

PUBLIC SECTOR CONSTRUCTION DEMAND TO SUPPORT THE SECTOR'S RECOVERY

- Total construction demand in 2021 is projected to recover to between S\$23 billion and S\$28 billion, with the public sector contributing about 65% of the total demand.
- Launch of Common Data Environment Data Standards to facilitate more seamless information flow for building projects across digital platforms

Singapore, 18 January 2021 – The Building and Construction Authority (BCA) projects the total construction demand in 2021 (i.e. the value of construction contracts to be awarded) to range between S\$23 billion and S\$28 billion. This is an improvement from the S\$21.3 billion (preliminary estimate) in 2020 during the ongoing COVID-19 pandemic.

2. The public sector is expected to drive the construction demand in 2021, to between S\$15 billion and S\$18 billion with an anticipated stronger demand for public housing and infrastructure projects. Some of the upcoming major public sector projects scheduled to be awarded this year include various contracts under the Jurong Region MRT Line, the Cross Island MRT Line Phase 1 and the Deep Tunnel Sewerage System Phase 2.

3. Private sector construction demand is projected to be between S\$8 billion and S\$10 billion in 2021. BCA projects the bulk of private sector construction demand in 2021 to comprise development of the remaining en-bloc residential sites, major retrofitting of commercial developments as well as construction of high-specification industrial buildings to meet business needs.

4. Due to the impact of the COVID-19 pandemic, which disrupted project implementation schedules, the preliminary figure for construction demand in 2020 indicated a decline of 36.5 per cent to S\$21.3 billion. This was within BCA's revised forecast of S\$18 billion to S\$23 billion.

5. Public sector construction demand dropped from S\$19.0 billion in 2019 to S\$13.2 billion in 2020, as some major infrastructure projects that required more time to assess the pandemic's impact on resource management and project schedules, were postponed. Meanwhile, private sector construction demand decreased from S\$14.5 billion in 2019 to S\$8.1 billion in 2020, due to market uncertainties amid the COVID-induced economic recession.

Forecast for 2022 to 2025

6. BCA expects a steady improvement in construction demand over the medium term. It is projected to reach between S\$25 billion and S\$32 billion per year from 2022 to 2025¹.

7. The public sector is expected to lead the demand and contribute S\$14 billion to S\$18 billion per year from 2022 to 2025 with similar proportions of demand coming from building projects and civil engineering works. Besides public residential developments, public sector construction demand over the medium term will continue to be supported by large infrastructure and institutional projects such as the Cross Island MRT Line (Phases 2 and 3), the Downtown Line Extension to Sungei Kadut, the cycling path networks, the relocation of Singapore Science Centre, the Toa Payoh Integrated Development, the Alexandra Hospital redevelopment and a new integrated hospital at Bedok.

8. The private sector construction demand is expected to improve steadily in the medium term to reach between S\$11 billion and S\$14 billion per year from 2022 to 2025. This is in anticipation of a gradual recovery of the global economy, contingent on the successful deployment and effectiveness of COVID-19 treatment and vaccines as well as easing of lockdown restrictions.

¹ The medium-term construction demand projection excludes any potential awards of construction contracts for the development of Changi Airport Terminal 5 and its associated infrastructure projects as well as the expansion of Integrated Resorts as their construction timelines are still under review due to the impact of the COVID-19 pandemic.

Construction Output

9. Based on the contracts awarded in the past few years and considering the construction demand forecast for 2021, the total nominal construction output in 2021 is projected to increase to between S\$24 billion and S\$27 billion, from the estimated S\$19.5 billion in 2020. An anticipated improvement in construction demand in 2021 and the backlog of remaining workloads impacted by the COVID-19 during 2020 will support the projected pickup in total construction output.

Year	Construction demand (Value of contracts awarded, in S\$billion)			Construction Output (Value of certified progress payments, in S\$billion)
	Public	Private	Total	Total
2020 p	13.2	8.1	21.3	19.5
2021 f	15 - 18	8 - 10	23 - 28	24 - 27
2022 – 2025 f	14 - 18 per year	11 - 14 per year	25 - 32 per year	
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p: Preliminary; f: forecast

Note: Construction demand forecast in 2022-2025 excludes any potential awards of construction contracts for the development of Changi Airport Terminal 5 and its associated infrastructure projects as well as the expansion of Integrated Resorts as their construction timelines are still under review due to the impact of the COVID-19 pandemic.

Accelerating industry transformation through digitalisation

10. Although 2020 was particularly challenging for the built environment sector, the industry has shown great resilience. The COVID-19 pandemic has necessitated the industry to rethink the way we build to overcome the challenges. BCA will continue to work with our industry partners, led by the trade associations and chambers (TACs), to accelerate industry transformation.

11. The Alliance for Action (“AfA”) on Digitalising Built Environment, an industry-led and government-supported coalition, has identified digitalisation as an important enabler to help the industry build smarter. One of the initiatives introduced by the AfA is the introduction of a set of data standards for the Common Data Environment to facilitate

more seamless information flow for building projects across digital platforms shared by various building professionals and companies along the value chain (see Annex for more information about the Data Standards).

Issued by the Building and Construction Authority on 18 January 2021

About Building and Construction Authority (BCA)

The Building and Construction Authority (BCA) champions the development and transformation of the Built Environment sector, in order to improve Singapore's living environment. BCA oversees areas such as safety, quality, inclusiveness, sustainability and productivity, all of which, together with our stakeholders and industry partners, help to achieve our mission to transform the Built Environment sector and shape a liveable and smart built environment for Singapore. For more information, visit www1.bca.gov.sg.

FACTSHEET ON THE COMMON DATA ENVIRONMENT (CDE) DATA STANDARDS

The successful management of timely, accurate and complete information based on a set of data standards can affect a project's outcome.

A Common Data Environment allows project teams to create, organise and share information to foster collaboration, make timely decisions and take early interventions during the project's delivery and building maintenance lifecycle.

Data Standards specify what information is required for a building project and how it can be structured to facilitate sharing and collaboration among project team members using a Common Data Environment.

The Emerging Stronger Taskforce ('EST')'s Alliance for Action ('AfA') on Digitalising Built Environment has identified these data standards as a key to accelerate digitalisation in the value chain.

For more information on the Data Standards, please visit: <https://go.gov/bca-cde-data-standards>.

ALLIANCE FOR ACTIONS (AfA) ON DIGITALISING THE BUILT ENVIRONMENT

The AfA on Digitalising Built Environment was convened under Emerging Stronger Taskforce (EST), led by Mr Lim Ming Yan, Chairman of the Singapore Business Federation. It aims to accelerate the digitalisation of Singapore's built environment so that we can emerge stronger from the COVID-19 pandemic by:

- i. establishing industry-wide Data Standards for CDE, and;
- ii. encouraging the adoption of CDE Data Standards to enable the industry to collaborate digitally, working towards an interoperable and connected IDD ecosystem from end-to-end.

To that end, BCA and the AfA hope that more firms and professionals will

- i. digitalise when working collectively on projects among team members and across different organisations;
- ii. harness appropriate CDE and digital solutions to improve their productivity; and
- iii. encourage more firms and professionals to digitalise their work as part of the sector's transformation.

BCA and the AfA will also work closely with Real Estate Developers' Association of Singapore (REDAS) and all other developers to encourage their industry partners (i.e. contractors, consultants), especially smaller consultants and subcontractors, to digitalise and adopt the data standards in their future projects through providing training courses and funding support.

A. Training

BCA Academy has developed training course covering CDE data standards.

For more info, please visit <https://www.bcaa.edu.sg/what-we-offer/courses/certification-courses?CourseId=dfe2d103-2639-4f0d-81c5-b2af5b9b98c6>.

B. Funding

SMEs can tap on the Productivity Solutions Grant (PSG) to defray the costs of adopting digital solutions pre-approved by the Infocomm Media Development Authority (IMDA) for the Construction and Facilities Management sector.

The funding will cover up to 80% of the qualifying cost until 30 September 2021, and subsequently, up to 70% until January 2023. SMEs can make multiple applications for use of different digital solutions subject to a firm level cap of S\$30,000.

Quotes from the AfA:

“Even before COVID-19, the Future Economy Council Built Environment (BE) Cluster had already embarked on its digital transformation journey through various measures including industry digital plans to uplift small and medium-sized enterprises, building digital infrastructures and capabilities, and fostering digital innovation for transforming service delivery and growth.

COVID-19 has exposed the vulnerability of the industry’s current work process and dependence on manual labour and presented an opportunity to turbo-charge digital transformation.

The development of CDE data standards is our opportunity to facilitate and enhance digital collaboration across value chain to enable large and small businesses to optimise operations to manage increasing complexities and scale of projects. This is part of the first step to embrace digitalisation as a collective, for improved processes, and greater resilience and efficiency.”

- Lim Ming Yan, Chairman, Singapore Business Federation

“The first phase of CDE data standards seeks to help companies along the BE value chain – from developer, contractor, project officers to engineers – operate more efficiently. ***Establishing CDE data standards across digital platforms is key to achieving enhanced interoperability across digital platforms, and integrated work processes and workflows for industry players.*** We look forward to deepening our participation in this important initiative and together drive the goal of building a digitalised and sustainable BE Cluster.”

- Lee Chee Koon, Group Chief Executive Officer, CapitaLand

“While COVID-19 has negatively impacted the BE value chain, it has accentuated the need for businesses to transform and step up on our digitalisation efforts. This requires the public and private sector stakeholders to do so together.

REDAS is supportive of the Alliance for Action on Digitalising Built Environment’s initiatives, including the development of the CDE data standards, and welcomes the opportunity to work alongside government agencies and industry players within the BE Cluster to shape the future of the BE ecosystem. Our extensive network of real estate developers will be able to contribute their development expertise and generate a ‘pull’ effect to galvanise industry players to come forth as one catalyst digital transformation for greater resilience and efficiency.”

- Chia Ngiang Hong, President, Real Estate Developers' Association of Singapore (REDAS)

"HDB has been progressively harnessing technology and digitalising many design and construction project activities to foster greater collaboration with our stakeholders, and raise construction productivity. For example, we have implemented Virtual Design and Construction (VDC) with Building Information Modelling (BIM) software in our public housing projects, which enables us to run through BIM models, and review building designs with consultants and contractors using virtual reality tools. Such use of technology aids us in making faster and more precise decisions when resolving design issues. With the new CDE data standards, communication with various partners across the different project stages will be more efficient and seamless. Going forward, HDB plans to digitalise more of our design and construction-related activities."

– Dr Johnny Wong, Group Director (Building & Research Institute), Housing & Development Board (HDB)