

Corporate Presentation

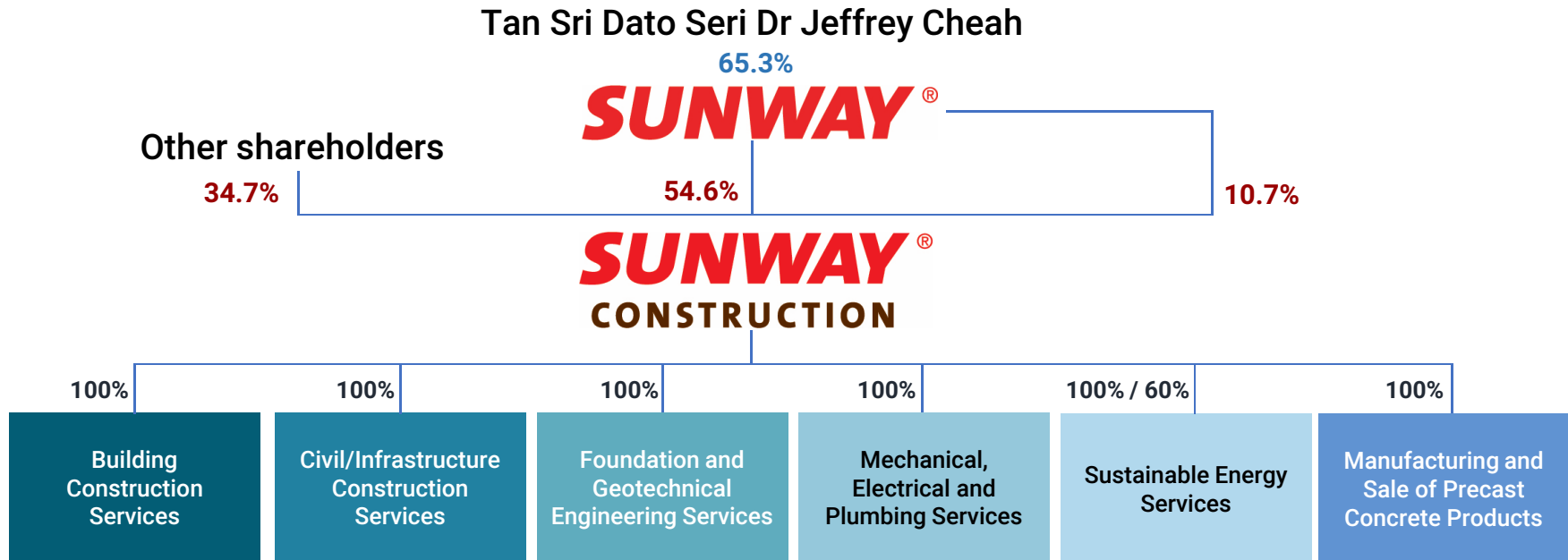
June 2021

SUNWAY[®]
CONSTRUCTION



CORPORATE PROFILE

- Incorporated in 1976 & commenced business in 1981
- First listing in year 1997 & delisted in year 2004
- Relisting under the construction sector of the Main Market of Bursa Malaysia on 28th July 2015
- Cumulative revenue since inception of RM40bil
- Market capitalization: Around RM2.2bil
(June 2021 : 1.9% Foreigner; 47.8% Non Bumi and 50.3% Bumi)
- Top external shareholders (EPF 9.0%, Amanah Saham 6.6%, Great Eastern 4.0% , AIA, PNB)





Building Construction Services

- Design and construction service provider specializing in Building Information Modeling System (BIM /VDC)
- International portfolio includes projects in Singapore, UAE and Trinidad and Tobago
- Special Purpose Building Projects include Kuala Lumpur Convention Centre, Pinewood Studio, Sunway Medical Centre, Monash University Campus M'sia; Sunway Shopping Mall; Putrajaya Govt Agency Offices; International School of Kuala Lumpur



Civil/Infrastructure Construction Services

- Roads, highways, airports, bridges and rail transportation infrastructure projects over the last 30 years
- Local Projects include Ipoh Airport, SILK, Maju Expressway, SKVE, MRT, LRT and BRT
- Overseas Projects include 7 completed highways and bridges in India and 2 new HAM project secured in FYE 2020



Foundation and Geotechnical Engineering Services

- Core services include piling solutions and earth retaining systems
- Services cover all types of buildings such as residential, commercial, institutional, purpose-built or specialty buildings, and civil/infrastructure construction projects.



Mechanical, Electrical and Plumbing Services

- Main services are categorised into mechanical, electrical, plumbing and specialised engineering solutions
- Services offered to both internal and external clients as part of integrated services and on stand alone basis



Sustainable Energy Services

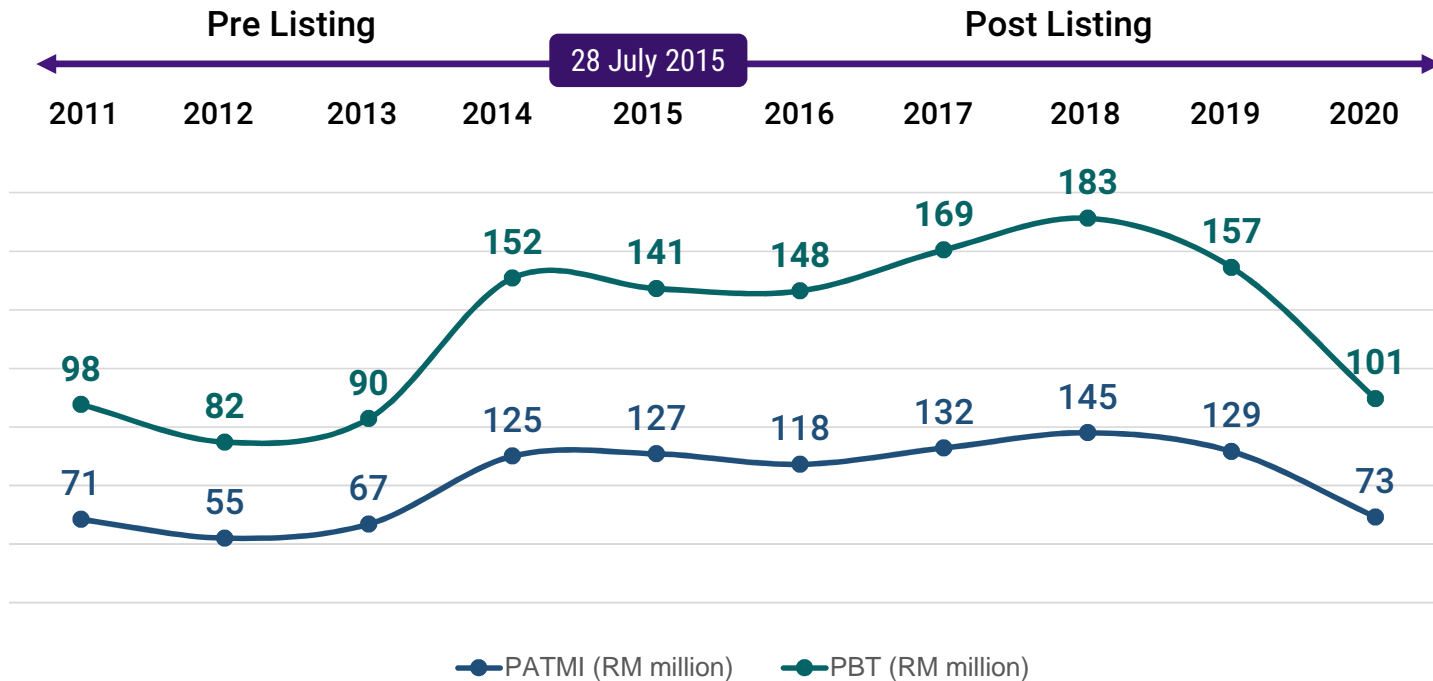
- Solar : Rooftop (Sunway projects) and large scale
- Gas District Cooling System (Putrajaya)
- Biomass system (BioExcel in Johor)
- LSS4 (SunCon will support 2 winners as EPC)
- MOU with ENGIE – GDC in M'sia/India



Manufacturing and Sale of Precast Concrete Products

- Develops, designs, manufactures and supplies precast concrete products with manufacturing plants located in Iskandar and Senai, Johor, Malaysia
- Precast concrete products manufactured, include Industrialised Building System ("IBS") components, for residential, commercial and infrastructure development projects

| | IPO (28.7.15) | 29.12.17 | 31.12.18 | 31.12.19 | 31.3.20 | 30.6.20 | 30.9.20 | 31.12.20 | 31.3.21 | 30.6.21 |
|------------|------------------|----------|----------|----------|---------|---------|---------|----------|---------|---------|
| Price (RM) | 1.20 | 2.51 | 1.33 | 1.91 | 1.51 | 1.88 | 1.84 | 1.88 | 1.80 | 1.66 |
| Market Cap | 1.55b | >3.0b | 1.72b | 2.5b | 2b | 2.4b | 2.4b | 2.4b | 2.3b | 2.2b |



2011 to 2014 figures as per prospectus and circular and 2016 to 2019 have been restated for MFRS 9

STRONG FINANCIAL PERFORMANCE

| | 2016 Restated RM mil | 2017 Restated RM mil | 2018 Restated RM mil | 2019 Audited RM'mil | 2020 Audited RM'mil | 1Q2021 Unaudited RM'mil | 2Q2021 Unaudited RM'mil |
|-----------------|----------------------------|----------------------------|----------------------------|---------------------------|---------------------------|-------------------------------|-------------------------------|
| Revenue | 1,788.8 | 2,076.3 | 2,256.8 | 1,768.7 | 1,552.6 | 455.2 | 375.3 |
| PBT | 148.0 | 168.7 | 182.7 | 157.4 | 101.1 | 27.3 | 9.5 |
| PBT % | 8.3% | 8.1% | 8.1% | 8.9% | 6.5% | 6.0% | 2.5% |
| PBT % - Con | 6.0% | 7.3% | 8.6% | 9.5% | 6.8% | 5.6% | 2.7% |
| PBT % - Precast | 20.3% | 19.0% | 0.8% | 1.9% | 2.8% | 10.6% | 0.0% |
| PATMI | 117.8 | 132.3 | 144.7 | 129.3 | 72.8 | 20.2 | 8.3 |
| ROE (%) | 26% | 26% | 26% | 21% | 12% | N/A | N/A |

Management's commitment is 35% of full year PATMI
Dividend for 2015 : 4 cents or > 40% of full year PATMI
Dividend for 2016 : 5 cents or > 55% of full year restated PATMI
Dividend for 2017 : 7 cents or > 68% of full year restated PATMI
Dividend for 2018 : 7 cents or > 62% of full year PATMI
Dividend for 2019 : 7 cents or 70% of full year PATMI
Dividend for 2020 : 4 cents or > 70% for full year PATMI
1st tranche 2021 : 1.25 cents > 56% for half year PATMI

NON FINANCIAL INDICATORS

| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|------------------------|------------|------------|------------|------------|------------|------------|------------|
| Quality | | | | | | | |
| QLASSIC - Construction | 79% | 75.3% | 73.3% | 77.2% | 73.6% | 75.0% | N/A |
| CONQUAS - Precast | 100% | 100% | 100% | 100% | 99.2% | N/A | N/A |
| Customer Satisfaction | 75.6% | 76.5% | 74.3% | 75.7% | 77.6% | 77.7% | 96.1% |
| ESH | | | | | | | |
| Work Man-Hours | 16,376,137 | 14,676,640 | 16,918,924 | 18,790,437 | 20,242,286 | 16,611,284 | 14,723,472 |
| Fatal Accident | 2 | 2 | 2 | - | - | 1 | 2 |
| Employees | | | | | | | |
| % Woman | 15% | 16% | 15% | 16% | 14% | 14% | 16% |
| Ratio Men: Women pay | 0.97:1 | 0.97:1 | 0.98:1 | 0.97:1 | 0.96:1 | 1:0.93 | 0.99:1 |
| Man day training/staff | 3.23 | 3.6 | 2.7 | 1.2 | 2.8 | 3.4 | 2.0 |
| Attrition | 17% | 14% | 13% | 13% | 13% | 11% | 13% |



INVESTMENT HIGHLIGHTS : 01 FULLY INTEGRATED COMPANY

A Turnkey Contractor with a Full Range of Integrated Services & Products



Building Construction Services

Civil / Infrastructure
Construction Services

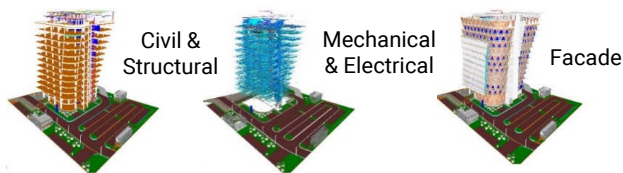
Foundation & Geotechnical
Engineering Services

Mechanical, Electrical and
Plumbing Services

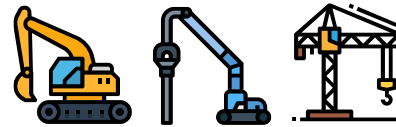
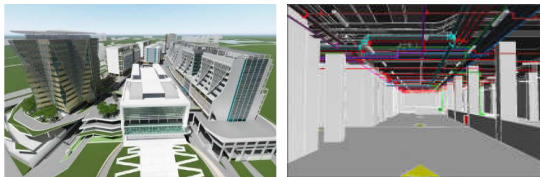
Sustainable Energy Services

Manufacturing and Sale of Precast
Concrete Products

Range of Services Supported by Building Information Modelling, Large Asset Base & Best Practices



**Building Information Modelling =
Improved visualization for clash analysis**



**Large Asset Base Allows Us to
Maximize Economies of Scale**

- **26** Boring Rigs
- **18** Tower Cranes
- **3** Launching Girders
- **13** Crawler Cranes
- **17** Mobile Cranes
- **7** Passenger Hoist
- **27** Excavators
- **7** Skylift
- **45,000m²** System Formworks

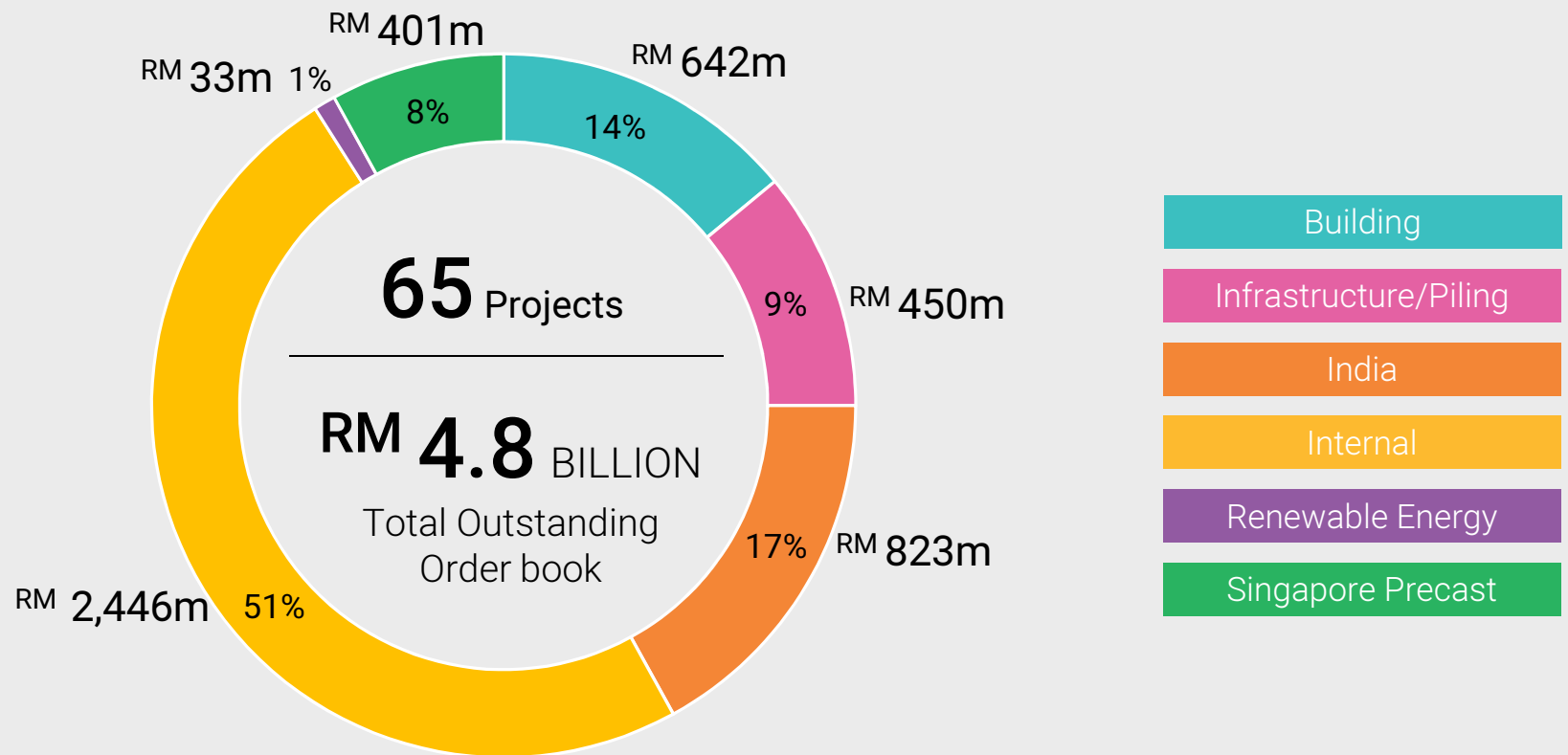


**Maximizing Cost Savings and
Improved Operating Efficiencies =
Enhanced Profitability**

- Quality Control
- Rationalising Functions
- Consolidating Management Functions
- Maximise Economies of Scale

Well Positioned to Bid for and Undertake Large and Complex Projects Both Domestically & Internationally to Diversify Risk and Ensure Sustainable Development

INVESTMENT HIGHLIGHTS : 02 SOLID DIVERSIFIED ORDER BOOK



Target NEW order book → FYE 2021 : RM2b

| | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 | 2012 |
|------------------------|------|------|------|------|------|------|------|------|------|
| New Order | 2.3b | 1.8b | 1.6b | 4.0b | 2.7b | 2.6b | 0.8b | 2.9b | 1.9b |
| Outstanding Order Book | 5.1b | 5.2b | 5.2b | 6.6b | 4.8b | 3.8b | 3.0b | 3.2b | 4.2b |

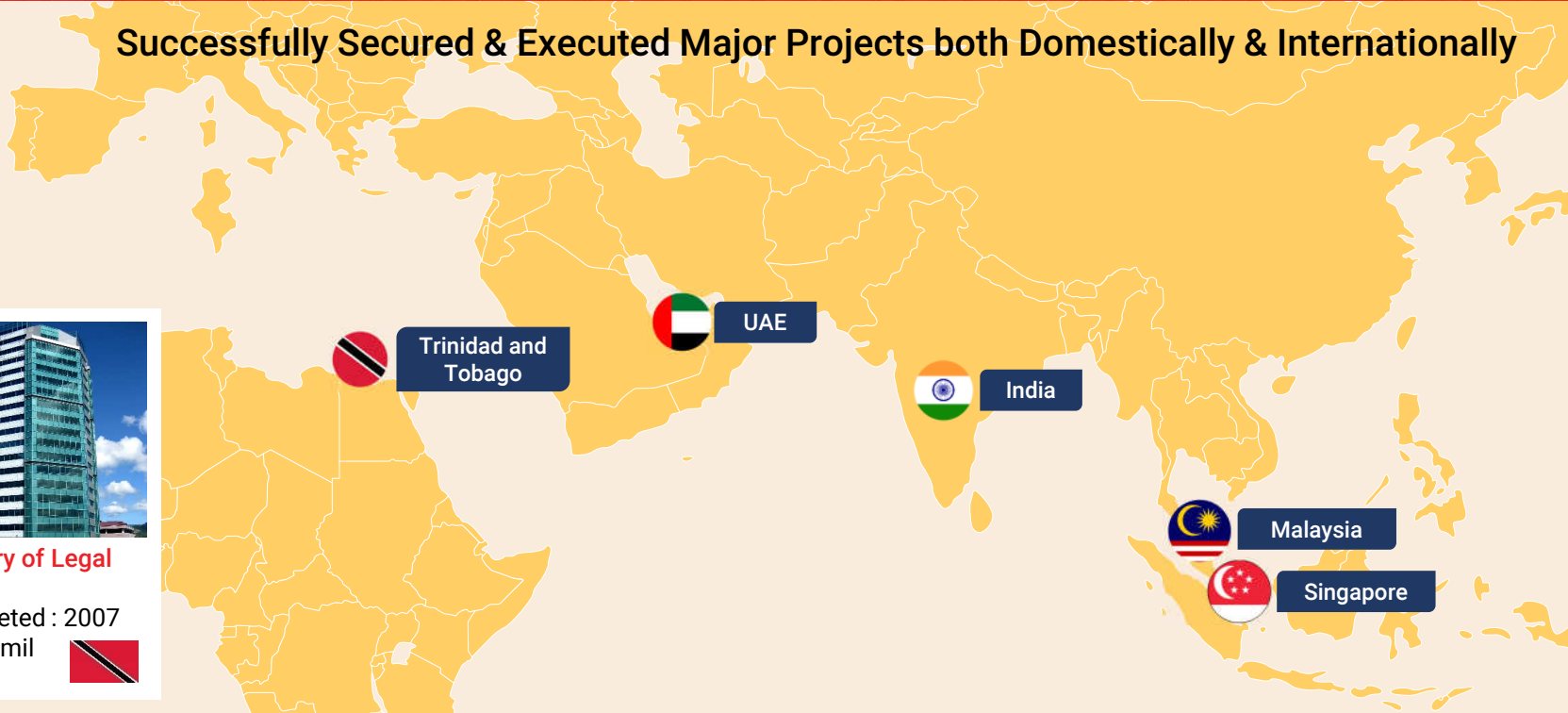
INVESTMENT HIGHLIGHTS : 02 SOLID DIVERSIFIED ORDER BOOK

| AS AT JUNE-2021 (RM MIL) | COMPLETION | CONTRACT SUM | O/S ORDERBOOK | AS AT JUNE-2021 (RM MIL) | COMPLETION | CONTRACT SUM | O/S ORDERBOOK |
|----------------------------------|----------------|-----------------|------------------|---------------------------------|------------|-----------------|------------------|
| BUILDING | | | 642 14% | INTERNAL - SUNWAY GROUP | | | 2,446 51% |
| PUTRAJAYA PARCEL F | Maintenance | 1,610 | 17 | SMC 4 + VO | 2Q 2022 | 612 | 401 |
| TNB HQ CAMPUS (PH 2) | 3Q 2022 | 781 | 404 | SUNWAY SERENE | 3Q 2022 | 413 | 137 |
| PETRONAS LEADERSHIP CENTRE (PLC) | 4Q 2021 | 305 | 148 | SUNWAY BELFIELD | 4Q 2024 | 403 | 379 |
| IOI MALL (MEP) | 4Q 2021 | 68 | 22 | SUNWAY VELOCITY 2 | 2Q 2022 | 352 | 149 |
| OXLEY TOWER (MEP) | 2Q 2022 | 68 | 51 | SOUTH QUAY CP2 - SUPERSTRUCTURE | 4Q 2023 | 344 | 344 |
| INFRASTRUCTURE/PILING | | | 450 9% | SUNWAY CARNIVAL MALL EXT. | 1Q 2022 | 286 | 96 |
| LRT 3 : PACKAGE GS07-08 | 2Q 2022 | 1,295 | 368 | SUNWAY VELOCITY 2B | 4Q 2023 | 253 | 241 |
| SENTUL WEST MRTUG ST. (MEP) | 4Q 2021 | 57 | 30 | SMC DAMANSARA | 1Q 2023 | 180 | 179 |
| CHAN SOW LIN MRTUG ST. (MEP) | 4Q 2021 | 54 | 33 | SMC SEBERANG JAYA | 1Q 2022 | 180 | 91 |
| JALAN TAMBUN, IPOH | 4Q 2022 | 14 | 14 | SMC SEBERANG JAYA - VO | 1Q 2022 | 16 | 16 |
| BANGSAR RISING - PILING | 4Q 2021 | 5 | 5 | SMC IPOH | | 150 | 150 |
| INDIA | | | 823 17% | SW INTERNATIONAL SCHOOL (SIS) | 3Q 2022 | 121 | 95 |
| THORAPALLI - JITTANDAHALLI (TJ) | TBA | 508 | 508 | SIS - VO | 3Q 2022 | 19 | 19 |
| MEENSURUTTI - CHIDAMBARAN (MC) | 3Q 2023 | 315 | 315 | SOUTH QUAY CP2 - PILING | 2Q 2021 | 119 | 11 |
| SUSTAINABLE ENERGY | | | 33 1% | SUNWAY VELOCITY 3C4 | 3Q 2022 | 100 | 47 |
| SOLAR - EXTERNAL | 2021 | 26 | 26 | SUNWAY HOTEL RENOVATION | 2Q 2021 | 81 | 38 |
| SOLAR - INTERNAL | 2021 | 12 | 7 | BIG BOX OFFICE | 2Q 2022 | 51 | 48 |
| SINGAPORE | | | 401 8% | BUTTERWORTH-KULIM EXPRESSWAY | 2Q 2021 | 4 | 4 |
| PRECAST | Various | 331 | 216 | GRAND TOTAL @ JUNE 2021 | | 9,317 | 4,796 |
| NEW ORDER 2021 - EXTERNAL | Various | 185 | 185 | RED : SECURED IN 2021 | | 620 | 616 |

| Projects (2021 new awards) | Client | Duration (months) | Contract Sum (RM'mil) |
|--|------------------------------------|-------------------|-----------------------|
| Sunway International School – Bandar Sunway (Add VO) | Sunway Education Group Sdn Bhd | 30 | 15.0 |
| Big Box Office | Sunway Marketplace Sdn Bhd | 14 | 51.4 |
| Tengah Park C2 | Chiu Teng Construction Co. Pte Ltd | 23 | 114.3 |
| Sunway Medical Centre – Damansara Giza | Paradigm Fairview Sdn Bhd | 24 | 180.0 |
| DD Plastic (SIRIM) | SIRIM Berhad | 3 | 0.4 |
| Tengah C7 | LBD Engineering Pte Ltd | 27 | 35.1 |
| Ang Mo Kio N2C23A | Right Construction Pte Ltd | 27 | 35.7 |
| Jalan Tambun | Majlis Bandaraya Ipoh | 18 | 13.7 |
| Sunway Medical Centre – Seberang Jaya (VO) | Paradigm Fairview Sdn Bhd | 6 | 16 |
| Secured in 1Q 2021 | | | 462 |
| SMC Ipoh | Sunway Medical Centre Ipoh | 27 | 150.0 |
| Bangsar - Piling | Bangsar Rising Sdn Bhd | 6 | 4.6 |
| Secured in 1Q 2021 | | | 155 |
| Total – FY2021 | | | 620 |
| | M'sia - Inhouse | | 67% |
| | M'sia - External | | 3% |
| | S'pore - External | | 30% |

INVESTMENT HIGHLIGHTS : 03 PROVEN TRACK RECORD

Successfully Secured & Executed Major Projects both Domestically & Internationally



Parcel F, Putrajaya
Completed : 2019
RM1,610mil



MRT Package V4, Klang Valley
Completed : 2016
RM1,172mil



Kuala Lumpur Convention Centre
Completed : 2005
RM549mil



LRT Package B
Completed : 2015
RM569mil



East-West Corridor
Uttar Pradesh
Completed : 2008
US67mil



HDB - Bukit Merah
Completed : 2016
SGD31mil



Rihan Heights
Phase 1A
Completed : 2010
USD510mil



Ministry of Legal Affairs
Completed : 2007
USD58mil



Al-Reem Island Phase 1, Plot 1
Completed : 2009
USD362mil



Proven Capabilities

Which Led to an Established Multi-Award Winning Brand



2020

- 19 Feb : Leadership Area –Based Demarcation (LeAD) Programme by Petronas – “Best Area Champion (Onshore Construction)”
- 6 Mar : 5th Asia Best Sustainability Reporting Awards (ASRA) Singapore – Asia’s Best Sustainability Report within Annual Report - “Bronze”
- 30 Sept : MSWG-ASEAN Corporate Governance Award 2019 – Industry Excellence Award
- 14 Dec : The Edge Billion Ringgit Club award – Construction Sector : Highest return on ROE
- 17 Dec : The ASSETS ESG Award – Gold Award
- 22 Dec : NACRA (National Annual Corp Report Award) – Platinum for market capitalisation < 2b

2021

- 9 April - Mechanical & Electrical Contractors award from MBAM
- 12 April – MSOSH 2019 OSH Award (Gold 1 – PNLC) (Gold 2 – TNB Campus)
- 12 Aug - MSWG ASEAN Corporate Governance 2020 Award (Industry Excellence)
- 12 Aug – ARC Awards International 2021 – Annual Report (Industry) Bronze



SG50 Prestige Enterprise Award 2015 / 2016



Singapore Successful Brand 2015



MCIEA Builder of The Year Award 2018, 2013, 2005 & 2003



MCIEA International Achievement Award 2012



Industry Excellence Awards 2010 – Export Excellence Award

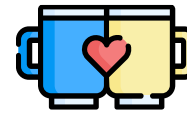


MCIEA Project Award: Building-Major Scale – KL Convention Centre 2006

Sunway Group Strategic Relationship



- ✓ Major property developer in Malaysia. Revenue =2020 : 0.5b (2019 : 0.6b; 2018 : 0.6b 2017:0.9b, 2016:RM1.2b) from its property development divisions
- ✓ Total gross development value of remaining landbank (3,362 acres) Johor 50%, Klang Valley 28%, Penang 6%, Singapore 12%, Others 4% – RM59 bil (15 years)
- ✓ 2021/2020 Launch Target : RM2.8b (2020:1.9b; 2019 : 1.2b, 2018 : 2.1b, 2017 : 1.1b,2016:0.65b,2015: 1.4 bil)
- ✓ Sales target 2021 : RM2.2b (2020 : 1.3b; 2019 : 1.55b; 2018 : 1.7b; : RM2017 : 1.2b; 2016 : 1.2b, 2015 : 1.2b)
- ✓ At least 51% stake in Suncon Group post IPO



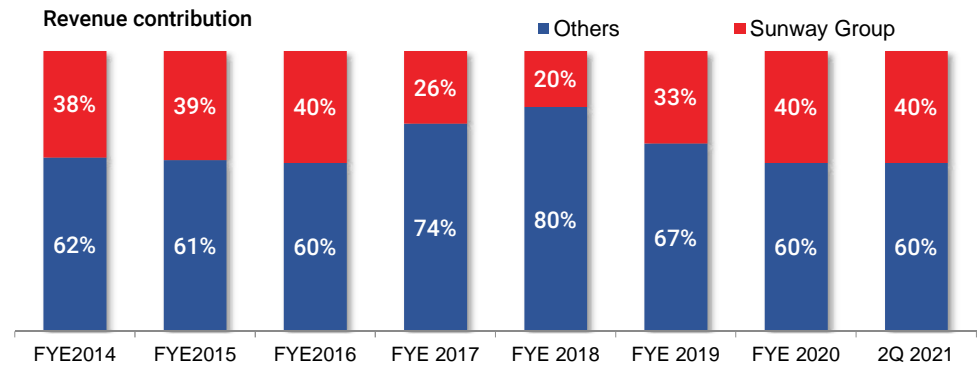
Bed rock orders even during a decline in the construction sector

- ✓ Competitive advantage in property development – design optimization, assurance on quality & timeliness
- ✓ Portfolio of diversified services across the construction sub-sector

Our Key Developments with Sunway Group



Sunway Group's Continued Support



Symbiotic Relationship with Sunway Group Provides Stability During Periods of Downturn

INVESTMENT HIGHLIGHTS : 06 HIGHLY EXPERIENCED MANAGEMENT TEAM



CHUNG SOO KIONG

Designation

Group Managing Director

Years in SunCon Group : >20 years

**Construction Industry Experience :
Over 20 years**



LIEW KOK WING

Designation

Managing Director

Years in SunCon Group : >20 years

**Construction Industry Experience
Over 20 years**



RICHARD WONG

Designation

Deputy Managing Director

Years in SunCon Group : 20 years

**Construction Industry Experience
Over 28 years**



EVAN CHEAH

Designation

Non-Independent Non-Executive
Director

Years in SunCon Group : 20 years

**Construction Industry Experience
Over 15 years**



YIP LAI HUN

Designation

Director Supply Chain &
Contracts Mgmt

Years in SunCon Group : >25 years

**Construction Industry Experience
Over 27 years**



THOMAS SAMUEL

Designation

Director Piling Division

Years in SunCon Group : Since 2015

**Construction Industry Experience
Over 33 years**



NG BEE LIEN

Designation

Chief Financial Officer

Years in SunCon Group : 15 years

**Construction Industry Experience
20 years**



KWONG TZYY EN

Designation

Director Precast Division

Years in SunCon Group : 20 years

**Construction Industry Experience
Over 20 years**



ERIC TAN CHEE HIN

Designation

Director MEP Division

Years in SunCon Group : 20 years

**Construction Industry Experience
Over 19 years**

**Extensive Industry Expertise and Strong Execution Capability with
an Average of Over 23 Years of Experience in the Construction Industry**

Fully integrated Construction Company

- Integrated business model providing end-to-end design and construction solutions
- VDC enabled
- Well supported by investment in capex and assets previously

Solid Order Book

- Strong order book & tender book with diversified construction capabilities across various sub – segments of the construction sector
- Proven Track Record in the Local & International Stage
- History of repeat order from reputable clients with high credit worthiness

Positioned for Growth

- The largest pure play listed construction company in Malaysia
- Top 3 construction group by turnover and profit
- Overseas venture to India (secured 2 HAM projects in FYE 2020)
- FY2020 : Revival of government pump priming projects such as the ECRL, HSR (M'sia portion), MRT3, LSS4
- Construction sector growth in 2020 : -19.4%; 2019: 0.1% 2018 : 4.2%; 2017 : 6.7%; 2016 : 7.4% ; 2015 : 8.2%
- Singapore Precast : Construction on ICPH plant is on-going (operational 2H 2022)

Continuing Support from Sunway Group

- At least 51% stake in Suncon Group post IPO
- Bed rock orders even during a decline in the construction sector (past years 40% revenue)
- Treasury support from Sunway Bhd

Financial

- High Return on Equity (> 20%)
- Sound balance sheet with net cash position
- 35% dividend policy (2015 : > 40%, 2016 : > 50%, 2017 : > 60%, 2018 : > 60%, 2019 : 70% : 2020 : 71%)

ON-GOING PROJECTS – Building (External)

SUNWAY
CONSTRUCTION

Petronas New Leadership Centre, Bangi

- Contract Value : RM310 million
- Client : Petronas
- Completion : 3Q 2021



Job Scope : 1 storey semi basement car park, 4 storey institutional building, 2 guard house, 1 surau. This building is designed with a target of Platinum rating for both GBI and LEED. The building measures 470 meters long and by 36 meter depth including the central spine with a total built up area of 42,074.82 sq.m (452,725 sq. feet) including the sub-basement car park.

TNB HQ Campus Phase 2, Bangsar

- Contract Value : RM781 million (13.6 acres)
- Client : Tenaga Nasional Berhad
- Completion : 2Q 2022



BELFIELD (residential), KL
Contract Sum : RM403 million



CP2 mixed commercial, Sunway
Contract Sum : RM344 million

Sunway Velocity 2 – Plot B

Contract Sum - RM253 million



Sunway Medical 4 - Extension

VO: RM162 million



Proposed Construction of:-

- Phase 2A – 2-Storey Retail, 8-Storey Podium Carpark & 1-Storey Basement Carpark
- Phase 2B & 2C – 2 Blocks of 39-Storey Serviced Apartments

Main Building Works:-

- Tower D – Hospital Suites 180 new Outpatient Specialist Consultation Suites across the 3 blocks and 474 units of Senior Living residences
- Tower E – Hospital Block - dedicated Women's Tower
- Tower F – Hospital Block - dedicated Children's Tower



◀ Sunway Carnival Mall Extension

- Gross floor area to 1.45 million sq ft from the current 780,000 sq ft
- Net lettable area (NLA) from around 500,000 sq ft to 830,000 sq ft.

Opening 4Q 2021

Sunway Medical, Seberang Jaya ▶

- 180-bed hospital with a six-bed intensive care unit

Opening 4Q 2021



ON-GOING PROJECTS – Civil/Infrastructure

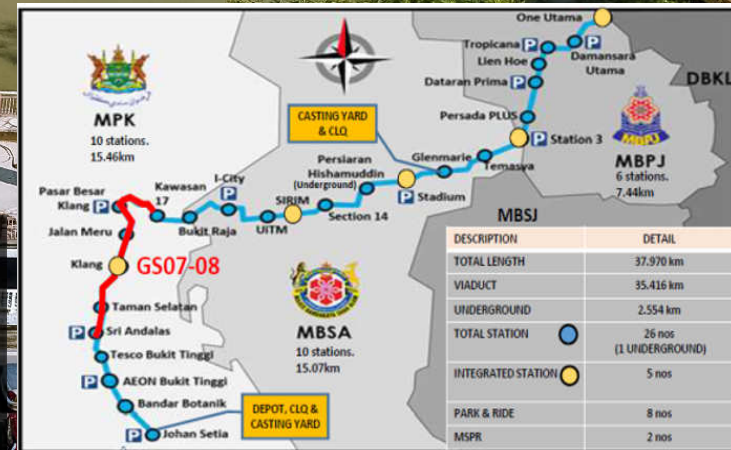
LRT3 Package GS07&08, Klang Valley | Kawasan 17 to Sri Andalas

- Contract Value : RM1.29 billion
- Client : MRCB George Kent Sdn Bhd
- Completion : Q2 2022 (65% completed @ 1Q 2021)



Job Scope :

- 9.2km of viaduct works
- 6 stations works
- 1 bridge over Klang River (Design & Build)
- 2 Park & Ride at Pasar Besar Klang and Sri Andalas
- 1 Centralised Labour Quarter at Johan Setia



COMPLETED PROJECTS – Civil/Infrastructure

MRT Putrajaya Line Package V201, Klang Valley | Sungai Buloh To Persiaran Dagang

- Contract Value : RM1.392 billion
- Client : MRT Corp Sdn Bhd
- CPC Obtained Nov 2020

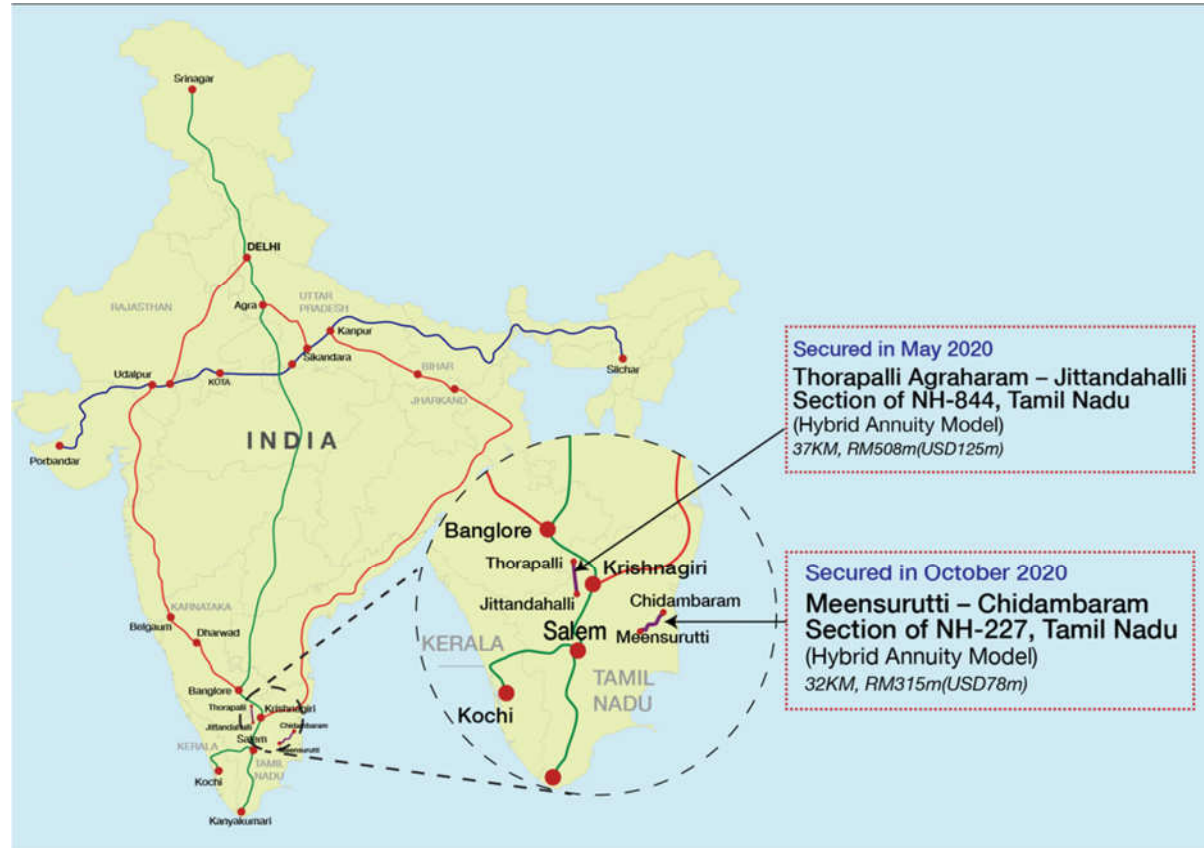
Duration : 60 months (completion May 2021)

Job Scope : 3 nos station, 142 nos piers, 180 km telco fibre optic relocation, 21.5 km underground HT cables relocation, 5.4 km water pipe relocation and 701 nos bored piles



2 India Hybrid Annuity Model project secured in March & Oct 2020

| | Thoropalli Jittandahalli | Meensurutti Chidambaram (Achieved Financial Closed on 10 May 2021) |
|---------------------------------|---|---|
| Contract Sum | 864.5 crores | 553.8 crores |
| Maintenance per year (15 years) | 7.08 crores | 1.5 crores |
| Construction years | 2 years | 2 years |
| SunCon's portion | 60% | 60% |
| Payment terms | 40% during construction and 60% over 15 annuity years. NHA will pay us interest on 60% at RBI rate + 3% | |
| Length | 36.75 (4 lane) | 31.53km (2 lane) |
| State | Tamilnadu | Tamilnadu |
| Start Date | TBA | 8 Aug 2021 |
| Financial Close @ May 2021 | | |





Pile Foundation Works



Earth Retaining System



Ground Treatment



Offshore Piling



Pinewood Movie Studio



Central Utilities Facilities



KLIA Chilled Water



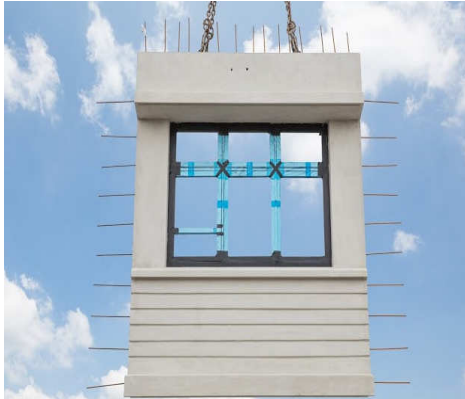
Gas District Cooling Plant - Putrajaya



Roof Top Solar – Sunway Iskandar



Parapet Wall



Façade Window



Water Tank



Lift Core Wall



Column



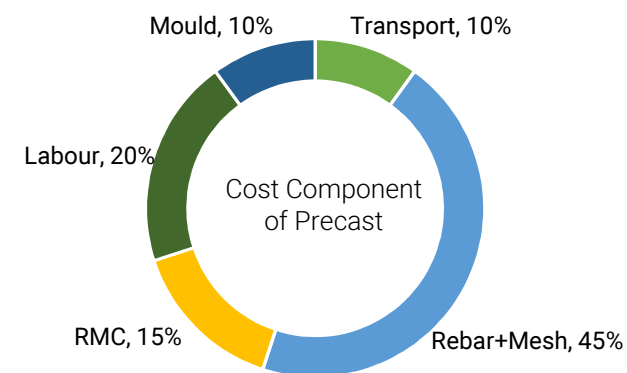
Staircase



Hollow Core Slab



Prefabricated Toilet



| Plant | Area (sq. ft.) | Max Annual Capacity (m ³) | Utilisation Jun'21 (%) | Utilisation 2020 (%) | Utilisation 2019 (%) | No. of lines |
|-------------------------|--|---------------------------------------|------------------------|----------------------|----------------------|------------------|
| Senai Plant (own) | Built up area : 262,231 Land area : 475,409 | 54,000 | 49% | 47% | 46% | 6+3 (half) lines |
| Iskandar Plant (rented) | Land area : 9 hectares | 72,000 | 50% | 48% | 72% | 9 lines |

HDB BTO Launch → 2020(F) = 16,727(2019 : 14,591; 2018 : 15,811 2017 : 17,593; 2016 17,891; 2015 : 15,100 ; 2014 : 22,455)

Capacity building → ICPH (Integrated Construction Precast Hub) in Pulau Punggol Barat costing SGD80m during the 3 years construction period for a 30 years lease for a fully automated robotic precast plant (Tentative comissioning of plant : 3Q 2022)

PRECAST CONCRETE PRODUCTS – Opportunities In Singapore

SINGAPORE: By 2019, 35 per cent of newly launched housing board projects will be built using a method in which 3D modular units are manufactured and finished in factories, announced the Housing and Developing Board (HDB) in a news release on Wednesday (Sep 6).

The method, known as Prefabricated Prefinished Volumetric Construction (PPVC), is being piloted in Valley Spring @ Yishun. Construction for the 824 Build-to-Order (BTO) units began in March, and HDB said such technology will improve productivity and ensure greater quality control.

“Volumetric construction in a factory environment offers more uniform and better quality workmanship. The incidence of wet construction joints is also reduced, thereby improving the water tightness of wet areas,” said HDB.

It added that with the finishes done in factories, there will be less noise and dust at the construction site. Fewer workers are also required on-site.

Apart from the PPVC method, HDB also announced that by 2019, all BTO flats will be fitted with bathroom units that are pre-assembled off-site, with finishes like copper piping, partial tiling, window frames and a waterproofing system.

The PPVC method will be 8 per cent costlier than conventional building methods, where workers hoist raw materials onto elevated blocks being built.

"These costs are expected to come down as the technology matures and the industry capacities and capabilities build up over time.

"The use of pre-fabricated bathroom units and PPVC methods will also translate to savings in terms of manpower," said the HDB.



LIFTING
CRANE

TRAILER
DELIVERY

Singapore to spend \$139m promoting modular and digital construction

6 March 2020 | By Rod Sweet | 0 Comments



Singapore announced a range of measures this week to keep boosting construction productivity, including a S\$120m (US\$86.4m) fund to push modular techniques in new public-sector buildings, and S\$19m (US\$13.7m) to get SMEs using digital technologies.

The city state will also start cutting the number of foreign construction professionals firms can hire from next year, in order to boost home-grown talent.

Minister for National Development and Manpower, Zaqy Mohamad, told this year's Committee of Supply Debate that Singapore was on track to reach its 2020 target of 40% take-up of "design for manufacture and assembly" techniques, or DfMA, but wanted to reach 70% by 2025.

"This is an ambitious target but I think that we can achieve this by working together with the industry. We aim to make DfMA our default way of building," Mohamad said.

The S\$120m will be disbursed through Singapore's Public Sector Construction Productivity Fund (PSCPF), set up last year to promote DfMA techniques including prefabricated prefinished volumetric construction (PPVC), mass engineered timber, structural steel systems, and advanced precast concrete systems.

Singapore zeroed in on DfMA as a route to higher productivity in 2014, pouring S\$55m into a productivity fund, and commissioning a series of "integrated construction and precast hubs", which are highly-automated, multi-storey factories for producing precast concrete building elements and volumetric modules.

Digital push

This week Mohamad told his audience that Singapore's construction productivity had risen by more than 17% in the last decade.

The government sees digitalisation as an important way to make the industry more productive.

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HOME REAL ESTATE

Prefabricated bathrooms, units for all Singapore new flats by 2019

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This would drive HDB's construction productivity on a larger scale, setting it on track to achieve a productivity improvement of 25 per cent by 2020, compared with 2010. PHOTO: HDB

THE Housing Development Board (HDB) says it will improve construction productivity through a greater use of prefabricated units that are assembled off-site but that can be installed on-site.

This would drive HDB's construction productivity on a larger scale, setting it on track to achieve a productivity improvement of 25 per cent by 2020, compared with 2010.

One of the initiatives is to expand the use of prefabricated bathroom units (PBU).

The HDB on Wednesday said that it would implement PBUs in 60 per cent of the flats launched in 2017, before extending this to all projects launched by 2019.

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HDB construction productivity to improve 25 per cent by 2020

HDB to use prefabricated building methods in 35% of all its projects by 2019

Linette Heng
Reporter
Sep 07, 2017 06:00 am

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Prefabricated bathroom units (PBUs) of better workmanship quality will be a feature of all newly launched Housing Board flats by 2019.

The Prefabricated Prefinished Volumetric Construction (PPVC) method - which involves constructing and assembling 3D modular units with finishes in a factory before it is transported to a construction site for installation - will also be used in 35 per cent of all HDB projects by that time.

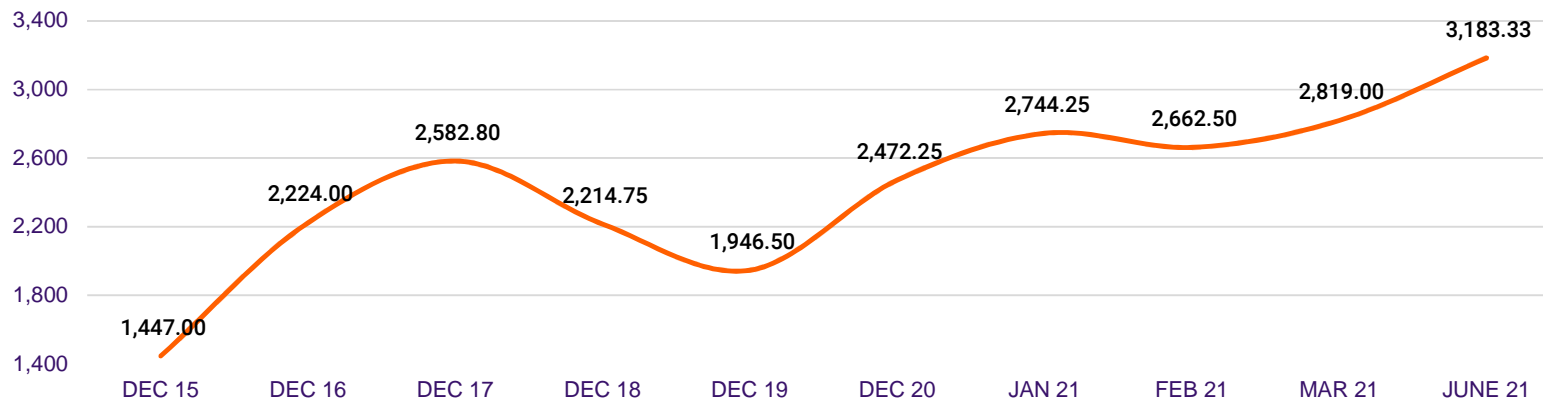


Prefabricated bathroom units are assembled with finishes in a factory before it is transported to a construction site for installation. PHOTO: LIANHE ZAOBAO

POTENTIAL KEY RISKS

| Potential Risk | Potential Impact | Controls to Mitigate Risk |
|-------------------------------|---|--|
| Fluctuation of material price | <p><u>Steel bar price (Y16-Y21)</u> Dec 2019 : RM1,947 Dec 2020 : RM2,520 June 2021 : RM3,183</p> <p><u>Bulk cement price</u> Dec 2018 : RM206/m³; Dec 2019 : RM222 Dec 2020 : RM214 June 2021 : RM201</p> <p><u>Copper</u> Dec'19 : USD6,000; Dec'20 : USD7,800; June'21 : USD9,385</p> | <ul style="list-style-type: none"> • Bulk locked-in steel rebar in advanced at lower prices or when price is favorable. • Forward-looking steel rebar requirement (approximately 6 months in advanced). • Managed to lock in at old price for most existing projects till completion. |
| Foreign currency fluctuation | Importation of solar panels, inverters, special lightings, furnishing & façade components | <ul style="list-style-type: none"> • FOREX hedging in advance once design and bill of quantity is confirmed. • FOREX rates are fixed upfront at the contractual level. |

MONTHLY AVERAGE FOR STEEL BAR (RM/MT)



THANK YOU

