

Open innovation between business and government: clever practices

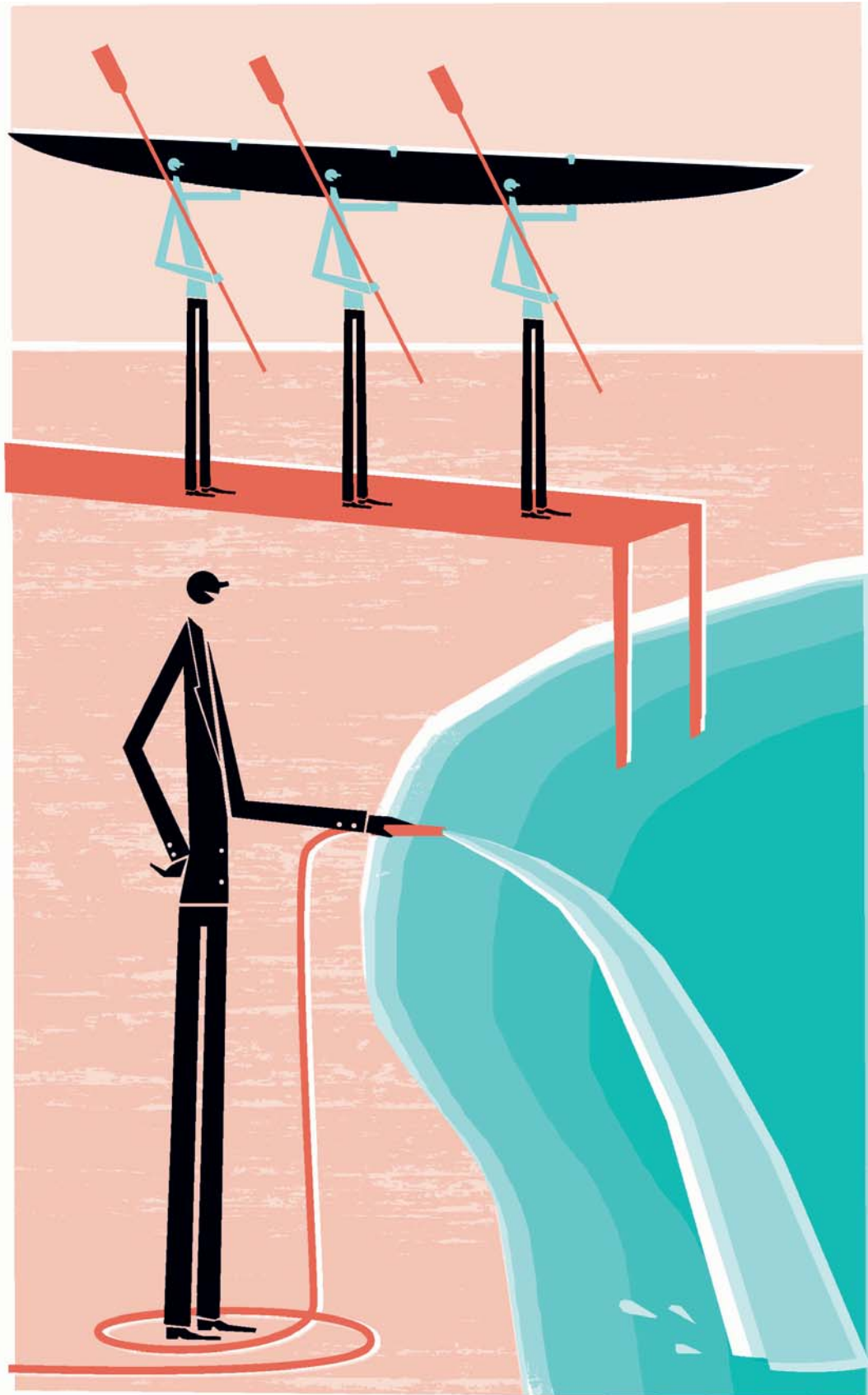
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In recent years, open innovation has become one of the most powerful tools in helping business and governments foster and stimulate regional economies. Arthur D. Little has carried out a global study to find out what a number of successful regions have done. This article presents the results of the study plus nine concrete insights into how business and government can engage in and benefit from open innovation.

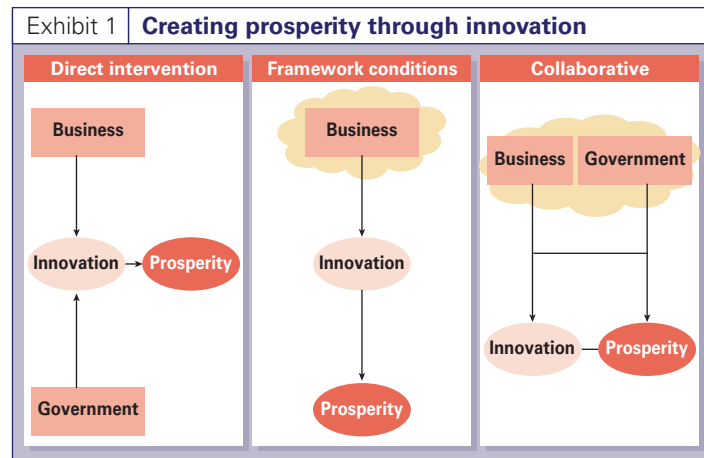
While we dread to pronounce the overused G-word, – Globalisation – we are afraid there is no escape from it when talking about the combination of business, government, and innovation. Indeed, economics today is being played out on a global scene, characterised by increasingly free international capital flows, spiralling cross-border transactions in goods and services, and rapid diffusion of technology. Against this backdrop, businesses are frantically looking for effective ways to deploy capabilities, innovate, and serve customers worldwide. Likewise, governments are groping for effective approaches to ensure growth and prosperity in their nation or region. As Robert S. Shapiro, a former top economic advisor to President Bill Clinton, attests in a recent issue of *Business Week*: “Traditional macro policies are less effective than they used to be. We don’t know how to ensure strong job creation and strong wage growth any more.”

The purpose of this article is to show, through a number of practical examples, how business and government can achieve, together and simultaneously, their respective goals of innovation and prosperity. Business and government acknowledge their interdependence in achieving these goals, most notably through public innovation policy. Traditionally, government policy fell into either one of two schools: intervene directly, or create framework conditions. The “direct intervention” school favours instruments that make government a primary actor, for example by picking winners (industries or companies) or taking state ownership of critical assets. The “framework conditions” school adheres to the principle that business is the business of business, expecting government to focus on providing enabling factors such as a well-educated labour force, the application of the rule of law (e.g. regarding intellectual property), or a stimulating and non-distorting fiscal system.

But there is a third way for business and government to create economic prosperity through innovation. Between the active “direct intervention” and passive “framework



conditions” approaches sits the “collaborative” approach (see Exhibit 1). To utilise the term coined by Professor Henry Chesbrough of UC Berkeley, business and government can engage in “open innovation,” interacting in ways both to create new revenues cost-effectively and to boost regional prosperity directly.



Below we present nine insights into how business and government can engage in and benefit from open innovation. Each insight is illustrated by a concrete example, drawn from a global study on clever practices covering the Helsinki region (of Finland), the Auckland region (of New Zealand), Singapore, the Canadian province of British Columbia, and the Brazilian state of Rio de Janeiro. These successful field examples can be a source of inspiration for businesspeople and policymakers “to go out and do the same thing themselves.” For more details on the research method, please see the side text.

The article draws on the findings of a study we undertook in 2006 for “The Districts of Creativity,” a network of some of the most creative regions in the world (www.flandersdc.be).

The initial first step in our research was to identify the factors that appear to be vital to the economic well-being of a society and its constituent parts:

Factors determining a region's creative and innovative potential	
Entrepreneurship	The presence and stimulation of entrepreneurial capacity and behaviour
Cooperation	The presence and stimulation of intense collaboration and networking among various stakeholders (public sector, knowledge sector, and business sector – the so-called “triple helix”)
Internationalisation	The presence and stimulation of business expansion abroad
Knowledge and technology transfer	The presence and stimulation of advanced knowledge and technology exchange among network partners
Financing	The provision of ample public and private funds that cover the various phases of business development (start-up, fast-growing, mature businesses) and types of innovative and creative activity
Regional marketing	The branding and promotion of a locality on the basis of its unique properties abroad
Intellectual property	The existence of a distinct strategy with respect to IP and the presence of supportive organizations that provide advice and aid to entrepreneurs and businesses on IP matters
Industrial base	The presence and stimulation of a dense and diverse industrial network, spanning start-ups, gazelle companies, and mature businesses
Scientific and technological base	The presence and stimulation of a dense and diverse scientific and technological network (comprising public and private research) within which a premium is put on cutting-edge R&D and inter-disciplinarity
Cluster development	The presence and stimulation of geographically proximate groups of interconnected companies, industries, and associated institutions within particular fields
Responsive and innovative public authorities	The presence of forward-looking and participatory public authorities that are responsive to the needs of the knowledge and business communities, and exhibit innovation in governance
Social innovation	The presence and stimulation of innovation that is beneficial to society as a whole and particularly to the less well-off
SME support	The presence of a distinct strategy and related support mechanisms tailored towards SME development
Education and skills	The presence of specific educational and skills investments linked to economic development thrusts
Culture	The ambition and active employment of culture, arts, and creativity as levers for economic growth
Physical infrastructure	The presence of a distinct strategy for and investment in physical infrastructure that is instrumental to economic advances

Next, we looked at how these factors are actually employed around the world to create impact. This led to the identification of more than a dozen so-called “clever practices.” The term “clever practice” is meant to mirror the smart use that is made of the

various factors enabling creative and innovative development in a given region. Each of these practices addresses problems and/or realises unfulfilled potentials, resulting in tangible benefits for the region and people involved.

The regions where we selected clever practices are: the Helsinki region (Finland), the Auckland region (New Zealand), Singapore, the Canadian province of British Columbia and the Brazilian state of Rio de Janeiro. The practices range from regional marketing, wellness technologies and urban redevelopment in Helsinki, a film cluster and cultural tourism initiative in Auckland, the promotion of internationalisation in Singapore, the hydrogen and new media clusters of British Columbia, and social innovation in the slums of Rio.

To gain an in-depth understanding of the identified practices, we performed field visits and conducted almost 50 face-to-face interviews with decisive stakeholders from business, government, and science in each of the five regions. The full report of the study “Clever Practices to Boost the Creative and Innovative Potential of Regions” can be consulted on our corporate website.

1. Foster the formation of triple-helix dynamics between business, science, and government

Successful open innovation hinges upon the establishment of enduring and international relationships that encompass all the significant stakeholders – that is, business, science, and government (the so-called “triple helix”). Creative and innovative initiatives often fail or get bogged down due to poor alignment of interests. Therefore, sufficient effort should be directed towards offering a voice to and creating loyalty among the various stakeholders. Specifically, win-win relationships are to be created within which stakeholders complement each other’s strengths and build critical mass with an international competitive edge.

A good example is Helsinki’s Centres of Expertise Programme. The overall objective of the programme is to create a strong network of centres of expertise supporting specialisation and cooperation within the region, and, by so doing, increasing regional competitiveness. Currently, Helsinki operates several centres of expertise in fields as diverse as adaptive materials and microsystems, digital media and content production, gene technology and

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molecular biology, and logistics. The uniqueness and success of the programme derive from its organisational architecture: it is regionally steered through vested partnerships formed by businesses, public authorities, and the scientific community. Furthermore, the programme is operationalised, on the one hand, by a publicly-steered coordinating organisation that is responsible for the overall effectiveness of the programme, and, on the other hand, by host organisations for each of the centres of expertise that are responsible for enterprise effectiveness. In terms of results, the programme is considered to have contributed significantly to Helsinki’s brand as “star performer in competitiveness and creativity.”

2. Extend open innovation to embrace citizens

Anyone can dream up novel things. Often, all it takes, is reminding people of their innate creative capabilities and offering them a chance to put their ideas into action. In a way, there is a fourth twist to the triple helix mentioned previously: the individual citizen.

Take Singapore’s “The Enterprise Challenge” (TEC). TEC is a multi-million-dollar fund set up to provide financing for innovative proposals that have the potential to create new value in the delivery of public services. The purpose of TEC is essentially to encourage creativity and enterprise among Singaporean citizens at large, by offering test-beds for innovations to be trial-tested. So far, a number of projects have been implemented in various ministries and statutory boards, resulting in significant cost savings. Novel products include a dengue fever diagnostic biochip, a drowning early warning system, and a mobile air scrubber.

3. Anticipate and exploit societal needs of the future

Leadership is said to be the capability to identify new opportunities and inspire others to pursue those opportunities. This definition also applies to regions, their policy-makers, and businesspeople. Instead of looking at societal challenges as problems, leaders exploit the opportunities emerging from these.

Consider Helsinki's approach to "wellness technologies". Public authorities and businesses took a proactive stance towards the problem of an ageing population, by exploiting the business potential of the aged consumer economy. This was done through tailored investments in technologies that seek solutions for maintaining health, treating illness, and developing self-care systems and solutions. Three lateral actions form the core of this initiative. First, overall network conditions were created by establishing a centre of expertise devoted to medical and welfare technologies. The centre has successfully brought together key-players in the region with the specific aim of promoting the creation of new business activities.

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Second, a Wellness Forum was initiated for start-up firms seeking funding in the wellness industry. The forum includes a test and ramp-up production unit, where small businesses can manufacture ideas without the need for major outlays on machinery and equipment. Finally, the National Technology Agency, TEKES, provides financing through the FinnWell programme. The latter is a € 150 million fund that seeks to improve the quality and profitability of healthcare and stimulate export in the field. All this means that Helsinki is currently perceived as a global leader in wellness technologies: the city of Sendai in Japan is currently building a wellbeing centre with technology and expertise that was initially developed in Helsinki.

4. Look outside and perfect what is done elsewhere

Since the world has become flatter – as the US author Thomas Friedman tells us – it has become a rich source of inspiration for anyone willing to scout and look around. Indeed, there is no shame in learning from what has proven to work elsewhere, adapting it to match one's requirements, and crafting it into a new standard-setting reference. It is captured in the maxim "steal with pride."

International Enterprise Singapore (IES) proves the point. This is an agency under the Ministry of Trade and Industry, spearheading the island state's efforts to develop its external economic wing. Its mission is to help Singapore-based companies grow and internationalise successfully, by offering a wide range of services in over 35 locations

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worldwide. For example, a dedicated capability development group within IES prepares companies for global challenges by making sure they have the necessary competencies (such as branding, design, IP, etc.) to succeed in the global market place. The secret to IES' success lies in its continuing learning from comparable and leading countries. The source of new service offerings is typically a good practice that was identified through benchmarking. A culture of hands-on research diligence combined with pragmatic solutions pervades the operations of IES. Results are in kind, as demonstrated by the Ascott Group, which pioneered the Asia-Pacific region's first branded luxury serviced residence and today operates a portfolio of 13,500 serviced residence units in 37 cities in 15 countries across Asia, Australia, and Europe.

5. Dare to focus

Regional development initiatives often fail to create impact because they try to be everything to everyone at the same time. A certain amount of focus is necessary. More particularly, it must be a focus that is broad enough for the development of a sizeable cluster, yet narrow enough to provide real specialisation with an international edge.

A case in point is British Columbia's new media cluster. With almost 800 companies, BC's new media industry provides full-time employment to approximately 14,000 people. The cluster is anchored by established mid-sized companies, such as Radical Entertainment, Rainmaker, and Blast Radius. The cluster as a whole has been reporting over CA\$ 1 billion (€ 650 million) in revenues in the last couple of years. To guarantee continuing vibrant growth, it was decided that the innovation structure needed to be carefully matched to the demands of the sector. In particular, local firms identified the lack of a broad and dense base of creative talent as a brake on expansion. And thus, in close negotiation with industry, the provincial government committed CA\$ 40.5 million (€ 28 million) to establish Canada's first digital media graduate programme. The sector as a whole, in turn, is not afraid to invest in winners. As the largest hub of its kind in Canada, with over 150 companies and more than 2,400 employees, the game industry is one of the top gaming centres

in North America. Local game companies increase their market reach by teaming up with multinational companies like Nintendo Canada, which has its Canadian headquarters in British Columbia, and Buena Vista Games (the Walt Disney Company) which set up a development studio in Vancouver to capitalise on British Columbia's expertise.

6. Abandon conventional approaches to decision-making

Bureaucracy is often anathema to innovation. Anyone serious about furthering the cause of innovation, should therefore try to go beyond traditional ways of policymaking and administrative oversight.

Consider Vancouver's ambition to mould the city itself into a "creative city". Vancouver is already reputed internationally for its excellent quality of life: for several years in a row now, The Economist has ranked the city as one of the most attractive destinations in the world. To strengthen the city's image, local authorities recently decided to create a new strategic plan to guide its future role in the arts and culture. And it is the process that has been put into place to make the strategic plan a reality that is noteworthy. A deliberate choice was made to steer away from the well-trodden path of administrative committees dominated by politicians. Instead, a new and nimble task force was created, composed of key-stakeholders in the community, thought leaders, and entrepreneurs of the cultural industries to spearhead the initiative. Bureaucratic gridlock was avoided by adopting a cross-departmental approach to the creativity agenda. Thus, the city engineers work next to cultural workers, who collaborate with local business people, educationalists, economic planners, and social workers.

7. Leverage technology for social innovation

Innovation opportunities also abound in areas that are usually deemed to be less innovation-rich, such as the non-technological services sector (e.g. welfare). In every aspect of society, there are plenty of unmet needs for services and products where collaboration between business and government can create value for all.

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Enthusiasm is no substitute for diligence and careful planning. In particular, stakeholders' expectations should be managed in such a way that the initiative can be sustained over time.

A pointed example is Arabianranta, an urban regeneration project on the north-eastern shoreline of Helsinki. Under the principle that "technology is social", a new-century city is being constructed where information and communication technologies contribute to the creation of relationships and means of influence for residents. According to its director, Kari Raina, the project is the first in the world where an environment of its kind – inhabitants, businesses and students using the same network at the same time – is implemented. The local area network provides the various participants with greater performance and a broader range of services in comparison to traditional network systems, including data, voice, and multi-media services. All this is meant to stimulate e-communication as a tool for social inclusion. Currently, 10,000 residents have moved into the newly-constructed blocks. Further plans include 8,000 jobs and 6,000 students in five educational establishments by 2010.

8. Manage stakeholders' expectations and set a vision that includes real-scale test beds

Creative talent and innovative entrepreneurs are not short of enthusiasm. That is also true for decision-makers from business and government when they get together to pursue a new joint initiative. But enthusiasm is no substitute for diligence and careful planning. In particular, stakeholders' expectations should be managed in such a way that the initiative can be sustained over time.

Take British Columbia's hydrogen and fuel cells cluster. Through the pioneering work of one private firm, Ballard Power Systems, some 20 years ago, British Columbia emerged as the global leader in proton exchange membrane fuel cells. But when Ballard fell on hard times and had difficulty delivering on its promises, the entire sector felt the crunch. However, the region and its businesses did not rest on their laurels and crafted a new, realistic vision for the expansion of the sector that brought everyone back on board. This approach has led to the development of the world's largest nascent cluster of hydrogen, fuel cells, and related companies. One particular strand of the new strategy is branding British Columbia in the global mindset as a veritable "hydrogen economy". To achieve

this, industrial and governmental partners have set up “The Hydrogen Highway”, a coordinated demonstration, deployment, and market development programme that enables participants to evaluate, improve, and refine the performance of hydrogen and fuel-cell technologies. Furthermore, the Winter Olympics of 2010, which will be staged in British Columbia, will be used to broadcast the region’s hydrogen credentials. Thus, a highway is being constructed dotted with hydrogen fuelling nodes that will serve as one of the main transportation arteries for visitors and athletes. The provincial government recently committed CA\$10 million (€ 6.5 million) to the first phase of developing the world’s first fleet of hydrogen buses in support of The Hydrogen Highway project.

9. Differentiate through natural capabilities

In a technology-driven world it is easy to lose sight of inherent, natural capabilities. But the laws of comparative advantage still apply in the 21st century. What is more, natural capabilities can also be a veritable source of differentiation in the global market place.

Auckland’s cultural tourism initiative proves the point. This is one of the region’s so-called Major Regional Initiatives, which are large-scale economic development projects that seek to capitalise on the specific strengths of the area. The attention to tourism is no coincidence, given that Auckland is New Zealand’s largest tourism region, representing the first or last point of contact for over 75 per cent of international visitors. The cultural tourism initiative aims to create a new portfolio of interactive, narrative-based tourist attractions that leverage the unique character of the region’s cultural and natural richness. The initiative is aligned with national objectives of increasing visitor spend rather than driving growth through increases in visitors overall. Public-private co-funding is used to further the development of new product developments, like the use of mobile technology to make heritage assets more accessible to tourists. Meanwhile, tourism has boomed thanks to New Zealand’s marketing on the basis of the same freshness and purity, now not only related to its natural beauty but also in terms of natural food and wines.

Insights for the business executive and government policymaker

The overarching lesson from the study is that domains where business and government intersect – such as culture, wellness, education, infrastructure, welfare, and tourism – offer a wealth of opportunities for business and government to meet their respective goals of innovation and prosperity. In order to reach those goals, the traditional innovation policy approaches of either “laissez-faire” or “interventionism” do not work. The clever practices described above demonstrate that the mindset, policy tools and strategies of both business and government must embrace the so-called model of “open innovation:” look to future societal needs; build on innate and natural strengths; focus on specific areas for innovation instead of dissipating creative energy; cut bureaucratic bottlenecks short; manage the expectations of all stakeholders. These are the elements that help business and government create and successfully implement open innovation.

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