
A unique opportunity



By Sami Mahroum

Innovation for green growth is the new mantra for advanced economies. From Australia to the United States, governments are pouring billions of dollars, euros and yen into eco-innovation programmes. The US has earmarked US\$59 billion for green technologies as part of its stimulus packages; Australia has dedicated A\$5.7 billion, while Canada has set aside C\$2.8 billion for that purpose. Governments are also providing other incentives ranging from support for R&D activities to new regulations and standards on transport, buildings and manufacturing. The aim is to become greener while staying competitive, and to reach that delicate balance the OECD is working towards a Green Growth Strategy for its 30+ members.

But to succeed, any green growth strategy has to deal with the main source of CO₂ emissions that is the built environment, and by extension the construction sector. Last year the UN Intergovernmental Panel on Climate Change (IPCC) identified building improvements as one way to reduce global warming pollution with net economic benefits.

The built environment is the biggest contributor of CO₂ emissions (nearly 50 per cent of the total), largely through electricity consumption and heating, but also through building materials, especially cement and steel, as well as related manufacturing and transport activities. Without tackling the problem of emissions in the built environment, little progress can be made towards a greener and more sustainable economy. For example in the US, 'green buildings' -- defined as 'environmentally preferable practices and materials in the design, location, construction, operation and disposal of buildings', represents only two per cent of commercial buildings in the US and 0.3 per cent of new homes.

Yet the construction sector is notoriously known for its low level of innovation. Many builders are loath to invest extra money in more efficient energy and water systems that only translate into cost savings for the eventual owners. Around the world, innovation surveys have repeatedly confirmed that only a small minority of construction firms is innovative. The result is an industrial sector that is economically substantial, contributing between 4 and 12 per cent of GDP in OECD countries, but also highly polluting and very poor in innovation. This is why, recently, five international financial institutions around the world -- ABN AMRO, Citi, Deutsche Bank, JPMorgan Chase, and UBS -- as well as four multinational energy services companies -- Honeywell, Johnson Controls, Siemens, and Trane -- cut a US\$5 billion deal to work together to retrofit existing buildings in 16 of some of the world's biggest cities, including New York, London, Johannesburg, Karachi, Mexico City, Mumbai, and Tokyo.

But the governments of one region in particular stand a unique chance to revolutionise the construction sector, and with it the built environment forever, and that is the Gulf region. According to a recent study by Deloitte, a management consultancy, the Gulf Cooperation Countries (Bahrain, Qatar, Oman, Kuwait, Saudi, and UAE) have a pipeline of construction projects worth around US\$2,677 billion. This puts the Gulf among leading regions in the world in terms of market share. While the money is expected to come from both the public and private sectors, governments remain the most influential clients and investors in construction projects in the GCC.

This puts GCC governments in a unique powerful position to drive and shape the future of eco-innovation globally through their leverage of firms operating in the built environment. GCC governments have the power to leverage their strong positions in the market to drive not only eco-innovation in this sector, but also to use it as an engine for knowledge transfer and

economic diversification. In fact, the construction industry can do for GCC innovation what the defence industry did for US innovation 60 years ago: become the springboard of new innovation-based industries.

This is not far-fetched as the region is becoming increasingly better known for its large construction projects than for oil and gas. The recent opening of the world's tallest free-standing structure, Burj Khalifa in Dubai, is only one attestation of this image change. Very large construction projects, such as the King Abdullah Economic City, the Jazzan Economic City, and the Knowledge City in Saudi Arabia; or the Abu Dhabi central business district, Saadiyat Island, and Reem Island projects in the UAE, and many other large-scale investments in schools, universities, museums across the region provide excellent platforms for governments to create strong incentives for local innovation activities to be developed around the niche of “eco-construction”.

Already the governments of both Abu Dhabi, which is building an eco-city named Masdar, and Dubai, have introduced a green buildings code to help make their cities more energy efficient and environmentally friendly. But the opportunities presented by the large portfolio of infrastructure and construction projects in the region mean governments may combine the use of building codes with public procurement of major construction projects to spark the emergence of a local eco-tech industry. By taking active steps, the governments in the region can lay the foundations for a domestic eco-construction industry that is both green and internationally competitive. In particular, GCC governments may impose high ecological standards on major construction projects, demand that knowledge transfer elements be included in these projects, and provide various incentives for the domestication of related high value-added activities, such as R&D.

Without a proactive government strategy to view the construction boom as a springboard to economic diversification, many of today's construction projects might risk becoming castles in the sand 50 years from now.

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