Governments: The Next Heroes of Innovation

By Sami Mahroum , INSEAD Senior Lecturer

As the world’s biggest buyers of goods and services, governments can play a starring role in the pursuit of knowledge-economy reforms.

The word “innovation” tends to conjure up images of eager start-up entrepreneurs or, alternatively, that of global corporations endowed with **R&D budgets** the size of small national economies. Less vivid in our imaginations, but often just as active, governments seek to harness innovation as a means to enhance their country’s position in the new knowledge economy.

Government-driven innovation is not, of course, a new concept. Take France. In the 1960s and 1970s, it pushed for the TGV, the high-speed train that was then a radical idea. Around the same time, the French and British governments absorbed the development costs of the Concorde supersonic airliner. In 1978, France’s national postal and telecommunications services started designing **Minitel**, one of the world’s most successful pre-World Wide Web online services.

In 2015, a **survey** by the OECD found that 80 percent of its member countries took measures to support innovation procurement, with initiatives in sectors as diverse as telemedicine, lighting, traffic management and energy. Of course, innovation itself is on the radar of many more states. With its Smart Nation initiative, Singapore shines brightest among Asian countries on the 2017 Global Innovation Index (**GII**). In the MENA region, the United Arab Emirates defined innovation as one of the pillars of its transformation from an oil-based economy to a knowledge-based one. Case in point, in October 2017 the UAE **appointed** the world's very first Minister for Artificial Intelligence.

Pushing innovation in smaller, domestic firms

The Gulf States are using their sizable oil & gas revenues to develop innovative sectors such as aerospace, semi-conductors and renewable energy, anchored around high-profile foreign investments. In our working paper, "**The Role of Demand on Innovation: Evidence from a Resource Rich Economy**", Elif Bascavusoglu-Moreau and I look at the particular case of Abu Dhabi and show that the Emirate could leverage public procurement to further spur innovation, especially among smaller, domestic firms.

We examined the data from the 2012 Abu Dhabi Innovation Survey (ADIS), a measure of innovation performance based on international standards. A total of 480 firms indicated whether they had introduced any new or significantly improved goods, services and/or processes in the four years prior. They were also asked about their knowledge flows and whether their innovations had been borne out of private (B2B or B2C) or public demand (i.e. government contracts and tenders).

Amid other findings, our data showed that the smaller the company, the higher the impact of public demand on innovation. This suggests that public procurement has a role to play in stimulating innovation among small and medium enterprises, which comprise 88 percent of the Emirate's home-grown firms. Larger firms are capable of generating their own innovation systems and are less influenced by related policies. However, public demand does uplift innovative local start-ups.

Government contracts as a carrot for innovation

In 2016, Abu Dhabi government spent around US$6.5 billion on goods and services alone, according to IMF data. Other non-specified expenditures on development projects amounted to around US$40 billion. An innovation-oriented public procurement policy could leverage these monies and enable the Emirate to transition into a knowledge-based economy more quickly.

Such a public procurement policy could be two-pronged. First, it could make it mandatory for any service or product provider to locally source whatever exists locally, a concept known as “local content”. Norway is often cited as a model case study: When its offshore industry picked up in the 1970s, it developed a formidable indigenous energy service industry by requiring that government and international oil companies give **preference** to Norwegian goods and services (provided these were competitive based on predefined criteria).

Second, government could push innovation by setting high technological specifications for its projects. By doing so, it would create a “carrot” for local or even international players to develop new technologies, as this would be key to secure lucrative government contracts. Firms on the fence about investing in R&D, especially smaller ones, could be pulled in the right direction. Currently, Abu Dhabi’s procurement standards do not have any innovation-driving component. This means that for the most part, providers only need to bid lower to secure a contract. This is a wasted opportunity.

A clear partnership

However, researchers from **Austria** and the **Netherlands** have shown that it’s not enough for a government to just exercise its procurement power to drive innovation. The government must also be quite specific in its demands and articulate exactly what it wants. For example, it could require that a power utility use a technology emitting zero CO_2 (instead of merely asking it to be “highly efficient”). Specific requirements should set actual targets and leave no room for ambiguity.

At the end of the day, the government is the main partner for private sector innovation. The business of doing business with government needs to be better understood but, for the most part, business schools haven’t really taken interest in it. A notable exception, INSEAD has introduced public policy within its “Business in Society” core course, part of its **new MBA curriculum**.

Governments have traditionally sought to foster the right conditions for the private sector to supply innovation. As the world transitions to a knowledge economy, it may now be time for more of them to step up their game by playing a starring role on the demand side of the equation.

Sami Mahroum *is a Senior Lecturer, and Academic and Executive Director of INSEAD's* ***Innovation and Policy Initiative****, based at the school's Abu Dhabi campus. He is author of* **Black Swan Start-ups: Understanding the Rise of Successful Technology Business in Unlikely Places** *and, with Yasser Al-Saleh,* **Economic Diversification Policies in Natural Resource Rich Economies***.*

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About the author(s)

Sami Mahroum Dr. Sami Mahroum is Academic and Executive Director of INSEAD's Innovation and Policy Initiative.