Once again, Singapore remains the fourth most expensive city to build in Asia according to this year’s International Construction Costs Comparison. The built environment sector is urged by the Government to be resilient to stay ahead of competition, to embrace digitalization, harness technology and innovation and build up its workforce capabilities to tackle an upward trend of larger and more complex projects.

**Slowdown Economy**

Singapore experienced an economic slowdown in 2019, with GDP growth at an anaemic 0.7%, the lowest figure in the past decade. This was a sharp drop from 3.4% in 2018. The US-China trade war, a slump in export manufacturing and a cyclical downturn in the electronics industry have all adversely affected Singapore’s economic performance. The construction sector grew by 2.8% in 2019, buoyed by both public and private sectors construction activities.

**Market Expectation**

Construction demand is expected to remain optimistic at S$28 to S$33 billion with public sector accounting for 62% of the total construction demand mainly driven by infrastructure works. Private sector demand (without factoring in Singapore’s two Integrated Resorts (IRs) expansion) is expected to taper off slightly from 2019’s level though it could possibly perform better than the forecast should a wave of contracts associated with the two IRs’ expansion be awarded in 2020. In addition, construction labour and materials costs were initially expected to increase moderately at the start of 2020.

However, with the COVID-19 situation continually evolving, it is envisaged that the Singapore economy will be impacted. Businesses are now experiencing supply shortages in terms of materials and labour resources as a result of border lockdowns, travel restrictions and temporary shutdowns of factories. This will inevitably cause disruptions in project timelines, cashflow and productivity.

The Singapore’s construction industry is constantly faced by challenges of limited contracting resources for certain categories of works and construction costs are driven by external factors as most of our resources are imported from overseas. The supply chain disruptions have had an immediate impact on many of the on-going projects and contractors are seeking Extension of Time (EOT) for their projects’ completion while sourcing for supply chain alternatives.

Arcadis aligns with the Government on force majeure and EOT where it is recommended that Employers may give an ex gratia allowance of time, subject to mitigation measures, notification, substantiation. However, if EOT is granted, there is no basis for the contractor to also recover loss and expenses or additional preliminaries.

To stay resilient in the competitive built environment, the Government encourages companies to embrace digitalization, harness technology and innovation and build up its workforce capabilities to enhance productivity. When the virus situation is contained, construction activity will pick up the pace and companies will emerge stronger as they accelerate efforts in transforming the way the industry works to be digital, agile and ready for future crisis.

**Climate Resilient**

As part of efforts to tackle climate change, Singapore will aim to halve its 2030 peak greenhouse gas emissions by 2050, and to achieve net zero emissions. Singapore has taken action by raising the platform level for all new reclamation projects, and even higher for key new facilities. A new Coastal and Flood Protection fund with an initial injection of S$5 billion by the Government will also be set up as Singapore prepares to deal with the “significant” risk of rising sea levels.
Funan in Singapore
Decarbonizing existing buildings

CapitaLand Mall Trust’s Funan integrated development, in Singapore, offers a synergistic combination of retail, office and serviced residential areas that are designed to appeal to digitally savvy consumers, while providing a sustainable and creative environment. The transformation of a 31-year-old mall was accomplished using a combination of Building Information Modelling (BIM) and Virtual Design Construction (VDC) technologies. Funan also incorporates an ecosystem of sensors that optimize the building’s performance, making it highly energy efficient. More than 6,000,000 kilowatt hours of power is saved each year, giving the building a much lower carbon footprint than similar-sized facilities. This has earned Funan a Green Mark Award for Buildings Gold Plus rating. Arcadis delivered cost management services for Funan, a complex project that required a high level of coordination to manage cost drivers and contract management. Click here to read more.
Factors influencing city rankings

Multiple factors influence a city’s position in the index. The main factor is the level of specification and quality, which can vary over time. For example, the costs of high-end hotels and residential buildings have increased significantly in cities such as London, reflecting a global market for luxury developments that only affects a small sub-set of the cities.

Comparing costs across countries such as the United States and the UK highlights that even when specifications are relatively similar, there is still plenty of scope for variation. Explanatory factors include the cost of labour, materials and other construction resources. Some countries with a fragmented construction supply chain will have many more levels of sub-contractors – each adding extra allowances for ‘on-costs’, including management, risk and profit. These additional layers of on-cost contribute to premiums in some locations.

Productivity is also an important consideration. Continental Europe has a very productive construction sector, which benefits from a focus on high levels of mechanization and the use of simple, effective construction techniques. Lower-cost, US markets also achieve relatively high levels of productivity compared to some higher-cost locations.

Finally, currency fluctuation and annual inflation will always play a role in determining the relative position of cities. Given recent dramatic changes in the value of global currencies, clients are advised to review currency movement before applying the published factors.

In this year’s report, Arcadis is dealing with twin challenges: addressing the short-term crisis of COVID-19 and the longer-term, but equally urgent, impacts of climate change.

Once again, the comparison covers 100 of the world’s large cities across six continents. This year’s report builds on its strong heritage as the leading reference point for comparing the relative costs of construction in major cities around the world. This is one of the most expansive comparisons of its type.

This year, coverage has been extended to cities in Eastern Europe including Poland, Serbia and Montenegro. The main change to the index is that the cost of construction in cities is now relative to Amsterdam, instead of London. This change has no direct effect on the relative ranking of cities.
Methodology

Arcadis developed its comparative cost comparison index for 100 cities, covering 20 building functions, based on a survey of construction costs, review of market conditions and the professional judgement from its global team of experts. Ranges of indicative prices for each building function are collected for each city. Low and high range costs are converted into US Dollars (USD), normalized and indexed against the price range for each building type for Amsterdam, where Amsterdam = 100. Average low and high index ranges are calculated for each city based on the 20 building types.

The data was collected between December 2019 and February 2020.

Costs used to calculate the index are based on buildings delivered to local specification standards, meeting both functional requirements and quality expectations. As a result, while the index compares the relative costs of delivering the same building functions in a city, it also reflects the different levels of quality expectation reflected in a specification.

The index does not take into account purchasing power parity. The construction cost data used in this index is current as of Q1 2020. The exchange rates used to calculate the index were current on 13th February 2020.

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