly achieve, important items to consider include the following:

- National and/or regional development plans. The government may already have in place a national or regional plan for economic development and/or poverty reduction. These documents will likely include high-level objectives for job and/or income growth, as well as more specific sector-level development objectives.
Many mining communities experience decades of economic boom and welfare resulting from ore exploitation, then experience significant decline after the mine closure, creating social and environmental liabilities and becoming a symbol of unsustainable large-scale mining.

In Juruti, a region in northwest Brazil, Alcoa sought to create a bauxite mining operation in a region where some government agencies and community organizations were initially opposed to the project, infrastructure was minimal, public services could not meet the needs of the local population, and where preserving environmental quality was imperative. Alcoa identified improving its social and environmental licenses to operate as top priorities in order to guarantee a sustainable, long-term investment in Juruti. The company recognized that achieving this objective would also require ensuring that the mine did not create an “island of prosperity” in a sea of poverty and institutional instability.

Reducing poverty and promoting development and stability coincided with the objectives of local government and civil organizations. The recognition of this shared interest helped Alcoa to bring representatives of government and 15 civil society groups into a Sustainable Juruti Council. The mandate of the Sustainable Juruti Council is to discuss a common future of public interest, establish priorities for actions, as well as a long-term agenda for local sustainable development. This agenda provides an overarching Framework for establishing and implementing appropriate local economic objectives to balance the benefits from local participation in mining (and related activities) and creating sustainable economic opportunities for workers and firms that avoid over-dependence on the mine and Alcoa’s operations.

In 2008, Eni decided to move the headquarters of its Southern Italy exploration and production activities from Ravenna (in Northern Italy) to Val d’Agri in the Basilicata region. The decision was taken considering both business needs (to localize directional activities in proximity of new operational areas) and as a response to local stakeholders’ priorities (identified through a survey).

Eni’s decision to have a stronger presence in the territory allows more direct relations with government decision makers and community stakeholders. Since 2007, Eni has carried out the “Missione di Comunità” (“Community Mission”), a project aimed at promoting the engagement of local actors and identifying common measures for promoting sustainable and self-determined development. Stakeholders have been consulted through interviews and surveys and met through focus group and public meetings, with the aim of debating local development priorities, identifying common strategies for local content and building networks among stakeholders.

This consultation process has been instrumental in stimulating the development of highly specialized industrial activities with a significant positive impact on the local economy and on employment. Since the relocation, investment activities have created local jobs at a rate of 35 percent of total employment created. Data on employment is monitored on a daily basis and is published every six months in the main newspaper and on the web portal of the region. In the first six months of 2010, around 200 people were directly employed by Eni’s Southern District operation in Val d’Agri, and there were about 800 contractors for operations activities (maintenance, drilling, civil work, construction, etc.). Considering subcontractors and collaborations, roughly 2,000 people have jobs related to Eni’s activities. They are distributed between 80 companies, of which more than 50 percent are from the Basilicata region.

The successful engagement process and the positive results obtained prove that a proactive and inclusive dialogue with local stakeholders is of critical importance. Dialogue helps create awareness of key issues, assists in reducing risks, and supports the identification of common objectives and win-win solutions. Furthermore, it allowed Eni to gain a deep knowledge of local territorial needs/demands in order to set up its entry policies. More broadly, it has been strategic for strengthening local economic competitiveness, creating long-term development opportunities aligned with the needs and expectations of the local communities, and building a social license to operate.
National and/or sector competitiveness strategy. Many governments have councils on competitiveness or similar bodies, sometimes specific to an industry, that have stated goals for improving the performance of local firms.

Other objectives. Government may react to current economic conditions with other high-profile economic objectives, such as lowering unemployment or recovering from a natural disaster; an NMP initiative may need to be seen as helping to achieve these objectives as well.

Shared interests & objectives
From a company perspective, shared objectives may be identified through a range of perspectives:

- Shared objectives. Areas where the company’s and stakeholder’s objectives are in direct alignment.
- Shared interests. Areas where there are general shared interests between the company and other stakeholders, and where explicit shared objectives could be defined through further dialogue. Case Study 3 and Case Study 4 show examples of how companies have worked with local governments and other stakeholders to identify shared objectives through dialogue and engagement processes.

Some shared objectives may be rejected for lacking relevance to NMP issues; indeed, NMP should not be seen as a sure path to reaching all the economic objectives of government and investing companies. Among the factors that may need to be applied to test the appropriateness of objectives are:

- Relevance. Some objectives may not be achievable via greater local firm participation. For example, an offshore oil investment with limited operational employment may not be relevant to a government objective related to lowering the national unemployment rate, but may be highly relevant to other government goals, such as the building of technical capabilities.

- Timing. Many of the objectives of competitiveness can be realized only over years, or even decades. If the remaining productive life of an investment is too short to realize those benefits, the investment may not be an appropriate platform for achieving the objective. For example, if the productive life of the investment is five years or less, any NMP program related to it may be irrelevant to an objective such as developing a cadre of highly-trained technical managers, who typically require 10-15 years of work experience.

- Cost. An NMP initiative may require its backers to invest managerial time, financial resources, physical resources, and political capital. To estimate the true cost of an NMP initiative, investing companies will have to place a money value on these resources. Governments (and companies trying to forecast government involvement) will have to give due consideration to the legislative and regulatory processes and the scale and acceptability of any public investments.

Prioritization
Enhancing competitiveness can be challenging, even if limited to a local level and focused on basic improvements. As a result, there may be value in prioritizing objectives. From a company perspective, the objectives need not all be shared objectives, nor worked on jointly – there will be room for government and the investor to work on independent objectives in parallel and separately, and on shared objectives jointly.

Figure 6 provides an example of a potential approach for categorizing and prioritizing a simple set of shared objectives relating to national market participation.

Figure 6: Mapping tool for prioritizing objectives
Key competitiveness issues and drivers

Having identified shared objectives, it will then be possible to identify which competitiveness drivers are likely to be most relevant for enhancing opportunities for local firm participation and to support the achievement of these shared objectives.

As previously discussed, there is a complex inter-relationship between drivers of competitiveness. However, identifying the priority drivers associated with a shared objective creates a more focused dialogue on potential actions for improvement. An illustrative example is shown in Figure 7. This section describes a process for how relevant drivers of competitiveness can be identified and prioritized.

The starting point is to identify the underlying issues and constraints which reduce or effect local firm competitiveness. Key issues to be considered include:

- **Microeconomic drivers.** The constraints facing local firms’ operations and their interactions with local partners will vary across industries and firm sizes. The ability of a catering firm to win contracts to supply a major mining installation might be further advanced by technology transfer (for refrigeration and sanitation) than by support structures such as clusters (since its production process requires little vertical integration relative to other sectors).

- **Macroeconomic drivers.** Local firms will be affected more by some national-level drivers of competitiveness and less by others. For instance, the success of a construction firm might be strongly influenced by its ability to obtain short-term financing (depth of capital markets), but not so much by national educational norms (workforce improvement).

- **Temporal considerations.** The obstacles to improved competitiveness may change over time, as market conditions and the capabilities and ambitions of local firms evolve.

A full treatment of methodologies for analyzing the competitiveness of local firms, and the constraints and issues facing these firms, is beyond the scope of this document. Such knowledge and tools may be available in-house (e.g. business analysis functions within procurement) or there may be value in mobilizing relevant external expertise. Below are two examples of simple tools that might be used to investigate and analyze constraints at the microeconomic and macroeconomic levels. The first tool (Figure 8) focuses on analyzing the characteristics, constraints and potential interventions relating to the value chain of a local firm (or firms). The second (Figure 9) focuses on the key elements of the regulatory and macroeconomic environment in which firms operate.

---

**Figure 7: Sample prioritization of drivers of competitiveness**

<table>
<thead>
<tr>
<th>Microeconomic drivers of competitiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human resources &amp; management capabilities</td>
</tr>
<tr>
<td>Technological capabilities</td>
</tr>
<tr>
<td>Access to finance</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Macroeconomic drivers of competitiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital markets</td>
</tr>
<tr>
<td>Investment incentives</td>
</tr>
<tr>
<td>Regulatory environment</td>
</tr>
<tr>
<td>Access to procurement</td>
</tr>
<tr>
<td>Local infrastructure</td>
</tr>
<tr>
<td>Clusters &amp; support structures</td>
</tr>
<tr>
<td>Import and export regimes</td>
</tr>
<tr>
<td>National infrastructure</td>
</tr>
<tr>
<td>Workforce improvement</td>
</tr>
</tbody>
</table>

**Priority microeconomic drivers:**
- **Access to finance**
  - SMEs with annual revenues >$1M are usually unable to qualify for loans from local commercial banks; no access to equity financing.
- **Access to procurement**
  - Average tender from Inward Investor X is <$5 million, and includes a combination of highly technical and non technical needs.

**Priority macroeconomic drivers:**
- **National infrastructure**
  - Power is available only 6 hours per day; unreliable outside of capital’s city center. Requires provision of back-up generation capacity.

**Impact of current constraints on competitiveness:**
- **Low**
- **Medium**
- **High**
- **Very High**
Prioritization of competitiveness issues and drivers

Competitiveness may be most effectively and efficiently enhanced by focusing on the competitiveness issues and drivers that are most crucial; where action by the government and/or investing company is likely to have sufficient effect to achieve objectives, and where such actions are attractive or feasible to key stakeholders.

Some drivers may be so critical to unlocking competitiveness that, in their absence, no other program or policy will support sustainable improvements in competitiveness. Critical infrastructure, such as roads and power, are examples of drivers that may be required elements of an improvement intervention. Other drivers may be difficult or impossible to improve because of the nature of the industry or because of the time period of the investment (e.g. strengthening infrastructure if the investment time horizon is just a few years). Further detail on the identification and evaluation of specific actions to improve competitiveness is presented in Stage 2 of the Framework.

Prioritization of competitiveness issues and drivers

<table>
<thead>
<tr>
<th>Current characteristics (examples)</th>
<th>Key constraints (examples)</th>
<th>Potential interventions (examples)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of firms.</td>
<td>Production capacity.</td>
<td>Enterprise development program.</td>
</tr>
<tr>
<td>Warehousing space.</td>
<td>Lack of cold-transport capacity.</td>
<td>Form cooperative to invest in cold storage.</td>
</tr>
<tr>
<td>Transport capacity.</td>
<td>Absence/quality of road/rail links.</td>
<td>Road improvement project.</td>
</tr>
<tr>
<td>Average travel times.</td>
<td>Processors standards variability.</td>
<td>Training and certification to int’l standards.</td>
</tr>
<tr>
<td>Number of processors.</td>
<td></td>
<td>Preferential financing for necessary investment.</td>
</tr>
<tr>
<td>Size of facilities.</td>
<td></td>
<td>Technical training in logistics management.</td>
</tr>
<tr>
<td>Quality of processing.</td>
<td></td>
<td>Integrated data management with key customers.</td>
</tr>
<tr>
<td>Number and location of distribution centers.</td>
<td>Periods of overstock and understock.</td>
<td>Market analysis assistance.</td>
</tr>
<tr>
<td>Quality of logistics planning.</td>
<td>Lack of knowledge of customer needs.</td>
<td>Partial credit guarantee for SME lending.</td>
</tr>
<tr>
<td>Number of outlets.</td>
<td>No financing for inventory.</td>
<td></td>
</tr>
<tr>
<td>Same-store sales growth.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 8: Sample value chain constraints analysis

<table>
<thead>
<tr>
<th>Current characteristics</th>
<th>Key constraints</th>
<th>Potential interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current characteristics</td>
<td>Key constraints</td>
<td>Potential interventions</td>
</tr>
<tr>
<td>Production</td>
<td>Consolidation / distribution</td>
<td>Processing</td>
</tr>
<tr>
<td>Number of firms.</td>
<td>Warehousing space.</td>
<td>Number of processors.</td>
</tr>
<tr>
<td>Average travel times.</td>
<td>Average travel times.</td>
<td>Average travel times.</td>
</tr>
<tr>
<td>Number of processors.</td>
<td>Size of facilities.</td>
<td>Quality of logistics planning.</td>
</tr>
<tr>
<td>Size of facilities.</td>
<td>Quality of logistics planning.</td>
<td>Quality of logistics planning.</td>
</tr>
<tr>
<td>Quality of processing.</td>
<td>Number and location of distribution centers.</td>
<td>Number and location of distribution centers.</td>
</tr>
</tbody>
</table>

Figure 9: Sample analysis of macroeconomic constraints

<table>
<thead>
<tr>
<th>Driver</th>
<th>Governing regulation(s)</th>
<th>Constraining aspects of regulation</th>
<th>Potential Intervention</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training and Education</td>
<td>National Education Law</td>
<td>Requires courses taught in local languages</td>
<td>Difficult to hire qualified trainers to teach enterprise development courses</td>
<td>Negotiate exemption clause for enterprise development center</td>
</tr>
<tr>
<td>Import/Export regimes</td>
<td>National Commercial Law</td>
<td>Provides tariff exemption to inward investor, but not local suppliers</td>
<td>Sourcing locally more expensive than direct imports</td>
<td>Expand tariff exemption to local suppliers of inward investor</td>
</tr>
<tr>
<td>Workforce</td>
<td>National Labor Law</td>
<td>Requires severance package of one-year's pay</td>
<td>Supplier cannot expand and contract with market demand</td>
<td>Legislate public trust to fund worker safety net, instead of single employer</td>
</tr>
</tbody>
</table>
Outputs from Stage 1

By conducting the analysis, the investor company will be able to clarify the following parameters which will be fundamental to conducting a constructive dialogue on national market participation issues:

- The appropriate government, government agencies and other third-party stakeholders with whom the company should consider engagement;
- The shared interests and objectives of the company and relevant stakeholders that form the core rationale for dialogue;
- The competitiveness issues and drivers which are likely to be the substance of a dialogue and the areas for action.

An investing company may consider this information the basis for initiating a dialogue with government and other stakeholders. However, the company may also consider conducting the analysis in Stage 2 before initiating dialogue, to identify and analyze in more detail the potential interventions that may be required, and how the performance of these interventions could be measured.
Second Stage
Develop a plan and define success
Overview

The first stage of the Framework defined objectives and the specific drivers of competitiveness that NMP actions may need to address. The second stage of the Framework supports the identification of the potential actions required to achieve objectives:

- The appropriate company actions to enhance competitiveness and national market participation;
- The appropriate actions that governments and other stakeholders can take, at both the micro and macro levels;
- Areas for collaboration and collective action;
- The selection of relevant and useful metrics to measure and evaluate for the inputs, outputs, and outcomes of competitiveness-related actions and initiatives.

Options for action

From a company perspective, there are several levels of potential action that the company can take to support improvement related to microeconomic drivers of competitiveness. In simple terms, these could be categorized as:

- **Low cost/risk interventions.** Actions that can be taken at relatively low cost and risk to the company but contribute to improvements in local firm capabilities and enhance the likelihood of local firms entering the company’s value chain.
- **More substantial interventions.** Depending on the context, some companies may have a business case for making more substantial investments in modifying procurement strategies and processes, or providing direct support to the development of local firm capacity (e.g. through supplier development programs). However, in almost all cases the provision of key public goods and supportive actions or policies from government and other stakeholders will improve the business case for investor company action and/or maximize the commercial and societal benefits of these actions. An excellent example of this is Case Study 1, where Vestas have made substantial investments in local supplier capacity, due to the evolution of a high supportive environment in China for wind energy investment.
- **Collaborative actions.** These are actions that require a level of formal collaboration between the company and other stakeholders but which can deliver clear benefits for all parties.

As noted previously, macroeconomic drivers of competitiveness are primarily the responsibility of governments. However through dialogue, companies may be able to provide useful inputs to the policy process which support improvements in the macroeconomic environment relating to NMP objectives.

Table 3 summarizes these potential categories for action, the company objectives associated with these categories, and how dialogue with governments and other stakeholders can advance each category of action. The following sections of the Framework present the options under each category in more detail.

**Table 3: Categories of action for investor companies**

<table>
<thead>
<tr>
<th>Area of action</th>
<th>Company perspective</th>
<th>Relevance to dialogue with government &amp; other key stakeholders</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Microeconomic drivers</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low cost/risk interventions</td>
<td>Identification of low-cost, low risk interventions to support microeconomic drivers of competitiveness.</td>
<td>Unilateral actions demonstrate company contribution.</td>
</tr>
<tr>
<td>More substantial interventions</td>
<td>There may be several categories of action under this category: 1. Unilateral actions – Actions that a company will take as the benefits outweigh the costs/risks. 2. Support required – Actions that a company would potentially undertake with support, action, policy interventions etc. from governments and other stakeholders and/or where this support would significantly increase the commercial and societal benefits of the action.</td>
<td>Unilateral actions demonstrate company contribution. Dialogue may be critical for facilitating actions that require additional support, or for making the case for policy actions that could unlock substantial societal benefits.</td>
</tr>
<tr>
<td><strong>Collaborative actions</strong></td>
<td>Actions that require formal collaboration between the company and other stakeholders and which deliver clear mutual benefits for all participants.</td>
<td>Dialogue will be essential to develop, design and implement collaborative actions.</td>
</tr>
<tr>
<td><strong>Macroeconomic drivers</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Macroeconomic drivers</td>
<td>Provision of company perspectives on macroeconomic drivers of competitiveness which affect the interests of the investing company and national market participation.</td>
<td>A dialogue with government may be an effective way for investing companies to assist government in setting macroeconomic policy so that it facilitates the achievement of shared NMP objectives.</td>
</tr>
</tbody>
</table>
Low cost/risk interventions

There are a number of low cost/risk interventions that companies can take to contribute to the development of local firm capabilities and their likelihood of competing successfully to enter the investing company's value chain. Many of these options involve the provision of appropriate information for local firms that may be costly or difficult for these firms to obtain themselves. A number of examples are presented in Table 4.

From a dialogue perspective, investing companies can demonstrate commitment and concrete actions regarding local firm participation, which may provide a constructive platform for dialogue with governments and other stakeholders. There may be some actions (such as the development of supplier databases), which would also benefit from collaboration with local government agencies.

More significant interventions

Depending on the context, some companies may have a business case for making more substantial investments in modifying procurement strategies and processes or providing direct support to the development of local firm capacity (e.g. through supplier development programs).

However, the actions taken by a company can be expanded, or the benefits enhanced, with supportive actions or policies from government and other stakeholders. The rationale for these supportive actions could come from the shared objectives identified in Stage 1. Case study 5 and Case Study 6 for these supportive actions could come from the shared objectives identified in Stage 1. Case study 5 and Case Study 6 present examples of large investing companies making major contributions to the development of the competitiveness of local suppliers. In both instances the business case to pursue local capacity development was enhanced by a supportive public policy environment.

Table 4: Low cost/risk interventions to support local firms

<table>
<thead>
<tr>
<th>Microeconomic Drivers</th>
<th>Low cost/risk interventions (examples)</th>
</tr>
</thead>
</table>
| Human resources & management capabilities | * On the job training  
* Advice (and in some cases training) to support pre-qualification for procurement e.g. instituting requisite management systems.  
* Provision of information on skill requirements. |
| Technological capabilities | * Provision of information on available technologies. |
| Access to finance | * Provision of information on access to finance options. |
| Access to procurement | * Access of local firms to procurement can be enhanced through:  
  - Timely provision of information (in a public and transparent way) on current or future opportunities  
  - A clear, accessible and transparent tender process  
  - Streamlined accreditation/qualification  
  - Tender workshops  
  - Establishment of local supplier databases  
  - Facilitation of linkages with major suppliers  
  - Feedback to unsuccessful local bidders. |

Table 5 provides examples of the public policy actions and interventions (for each driver of competitiveness) that may be critical or advantageous to incentivize company action or to scale up its benefits. This table also provides examples of the more substantial actions that companies may have a business case for pursuing. These are divided into demand-side and supply-side interventions:

- **Demand-side interventions.** These measures involve contributions to local firm competitiveness through the investing company's procurement of goods and services. The strategic use of procurement is often the most powerful and cost-effective lever that a large company has to support improvements in local capabilities and competitiveness. Procurement processes can be adjusted to improve the likelihood of local firms bidding for and winning contracts, as well as providing a mechanism to incentivize large contractors to invest in developing the management and technological capacity of their local subcontractors. Once local firms are in the supply chain, the experience of successfully delivering contracts provides an invaluable learning experience for continued success.

- **Supply-side interventions.** These measures involve either direct support to local suppliers (e.g. supplier development programs and related initiatives) or indirect contributions through improvements in the enabling environment for local firms.

The identification, evaluation and development of an investing company’s interventions will be necessarily determined by the company’s own objectives and decision-making processes. However, there are several major potential benefits from engaging with governments and other stakeholders when considering/developing more substantial contributions to local firm capabilities and microeconomic drivers of competitiveness:

- **Essential contributions.** There may be key public goods or policy actions that may be essential for local enterprises to improve their competitiveness and/or before an investing company would consider an intervention.

- **Reduced costs or risks.** Actions by government may substantially reduce the costs or risk associated with an intervention, either making it feasible or more attractive. For example, a supplier development program may become more attractive if the government takes action to enhance local training institutions and programs to develop skilled workers, critical to efficacy of supplier development activities.

- **Spillover benefits.** While investing companies will always have a limited sphere of influence, there may be opportunities to advocate for wider policy actions that may have much broader positive spillover benefits. For example, in the BP Azerbaijan BEE Project Case Study (see Case Study 7), BP supported a program to reform the business-enabling environment, which not only benefits local
Vestas’ role in the creation of an internationally competitive wind power supply chain in China

All of Vestas’ Chinese suppliers are engaged in a win-win business partnership aimed at jointly increasing the supplier’s manufacturing systems, improving component quality and strengthening the supplier’s ability to achieve consistent, high-level performance. This process involves long-term cooperation, training, knowledge and technology transfer – ultimately benefiting China’s wind industry as a whole and ensuring Vestas has top-quality, locally-produced components. As a result, Vestas is increasingly able to produce more quickly and with improved quality. The supplier partnership reaches these goals through:

1. Joint analysis and product improvement planning. Vestas and supplier technicians work together to analyze the supplier’s existing products and production standards, identifying areas to improve the supplier’s long-term product quality standards, management and inspection systems, quality control processes, health, safety and environmental performance and more.

2. Sharing industry-leading specifications. Vestas shares product specifications and designs with suppliers, providing detailed explanations and design rationale (reliability, performance, etc), as well as working with suppliers to begin controlling and strengthening manufacturing processes.

3. Improving existing processes. Vestas works with suppliers to raise standards throughout the entirety of the supplier’s manufacturing process and design capabilities and improve on the areas identified in Step 1: manufacturing systems, HSE, environmental standards (e.g. use of chemicals, paint and other substances), management systems, quality control systems, etc. In addition, Vestas shares methods of developing and designing an inspection system, providing the necessary tools in order to set up these systems independently (such as control plans, documents, etc), as well as helping to raise supplier awareness and “root-cause identification abilities” regarding potential manufacturing and operational issues.

Vestas also aims, and has achieved in many cases, to develop suppliers’ standards in areas such as quality (ISO9000 Management System/Certification), environment (ISO14000 Management System/Certification) and safety (OHS18000 Management System/Certification). Throughout the partnership process, Vestas also supports the professional development of local managers and others – providing them with the ability to independently oversee continuous improvement in quality, processes and performance.

As discussed in Case Study 1, the establishment by the Chinese Government of a policy environment that encouraged long-term investor confidence in the Chinese wind energy sector was a critical enabler for Vestas to develop this extensive program to build the capabilities and competitiveness of its local suppliers. Businesses supplying BP but all enterprises in Azerbaijan. Such wider positive outcomes also have wider strategic benefits for BP’s operations in the country.

- **Collaborative actions.** Some interventions may best be developed and implemented as a partnership or collaboration (covered in the next section).

**Collaborative actions**

In many cases, combining the expertise and resources of the investing company, government, and other partners can be the most effective mechanism for achieving shared objectives. This can occur by working in a coordinated fashion or through formal partnerships and collaboration. Examples of such cases include:

- The establishment and development of industrial clusters;
- Partnerships with education and skills institutions;
- Supporting regulatory reform (see Case Study 7);
- Solving industry-specific problems or issues (see Case Study 8);
- Working with other large companies in the sector and/or region with common priorities relating to local industrial development.

In these cases, dialogue between stakeholders will be essential to agree upon objectives and the roles and actions expected from each participant. Though the roles of each participant may seem intuitive, engaging with potential partners on this question will help ensure that each participant understands, and has undisputed ownership of, its role.

**Macroeconomic drivers**

Macroeconomic drivers of competitiveness are primarily the responsibility of government. However through dialogue, investing companies may be able to provide useful inputs to the policy process, identifying and advocating for improvements in the macroeconomic environment that underpin the government’s NMP objectives. Investing companies may have detailed understanding of key issues (effectiveness of investment incentives, capabilities of local firms, barriers in the market etc.) that would inform the development of effective policy.

A useful example in this regard is the experience of Vestas in the wind energy industry in China (see Case Study 1). In the initial instance, the Chinese government attempted to drive local supplier participation in the industry through mandatory targets. However, a more effective approach emerged through national-level energy policy making which created a supportive environment for long-term investment in wind energy, and had the direct consequence of incentivizing investors to engage and develop local suppliers. This has led to improvements in the capabilities and competitiveness of these local firms, as well as a significant expansion in local employment in the sector.
It should be noted that the modalities of engagement and the level of influence that a single investing company may have at this level may be limited. Collective engagement through other investing companies in the sector may have more weight with government and avoid potential criticism of a single company seeking undue influence. Another alternative is to engage with key multilateral development agencies50, which play a leading role in many non-OECD countries in supporting regulatory reform and institution building that underpins the formation and development of the domestic private sector. There are often opportunities for large investing companies to become contributing partners and active participants in capacity building and regulatory reform programs, which are run or facilitated by these agencies (for example, Case Study 7).

**Measurement & metrics**

**Importance**

With a clear idea of the actions that will be pursued, and the roles of the various participants, the next step is to align expectations for progress and results. Agreeing on a set of metrics gives all parties within the dialogue process an impartial, transparent, and verifiable base for these expectations. Metrics allow the participants in a dialogue process to define the status quo in a way that is mutually acceptable, to agree upon and set targets for improvement, and to evaluate progress towards those targets. They provide a basis for communication between the participants, and effective measurement can offer clear signals when a course correction is needed.

<table>
<thead>
<tr>
<th>Table 5: Actions to support improvements in microeconomic drivers of competitiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Drivers of Competitiveness</strong></td>
</tr>
<tr>
<td><strong>Area of action</strong></td>
</tr>
</tbody>
</table>
| Human resources and management capabilities | - Education, training and skills policy.  
- Education and training institution establishment and strengthening.  
- Standards and certification. | - Incentivizing of major contractors to provide formal and on-the-job training & skills development.  
- Inclusion of training and skills development in contracts.  
- Embedding of company staff within suppliers to facilitate capacity building. | - Specific supplier training activities and/or broad-based supplier development programs.  
- Support for development of quality, health & safety and environmental management systems.  
- Support for the development of local business services sector.  
- Establishing of training linkages with local educational institutions. |
| Technological capabilities | - Technology and ICT policy.  
- Education, training and skills policy.  
- Development of supporting institutions (e.g. universities, R&D agencies). | - Incentivizing of joint ventures (JVs) with international suppliers. | - Integration of company and supply production processes and systems.  
- Financial and technical support for adoption of new technologies. |
| Access to finance | - Financial sector reform.  
- Establishment of dedicated SME finance facilities. | - Support with financing applications.  
- Modified payment milestones to smooth small firm cash flow. | - Access to finance programs (for successful suppliers). |
| Access to procurement | - Establishment of local or national supplier databases.  
- Standards and certification. | - Dedicated local procurement policy.  
- Contracting of strategies developed to incentivize local firm participation and capacity development through contract delivery.  
- Matching of specifications to local standards and capabilities (where possible). | - Specific supplier training activities and/or broad-based supplier development programs.  
- Regular performance feedback to local suppliers.  
- Sharing of product designs and specifications.  
- Integration of company and supply production processes and systems. |
| Local infrastructure | - Provision of energy, transport and communications infrastructure to support local enterprises and enable access to markets. | - Incentivizing of large contractors and suppliers to invest in local infrastructure. | - Support for infrastructure provision and/or allowing local firm access to investing company infrastructure (e.g. access roads, electricity supply). |
| Clusters and support structures | - Establishment of clusters and special economic zones.  
- Establishment or support for local industry commissions and business associations. | - Contracting incentives for international suppliers to encourage investment in establishing local operations.  
- Preferential procurement from local clusters. | - Participation in initiatives to facilitate cluster establishment.  
- Support for infrastructure that facilitates cluster participation (e.g. industrial parks). |
This section presents a simple measurement model to support the dialogue Framework and a set of potential metrics which companies and other stakeholders could use or adapt to their specific circumstances. Some of the challenges and difficulties in measuring competitiveness and its impacts are discussed, as well as some of the practical considerations regarding the collection and analysis of data.

**Metrics in this Framework**

There are already a number of publicly-available indices and metrics which seek to measure national-level competitiveness and related areas (see Box 1). This Framework seeks to complement these established measurement initiatives by presenting a set of metrics that could specifically support a dialogue on the performance of local firms, as well as its impact on local economic development and the business of investing companies. It was highlighted by companies in the development of this Framework that national-level competitiveness indices are often not accurate indicators of the performance of local firms in a particular sector or region.

The simplified measurement results chain is shown in Figure 10. This results chain shows the three distinct stages in the process of enhancing competitiveness:

- **Inputs to enhanced competitiveness.** The level and quality of the key microeconomic and macroeconomic competitiveness drivers.
- **Outputs of enhanced competitiveness.** The results of enhanced competitiveness, as seen in local firms’ performance and ability to compete for and win new business.
- **Outcomes.** The broader (and longer-term) benefits for local economic development and the business of investing companies.

---

**Case study 6**

**Development of local contractor capacity and competitiveness**

*(BG Group, Trinidad & Tobago)*

In 2008/9, the BG Group Poinsettia development project involved the local construction, installation, hook-up and commissioning of the largest oil and gas platform ever built in Trinidad and Tobago. A key element of the project was the fabrication and installation of the 4,200 tonne platform deck.

BG Group had a number of different options for procuring the deck, including contracting the work to established companies in the United States. However, the company commissioned a study to investigate the costs and risks of construction in Trinidad to facilitate local participation and to provide a major opportunity to enhance local capacity to supply the oil and gas sector. This approach was driven by BG Group’s corporate policy and was in line with the Trinidad & Tobago government’s local content policy and local participation framework. The study found that the platform deck could be constructed locally with no material cost premium if the appropriate contracting and risk management strategies were deployed.

The deck construction contract was subsequently awarded to TOFCO Ltd, a locally-based joint venture between Weldfab Ltd (Trinidad) and Chet Morrison Contractors of Louisiana (US). The work took place at the TOFCO fabrication yard, on the west coast of Trinidad, near the community of La Brea. The deck construction, which was delivered on time and to budget, achieved high levels of local content. The proportion of local content in the sub-contract for deck construction (defined as the proportion of the contract value remaining in the country at the end of the contract period) was calculated by BG as 91%. In addition, 99% of the 1.1 million hours worked on the Poinsettia topside sub-contract were undertaken by Trinidad & Tobago nationals. 50% of these workers were from within 5km of the yard, and 27% from the nearby La Brea community.

Four of the success factors that made these outcomes possible were:

- a **procurement strategy** for the project explicitly formulated to maximize local content, build local industry competitiveness and ensure project risks and costs were effectively managed;
- an **early analysis** that showed how the benefits of lower transportation and labour costs from contracting the Poinsettia deck locally offset the additional expense in managing the associated risks;
- **team ‘partnering’ arrangements** between international contractors and the local fabricator;
- a **constructive public policy** and regulatory framework for local content that gave clear direction to operators but left BG and its partners with flexibility to place contracts pursuant to the capabilities of the local supplier market.

The securing of this large scale of the sub-contract, combined with the construction of a deck and jacket for a smaller platform at the same time, enabled TOFCO to make significant pre-investments in the development of the fabrication site, and in equipment and marine vessel capability. In addition, close management oversight of the contract by BG and its lead contractor – Fluor Enterprises – led to improvements in worker safety and project controls.

These investments and improved quality performance complement the track record that TOFCO now has in meeting the schedule for mechanical completion and commissioning of Trinidad’s largest topsides, and doing so with zero Lost Time Incidents (LTIs). In aggregate, these enhanced capabilities position TOFCO favorably to participate in future internationally-tendered work. It also provides TOFCO with options to ride out the current economic downturn by expanding into new markets, in particular, asset refurbishment and integrity.
Over the last decade, BP Azerbaijan and its co-venture partners have invested substantially in developing local firm capacity to participate in the oil and gas sector in Azerbaijan. In 2009, in-country operational and projects expenditure in Azerbaijan totaled $1.03 billion. This included direct spending with SMEs of $132 million, $29 million with state-owned companies, $320 million with JVs, and $547 million indirect local spending through foreign suppliers working in Azerbaijan.

To further these initiatives, BP is supporting the Azerbaijan Business Enabling Environment (BEE) project. The BEE Project is a five-year program launched in 2008 and led by the International Finance Corporation (IFC) to support the efforts of Azerbaijan’s government to improve the business environment for entrepreneurs and ensure sustainable and diversified economic growth. Helping the government establish robust business development policies supports BP’s interest in stimulating entrepreneurship and strengthening competitiveness to enhance access to high-quality, competitively-priced local goods and services.

The project is helping the government of Azerbaijan to reduce the regulatory burden on businesses and streamline licensing procedures. It monitors the business environment through surveys of the small and medium enterprise sector, and increases entrepreneurs’ awareness of their legal rights through outreach and advocacy work. The capacity-building component, financed by BP and its co-venturers, includes a transfer of survey expertise to the working group representing the Ministry of Economic Development, the Ministry of Taxes and the National Confederation of Entrepreneurs, enabling better assessment of the business environment and development of policies for its improvement.

The Working Group’s first survey topic was an in-depth examination of the effects of the new “one-stop-shop” business registration system, which became effective on January 1st 2008. The registration survey was conducted during August–October 2009 among 510 individual entrepreneurs and the managers of 142 SMEs registered from January 2008, to evaluate the economic impact of new one-stop-shop system and assess which aspects (if any) of this new system still required improvement.

The results of the study were released in February 2010. It found that the one-stop-shop system has led to considerable simplification of the registration procedures, with the costs of registering a company reduced by half, and the length of time reduced by a factor of four. The aggregate financial savings amounted to USD 23 million to the end of July 2009 for all entrepreneurs (both legal entities and sole traders) who registered their businesses since the new registration system came into effect.

While acknowledging the success of these reforms, this report also outlines further potential improvements – such as introduction of online registration and improvements to registration records – to bring business registration in Azerbaijan closer to international best practice. The implementation of these recommendations will further reduce the costs and the duration of business registration from four to two days. The Ministry of Taxes, as the only authority responsible for state registration, declared a significant interest to examine the results of the survey and the related recommendations. The Ministry will itself fund all further reform work of the business registration, demonstrating the handover of reform work from company-supported technical assistance to the competent national authorities.

Vestas and the Chinese government have found common interest in solving some of the market barriers that could potentially disrupt the development of China’s renewable energy industries. One of these is the ability of the electricity grid to absorb the ever-increasing amount of renewable electricity. To solve this problem, Vestas has build up an extensive program with key government partners and grid operators to find joint solutions.

Through a joint research study with China’s State Grid, Vestas is seeking to transfer its experience from other markets to build local Chinese solutions to the grid bottleneck. The research project is undertaken by Vestas and China’s State Grid Energy Research Institute (SGERI), and brings together international experience coupled with Chinese expertise. The study is an important joint initiative in enhancing large-scale wind energy integration to the electricity grid, and for proactively exploring solutions for mass integration of renewable energy sources.
For example, an initiative designed to improve the quality of in-country logistics might use the number of logistics-related patents licensed by the investing company to local firms as an input metric. The same initiative might use the frequency of disruptions to supply chains as an output metric, in order to track changes in the competitiveness of the local firms receiving the licenses. If the government hoped to see the outcomes of enhanced competitiveness reflected in local employment, then the participants might select the number of jobs directly and indirectly created by the initiative as an outcome metric. Similarly, if the investing company hoped to see outcomes in terms of profitability, then the participants might use the company’s annual return on investment from in-country operations as an additional outcome metric.

Potential NMP input, output, and outcome metrics are provided in Annex A to this document. These metrics were identified from a review of academic and gray literature and provide measurement options for the key elements of the competitiveness results chain. These are illustrative only, and users of this Framework will need to assess the applicability and utility of these metrics to their particular circumstances. Annex A presents for each metric: the means of collection; the likely source or collector of the data; and a subjective assessment of the difficulty and resource requirements for gathering and analyzing the data.

Key measurement challenges

Underlying the simple results-chain model in Figure 10 are a number of complexities and challenges associated with measurements for competitiveness:

- **Complex inter-relationships.** Because of the complex set of inter-related factors which affect competitiveness of firms and the broader impacts of enhanced competitiveness, it can be difficult to attribute specific changes to particular actions or interventions.

- **External factors.** Moving along the results chain, additional or external factors (often outside the control of both governments and investors) increasingly affect the outcomes or quantities being measured. This is particularly important when considering local economic development outcomes.

- **Time lags.** Moving along the results chain, there will be increased time lags before effects will be observed. For example, it may take 12-18 months for training and management-system interventions to substantially affect the cost and quality performance of a local firm, as improvements in knowledge and process control are embedded in practice. Local economic development outcomes may take even longer to materialize (5+ years) and even then may be difficult to measure and/or attribute to specific competitiveness-related interventions.

---

Figure 10: Competitiveness results chain

- **Inputs to enhanced competitiveness**
  - Microeconomic drivers
  - Macroeconomic drivers

- **Outputs of enhanced competitiveness (local firms)**
  - Capability
  - Cost
  - Scheduling
  - Reliability
  - Quality assurance
  - Contract award

- **Outcomes**
  - Local economic development
  - Impact on investing companies

**Macroeconomic competitiveness indices**
(e.g. World Economic Forum Global Competitiveness Index)
Box 1

International competitiveness-related indices

- **The Global Competitiveness Report (World Economic Forum)**: The Global Competitiveness Report is a yearly report published by the World Economic Forum. The report defines competitiveness as ‘the set of institutions, policies, and factors that determine the level of productivity of a country’ and ranks the world’s nations according to the Global Competitiveness Index. The index is made up of over 100 variables, of which two thirds come from the Executive Opinion Survey, and one third comes from publicly-available sources. The variables are organized into twelve pillars, with each pillar representing an area considered as an important determinant of competitiveness. The pillars are: institutions; infrastructure; macroeconomic environment; health and primary education; higher education and training; goods market efficiency; labor market efficiency; financial market development; technological readiness; market size; business sophistication; and innovation.

- **Global Manufacturing Competitiveness Index (Deloitte & the U.S. Council on Competitiveness)**: The Global Manufacturing Competitiveness Index is a research report prepared by Deloitte’s Global Manufacturing Industry group and the U.S. Council on Competitiveness. The report is based on the responses to a survey of more than 400 chief executive officers and senior manufacturing executives worldwide. It also draws on select interviews with key manufacturing decision makers. The index is based on 25 indicators relating to ten drivers of national-level manufacturing competitiveness. The ten drivers are: talent-driven innovation; cost of labor and materials; energy cost and policies; economic, trade, financial and tax systems; quality of physical infrastructure; government investments in manufacturing and innovation; legal and regulatory system; supplier network; local business dynamics and quality and availability of healthcare.

- **World Bank Ease of Doing Business Index (World Bank)**: The World Bank Doing Business Project provides objective measures of business regulations and their enforcement across 183 economies and selected cities at the sub-national and regional level. It focuses on domestic small and medium-size companies and measures the regulations applied to them through their life cycle. The Ease of Doing Business index is based on the study of laws and regulations, with input and verification by more than 8,000 government officials, lawyers, business consultants, accountants and other professionals who routinely advise on or administer legal and regulatory requirements. The index assesses regulations directly affecting businesses, but does not directly measure more general conditions relating to competitiveness (e.g. market size, quality of infrastructure). The key topics covered are: starting a business; dealing with construction permits; registering property; obtaining credit; protecting investors; paying taxes; trading across borders; enforcing contracts and closing a business.

---

**Figure 11: Sample tool for assigning metrics measurement**

<table>
<thead>
<tr>
<th>Relevant drivers</th>
<th>Constraint</th>
<th>Relevant metric</th>
<th>Baseline</th>
<th>Target</th>
<th>Methodology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training and education</td>
<td>Lack of qualified labor to produce materials to meet standard.</td>
<td>Number of personnel qualified to produce input at standard.</td>
<td>10 qualified personnel.</td>
<td>200 qualified personnel.</td>
<td>Collected from roster of personnel certified at enterprise development center (certification to be renewed biannually).</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>Poor roads increase breakage, packing and delivery costs.</td>
<td>Post-manufacturing costs, including loss to breakage.</td>
<td>12% of manufacturing costs.</td>
<td>5% of manufacturing costs.</td>
<td>Collected from suppliers on annual basis or after key milestones such as road improvement.</td>
</tr>
<tr>
<td>Tariffs</td>
<td>Tariff on key imported capital equipment make local suppliers uncompetitive.</td>
<td>Tariff on imported equipment (as % of purchase price).</td>
<td>300% tariff paid by overseas competitors.</td>
<td>75% of tariff paid by overseas competitors.</td>
<td>Collected from tariff schedule, confirmed by supplier invoices for tariff payment.</td>
</tr>
<tr>
<td>Financing</td>
<td>Suppliers paying high interest for capital equipment purchases.</td>
<td>Interest on benchmark new equipment loan, 5-year term, strong financials.</td>
<td>Libor +18%.</td>
<td>Libor +7%.</td>
<td>Collected from survey of banks offering benchmark loan to target firms; confirmed by firms receiving loans.</td>
</tr>
</tbody>
</table>
- **Macroeconomic drivers.** As noted previously, macroeconomic drivers may realistically lie outside the scope of a NMP dialogue, but have a significant impact on the competitiveness of local firms. The measurement of these drivers may also prove problematic where government data is not readily available. In these instances, the indicators used in the national-level indices listed in Box 1 may be of use as proxy measures.

The following recommendations could assist a company in addressing these measurement challenges for their own circumstances:

- **Results chain and metrics for specific cases.** It may be appropriate for companies to establish a situation-specific analysis of how local firm performance is affected by different competitiveness drivers. As part of this analysis, it may be useful to develop appropriate metrics for specific inputs, outputs and outcomes relevant to the circumstances.

- **Appropriate objectives & expectations.** Awareness of measurement challenges may be important for the development and framing of achievable and measurable objectives, and for establishing realistic expectations about what can be achieved, and how long it will take for results to be observed. Companies will want to avoid taking explicit or implicit responsibility for quantities they cannot influence or cannot readily be measured.

**Practical considerations**

In the selection of metrics, the participants in a NMP initiative will want to include several practical considerations. Firstly, the metrics will ideally be easy to use and understand, so that all the participants in the initiative can use and interpret them. As collecting the data to compute metrics can be costly in some cases, participants will also want to select metrics that offer the most useful information, in the most economical way.

The availability and ease of collection of metrics varies widely. The participants will want to weigh these factors against the quality of the information the metrics convey. To gauge this balance, it can help to begin by considering the metrics according to their sources.

- **Existing public data.** The most affordable and accessible sources of data are those that are publicly available, often from online resources such as statistics websites maintained by government agencies and multilateral organizations. The main challenge posed by these data is that the participants may not control how they are collected from year to year. It may also not be possible to obtain the level of granularity required for the particular initiative (e.g. seeking to measure employment in a municipality where secondary data may only be available for the whole region).

- **Existing proprietary data.** The participants in initiatives are likely to generate a significant amount of useful data on their own: the amount investing companies spend on NMP initiatives, the internal quality controls used by local firms, and the employment statistics collected by government, for example, are all relevant data that are already in the hands of participants. As this data is often proprietary, however, issues of confidentiality should be evaluated before using it for metrics; metrics must be shared, in many instances, to achieve their purpose, and some participants may be unwilling to share proprietary data.

- **New data.** This data requires collection by the participants in the initiative, and is the most costly and difficult to obtain. For this reason, it may be used much more rarely than existing data, both proprietary and public. However, by collecting new data, the participants can fine-tune their metrics to correspond to the specifics of the initiative. In addition, new data, once collected, can be branded and disseminated by the participants, as they see fit. Regardless of how data is used, the participants should agree in advance as to how they will share the costs of collecting it.

**Reporting**

There may be value in establishing a protocol for presenting and sharing metrics relating to shared objectives. This can ensure that expectations are aligned, and that all participants can make decisions about committing resources and correcting course with similar information, as necessary. Participants may jointly decide to share metrics with key constituents, most notably local firms. Depending on the degree of confidentiality and the context, it may also be appropriate to share results with the media and civil society. Figure 11 offers a simple template of tracking which metrics are being used, to what purpose, and the party responsible for them.

**Outputs from Stage 2**

The second stage of the Framework supports the identification of the potential actions required to achieve objectives:

- The identification of appropriate company actions to enhance competitiveness and national market participation;
- The appropriate actions that governments and other stakeholders can take at both the micro and macro levels;
- Areas for collaboration and collective action;
- The selection of relevant and useful metrics to measure and evaluate for inputs, outputs, and outcomes of competitiveness-related actions and initiatives.
Third Stage
Implementation
Overview
With an NMP action (or program of actions) initiated, the participants will want to continue their dialogue as they track its performance and measure its results. This should be a collaborative process, in order to take full advantage of the opportunity offered by the metrics to align expectations and make decisions in an environment where both sides have the same information. The specific interactions between the participants will depend on the type of initiative they have implemented, but the evaluation process should have several essential features as outlined below.

Evaluate and manage performance
The participants should begin this step by monitoring the metrics as outlined so that they can evaluate the performance of the initiative. In the shortest term they will want to ensure that the inputs are being provided as planned. As elements of an initiative (such as training programs) are completed, participants will want to ensure that the inputs are turning into outputs. Over the longer term, participants should be able to track outputs to outcomes that meet their objectives. None of these steps should be retrospective – data collection should be executed on a cycle that allows the participants to make adjustments to the initiative and improve performance. A distinct evaluation program will look backward at the program and offer lessons for future programs by these participants and others.

Figure 12 may serve as a conceptual guide for continuing involvement in the management and evaluation process.

These items will be essential parts of the management and evaluation process:

- Benchmarks and milestones. To track the initiative, participants may utilize a number of metrics for inputs, outputs, and outcomes of competitiveness. For each of these, the participants may wish to set specific benchmarks for comparing progress and milestones to be reached, if the initiative is to realize its expected potential.

- Analysis of progress. Where the initiative fails to keep pace with these benchmarks, the participants will examine operations in midstream to determine why expectations are not being realized. These and other questions may be part of that analysis:
  > Are all of the relevant actors involved as participants?
  > Does decision-making power reside with the right participants?
  > Are the participants taking responsibility for their roles and committing appropriate resources to the initiative?
  > Are there root causes of poor outputs and/or outcomes that the initiative is not addressing or cannot address sufficiently to have a perceptible impact?

As in the implementation of the initiative itself, it will be important to specify roles for the participants in reviewing performance, assessing it and establishing corrective action. Optimally, performance management will be a collaborative process; continuing the dialogue during the implementation of the initiative will help to ensure that the relationship between the investing company and government remains cooperative rather than adversarial.

Figure 12: Conceptual guide for the management of initiatives

Roles evaluation cycle

Roles in program cycle
Evaluate programme using relevant framework:
- **Investor**: evaluate impact in supply chain.
- **Government**: evaluate impact on national competitiveness.

Analyze & share evaluation learnings:
- **Investor**: identify successes and failures in supply chain and key elements underlying each.
- **Government**: examine root causes of change in competitiveness, and most likely drivers of future enhancement.

Make adjustments to initiative:
- **Investor**: adjust internal procurement procedures and technical assistance; provide input to government on recommended action, coordinate with other purchasers.
- **Government**: take corrective action on priority drivers (micro- and macroeconomic); incent investor and others to support, esp. microeconomic drivers.
Conclusion
This document has set out a Framework for dialogue between large companies and governments on local firm competitiveness as a key enabler of the participation of local firms in value chains and local economic development more broadly. The Framework is based on identification of the shared interests of companies and governments to facilitate a constructive dialogue on appropriate policy and corporate responses, and, in some cases, coordinated or collaborative actions. It is primarily addressed to an investing company audience, but could also be a useful resource for governments and other key stakeholders.

This Framework is not presented as a comprehensive or definitive treatment of the complex issues regarding firm competitiveness and national market participation. It is, however, a general guidance resource which investing companies and other stakeholders can use to better navigate the specific issues they face in a particular context. It provides a tool for engaging with government, using evidence-based insights and proven strategies to foster competitiveness.

By using the tool in their interactions with government, WBCSD members are seeking to accomplish the following three objectives:

1. **To move** the discussion of NMP past negotiations over restrictive requirements and towards a search for strategies and actions that achieve long-term benefits for both sides.

2. **To transform** what can be an adversarial relationship with governments, to one that is cooperative and can draw in other partners from the public, private and non-governmental sectors.

3. **To broaden** the NMP discussion to include spillover benefits to firms that may be outside the investing companies’ supply chains.
Footnotes

2. WEF (2010).
4. Due to their trade-distorting effects and the weight of evidence against their effectiveness, local content rules are generally prohibited under the WTO trade rules (through the Agreement on Trade-Related Investment Measures (TRIMS)).
12. UNIDO (1986).
14. Ibid.
15. SMEs are likely to make up the vast majority of potential suppliers or contractors in an investing company's supply chain.
16. Review conducted for WBCSD by Dalberg Global Development Advisors.
17. e.g. Porter (2009).
20. As noted by Singh and Evans (2009), clusters are groupings of related suppliers of inputs, services, equipment, know-how and expertise, whose geographical proximity and linkages increase competitiveness and drive innovation.
22. It should be noted that there are macroeconomic factors which are likely to affect competitiveness (e.g. availability of healthcare, exchange rate regimes) but which are not explicitly included in the list of drivers in Table 1. This exclusion was made on the basis that these factors are unlikely to be included within the scope of a dialogue on local firm competitiveness.
27. Jenkins et al. (2007).
32. Deloitte, Touche, Tomatsu (2010).
34. Bekkaert et al. (2005).
42. Young (1995).
45. Adapted from Warner (2009).
46. IPIECA (forthcoming).
47. Engineers Against Poverty and the Overseas Development Institute (2007).
49. Singh and Evans (2009) reviewed the opportunity to establish clusters as a tool for sustainable development and recommended the establishment of an umbrella body of government, private sector and other stakeholders ‘...to develop and organize a collaborative plan’ (p.199).
50. For example the World Bank Group; the Inter-American, African and Asian Development Banks; as well as certain UN and bilateral development assistance agencies (e.g. USAID, DFID).
54. Review conducted for WBCSD by Dalberg Global Development Advisors.
55. Complied through a review of academic and gray literature prepared for WBCSD by Dalberg Global Development Advisors.
56. In many emerging markets, public power is supplemented by off-grid production owned by the user (such as a diesel engine). The cost of this power can be calculated through a sample analysis of the cost of the engine and other capital and the fuel. A third party would typically survey and the difficulty is medium.
References


Engineers Against Poverty (EAP) (2007) “Maximising the contributions of local enterprises to the supply chain of oil, gas & mining projects in low income countries” report, EAP, London.


## Annex A – Metrics summary

### A.1 Input metrics for microeconomic drivers of competitiveness

#### Human resources & management capabilities

<table>
<thead>
<tr>
<th>Category</th>
<th>Metric</th>
<th>Means of collection</th>
<th>Source</th>
<th>Difficulty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training programs</td>
<td>Number of people trained per year</td>
<td>Program records</td>
<td>Administrator of program</td>
<td>Low</td>
</tr>
<tr>
<td>Hours of training provided</td>
<td></td>
<td>Program records</td>
<td>Administrator of program</td>
<td>Low</td>
</tr>
<tr>
<td>Annual training budget</td>
<td></td>
<td>Program records</td>
<td>Administrator of program</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Number of people obtaining qualification per year</td>
<td>Survey of program</td>
<td>Administrator of program or other</td>
<td>Medium (may be difficult to trace</td>
</tr>
<tr>
<td></td>
<td></td>
<td>participants</td>
<td></td>
<td>participants after they leave the program)</td>
</tr>
</tbody>
</table>

#### Technological capabilities

<table>
<thead>
<tr>
<th>Category</th>
<th>Metric</th>
<th>Means of collection</th>
<th>Source</th>
<th>Difficulty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology transfer</td>
<td>Number of patents licensed</td>
<td>Program records</td>
<td>Administrator of program</td>
<td>Low</td>
</tr>
<tr>
<td>Processes or technology</td>
<td></td>
<td>Program records</td>
<td>Administrator of program or local firms</td>
<td>High (requires definition and verification of processes in place at local firms)</td>
</tr>
<tr>
<td>replicated</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of enterprises</td>
<td></td>
<td>Program records or survey of local firms</td>
<td>Administrator of program or other</td>
<td>Low to medium (may require survey responses from individual firms)</td>
</tr>
<tr>
<td>assimilating technologies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual technology transfer</td>
<td></td>
<td>Program records</td>
<td>Administrator of program</td>
<td>Medium (may not be a specific budget item if program is multifaceted)</td>
</tr>
<tr>
<td>budget</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Access to finance

<table>
<thead>
<tr>
<th>Category</th>
<th>Metric</th>
<th>Means of collection</th>
<th>Source</th>
<th>Difficulty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to finance</td>
<td>Interest rates for sources of finance available to local firms</td>
<td>Survey of local firms or financial institutions</td>
<td>Local firms or other partners in the initiative</td>
<td>Medium (survey requires new effort and rigorous methods)</td>
</tr>
<tr>
<td></td>
<td>Interest rate spreads for local sources of finance versus national benchmarks</td>
<td>Survey of local firms or financial institutions and use of public data</td>
<td>Local firms and/or other partners in the initiative</td>
<td>Medium (survey requires new effort; data may be politically sensitive)</td>
</tr>
<tr>
<td></td>
<td>Maximum lending by local financial institutions</td>
<td>Survey of local financial institutions or use of public data</td>
<td>Partners in the initiative, especially government</td>
<td>Medium (data may be proprietary and/or accessible only to government)</td>
</tr>
<tr>
<td></td>
<td>Interest rates of loans currently secured by local firms</td>
<td>Survey of local firms</td>
<td>Local firms or other partners in the initiative</td>
<td>Medium (survey requires new effort; data may be proprietary)</td>
</tr>
<tr>
<td></td>
<td>Percent of firm’s financing needs met by local sources</td>
<td>Local firm records</td>
<td>Local firm</td>
<td>Low</td>
</tr>
</tbody>
</table>

40
### Access to procurement

<table>
<thead>
<tr>
<th>Category</th>
<th>Metric</th>
<th>Means of collection</th>
<th>Source</th>
<th>Difficulty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to procurement</td>
<td>Number/value of procurement opportunities on tender list</td>
<td>Local firm or investing company records</td>
<td>Local firm or investing company</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Number/value of procurement opportunities of which aware</td>
<td>Local firm records</td>
<td>Local firm</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Total value-added of procurement</td>
<td>Survey of investing companies</td>
<td>Investing companies or other partners in the initiative</td>
<td>Medium (data may be proprietary or not immediately available)</td>
</tr>
<tr>
<td>Product design</td>
<td>Value of time and resources used in design</td>
<td>Local firm and investing company records</td>
<td>Local firm and investing company</td>
<td>Low</td>
</tr>
</tbody>
</table>

### Local infrastructure  
[See national infrastructure]

### Clusters and support structures

<table>
<thead>
<tr>
<th>Category</th>
<th>Metric</th>
<th>Means of collection</th>
<th>Source</th>
<th>Difficulty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cluster development</td>
<td>Total employment of firms/institutions in cluster</td>
<td>Survey of cluster members</td>
<td>Local firms or other partners in the initiative</td>
<td>Medium (requires new effort; requires defining cluster)</td>
</tr>
<tr>
<td></td>
<td>Total turnover of firms in cluster</td>
<td>Survey of local firms</td>
<td>Local firms or other partners in the initiative</td>
<td>Medium (as above; information may be proprietary or available only with a delay)</td>
</tr>
<tr>
<td></td>
<td>Turnover of firms in cluster as a share of industry turnover in-country</td>
<td>Survey of local firms</td>
<td>Local firms or other partners in the initiative</td>
<td>Medium (as above)</td>
</tr>
<tr>
<td>Other structures</td>
<td>Number of trade association, industry group, and public-private meetings attended by company employees</td>
<td>Local firm records</td>
<td>Local firm</td>
<td>Low (data are from an individual firm)</td>
</tr>
<tr>
<td></td>
<td>Number of trade association, industry group, and public-private meetings convened</td>
<td>Survey of local firms and organizations</td>
<td>Industry group or other partners in the initiative</td>
<td>Low to medium (requires new effort)</td>
</tr>
</tbody>
</table>

### A.2 Input metrics for macroeconomic drivers of competitiveness

### Capital markets

<table>
<thead>
<tr>
<th>Category</th>
<th>Metric</th>
<th>Means of collection</th>
<th>Source</th>
<th>Difficulty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of capital</td>
<td>National short-term interest rates</td>
<td>Use of public data</td>
<td>Any partner in the initiative</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>National long-term interest rates</td>
<td>Use of public and market data</td>
<td>Any partner in the initiative</td>
<td>Low to medium (may require government or market cooperation)</td>
</tr>
<tr>
<td></td>
<td>Interest rate spreads</td>
<td>Use of public and market data</td>
<td>Any partner in the initiative</td>
<td>Low to medium (as above)</td>
</tr>
<tr>
<td></td>
<td>Survey data on obtaining credit</td>
<td>Use of public reports</td>
<td>Any partner in the initiative</td>
<td>Low</td>
</tr>
<tr>
<td>Market size</td>
<td>Market capitalization of national bourses</td>
<td>Use of public and market data</td>
<td>Any partner in the initiative</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Sizes of outstanding credit pools</td>
<td>Survey of national financial institutions and use of public data</td>
<td>Any partner in the initiative</td>
<td>Low to medium</td>
</tr>
<tr>
<td>Category</td>
<td>Metric</td>
<td>Means of collection</td>
<td>Source</td>
<td>Difficulty</td>
</tr>
<tr>
<td>----------</td>
<td>--------</td>
<td>---------------------</td>
<td>--------</td>
<td>------------</td>
</tr>
<tr>
<td>Investment incentives</td>
<td>Total value per year of available incentives (firm level)</td>
<td>Use of public data and local firm records</td>
<td>Local firm and government</td>
<td>High (calculating and combining value of incentives may be especially difficult)</td>
</tr>
<tr>
<td></td>
<td>Total value per year of available incentives (industry or national level)</td>
<td>Use of public data and survey of national firms</td>
<td>Any partner in the initiative</td>
<td>Medium (survey requires new effort)</td>
</tr>
<tr>
<td></td>
<td>Cost of applying for and obtaining incentives divided by financial benefit of incentives</td>
<td>Survey of local and national firms</td>
<td>Combination of partners including local firms</td>
<td>High (implies all of the challenges described above)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Category</th>
<th>Metric</th>
<th>Means of collection</th>
<th>Source</th>
<th>Difficulty</th>
</tr>
</thead>
<tbody>
<tr>
<td>General regulation and the legal system</td>
<td>Indices of property rights</td>
<td>Expert analysis</td>
<td>Third parties</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Indices of investor protections</td>
<td>Expert analysis</td>
<td>Third parties</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Rankings of legal protections</td>
<td>Surveys of businesspeople and expert analysis</td>
<td>Third parties</td>
<td>Low</td>
</tr>
<tr>
<td>Regulation of business</td>
<td>Regulatory burden on business</td>
<td>Surveys of businesspeople and expert analysis</td>
<td>Third parties</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Regulatory burden on foreign investors</td>
<td>Surveys of businesspeople and expert analysis</td>
<td>Investing company and/or third parties</td>
<td>Medium (may require a custom survey, proprietary analysis, or compilation of existing surveys)</td>
</tr>
<tr>
<td>Overall climate for entrepreneurship</td>
<td>Surveys of businesspeople</td>
<td>Third parties</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Climate for specific sectors</td>
<td>Surveys of businesspeople</td>
<td>Third parties</td>
<td>Low</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Category</th>
<th>Metric</th>
<th>Means of collection</th>
<th>Source</th>
<th>Difficulty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tariffs, export taxes, and non-tariff barriers</td>
<td>Per unit average import tariff/export tax</td>
<td>Local firm records and use of public data</td>
<td>Local firm</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Per unit cost of complying with export regulations or import regulations in destination markets</td>
<td>Local firm records and use of public data</td>
<td>Local firm</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Per unit cost associated with trade barriers</td>
<td>Compilation of prior two metrics</td>
<td>Can vary</td>
<td>Low</td>
</tr>
<tr>
<td>Customs Regimes</td>
<td>Per unit cost of compliance with bureaucratic processes</td>
<td>Local firm survey</td>
<td>Local firm</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>Average days to customs clearance of incoming/outgoing shipments</td>
<td>Review of shipping and delivery records</td>
<td>Local firms or customs brokers</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Variance in number of days to customs clearance</td>
<td>Review of shipping and delivery records</td>
<td>Local firms or customs brokers</td>
<td>Low</td>
</tr>
<tr>
<td>Category</td>
<td>Metric</td>
<td>Means of collection</td>
<td>Source</td>
<td>Difficulty</td>
</tr>
<tr>
<td>--------------------------</td>
<td>--------------------------------------------------</td>
<td>----------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>Energy</td>
<td>Capacity of the grid, in kW or MW</td>
<td>Query to public utility or public data</td>
<td>Government or other partner with government backing^54</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Days/year at full capacity</td>
<td>Query to public utility or public data</td>
<td>Government or other partner with government backing</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Hours/year with power outage</td>
<td>Query to public utility or public data</td>
<td>Government, other partner with government backing, or independent monitor</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>Power outages/month</td>
<td>Query to public utility or public data</td>
<td>Government, other partner with government backing, or independent monitor</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>Price/kWHr for local firms</td>
<td>Query to public utility or public data</td>
<td>Government, other partner with government backing, or independent monitor</td>
<td>Low</td>
</tr>
<tr>
<td>Communications</td>
<td>Maximum data speeds</td>
<td>Query to network provider and test</td>
<td>Third party or any partner in the initiative</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Degree of ICT penetration</td>
<td>Query to network provider and/or survey</td>
<td>Third party or any partner in the initiative</td>
<td>Medium-High (network providers may not have this information; it may have to be collected via a new survey)</td>
</tr>
<tr>
<td></td>
<td>Hours/week at full capacity</td>
<td>Query to network provider</td>
<td>Any partner in the initiative</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Hours/year outages</td>
<td>Query to network provider and/or survey</td>
<td>Third party or any partner in the initiative</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>Price/minute of calls and data</td>
<td>Query to network provider</td>
<td>Any partner in the initiative</td>
<td>Low</td>
</tr>
<tr>
<td>Transport</td>
<td>Kilometers of Rd/GDP</td>
<td>Transportation ministry records</td>
<td>Government</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Kilometers of rail/GDP</td>
<td>Transportation ministry records</td>
<td>Government</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Port capacity</td>
<td>Transportation ministry records</td>
<td>Government</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>% of population using public transit</td>
<td>Public survey</td>
<td>Government</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>Domestic air seats/GDP</td>
<td>Survey of carriers</td>
<td>Government</td>
<td>Medium</td>
</tr>
</tbody>
</table>
### Workforce improvement

<table>
<thead>
<tr>
<th>Category</th>
<th>Metric</th>
<th>Means of collection</th>
<th>Source</th>
<th>Difficulty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workforce quality</td>
<td>Wage rates</td>
<td>Labor ministry statistics or survey</td>
<td>Government</td>
<td>Medium (may require a new survey or questions added to existing survey)</td>
</tr>
<tr>
<td></td>
<td>Educational attainment</td>
<td>Education ministry statistics or survey</td>
<td>Government</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>Average days of work missed per year</td>
<td>Employer survey</td>
<td>Local firms or other partner in the initiative</td>
<td>Medium-High (may require a new and/or industry-specific survey at local, regional, or national level)</td>
</tr>
</tbody>
</table>

### A.3 Output metrics for the competitiveness of local firms

<table>
<thead>
<tr>
<th>Category</th>
<th>Metric</th>
<th>Means of collection</th>
<th>Source</th>
<th>Difficulty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capabilities</td>
<td>Difference between local firm capabilities and national/global benchmarks</td>
<td>Local firm records, investing company’s data and/or industry publications</td>
<td>Local firms, investing companies, and/or third parties</td>
<td>Medium (requires collecting and combining data from various sources)</td>
</tr>
<tr>
<td>Cost</td>
<td>Difference between local firm prices and national/global benchmarks</td>
<td>Local firm records, investing company’s data and/or industry publications</td>
<td>Local firms, investing companies, and/or third parties</td>
<td>Medium (requires collecting and combining data from various sources)</td>
</tr>
<tr>
<td></td>
<td>Capital expense/yr as share of total cost</td>
<td>Local firm’s balance sheet analysis</td>
<td>Local firms</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Input costs/unit</td>
<td>Local firms’ balance sheet analysis</td>
<td>Local firms</td>
<td>Low</td>
</tr>
<tr>
<td>Scheduling</td>
<td>Average days from order/delivery</td>
<td>Local firm order books</td>
<td>Local firms</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Portion of fulfillment time for change orders</td>
<td>Local firm survey</td>
<td>Local firms</td>
<td>Low</td>
</tr>
<tr>
<td>Reliability</td>
<td>Days of supply chain disruption</td>
<td>Customer surveys</td>
<td>Local firm or third party</td>
<td>Medium (survey of customers may require extra effort)</td>
</tr>
<tr>
<td></td>
<td>Value of orders delayed</td>
<td>Customer surveys</td>
<td>Local firm or third party</td>
<td>Medium (as above)</td>
</tr>
<tr>
<td>Quality assurance</td>
<td>Defect rates observed by producer</td>
<td>Local firm survey</td>
<td>Local firms</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Defect rates observed by customer</td>
<td>Customer surveys</td>
<td>Local firm or third party</td>
<td>Medium (as above)</td>
</tr>
<tr>
<td></td>
<td>Value of shipments rejected</td>
<td>Local firm survey</td>
<td>Local firms</td>
<td>Low</td>
</tr>
<tr>
<td>Health, Safety &amp; Environment (HSE) performance (e.g. Lost Time Injuries (LTIs), First Aid Cases) – absolute and relative to national/global benchmarks</td>
<td>Local firm survey</td>
<td>Local firms</td>
<td>Medium (will depend on the quality and reliability of local firm reporting and management systems)</td>
<td></td>
</tr>
<tr>
<td>Contract award(^{27})</td>
<td>Number or value of contracts won by local firms in competitive bidding process</td>
<td>Data from procurement department</td>
<td>Investing company</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>% of pre-qualified tender list comprising local suppliers</td>
<td>Data from procurement department</td>
<td>Investing company</td>
<td>Low</td>
</tr>
</tbody>
</table>
### A.4 Outcome metrics for impacts of competitiveness

<table>
<thead>
<tr>
<th>Category</th>
<th>Metric</th>
<th>Means of collection</th>
<th>Source</th>
<th>Difficulty</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Local economic development</strong></td>
<td>Value added to assets</td>
<td>Firm valuation judged by market capitalization and share offerings</td>
<td>Any partner in the initiative</td>
<td>High (may require new data collection and complex calculations)</td>
</tr>
<tr>
<td></td>
<td>Value added to output</td>
<td>Calculation of costs and revenue of local firms</td>
<td>Local firms and/or partners in the initiative</td>
<td>Medium (may require complex calculations)</td>
</tr>
<tr>
<td></td>
<td>Jobs created directly</td>
<td>Local employment analysis</td>
<td>Government</td>
<td>Medium (data may not be collected regularly at local level)</td>
</tr>
<tr>
<td></td>
<td>Jobs created indirectly</td>
<td>Local employment analysis</td>
<td>Government or third party</td>
<td>High (indirect jobs may be more difficult to identify than direct)</td>
</tr>
<tr>
<td></td>
<td>Inflows of capital</td>
<td>Local capital investment survey</td>
<td>Government or third party</td>
<td>High (data may not be collected at local level; data may be proprietary)</td>
</tr>
<tr>
<td><strong>Impact on investing companies</strong></td>
<td>Per unit in country operating margin increase</td>
<td>Analysis of investing company's costs and margin</td>
<td>Investing company</td>
<td>Medium (data may not currently be used in this way)</td>
</tr>
<tr>
<td></td>
<td>ROI on in-country operations</td>
<td>Investing company ROI calculations</td>
<td>Investing company</td>
<td>Medium (as above)</td>
</tr>
<tr>
<td></td>
<td>Days of social disruption reduced</td>
<td>Investing company’s security and community affairs records</td>
<td>Investing company</td>
<td>Low-medium (may require some calculation)</td>
</tr>
<tr>
<td></td>
<td>Total cost of ownership</td>
<td>Investing company’s records</td>
<td>Investing company</td>
<td>Low-medium (as above)</td>
</tr>
<tr>
<td></td>
<td>Reputation</td>
<td>Surveys of stakeholders</td>
<td>Investing company or third party</td>
<td>Medium-high (requires new effort and impartiality)</td>
</tr>
</tbody>
</table>