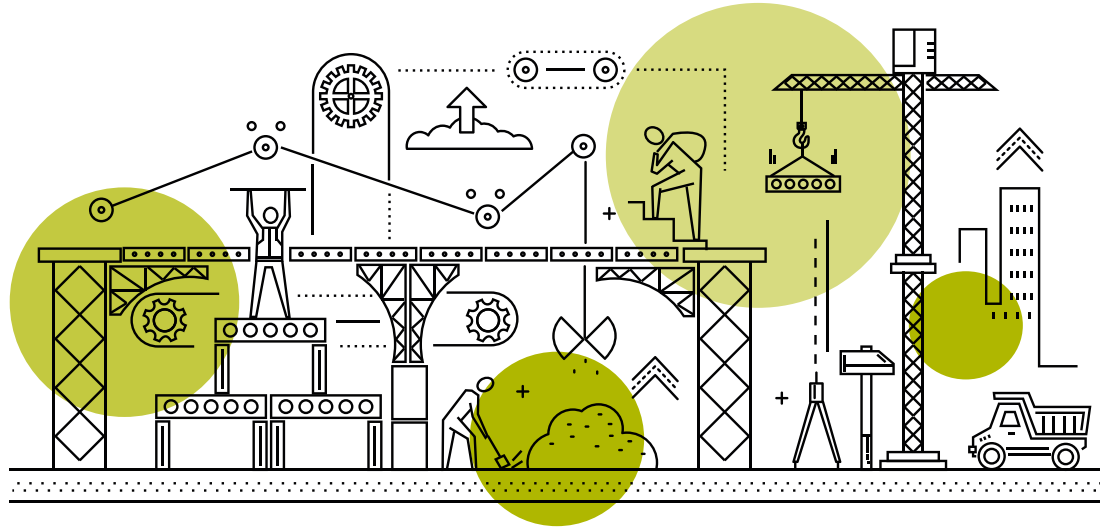




building the infrastructure to build infrastructure

Many developing countries' economic growth is hindered by failing or insufficient infrastructure. The scheduling of strategic infrastructure is crucial.

Words by
Mark Smulian

Infrastucture construction must be carefully planned, in the right order, to ensure it works optimally to promote economic growth.

There are many stories of badly planned developments: regeneration projects with inadequate transport links, or mines that are unable to move their material. Such failures are not limited to developing economies. The London Docklands redevelopment,

for example, started in the early 1980s, but underground trains that could cope with passenger numbers didn't arrive until 1999.

In growing economies, much of the infrastructure was built decades ago and either is failing or unable to cope with the demands of economic and population growth. These factors also drive demand for entirely new infrastructure in areas being 'opened up' to development.

Simply building whatever appears cheapest or easiest first usually leads to ill-planned infrastructure, which is missing the links needed to fulfil its function.

Phasing is therefore vital. But the phasing required will depend on the nature of the work, notes Stephen Leeming, Partner in the Construction Division at JLT Specialty.

Phased approach

Ports, for example, might be built for coal export, but you can also use them for imports by containerisation in the future; so you may need to plan for different infrastructure requirements from the outset.

"When creating infrastructure for raw materials, you need a road or rail network," says Leeming. "But to establish one in the first place, you need to get equipment and materials in, so you need the infrastructure to allow that."

"In many situations, it's a chicken-and-egg scenario. If you're building infrastructure, you need the ability to supply raw materials, so upfront costs may be high. But it can be cost-effective in the long term."

Examples of logical infrastructure planning can be found in many major developments in the Middle East – where government-directed central planning ensures that development comes off, says Leeming.

"Qatar is a good example of an organised development plan, where they plan for all risks," he points out. "Because of its peninsula location, access routes can become blocked."

JLT has been involved as insurance adviser on the development programme, and as the reinsurance broker for Qatar's new Hamad Port. The new port was needed because the old one was in the middle of the capital city, Doha, and could not effectively receive the volumes of large vessels required to import the resources required for wider infrastructure plans.

Everything in its right place

Established economies can also face difficulties with their order of construction. Turkey is a great example of a country that needs infrastructure to build its infrastructure, says Ömer Aşkın, Executive Director of Turkey's JLT Sigorta ve Reasürans Brokerliği AŞ.

"Railways, roads and ports are insufficient, and this directly affects the efficiency of contractors."

"Many huge construction projects have been going on in Istanbul, for example. But

because of the earthquake risk, and the hilly geographical structure of the city, most of them need very deep excavation works. This means transferring thousands of tonnes of soil from construction sites to outside of the city.

"As we have very heavy traffic problems in Istanbul, this causes serious delays transferring excavation waste, and therefore delays construction."

"If you're building infrastructure, you need the ability to supply raw materials, so upfront costs may be high."

Stephen Leeming, Partner in the Construction Division at JLT Specialty

New highway projects have begun, but many contractors' works have suffered badly due to the traffic in Istanbul, says Aşkın. "The government planned these new highways before allowing contractors to start all of the projects. But nobody had time to wait for the highways to be completed, as this rapidly developing country needs all of the investments urgently and simultaneously".

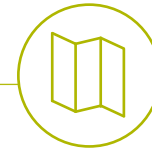
Many Asian countries are also grappling with a lack of infrastructure in the right places, says Stephen Boddington, Regional Construction Managing Director at JLT Asia.

"Urbanisation and the rise of megacities has led to a concentration of services in a single location. This results in pinch points in national infrastructure systems, which require new investments in energy and ports close to population centres, for example."

While outright 'white elephants' are thankfully rare, careful planning of the order of infrastructure construction is essential. ■

For more information
stephen_leeming@jltgroup.com

Mark Smulian is a freelance journalist specialising in local government, transport, construction, planning and regeneration.



A planned city from scratch

The Lusail Real Estate Development Company (LREDC) is creating the new city of Lusail, 15 kilometres north of Qatar's capital Doha, on a site of some 38 square kilometres.

Lusail will be a planned city of residential, commercial, retail, hospital and leisure facilities, built as part of a strategy to help Qatar diversify its economy away from dependence on oil.

The Qatar National Vision 2030 is the country's roadmap for its future. It aims to transform Qatar into an advanced country by 2030, capable of sustaining its own development, and providing for a high standard of living for its people. The plan seeks to develop a competitive and diversified economy that can meet the needs of Qatar's people, while balancing economic growth, social development and environmental protection.

The Lusail project includes 21.5 kilometres of highways and 39.5 kilometres of water pipes. When complete, it will feature 25,000 homes in 19 planned districts, with a light rail link to the new Doha rail network.

Lusail will likely be best known outside of Qatar for its status as a sports city – it hosted the 2015 World Men's Handball Championship final. The city will boast the new Lusail National Stadium, which will host World Cup matches in 2022. JLT is advising the Supreme Committee for Delivery and Legacy on this facility, and on other World Cup-hosting infrastructure.

Eng. Essa Mohammed Ali Kaldari, LREDC's Chief Executive Officer, has been quoted as saying: "Lusail City is a meticulously planned urban development unlike anything seen before. It will bring to life a comprehensive and vibrant city, master-planned around mixed-use developments that will create diversity, integration and sustainability." ■