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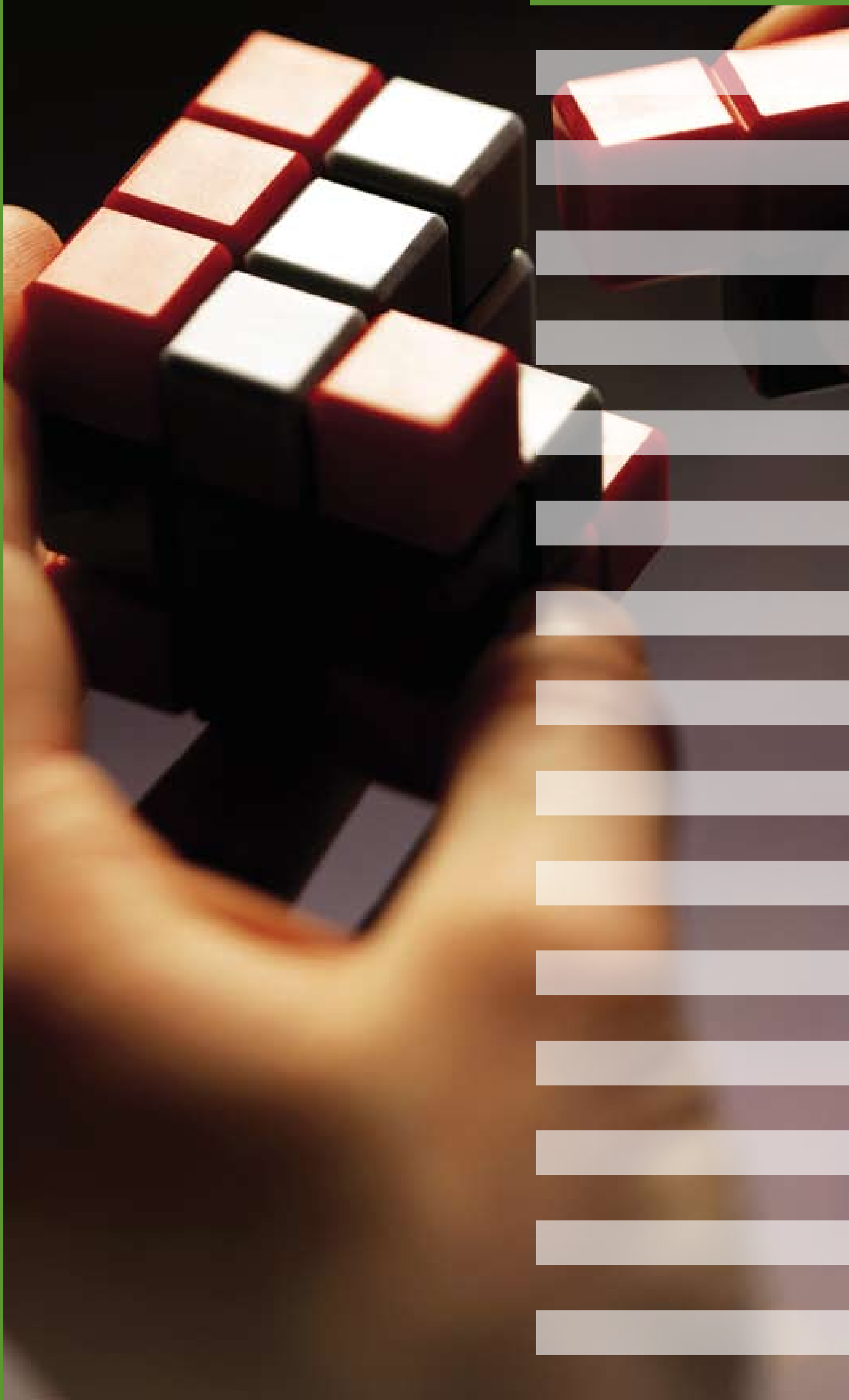
Economic development in a Rubik's Cube world

How to turn global trends into local prosperity



IBM Institute for Business Value

IBM Global Business Services, through the IBM Institute for Business Value, develops fact-based strategic insights for senior executives around critical public and private sector issues. This executive brief is based on an in-depth study by the Institute's research team. It is part of an ongoing commitment by IBM Global Business Services to provide analysis and viewpoints that help companies realize business value. You may contact the authors or send an e-mail to iibv@us.ibm.com for more information.

Economic development in a Rubik's Cube world

How to turn global trends into local prosperity

By Susanne Dirks, Mary Keeling and Ronan Lyons

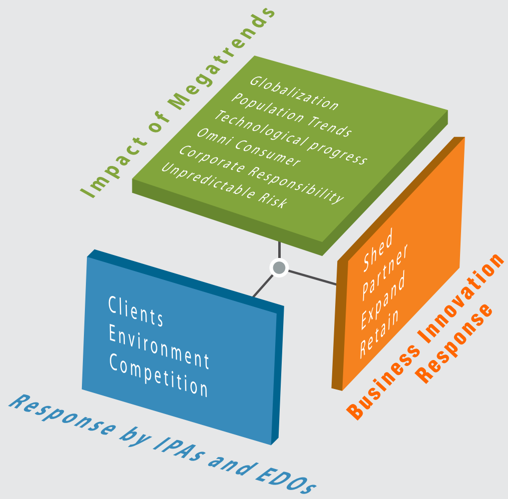
The world is currently changing at an increasingly rapid pace, driven by six "megatrends": deepening globalization, large scale population trends, accelerating technological progress, the "Omni Consumer," the corporate social responsibility imperative and growing political uncertainty. These trends are forcing companies to innovate and refine their fundamental business models. Investment promotion agencies and economic development organizations must not only deal with all those changes, but also with more intense competition. To do so, they need to understand their clients, environment and competitors, and respond effectively.

Introduction

Thinking about the world of 2020, it is easy to underestimate the scale of changes likely to happen in less than 15 years. Fifteen years ago, the world was emerging from the end of the Cold War. Almost all business investment came from developed countries and about 80 percent went to other developed countries.[1] Since then, global investment flows have increased almost five-fold.[2] In 1990, there were about 35,000 transnational corporations (TNCs), with an average of four affiliates each.[3] If the period 2005-2020 sees as much change and growth as 1990-2005, we will be living in world of 28,000 international investment projects annually by 2020 – a world in which 140,000 TNCs will have an average of 20 affiliates each.[4]

To gain an insight into the world of 2020 for economic development professionals, the IBM Institute for Business Value reviewed its sector and industry future agenda studies. Its Global Center for Economic Development also conducted a review of long-term economic and social forecasts out to 2020, as well as conducting its own economic analysis of major global trends, including investment, technology and globalization. To understand how investment promotion and economic development organizations are preparing for the future, over 250 organizations around the world were surveyed, including clients of the IBM-PLI Global Location Strategies consultancy practice, members of the International Economic Development Council (IEDC) and the World Association of Investment Promotion Agencies (WAIPA).

FIGURE 1.
Megatrends, business innovation and response by investment promotion agencies and economic development organizations.



Source: IBM Institute for Business Value.

For investment promotion agencies (IPAs) and economic development organizations (EDOs), the first key challenge is to understand how the world is changing and the powerful forces at work. Think of these changes as the Rubik's Cube – on one side lie forces, or megatrends, that, when changed, bring change to businesses on other sides of the cube. These megatrends represent the first dimension of the Rubik's Cube and are shaping the world of 2020. They include: globalization and population changes, which are altering the geographic possibilities and priorities of the private sector; technological progress and the rise of the new empowered and enlightened Omni Consumer, which are altering the rules of the market, creating new sectors and activities and resetting the weighing scales of market power; the corporate social responsibility imperative, which we believe is no longer an option but a key component of corporate strategy; and unpredictable risks, such as political uncertainty and terrorism.

These forces are bringing about a business innovation response, which represents the second dimension of the Rubik's Cube world. This can be seen in how businesses are reorganizing their underlying models, stripping away non-core activities, expanding into new activities, placing greater importance on collaboration and partnership, and reorganizing their core competencies to help create greater efficiency.

As the business world of the future is being formed, so, too, are the winners among IPAs and EDOs, which represent the third dimension of the Rubik's Cube. The best-in-class IPAs and EDOs of 2020 understand that clients are changing. Leading IPAs and EDOs also understand the market is growing – with more projects and increasingly fierce competition. New sectors, particularly services, are emerging as key drivers of investment growth, while, overall, the focal point around which projects will cluster is shifting from sector-based to activity-based. New factors in location selection are also emerging, creating new opportunities to differentiate locations and shape a sustained competitive advantage.

To emerge as winners in the world of 2020, investment promotion agencies and economic development organizations need to understand these dimensions of the Rubik's Cube world and act upon them. The winners in 2020 will not be the organizations that best understood how their markets were changing, but those that were best at responding to changes.

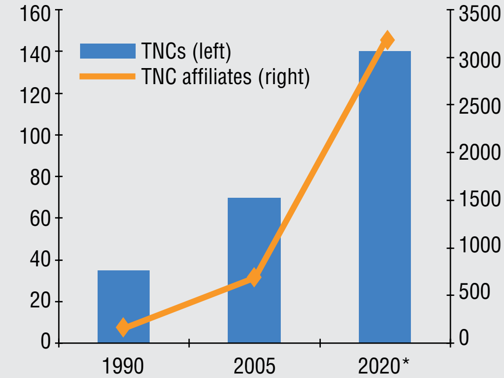
Six powerful forces – megatrends – in the world today are shaping the world of 2020

Globalization, demographics, technological progress, the rise of the so-called Omni Consumer, corporate social responsibility and political uncertainty are six megatrends we believe will have significant impact within the next 15 years on businesses, regulators and lobbying groups, as well as organizations involved in investment promotion and economic development.

Globalization now encompasses people, companies and ideas, not just trade and economics

Globalization as a phenomenon is not new – but the pace and scope of the current wave is unprecedented. The proportion of traded goods and services grew from 40 percent in 1990 to almost 60 percent in 2005, facilitated by the World Trade Organization (WTO) and falling tariff barriers.[5] Over the same period, the number of transnational companies doubled to 70,000, and the number of TNC affiliates grew more than fourfold.[6] The typical TNC now operates in ten countries, compared to just four in 1990.[7] In 2005, global capital flows increased to more than US$6 trillion, the highest level ever, with the pace of growth of emerging markets double that of developed countries.[8]

FIGURE 2.
Number of TNCs and TNC affiliates (in thousands).



**Forecast*
Source: IBM Institute for Business Value analysis of United Nations data.

The global labor force is profoundly changing in age and location

In 2008 more people will live in cities than not.[9] This growth of the population of cities also creates growth in the global consumer base.

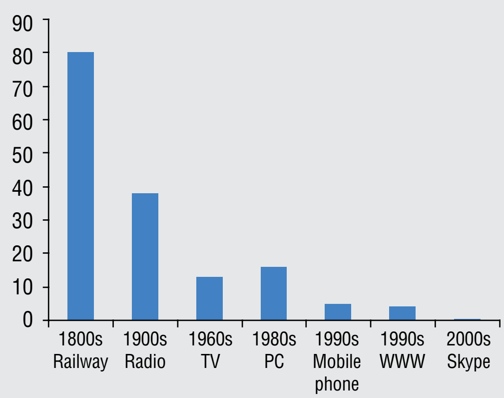
Also, between 2000 and 2020, 94 percent of the 1.8 billion increase in the world's population is projected to be in developing countries.[10] Over the next two decades, sub-Saharan Africa and South and Central Asia will see their labor forces increase by between 200 million and 300 million.[11] In contrast, North America's labor force is expected to increase by just 20 million, and the labor force in Europe and Russia is forecast to shrink by almost 40 million.[12]

Priorities for global companies are shifting away from traditional markets in the wake of heightened worldwide Internet use.

Technological progress is more pervasive than ever before

New technologies are spreading faster than ever before, as shown in Figure 3. As new technologies embed themselves, the worldwide economy continues to be transformed.[13] One in five workers in the European Union, the United States, Australia and Canada are now employed in information and communications technology (ICT) and related occupations.[14] Technological progress has also spread more widely and is taking a deep hold. Between 2000 and 2007, world Internet usage more than doubled to almost 1.2 billion people – and is expected to increase to two billion by 2010.[15] Forty percent of the increase between 2000 and 2007 came from Asia and developing countries accounted for some of the largest increases. This trend is expected to continue as, of the 5.4 billion people currently not online, 4.2 billion of them are in Africa and Asia.[16] Oceania and North America have just 117 million more users to add.[17] As more of these consumers and workers flood the world economy, the priorities of global firms are shifting away from traditional markets.

FIGURE 3.
Faster spread of technology: Number of years from invention to 50 million users.



Source: IBM Institute for Business Value analysis of data released by the International Telecommunications Union and Skype.com.

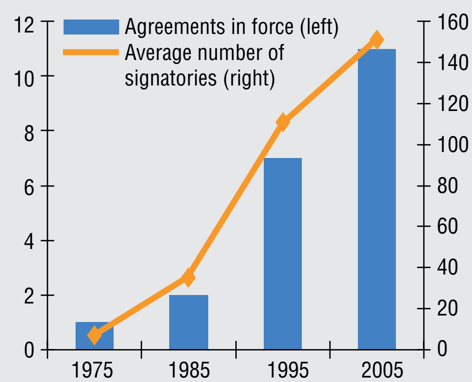
The Omni Consumer thrives on knowledge and wields unprecedented power

Primarily because of technology, there is a much greater balance of information between producers and consumers – eight of the 50 most popular Web sites in the United Kingdom are portals or retail search websites.[18] At the same time, the average consumer has a lot more to spend each year. This is not just a "rich country" phenomenon. Compared to 2000, the average person in Hungary now spends almost 30 percent more, about US$2,000, on consumption each year, while in Turkey, the average person spends over US$1,000 more.[19] With consumers around the world having more money to spend, and more information to make their decisions, businesses can rise – or fall – in months. For example, Zara's brand value increased 22 percent to US$5.2 billion between 2006 and 2007, while other major brands suffered a fall in their value over the same period.[20]

Corporate social responsibility is now a business imperative, not an optional add-on

Corporate social responsibility has evolved from a voluntary add-on to a corporate imperative that is rapidly changing the business landscape. Businesses now face increased scrutiny from consumers and workers about what would previously have been regarded as "non-market" attributes of their goods. This is reflected in the growth of the Fairtrade label, usage of which increased 40 percent per year between 2000 and 2007, and the rise in value of the "green" buildings material market.[21] Businesses are also facing more and stronger regulations. For example, more governments are involved in international environmental regulation (see Figure 4).[22] Investors also are paying more attention to environmental and responsibility factors that affect long-term returns. Socially responsible investing (SRI) now accounts for US$2.5 trillion in the U.S. – or about one in every ten dollars – and for €1.6 trillion in Europe.[23] Additionally, SRI is expected to grow at 5 percent per annum over the next five years.[24]

FIGURE 4.
Major multilateral environmental agreements and signatories.

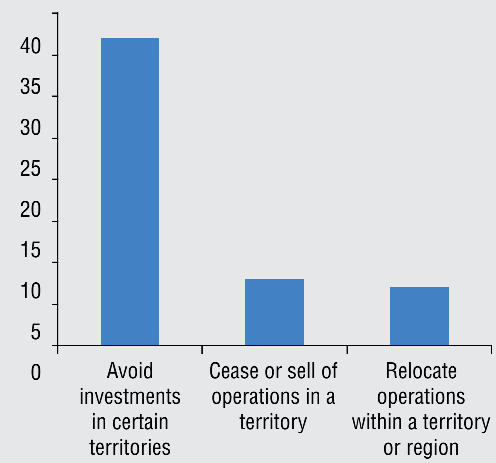


Source: World Federation of UN Associations; IBM Institute for Business Value analysis.

Unpredictable risks, in particular political uncertainty, loom in the background of the decisions that will shape 2020

While market forces are much of the story in how the world is changing, non-market forces are also playing a role. These include political uncertainty and terrorism, which affect business and the wider economy. Perceptions on how a country manages the risks of violence are of considerable importance. As shown in Figure 5, almost two in five respondents say they have avoided investments in certain territories because of concerns about violence.[25]

FIGURE 5.
Business location decisions in response to political violence.



Source: IBM Institute for Business Value analysis; lloyds.com

Businesses are responding to the megatrends by becoming globally integrated enterprises

The megatrends shaping the world of 2020 are having a real impact on the world of IPAs and EDOs. Again using the Rubik's Cube analogy, the megatrends lie on one side of the cube while the changes they inspire are on another. Businesses are focusing on core competencies, the activities that give them sustained competitive advantage – the area most important for IPAs and EDOs. The focus on core competencies means businesses need to make decisions on four key areas – which activities to shed, which to partner for, which to expand into and which to retain.

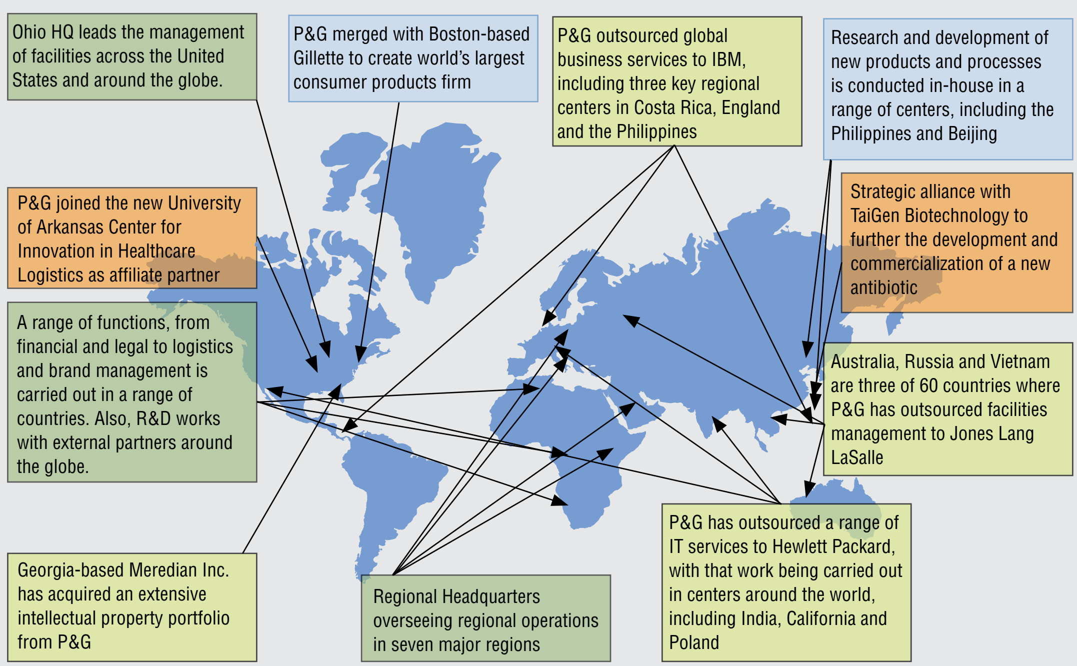
The focus on core competencies is fueling a fundamental and rapid innovation in business models in response to the megatrends and is heralding an era of globally integrated enterprises.[26] With the globally integrated enterprise, the "production" process – whether for manufacturing or services operations – is becoming geographically fragmented to an unprecedented degree. It is being spread to the best location globally to produce, not only with the aim of cutting costs but also to tap new sources of skills and knowledge, resulting in the integration of production and value delivery worldwide. In Figure 6, we look at the experience of Procter & Gamble, an example of a firm adopting the model of the globally integrated enterprise.

As businesses focus on core competencies to take advantage of the opportunities afforded by the megatrends, they make decisions about which activities to shed, which to partner for, which to expand into and which to retain.

Shed: Companies are shedding non-core activities

Outsourcing refers to switching an activity from one done in-house to one obtained using external providers. The global outsourcing market was estimated to be US$930 billion in 2006, meaning that it now rivals offshore investment in scale and in breadth of activities, as international investment is forecast to be close to US$1 trillion in 2007.[27] The value of the global outsourcing market is expected to increase by 54 percent to US$1.43 trillion between 2006

FIGURE 6.
A globally integrated enterprise: Some examples from Procter & Gamble.



Source: IBM Institute for Business Value analysis.

A focus on core competencies requires companies to assess those activities they should shed, partner for, expand into or retain.

and 2009.[28] Growth in outsourcing spending is evident across all sectors, from manufacturing to public services.

Partner: Companies are looking for new ways to add value through partnerships

Partnerships, collaboration and cooperation are key channels through which businesses add value. More than half of executives say that they have changed their business model over the past three years to take greater advantage of collaborative partnerships, and more than 20 percent of the revenue generated from the top 2,000 U.S. and European companies now comes from alliances.[29]

Expand: Companies are adding to core activities, organically and through acquisition

Businesses are increasingly using R&D internally and M&As externally to expand their core competencies. Between 2000 and 2005, R&D spend by firms in developed countries increased from US$370 billion to almost US$500 billion.[30] China's spend on R&D increased by 18 percent between 2004 and 2005 to US$115 billion.[31] M&A activity has grown steadily since 2003 and could top US$1 trillion again in 2007.[32] In 2005, emerging markets were involved in over 1,000 deals worth US$90 billion.[33]

Retain: Companies are retaining the activities they do best, but are looking for new locations for these activities

As companies strip away activities to hone in on what they do best, they are also rethinking not just the what, but the how and the where as reflected in the growth of international investment. The number of Greenfield projects, i.e., projects in an area in which the business has no previous facilities, increased by more than 25 percent to almost 12,000 projects between 2003 and 2006.[34] Developed countries remain the source for the bulk of projects, with projects originating in Europe growing the fastest (38 percent), while the rate of growth in projects coming from developing countries was as fast as that from the United States (23 percent).[35]

Developing countries are growing in importance as a source of investment projects though, with one in seven projects now originating in a developing country.[36] India and China are now among the 20 biggest sources of Greenfield foreign direct investment projects, with India among the biggest investors in Russia, China and Malaysia.[37]

Developing and transition countries now comprise the destination for the majority of investment projects, hosting over 55 percent of new projects and over 60 percent of the estimated jobs created in 2006.[38] In addition to geographical changes IPAs and EDOs are facing in the market, the typical project is also changing. Service activities now rival manufacturing in number for projects.

IPAs and EDOs must respond to the challenge

As they prepare for the world of 2020, the challenge for investment promotion and economic development organizations is the challenge of the Rubik's Cube: understanding the relationship between the different sides and getting all the pieces to work together. Not only do they do need to understand, they need to respond. The winners in the world of 2020 won't be the most knowledgeable IPAs and EDOs. They will be, instead, the best at execution. There are three aspects of their business that IPAs and EDOs need to understand and respond to: their clients, their environment and their competition.

Understand your clients, businesses

As we have seen in the previous section, businesses are responding to the megatrends by changing their underlying models and focusing on core competencies. IPAs and EDOs need to consider how they will respond.

Consider widening your focus to include firms of all sizes

Our survey of IPAs and EDOs around the world indicates that while American organizations actively target firms of all sizes, other organizations, particularly outside Western Europe, tend to focus predominantly on larger firms, with almost three quarters of IPAs outside North America and Western Europe mostly targeting large firms.[39] With investing abroad easier and cheaper than ever, offshoring is no longer the preserve of the global multinationals. Increasingly, it is a tactic for small- and medium-sized enterprises (SMEs), which may require different types of support. For example, IPAs and EDOs could consider forming collaborative relationships with organizations representing SMEs in target markets.

Respond to the rise of outsourcing

With the growth of outsourcing, businesses that previously invested in activities offshore may look to external specialist service providers. IPAs and EDOs need to make sure that their efforts include targeting those providers. Organizations successful in monitoring and responding to these trends typically get a first-mover advantage.

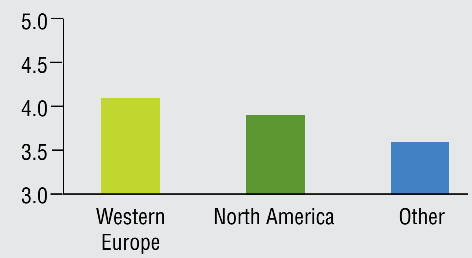
Take an active role in helping firms form partnerships

While the benefits are real, as shown by the example from New Zealand (see case study), evidence from the IPAs and EDOs suggests that facilitating strategic partnerships is not a priority currently, particularly for Western European and North American organizations.[40]

Form partnerships of your own

Just as businesses are adding value and developing new core competencies through partnerships, so, too, in the age of globally integrated enterprises can IPAs and EDOs develop new value propositions by working together (see case study, page 9). Currently, IPAs and EDOs in Western Europe are more likely to work together with neighbors than organizations in other areas (see Figure 7).[41]

FIGURE 7.
"To what extent do you cooperate with other IPA/EDOs in your region?" *(Score 1-5)*



Source: IBM Institute for Business Value Survey of IPA/EDOs.

Case study – Investment New Zealand makes the match for Pratt & Whitney

As a result of a proactive investment strategy that included aftercare, Investment New Zealand (INZ) became aware of the plan by Pratt & Whitney – an aerospace manufacturer – to expand its existing global network of service centers.[42] INZ led the value proposition for the establishment of a joint venture between Air New Zealand Engineering Services and Pratt & Whitney. As a result of the intervention by INZ, a joint venture agreement was signed and, since implementation, has generated approximately US$100 million in new business and 400 new employment opportunities.

IPAs and EDOs around the world agree on the importance of understanding how the global investment market is changing.

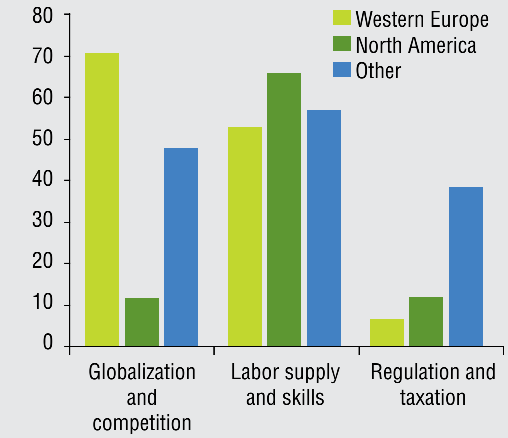
Case study – Singapore and Qatar develop a technological alliance

At their 2007 e-Government Forum, Singapore and Qatar – two prominent investment locations – strengthened their partnership in the area of ICT and e-Government.[43] The goal, according to government officials, is to combine Qatar's expertise with Singapore's strengths to spur socio-economic development and build a competitive edge for both countries. Singapore's experience in e-Government has led to indigenous firms there exporting their expertise to countries like Qatar.

Understand your environment, the changing investment market

The global investment market is changing, and IPAs and EDOs around the world agree on the importance of the workforce and skills challenge, the "war for talent."[44] They disagree, though, on the importance of heightened competition due to globalization. This is very much a concern of IPAs in Western Europe – and indeed elsewhere in the world – but hardly registers with their North American counterparts (see Figure 8). Whereas over 70 percent of organizations in Western Europe cite globalization and competition as a key concern, just 11 percent in the United States have the same worry.[45]

FIGURE 8.
"What do you see as the main challenges facing your organization in the next five years?" *(Percent)*

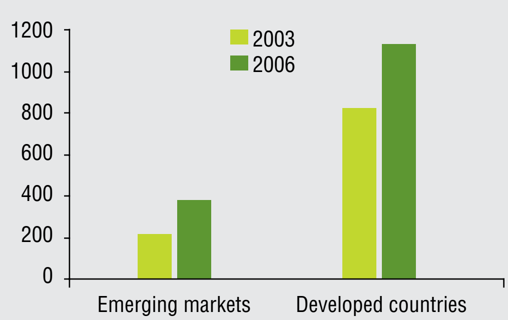


Source: IBM Institute for Business Value Survey of IPA/EDOs.

Keep up the focus on the markets that are the main sources of foreign direct investment

Five countries – the United States, Germany, the United Kingdom, Japan and France – remain the source for more than half of all projects. As the case studies of Arizona and Hungary show, IPAs and EDOs need to build and maintain a presence in key markets and maintain regular contact with decision makers.

FIGURE 9.
Number of jobs by source country. *(Thousands)*



Source: IBM-PLI Global Investment Locations Database (GILD).

While leading IPAs and EDOs have always understood sector and industry-specific factors, they are now identifying new sectors and trends in mobile investment projects.

Case study – Arizona's growing success

Arizona, a southern U.S. state of 6.5 million people, has recently stepped up its efforts to attract international investment from key markets such as Japan, the EU and Canada.[46] Building on identifiable advantages, Arizona has chosen 12 established and emerging sectors to specialize in, including aerospace, electronics and environmental technologies. Advantages include a competitive tax and wage environment, links with the higher education network in the state and targeted incentives. Together with an active presence by Arizona commerce at trade fairs, these have helped attract over 100 international businesses, US$10 billion in foreign direct investment and 59,000 jobs.

Case study – Hungary's ITDH

ITDH, the Hungarian investment and trade development agency, is on the ground in three locations in the United States, presenting the business case for U.S. companies to consider Hungary as their commercial hub in the European Union.[47] Hungary has attracted US$10 billion of foreign direct investment from the United States since 1989, including centers for Delphi, Pepsi and Sara Lee. GE alone has invested US$1.1 billion and employs 15,000 people in nine cities, while Morgan Stanley is establishing a shared services center from the capital, Budapest.

Win your share of projects coming from new and emerging sources

A focus on key markets needs to be balanced with recognition of new and emerging sources of investment, as the ICBC case study shows. The number of projects originating in the BRIC countries – Brazil, Russia, India and China – increased by almost 30 percent between 2003 and 2006.[48] Other smaller economies, such as Estonia, Singapore, Ireland and Slovenia, are now emerging as substantial per capita sources for projects – there were 277 Greenfield projects from those four countries alone in 2006.[49]

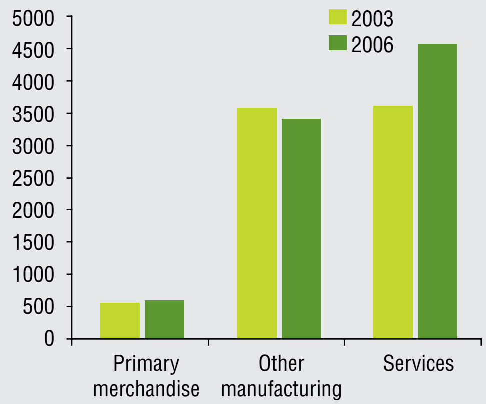
Case study – World's largest bank to expand into Africa, Russia and Middle East

In late 2007, the Industrial and Commercial Bank of China (ICBC) announced it was to acquire a 20 percent stake in Standard Bank, the largest bank in Africa by asset size.[50] ICBC is the world's largest bank by market value and the investment marks the development of China's global investment ambitions. The ICBC chairman has stated the bank's intentions to open a branch network in Russia and in the Middle East, and make further acquisitions, including in Australia.

Adapt your strategy to changes in the mix of activities and sectors being invested

Best-in-class IPAs and EDOs have always understood sector and industry-specific factors, enabling them to anticipate strategic issues affecting investment decisions in talks with prospective clients. They are now also successfully identifying "new" sectors and trends, as mobile investment projects emerge from previously non-traded sectors, such as renewable energy and water treatment (see Scotland case study). Also, projects are concentrating around activities as well as sectors. The IBM Global Investment Locations Database (GILD) shows that while production and sales remain the most commonly offshored activities, one in six projects is now in activities such as R&D, HQ and shared services (see Poland case study).[51]

FIGURE 10.
Number of projects by broad sector/activity.



Source: IBM-PLI Global Investment Locations Database (GILD)

Case study – Shared services in Poland

Poland is a growing location for Shared Service Centers (SSCs).[52] Many new centers providing business processing services, mainly in finance and accounting, are being established in Poland, in addition to those centers already there, handling activities such as finance, HR, logistics and management. Companies that have located SSCs in Poland include Avon, CITI, Electrolux, Fiat, Lufthansa, Philips, Tesco and Volvo.

Case study – Scottish wind energy

Scotland is recognized worldwide as having one of the healthiest and most varied energy sectors, and has already attracted some of the world's biggest companies to set up there.[53] Scottish Development International (SDI) has identified potential in the fields of wind-related research, products and services and companies interested in entering the European offshore wind market.

Understand your competition, and what you're being measured on

IPAs and EDOs need to understand who their competitors are and on what factors they are being benchmarked in order to provide a "unique" offering. These differentiating selling points are often common to many organizations, however. For example, more than 40 percent of North American EDOs stressed one or more of transport infrastructure, market access or cost of living as among their key selling points.[54] Across regions, as Figure 11 shows, common selling points differ, but within regions there is often similarity in the factors chosen.

FIGURE 11.
Most common "key selling points" of IPA/EDOs by region.

Rank	North America	Western Europe	Other
1	Transport infrastructure	Presence of clusters/sectoral hub	Economic and financial stability
2	Access to markets	Access to markets	Political stability
3	Cost of living	Overall quality of industry-specific skills	Quality of life

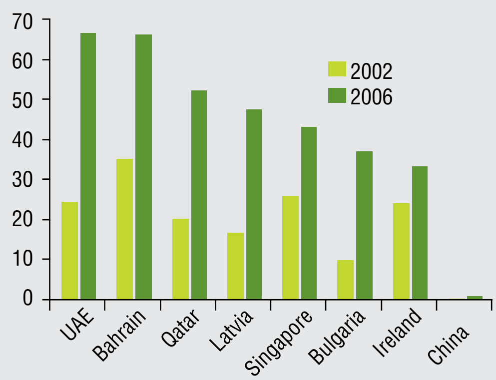
Source: IBM Institute for Business Value Survey of IPA/EDOs.

A "unique sales proposition" can help detail the advantages of one region over another.

Stay alert in a world where competition for projects is more intense

Competition for investment projects is becoming more intense. Large countries such as China, India, France and the United States do receive the most Greenfield projects. Relative to size, though, smaller countries fare better, as Figure 12 shows. Other countries – particularly transition countries – are rapidly moving up the rankings. Of countries receiving 20 or more projects, Belarus, Ukraine and Kazakhstan are among those moving fastest up the rankings, jumping from well outside the Top 100 to as high as 63rd (Ukraine) in less than five years.[55]

FIGURE 12.
Inward investment of Greenfield projects in selected countries, per million of population.



Source: IBM Institute for Business Value analysis of United Nations data.

Benchmark the factors by which you are being measured

Regions in contention for investment projects are benchmarked across a range of categories. Some will be common to all projects, such as the general business environment and the quality of life for staff. Other criteria – and the specific weight attached to all criteria – will differ by activity and by sector. For example, attracting a data center places a greater weight on data privacy regulations and reliability of power supply. This means IPAs and EDOs need accurate and reliable statistics on all major aspects and should use these as benchmarks (see Ireland case study). Knowing which activities and sectors are being targeted allows more precision about the indicators.

Case study – Ireland's National Competitiveness Council

Relative to its size, Ireland has been very successful in attracting international investment projects over the last two decades.[56] This is a combination of many factors, including location, language, effective regulation and taxation. Ireland has a well-developed IPA infrastructure, including IDA Ireland, which attracts international projects, and a National Competitiveness Council (NCC), which advises the Prime Minister on competitiveness issues.

The NCC annually benchmarks Ireland's performance relative to 16 competitors and regional averages, across over 130 indicators. In order to stimulate evidence-based policymaking, this includes indicators in three broad areas of direct policy inputs: business environment, physical infrastructure and knowledge infrastructure.

Leverage the new priorities in location decisions

Like businesses, IPAs and EDOs must develop a "unique sales proposition" – what makes their location different. However, many IPAs and EDOs stress the same "key strengths". As the case studies on page 13 show, while these factors may be important, it is often other factors – including semi-fixed factors such as language, culture and time zone – that can make a region truly different. Adding value no longer comes through simply providing information, rather through astute marketing, bundling benefits and developing unique propositions.

Case study – SolarRegion Freiburg

Freiburg, a small city in southwest Germany, has used its best-of-class status in relation to energy use to rebrand itself as a solar region.[57] From a goal of sustainable regional development in the 1980s, it now has three key aims: energy conservation, the use of new technologies, and the use of renewable energy sources.

As a result, Freiburg has attracted a range of activities, such as: manufacturing, including investment by Solar-Fabrik, a solar module production company; research and development, including the Fraunhofer Institute for Solar Energy Systems; education and training, at the Solar Training Center; and conferencing and HQ facilities, such as for the International Solar Energy Society.

Case study – Efficient regulation as a differentiator

Countries now recognize efficient regulation as a key potential differentiator in attracting business and stimulator of economic development.[58] The European Commission estimates that reducing unnecessary administrative burdens by 25 percent may boost GDP by 1.5 percent, or €150 billion. Nineteen EU member states have introduced strategies for better regulation.

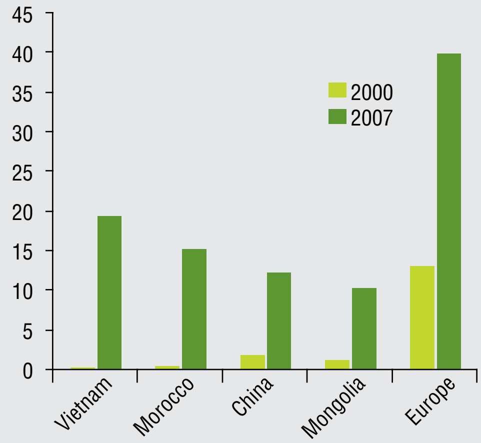
Case study – China's New Rules

Faced with a large trade surplus and rapid growth – as well as with concern in some Western countries about product safety – China is moving away from a model that promotes unrestricted export growth.[59] New rules and guidelines, which came into effect in late 2007, will make it more difficult to enter potentially environmentally sensitive sectors, such as energy and mining. Investors' access to renewable resources will not be affected. In addition to environmental concerns, China is looking to strengthen the quality of its exports and has set high entry requirements in sectors such as automobiles and electronics.

Rise to the opportunity and challenge presented by technology

Modern technological infrastructure is a prerequisite for newly mobile service activities, the growth area for investment projects. Recently, Asian countries in particular have been improving their e-Readiness to respond to the opportunities of the current world economy. However, few IPAs and EDOs see their information and communications infrastructure as a selling point. In the United States, less than one in five views the ICT infrastructure as a key strength – elsewhere it is less than one in ten.[60] For emerging markets to take full advantage of the mobility of investment projects, key ICT infrastructure needs to be in place. For developed countries, advanced ICT infrastructure will be taken as a prerequisite, rather than a differentiator.

FIGURE 13.
Internet penetration in certain countries. *(Percent)*



Source: Internetworldstats.com

Case study – Broadband and data centers in Iceland

Iceland's broadband penetration is among the highest in the world and it is continually improving its connectivity with the rest of the world.[61] As part of a long-term switch from industries such as aluminum smelting to activities such as data centers, Iceland has been able to use its world-class broadband to turn its location from a disadvantage – an island in isolation – into an advantage – a central location between the United States and Europe. Along with factors such as its temperate climate and attractive power costs with renewable energy, this has made Iceland a key location for global data centers, with the government turning an old NATO base into one of the largest data centers in the world.

What is your plan for 2020?

Investment promotion agencies and economic development organizations need to start working now to prepare for the world of 2020.[62] The forces creating that world are at work today and, like the Rubik's Cube, understanding how a change in one has implications for another is the necessary first step to winning. To rise to the challenge of the megatrends, IPAs and EDOs need to consider some key questions:

- What are the factors that make your location truly unique? While some, such as cost of labor or tax regime, are important, sustainable competitive advantage comes from more long-standing factors. These may not be the most obvious and could include location, language, culture, time zone and climate.
- What markets, based on these sustainable sources of competitive advantage, will your location target over the coming years? How will this take account of the growth in activities-based projects, rather than sector-based projects?
- What are the most important benchmark criteria for your new markets? What targets will be set and in what areas? Who will your primary competitors be?
- How will your location capitalize on the new ways in which clients are conducting their business? Will smaller and medium-size companies be a target? Will you seek to partner local outsourcing service providers with companies looking to shed non-core activities? Will you forge new relationships with previous competitor locations to add value in new ways to clients?

This study was written by the Global Center for Economic Development Research, in Dublin, Ireland, a part of the IBM Institute for Business Value, in collaboration with IBM-PLI Global Location Strategies. To learn more about this IBM Institute for Business Value study or the Center in Dublin, please email Susanne Dirks at *susanne_dirks@ie.ibm.com*. You can also browse a full catalog of our research at:

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About IBM Global Business Services

With business experts in more than 160 countries, IBM Global Business Services provides clients with deep business process and industry expertise across 17 industries, using innovation to identify, create and deliver value faster. We draw on the full breadth of IBM capabilities, standing behind our advice to help clients implement solutions designed to deliver business outcomes with far-reaching impact and sustainable results.

About IBM-PLI Global Location Strategies

PLI Global Location Strategies, also known as IBM-PLI, is a global service offering within IBM Global Business Services, exclusively specialized in global location strategies.
Its area of expertise focuses on analyzing international business locations for expanding or consolidating companies to select the optimal location against best shareholder value. IBM-PLI is independent from government authorities or other organizations with local interests and fully objective and unbiased in its advice. It has unique and unrivalled experience as dedicated corporate investment strategy and location consultant, with over 45 years of activity in this consulting area and over 2,000 corporate projects conducted.

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