



**GFCC**

Global Federation of  
Competitiveness Councils

# Accelerating Growth

## Best Practices in Competitiveness Strategy

2011

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**GFCC**

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Competitiveness Councils

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## CHAIRMAN'S LETTER



On behalf of the Board of Directors and members of the Global Federation of Competitiveness Councils (GFCC), I am pleased to present a groundbreaking new publication, *Accelerating Growth: Best Practices in Competitiveness Strategy*.

When the GFCC was formed more than two years ago, it was predicated on the belief that the sharing of best practices among national competitiveness organizations and among nations would provide benefit to all interested parties—a rising global economic tide has the potential to lift all boats. With the release of this report, we have put that belief into practice and created what we hope will be a useful tool for competitiveness initiatives around the world.

Featuring both case studies and personal testimonials from the general members and Board of Directors of the GFCC, this report offers insights for developed and developing countries. From driving the development of infrastructure projects in the Middle East to encouraging entrepreneurship in Russia to renewing the United States' innovative spirit, there are valuable contributions from twelve GFCC organizations.

*Best Practices in Competitiveness Strategy* will be issued annually by the GFCC. I hope you enjoy the inaugural publication.

Sincerely,

A handwritten signature in black ink that reads "Charles O. Holliday, Jr." in a cursive script.

**Charles O. Holliday, Jr.**

Chairman, Bank of America; and  
Chairman, Global Federation of Competitiveness Councils

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## EXECUTIVE SUMMARY

*Accelerating Growth: Best Practices in Competitiveness Strategy* was developed by the Global Federation of Competitive Councils (GFCC).

Twelve GFCC organizations describe their nations' approach to make it easier, faster, and more efficient for organizations—and for their nations—to thrive.

The best practices outlined in this report range from profound policy shifts, such as fundamental changes in the Middle East in the wake of the Arab Spring, to strategies for innovation-led growth, to the creation of industries that are harnessing the economic power of natural resources. Council members engaged with both the public and private sectors are exploring ways for their nations to streamline, to boost and to grow their economies.

In this report, readers will learn how Dubai went from a region well-known for pearl-diving to a global trade logistics hub; how Brazil embraced change in both the public and private sector to arise from the international financial crisis of 2008-2009 to robust growth in 2011; and how Northern Ireland is now using wind to meet its energy and economic challenges.

Read how Canada pinpointed productivity issues in its energy industry and called on the expertise of the private sector to become more productive—and competitive. Find out how both Saudi Arabia and Korea honed in on ways to make it easier to start and strengthen businesses by cutting through bureaucratic red tape and fees—and are seeing a revolution in innovation as a result. Explore Panama's plan to join experts in both the public and private sector for “organized networking” to boost its economy. And learn how Egypt

has taken a holistic approach to its economy; exploring changes that will make the most of its bountiful resources, for a better world for its people by 2030.

Of course, measuring progress is critical. See how the United States turned policy into practice in creating an innovation agenda and subsequent landmark legislation. At the heart of best practices is benchmarking, because it identifies successes, failures and areas that can be improved. The report details Russia's work to create an index to determine where businesses can thrive in their nation, and where improvements are needed. And Ireland is creating a scorecard to improve standards of living.

The Global Federation of Competitive Councils intends *Accelerating Growth* to be not-only informative, but enlightening. There are models to be copied in this report. There are ideas to be tried. But beyond these practical solutions, *Accelerating Growth* also features personal perspectives on competitiveness from the Board of Directors of the GFCC. These thought provoking insights provide a rare window into a wide range of opinion from around the world—a world in which the line between competitor and collaborator continues to blur.

## BRAZIL

### Brazilian Experience in Promoting Competitiveness, Development and Innovation

Brazilian industrial development depends on its capacity to increase national competitiveness, which is to a large extent related to the quality of macro- and micro- policies.

Sound macroeconomic policies have an important impact on growth by creating a stable environment in which firms can seize market opportunities. Low interest rates, an appropriate exchange rate and high-quality infrastructure stimulate business, employment and income generation. At this level, public policies are crucial for providing the overall basis for growth.

In addition to a stable macroeconomic environment, a set of key micro-policies is needed to foster enterprises' productivity and innovation. The performance of companies is crucial to boost competitiveness, as there is a dynamic relationship between innovation-efficiency-productivity-competitiveness: competitive companies are more likely to innovate, to develop resource-efficient production systems and to generate systematic gains in productivity (with better production processes and improved products).

In this sense, it is necessary to constantly improve the tools to support innovation activities and invest in training and qualification of human resources. It is also essential to build an environment conducive to knowledge generation, as well as diffusion and absorption of new technologies, creating an appropriate regulatory framework. Finally, the interaction between companies, universities and research institutes is of utmost importance as it deepens and enhances knowledge synergies. All these efforts require strong intra-governmental and public-private coordination mechanisms.



Agência Brasileira de Desenvolvimento Industrial

Since 2003, the Brazilian Government has been strengthening its capacity for formulating, coordinating and implementing industrial development strategies. In 2004, the Industrial, Technological and Foreign Trade Policy (PITCE) was launched, and in 2008, it was followed by the Productive Development Policy (PDP). This year, the new government's industrial policy was launched: Plano Brasil Maior.

During this period, Brazil managed to improve the institutional framework, including not only the creation and strengthening of key structures for public-private dialogue, but also remarkable improvements in the legal and regulatory environment.

#### PITCE and PDP

The 2004-2006 industrial and technological policy, PITCE, was aimed at promoting industrial development associated with key state-of-the-art technologies and the internationalization of Brazilian enterprises. In the short term, PITCE intended to reduce the country's external constraints, and in the medium- and long-term, to develop key capabilities that could allow Brazilian enterprises to increase efficiency and competitiveness globally.



The main difference between PITCE and prior policies was its focus on innovation to boost the country's competitiveness.

Regarding innovation institutional building, a series of actions were established, ranging from tax incentive laws, sector-based funds to promote university-enterprise relationships, supply of subventions and Treasury equalizing credit for innovative activities, and an increase in research grants, among others. The most relevant advances in the innovation-regulatory framework were the Innovation Law (which established a new framework for the relationship between universities, public research institutes and private companies, and allowed a more direct state support for business innovation) and the Tax Incentive Law, the so-called "Lei do Bem" (which provided tax incentives for companies investing in innovation).

To improve intra-governmental coordination and the public-private dialogue, an important entity was created: the National Council for Industrial Development (CNDI). Involving ministers, industrialists and trade unionists, it aims at discussing strategies and specific measures to promote industrial development. The CNDI undertook important efforts that contributed greatly to the country's development.

In addition, the Brazilian Agency for Industrial Development (ABDI) was created in order to promote the implementation of the country's industrial policy, in agreement with the policies of foreign trade and science and technology. The Agency operates as a liaison between the public and private sectors, contributing to the country's sustainable development through actions aimed at improving industrial competitiveness. ABDI is responsible for providing technical support as well as situational, strategic and technological studies to the bodies responsible for coordinating the industrial development strategy. In addition, ABDI stimulates interaction among corporations, academia and the government to support an innovative environment. ABDI also collects, analyses, systematizes and disseminates information on industrial development in order to assist decision-

making. And finally, the agency coordinates, develops, monitors and evaluates strategies to improve the competitiveness of corporations in different supply chains.

For the first time in many years, Brazil had a well-defined strategy with integrated actions, sector-focused and forward-looking, capable of promoting considerable change in the domestic industry. Without an action plan for decades, the state and its leaders had lost the ability to formulate and coordinate a consistent policy aimed at promoting industrial competitiveness. As a result, the dialogue between the government and the business sector, as well as the ability to coordinate public policies, were weakened and compromised. The PITCE provided an institutional re-engineering, re-establishing the necessary tools to leverage the industrial development in an efficient and sustainable manner.

In May 2008, the new version of the industrial and technological policy, PDP, was launched, as a sector-deepening approach to complement PITCE's horizontal focus. The PDP expanded the range of sectors benefited by the prior policy and improved the legal environment for investment and innovation.

The PDP correctly chose the insufficiency of aggregate investment as the main constraint to be overcome. The expansion cycle 2004/2010 was initially driven by exports, which induced the resumption of steady investment growth. Investment scaling was stimulated by policy mechanisms for cost reduction, credit access expansion and the boosting of family consumption, making possible the consolidation of an investment-consumption based growth path. Through an extensive apparatus of financial instruments and long-term tax relief, the PDP sought to overcome the aggregate investment constraint, especially the investment in physical installed capacity.

With the 2008 world economic crisis, the PDP adopted several anti-cyclical instruments to face the new scenario of unemployment and reduced

demand. Such measures intended to recover the rising rate of investment and exports, to maintain the growth level, and to strengthen investments in RD&I. The 2009 anti-cyclical policy broadened the scope, coverage and accessibility of PDP's instruments, and the strong economic recovery in 2010 largely reflected the successes of this economic policy and the general PDP's guidelines.

From the governance point of view, the PDP developed a model that managed to integrate different governmental areas and promote a constructive dialogue with the private sector (employers and workers). This dialogue enabled the rapid identification of government measures to be taken in order to achieve PDP's goals. It also enhanced these measures, making them more efficient and integrated with the private sector actions.

An overall assessment of the period 2003/2010 indicates that both PDP and PITCE were effective, successfully mobilizing the public sector, linking it with the private sector, and thus regaining the ability of the Brazilian State in the formulation and operation of a coordinated industrial development strategy.

## Plano Brasil Maior

In August 2011, Plano Brasil Maior was launched. Taking into account the past experience, it aims at reaching a new stage in the formulation and implementation of policies to support industry, innovation and foreign trade. By taking advantages of Brazil's fast recovery from the 2008-2009 international crisis, Plano Brasil Maior moves from a focus on aggregate investment to an emphasis on investment in technological, organizational and corporate innovation. Its major aim is to foster aggregate labor productivity, by and large the most important competitive challenge of the country at this stage of its development.

The Plano Brasil Maior establishes a series of sectoral and horizontal guidelines, named Structural and Systemic Dimensions, for the develop-

ment of long-term innovation investment projects in a strong public-private partnership. Figure 1 summarizes this model.

The Structural Dimension aims at promoting production efficiency, upgrading technology and driving sustainable productivity growth in Brazilian industry. It provides five guidelines for the sectoral programs that will be built in partnership with the private sector and civil society:

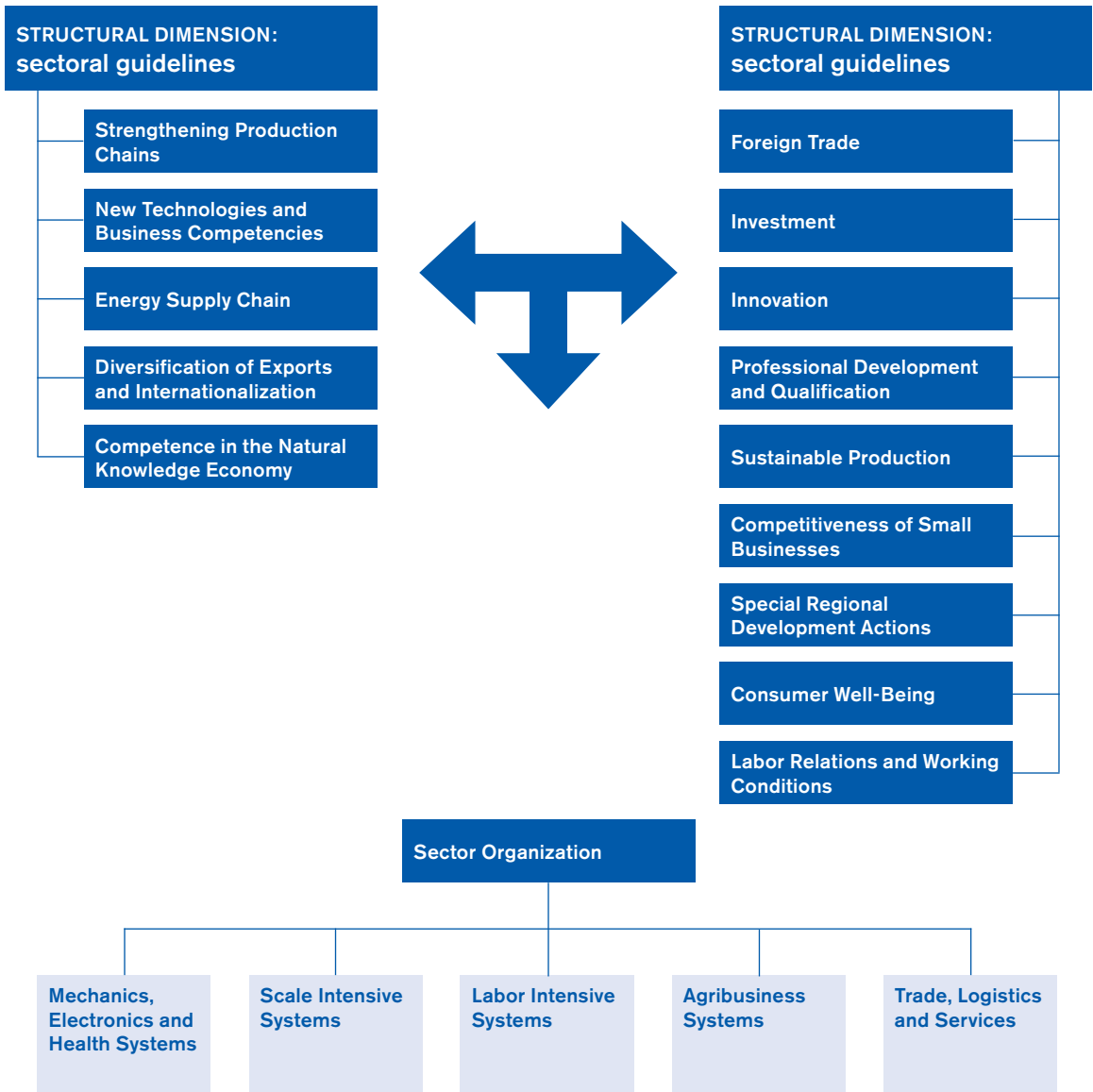
- To strengthen production chains
- To enhance and build new technological and business competencies
- To develop supply chains of energy resources
- To upgrade and diversify exports (markets and products), to promote the internationalization of Brazilian enterprises and to attract R&D facilities of multinational enterprises
- To consolidate competencies in the natural knowledge economy

The Systemic Dimension aims at increasing production efficiency and the technological capabilities of the economy as a whole. It includes the following priority topics for horizontal actions:

- Foreign Trade
- Incentive to Investment
- Incentive to Innovation
- Professional Development and Qualification
- Sustainable Production
- Competitiveness of Small Businesses
- Special Regional Development Actions
- Consumer Well-Being
- Labor relations and working conditions

In regard to governance, the Plano Brasil Maior is composed of three levels: (i) Articulation and formulation, (ii) Management and decision-making and (iii) Higher advisory, according to Figure 2.

FIGURE 1. Plano Brasil Maior Structural and Systemic Dimensions



The articulation and formulation level is the arena for intra-governmental cooperation and coordination between government, the private sector and civil society. It is composed by the Sector Competitiveness Councils (public-private dialogues) and the corresponding Executive Committees.

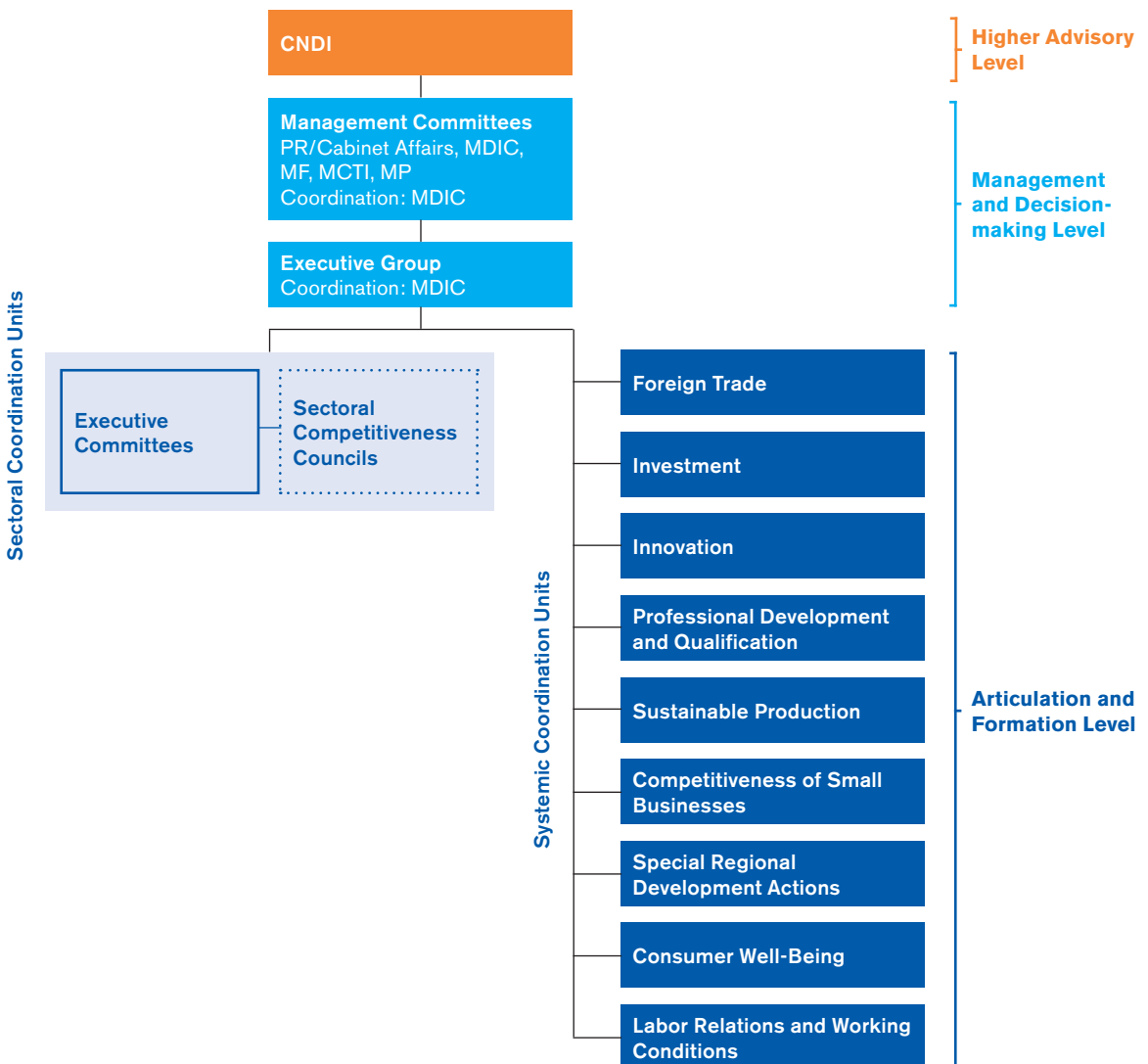
These bodies have the task of formulating and implementing Sectoral Competitiveness Agendas, aimed at: (i) identifying challenges, (ii) prioritizing actions, (iii) detailing support tools, and (iv) scaling

the necessary resources in order to facilitate the implementation of relevant projects and actions.

The Systemic Coordination Units aims at subsidizing the Executive Group on the definition of cross-cutting actions.

The Management Committee is responsible for (i) approving the Plan's programs, its targets and indicators, (ii) monitoring and overseeing the Plan's implementation, (iii) solving problems, (iv) analyzing results and (v) proposing relevant ad-

FIGURE 2.



justments. It is composed by representatives from the following entities: Ministry of Development, Industry and Foreign Trade (MDIC) which coordinates the Committee; Office of Cabinet Affairs; Ministry of Finance (MF); Ministry of Planning, Budget and Management (MP) and Ministry of Science, Technology and Innovation (MCTI).

The Executive Group is responsible for coordinating and consolidating the Plan's programs and actions, its monitoring and conflict resolution. It is made up of representatives of seven institutions: MDIC (responsible for the coordination), Office of Cabinet Affairs, MP, MF, MCTI, the Brazilian Industrial Development Agency (ABDI), the Brazilian Development Bank (BNDES) and the Research and Project Financing (FINEP).

The National Council for Industrial Development (CNDI) is the highest advisory level, composed of seventeen Ministers of State, the president of BNDES and eighteen representatives of civil society. The CNDI is responsible for establishing the general strategic guidelines and subsidizing the management system activities.

In coordination with this process, a group of institutions operates in order to foster the competitiveness of the Brazilian economy, developing projects and contributing to improve policy instruments. The Brazilian National Confederation of Industry (CNI), the Business Movement for Innovation (MEI) and the Brazilian Competitiveness Movement (MBC), for instance, are valuable private partners.

It is also important to mention the creation of the Chamber of Management Policy, Performance and Competitiveness (CGDC), linked to the Presidency's Government Council. Aiming at improving public administration, by formulating policies and coordinating their implementation, it contributes to the competitiveness development.

This overview of the Brazilian contemporary experience in promoting competitiveness, development and innovation deserves one final remark regarding the country's achievements and new challenges of industrial and technological development.

After a half century of import-substitution industrialization since World War II, Brazil had to face the enormous challenge of defeating hyperinflation in order to reach a stable macro-economic environment and initiate a new long-run cycle of economic growth. The monetary stabilization brought by The Real Plan in 1994 paved the way to establish from 2004 onwards the conditions for a new long-run growth path based on investment-consumption growth interactions. The basic conditions to move towards this growth path were a body of consistent policies orientated to radical reduction of poverty and social inequalities. The transformation of Brazil from an unequal country to an emerging middle-class country has provided the social basis for an internal market of mass consumption, enabling a virtuous investment-consumption growth path.

The great challenge for sustaining such a virtuous growth cycle is to improve labor productivity. The extensive growth path of import-substitution industrialization is left behind. The only way to move forward on the country development trajectory is spurring labor productivity to both sustain and feedback real wage increases. This challenge of overcoming the risks of the middle-class development trap and reaching the final ladder for a developed and welfare society depends on the investment jump in education and technological innovation, the true mechanisms for long-run growth of labor productivity. Plano Brasil Maior seeks this achievement.

## BRAZIL

### Testimonial: Brazilian Agency for Industrial Development

Since 2003, the Brazilian Government has been revisiting the process of formulating, coordinating and implementing industrial development strategies. The launch of the Industrial, Technological and Foreign Trade Policy (PITCE) in 2004 marked the resumption of explicit public policies aimed at enhancing competitiveness with a focus on innovation. The Productive Development Policy (PDP), launched in 2008, maintained the emphasis on technological innovation and strengthened sectoral and intra-governmental coordination and private sector involvement. The Plano Brasil Maior, the new Government's industrial policy, aims at reaching a new stage in the formulation and implementation of policies to support industry, innovation and foreign trade under the new international environment. It includes tools to foster productive development and investment in innovation and in fixed capital. In addition, it counts with instruments to boost foreign trade and the internationalization of enterprises.

Over the past years, the Brazilian Government managed to enhance the tools to promote innovative projects, including remarkable improvements in the institutional framework, the creation of scientific and technological support institutions and the promotion of strategic partnerships amongst companies, universities and research centers. In addition, the need to establish effective mechanisms to improve intra-governmental coordination and public-private dialogue led to the creation of the National Council for Industrial Development (CNDI) in 2005 and the Brazilian Agency for Industrial Development (ABDI) in 2004.



#### **About the Author**

*Mauro Borges Lemos is the president of the Brazilian Agency for Industrial Development (ABDI). He holds a doctorate in economics from the University of London and post-doctorates from the University of Illinois and the University of Paris.*

Linked to the Ministry of Development, Industry and Foreign Trade (MDIC), ABDI is responsible for building partnerships, promoting a continuous dialogue between all stakeholders and coordinating a wide range of actions aimed at fostering industrial development. Taking into account that acting globally is a prerequisite to economic competitiveness, ABDI also contributes to the internationalization of Brazilian companies, inserting them into dynamic and competitive markets, according to the Plano Brasil Maior guidelines.

On the bilateral level, ABDI develops initiatives aimed at creating opportunities for Brazilian organizations to engage in technology/business projects with different partner countries around the world.

On the multilateral level, ABDI is a founding member of the Global Federation of Competitiveness Councils (GFCC). The GFCC creation is a landmark in the history of international competitiveness promotion. Bringing together different organizations from around the world, it raises awareness of the central role that competitiveness plays in world economic growth. At the same time, the GFCC allows member countries to share ideas and best practices on competitiveness promotion. In addition, it stimulates a deep mutual understanding on the countries' agendas, allowing the identification of possibilities for joint initiatives and opportunities to connect potential partners around the world.

The **Brazilian Agency for Industrial Development (ABDI)** was established by the Brazilian government in 2004 to promote the implementation of the country's industrial policy. Linked to the Ministry of Development, Industry and Foreign Trade (MDIC), it acts as a liaison between the public and private sectors, contributing to the country's sustainable development through actions aimed at improving industrial competitiveness.

## BRAZIL

### Brazil’s Movimento Brasil Competitivo Approach to Modernizing Public Sector Programs

A country’s competitiveness is directly affected by the efficiency and productivity of its public sector. In order for the private sector to grow in a sustainable manner, the country’s public administration must create an atmosphere for enhanced entrepreneurship.

In 2001, the Movimento Brasil Competitivo (Competitive Brazil Movement, MBC), a non-governmental organization, was created to foster the competitiveness of the Brazilian economy. The organization has been developing projects aimed at improving the quality of management in the public sector since 2005. These projects are part of the so-called “Modernizing Public Management Program” (PMGP), an innovative public-private partnership developed in Brazil.

Funded partly by the private sector, the program improves public management by providing technical knowledge and expertise. The program provides assistance from specialized management consultants, who have experience in many sectors, both in Brazil and abroad.

#### The Modernizing Public Management Program (PMGP)

- **National Project:** the program aims to cover the 27 Brazilian states.
- **Private support:** the project is mainly funded by the private sector.
- **Technical expertise:** management technology from large consulting companies is used to obtain the results.



- **Public administration commitment:** direct involvement of top-level public administration staff—including the Governors, Mayors, and the corresponding leaders in other government agencies—to ensure results.
- **Transparency:** monthly accountability of funds and project’s results.

The program focuses on:

- **Strategic planning:** Using Balanced Scorecards (BSC) techniques to design the public administration’s strategic map, looking for a consistent alignment between government’s objectives and projects;
- **Expense management:** Aiming to reduce costs, through greater spending efficiency. This is done through the application of a budget matrix technique upon a detailed analysis of the current expenditure situation, and through the identification and dissemination of best practices;
- **Revenue management:** Improving the management of the revenue collection process and contributing towards the efficiency of the treasury bureau. The aim is to increase tax revenues through efficiency and avoid increases in tax rates;



- **Process management:** Mapping out, assessing, and restructuring critical processes. This effort allows for the definition of performance indicators, process leaders, levels of authority and responsibility. It also allows for the attainment of challenging goals, which link improvement and innovation to results;
- **Project management:** Training public servants in the PMI methodology to improve the public administration's capabilities in dealing with the challenges posed by new investment projects. This is an important and critical tool to be used in dynamic, complex, and constantly changing environments.

The PMGP begins when a government agency manifests interest and sets the initial meeting, at which the Program is presented. Then, after the protocol of intentions, establishing legal backing, is signed between the parties, a diagnosis is prepared. For example, for the revenue and expenditure fronts, databases are analyzed in order to identify gain opportunities.

Based on the diagnosis, a proposal is prepared, outlining the plan to move forward. At the same time, a fundraising process begins, in which sponsorships are sought among local and national businesses.

This program has already been implemented by the MBC in public organizations such as the state governments of Sergipe, Alagoas, Pernambuco, Rio de Janeiro, São Paulo, Rio Grande do Sul, Pará, Bahia, Goiás, Minas Gerais and Brasília, as well as the São Paulo, Londrina, Pelotas, Aparecida de Goiânia, Guarujá, Rio de Janeiro and Porto Alegre municipal governments.

The program's results, both qualitative and quantitative, are substantial. In terms of budget performance alone, it has generated over US\$7 billion in five years, through the investment of US\$43.5 million from private funds, with a rate of return of 188 to 1. And these numbers underestimate the total effects of the program, which also translate in better school performance, more efficient health care, reduced crime rates, and other benefits.

Here are some examples of the impacts of the program in the State Governments of Pernambuco and Rio de Janeiro, and the Rio Grande do Sul Courts of Appeals:

## 1. Pernambuco State Government Process Organizational Redesign of the Health Office

Period: July 2009–July 2010

### Results

- Decreased average stay at Hospital Getúlio Vargas' Orthopedics department from 7.4 days to 6.5 days;
- Decreased average stay in neurosurgery from 20 days to 11 days;
- Decreased nursing staff on-call divergence rate from 44 percent to 8 percent;
- Decreased average audit time from 42 days to 12 days;
- Decreased average ICU waiting list time from 66 hours to 42 hours;
- Decreased average trauma-orthopedic waiting list time from 35 hours to 15 hours.

## 2. Rio de Janeiro State Government Process Organizational Redesign of the Security Office

Period: July 2009–January 2011

### Results

- Murders: 17.7 percent drop in 2010, at 4,768;
- Pick-pocketing: fell 11.2 percent between 2009 and 2010, for the first time in seven years;
- Car theft: the lowest absolute number since 1997, with 20,052 cases in 2010 and a 19.9 percent drop;
- Robberies aggravated by death: the lowest since 1999, with 156 cases, a 29 percent decrease compared to 2009;
- Civilians killed by police while resisting arrest: the lowest since 2001, with an 18 percent drop compared to 2009.

## 3. Rio Grande do Sul State Court of Appeals

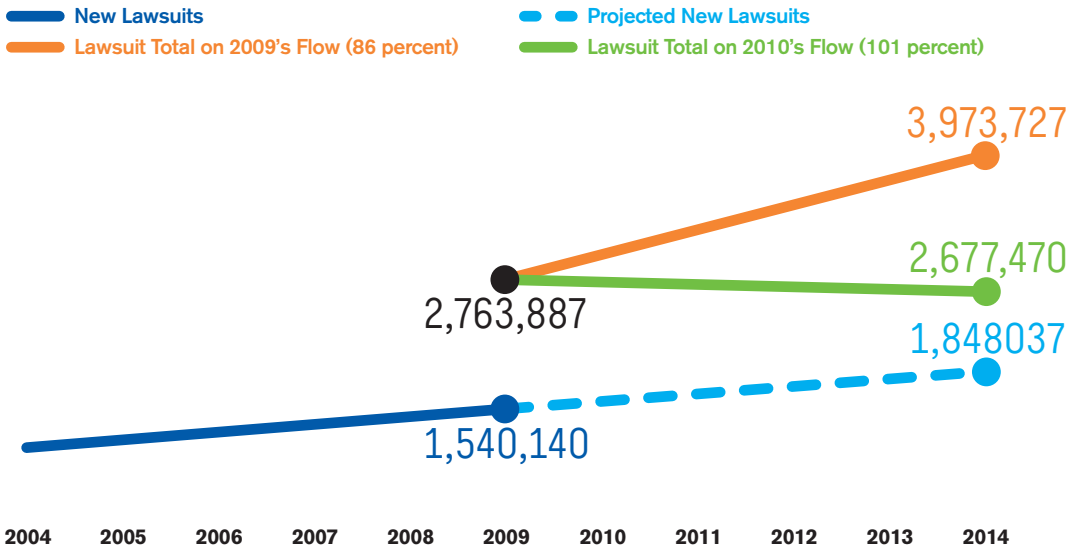
### Matrix Court Service Management

Period: February 2009–February 2010

### Results

In 2009, it was estimated that the amount of lawsuits filed with the Rio Grande do Sul Courts (PJRS) would reach 1.8 million in 2014. In the case that the then-lawsuit flow (86 percent) was maintained and nothing was done to resolve it, the PJRS would have had a log of nearly 4 million suits to deal with. With the new lawsuit flow level established in 2010 and the Court management modernization process, the new estimate for active suits dropped from four million to approximately 2.6 million.

### Future Lawsuit Demand X Flow Scenario



## BRAZIL

### Testimonial: Movimento Brasil Competitivo (Competitive Brazil Movement)

#### Creative Economy

Innovation is a key driver of a country's competitiveness—it plays a central role in achieving sustainability and prosperity in a dynamic market, where borders are no longer relevant. The continuous improvement of a business' value, based on a strategy that enables it to compete worldwide, is the only way-forward in an increasingly competitive marketplace.

In order for this to happen, an enhanced articulation between government, the private sector and academia—the so-called “triple helix”—is crucial to create the ideal conditions for innovation to arise in a sustained fashion. There is no single path to get there, but it is well-known that innovation depends, or is directly related to: qualified human resources, stimulus policies, an appropriate business environment, and strong interaction between universities, research institutes and the market.

For a growing number of companies, the theme of innovation is at the very core of their strategies. This is the main reason why innovation is a key part of industrial policies in many countries. The so-called “innovation economy” requires building a solid platform to allow for the different variables that influence the processes of generation, absorption and diffusion of knowledge and new technologies.

Innovative solutions must be integrated into a model that takes into account management excellence and sustainability. A country's development depends on enhanced competitiveness, not only as an element of business activity, but also as an



#### About the Author

*Erik Camarano is the CEO of Competitive Brazil Movement (MBC). He holds a doctorate in Economics and is a former Rio Grande do Sul State Secretary General, a chief-economist for Agenda 2020, and an economics teacher at the Catholic University (RS).*

integral part of the corporate culture. How to create innovative management processes on a daily basis is the current challenge for companies, individuals, and public organizations around the world.

The Competitive Brazil Movement believes in leadership mobilization and dissemination of knowledge as a way to leverage the country's development, improving the business environment. We share the guidelines of operation with the

Global Federation of Competitiveness Councils, and through new concepts and tools, we put our expertise to support projects that encourage national productivity.

To improve competitiveness in a significant way, it is necessary to invest heavily, and to add a good dose of innovation. We regard it as the result of the implementation of a new idea, capable of generating increased value for a sustained period of time. Following this same line of argument, Brazilian companies begin to consolidate the sale of products with high value-added through innovative technological processes, conquering new markets. Those who do not adhere to this “managerial-innovation” revolution will be left behind in the fierce competition of the globalized world.

Improving a country’s competitiveness is critical to achieving high living standards for everyone. The **Competitive Brazil Movement (MBC)** was created in November 2001 to foster Brazil’s competitiveness through concepts, tools, leadership mobilization, and knowledge dissemination. Establishing performance-based management as a value for both public and private sectors is the way to accomplish a permanent transformation towards sustainable development in Brazil. MBC develops projects in the areas of public and private management, innovation, and benchmarking. For further information: [www.mbc.org.br](http://www.mbc.org.br).

## EGYPT

### A Sustainable Competitiveness Strategy for Egypt by 2030

For many years, the Egyptian National Competitiveness Council (ENCC) focused on an urgent need to transform and modernize the Egyptian economy. Since its establishment in 2004, the Council has called for the transformation of Egyptian policies, institutions and above all, mindsets to increase Egypt's prosperity and to attain socially-inclusive and sustainable growth. To this end, the Egyptian Competitiveness Report highlights issues critical to Egypt's competitive performance. Some of the most pressing issues include human resource development and education reform, macroeconomic stability and social cohesion, environmental sustainability, and productivity driven by innovation. In 2009, the Council's calls culminated in the decision to initiate a Sustainable Competitiveness Strategy for Egypt—a plan to address these and other challenges in a holistic and systematic way.

The new strategy seeks to create a single integrated, coherent and thorough blueprint for the nation. It is a guide for what needs to be done in order to improve the lives of ordinary Egyptians, as well as propel Egypt's economy forward, matching the performance of today's fast-growing emerging economies. Work on the competitiveness strategy began with the first step of compiling, reviewing and building upon all preexisting national strategies and initiatives, as well as international best practices. It is now composed of 11 “pillars” of competitiveness—including the four core pillars: investing in people; macroeconomic stability and social cohesion; green transformation; and innovation.

The Sustainable Competitiveness Strategy responds to many of the demands made by Egyptians during the 2011 uprising. The



#### About the Author

Professor Mona El-Baradei is the ENCC's Senior Competitiveness Advisor. She was previously the Dean of Cairo University's Faculty of Economics and Political Science and is the former Executive Director of the ENCC.

revolution further amplified the significance and timeliness of the strategy, and responds to the aspirations of the Egyptian people for better, more decent lives, and a stronger, more equitable economy. The masses called for “bread, liberty, dignity and humanity”—the main components of a just society—and the underlying ambitions of the strategy.

#### Overview of the of Egypt's Sustainable Competitiveness Strategy

The ENCC began work on the Sustainable Competitiveness Strategy after reviewing 60 government strategies, 58 donor funded strategies, six research institute strategies and 21

other strategies. We chose to take a broad-based participatory approach, reaching out to academic professors, civil society leaders, businessmen, government officials and an array of development practitioners and experts to craft an inclusive and multi-dimensional framework. The strategy offers a multi-faceted and holistic approach to economic planning. At its heart are the underpinning elements of political will and institutional reform—as no strategy can be successfully implemented without the presence of these two prerequisites.

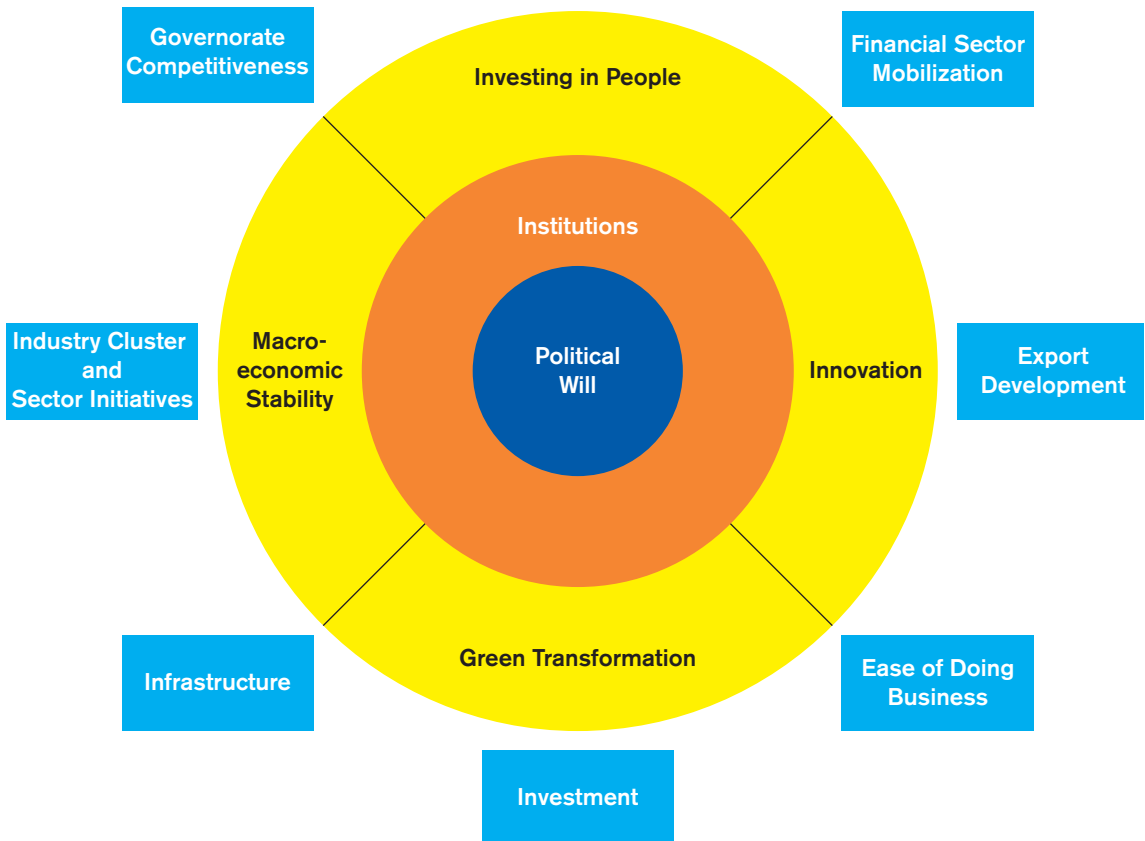
Upon this foundation lay 11 “pillars” seen to be the key drivers of Egypt’s present and future competitive ability. Four of these pillars will be especially important cornerstones of the strategy.

These are:

- human resource development,
- macroeconomic stability,
- sustainable or green growth, and
- innovation.

This is because the poor state of human capital, macroeconomic stability, innovation and environmental quality are tangibly felt on the Egyptian street. Egyptian citizens suffer from high unemployment, inadequate health care, rising prices, pollution, resource shortages and low-economic gains. In addition, these pillars

### Key Pillars of National Competitiveness



also have the potential to be the most significant drivers of future growth. The remaining seven pillars upon which the strategy is built include:

- export promotion,
- investment,
- friendly business climate,
- industry clusters, and
- governorate-level competitiveness.

International experiences further corroborate the importance of these elements. Countries like India, Brazil, China, Singapore, Chile, Ireland and South Korea were successful in achieving high rates of economic growth on a sustained basis and were able to mobilize political will behind a sound economic growth policy. They developed effective institutions to implement these policies over time and did not just rely on a few charismatic leaders. They invested in human resources by providing education and adequate health care. They maintained reasonable macroeconomic stability. They actively encouraged innovation, including the adaptation of technologies and techniques from abroad. They gained equal or favored access to attractive global markets on favorable terms and relied, in part, on export-led growth. They mobilized impressive levels of private investment. Those that went beyond export-led growth exposed their domestic market to competitive forces and made it easy for ordinary people to do business. They developed a modern, diversified and well supervised financial sector. They encouraged their industries to each develop their own strategies for repositioning themselves in global markets and for improving their productivity. They also encouraged competitiveness at the regional and municipal level.

Each of the 11 pillars and the prerequisites of political will and sound institutions are described in greater detail below.

**Prerequisite #1:** Political Will refers to four things: a clear vision of what to do, a strategy for implementation, the ability to control the apparatus of the state to implement the strategy, and the

ability to communicate effectively to the people, so as to generate popular understanding and support for the program. The current situation will require clear economic vision combined with greater outreach and dialogue with the public. Without political will, even the most coherent and potentially effective strategies will go unimplemented.

**Prerequisite #2:** Strong Institutions refer to the presence of a transparent, efficient, effective and accountable system of governance, both at the organizational level and at the policy and regulatory level. This encompasses the quality of government institutions in the judiciary, executive and legislative branches as well as the quality of civil service. According to *The State in a Changing World*, the main aim of the government should be to establish a rule of law; create a benign policy environment including macroeconomic stability; invest in people and infrastructure; protect the vulnerable; and protect the environment (World Bank 1997).

As Lee Kuan Yew, the first Prime Minister of Singapore and others have pointed out; successful growth requires investment in competent institutions to implement change. Policy change without institutional reform results in only modest economic performance. The legal and administrative infrastructure also has a direct bearing on all other facets of competitiveness. It affects investment decisions, the ability of businesses to operate, the soundness of a country's financial accounts and the success of public spending on things like education, physical infrastructure and health.

## The First Pillar: Investing in People

Investing in Egypt's citizens is essential to create the human capital needed to drive the economy forward. It contributes to the success of so many other areas and sectors including innovation, trade and industry competitiveness, and institutional efficiency. By addressing the problems of unemployment and poverty, this pillar responds to the demands of people who stood up in the January 25th revolution. Further, social and politi-

cal sustainability in the long-term is dependent upon the awareness, education and well-being of the people. Egypt's workforce has the potential to compete regionally and globally, making the nation a hub for skilled labor. Indeed, human resource development is the basis for the successful implementation of all other reforms. Education in particular is essential to the success of initiatives in all other pillars. Finally, education, health care and basic living conditions should be seen as fundamental rights that should be striven for to ensure social justice and the welfare of Egypt's citizens.

Investing in people requires equipping the Egyptian people with universal literacy, excellent primary and secondary education, effective technical and vocational training, and, superb tertiary education, especially in key areas such as math, science, engineering, computer science and management. It is about providing access to basic health care and meeting nutritional needs. It is also about reforming labor laws so that there will be a modern, well-functioning labor market. In the 2011/2012 Global Competitiveness Index (GCI), Health and Primary Education, Higher Education and Training and Labor Market Efficiency, ranked 96, 107, and 141 out of 142 countries respectively all reflect the dire need for human resource development in Egypt (Schwab 2011).

## **The Second Pillar: Macroeconomic Sustainability and Social Cohesion**

The recent economic downturn makes macroeconomic stability and social cohesion an urgent short-term priority in Egypt. High budget deficits, high government debt, high inflation and high unemployment have characterized the Egyptian economy for several years. If macroeconomic stability can be restored, it will create "fiscal space" to invest in people, encourage innovation and make the transition to a green economy. It will also encourage higher levels of private investment.

Macroeconomic stability is essential to creating a strong business environment and a sound economy that can support high and sustainable

growth. Macroeconomic stability also goes hand-in-hand with social cohesion. It ensures that growth is inclusive of all segments of the population. This pillar refers to having moderate levels of inflation, modest budget deficits, sustainable levels of government debt, manageable foreign debt and a market-driven but predictable rate of foreign exchange. Numerous macroeconomic reforms were introduced between 2004 and 2008, but further structural changes are still needed to achieve steady and consistent growth.

## **The Third Pillar: Innovation**

Innovation can rapidly increase Egypt's productivity and growth. The most powerful economies in the world today are relying on their ability to innovate. The United States, Germany and Japan foster innovation through patenting, strong intellectual property rights and higher levels of R&D. The innovation pillar is also closely related to the other two pillars of the competitiveness strategy. For example, investing in people is one of the main objectives of the strategy, which entails nurturing the skills and innovative capacity of citizens. Innovation can also boost green growth which is associated with new technologies and even new industries.

Total Factor Productivity (TFP) can be a proxy indicator for levels of innovation and reflects productivity gains that are not accounted for by labor and capital inputs. Unfortunately, in Egypt, TFP fell drastically during the 1980s to a negative rate. Between 1995 and 2005, Egypt's average TFP was -.7 percent compared to 3.18 percent in China between 1993 and 2005 (Herrera et.al. 2010; Ozyurt 2007).

## **The Fourth Pillar: The Green Transformation**

Green transformation refers to the long-term sustainability of Egypt's competitiveness as it relates to resource depletion and the environment. It also refers to Egypt's ability to compete in all its industries on the basis of a green advantage,



whether in tourism, agriculture or manufacturing. Egypt can position itself as a leader in wind and solar energy generation given its natural advantages. The country also has exceptional ecological features: coral reefs, unique desert landforms, rich fossil deposits, and vast bird migration that can form the base of a lucrative nature based tourism industry.

Egypt today is highly unsustainable. Its total consumption, translated into land mass, exceeds what can be produced by the country's natural resources (Global Footprint Network 2010). For that reason, a "business as usual" scenario is not viable. Impending shortages of water and energy, and as a result food, are becoming matters of national security in Egypt. Global consumers are now forcing Egypt's industries to adopt "green" standards. If industries fail to change, they will face stronger competitive pressures. For example, Egypt's tourism industry must respond with green certifications. Agriculture is taking green approaches to fertilizers and pesticides. Green industries such as renewable energy, efficient automobiles, improved construction materials, electronic controls and others can create new economic opportunities and jobs for Egyptians.

### **The Fifth Pillar: Investment Mobilization**

Attracting investment is a way to overcome constraints to growth that might be limited by the availability of local savings and investment capital. A sound investment climate will allow businesses, the microeconomic engines of growth, to thrive. High and sustainable investment levels can also a) reduce unemployment and poverty through the provision of jobs and economic growth b) attract technology, innovation and skills to Egypt that will reinforce the other pillars and c) help ensure the success of sectoral competitiveness strategies. Investment attraction strategies should give priority to high-growth industries where Egypt has a comparative advantage. Ireland is a good example of a nation that was able to mobilize impressive levels of investment through a well-targeted and a

highly professional investment promotion effort in its investment and trade promotion agencies. The success of its growth strategy earned it the title of "Celtic Tiger" during the 1990s.

To support local economic growth and address the unemployment problem, it is estimated that Egypt's total investment rate should be at least 28 percent. Total investment levels in Egypt grew consistently from 2004-2007, before falling to just 19.3 percent of GDP in 2008 as a result of the global financial crisis. Investment was also drastically impacted by the recent political events. Total investment in 2010/2011 fell further to just 15.5 percent of GDP (Ministry of Economic Development 2011).

### **The Sixth Pillar: Export Development**

Export promotion is a vehicle for creating jobs and fostering economic growth. It can open new markets for Egyptian products, while attracting foreign investment from corporations seeking to capitalize on Egypt's low labor and utility costs, proximity to global markets and range of preferential trade agreements. It can also serve as a tool to foster local production capacity. Today, tapping into global markets is more important than ever as domestic markets are no longer sufficient to achieve and sustain high growth rates. For example, export strategies played a huge role in the success of economies like China and India. China took the lead in manufactured goods while India positioned itself to compete in global information and communications technology markets fueling consistently high GDP growth rates, investment levels, and local industrial development.

Like investments, Egyptian exports increased steadily since 2004, with the exception of a sharp decline in the 2008/2009 fiscal year due to the global financial crisis. Since the January 25th revolution, exports fell by 3.6 percent in comparison to the same quarter in 2009/2010 (ECES 2011). However, overall annual exports for 2010/2011 are expected to be very close to 2009/2010 levels largely due to the fact that

petrol exports will remain stable and the fact that most non-petrol exports are pre-placed purchase orders (ECES 2011).

### **The Seventh Pillar: Building a Favorable Business Environment**

Boosting productivity throughout the domestic economy by encouraging competition and making it easy to do business is the seventh pillar. Egypt was hailed as a “top reformer” consistently in 2008, 2009 and 2010 by the World Bank’s *Doing Business* report—reflecting government efforts to streamline regulations and foster a more favorable business environment over the last decade. In the most recent rankings Egypt’s overall performance improved from 89th to 94th out of 183 countries, and improved or stayed constant in 6 of the 9 areas of the index (*Doing Business 2011*). Licensing requirements, property registration and investor protection continue to be major areas of deterioration. Another challenge facing the business environment in Egypt is the inconsistent enforcement of regulations and a judicial system that is very slow and subject to political influence. Small and Medium Enterprises (SMEs) in particular still face numerous constraints.

The Egyptian Competitiveness Strategy focuses on improving the business environment and creating a level playing field. Productivity growth and job creation can be stifled by onerous regulations. In particular, the SME sector is a promising source of economic growth, employment and innovation in Egypt. A sound business environment is also directly linked to the nation’s ability to increase investments and promote exports.

### **The Eighth Pillar: Infrastructure**

Strong infrastructure is an important source of growth because of its role in attracting investment and enabling export growth, while crumbling infrastructure poses a major hurdle for progress in other economic sectors, such as agriculture, logistics, trade and manufacturing. Infrastructure development ensures greater social justice by enhancing the living conditions of Egypt’s poor,

employing large numbers of unskilled labor and connecting less-developed communities with economic centers. Finally, Egypt faces many challenges in its energy and water sectors, that require upgraded infrastructure to eliminate waste and preserve scarce resources.

Infrastructure investments make private investment more productive. It includes general infrastructure, such as power stations, roads and ports, as well as specialized infrastructure such cold storage facilities at the airports for agro-exports, science parks or export processing zones. Egypt’s rank for infrastructure in the 2011/2012 GCI dropped by 11 places, reaching 75 out of 142 countries (Schwab 2011). Over the past half century, Egypt has made good strides in expanding the nation’s physical infrastructure. More recent years, however, have seen significant deterioration and a need for expansion.

### **The Ninth Pillar: Modern and Well Supervised Financial Sector**

A modern, well-supervised and efficient financial sector can deliver essential services that support economic development, increase growth, decrease economic vulnerability, allocate savings efficiently, create jobs and improve wealth distribution. Better mortgage facilities can enable more people to invest in their own homes and encourage an expansion in needed housing stock. Financial products for poorer income groups, including insurance and most importantly, appropriate rural and urban savings vehicles can help lift families out of poverty or improve their standard of living. An efficient financial sector can ensure that investments and savings are allocated to their most productive uses.

The financial sector needs to meet the needs of the economy, provide a growing array of savings and investment products and be relatively impervious to bubbles and financial crises through effective supervision. The financial sector is composed of banking and non-banking aspects, such capital markets, insurance and contractual savings, leasing and factoring and mortgage finance.

Egypt's rank in the Financial Market Sophistication pillar of the GCI improved steadily over the last four years, but this year dropped 10 places to 92 out of 142 countries (Schwab 2011).

## **The Tenth Pillar: Industry Cluster Initiatives**

Clusters are an important part of national competitiveness because wealth is ultimately created at the business and industry level. Cluster initiatives are a tool to foster development by improving strategy and productivity. In Egypt, clusters will be critical to the survival and expansion of SME's by bringing them closer to large companies which they can supply and serve. They are a tool to foster productivity and promote innovation by facilitating knowledge flows and linking sources of cutting-edge research to sources of funding and to producers. Cluster networks are also an important element to any sectoral competitiveness strategy. Institutional linkages, as well as a focused cluster component in the National Innovation Strategy, can lead to competitive industries and balanced regional growth across the country.

The new government cannot create a booming economy alone. It will need partners and allies, especially among the private sector through stronger industry clusters. In the "State of Cluster Development" variable (within the Business Sophistication pillar of the GCI), Egypt's position deteriorated from 66 out of 139 countries in 2010 to 74 out of 142 countries in 2011 (Schwab 2011). Despite the promising potential for cluster initiatives in Egypt, cluster thinking as such is still not widely propagated. In the future, the formation of competitive industry clusters needs to be a greater policy priority.

## **The Eleventh Pillar: Governorate Competitiveness Initiatives**

The ENCC is launching a Governorate Competitiveness Index to benchmark performance. This initiative aims to establish a quantitative measurement system that helps to monitor and identify

the elements of competitiveness within Egyptian governorates/regions in a way that ensures that the appropriate public policies are directed towards local development and investment plans, while maximizing overall benefit to the nation.

Uneven development constitutes a drag on national competitiveness. As such, there is a growing need for initiatives that aim at more broad-based regional development in Egypt that focus on transforming all regions into growth drivers. The diverse economic vocations of the governorates are visible in the high winds and wide beaches along the Red Sea Coast, the manufacturing clusters of Damietta and the fertile fields of Assiut. Strategic development of the distinct resources in each governorate is the foundation for a competitive Egypt.

## **Quick Wins, Flagship Initiatives and Sector Strategies**

Beyond the pillars, seven "quick win" initiatives were identified to provide short-term economic gains as well as three "flagship initiatives," which are long-term development projects. Six keystone sectors were selected for industry specific competitive strategies.

Quick wins are initiatives that apply elements of the strategy described above, that can be quickly implemented, that are feasible, that demonstrate immediate impacts and that create further momentum for sustainable competitiveness. The quick wins show that change is possible and create confidence among people to take on more daunting challenges. The seven selected initiatives include:

- Cleaning Up the Trash
- Cairo Traffic
- An National Innovation Competition
- Slum Improvements
- No Catch Zones
- Energy Efficiency Campaign
- Water Efficiency in Egypt

Three flagship initiatives have been chosen because of their potential impact, their visionary quality and because they give concrete expression to the strategy reflected here. They are also based on Egypt's unique competitive advantage and reflect specific and unique opportunities at this specific juncture in time in the 21st Century. These include:

- Transforming the Suez Corridor into a Global Manufacturing and Logistics Hub
- Greening the City of Sharm El Sheikh
- Developing a World Class Solar Energy Industry

Finally the ENCC has identified six sectors which hold unique potential to drive economic growth in Egypt, create employment and raise productivity based on Egypt's unique competitive advantages. In each sector, the relevant stakeholders need to come together to benchmark current performance, gather data on competitive industry clusters in other countries, and formulate a strategy for improving their competitiveness. These sector strategies will be based on the 11 pillars of competitiveness mentioned above. The selected sectors are:

- Tourism
- Agriculture
- Trade and Industry
- Construction and Infrastructure
- Energy
- Information and Communication Technology

## Role of the ENCC

The role of the ENCC in the Sustainable Competitiveness Strategy will be that of a catalyst, coach and convener. The ENCC's role is to focus attention on the long-term challenges of Egypt's competitiveness. It has been doing this faithfully for the last eight years. Unfortunately, many recommendations were not implemented or were implemented in piecemeal fashion. Now there is the opportunity to address major structural change in the Egyptian economy.

In the past, the ENCC has helped to inform national debates by commissioning sound analyses in various areas related to competitiveness and by offering concrete recommendations and proposals. The ENCC has sought to benchmark Egypt's performance on many indicators and provide an annual report card on progress. It has also convened leadership groups, formed working groups and facilitated a dialogue around the solutions to Egypt's challenges.

The ENCC has successfully raised the awareness of people in Egypt to competitiveness-related priorities. Finally, the ENCC has represented Egypt in global fora and federations, giving prominence to Egypt, contributing ideas and bringing best practices to Egypt.

Moving forward the ENCC will continue much of its past roles and functions. It will also bring together diverse groups and stakeholders to continue discussions and implementation of the competitiveness strategy. The ENCC will function as a 'dashboard' of progress for future policymakers and catalyst for positive change.

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## EGYPT

### Testimonial: Mr. Seif Fahmy, Chairman, Egyptian National Competitiveness Council

Whether it be for marketing the nation's products, enhancing technology transfer, increasing exports, attracting tourists and investors, training the workforce, or benchmarking against regional and global competitors, Egypt stands to gain from improved linkages to other countries. The opportunity to participate in the creation of the Global Federation of Competitiveness Councils (GFCC) has been, I believe, of great benefit to the Egyptian National Competitiveness Council (ENCC) as an organization but also to the entire country as a vehicle for such linkages.

Our membership in the GFCC coincides with the forging of a new Sustainable Competitiveness Strategy for Egypt. This is discussed in more detail in the Report on Global Competitiveness Best Practices. We believe the goals of the GFCC, and the new strategy are mutually reinforcing. Most elements of the competitiveness strategy reflect the development priorities that other countries used to foster high growth rates and to compete effectively in global markets. It is based on successful examples of other countries that succeeded in transforming their economies in a short time. Similarly, the GFCC is committed to bringing together councils from around the globe to share their success stories and create a learning network that can bridge gaps and promote global prosperity. The ENCC is proud to have been a part of this initiative since its inception.

Recent economic crises have clearly illustrated that countries are now more interdependent than ever. Economic growth is no longer about the competitiveness of a nation, but rather is about the combined competitiveness of nations. As such countries cannot design their economic policies



*Seif Fahmy, Chairman, Egyptian National Competitiveness Council*

in a vacuum. Global experiences and partnerships are essential to forging a prosperous future at the international, national and sub-national levels. For this reason the ENCC greatly welcomes the opportunity to share its work on competitiveness in Egypt with other councils and prominent leaders in the field of competitiveness. The ENCC seeks to continue learning from the invaluable insights and wealth of best practices that the GFCC network offers.

The **Egyptian National Competitiveness Council (ENCC)** was established in February 2004. Led by a group of prominent businessmen and members of the academic community, the ENCC is Egypt's first non-governmental organization to tackle the issue of national competitiveness. The council is an instrument of influence on government policies, business climate, and public attitudes and strives to make the nation's institutions more globally competitive. It seeks to develop solutions for specific issues that will increase the productivity of businesses and workers. The ENCC's mission is to improve the quality of life for all Egyptians by being an efficient and effective platform that brings together stakeholders—business, government, academia and civil society—to raise awareness and advocate policies that enhance competitiveness.

ENCC activities include various roundtables, workshops, periodic policy briefs and the annual production of the Egyptian Competitiveness Report (ECR), the council's flagship publication. The ENCC also comprises three sub-councils—the Travel and Tourism Competitiveness Council, the Human Resource Competitiveness Council and the Agriculture Competitiveness Council.

## KOREA

### Streamlining Procedures and Reducing Regulations to Boost Business Start-Ups

Promoting business start-ups in high value-added new industries provides vital components for sustainable economic growth and job creation. In Korea, however, the number of these essential start-ups had been trending downward from 61,852 in 2002 to 53,483 in 2007.

That's when the Presidential Council on National Competitiveness (PCNC) of Korea recognized the need to implement best practices to reverse that trend. The council realized the burdensome administrative process coupled with excessive government regulation created a stifling climate for launching fledgling businesses. So the PCNC began formulating measures to streamline the process of starting a business with the goal of stimulating both economic growth and job creation.

The results have been rapid and resounding. The World Bank's *Doing Business* report had consistently given Korea low marks for its "Environment of Starting a Business" index, ranking it 110th in 2007 and 126th in 2009 among 178 countries. But after the procedural and regulatory changes began taking effect, Korea had surged to 54th place by 2010.

#### Starting a Business in Korea: The Old Way

A complicated documentation process, compounded by countless visits to relevant authorities, sent both the cost and time required to start a business upward. To register a corporation, for instance, an applicant was required to visit seven different organizations to submit 32 documents—of which the same 17 documents were submitted to five different organizations. With such a



bureaucratic maze to maneuver, 97 percent of applicants hired legal agents to handle their business start-up documents, further adding to the cost and inconvenience.

Since the Korean legal system is based on Continental European Civil Law, Korea strictly regulated the business start-up process to protect shareholders and creditors through such measures as:

- Imposing minimum capital requirements.
- Banning use of similar company names within the same district.
- Mandating authentication of a corporate charter to prevent a conflict of interest among stakeholders.
- Requiring registration of a corporation, which incurred 1.3 million KRW (1,130 USD) in direct and indirect costs, a figure four times the 0.35 million KRW (300 USD) required in Canada, for instance. Countries under Anglo-American Common Law have a much simpler process where a corporation can be established with just two registrations, business registration and incorporation.

**Business Start-Up Costs of Korea and Canada, 2006 (1,000 KRW)**

Financial Cost incurred by minimum capital requirement

	Authentication	Registration	Financial Cost	Fees	Sum
Korea	260	240	300	500	1,300
Canada		350			350

In terms of environmental regulation, proposed start-ups were required to complete an array of paperwork and meet a variety of criteria, depending on the planned size and potential location of the business. For example, a proposed small-scale factory of 30,000 m<sup>2</sup> or less in size, an applicant had to check 54 legislative requirements related to national land utilization, environmental preservation, urban planning, water resource conservation, farmland and forest preservation, and conduct environmental and natural disaster impact studies, which took more than 30 days on average. For a proposed large-scale factory of 30,000 m<sup>2</sup> or more in size, an applicant submitted a plan and local government officials reviewed whether it met 36 regulatory standards. The applicant had to prepare documents and blueprints as well as conduct environmental and natural disaster studies, which took more than 30 days and cost over 8 million KRW(7,000 USD).

For start-ups proposed in areas where factory establishment was already allowed, the environmental regulations at times created a double-jeopardy situation by requiring adherence to multiple laws designed to address different situations. For instance, one law designated 79 industries as “polluting,” thereby restricting construction of even small-scale facilities in areas where factories were already permitted, even if the proposed facility did not create pollution.

Environmental regulations with an unclear range of application also hindered start-up companies. For example, local governments could prohibit establishing a factory if officials determined it would have an unacceptable impact on residents, farmlands or surrounding environments.

### **Starting a Business in Korea: The New Way through StartBIZ**

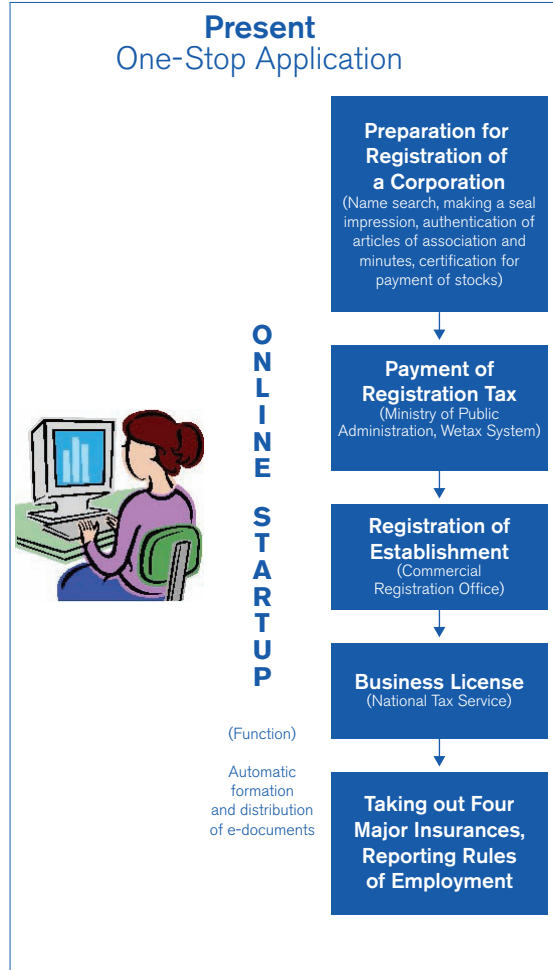
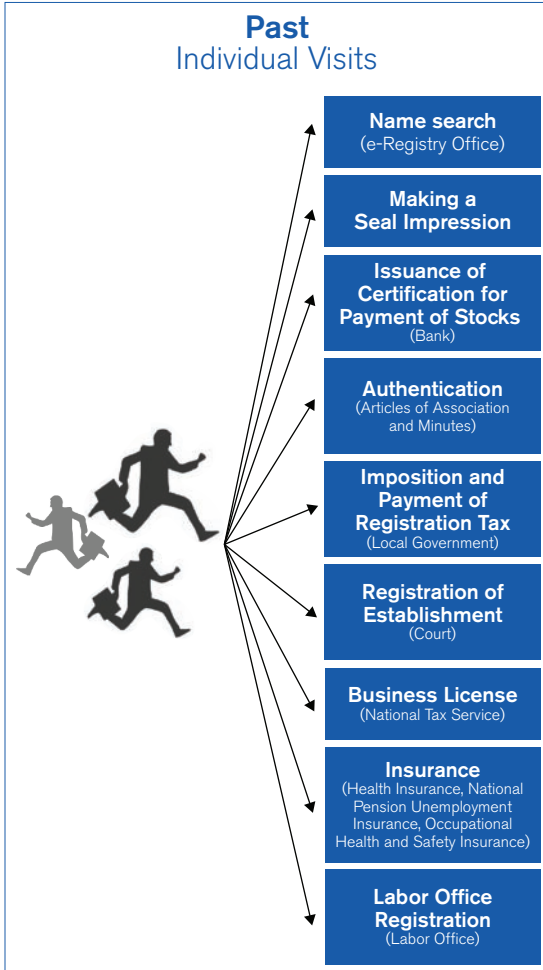
In January 2010, the online registration system known as StartBIZ originated to help applicants handle the process of establishing a corporation by connecting the networks of relevant authorities.

StartBIZ is linked to the various components necessary to start a new business, ranging from administrative, legal and tax officials to insurance companies. When a prospective business owner applies to register a corporation and provides necessary information online, the system automatically formulates the application documents and distributes them to relevant authorities. That means an applicant no longer has to visit those agencies and maneuver that maze to complete the administrative process.

And beginning in 2008, officials have implemented a series of legislative changes aimed at incorporating the type of best practices needed to improve the climate for starting new business in Korea.



## One-Stop Online Application System for Business Start-Up



In 2010, commercial law was amended to simplify and hasten the process of corporation registration. The process was streamlined through several changes, including: repealing the regulation against similar company names within the same district, changing the requirement for authentication of a corporate charter, appointing an auditor as an option for small start-up businesses with capital of less than 1 billion KRW (0.87 million USD), reducing the time for issuing business licenses from five days to three days, and abolishing the minimum capital requirement in order to promote small start-ups with creative ideas.

In 2008, a series of improvements was made to environmental and disaster regulations for factory establishment, including: legislation passed to begin phasing out environmental location restrictions on some small-scale factories, legislation was revised that had required environmental and natural disaster assessments for small-scale factories, and regulatory guidelines that allowed too much discretion for local governments was abolished.

## The Pay-Off for Start-Ups: Korea Offers a Leading Business Climate

The results of these changes have been swift and dramatic. By implementing these best practices, the Korean government has reduced the time by 83 percent and expense by 95 percent of establishing a corporation from 17 days to 5 days and from 1.3 million KRW(1,130 USD) to 60,000 KRW(50USD).

In addition, the period of factory establishment was slashed by more than two-thirds from 150 days to 45 days for small-sized factories and by more than one-half to 65 days for medium-sized factories.

As a result, StartBIZ—a system that enables a person with just a business idea to establish a corporation from home for free—is expected to

### Effect of Streamlined Corporate Establishment Policy (KRW)

Improvement Effect		Past	Present
<b>Corporation registration</b>	Period	17 days	3 days
	Costs	1.3 million (1,130 USD)	60,000 (50 USD)
	Number of required documents	32	12
<b>Factory establishment</b>	Period for Small-sized factory	150 days	45 days
	Costs for Small-sized factory	43 million (37,500 USD)	13 million (1,130 USD)
	Period for medium-sized factory	150 days	65 days
	Costs for medium-sized factory	43 million (37,500 USD)	19 million (16,500 USD)
<b>Reduced administrative costs related to corporate establishment</b>	Reduced administrative cost for corporate registration	6,6 million (5,700 USD)	
	Reduced administrative cost for Factory establishment	6,7 million (5,800 USD)	

make a huge contribution to economic growth and job creation, in particular by stimulating small-sized IT start-ups.

Most of the government's improvements were implemented from 2008 to 2010. As the measures achieved their remarkable effect, the number of start-ups has steadily increased by nearly 20 percent from 53,483 in 2007 to 63,300 in 2011.

And the rest of the world has begun taking notice of Korea's success, too. As a result of these efforts, Korea's ranking in the World Bank's Environment of Starting a Business index catapulted from 126th in 2009 and to 24th in 2011. The Korean government expects the number of businesses launching through StartBIZ to continue soaring, with the goal of moving into the world's top 15 countries for promoting start-up business.

### The Number of Companies Established Through StartBIZ

	2010	2011 January–October
Online Registration (A)	1,005	1,327
Total Registration from January–December (B)	60,312	63,330 (est)
Percentage (A/B)	1.66 percent	2.0 percent (est)

### The Number of Companies Established Through StartBIZ Annually

2007	2008	2009	2010	2011(est)
53,483	50,855	56,830	60,312	63,300

## KOREA

### Testimonial: Presidential Council on National Competitiveness

“National competitiveness” is one of those terms used for all kinds of different concepts. The general definition, however, would be “a nation’s overall capability to heighten productivity, wealth generation and business competitiveness.”

National competitiveness consists of two key components of a different nature. The first is the scale of existing resources or new resources that can be mobilized. Gross domestic investment, SOC, the number of skilled workers, size of the business sector, and number of patent applications would all fall into this category. The second component would be the innovative capability and system that efficiently manage these resources. This would include transparency in financial institutions, the commercialization of science technology, operation rates of industrial complexes and educational systems. These two different components maintain a mutually complementary relationship. Accumulating resources and advancing the capability and system that manage those resources will consequently raise national competitiveness.

While the components of national competitiveness are common to countries across the world, the quantity or capability to manage those components differ by each nation. Therefore, strategies on enhancing national competitiveness must focus on how to make good use of a country’s situation.

Let me elaborate by taking Korea as an example. Despite the lack of natural resources, in just half a century Korea has transformed from being the poorest country in the world to becoming one of the top ten OECD countries in terms of the economic scale.



#### **About the Author**

*H.E. Tae-Shin Kwon is the Vice Chairman of the Presidential Council on National Competitiveness. He served as a Minister in the Office of the Prime Minister, Vice Minister of Finance and Economy and as Ambassador, Permanent Delegation of the Republic of Korea to the OECD.*

In order to overcome the obstacle of lacking natural resources, Korea chose an investment strategy of selection and concentration on all resources, under the government’s strong leadership. Experts from abroad were aggressively recruited to manage this strategy. At the same time, the government did not neglect mid- to long-term educational investment aiming to foster talented human resources. As a result, Korea was able to maintain an annual growth rate of over 7 percent for the past 40 years.

However, there are limits to raising national competitiveness by increasing the scale of investment in economic factors. A good example is the East Asian crisis in the 1990s. Korea has also

witnessed a decline in labor investment at an average annual rate of 0.6 percent for the past ten years.

To overcome such limitations and achieve sustainable growth, it is necessary to pursue market-led innovation. Establishing and managing a system that facilitates creative economic activities has become especially important as we advance further into a knowledge economy. Korea's economy is making the transition from government-led growth supported by investment in economic factors to a market-led innovative economy. Consequently, Korea now ranks first in the number of patent applications per capita, fourth in the R&D investment/GDP ratio, first in the percentage of households with internet connection, and is home to companies that are globally competitive in cutting-edge science technology sectors, such as the semiconductor and automobile industries.

Judging from Korea's development experiences, national competitiveness depends on business competitiveness and it is important to create an environment in which businesses can pursue creativity and focus on production and innovation.

Korea's Presidential Council on National Competitiveness is currently focusing on improving the nation's business environment. One notable achievement we made was simplifying the business start-up procedure. In Korea, it is now possible for an individual with innovative ideas to found a business with limited capital in a short period of time. I sincerely hope that Korea's experiences are able to help other countries across the world.

### **Presidential Council on National Competitiveness (PCNC)**

**Vision:** Sustaining economic growth and improving the quality of life by strengthening national competitiveness.

**Objective:** Expanding the potential growth rate by promoting investment and enhancing economy-wide efficiency.

**Missions:** Regulatory reform, Public sector innovation, Investment promotion, Legal & institutional advancement.

## SAUDI ARABIA

### Streamlining the Process of Starting a Business in Saudi Arabia

#### Introduction

In 2006, starting a business in Saudi Arabia was costly and complicated. In fact, Saudi Arabia ranked 156 out of 175 countries in the “starting a business” indicator in the World Bank’s *Doing Business* report.

As part of its 10 X 10 program, Saudi Arabia sought to simplify this process and ultimately drive business creation in the Kingdom. Through a multi-phased reform campaign, highest level political support and a fresh and pragmatic management by the National Competitiveness Center, Saudi Arabia achieved its goal. Today, Saudi Arabia ranks among the 10 most efficient countries for starting a business. This article provides an overview of the reform activities and identifies key success factors.

#### Background

A few years ago, starting a business in Saudi Arabia was a very complicated process and extremely costly. According to the World Bank, Saudi Arabia’s regulation in this regard was among the 20 most burdensome in the entire world. To complete all steps required to be officially allowed to start business operations, a Saudi businessman needed a lot of patience—the process required him to complete 13 distinct procedures which took more than two months to complete.

Not only patience, the future Saudi entrepreneur required cash. With a minimum capital requirement of USD 125 thousand, Saudi Arabia’s business registration was among the most expensive in the world. It is no wonder that Saudis shun away from entrepreneurial activity and were



looking for government jobs or positions in state-owned enterprises. The ones who decided to run their own business often evaded the regulatory barriers by operating in the informal sector.

This was five years ago. Today, the situation could not be more different. Starting a business in Riyadh takes only five days and requires only three specific actions of the entrepreneur. There is no minimum capital requirement and the costs of registration have been reduced to approximately USD 1000. The same World Bank ranking, which had positioned Saudi Arabia as number 156 out of 175 countries in 2006, today ranks Saudi Arabia number 10 when it comes to starting a business.

This impressive change did not happen overnight. Rather, it is the result of five years of a continuous campaign of reforms small and large, driven and coordinated by Saudi Arabia’s National Competitiveness Center.

On a high-level, the process can be divided into four distinct phases:

- Phase 1: Building Momentum (2006)
- Phase 2: Legislative Push (2007)
- Phase 3: Creating the One Stop Shop (2008)
- Phase 4: Keeping Up Momentum (2009 onwards)

## Phase 1: Building Momentum

Following Saudi Arabia's accession to the World Trade Organization, in 2006 King Abdullah formulated the goal to transform the country into one of the 10 most competitive economies in the world by 2010, which launched the ambitious 10 X 10 campaign. After proving successful in driving regulatory changes around investor protection in preparation of WTO accession, the Saudi Arabian General Investment Authority (SAGIA) was put in charge of the 10 X 10 initiative and to coordinate and drive reforms required to boost Saudi Arabia's competitiveness. For this purpose, the National Competitiveness Center was created within SAGIA in 2006.

The extremely burdensome and costly process of starting a business was quickly identified as a major barrier to increasing Saudi Arabia's competitiveness, attracting investment, boosting entrepreneurial activity and increasing the economic contribution of the private sector to the Saudi economy and employment.

However, while equipped with a clear political mandate to improve the process of starting a business as a key element of the 10 X 10 initiative, SAGIA was not the institution responsible for the business registration process, which fell into the responsibility of the Ministry of Commerce and Industry and involved several other stakeholders. To build up momentum of reform, the NCC took a three-pronged approach:

- **Popularizing goals and approach of the 10 X 10 initiative**  
The strong political mandate provided by the King was a great help to get other stakeholders attention. Following the King's instruction, SAGIA held workshops with various government bodies to share the goals and suggested approach of the 10 X 10 initiative and explain what is required of the individual institutions.
- **Committing relevant stakeholders**  
Popularizing the ideas of the 10 X 10 initiative was not enough. Government agencies needed to commit to a reform timetable and be held accountable for progress. Therefore, the reform roadmaps agreed upon in the stakeholder workshops and follow-up meetings on ministerial and deputy levels were formalized in Memoranda of Understanding between the institutions and SAGIA.
- **Achieving quick wins**  
Understanding this as a high priority, other government bodies readily agreed to participate in the reform process in principle. However, many were skeptical about the necessary pace of reform, especially as some reforms required legislative changes that traditionally were slow and difficult to push through. To lift stakeholders' skepticism and convince them of the seriousness and feasibility of the initiative, the NCC focused on identifying potential "quick wins" before addressing the biggest challenges, such as legislative reform. Quick wins could be changes that involved only a single stakeholder and could be implemented by an administrative order. Other potential quick wins were government initiatives that were already planned or on-going, but were kept from completion by specific roadblocks or lack of political commitment. The additional political support and resources that the NCC could provide often allowed the country to fast-track initiatives that were slow or halted.

Quick wins around starting a business focused mostly on procedural changes, such as eradicating, merging and speeding up the time to complete procedures.

For example, the NCC was able to convince the Chamber of Commerce to drop the existing requirement to stamp the Company Books entirely.

The old process also required two separate publications in the Official Gazette: first, the publication of the company name and then at a later stage, the Articles of Association. This process was quickly merged into one step.

Finally, supporting and following up on initiatives such as the automation of the registration process of the General Organization of Social Insurance reduced the time required to start a business.

Inspired and motivated by these early successes, the NCC and its partners engaged on the most challenging phase of the initiative, the push to eradicate the excessive minimum capital requirement.

## Phase 2: Legislative Push

Until 2006, Saudi Arabia had one of the largest minimum capital requirements to register a Limited Liability Company in the entire world. The requirement was part of the Commercial Companies Law; any changes had to pass the entire legislative process. This included convincing the Council of Ministers, the Supreme Economic Council and the Shura Council, which is Saudi Arabia's 150 member strong Consultative Assembly.

Success and speed of reform therefore depended on two conditions:

- Formulating and dispensing a convincing case for abolishing Minimum Capital Requirement
- Identifying and implementing the most efficient process to pass through legislation

Since early 2007, the NCC created and toured the business case for abolishing the minimum capital. The case for reform consisted of empiri-

cal evidence on the effects of minimum capital requirements, international best practice case studies of successful economies, as well as addressing particular concerns of involved stakeholders. For example, the NCC presented evidence that showed the correlation of high minimum capital requirements and informal economic activity. It also showed how capital requirements do not lead to lower bankruptcy rates, as had been suggested by some experts. Finally, the case was made that creditors could be protected best based on accurate valuations of a company's assets or collateral, rather than a one-size-fits-all minimum capital requirement.

However, convincing all stakeholders was not enough. An efficient legislative process needed to be identified. Initially, the fact that the Ministry of Commerce had already prepared a draft of a new Commercial Company's Law appeared as the perfect opportunity to change the regulation about minimum capital. Abolishing minimum capital was added to the drafted Law as Article 164. In the first half of 2007, the Ministry of Commerce and SAGIA jointly lobbied to get the law passed. However, the involved bodies had several concerns requiring clarification, which were not related to the minimum capital requirement, yet slowed down the whole process. Therefore, in mid-2007, an innovative solution was suggested—Article 164 was split out of the Commercial Companies Law and passed as a standalone Royal Decree on July 17th. A major barrier to entrepreneurship in Saudi Arabia was eliminated.

## Phase 3: Creating the One Stop Shop

By mid 2007, the process of starting a business had been reduced from 13 to only seven procedures, the time reduced from more than two months to 15 days, and most importantly, the minimum capital requirement was abolished.

While this was a remarkable success, the process was still far away from international best practice. Therefore, the NCC teamed up with the Ministry of Commerce to set up a One-Stop-Shop for company registration to reduce the number organizations to visit and required return trips.



Although this initiative did not require legislative reform, a particular challenge was due to the large number of involved stakeholders. The existing process required interactions with three departments within the Ministry of Commerce alone (the Companies Department, the Commercial Names Department and the Commercial Registration Department), as well as the Chamber of Commerce, the Notary Public, the Publication Office, the Department for Zakat and Income Tax, the General Organization of Social Insurance and finally a private bank. All of these stakeholders had to be convinced to integrate their processes within a Unified Office relying on a single Ministry of Commerce employee serving the business owner and coordinating all required processes pro-actively in the back-office.

The National Competitiveness Center offered significant logistical support to the Ministry of Commerce in establishing the One Stop Shop: The NCC studied the Ministry's current processes, suggested a number of procedural changes, provided infrastructure, computers and furniture, trained Ministry employees and even temporarily transferred some of its own employees to the One Stop Shop during its ramp up phase.

After implementation of the One Stop Shop, the entrepreneur only had to come to the Ministry of Commerce twice to get his commercial registration: on one day to deliver all documents, pay all fees and sign the papers with the Notary Public. On his second visit, he receives his commercial registration.

Finally, the NCC achieved a significant cost reduction for entrepreneurs by working out a solution that reduced the Ministry of Commerce's registration fees by 80 percent, as well as eradicating the requirement to publish the Company name in a local newspaper.

Through intense cooperation with the Ministry of Commerce, the NCC succeeded in reducing starting business procedures to five separate steps—only the Department of Zakat and Income Tax and the General Organization of Social Insurance had not yet joined the Unified Center.

## Phase 4: Keeping Up Momentum

After establishing the One Stop Shop in Riyadh, the NCC continued to lobby for further easing of the starting a business process. In 2011, the remaining two institutions, the Department of Zakat and Income Tax and the General Organization of Social Insurance finally integrated their functions into the Unified Office, further reducing the required procedures from five to three.

In the World Bank's *Doing Business 2012* report, Saudi Arabia was ranked among the Top 10 most efficient countries for starting a business.

Today, the NCC continues to make starting a business easier in other parts of the Kingdom, with Unified Center's to be launched soon in Jeddah and Damman.

## Critical Success Factors

Within 5 years, Saudi Arabia turned its business registration process from one of the most burdensome to one of the easiest in the world. A number of factors were critical for this remarkable success.

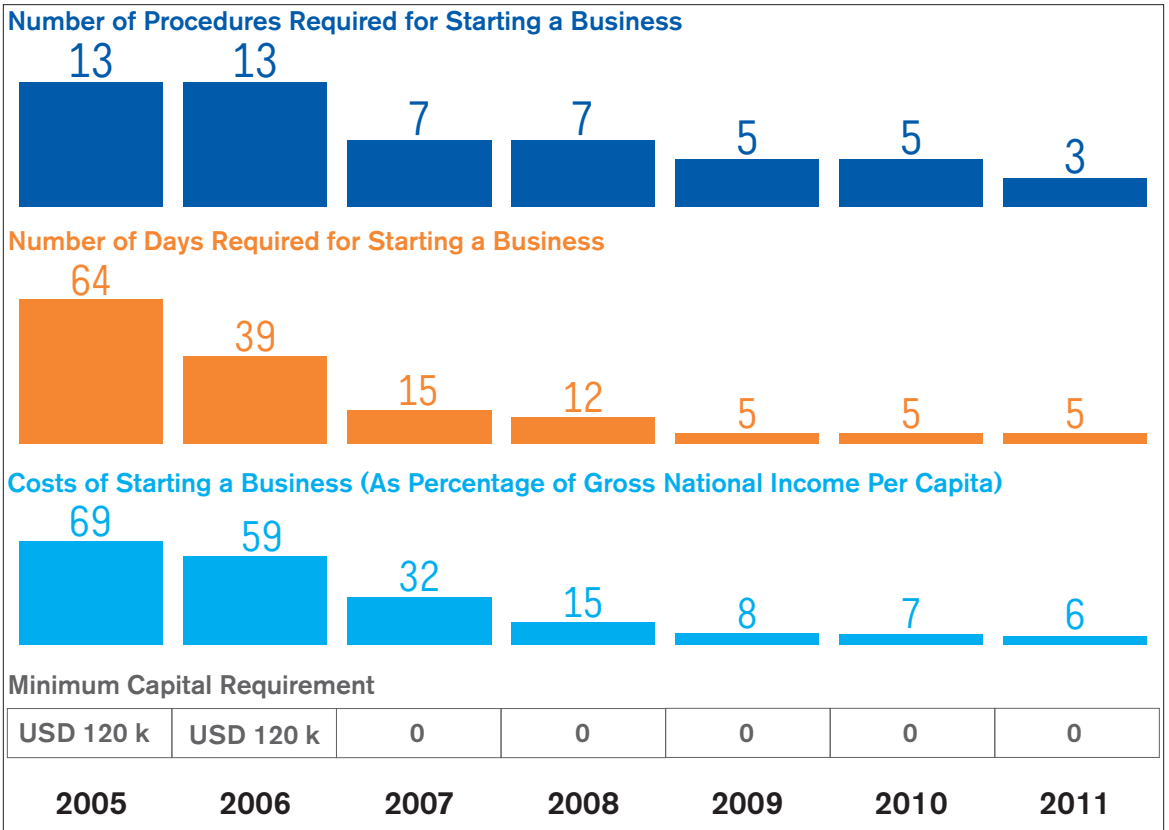
- ***Top-Level political support and commitment***

King Abdullah's embracement of the 10 X 10 initiative and the continued support provided through letters to stakeholders and quarterly check-ins on the progress were the most important factor for the initiative's success. His support allowed a break in the typical bureaucratic inertia, ensured the engagement and motivation of all involved stakeholders and allowed for the extraordinary pace of progress achieved.

- ***Clear targets and accountability***

The publicly announced and repeatedly communicated goals of the 10 X 10 Initiative set a clear target and timeline for reforms. While the goal to climb to the 10th position in the World Bank *Doing Business* report by 2010 seemed too ambitious a goal for many, the effect of raising the bar high showed the leadership's

### Starting a Business in Saudi Arabia



commitment to the required reforms. Each year, the achieved reforms could be measured against the framework provided by the World Bank.

- Creative and pragmatic solutions**

While clearly mandated with the ownership to drive reforms, SAGIA and the NCC were in a sense an “outsider” for most of the reform areas targeted in the 10 X 10 program. SAGIA was not in charge of the existing processes, which allowed it to look at them with a fresh, more neutral perspective and avoid justification of existing, burdensome processes. This outsider perspective allowed “out of the box” thinking and led to some creative or pragmatic solutions.

A good example is lifting the bottleneck of publication of the Articles of Association. One requirement for commercial registration was to publish the Articles of Association in the Official Gazette. This publication usually took significant time, as the resources of Department of Publication were limited. The NCC therefore advocated introducing the option of a preliminary publication of the Articles on a website together with a confirmation of the future publication in print. This preliminary publication from now on was sufficient to continue the process of business registration—while the practice of print publication of the Articles of Association was upheld, it was no longer a bottleneck holding up the entire process.

- **Advocacy and stakeholder alignment**

While beneficial, the fact that SAGIA and the NCC were an “outsider” to the starting a business process required a very strong engagement of other stakeholders. The principal stakeholder for starting a business was the Ministry of Commerce and altogether almost one dozen institutions were involved.

Advocacy and lobbying needed to cover 2 dimensions:

- Rationale for change
- The political dimension of change

Convincing stakeholders of the rationale for reform often involved revisiting the initial reasons why a certain procedure or regulation was introduced in the first place. In many cases, the old rationale has become obsolete, for example due to technological advancement, such as automation of processes or better access to services, e.g. banking, etc. In different cases, while the rationale for a certain regulation made sense, the NCC advocated alternative routes to ensure the same outcomes that put fewer burdens on the entrepreneur.

The political dimension of change was equally important. Advocating changing or eliminating existing procedures potentially puts involved stakeholders at risk of a loss. This can be a loss of control and influence, a loss of income or, in some cases, loss of an agency’s or a position’s very *raison d’être*. Only if it is clearly understood what political cost is associated with a suggested reform for all relevant stakeholders, can negotiations be run efficiently.

Potential solutions to solve political concerns can be: convincing stakeholders of the positive outcomes and potential shared credit if initiatives succeed, offering support in form of expertise or resources to other important initiatives of the stakeholder, or in some cases, increasing political pressure. The combination of good arguments and a good understanding of political costs are critical to rally stakeholders behind reform goals.

- **Long range management**

Given the long term nature of the reform effort, strategic sequencing of reform steps is critical. A first set of relatively easy quick wins is beneficial to build optimism, convince skeptics and generate momentum. Difficult and longer term challenges need to be tackled relatively early on, when political support and momentum is the highest: a good example being legal reform or setting up the One Stop Shop. Final “nice to have” adjustments that involve a limited number of decision makers can be left to the end; for example, the integration of the Department of Zakat and Income Tax or General Organization of Social Insurance into the One Stop Shop.

## Conclusion

In only five years, Saudi Arabia turned its process of starting a business from one of the world’s most burdensome to one of the most efficient.

This success was based on political support from the highest levels, clear targets and accountability, creative and pragmatic solutions, and engagement of all relevant stakeholders and, finally, a long range reform management of the reform effort by the National Competitiveness Center across the different phases of the reform.

The identified success factors can help other countries to streamline its processes and achieve success in reform campaigns.

## SAUDI ARABIA

### Testimonial: National Competitiveness Center

#### Arab Spring: A Call for Competitiveness

The events of the Arab Spring are commonly seen through the political lens—they are perceived by global media as a popular unrest against inert and recalcitrant political leaders and systems.

However, it is important to examine the economic foundations of the expressed discontent. While political in its manifestation, the key driver of dissatisfaction expressed in most of the affected countries is economic: the perceived exclusion of a large part of society from the participation in the national economy. The perception of political leadership being unwilling or unable to change this is one of the main sources of political discontent.

While feelings of economic marginalization and exclusion seem widespread in today's globalized world, the Middle East's specific socioeconomic conditions served as a catalyst for these feelings. While each Middle Eastern country that experienced popular unrest during the "Arab Spring" is different, there are certain common themes.

These include the population boom, starting in the 1980s and the resulting influx of educated youth to a labor market with limited opportunities; the concentration of employment in the public sector; and a handful of large, mostly state-controlled economic sectors, such as oil & gas and tourism, as well as the role of the political leadership as a gatekeeper of wealth distribution. All contributed to a specific set of social tensions that arose across the Middle East.



#### **About the Author**

*HRH Prince Saud K. Al-Faisal is President of the National Competitiveness Center and heads SAGIA's Investment Affairs Department. He serves on various boards, committees and councils related to increasing Saudi Arabia's competitiveness. HRH Prince Saud is a frequent speaker at national and international events related to competitiveness, foreign investment and economic development.*

Economic reform recently did not receive as much attention as political reform in the press and social dialogues across the Middle East. More attention needs to be placed on economic participation. Competitiveness can serve as both a lens and a platform for improvement in most of these countries.

Aware of its own need for a dramatic increase in private sector contribution to support the job creation needs of a pending youth bulge, Saudi Arabia launched a far-reaching economic reform

campaign as early as 2004. Saudi leadership identified competitiveness as the path to increasing economic opportunities for its growing population.

In the last five years, a priority target of reforms was the business environment. These reforms have laid the foundation for a rapid increase in foreign investment in non-oil sectors and increased entrepreneurship. In addition, Saudi Arabia launched an unparalleled expansion of higher education, and committed approximately USD 100 billion over a five year period in Research & Development, one of the largest R&D budgets globally, through initiatives such as the King Abdullah University of Science and Technology (KAUST), the King Abdul-Aziz City for Science and Technology (KACST), as well as numerous technology incubators throughout the country such as the Riyadh, Dhahran and Jeddah techno valleys. All of this will spur job creation and increase prosperity broadly throughout the Kingdom.

While other Middle East countries struggle with the complexities of establishing new forms of government and constitutions, the pursuit of a competitiveness agenda in parallel would be crucial to achieve progress against many key issues of their citizens.

The GFCC could be a forum for a dedicated discussion about applying global knowledge and best-practices around competitiveness to the specific conditions in a number of these countries, in particular in the emerging new political contexts. The National Competitiveness Center of Saudi Arabia will be happy to contribute to such discussions and collaborate with countries that will foster improved competitiveness in the Middle East.

The mission of the **National Competitiveness Center (NCC)** is to support the Kingdom of Saudi Arabia's competitiveness agenda through objective, data-driven advice on regulatory reform and sector improvement opportunities that will contribute to increasing sustainable prosperity for the people of Saudi Arabia.

The NCC was established by the Saudi Arabian General Investment Authority (SAGIA) in 2006 as a body to monitor, assess, and support competitiveness enhancement in the Kingdom of Saudi Arabia.

The NCC fulfills this role in three ways:

It serves as a think-tank for change by conducting and developing competitive assessments and monitoring the implementation and results of change programs. These programs focus on two main areas: improving the ease of doing business in the Kingdom, through spurring modernization of the general business environment; and improving the microeconomic fundamentals of competitiveness, through mobilizing development of world-class clusters.

The NCC works as a facilitator of change by creating forums for discussion between the public and private sectors. It is currently supporting the creation of Competitiveness Councils that bring together private and public stakeholders to identify and collaborate on competitiveness improvement initiatives.

Finally, it acts as a communicator for change, sharing the results of the Kingdom's ongoing competitiveness efforts through such channels as The Competitiveness Review.

## UNITED ARAB EMIRATES

### *Dubai Trade: Toward A World-Class Logistics Hub*

#### Introduction

Trade is a key economic activity in the globalized economy, reflected in a dramatic rise in exports internationally, which have surpassed GDP growth. Between 1994 and 2009, total world exports increased by 120 percent from US\$5 trillion to US\$11 trillion.<sup>1</sup> Today, the UAE is one of the world's preferred trade and logistics hubs. The World Bank *Doing Business* report (2012) ranked the UAE 5th for the ease of Trading Across Borders, out of 183 countries.<sup>2</sup>

This case study showcases *Dubai Trade*, an innovative, independent, physical and online trade network with the mission to “make trade easier, faster and cost effective for all stakeholders through continued improvement of business process and application of technology.” Established in 2006 on the foundations of the UAE's visionary policies and the trade and logistics infrastructure, *Dubai Trade* is an extensive public and privately-funded network of government entities and private firms in the trade value chain, and an important gateway for trade flows through the country.

In the past five years, *Dubai Trade* has been remarkably successful in facilitating the trade of goods and services through the UAE. This case study will explore how the UAE has benefitted from improvements in the trade process, and will highlight the valuable lessons *Dubai Trade* offers both the public and private sectors for creat-



Emirates  
Competitiveness  
Council

ing competitive advantage by: 1) leveraging an inherited location advantage; 2) having a strong customer-centric business strategy; and 3) fostering innovative public and private sector synergies. The case study concludes with a partial analysis of the impact of improved trade on the public sector, business growth and on the economy more broadly.

#### The Importance of Trade

Global trade has developed at a steady pace over recent decades. Fundamental changes in international commerce and finance, such as lower transport costs, advances in telecommunications technology, and the decline in trade barriers have fueled a rapid increase in global economic integration. This has led to heightened competition amongst companies in both national and international goods and services markets.

Trade has become a vital element for countries' economic development. When countries lower trade barriers, they create enormous potential benefits for business and households alike. These

<sup>1</sup> World Development Indicators, online, Sept 2011 Available: <http://data.world-bank.org/data-catalog/world-development-indicators>

<sup>2</sup> World Bank, *Doing Business 2012*, (Washington: The International Bank for Reconstruction and Development / The World Bank) 2010 Available: <http://www.doingbusiness.org/>

include improved access to overseas markets and imported technologies for firms; access to a range of competitively priced goods and services for consumers; increased competition in local markets to improve efficiency and accelerate structural transformation; and a more attractive business environment to stimulate investment. Increased trade levels and the greater wealth of many economies create new market opportunities.<sup>3</sup> Illustrating the growth in exports internationally, Figure 1 demonstrates the trend of a dramatic rise in the percent of growth in exports internationally relative to GDP growth from 1970 to 2009.

## Competitiveness and Global Trade

In this context of rising global interdependence and international trade, the UAE's emergence as a preferred trade and logistics hub is significant.

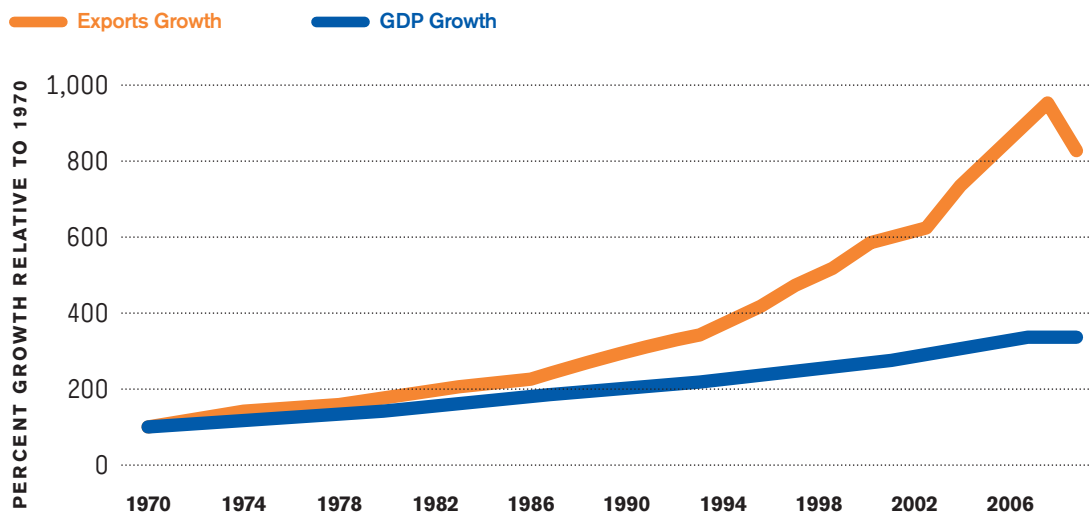
In 2008, the World Bank *Doing Business* report ranked the UAE 24th out of 183 countries for ease of Trading Across Borders; by 2012 that rank improved impressively to 5th out of 183 countries.<sup>4</sup> What has contributed to this trajectory of growth?

Historically, trade has been an important contributor to the UAE's economy. The country's central geographical location has given it a comparative advantage, and in recent years it has turned this location into a strategic, competitive advantage. The UAE government has pursued a strategy to encourage a robust business-enabling environment that advances economic growth and increases UAE's competitiveness and productivity. Policies to promote trade are an important feature of this strategy, and the country has developed an invaluable infrastructure that has allowed it to become a major player in international trade.

**FIGURE 1. Global Exports vs. GDP Growth**

Source: ECC Calculations based on World Development Indicators

Notes: GDP (constant 2,000 US\$)



<sup>3</sup> Arocha, Marcos, *Intermediate Results, Programming for Growth Briefing Note 9*, (Washington: USAID) June 2010. Available: [http://www.countrycompass.com/policy\\_briefs.php](http://www.countrycompass.com/policy_briefs.php)

<sup>4</sup> World Bank, *Doing Business 2012*, (Washington: The International Bank for Reconstruction and Development / The World Bank) 2010 Available: <http://www.doingbusiness.org/>

The UAE has invested heavily in world-class infrastructure, including roads across the country, state-of-the-art airports and cargo hubs in Dubai, Abu Dhabi and Sharjah, and model seaport facilities at Port Jebel Ali (See Figure 2). With this infrastructure in place, the UAE has gone even further to create a competitive advantage in trade by improving the efficiency of its trade process.

In the current environment of increased global trade, efficient logistics processes relate directly to the competitiveness of a country's economy. The less time-consuming and more cost-effective it is to export and import, the easier it is for traders to be competitive and reach international markets. Understandably, the business community engaged in international trade is keenly interested in how easily and quickly their intermediary and final products can transit through a country, and choose to invest in countries or regions that are most conducive to trade. Similarly, in a trade-enabling environment, firms within the country are encouraged to export their goods to external markets and participate in global value chains, contributing to the country's export sector growth.

### ***Dubai Trade*: The Birth of an Electronic & Physical Trade Network**

In the early 2000s, leadership within Dubai Ports, Customs and Free zone Corporation (PCFC) realized the potential lost trade from the existing fragmented and inefficient trade processes in Dubai. PCFC was the Dubai-based entity that preceded *Dubai Trade* in managing part of the trade value chain. PCFC recognized an opportunity to consolidate the trade process by bringing together relevant government and private entities. Their efforts ultimately led to the creation of the independent network or "single window" that was to become *Dubai Trade* ([www.dubaitrade.ae](http://www.dubaitrade.ae)). This single window would allow traders to submit import/export regulatory documents to multiple agencies online with a single entry point.

To consolidate and streamline the trade process, PCFC took a strong business-oriented, customer-service approach and focused on understanding the challenges of their main end customers, the trading community. PCFC consulted with the business community and found that traders wanted to reduce red-tape, simplify procedures, eliminate duplication and overlapping information requirements of various administrative entities, and, wherever possible, cut down on the need for submitting physical documentation. The administrative process was time-consuming and costly. Traders also requested faster processing of shipments through customs so that merchandise was not unduly delayed, risking spoilage, unfulfilled contracts and other unprofitable outcomes. In sum, end customers wanted to transform the trade process into an efficient, integrated, streamlined automated one, and PCFC was determined to provide it.

PCFC recognized that to meet their customer requirements for efficient, streamlined and integrated service, they would need the cooperation of several government and private trade-related entities. The scope of such an undertaking was enormous. It would bring together government entities ranging from customs, various ministries, licensing and regulatory authorities, to ground, sea and air transportation authorities with private sector stakeholders, including air and shipping lines, construction companies, financial services and professional associations. To accomplish an integrated trade network, two important conditions were necessary: 1) trade-related entities with processes and databases of their own would have to agree to integrate their services and share data to create a consolidated trade process and 2) an IT platform would have to be developed to support the collaboration, modernize the trade process, and make it paperless.

As they considered the best structure for a functional umbrella initiative, the PCFC leadership considered a range of questions: How could the government processes such as security, customs



**FIGURE 2: Port Jebel Ali**

1979



2006

*In 2009, Port Jebel Ali was ranked the world's 7th busiest container port.*

As early as the 1970s, forward-looking leadership in the UAE recognized the tremendous opportunities presented by growth in regional and global trade, and sought to strengthen the UAE's position as a trading hub.

Port Jebel Ali was constructed in the late 1970s at the behest of His Highness Sheikh Rashid bin Saeed al Maktoum, founder and then-ruler of Dubai. In 2009, Port Jebel Ali was ranked the world's 7th busiest container port.<sup>i</sup>

The Port is located within the Jebel Ali Free Zone, which houses more than 6,000 companies engaged in the manufacturing, trade, logistics and industrial and service-orientated sectors. The port is the world's largest man-made harbor and the largest container port between Rotterdam and Singapore. Located 35km to the southwest of Dubai, on the United Arab Emirates Arabian Gulf coast, the port's strategic geographic location, close to the major east-west traders, has enabled it to act as a maritime link between the Far East and the western hemisphere. It provides gateway access to a market of 1.5 billion people. As one of the most modern ports in the region, Jebel Ali is fully equipped to meet the needs of local and international land transportation. It is a technologically advanced facility, employing state-of-the-art equipment, including the world's largest gantry cranes capable of lifting four 20 foot containers or two 40 foot containers simultaneously—a total capacity of 80 tons, twice that of traditional cranes. These improvements will enable the port to cater to the new generation of mega-ships (14,000 + TEU<sup>ii</sup>). Today Jebel Ali port is a model for the industry and the region, in everything from size to efficiency and security. In 2010 it handled 11.6 million TEUs of sea cargo for the UAE region.<sup>iii</sup>

<sup>i</sup> American Association of Port Authorities (AAPA) Survey. Available: <http://www.aapa-ports.org/Industry/content.cfm?itemNumber=900&navItemNumber=551>

<sup>ii</sup> TEU (twenty-foot equivalent unit) is the standard unit to describe a ship's cargo carrying capacity, or a shipping terminal's cargo handling capacity. A standard forty-foot (40x8x8 feet) container equals two TEUs (each 20x8x8 feet).

<sup>iii</sup> DP World statistics. Available: [www.dpworld.com](http://www.dpworld.com)

and other trade related services be aligned? How would this be accomplished while maintaining the integrity of national security and the jurisdictions of the various authorities? What entities would need to cede some control and information so that services could be offered on a single online platform?

These significant challenges were offset by a strong commitment by UAE's leadership for government entities to participate in the proposed online trade portal. During PCFC's initial consolidation efforts, a directive was issued by then-Crown Prince of Dubai, His Highness Sheikh Mohammed bin Rashid Al Maktoum, for government entities to provide an e-enabled, service-oriented government to deliver world class services to its customers. This edict provided a powerful incentive for government entities to join hands on the proposed integrated trade IT platform. PCFC's efforts began to bear fruit and in the early 2000s, the institutional collaborations began to gain momentum.

By 2006, a series of institutional collaborations resulted in the birth of *Dubai Trade*, an independent entity. *Dubai Trade* is a physical and online network effectively linking traders with different parts of the trade value chain, including various government entities that regulate and license trade, such as Dubai Customs and DP World,<sup>5</sup> and private trade intermediaries such as shipping lines, clearing and forwarding agents, customs brokers, trucking companies, freight forwarders and free zone licensees. Physically, trade in Dubai is facilitated by the country's major sea and air ports, the flagship Jebel Ali Port, and the extensive expressway system.

*Dubai Trade* remains relentlessly focused on its mission to make trade faster and easier through improvement of the business process and technology. Currently it is working with different regulatory and government agencies, such as

the Roads & Transport Authority (RTA), Dubai Municipality, General Directorate of Residency and Foreign Affairs of Dubai, to improve the cargo clearance process, reduce inspection timelines and enforce security measures. Today, *Dubai Trade's* community is made up of over 52,000 members including traders, government, private sector companies and not-for-profit organizations.<sup>6</sup>

A key component of *Dubai Trade's* functionality has been its use of technology in response to the end customer request for paperless, efficient trade. The public face of *Dubai Trade* is an extensive, online single window that facilitates the flow of information about goods that enter and leave the UAE. New e-initiatives include collaborations with financial institutions to provide electronic services automating the entire export and import process, and a platform to facilitate mobile phone transactions on-the-go is planned. There is a growing demand for e-services on the network, and the menu has proliferated over 800 offerings from the initial 50 services, including bookings for tanker berths, No Objection Certificates and vehicle clearance services. In 2010, *Dubai Trade* registered a record 11.4 million online trade transactions, representing an increase of 25 percent from 2009.<sup>7</sup>

On the ground, the implementation of e-services has resulted in unprecedented opportunities to build capacity within SMEs and across sectors, while facilitating the end goal of speeding up trade processes and increasing trade volume. *Dubai Trade's* E-Token is an online system developed to replace the need for in-person visits and submissions of physical documents for pick-up and delivery of containers at the Jebel Ali port. Initially, however, truck drivers were not using the system. They continued to come in person, queuing to submit physical documents, and causing time delays at the port. Upon investigation, *Dubai Trade* found that many had limited com-

5 DP World is a major stakeholders in the trade and logistics value chain: it is the world's 3rd largest ports operator, managing more than 49 ports across 31 countries around the world.

6 *Dubai Trade* statistics.

7 *ibid.*

puter literacy and facility in English. In response, *Dubai Trade* developed creative methods to train truck drivers to use the system, including E-Token training camps in the Jebel Ali Port parking lots. Drivers received training in computer basics and E-Token services in their native languages, and a dedicated, easily navigable E-Token website with visual cues was developed. *Dubai Trade* placed kiosks at key locations for drivers to conveniently transact on the *Dubai Trade* portal. By May 2011, the E-Token service was used by drivers for over 93 percent of all containers entering and exiting Jebel Ali Port.

Similarly, in 2008, when *Dubai Trade* began a concerted launch of electronic services, end customers were not adopting key trade facilitation services of DP World at the rate *Dubai Trade* expected. Upon investigation, they found customers could not complete transactions online because there was no e-payment method. In response, *Dubai Trade* worked with DP World to launch the Rosoom Electronic Payment Gateway, which offered customers several payment options, including credit cards (issued both domestically and abroad), direct debits from their bank accounts at leading banks in the country, and pre-paid instruments such as the eDirham. The system was a success and a catalyst for the adoption of other e-services. The gateway now receives around 31,000 payment requests every month, and as of June 2011, AED 360 million (approximately US\$98 million) was collected through e-payments.

Since the establishment of *Dubai Trade* in 2006, there have been solid results in reducing the cost, time and paperwork involved in international trade through the UAE, and the UAE has become a world standard-bearer when compared for speed and cost of importing and exporting. As Table 1 shows, in 2006, it took up to 12 days and 7 documents to export a container; in 2012, this was reduced to 7 days and 4 documents. In 2008, the UAE was ranked 24th for ease of Trading Across

Borders; in 2012, that rank was improved to 5th.<sup>8</sup> These improvements have resulted in the UAE's increased standing as a trading partner. Internationally, the UAE is ahead of OECD countries by a wide margin. In the UAE, it takes only 7 days to export a container at a cost of US\$630 and 7 days to import at a cost of US\$635. By comparison, in high income OECD countries it takes 10 days to export and 11 days to import, and the cost per container is just over US\$1,000 for import or export—almost double that of the UAE.<sup>9</sup> Businesses in the UAE thus benefit from one of the world's most efficient and lowest priced trade locations. At an aggregate level, this translates to relatively greater economic benefit to the country.

## How Has This Benefitted the UAE?

These improvements in trade have had an impact and have been advantageous to both the public and private sectors in the UAE:

***Benefit to the Government Entities:*** *Dubai Trade* is added value to members as well as to its customers. The entities within the *Dubai Trade* network benefit by sharing information systems under a single umbrella. Systems do not have to be duplicated, resulting in potential cost saving. Moreover, the electronic system has resulted in a better managed and more transparent administration of customs and trade authorities, increasing the capacity to move goods across UAE's borders efficiently and securely. This efficiency of the trade sector in turn promotes growth in trade, with a concomitant rise in revenues for entities such as customs and port-management and transportation authorities.

***Benefit to Traders:*** A major benefit of improved trade process in the UAE is time that traders save, allowing them to conduct more trade with an almost 50 percent reduction in time to import and export containers. In 2006 it took 12 days to

8 World Bank, *Doing Business 2012*, (Washington: The International Bank for Reconstruction and Development / The World Bank) 2010 Available: <http://www.doingbusiness.org/>.

9 *ibid.*

**TABLE 1. UAE Trading Across Borders Improvements Since 2008**

Source: World Bank Doing Business database

Year	Trading Across Borders Rank	Documents to export (number)	Time to export (days)	Cost to export (US\$ /container)	Documents to import (number)	Time to import (days)	Cost to import (US\$ / container)
2006		7	12	462	8	12	462
2007		7	12	462	7	9	462
2008	24	5	9	462	7	9	462
2009	13	5	9	618	7	9	587
2010	6	4	8	593	5	9	579
2011	3	4	7	521	5	7	542
2012	5	4	7	630	5	7	635

import or export a container, and today it takes just 7 days.<sup>10</sup> For businesses, this translates to significant savings in time—and money—that can potentially be used to conduct more trade. In a fiercely competitive, globalized economy where both time and cost are of the essence, businesses transmitting goods through the UAE are able to be more competitive.

**Growth in Trade:** Over the past two decades, trade in Dubai has increased at a rate of over 12 times that of global growth. Globally, from 1994 to 2009, total world exports increased 120 percent from US\$5 trillion to US\$ 11 trillion;<sup>11</sup> during that same time period, Dubai's exports rose by 1500 percent, to a value of US\$14 billion.<sup>12</sup> The spectacular rise in trade growth rates, even compared

with high international growth, demonstrates that the UAE's policies for openness to trade are working and that it is taking advantage of globalization; factors that cannot be explained without taking into account the trade facilitation efforts of *Dubai Trade*.

The trade-to-GDP ratio (Import + Export=Trade/GDP) often called the "trade openness ratio", represents a country's interest and ability to facilitate trade within the opportunities of a globalized economy. As Table 2 illustrates, reflecting the effectiveness of its trade policy and the reforms implemented through initiatives like *Dubai Trade*, in 2009 the UAE's trade openness ratio was 172.7, placing it among the top 10 countries most open to trade.<sup>13</sup>

<sup>10</sup> World Bank, *Doing Business 2012*, (Washington: The International Bank for Reconstruction and Development / The World Bank) 2010 Available: <http://www.doingbusiness.org/>.

<sup>11</sup> World Development Indicators, online. Sept 2011 Available: <http://data.world-bank.org/data-catalog/world-development-indicators>.

<sup>12</sup> *Dubai Trade* statistics.

<sup>13</sup> Emirates Competitiveness Council (ECC) ranking based on data from World Development Indicators and World Trade Organization.

**TABLE 2. Trade Openness Ratios in 2009**

Source: ECC ranking based on data from World Development Indicators and World Trade Organization

Note: Figures marked with asterisk (\*) are obtained from the World Trade Organization and are estimates for 2007-2009

Rank	Country Name	Trade Openness Ratio
1	Singapore	409.0*
2	Hong Kong SAR, China	380.5
3	Luxembourg	305.6
4	Seychelles	246.9
5	Slovak Republic	203.2
6	United Arab Emirates	172.7*

**Potential Impact on GDP:** It is difficult to compute the exact impact of trade facilitation given the large number and complexity of variables involved. Factors that enable trade in a country include its macroeconomic and political stability, policies favoring trade and the general growth of the economy. Economists and academics including those in organizations such as the World Trade Organization, the Organization for Economic Cooperation and Development (OECD), United Nations Conference on Trade and Development (UNCTAD), and the World Bank have amply demonstrated that not just the business community benefits as trade rises, but that general welfare within a county also increases.

A partial analysis of the gains from reducing time to trade in the UAE demonstrates that the impact is sizeable, potentially accounting for a total savings of over \$40 billion—about 17 percent of the UAE's 2009 GDP.<sup>14</sup>

This is illustrated in Table 3 in the calculation of potential gains from reducing time to trade. The calculation takes into account that the cost of trade includes the amount of capital that is tied up in trade processes, compared with available liquid assets which could potentially be invested. As time to trade is reduced, not only do the number of trade deals per year increase, but the capital that is freed up can potentially be used more efficiently by the private sector. The calculation below is based on the fact that in the UAE between 2005 and 2009, the number of days to export and import goods dropped by 3 days each. It assumes that the cost of capital is 15 percent per year (or 0.04 percent per day). This results in a total savings of over \$40 billion, representing about 17 percent of the UAE's 2009 GDP.

<sup>14</sup> ECC calculation based on World Trade Organization data. It is static model that assumes that the capital would be used to the fullest potential.

**TABLE 3. Calculating Potential Savings and Gains from Reducing Time to Trade**

UAE Trade 2005		US\$ millions	Days to Trade
<b>Exports</b>	Total merchandise	117,287	12
<b>Imports</b>	Total merchandise	84,654	12
UAE Trade 2009		US\$ millions	Days to Trade
<b>Exports</b>	Total merchandise	185,000	9
<b>Imports</b>	Total merchandise	150,000	9

***Reductions in time to trade across borders***

- From 2005 to 2009, time to export dropped from 12 days to 9 days = 3 days saved
- From 2005 to 2009, time to import dropped from 12 days to 9 days = 3 days saved
- 15% = average annual opportunity cost (or 0.04% average daily opportunity cost)

***Savings to traders***

- Savings in export: 3 days X 0.04% x \$185 000 million = \$22.2 billion
- Savings in import: 3 days X 0.04% x \$150 000 million = \$18.0 billion

**IN SUMMARY**

Potential Savings for UAE at 15% average annual cost of capital, 2009	US\$ billions
Savings in Export to Traders	22.2
Savings in Import to Traders	18.0
Total	40.2

Additional Gains: Whereas in 2005 a trader could do 30.4 deals a year at 12 days (365/12), in 2009 as a result of the reduction in time a trader can conduct 40.6 deals a year at 9 days (365/9).

## Key Lessons from *Dubai Trade*

*Dubai Trade* provides a valuable example of an initiative that harnessed the interests and resources of various parts of the trade value chain in the public and private sectors towards ultimately impacting economic development. Some key lessons that can be learned from *Dubai Trade* and are universally applicable in the public and private sectors are:

**Create a Competitive Advantage from a Comparative Advantage:** *Dubai Trade* took the comparative location advantage of the UAE and turned it into a competitive one. The country's early move to set in place its world-class infrastructure provided the foundation of an important logistics hub for the region and the world. Savvy policy makers recognized an opportunity to further develop this into a competitive advantage as a center for trade excellence and fostered an enabling environment in which *Dubai Trade* developed the network, services and processes that would maximize both existing and emerging conditions for trade.

**Ensure a Customer-Centric Focus:** *Dubai Trade* began with, and maintains, a strong customer-centric focus, based on understanding the needs of traders as end users. This strong customer orientation enabled *Dubai Trade* to develop systems and solutions which meet the customers' needs and create tailored services that are valued—and so effectively utilized—by the end users. Customer loyalty and feedback have facilitated further improved processes, higher efficiencies, better business performances, leading to increased economic growth through increased trade.

## **Develop Networks for Competitive Advantage:**

Innovation is generally thought of as the creation of improved products and processes. *Dubai Trade* has demonstrated that effective networks can also be innovative. By bringing together synergistic relations that did not exist before, *Dubai Trade* created new value through partnerships between government entities, companies and individuals. These synergies are what bring its strategies and policies to life, and are at the heart of this sustainable industry network. *Dubai Trade's* success in this process is what gives it its inimitable quality. The synergies among the various actors inspired collaboration, improved processes and also promoted healthy competition. Competition along different segments of the value chain, where public and private actors seek to provide better value, has been a driving force fueling *Dubai Trade's* rise—and UAE's trade facilitation—to world-class status.

*About this Article: This case study is based on an interview with Eng. Mahmood al Bastaki, Director of Dubai Trade Department, Dubai World, conducted by the Emirates Competitiveness Council (ECC). The ECC is grateful to Eng. Al Bastaki and his team for their time and insights. Al Bastaki has led Dubai Trade to become one of the most innovative trade and supply chain e-hubs of the world. Al Bastaki has played a major role in the advancement of e-business in the region. Al Bastaki served as the Chief Information Officer of Corporate Services of Dubai World before taking up his current position at Dubai Trade. He was selected as one of the Government Technology Leaders by "The Who's Who of Government Technology—Middle East"*

*in 2006. Al Bastaki is also the former Acting Director of E-Services of Dubai E-Government where he formulated the 2005 E-Government Strategy. Al Bastaki holds a B.Sc. degree in Electronics Engineering Technology from the University of Arkansas, USA, and a Master's degree with honours in Electrical Engineering with an emphasis in Digital Signal Processing and Speech Analysis from Oregon Graduate Institute, USA.*

*Analysis for the paper was conducted by Shaheena Mohamed, Senior Project Manager and Marcos Arocha, Advisor at ECC.*

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## UNITED ARAB EMIRATES

### Testimonial: Emirates Competitiveness Council

As a founding member of the Global Federation of Competitiveness Councils (GFCC), I look forward with great anticipation to the work of this esteemed body of organizations. Together, I believe we can significantly advance the understanding of national competitiveness and how to apply it more effectively to policy-making. Through competitiveness, we can enhance productivity and well-being in our countries. This will be strengthened by our work to study global best practices and articulate the principles of competitiveness. Our drive to understand and improve existing metrics will help better capture competitiveness performance. Moreover, a global network such as this one will generate valuable shared knowledge.

As a young country, the UAE has undergone a remarkable transformation: from a pearl-diving center, to a trading hub, and more recently to a strong diversified economy with an important presence on the world stage. This progress has been shaped by our visionary leadership and our society's propensity for being competitive. Since its establishment in 2009, the Emirates Competitiveness Council (ECC) has galvanized our country's competitiveness drive. Our role as founding members of the GFCC is another important step in that direction—one which enables us to participate in collectively advancing the paradigm of sustainable development and competitiveness, so important for our country and for our world today.



#### **About the Author**

*Abdullah Lootah, Secretary General of the ECC brings a wealth of public and private sector experience to his leadership at the helm of the UAE's federal body driving the country's competitiveness agenda.*

The **Emirates Competitiveness Council (ECC)** mission is to enhance UAE's long-term prosperity through sustainable development and a high quality of life for the nation's people.

**ECC Vision:** Strive to enable the UAE to become one of the most competitive countries in the world.



## WHERE IN THE WORLD WILL THE NEXT BIG IDEA COME FROM?

The United States has long been the acknowledged world leader in innovation, a strength that is the foundation of America's national security and future job growth. But today, other countries are building world class research and educational institutions and are graduating increasingly qualified science and engineering students at a faster pace than ever before.

Make no mistake: The search for scientific breakthroughs and new technologies will go forward whether we lead or follow. To remain at the forefront, America must increase investments in basic research, improve math and science education, provide incentives for research and development and attract and retain the brightest minds from all around the globe.

We call on our leaders to help keep America the driving force in innovation.

[www.InnovateAmerica.org](http://www.InnovateAmerica.org)

## UNITED STATES

### National Innovation Initiative: Private Sector Leadership Driving Public Sector Action

*“If Americans stop innovating, we stop being Americans.”*

—*Innovate America*, 2004

In 2004, the Council on Competitiveness' National Innovation Initiative (NII) brought together over 400 thought leaders to develop a bold, strategic and transformational agenda to boost the nation's innovative capacity in the 21st Century. On December 15, 2004, at the Council's National Innovation Summit, chaired by a Principals Committee of nineteen CEOs and university presidents led by Sam Palmisano, the CEO of IBM, and Wayne Clough, the President of the Georgia Institute of Technology, the Council released a private sector-driven agenda, *Innovate America: Thriving in a World of Challenge and Change*. The report served as a concrete roadmap to unleash America's innovative capacity to enhance productivity, standard of living and competitiveness in global markets. The recommendations included in *Innovate America* helped shape President George W. Bush's American Competitiveness Initiative in 2005, congressional legislation, and a major national innovation agenda led by America's Governors. The culmination of the NII's influence was the passage of the America COMPETES Act in 2006, modeled on the insights and recommendations in *Innovate America*. How the private sector-led Council on Competitiveness developed and disseminated *Innovate America* to ensure the greatest possible impact on policy is a best practice for competitiveness organizations seeking to drive policy change at the national and regional levels.



**Council on  
Competitiveness**

#### Starting with a Strong Foundation

The significant policy impact of the Council's NII began with the formation of a CEO-level Steering Committee of nineteen national leaders representing a cross section of the American economy. This Steering Committee was supported by a senior group of over forty experts across the innovation spectrum—an innovation think tank—chaired by Norm Augustine, the former CEO of Lockheed Martin, and Chuck Vest, the president of the Massachusetts Institute of Technology. Yet, the Council reached out further still for expertise across the innovation landscape to over 400 people representing business, academia, labor, and government to populate seven working groups that generated 37 recommendations for the Steering Committee's consideration. The result was a policy agenda for the public and private sectors that represented the “must do” list for America's innovation agenda.

## A Report Worth Reading

In the first few weeks after the release of *Innovate America*, the report was downloaded 300,000 times by readers from around the world and was quickly translated into several languages. Critical to its success was the straightforward organization of the report's findings and recommendations into three key areas of focus—Talent, Investment and Infrastructure.

- **Talent**—The human dimension of innovation, including knowledge creation, education, training and workforce support. Recommendations support a culture of collaboration, a symbiotic relationship between research and commercialization, and lifelong skill development.
- **Investment**—The financial dimension of innovation, including R&D investment; support for risk-taking and entrepreneurship; and encouragement of long-term innovation strategies. Recommendations seek to give innovators the resources and incentives to succeed.
- **Infrastructure**—The physical and policy structures that support innovators, including networks for information, transportation, health care and energy; intellectual property protection; business regulation; and structures for collaboration among innovation stakeholders. Recommendations support a new industry-academia alliance, an innovation infrastructure for the 21st Century, a flexible intellectual property regime, strategies to bolster the nation's manufacturing enterprises, and a national innovation leadership network.

## The Report Shall Gather No Dust

A hallmark of the Council's membership is a strong desire to do more than issue reports and let them gather dust on the shelf. The outreach and education associated with *Innovate America* was one of the Council's most ambitious efforts to date including:

- A massive million dollar advertising campaign under the leadership of Intel CEO, Craig Barrett, and John Hopkins University president, William Brody. Luminaries were recruited to sign onto this ad campaign titled "Where in the World Will the Next Big Idea Come From?"
- The formation of a 40-member Presidents Council consisting of the heads of organizations with an interest in supporting all or some of the recommendations included in *Innovate America*. By sharing contacts, information and resources, the Council and its partnering organizations were to significantly expand the groups' influence with policymakers at all levels.
- A Washington, DC fly-in by executives from the Council's Board to meet with key members of Congress and the Administration, including Cabinet Secretaries.
- The establishment of an Honorary Committee of Members of Congress, Cabinet Secretaries and Governors, which created a natural constituency for the recommendations in *Innovate America*. In fact, two Senators from this group introduced the first piece of innovation legislation based upon the Council's report.

## It's All about Impact

The results of these efforts were seen in Congress, the White House, Federal Agencies, and among the nation's Governors. The capstone achievement of the NII was the enactment into law of the America COMPETES Act in 2008 that embraced the three pillars of Talent, Investment and Infrastructure by increasing support for science, technology, engineering and math (STEM) education; doubling research spending; and calling for greater coordination and support by the federal government for innovation policy.

Federal agencies also embraced the call for a focus on innovation and specifically the recommendations in *Innovate America*. The Department of Labor launched the Workforce Innovation for Regional Economic Development (WIRED) program

# National Innovation Agenda

## Talent

Build a **National Innovation Education Strategy** for a diverse, innovative and technically-trained workforce

- Establish tax-deductible private-sector “Invest in the Future” scholarships for American S&E undergraduates
- Empower young American innovators by creating 5,000 new portable graduate fellowships funded by federal R&D agencies
- Expand university-based Professional Science Masters and traineeships to all state university systems
- Reform immigration to attract the best and brightest S&E students from around the world and provide work permits to foreign S&E graduates of U.S. institutions

Catalyze the **Next Generation of American Innovators**

- Stimulate creative thinking and innovation skills through problem-based learning in K-12, community colleges and universities
- Create innovation learning opportunities for students to bridge the gap between research and application
- Establish innovation curricula for entrepreneurs and small business managers

Empower **Workers to Succeed in the Global Economy**

- Stimulate workforce flexibility and skills through lifelong learning opportunities
- Accelerate portability of healthcare and pension benefits
- Align federal and state skills needs more tightly to training resources
- Expand assistance to those dislocated by technology and trade

## Investment

Revitalize **Frontier and Multidisciplinary Research**

- Stimulate high-risk research through “Innovation Acceleration” grants that re-allocate 3 percent of agency R&D budgets
- Restore DoD’s historic commitment to basic research by directing 20 percent of the S&T budget to long-term research
- Intensify support for physical sciences and engineering to achieve a robust national R&D portfolio
- Enact a permanent, restructured R&E tax credit and extend the credit to research conducted in university-industry consortia

Energize the **Entrepreneurial Economy**

- Build 10 Innovation Hot Spots over the next 5 years to capitalize on regional assets and leverage public-private investments
- Designate a lead agency and an inter-agency council to coordinate federal economic development policies and programs to accelerate innovation-based growth
- Increase the availability of early-stage risk capital with tax incentives, expanded angel networks, and state and private seed capital funds

Reinforce **Risk-Taking and Long-Term Investment**

- Align private-sector incentives and compensation structures to reward long-term value creation
- Create safe-harbor provisions to promote voluntary disclosure of intangible assets
- Reduce the cost of tort litigation from 2 percent to 1 percent of GDP
- Convene a Financial Markets Intermediary Committee to evaluate the impact of new regulations on risk-taking

## Infrastructure

Create **National Consensus for Innovation Growth Strategies**

- Enact a federal innovation strategy through the Executive Office of the President
- Catalyze national and regional alliances to implement innovation policies and innovation-led growth
- Develop new metrics to understand and manage innovation more effectively
- Establish National Innovation prizes to recognize excellence in innovation performance

Create a **21st Century Intellectual Property Regime**

- Build quality in all phases of the patent process
- Leverage patent databases into innovation tools
- Create best practices for collaborative standards setting

Strengthen **America’s Manufacturing Capacity**

- Create centers for production excellence including shared facilities and consortia
- Foster development of industry-led standards for interoperable manufacturing and logistics
- Create Innovation Extension Centers to enable SMEs to become first-tier manufacturing partners
- Expand industry-led roadmaps for R&D priorities

Build **21st Century Innovation Infrastructures - the health care test bed**

- Expand electronic health reporting
- Establish and promote standards for an integrated health data system
- Establish pilot programs for international electronic exchanges on healthcare research and delivery
- Expand use of performance-based purchasing agreements

that sought to better align workforce programs with economic development efforts in regions across the country, thereby better utilizing the talent base in the United States. The Economic Development Administration (EDA) embraced the NII's call for regional innovation hotspots bringing together the public and private sectors in regions to better utilize the assets endemic to the region, using examples like Silicon Valley, CA.

The states similarly embraced the NII's call for a focus on innovation. After a meeting with the Council leadership, then chair of the National Governors Association, Janet Napolitano, launched a major innovation initiative modeled after the NII that called on Governors and states to seek innovation-based economic growth policies. This led to numerous state-level programs and initiatives.

## **A Lasting Impression**

Innovation remains a buzzword in Washington policy circles today, and the Council and its members continue to push policymakers to view policymaking through an innovation lens, because it remains the path towards long term economic growth and prosperity in the U.S. and elsewhere. The America COMPETES Act was reauthorized by Congress in 2010 and Council president Deborah L. Wince-Smith said at the time, "Other countries are making investments in their science and technology infrastructure. They are educating and training their people. They are attracting investment and talent from around the world. To prosper, America must compete." And to compete, America must innovate.

## UNITED STATES

### Testimonial: Council on Competitiveness

#### STEAM: Powering Future Competitiveness in the Global Economy

The global economy today is in the midst of transition between two great ages—from an age in which physical resources were the main factors of production, to an age in which ideas, imagination, and creativity are the most important factors. This has created an innovation imperative for the United States and the rest of the world. And what we are just beginning to appreciate is that innovation occurs at the intersection between imagination, insight, ingenuity, inventiveness and impact, where we find artists who can think like engineers and scientists and engineers and scientists who think like artists.

To out-compete, we must out-imagine and out-create. We must, within our own economies, build and sustain a Creation Nation. To achieve this, we must increase the number of people engaged in innovative activities and bring a wider range of disciplines into the innovation mix. We must establish an environment that uses these game-changing tools and supports mass creativity and the work of multidisciplinary teams. We must establish places and processes that connect solution seekers with problem solvers. We must close the divide between the creators of new knowledge and technology in academia and users in industry and the entrepreneurial sector. And finally, we must support prolific idea generators such as small innovators, entrepreneurs, inventors, small businesses, spin-outs and start-ups.



#### **About the Author**

*Deborah L. Wince-Smith is the president & CEO of the U.S. Council on Competitiveness. Ms. Wince-Smith is also the president of the Global Federation of Competitiveness Councils. An internationally renowned leading voice on competitiveness and innovation strategy, she has more than 20 years of experience as a senior U.S. government official, including as the first US Senate confirmed Assistant Secretary for Technology Policy in the Department of Commerce. Ms. Wince-Smith is a Senate confirmed member of the Oversight Board of the Internal Revenue Services and serves as a director of NASDAQ-OMX, Inc.*

As a trained archaeologist, I have long had an interest in the role of technology and innovation in the continuum of human civilization. Throughout history, there have been hubs of extraordinary creativity and innovation. The great civilizations and game changers—from Bronze Age Mycenae and Classical Greece, to Renaissance Florence and the pioneers of the Industrial Revolution were:

- all creators of new science and technology
- multidisciplinary, and lived on the cutting edge of art, architecture, philosophy, science, technology, engineering and medicine
- all caldrons of creativity at the crossroads of culture

These great civilizations were prototype conceptual economies, because they were idea incubators. They integrated Science, Technology, Engineering, Arts and Math and harnessed the collective creative talent of “idea generators” to build the next phase in the continuum of human civilization. They were crossroads to different cultures and ideas that they absorbed; they encouraged scholarship, creativity, artistry, and leading edge thinking; and they were centers of multidisciplinary creative fusion. Above all, they were dynamic and viewed the world as round and expanding, not flat. They had faith in the promise of a world of abundance and did not restrict their hopes, dreams, and actions with the self-imposed limits of scarcity.

The **Council on Competitiveness** mission is to set an action agenda to drive U.S. competitiveness, productivity and leadership in world markets to raise the standard of living of all Americans.

The Council's is the only group of corporate CEOs, university presidents and labor leaders committed to ensuring the future prosperity of all Americans and enhanced U.S. competitiveness in the global economy through the creation of high-value economic activity in the United States.

But they did not have today's powerful tools that have revolutionized innovation in ways previously unimaginable:

- Imagine the thinkers of classical Greece with today's research, computational and information-sharing tools
- Imagine the artists, architects and inventors working in the studios of Renaissance Florence with today's platforms for collaboration, visualization, graphics, digital design and rapid prototyping
- Imagine the industrial revolution with the tools for mass customization, service-industry mix, advanced materials, and high performance computing

Just imagine.



## RUSSIA

### Unleashing Russian Entrepreneurial Energy: OPORA's Index on Entrepreneurship Climate Propelling the Changes Needed for Increasing Competitiveness

Across the globe, entrepreneurship—along with the small and medium enterprises (SMEs) that spring from it—plays a critical role in economic development and job creation. Historically, these SMEs were perceived as risky ventures, fledgling start-ups with scarce resources, besieged by large competitors and state regulators. But over the past few decades, opinion leaders in many countries have increasingly recognized SMEs as a crucial driver of economic growth and fountain of innovative ideas.

By the 1980s, policymakers in North America and Western Europe acknowledged the role SMEs play in boosting marketplace competitiveness both domestically and internationally, so they began creating an economic and political climate designed to encourage the growth of entrepreneurship and the SMEs that flow from it. The challenge now is for Russia to apply those same lessons for increasing economic development in a country where far fewer individuals envision starting a business or becoming an entrepreneur.

Entrepreneurs launch their own businesses, taking the associated risks to make a profit and fulfill their goals. As these emerging small enterprises grow, they upgrade their business processes and enter new markets, and some expand into SMEs. As they interact with each other, companies establish lasting relationships that may be supported by joint actions, integrating into clusters through the natural evolution of a market economy. Clusters facilitate the accumulation of ideas and experiences, and they lower the barriers to starting and doing business—ultimately providing momentum for the next cycle of entrepreneurship.



#### **About the Author**

*Alexey Prazdnichnykh is a managing director at The Eurasia Competitiveness Institute (ECI) and a board member of OPORA Russia, a leading Russian business association. He is a partner at Strategy Partners Group, leads Public Sector Practice and has served as an advisor on competitiveness, economic development and public sector productivity issues.*



### FIGURE 1. New Business Development in Russia: Entrepreneurship, SME Development, and Clustering

Sources: Kelly et al., 2011; European Commission, Eurostat, 2009a, 2010; Rosstat, 2011; national statistical sources.

\* Share of 18- to 64-year-olds who want to be (but are not yet) involved in entrepreneurial activity.



As Figure 1 shows, at every stage of this business development cycle, however, Russia’s position remains particularly low when compared with other countries. Consider:

- The share of people with entrepreneurial intentions in Russia is 2.6 percent—several times lower than in most peer countries, both developed and developing.
- SME share of employment in all economic sectors (except for finance and agriculture) is 42 percent—1.5 times less than in Germany, Japan, or Eastern European countries.
- SME share of employment in manufacturing, a good indicator of cluster sophistication, is 2 to 4 times less in Russia than in most peer countries.

### Examining the Climate for Entrepreneurship

As those numbers illustrate, Russia must overcome obstacles both cultural and governmental to improve its conditions for entrepreneurship, and ultimately to improve its conditions for economic

development and competitiveness. To get to that point, however, Russian companies face significantly more serious barriers than their peers in the EU. The country’s poor results for fostering SME growth can, in many ways, be explained by an unfavorable business climate.

The conditions influencing the emergence and development of new business ventures create a nation’s business climate—the incubator in which a company is born and grows. The success of existing companies and the quantity of emerging ones depends largely on this environment—which encompasses everything from human resources to real estate, from financing to administration to infrastructure—being favorable for nurturing entrepreneurship. The quality of the business climate can be influenced significantly by the policy decisions of local, regional and federal authorities; in turn, the quality of the business climate can be used as a criterion for evaluating the performance of those public officials.

Given the current atmosphere, Russian SMEs urgently need a new generation of business development programs and policy initiatives oriented

toward achieving the change required to foster entrepreneurship and increase competitiveness. A key tool for helping that happen is a research project—“THE ENTREPRENEURSHIP CLIMATE IN RUSSIA – OPORA’S INDEX”—carried out as a joint project by the Eurasia Competitiveness Institute (ECI) and OPORA RUSSIA (Russian Business Association).

## Targeting Strengths and Weaknesses

The OPORA’S Index provides a way to identify what works and what doesn’t work in terms of regional business climates in Russia, so the resulting information can be used to develop precise programs and policies that support an atmosphere favorable to entrepreneurship and SMEs.

Around the world, creating a business environment that drives entrepreneurship and SME performance has become a central focus for a vast majority of countries. Many international organizations consider a favorable business climate to be the keystone of economic development, and conduct comparative research of the business situation in various countries.

But the OPORA’s Index goes further. The core of the project consists of regular, comprehensive evaluations of Russian regions and large cities (population over 1 million), focusing on key factors that determine the quality of the business climate for SME development. The large-scale survey covers a wide array of factors, rather than just statistical indicators, to achieve a more realistic picture of both the business climate as it exists and the improvements needed for it to flourish. Among the key factors evaluated:

- **Access to the market and conditions of competition**, which can determine such things as barriers to sales; obtaining raw materials, parts and components; and conditions of competition between companies. Among other factors, this depends on anti-monopoly regulations.

- **Human resources and skills**, such as availability and professional level of personnel along with development programs to upgrade skills. Educational policies also significantly affect overall business literacy and motivation to start a business.
- **Financial resources**, which encompass financing availability at all stages of company development. Among other factors, this depends on tax policy, monetary policy, activities of specialized state funds, and support of venture funds.
- **Infrastructure**, which includes such things as industrial buildings, offices and showrooms; transportation and logistics infrastructure; electrical power infrastructure.
- **The technological potential of companies and clusters**, which includes such factors as the level of production technologies, the capability of adopting contemporary technologies, and the technological potential of the industrial clusters.
- **The quality of administrative regulation**, which examines the public officials with whom businesses interact along with administrative barriers and corruption.
- **The system of suppliers**, as determined by availability and specialization of various suppliers.

The OPORA Index led to a detailed descriptive analysis of the environment for day-to-day business and the ongoing development of SMEs in Russia. Unlike other research projects, it identifies differences in the business environment between cities and regions—an aspect especially vital for Russia because of the size of its territory and unevenness in the regional economies.

The resulting index is a cumulative indicator aggregating major factors that characterize the business climate in a given region or city.<sup>1</sup> While other projects compare Russia with other countries, this research makes it possible for a specific region or city to assess itself in an international context. An evaluation of the business climate of Russia at only the national level would be equivalent to taking the average temperature of all the patients in an entire hospital.

In addition, the OPORTA Index pays special attention to the efficiency of SME support policies at three governmental levels: federal, regional and municipal. As a result, local officials, who are largely responsible for determining the business climate in a certain region or city, receive evaluation from business. Comparing the results from different regions provides additional food for thought.

## Turning Analysis into Action

From its inception, the OPORTA Index had a specific and practical objective: to create an efficient tool for identifying strengths and weaknesses in the Russian business climate, then use that information to develop targeted programs and policies to foster the growth of entrepreneurship and SMEs. All of those efforts converge to achieve the overriding goal of increasing Russia's economic competitiveness in the global marketplace.

Already, several key objectives are being met that will pave the way for future improvements:

- The project delivers a comprehensive picture of the state of Russia's business climate, serving as an ideal starting point for defining priorities and making policy.
- The project has sent ripples along the entire policy chain, facilitating increased efficiency of SME development policies.
- The project furnishes public officials at all governmental levels with feedback from SMEs because it evaluates the quality and effectiveness of specific business development policies and programs.
- At the same time, the project allows for comparing performance and efficiency of officials between different cities and regions.
- The project makes it possible to identify the most significant barriers to SME development in Russian cities and regions.
- The project has stimulated widespread interest in Russia's business climate and encouraged key stakeholders to become involved in the discussion.
- And, finally, the project delivers a universal framework and data platform for evaluating the current situation regarding the environment for business and SME development in Russia.

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<sup>1</sup> Factor and correlation analysis methods were used to develop the structure of the INDEX. Some factors, evaluated in survey, are not included in the Index tree due to absence of statistically significant connection between them and resultant variables.



*Sergei Borisov, President, OPORA Russia, meets with H.E. Vladimir Putin, Prime Minister of the Russian Federation.*

**Eurasia Competitiveness Institute (ECI)** is a non-profit think tank focused on competitiveness and economic integration issues in Eurasia region. The Institute is headquartered in Brussels and Moscow. One of its key programmes is focused on challenges and opportunities of boosting the competitiveness of Russian economy on national and regional levels.

The **OPORA RUSSIA** mission is to consolidate the entrepreneurs to form favorable policy, economic, legal and other conditions of business activity which pave the way for competitiveness and prosperity. OPORA RUSSIA unifies about 350 thousand entrepreneurs and over 140 nonprofit industry specific business associations. OPORA actively works with government, business community, NGO, academics in order to fulfill the assigned mission and create relative competitiveness environment based on the principle “everything that is beneficial for a businessman is advantageous for society.”

## IRELAND

### Using Ireland's Competitiveness Scorecard to Improve Standards of Living by Increasing the Effectiveness of International Competitiveness

Effective global competitiveness encompasses *“all those factors which impact on the ability of firms in Ireland to compete on international markets in a way which provides the Irish population with the opportunity to improve their quality of life.”*

—The National Competitiveness Council

Every year since 1998, Ireland's National Competitiveness Council (NCC) has provided the nation's leaders with essential research and policy recommendations on the key economic issues required to enhance Ireland's international competitiveness—and thereby boost the quality of life for its citizens.<sup>1</sup>

A nation's economic competitiveness can best be evaluated by assessing how it performs relative to other countries in terms of specific criteria, essentially creating a benchmark for comparison. To achieve this, the National Competitiveness Council publishes a pair of complementary reports each year—one analyzing Ireland's overall competitiveness performance and a second offering policy recommendations to improve that performance:

- The first report, “Ireland's Competitiveness Scorecard,” examines the country's competitiveness performance across a range of 127 indicators against 18 important competing export countries, and it is the focus of this report. The survey results in a statistical benchmark for identifying Ireland's competitiveness strengths and challenges.



#### About the Author

Dr. Don Thornhill, Chairman of the Irish National Competitiveness Council is a consultant and adviser on strategy and policy and chairman and a board member of a number of organisations in the public and private sectors.

- That benchmark then provides the NCC with the analytical underpinning for policy recommendations to maximize Ireland's international competitiveness. These recommendations are published annually in the second report, “Ireland's Competitiveness Challenge.”

#### Using Competitiveness to Drive Economic and Social Progress

For the NCC, the goal of national competitiveness is to provide Ireland's people with the opportunity to improve their standard of living and quality of life. Achieving that depends upon, among other things, raising incomes—and providing the employment necessary to make that happen. In an economy like that of Ireland, with a small domestic market, this requires a healthy exporting sector to achieve the economies of scale necessary for productivity gains. Competitiveness, therefore, offers a vital platform for economic growth and prosperity.

<sup>1</sup> The work of the NCC is underpinned by research and analysis undertaken by Forfás, Ireland's policy advisory board for enterprise, trade, science, technology and innovation.

At the national level, competitiveness is a broad concept that encompasses a diverse range of factors and policy inputs. Those include not only the costs of doing business, but also education and training, entrepreneurship and innovation, economic and technological infrastructure, and the taxation and regulatory framework.

The NCC uses a competitiveness pyramid as a framework for assessing Ireland's competitiveness (Figure 1). This model draws from Michael Porter's "Competitive Advantage of Nations" and distinguishes between the inputs to national competitiveness—over which policymakers exercise the greatest control—and the essential conditions for national competitiveness:

- **Policy Inputs**—the bottom row of the competitiveness pyramid—represent the foundation stones of the economy and are the primary drivers of competitiveness. The NCC believes this is where policymakers can have the greatest impact toward improving competitiveness. For policymakers to address specific weaknesses and opportunities, it's

crucial to measure Ireland's competitiveness at the input level and compare the findings to Ireland's economic peer group.

- **Essential Conditions**—the second stage of the pyramid—include such factors as business performance, labor supply, productivity, and prices and costs. If the inputs forming the base of the pyramid are in line with best practices, it should be reflected in the measurements and rankings of these essential conditions.
- **Sustainable Growth**—the top of the pyramid—symbolizes NCC's goal of promoting national competitiveness as a means of improving living standards. To assess Ireland's quality of life, a range of national performance indicators are examined. Although many of these indicators are not directly under the control of policymakers, they are impacted by previous policies instituted at the input level. Essentially, competitive gains flow upward from the bottom of the pyramid to allow maximum growth and sustainable development at the apex.

### FIGURE 1. The NCC Competitiveness Pyramid

Source: National Competitiveness Council



## Using a Yardstick to Measure Competitiveness

The NCC has compiled the Competitiveness Scorecard every year since 1998.<sup>2</sup> While each indicator in this benchmarking report can be considered on its own merits, reviewing a wide range of indicators in the context of the macroeconomic environment provides a fuller understanding of their implications for competitiveness. Over time, the indicators being assessed have evolved to ensure that the most timely and relevant data is analyzed.

The specific objectives of the report are to:

- Provide a clear, authoritative, thorough, accurate and up-to-date assessment of Ireland's competitive performance.
- Generate agreement among stakeholders on Ireland's competitive performance.
- Improve awareness and understanding of the drivers of Ireland's competitiveness and growth among stakeholders and the general public.
- Provide an evidence base to highlight Ireland's competitiveness strengths and build momentum to address competitiveness weaknesses that have been identified.

Ireland's performance is measured against 18 other countries. They have been chosen to provide a mix of euro area members (Finland, France, Germany, Italy, the Netherlands and Spain), other non-euro area European countries (Denmark, Sweden, Switzerland and the UK), and two newer EU member states (Hungary and Poland). Six non-European countries, which are global leaders or are of a similar size or pace of development to Ireland, are also included (Israel, Japan, South Korea, New Zealand, Singapore, and the US). This allows for a detailed comparison between Ireland and many of its closest trading partners

and competitors. Ireland is also compared to a relevant peer group average—either the OECD or the euro area.<sup>3</sup>

The Competitiveness Scorecard is designed to provide a general overview of performance and to focus attention to those areas requiring intervention. The NCC, therefore, has carefully focused the competitiveness indicators included in the benchmarking process. Council members also consult extensively with experts to ensure a complete understanding of the issues and to ensure a fair and balanced outcome. Finally, other changes have occurred as the NCC's understanding of benchmarking has evolved (see text box below). In recent reports, significantly less focus has been given to input indicators, while more attention has been given to indicators focusing on outcomes. Equally, the NCC now places less reliance on perception indicators, such as those based on executive opinion surveys, for example, and utilizes hard data where possible.

In developing the Competitiveness Scorecard, the NCC relies on illustrations as an effective way to communicate its message. Figure 2 offers a good representation of the type of data included in the report.

- The best performing country is typically located at the left of a vertical bar chart or the top of a horizontal chart.
- In charts that assess output/income or other factors relative to these, Irish figures are provided in GDP and GNP terms. GDP (national output) is significantly greater than GNP (national income) in Ireland due to the repatriation of profits and royalty payments by multinational firms based there. Other countries are assessed in GDP terms. It is also important to

<sup>2</sup> See the National Competitiveness Council's website [www.competitiveness.ie](http://www.competitiveness.ie) for these publications. The publication was entitled *Annual Competitiveness Report* from 1998 to 2005, *Annual Competitiveness Report, Volume One: Benchmarking Ireland's Performance* from 2006 to 2010 and *Ireland's Competitiveness Scorecard* from 2011 onwards.

<sup>3</sup> Where the sample is incomplete for the comparator group due to data availability, the countries omitted are detailed in the footnotes. OECD rankings and averages are based on a maximum of 28 countries. Turkey and Mexico are not included in the analysis, in part due to how their size and income levels affect averages and in part due to data availability. The OECD-28 countries are as follows: Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Luxembourg, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Spain, Sweden, Switzerland, UK and the US. In a small number of cases, data is also included for China, where available and appropriate.



**FIGURE 2. Sample Chart—Levels of GDP Per Capita (US\$ PPP), 2011F**

Source: IMF, World Economic Outlook, April 2011

In GDP terms, despite the economic downturn, Ireland appears to be one of the wealthiest countries in the OECD.

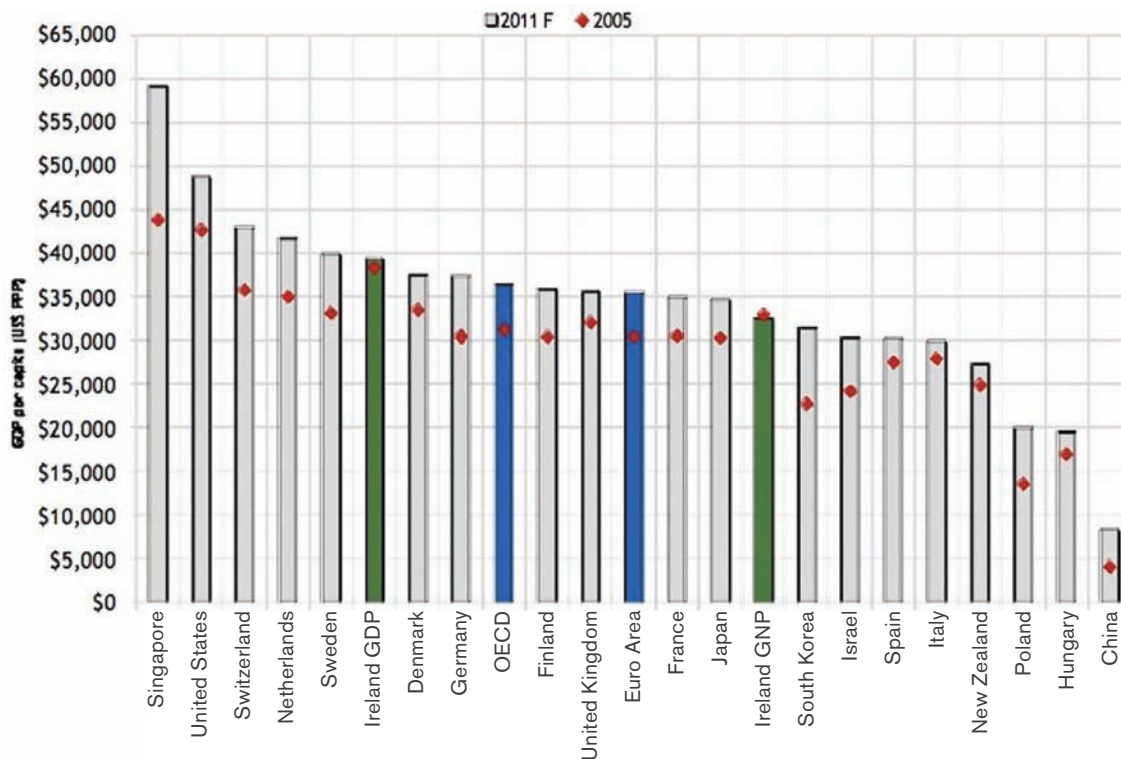
In terms of GNP per capita, however, which is a more accurate measure of Irish living standards, Ireland ranks below the OECD-28 and euro area-16 average.

**OECD-28 ranking \***

GDP: 10th (↓ 6)

GNP: 18th (↓ 4)

\*OECD-28 and euro area averages are not weighted according to national income.



note that as a result of the contraction in the Irish economy over the past 2 years, indicators calculated as a proportion of GDP and GNP may appear higher than in previous years (i.e. if expenditure is reduced by less than the reduction in GDP, expenditure will appear to have increased).

- The text at the right of the chart provides additional information and commentary on Ireland's performance across each indicator.
- The majority of chart titles are given a color—green, orange or red—to provide a general indication of Ireland's performance. Green indicates a strong performance (top third of

OECD-28, euro area, or comparator group), orange signals an average performance, while red means that Ireland is ranking within the bottom third of the OECD-28, euro area, or comparator group.

- Rankings are provided where appropriate and where possible. In charts with both GDP and GNP performance for Ireland, rankings are provided for both sets of data.
- In interpreting the ranking for each indicator, a low ranking (i.e. close to 1st) implies a healthy competitiveness position, while a high ranking implies an uncompetitive position.

## Evolution in Benchmarking—Themes Emerging From NCC Benchmarking

**1998-2000:** NCC identified risk factors such as skill shortages, infrastructure bottlenecks, and lack of investment in telecommunications.

**2001-2005:** NCC highlighted tightening of the labor market, increases in costs crowding out internationally trading activities by the domestic non-internationally traded sectors resulting in weakened export performance.

**2006-2007:** NCC expressed concern about the unsustainable nature of economic growth, the rapid rise in private sector debt, reliance on construction and domestic demand / property as the main drivers of growth.

**2008-2010:** NCC noted progress on the public finances and the banking stabilization, but focused on cost competitiveness, wage adjustment, lowering of energy costs, the need for enhanced competition policy, particularly in relation to locally traded services, investment prioritisation, the need to return to productivity and export-led growth, the broadening of the tax base and the necessity of allowing the necessary adjustment to happen in the property market.

- Changes in rankings refer to the change in Ireland's position since either the previous year, or in the case of charts displaying more than one year of data, since the oldest data displayed. Exceptions to this are highlighted in footnotes.
- (↑) refers to an improvement in Ireland's competitive position, so 4 means an improvement of four places in Ireland's ranking. (→) means that there has been no change in Ireland's ranking, while (↓) refers to a fall in ranking.

In addition, summary charts at the start of each major section bring together indicators from each chapter and allow readers to view Ireland's performance across a wide range of indicators in one place (Figure 3).

## Using the Scorecard to Influence Discussions and Decisions

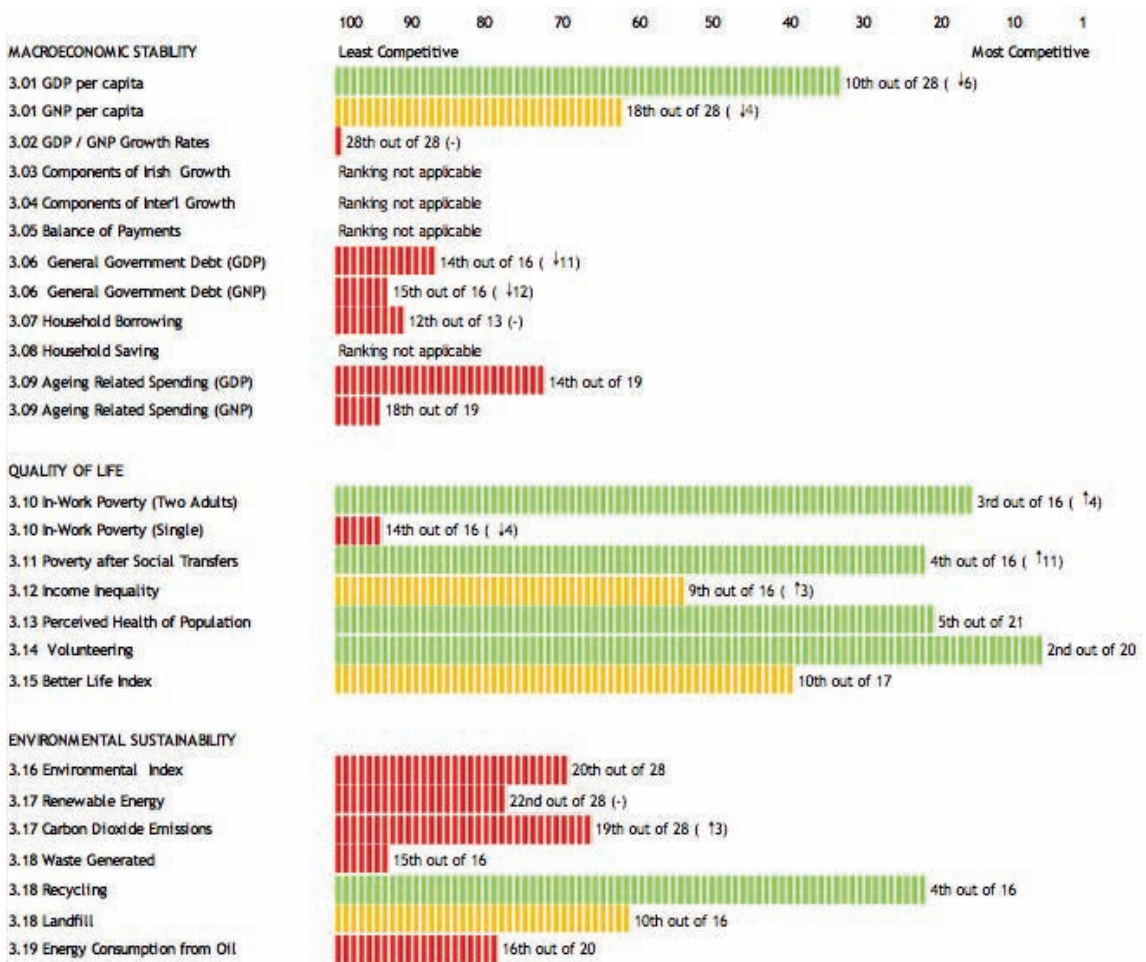
The membership of the NCC represents a diverse cross-section of the enterprise sector. Current members, who help draft the report and ensure the findings are disseminated widely, include:

- Representatives of the employer and trade union social partnership pillars.
- People with relevant expertise in competitiveness drawn from business and the academic sector.
- A representative of the Department of Jobs, Enterprise and Innovation.
- The Chief Executive of Forfás.

In addition, the NCC seeks advice from key economic ministries such as the Departments of the Taoiseach; Agriculture, Fisheries and Food; Communications, Energy and Natural Resources; Education and Skills; Environment, Community and Local Government; Public Expenditure and Reform; and Transport, Tourism and Sport; as well as representatives from InterTradelreland.<sup>4</sup>

<sup>4</sup> InterTradelreland is a cross-border organisation which supports SMEs across the island of Ireland to develop North/South trade and business development opportunities for the mutual benefit of both economies.

**FIGURE 3. Sample Chart—Summary of Standardised Sustainable Growth Indicators**



**Note:** Ireland's performance under each indicator is standardised out of 100 – a score of one being the most competitive, and 100 being least competitive. For example, where Ireland is ranked 3rd out of 15 countries, this gives a score of 20 (i.e.  $3/15 \times 100$ ); where Ireland is ranked 14th out of 15, this gives a score of 93 (i.e.  $14/15 \times 100$ ).

Ultimately, the Competitiveness Scorecard has become a widely used resource and serves many different purposes: It provides a valuable reference document, is used in developing official policy documents, and is regularly cited by the media when Ireland's competitiveness is being discussed.

By providing the first step in evidence-based policy-making, the NCC's Competitiveness Scorecard represents an important contribution to Ireland's political and economic processes at the same time it raises public awareness of the critical link between a nation's competitiveness and its public wellbeing.

## APPENDIX 1. Summary of Findings of Ireland's Competitiveness Scorecard Rankings, 2011<sup>1</sup>

### Sustainable Growth

#### Macroeconomic Sustainability Rankings

Levels of GDP per capita 10/28; Average Annual Growth Rates in GDP per capita 28/28; General Government Consolidated Debt as % of GDP 14/16; Household Borrowing per capita 12/13; Projected Changes in Ageing - Related Public Spending 14/19.

#### Quality of Life

In-Work at-Risk-of-Poverty (single 14/16; two or more adults with children 3/16); At-Risk-of-Poverty after Social Transfers 4/16; Inequality of Income Distribution 9/16; Percentage of Population with Perceived Good Health 5/21; Participation Rates in Volunteering 2/20; OECD Better Life Index 10/17.

#### Environmental Sustainability

Environmental Protection Index 20/28; Percentage of Energy from Renewable Sources and Carbon Dioxide Emissions from Fuel Combustion 22/28 and 19/28 respectively; Municipal Waste Generated 15/16; Components of Energy Consumption 16/20.

### Business Performance

#### Business Investment

Gross Fixed Capital Formation 16/16; FDI Inward Stock 5/28; Number of Greenfield Projects 1/28; Rate of Return to US-owned Companies on Investments in Foreign Countries 1/12; FDI Outward Stock as a Percentage of GDP 7/28.

#### Trade

Exports of Goods, intra-EU and extra 5/15; Percentage of Firms' Total Turnover from e-commerce 1/13; Exports to Emerging Markets 8/16.

### Productivity

#### Productivity

Productivity levels 6/28; Annual Average Growth in Output per Hour Worked 4/28; Growth in Multi-Factor Productivity 9/20.

### Innovation

Summary Innovation Index 5/16; Percentage of Firms Engaged in Innovative Activity 6/15; Percentage of Turnover attributed to Innovative Activity (New to Firm 10/15, New to Market 9/15).

#### Prices and Costs

Price Level 2005 (15/17) and Inflation 2010 (1/17)

#### Non-Pay Costs

Cost to Construct a Prime Industrial Site 11/13; Cost to Rent a Prime Industrial Site 9/14; Cost to Construct a Prime Office Space 10/13; Cost to Rent a Prime Office Space 6/16; Industrial Electricity Prices 6/15; Mobile Telephone Costs 9/14; Fastest Business Connection 10/11; Annual Cost of Business Connection 8/11; Negotiable Landfill Gate Fees 7/9; Water Costs per Metre Cubed 9/16; Legal Fees, Cost of Enforcing a Business Contract 16/19; Non-Life Insurance Density, Premiums per Capita 12/19.

### Labour Supply

#### Employment and Unemployment

Unemployment, Standardised Rates 26/28; Youth Unemployment 12/16

#### Labour Supply

Number of Persons of Working-Age per Dependent 11/28

### Business Environment

#### Taxation

Total General Government Deficit 16/16; Central Government Corporate Income Tax Rate 2/28; Corporation Tax Receipts as % of GDP 18/28; Total Tax on Labour (as a % of Average Earnings (Married, 2 CD, 167% AW) 6/28; Total Tax on Labour (as a % of Average Earnings, Single, no CD, 167% AW), 11/28; Value Added Tax, Standard Rate 18/27; Recurrent and Total Property Tax Receipts as % of Total Tax Revenue (Recurrent 7/28, Total 6/28).

<sup>1</sup> Rankings for Ireland are provided in GDP terms and where no ranking is applicable it has not been included in the summary table.

## Finance

Venture Capital Investment as a % of GDP 7/26;  
Private Equity Investment as a % of GDP 5/15; Total Value of EIB Funding for Credit Lines to Enterprise 2006-2010 as a % Average GDP 2006-2010 15/16.

## Regulation and Competition

Cost of Starting a Business (3/34) and Number of Procedures Involved (8/34); Cost of Registering a Property (17/34) and Number of Procedures Involved (29/34); Product Market Regulation 3/28; Barriers to Entrepreneurship 9/28; Time to Comply with Tax Payments 2/28; Average Payment Duration for Settling an Invoice (Public Authorities: 4/13) (Business to Business: 8/13); Labour Market Regulation 7/28.

## Physical and Economic Infrastructure

### Physical Infrastructure

Perception of Overall Infrastructure Quality 27/28.

### Transport, Energy and Environmental Infrastructure

Perception of Quality of Distribution, Air Transport, Water Transport and Energy Infrastructure (Distribution: 21/28; Air: 22/28; Water: 13/28; Energy: 21/28); Green City Index, Transport Score 30/30; Natural Gas Storage Capacity as a Percentage of Annual Consumption 9/10; Green City Index, Water Score 16/30.

### Information and Communication Technology Infrastructure

ICT expenditure as a % of GDP 4/14; Fibre Connections as a Percentage of Total Broadband Connections 18/28; e-Government Availability (1/16) and Usage (3/16); Use of ePayments: Value of Cash Withdrawals 13/16.

## Knowledge Infrastructure

### Overview of Education

Educational Attainment of Population aged 25-64 10/28; Annual Expenditure on Educational Institutions- per student (Pre-primary: 5/27; Primary: 13/27; Secondary: 6/27; Tertiary: 16/27); Participation of 3-year-olds in education 14/15; Average Annual Hours of Tuition to 9-11 Year Olds (Maths hours: 19/19; Science hours: 19/19; Total hours: 2/19).

### Secondary Education

Percentage of the Population Aged 25-34 (14/28) & 25-64 (21/28) with at least Upper Secondary Level Education; Early School Leavers (as % of Population aged 18-24) 9/16; Scientific, Mathematical and Reading Literacy of 15 Year Olds (Reading: 17/34; Maths: 26/34; Science: 14/34); Average Annual Hours of Tuition to 12-14 year-olds, by Subject (Maths hours: 10/19; Science hours: 16/19; Total hours: 14/19); Students Use of ICT for programmes and software (Educational Software: 11/24; Computer Program: 19/24; Spreadsheets: 19/24; Graphics: 16/24; Word: 22/24; Internet: 22/24; Email: 22/24); Ratio of students to teaching staff in educational institutions (Primary 17/24; Secondary 15/26);

### Tertiary Education

Population Age 25-34 that has at Least Third Level Education 6/28; Score of Leading Institution by Country 76/200; Maths, Science and Computing Graduates as a % of the total graduates 4/14; International Students as a % of all Students in Tertiary Education 13/26; Life- Long Learning as a % of 25-64 year olds, 10/16;

### Research and Development Infrastructure

Expenditure on R&D as % GDP (BERD: 15/28; HERD: 12/28; GovERD: 27/28; GERD: 18/28); Total researchers per thousand total employment 14/24; PhD Students per 1,000 of the population 8/23; Triadic Patents per million population 16/28; EU Research Funding € per applicant (8/16) and success rate 4/16)

## UNITED KINGDOM

### Offshore Wind Energy: Reaping the Rewards of Northern Ireland's Natural Resources

One critical aspect of competitiveness is making the most of natural resources. As the global marketplace for renewable energy continues to expand, Northern Ireland has positioned itself uniquely to provide and support the energy that will be needed not only in the United Kingdom, but also throughout Europe for decades to come. With vast natural resources—both wind and wave—for generating wind energy, Northern Ireland is already recognized as a leader in delivering alternative energy solutions.

In 2007-2008, the Centre for Competitiveness conducted a scoping study to assess Northern Ireland's capacity and capability for both designing and manufacturing wind farms. The study looked at every aspect of the process, from delivery and installation to servicing and providing subsidiary services, both onshore and offshore.

Government officials responded to the study by establishing a pair of new industry clusters: "The Global Wind Alliance" and "The Global Marine Alliance." Both now employ a significant number of people with new skills, and both now export renewable energy. After the success of that collaboration between the public and private sectors, DONG Energy, Denmark's leading energy company, announced in 2011 that it would construct a new logistics terminal in Belfast Harbor to facilitate the servicing of its €5bn of Irish Sea contracts.

These innovative efforts underscore Ireland's strong position to provide and support the EU's 2050 targets of 1.8 million megawatts of installed wind power (€5.0 Tr) and €6 Tr in off-shore transmission and distribution with export potential through the super-grid to the UK and Europe.



#### About the Author

Bob Barbour is Director and Chief Executive of the Centre for Competitiveness in Northern Ireland. Prior to joining the Centre, Bob worked for 23 years in the energy and hi-technology industries in Australia, the Middle East, Europe and the USA.

#### Clean Energy: Blowing in the Wind

Wind energy is a clean, renewable source. It's also the fastest growing energy generation source in the world, with capacity currently doubling every three years.

Offshore wind development, in particular, is growing rapidly, given that winds over water tend to be stronger and more consistent than land-based wind. At the same time, acceptable land-based sites must compete with other uses. Offshore, the best targets for development are shallow waters less than 20 meters deep in high-wind areas that are close to major population centers where significant grid infrastructure exists.

Wind studies confirm the waters off the UK contain 50 percent of Europe's usable offshore wind resources. With that in mind, the UK has now surpassed Denmark as the world's leading generator of offshore wind energy.

**Collaborating Companies:** A half-dozen locally based companies have agreed to work with the Centre for Competitiveness to explore Northern Ireland's potential contribution to the emerging Offshore Wind Industry and to build on their existing competence and capabilities.

The companies involved in the collaboration bring more than 530 years of collective history and experience in the fields of maritime, engineering, construction, electrical generation and distribution, and transport and logistics at both the local and global levels. Collectively, the six companies employ 12,400 people with an annual turnover in excess of £2.2bn.

**Potential Market:** In 2007, the global energy market was valued at £62bn (\$117bn). The International Energy Agency (IEA) estimates an

investment of £293bn (\$550bn) per year will be required for the energy supply infrastructure up to 2030.

The investment for global wind farms in 2007 totalled £13bn (\$24.8bn). Vestas, the Danish company that produced more than 1 in 4 wind turbines in 2006, turned over £3055m (€3854m).

#### **Renewable Targets:**

- EU energy target from renewables of 15 percent by 2010.
- UK electricity target from renewables of 10 percent by 2010 and 20 percent by 2020.
- Republic of Ireland electricity target from renewables of 33–42 percent by 2020.

## **Market Analysis—Opinion**

Andrew Reid, Director of Douglas-Westwoods (DWL), 2007

<b>Offshore</b>	<b>2007–2011</b>	<b>Annual Spend 2011</b>
Global CAPEX	£6.3 bn (\$11.6 bn) (3.6 gw new capacity)	£2 bn (\$3.8 bn)
Of Which UK CAPEXD	£3.6 bn (\$6.8 bn)	
Global O&M	£506 mio (\$950 mio)	£187 mio (\$350 mio)

**Notes:** O&M = Operations & Maintenance  
CAPEX = Capital Expenditure

## Exploring the Possibilities for Renewable Resources

*“To raise Government awareness and establish the commercial potential, operational viability and the ongoing commitment of the six companies to work collaboratively to exploit the business opportunities emerging in the Offshore Energy market.”*

–Centre for Competitiveness scoping study

With that objective in mind, the independent, not-for-profit organization undertook its research to assess Northern Ireland’s capability and compatibility for designing and manufacturing wind farms. The study sought to achieve several results:

- To map each company’s relevant expertise and areas of interest.
- To identify the opportunities and route to market.
- To assess the opportunities, risks and current experience.
- To prioritize the areas with the most potential for joint work.
- To take ‘Go’ or ‘No Go’ decision on joint working.
- To develop a potential road map of activity.
- To sign a formal agreement of joint working as appropriate with the companies and the government.
- To develop an action plan with assigned resources, roles, responsibilities and timeframes.





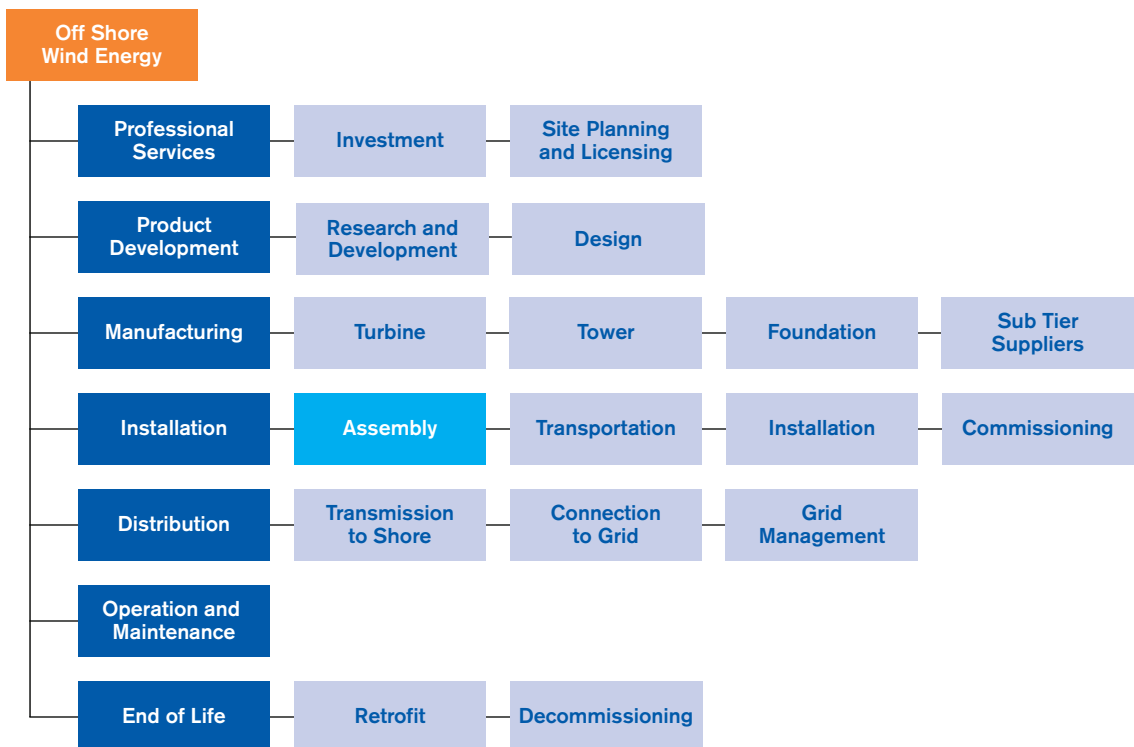
## Mapping the Road to Success

Northern Ireland is recognized as the leading region for delivering alternative energy solutions. It has already successfully gained market presence in terms of a key activity needed to develop the industry—assembly (see Figure 1)—because Harland and Wolff Heavy Industries Ltd. has focused much of its historic Belfast shipbuilding operations on developing offshore wind energy facilities.

Achieving the other goals outlined in the grid will take the collaborative efforts of all the participating companies:

- Securing business through the Lagan Group and the Viridian Group, Ireland's leading independent energy utility.
- Marketing solutions through Viridian as well as the equipment company, Caterpillar.
- Securing the operation and maintenance contracts through the B9 Energy Group, County Antrim.
- Sourcing to sub-tier suppliers, both local and international, could be achieved through the provision of a procurement and logistics service through Caterpillar.
- Developing and licensing technology solutions by focusing research and development through universities and by integrating the industry knowledge of leading companies like Bombardier Aerospace, Caterpillar and Viridian.

FIGURE 1.



- Subcontracting the engineering capacity or undertaking the primary design could be achieved by developing new graduate engineers with specialized knowledge to work with the world-class engineering pool already within the Centre for Competitiveness' network.
- Utilizing the investment infrastructure to develop contractual solutions to the overall risk management and to provide funding across the industry sector.
- Offering both a retrofit and a decommissioning service through the activities of B9 and Harland and Wolff.

### Moving Toward a Viable Industry

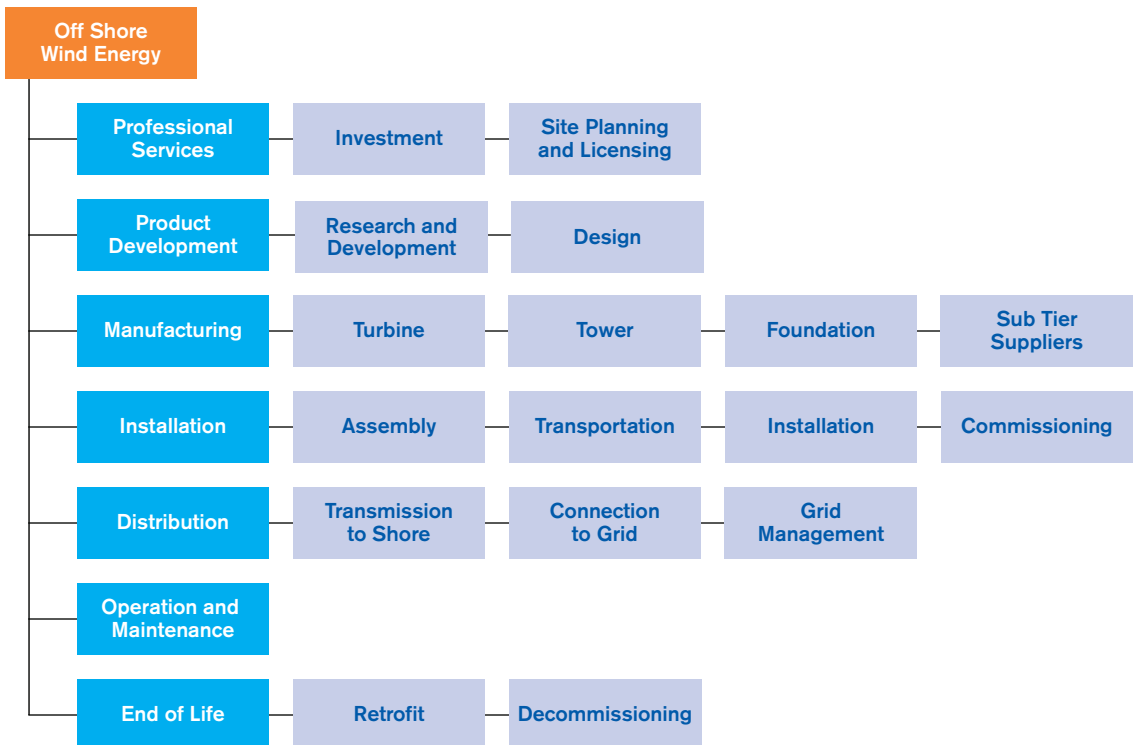
The next phase of the project will be expanded to cover the breadth of the industry. It will be focused on assessing competency, credibility and hunger for new business. A network of industry leaders at Tier 2 along with a network program coordinator will spearhead this phase.

As the project evolves, operational sub-elements will be launched to provide depth of the competencies and the deliverables. Tier 2 coordinators also will lead this phase.

A five-stage plan will be implemented over a two-year time frame:

- **Phase 1—Sharing:** Sharing market intelligence so that every tender opportunity is available to each network member.

FIGURE 2.



- **Phase 2—Performing:** Gaining credibility through successfully securing and completing new work.
- **Phase 3—Hunting:** Marketing the network and regional benefits to secure contracts for individual companies.
- **Phase 4—Collaborating:** Marketing the network and regional benefits to secure contracts for joint ventures between partners.
- **Phase 5—Leading:** Marketing the Network and regional benefits to secure co-location of a Turbine Manufacturing partner.

Wind turbine technologies have advanced to the level of deep-sea floating installations connected to on-land interconnectors—a structure that will allow clean energy to be exported between countries throughout Europe once an intelligent grid infrastructure is available between countries and states.

Ireland occupies a leading position in this process because an interconnector upgrade is planned between the Republic of Ireland and Northern Ireland, with the network owned by one entity.

As the study by the Centre for Competitiveness illustrated, Northern Ireland sits in an exceptional position for providing one of the leading clean, renewable energy sources of the future—wind power—not only to the United Kingdom but to all of Europe. At the same time many governments are looking for ways to increase use of renewable energy sources, Northern Ireland has launched a collaborative effort between the government and leading companies to ensure the country's resources can best be utilized to achieve these goals.

## PANAMA

### Panama's National Competitiveness Forum

#### Background

Panama's National Government and the Inter-American Development Bank (IDB) financed a program called *Programa Compíte Panamá*, designed to spur economic expansion and competitiveness in Panama. Starting in 2006, and following the *Programa Compíte Panamá* initiative, the National Competitiveness Center (NCC) sponsors an annual event called *Foro Nacional para la Competitividad*, or *National Competitiveness Forum (NCF)*, a platform that offers the private and public sectors an opportunity to identify barriers to national competitiveness and to propose solutions. The NCF also enjoys the support of the Ministry of Economy and Finance, the CAF-Development Bank of Latin America, the IDB and various private enterprises.

#### Coordination

The National Competitiveness Center coordinates the annual convergence of private and public sector representatives in Panama City each year, thanks to the organizational structure of the NCC, whose Board of Trustees include members of the public sector (through the ministers of Economy and Finance, Commerce and Industry, Education and Foreign Relations) and the private sector (through the presidents of the main business associations: *Asociación Bancaria de Panamá*; *Asociación Panameña de Ejecutivos de Empresa*; *Cámara de Comercio, Industrias y Agricultura de Panamá*; *Asociación Panameña de Exportadores*; *Cámara Marítima de Panamá*; *Sindicato de Industriales de Panama*, a group into which the *Consejo Nacional de la Empresa*



#### About the Author

Rosemary Piper, career Financier, is the former President of the Small and Medium Enterprises Association and current Deputy Director of the National Competitiveness Center of the Republic of Panama.

*Privada (CoNEP)* was incorporated). In addition, distinguished business people belong to the organization as individual members.

An Organizing Committee, composed of representatives from both private and public institutions belonging to NCC, targets topics to be discussed at work groups, and identifies stakeholders responsible for directing the discussions and summarizing the group findings.

**FIGURE 1. Plenary Session of the 5th NCF**

Source: National Competitiveness Center



### Development of the NCF

The “Forum” includes three segments: the first, a plenary session during which an expert on competitiveness offers attendees his or her insights on regional and international competitiveness during an inaugural dinner; the second, also a plenary session, during which the highest authorities of the public sector share with the participants the current situation and the future plans of their respective areas of responsibility. The session continues with the presentation of the General Director of the NCC, reviewing the status of the recommendations made the previous year, followed by an overview of the annual opinion poll designed to assess remaining barriers to competitiveness, and by remarks by leaders in the private sector, including the *CoNEP* President's summary of the challenges ahead for the private sector. The session ends with international experts describing specific success stories and examples of best practices that have enhanced competitiveness across the board.

**TABLE 1. 5th NCF Themes**

Source: National Competitiveness Center

Education	Justice administration
Energy, sources and uses	Poverty and inclusion
Environment	State modernization
Export (goods)	Technology and innovation
Export (services)	Tourism
Food and agricultural production	Training, productivity and labor
Infrastructure	

The third segment of the Forum consists of group sessions, where participants congregate according to specific interests (themes) and form work groups energized by shared interests and concerns. Each work group is headed by representatives from the private and the public sectors, a one-on-one engagement that offers each group an opportunity to confront high-level policymakers and leaders in their respective industries. The speakers are usually presidents, board directors of businesses associations, vice-ministers, directors or administrators of public institutions.

The discussions are lively and engaging, and aim to enrich, modify, amplify or sanction proposals introduced at the beginning of each group meeting. At the end of this segment, each work group delivers its conclusions and recommendations to the NCC.

Following the Forum, the NCC prepares a record of the event: a rich compendium of presentations, information, and illustrations. But most importantly, the NCC prepares a final document known as the *Agenda de Acción* (Action Agenda), containing the recommendations and action items of each work group. The said recommendations and action items are also individually delivered to each of the organizations or entities identified as responsible for these activities. All this information, besides being widely distributed, is made available to all interested parties through the NCC's website.

### Follow-up Actions

The National Competitiveness Forum reaches out to stakeholders throughout the year in its follow-up activities, which include:

- Organizing periodic meetings with associations' directors and authorities to obtain updated information on the status of implementation of the recommendations;
- Monitoring implementation of recommendations;
- Providing written reports through widely circulated media and / or NCC's electronic bulletin, in order to keep the community informed;
- Promoting initiatives to facilitate the implementation of the recommendations.

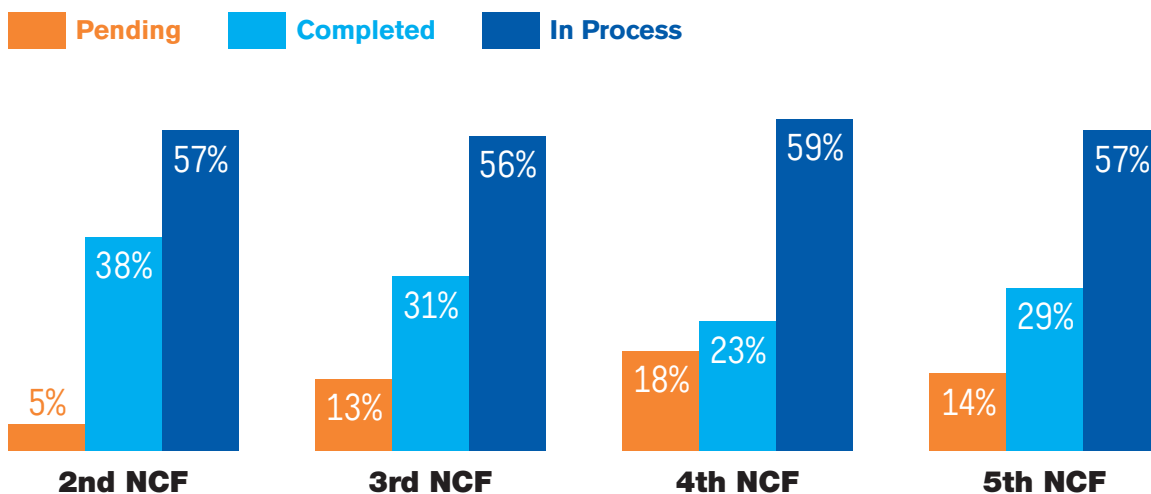
### Results

The Forum continues to be successful:

- Each year, an average of 400 people attend the event;
- Participants are drawn from the public sector, which includes all three branches of government, and the private sector, which includes academia, labor, student, enterprises and the civil society in general;
- On average 30 percent of the recommendations are completed each year and 57 percent are in the process of implementation. There is an ongoing effort to promote more short-term recommendations so that results can be more visible;
- The NCF events promote and maintain interest in topics key to enhancing competitiveness and improving our citizens' quality of life;
- The events have promoted ongoing public awareness of the need for increased competitiveness.

**FIGURE 2. Status of Implementation of the Previous Year's Action Agenda**

Source: National Competitiveness Center



## Final Words

The nation's competitiveness hinges on the "smart management" of micro and macroeconomic forces, and the willingness of individuals, enterprises, and policymakers to work hand-in-hand to meet shifting challenges.

If Panama is to reach a sustainable level of development, both government and business must move in tandem toward common goals: contributing to the improvement of the quality of life for all citizens, overcoming the barriers of unemployment and poverty, and improving productivity across the board.

Competitiveness is not exclusive to a single group or sector; it can be achieved only through a joint effort.

Through the Forums, the National Competitiveness Center offers a practical instrument, constructed via consensus, for enhancing competitiveness across the social spectrum and Panama's varied economic landscape.

## CANADA

### The Story of *Productivity Alberta*: Successful Policy that Enhances Private Sector Competitiveness

*Productivity Alberta* is a unique and highly effective industry-led initiative. Its objective: to transform Alberta into one of the most productive and innovative regions in the world. This is a formidable challenge. Despite being home to one of the world's largest oil and gas stores, inefficiencies of low productivity in Alberta are often masked by higher commodity prices and a greater world demand for petroleum products. However, when prices fall, Alberta's producers and manufacturers are often hit hard, in part because of low productivity rates relative to other jurisdiction results, and in reduced competitiveness. In response to this challenge, the Alberta Government created *Productivity Alberta* in 2008 to enhance the provinces' competitiveness in the global market.

*Productivity Alberta* has risen to the challenge. While initially conceived in the Alberta Government, this enterprising group quickly recruited industry leaders and formed an organization that is now leading the way by delivering tools, services, and on-the-shop floor training for small and medium-size enterprises in a variety of industries. In the past 24 months, more than 1,200 businesses have sought out the services provided by *Productivity Alberta* to deliver significantly better bottom line results for their companies.

#### Economic and Competitive Climate Overview

Alberta, Canada, a province of three million people, has a diversified, strong, and resilient economy. However, its once considerable lead in productivity relative to other provincial jurisdictions has eroded in recent years.



#### About the Author

With 20 years business and organizational leadership, Productivity Alberta CEO Lori Schmidt now leads a two-year old public-private partnership charged with increasing the productivity of businesses located in Alberta, Canada to improve competitiveness.

The manufacturing, financial, health, resources and service sectors are very important in the Alberta economy, but these sectors face stiff challenges, both from regional factors and increasing global competitiveness. The Alberta Competitiveness Council's Report on Competitiveness (Alberta Competitiveness Council) noted key areas for improvement. While some challenges are unique to a particular industry, others are common to all companies.

There is no silver bullet to solve the many challenges affecting the key business and industry drivers, but improvements in productivity and innovation can help mitigate the effects.

Productivity measures the efficiency with which an economy or a business transforms inputs into outputs.



Productivity growth means accomplishing more with what we have, that is, being more resourceful, to achieve higher profitability and incomes, to mitigate volatility in labor application, to increase attractiveness for foreign investment, and eventually to support all levels of government with reasonable growth in tax revenues. Business and industry win by becoming more competitive on the global stage.

The good news for industry is that improving productivity and innovation is not necessarily expensive, time-consuming, or difficult. However, it takes a commitment and discipline to identify areas for improvement, work toward the improvement, and maintain the improvements over time. It requires a different way of looking at our business, a cultural shift towards innovation, and continuous improvement.

### ***Productivity Alberta: Achieving Alberta's Vision***

Originally created as a government program within the Alberta Ministry of Finance and Enterprise, *Productivity Alberta* is an industry-led, not-for-profit corporation, a catalyst for greater competitiveness via the application of world-class solutions. This means combining and applying leading practices and expertise from a wide range of public and private sources across a spectrum of companies involved in manufacturing, distribution, and direct sale of goods and services. *Productivity Alberta* focuses on three areas: education & awareness, productivity enhancement tools and workshops, and research in best practices. Services and products include assessments, benchmarking, referrals, process improvements, coaching, leading practice research, creation of industry alliances, and sector and regional project support.

*Productivity Alberta* vision is a “transformed Alberta,” one of the most productive and innovative regions in the world.

### **Envisioning *Productivity Alberta***

Like other provinces in Canada, Alberta views productivity as key to competitiveness: it translates into additional programs, high-energy networking, and the information and data our business community needs to monitor trends and develop benchmarks for sector specific improvements.

*Productivity Alberta* also collaborates with the Alberta Economic Development Authority, the regional partners, academia, industry associations, the federal government's Western Economic Diversification unit, and the cities of Calgary and Edmonton Economic Development divisions and with other Alberta government ministries to ensure productivity programs and services are optimally targeted, developed and delivered for industry sectors and business.

### **Partnering to Deliver Value to Clients**

*Productivity Alberta* works with partners from across the province as well. For example, community-based economic development agencies are being engaged as conduits for productivity initiatives, while private sector delivery agents are being contracted for consultation, assessment and implementation of productivity programs.

By working strategically with partners, *Productivity Alberta* offers a unique value proposition for clients:

- To provide unbiased/objective guidance to assist companies to recognize inefficiencies and opportunities for improvements;
- To focus on bringing productivity thinking, expertise and solutions to help a company “see” where it can go and what it can achieve by helping firms to work smarter, not harder;
- To demonstrate proven results for business, through a return on investment (ROI) approach;
- To benchmark results as an organization and as an Albertan business against world class practices; and

- To carry out all activities utilizing strong leadership characteristics of wisdom and knowledge, trust, respect, integrity and accountability.

*Productivity Alberta* works with small and medium-size producers: industrial products and services; manufacturing and construction; mining, forestry and logistics; and public and private sector service providers, such as agencies and organizations that work with companies to improve competitiveness and productivity.

*Productivity Alberta's* clients are often early adopters of new technology, processes and innovation.

## Market Analysis: Industry Need and Benefit

Most studies on manufacturing performance reveal that Alberta is at the top in Canada, especially in terms of manufacturing productivity and competitiveness. In general, Alberta and Canadian manufacturers are relatively competitive in production and export growth, but less so in productivity, profitability, and investment.

However, if the energy products sectors are excluded, Alberta's manufacturing productivity is considerably lower. Globally, Alberta's manufacturing productivity and competitiveness lags behind many major manufacturing jurisdictions, leaving plenty of room for improvement. Canada's productivity growth has lagged behind most Organization of Economic Cooperation and Development peers, and Alberta's growth rate in productivity is the lowest among all provinces.

In addition, the Alberta marketplace presents unique challenges to competitiveness. These include labor shortages and the high cost of labor and supplies in the environment, especially relative to other countries, with which Alberta firms compete for global market share.

## How *Productivity Alberta* is Having an Impact

Alberta business can improve productivity. The first step is acknowledging the benefits of productivity as a tool to improve profits and as a competitive device. Business needs to become more aware of programs and services provided by governments, institutions, and non-governmental agencies, and use these programs and services.

Second, Alberta businesses can improve operating efficiency through cost reduction measures in energy consumption, and through improvements to labor productivity, capital investments, adoption of technology, and process efficiencies.

Productivity in manufacturing can also be increased by adding value to products and services through innovation and supply chain extension.

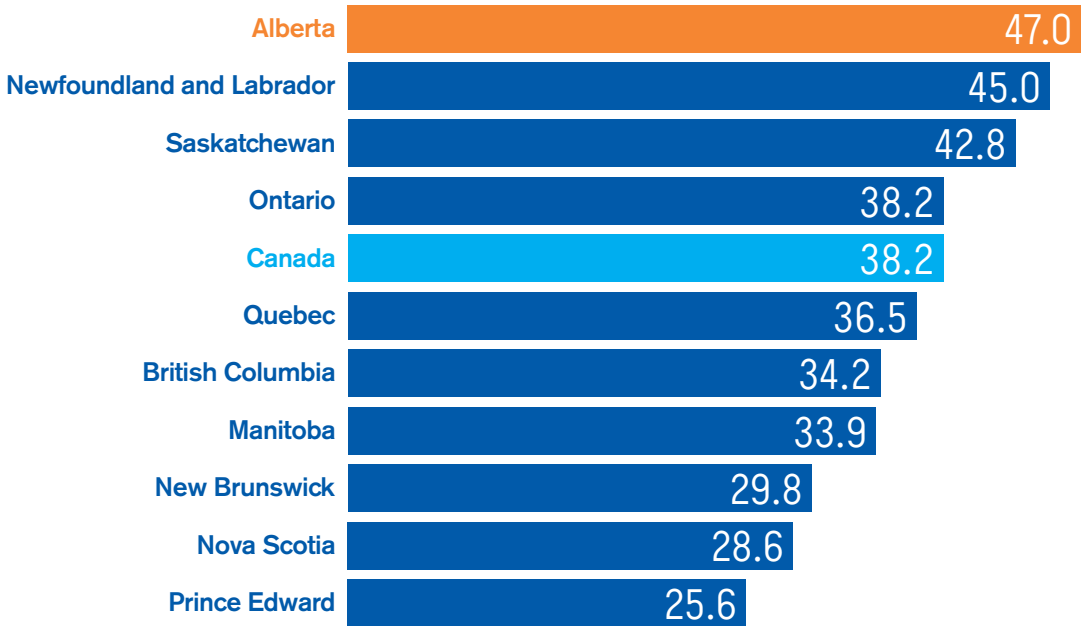
Awareness, efficiency, and value-added product opportunities are key to helping companies realize their potential improvement through collaboration and information sharing.

*Productivity Alberta* provides a holistic approach to productivity by qualifying and maintaining a current inventory of all services, and advertising available levels of expertise, products, company service areas, and client targets that can help Alberta firms learn to work together to realize potential gains. Where the fit is appropriate, *Productivity Alberta* points clients to these service providers and stays involved to ensure benefits materialize.

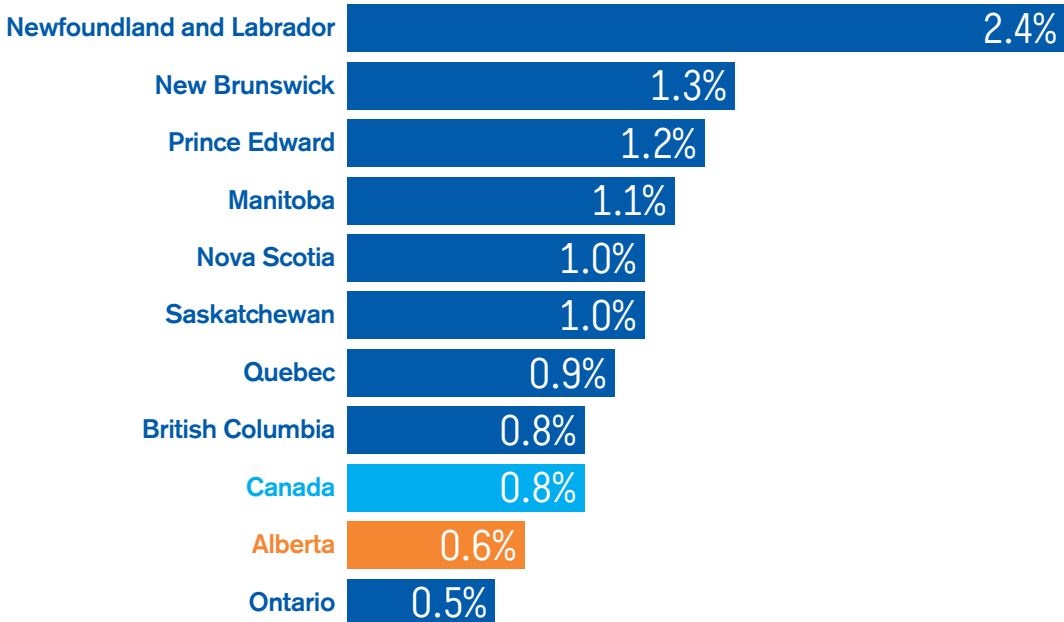
### **The Target Market**

*Productivity Alberta* targets specific sectors based on their importance to the Alberta economy and the productivity issues each is facing, such as rising costs and increasing labor pressures. Early adopters in small and medium-size enterprises and the producing sectors economy of industrial products, manufacturing, construction, mining, forestry and logistics are the initial focus. *Productivity Alberta* also focuses on emerging successful businesses in sectors where there is a growing need for assistance related to productivity improvement, innovation and competitiveness.

### Productivity of Labor Real GDP/HR Worked, 2010



### Total Economy Productivity Growth Rates, 2000–2010



Source: Alberta Finance and Enterprise, May 2011

Other businesses have access to *Productivity Alberta*'s online tools and assessments. In this way, more businesses can improve their productivity using either the "do-it-yourself" or "do-it-with-help" model.

Public and private sector service providers, such as agencies and organizations that work with companies to improve competitiveness and productivity, are also key targets for partnership in service delivery.

### **Service Delivery**

*Productivity Alberta* has a central role in managing programs, delivering web based information, conducting assessments, guiding clients, making referrals, contracting services, and developing relationships.

Direct client services are organized and executed through *Do-It-Yourself* and *Do-it-With-Help*. Both of these streams require strong coordination and organization among partners, managed flow of inquiries, and dedicated client services.

**Do-It-Yourself** helps clients develop their own productivity via a connection to the tools and programs hosted on the *Productivity Alberta* web portal. These clients do not require advisory support, but are seeking information on implementing programs and services on their own or in a one-off manner. During the engagement process, clients have the option to sign-up for newsletter and information distribution. The registration process provides an opportunity for *Productivity Alberta* staff to contact the client and ensure they are receiving all the necessary information from the web portal to start or continue on their productivity journey.

**Do-it-With-Help** is for clients who require more substantive guidance and support in developing their productivity improvement strategy. Guidance is available from professional advisors in the areas of leadership, innovation and operations. At this point, an individual or organizational partner is connected to the client to provide an array of services including assessment and strategy de-

velopment. *Productivity Alberta* staff follows up with the client to ensure quality and timely service and to see to it that business requirements are being met.

*Productivity Alberta* is committed to offering as many services as possible over the Internet and to providing assistance to small and medium-sized businesses at an appropriate level. The web portal, [www.productivityalberta.ca](http://www.productivityalberta.ca), also includes a free newsletter subscription service.

### **Specific Productivity Alberta Programs**

Productivity Improvement Services—*Productivity Alberta*'s experts offer free, on-site assessments that focus on lean business practices designed to reduce waste and increase productivity. Experts can also be hired to train staff and facilitate implementation of efficiency practices. Such practices can compensate for a company's weaknesses, such as declining market share, loss of customers to competitors, or supply chain challenges. Presentations, seminars and workshops allow businesses to explore the benefits of continuous improvement practices, while events create learning opportunities for various industries in Alberta. Finally, *Productivity Alberta* encourages and mentors private sector consulting and organizational companies through the support of the Society of Manufacturing Engineers Lean Certification process.

### **Supply Chain Collaboration**

Every player in a company's supply chain affects its success. The Supply Chain Collaboration Program allows companies to build stronger and more collaborative relationships with key suppliers through workshops and one-on-one coaching from a mentor.

### **Industrial Energy Efficiency**

*Productivity Alberta* helps companies assess their specific situations, educates them on the costs of their energy consumption, and shows them how to develop energy efficiency plans. A successful energy efficiency program also

involves comparing a business to its competitors and ensuring everyone in the organization is committed to the new energy efficiency program. *Productivity Alberta* helps this process by using measurable goals with clearly communicated objectives for all levels of an organization.

### **Productivity Assessment Tool**

*Productivity Alberta's* on-line Productivity Assessment Tool allows organizations to self-assess and set benchmark levels of productivity key to the company's becoming more effective, efficient and profitable in Alberta. The tool has both short and long forms, and is most telling when all departments, divisions or teams of an organization answer the tool's questions, which center on methods of operation, innovation and leadership and management. This past year alone, more than 130 businesses improved their productivity through the use of the on-line assessment tool.

By offering these services, *Productivity Alberta* is helping Alberta businesses target typical efficiency problems, as well as problems unique to their organizations, and to become more productive. Programs like the Industrial Energy Efficiency help companies reduce energy waste and their concurrent loss of productivity and competitiveness

*Productivity Alberta* has received start-up funding from government and through specific grant applications for its first few years of operation. These funds are gratefully received and acknowledged from the Ministry of Finance and Enterprise, the government of Alberta and Western Economic Diversification, and the government of Canada. In the last year alone, it helped more than 500 companies take a first step toward better bottom lines by using one or more of *Productivity Alberta's* tools and services.

### **Strategic Objectives**

Now, at the end of nearly two years of initial work, *Productivity Alberta* is maturing into an organization independent of government.

With input from the community, government and other stakeholders, and as adopted by *Productivity Alberta's* founding Industry Advisory Committee, *Productivity Alberta* has adopted specific objectives as central principles in establishing *Productivity Alberta's* memorandum of incorporation:

- a. Stimulate broad acceptance of productivity as a critical component of Alberta's competitiveness;
- b. Provide access to knowledge and expertise through both a "do-it-yourself" and "do-it-with-help" options;
- c. Collaborate and partner with other leading organizations and align with other levels of government programs in this area to ensure complementary delivery and incentives;
- d. Facilitate communities of excellence and establish multi-partner alliance networks;
- e. Create mechanisms for revenue generation and to fund industry and demonstration projects as stimulants for wider adoption; and
- f. To be designed, as an organization, to be scalable, and fiscally prudent.

### **Case Study: Driving Out Inefficiencies in the Supply Chain through Collaborative Relationships**

After 59 years in business, Metal Fabricators and Welding Ltd. (Metalfab) knows a great deal about manufacturing high quality steel products. Getting their products out the door efficiently, however, used to be a different story. The Edmonton, Alberta, Canada-based company knew it could improve its supply chain. "The world is changing around us, and if we don't change, we'll be left behind," said Trevor Pond, vice-president of marketing and sales with Metalfab.

Two years ago, Metalfab participated in the Supply Chain Strategic Alliance program, developed and delivered by *Productivity Alberta* and the results were immediate. The two-day program,

also attended by several of Metalfab's suppliers, inspired a willingness of all parties to open up about their business practices, which allowed the companies to work together and drive out inefficiencies in the supply chain. The companies found they were able to work together to develop an outline of their timeline and scheduling needs. "When you write things down, they are not forgotten as easy and there is more accountability," Pond says.

Metalfab's internal costs were reduced immediately as the time it took to obtain material-supply quotations dropped, allowing the company to turn projects around more quickly. "The program was just the start of the process," Pond says.

Argus Machine Co. Ltd. of Leduc, Alberta, Canada tapped into the expertise of *Productivity Alberta* as well. Argus staff attended the same two-day Supply Chain Strategic Alliance program, along with several of their suppliers. Through workshops and follow-up coaching, the program provided the opportunity for these companies to build stronger and collaborative relationships with key suppliers. Mr. Malcolm Buchanan, lean manufacturing process manager at Argus, explained, "We made some changes as far as approaching suppliers and offering ways we like to do business, rather than just taking orders."

By increasing the frequency of shipments from suppliers, the company's inventory levels decreased by 30 percent. The improved flow of goods in and out of the company is saving money and making the process more efficient.

## In Summary

*Productivity Alberta* continues to be a single access point, gathering talents and efforts across Alberta, in industry, government, and other sectors to achieve a more productive and innovative environment.

The future looks bright as *Productivity Alberta's* industry Board and industry advisors ensure the organization responds to the changing needs of all industries and maintains the goal to make Alberta one of the best places in the world for productivity growth and competitiveness.

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