

Corporate Presentation

Dec 2021

SUNWAY[®]
CONSTRUCTION



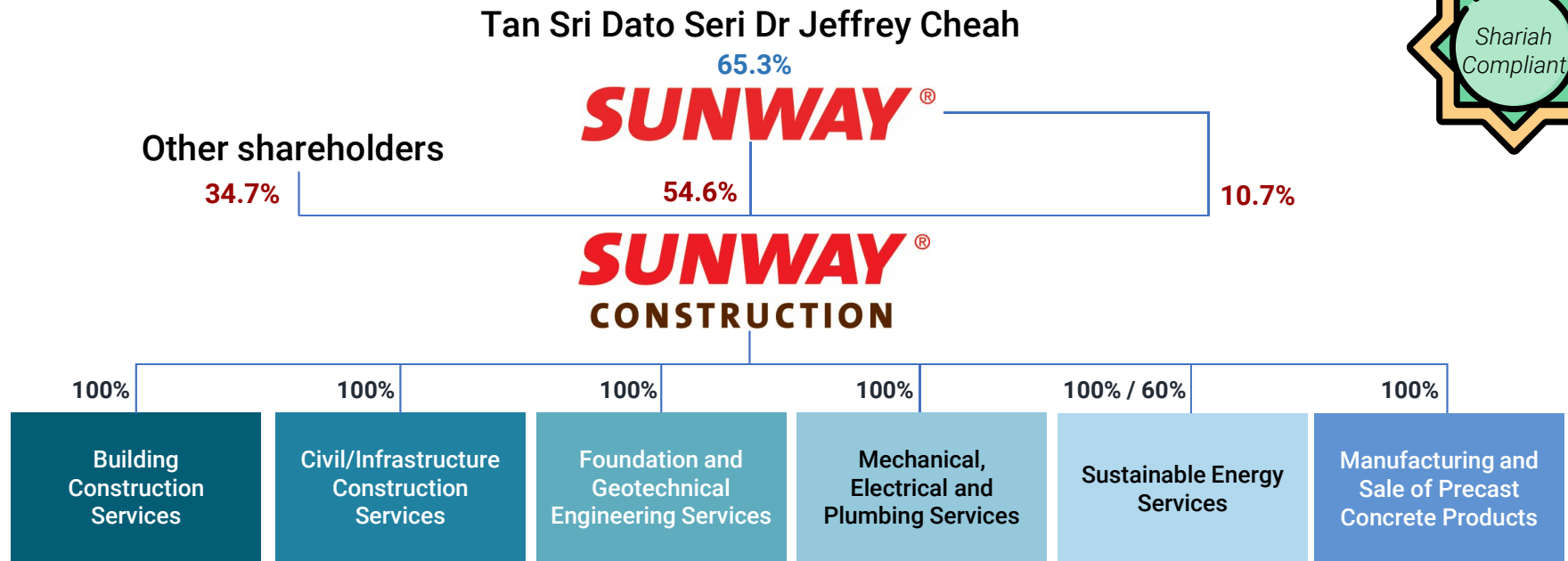
CORPORATE PROFILE

- 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
(Dec 2021 :1.6% Foreigner; 47.2% Non Bumi and 51.2% Bumi)
- Top external shareholders (EPF 9.2%, Amanah Saham 6.6%, Great Eastern 4.1% , AIA 1.9%, KWAP 1.3%, PNB 1.0%)

MSCI
ESG RATINGS

BBB

CCC B BB **BBB** A AA AAA





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 (EPC 2 x 50MW)
- MOU with ENGIE – GDC in M'sia/India



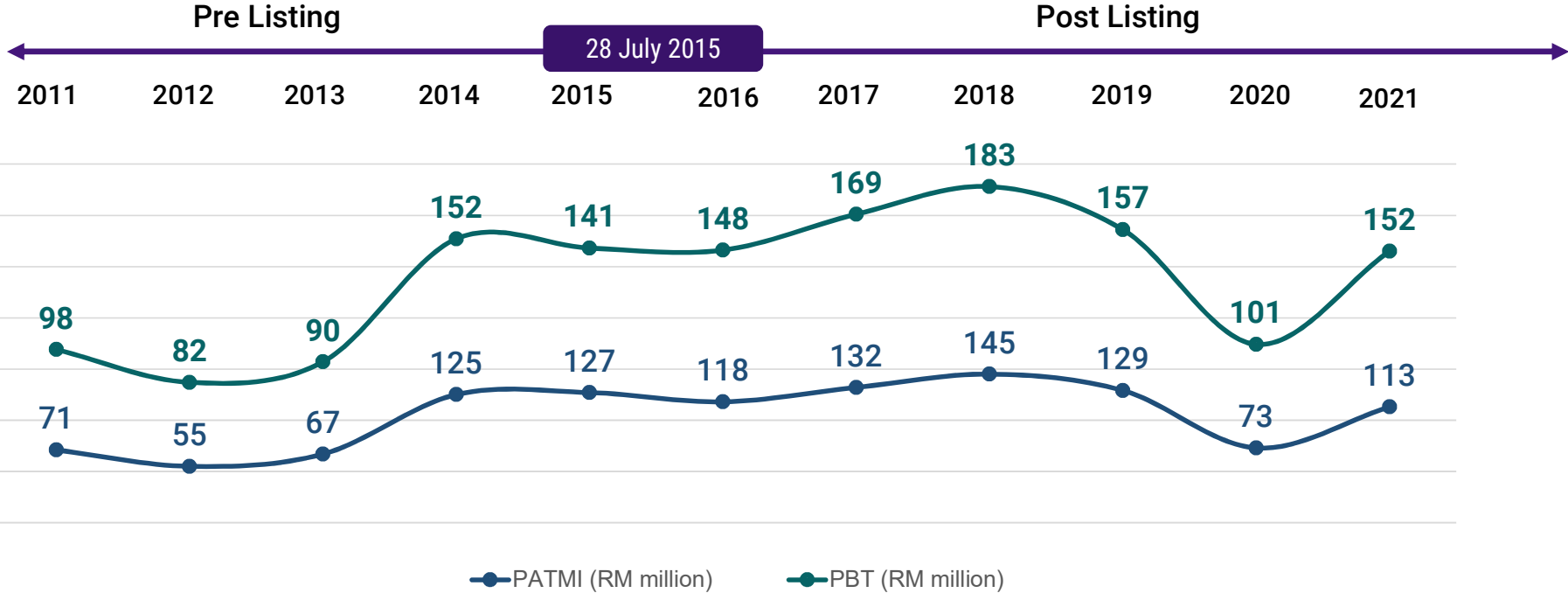
Manufacturing and Sale of Precast Concrete Products

- 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

PROVEN TRACK RECORD



	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	30.9.21	31.12.21
Price (RM)	1.20	2.51	1.33	1.91	1.51	1.88	1.84	1.88	1.80	1.66	1.63	1.56
Market Cap	1.55b	>3.0b	1.72b	2.5b	2b	2.4b	2.4b	2.4b	2.3b	2.2b	2.1b	2.0b



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

STRONG FINANCIAL PERFORMANCE



	2016	2017	2018	2019	2020	1Q2021	2Q2021	3Q2021	4Q2021	YTD 21
	Restated RM mil	Restated RM mil	Restated RM mil	Audited RM'mil	Audited RM'mil	Unaudited RM'mil	Unaudited RM'mil	Unaudited RM'mil	Unaudited RM'mil	Unaudited RM'mil
Revenue	1,788.8	2,076.3	2,256.8	1,768.7	1,552.6	455.2	375.3	272.1	626.6	1,729
PBT	148.0	168.7	182.7	157.4	101.5	27.2	9.5	24.5	91.0	152.2
PBT %	8.3%	8.1%	8.1%	8.9%	6.5%	6.0%	2.5%	9.0%	14.5%	8.8%
PBT % - Con	6.0%	7.3%	8.6%	9.6%	6.8%	5.6%	2.7%	10.5%	15.3%	9.3%
PBT % - Precast	20.3%	19.0%	0.8%	1.9%	2.8%	10.6%	0.0%	(14.7%)	5.0%	2.9%
PATMI	117.8	132.3	144.7	129.3	72.8	20.2	8.3	19.3	64.8	112.6
ROE (%)	26%	26%	26%	21%	12%	N/A	N/A	N/A	N/A	17%

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
Dividend for 2021 : 5.25 cents > 60% for half year PATMI

NON FINANCIAL INDICATORS



	2014	2015	2016	2017	2018	2019	2020	2021
Quality								
QLASSIC - Construction	79%	75.3%	73.3%	77.2%	73.6%	75.0%	N/A	83%
CONQUAS - Precast	100%	100%	100%	100%	99.2%	N/A	N/A	N/A
Customer Satisfaction	75.6%	76.5%	74.3%	75.7%	77.6%	77.7%	96.1%	92.2%
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	17,869,038
Fatal Accident	2	2	2	-	-	1	2	-
Employees								
% Woman	15%	16%	15%	16%	14%	14%	16%	19%
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	1:0.91
Man day training/staff	3.23	3.6	2.7	1.2	2.8	3.4	2.0	2.23
Attrition	17%	14%	13%	13%	13%	11%	13%	14.6%



INVESTMENT HIGHLIGHTS : 01 FULLY INTEGRATED COMPANY

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



Building Construction Services

Civil / Infrastructure
Construction Services

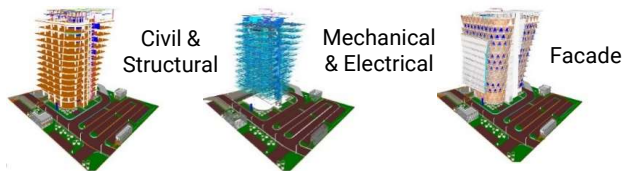
Foundation & Geotechnical
Engineering Services

Mechanical, Electrical and
Plumbing Services

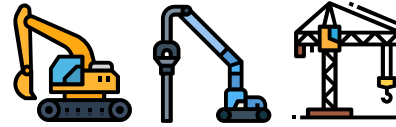
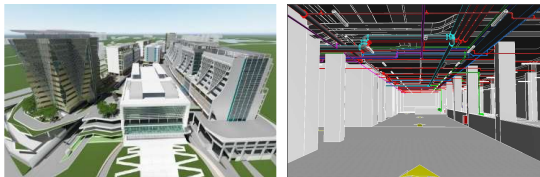
Sustainable Energy Services

Manufacturing and Sale of Precast
Concrete Products

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

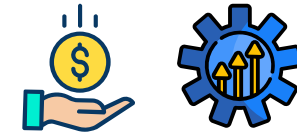


**Building Information Modelling =
Improved visualization for clash analysis**



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

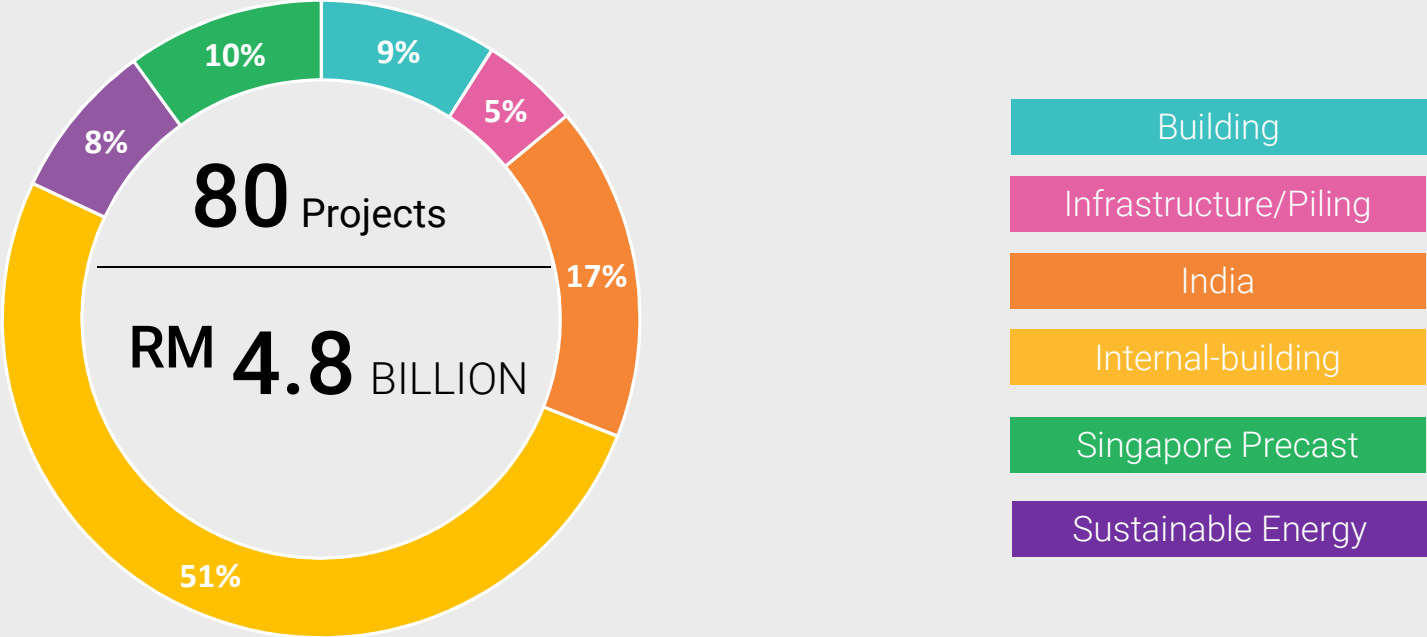
- **26** Boring Rigs
- **18** Tower Cranes
- **3** Launching Girders
- **13** Crawler Cranes
- **17** Mobile Cranes
- **5** Passenger Hoist
- **27** Excavators
- **7** Skylift
- **35,000m²** System Formworks



**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



Target NEW order book → FYE 2022 : RM2b

	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
New Order	1.5b	2.3b	1.8b	1.6b	4.0b	2.7b	2.6b	0.8b	2.9b	1.9b
Outstanding Order Book	4.8b	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 DEC-2021 (RM MIL)	COMPLETION	CONTRACT SUM	O/S ORDERBOOK	
BUILDING			419	9%
PUTRAJAYA PARCEL F	Maintenance	1,610	11	
TNB HQ CAMPUS (PH 2)	3Q 2022	781	294	
PETRONAS LEADERSHIP CENTRE (PLC)	Completed	305	49	
IOI MALL (MEP)	1Q 2022	68	13	
OXLEY TOWER (MEP)	1Q 2022	68	52	
INFRASTRUCTURE/PILING			232	5%
LRT 3 : PACKAGE GS07-08	2Q 2022	1,295	196	
SENTUL WEST MRTUG ST. (MEP)	1Q 2022	57	9	
CHAN SOW LIN MRTUG ST. (MEP)	1Q 2022	54	9	
JALAN TAMBUN, IPOH	4Q 2022	14	14	
BANGSAR RISING - PILING	1Q 2022	5	5	
INDIA			818	17%
THORAPALLI - JITTANDAHALLI (TJ)	4Q 2023	508	508	
MEENSURUTTI - CHIDAMBARAN (MC)	3Q 2023	315	310	
SUSTAINABLE ENERGY			399	8%
SOLAR - EXTERNAL	Various	27	12	
NEW ORDER 2021 - EXTERNAL	Various	387	386	
SINGAPORE			456	10%
PRECAST	Various	331	160	
NEW ORDER 2021 - EXTERNAL	Various	298	296	

AS AT DEC-2021 (RM MIL)	COMPLETION	CONTRACT SUM	O/S ORDERBOOK	
INTERNAL - SUNWAY GROUP			2,428	51%
SMC 4 + VO	2Q 2022	612	329	
SUNWAY SERENE	3Q 2022	413	86	
SUNWAY BELFIELD	4Q 2024	403	361	
SUNWAY VELOCITY 2	2Q 2022	352	115	
SOUTH QUAY CP2 - SUPERSTRUCTURE	4Q 2023	265	265	
SOUTH QUAY CP2 - SUPERSTRUCTURE (VO)	3Q 2024	293	293	
SUNWAY CARNIVAL MALL EXT.	2Q 2022	286	42	
SUNWAY VELOCITY 2B	4Q 2023	253	225	
SMC DAMANSARA	1Q 2023	240	231	
SMC SEBERANG JAYA	2Q 2022	180	61	
SMC SEBERANG JAYA - VO	2Q 2022	16	16	
SMC IPOH	1Q 2024	150	149	
SW INTERNATIONAL SCHOOL (SIS)	4Q 2022	121	69	
SIS - VO	4Q 2022	19	19	
SOUTH QUAY CP2 - PILING	2Q 2022	198	61	
SUNWAY VELOCITY 3C4	3Q 2022	100	37	
SUNWAY HOTEL RENOVATION	2Q 2022	81	29	
BIG BOX OFFICE	2Q 2022	51	37	
BUTTERWORTH-KULIM EXPRESSWAY	1Q 2022	4	2	
DRAINAGE WORKS	4Q 2022	1	1	
GRAND TOTAL @ DEC 2021		10,164	4,751	
RED : SECURED IN 2021		1,474	1,445	

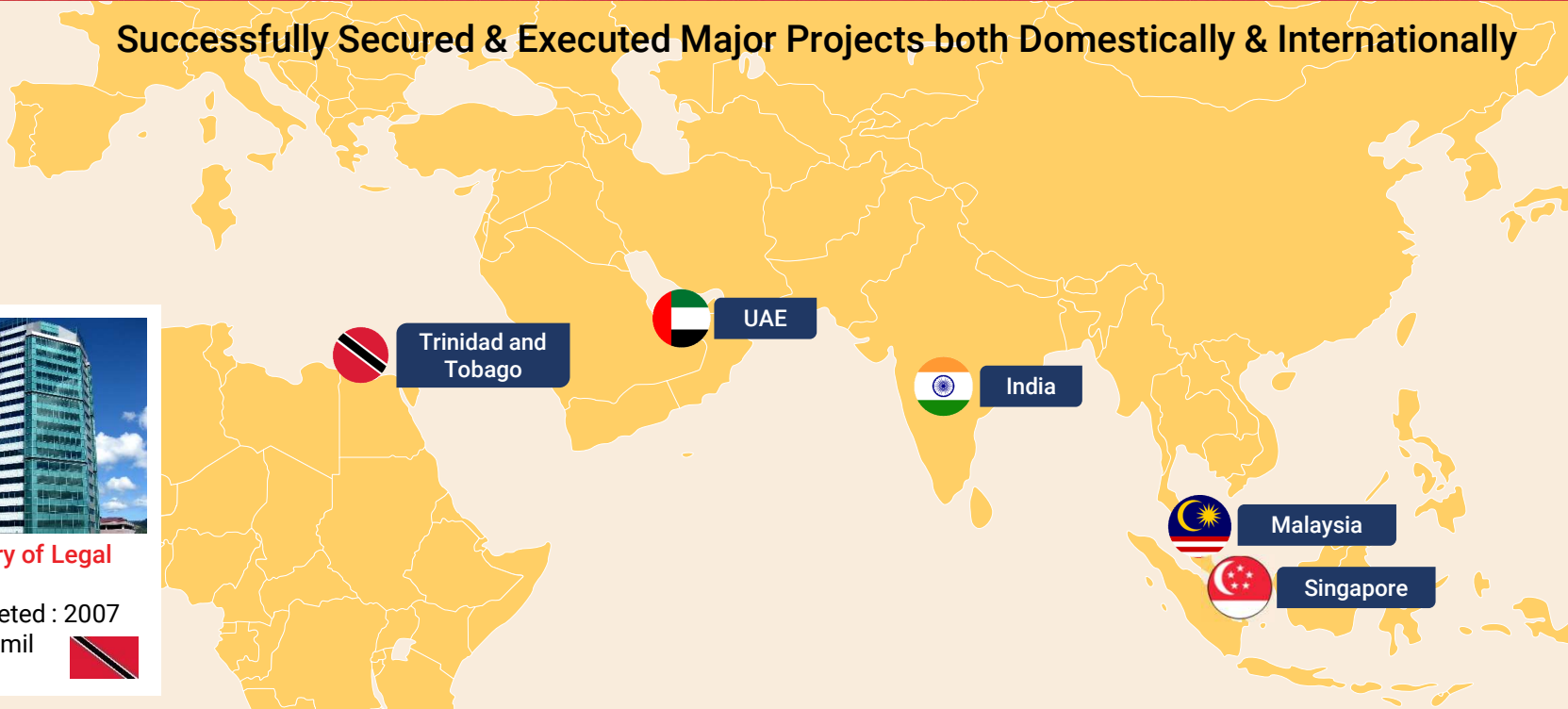
Projects (2021 new awards)	Client	Duration	Contract Sum (RM'mil)
Sunway International School -Sunway (VO)	Sunway Education Group Sdn Bhd	30 months	19.1
Big Box Office	Sunway Marketplace Sd Bhd	14 months	51.4
Tengah Park C2	Chiu Teng Construction Co. Pte Ltd	23 months	114.3
Sunway Medical Centre - Damansara Giza	Paradigm Fairview Sdn Bhd	24 months	180.0
DD Plastic (SIRIM)	Sirim Berhad	3 months	0.4
Tengah C7	LBD Engineering Pte Ltd	27 months	35.1
Ang Mo Kio N2C23A	Right Construction Pte LTD	27 months	35.7
Jalan Tambun	MBI	18 months	13.7
Sunway Medical Centre - Seberang Jaya (VO)	Alliance Parade Sdn Bhd	6 months	16.0
Secured in 1Q 2021			465.7
SMC Ipoh	Sunway Medical Centre Ipoh Sdn Bhd	27 months	150.0
Bangsar Rising - Piling	Bangsar Rising Sdn Bhd	6 months	4.6
Secured in 2Q 2021			154.6
Bidadari C15	Chiu Teng Construction Co. Pte Ltd	27 months	35.7
Woodlands N9C4	Newcon Builders Pte Ltd	27 months	63.0
Clementi N8C1	Primetop Engineering Pte LTD	12 months	14.7
Sunway Medical Centre - Damansara Giza	Paradigm Fairview Sdn Bhd	24 months	60.0
Solar	Various	Various	1.4
Drainage works	Sunway South Quay Sdn Bhd	3 months	1.0
Secured in 3Q 2021			175.7
SOUTH QUAY CP2 - SUPERSTRUCTURE	Sunway SouthQuay Sdn Bhd	July 2024	292.5
LSS4 - Gopeng	GBS Suria Sdn Bhd	24 months	200.0
LSS4 - Klang	Sharp Ventures Solar Sdn Bhd	24 months	185.0
Secured in 4Q 2021			677.5
TOTAL AS AT 4Q 2021			1,473.6
	M'sia - Inhouse		66%
	M'sia - External		14%
	S'pore - External		20%

New order 2020 : 2.3b; 2019 : 1.8b; 2018 : 1.6b, 2017 : 4.0b, 2016 : 2.7b, 2015 : 2.6b, 2014 : 0.8b, 2013 : 2.9b, 2012 : 1.9b

Outstanding Order book 2020 : 5.1b 2019 : 5.2b; 2018 : 5.2b, 2017 : 6.6b, 2016 : 4.8b, 2015 : 3.8b, 2014 : 3.0b, 2013 : 3.2b, 2012 : 4.1b

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

Proven Operating Success

40 Years Heritage

Excellent Reputation

Leverage on the **SUNWAY**® 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
- 8 Nov - The Edge Billion Ringgit best ROE



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

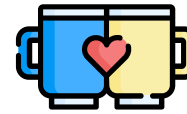


MCIEA Project Award: Building-Major Scale – KL Convention Centre 2006

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 (3,334 acres) Johor 49%, Klang Valley 27%, Penang 6%, Singapore 14%, Others 4% – RM59 bil (15 years)
- ✓ 2022 Launch Target : RM2.3b (2021 : 3.2b; 2020:1.9b; 2019 : 1.2b, 2018 : 2.1b, 2017 : 1.1b, 2016:0.65b, 2015: 1.4 bil)
- ✓ Sales target 2022 : RM2.2b (2021 : 2.6b; 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



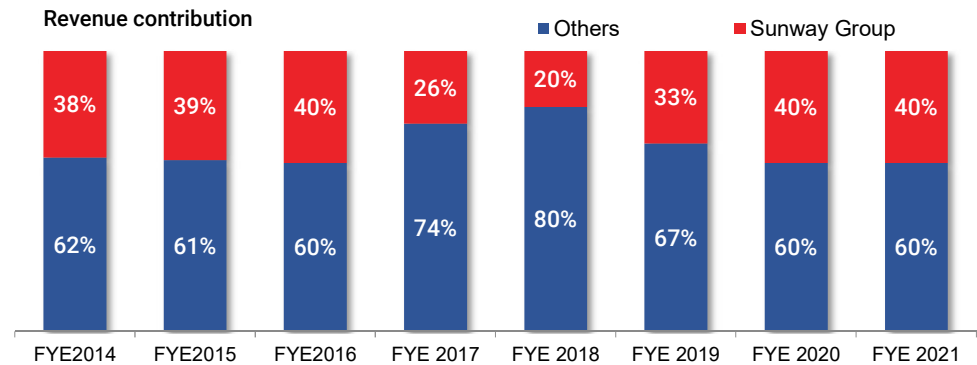
Bed rock orders even during a decline in the construction sector

- ✓ 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 30 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 30 years**



THOMAS SAMUEL

Designation

Director Piling Division

Years in SunCon Group : Since 2015

**Construction Industry Experience
Over 30 years**



NG BEE LIEN

Designation

Chief Financial Officer

Years in SunCon Group : 16 years

**Construction Industry Experience
Over 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 20 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
- Focused on sustainability and renewable energy.
- 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)
- **12MP (2021 – 2025) Development Expenditure of 400b (11MP : 248.5b)**
- Construction sector growth in 2022(F) : 11.5%; 2021(E) : 9.2%; 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 (2021 : 17%) – Best ROE for 3 consecutive years under construction sector awarded by The Edge Billion Ringgit Club
- Sound balance sheet with net cash position (after offsetting wholesale funds disclosed under investement in associate)
- 35% dividend policy (2018 : 60%, 2019 : 70% : 2020 : 71%; 2021 : 60%)

ON-GOING PROJECTS – Building (External)

SUNWAY
CONSTRUCTION

Petronas New Leadership Centre, Bangi

- Contract Value : RM310 million
- Client : Petronas
- Completion : Dec 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



ON-GOING PROJECTS – Building | Residential



Belfield Residence, Sunway

- Contract Value : RM403 million



ON-GOING PROJECTS – Building | Internal | Secured Aug 2020

CP2 mixed commercial, Sunway

- Contract Value : RM756 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



Sunway Valley City (Phase 1)



ON-GOING PROJECTS – Civil/Infrastructure

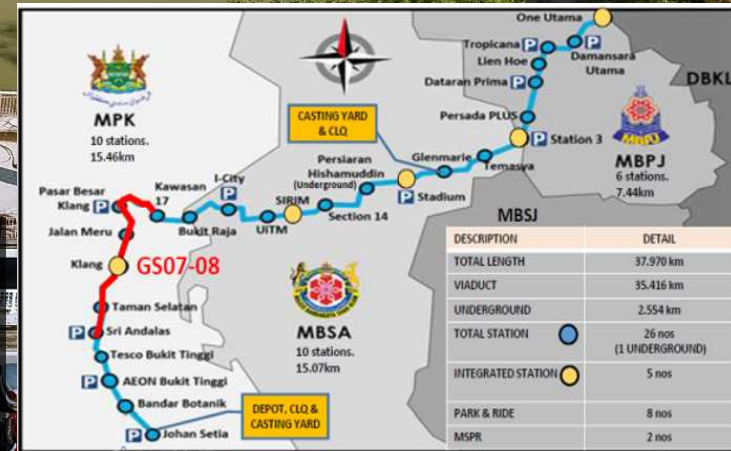
LRT3 Package GS07&08, Klang Valley | Kawasan 17 to Sri Andalas

- 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	7 Dec 2021	8 Aug 2021
Financial Close @ May 2021		





Pile Foundation Works



Earth Retaining System



Ground Treatment



Offshore Piling

MECHANICAL, ELECTRICAL AND PLUMBING



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



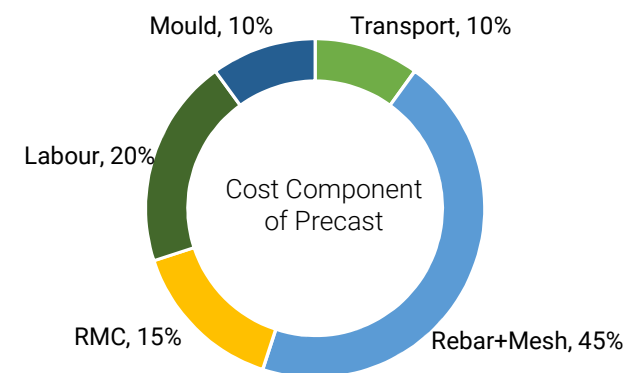
Staircase



Hollow Core Slab



Prefabricated Toilet



Plant	Area (sq. ft.)	Max Annual Capacity (m ³)	Utilisation 2021 (%)	Utilisation 2020 (%)	Utilisation 2019 (%)	No. of lines
Senai Plant (own)	Built up area : 262,231 Land area : 475,409	54,000	48%	47%	46%	6+3 (half) lines
Iskandar Plant (rented)	Land area : 9 hectares	72,000	41%	48%	72%	9 lines

HDB BTO Launch → 2021(F) = 23,000; (2021 = 17,109; 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.



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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.

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.

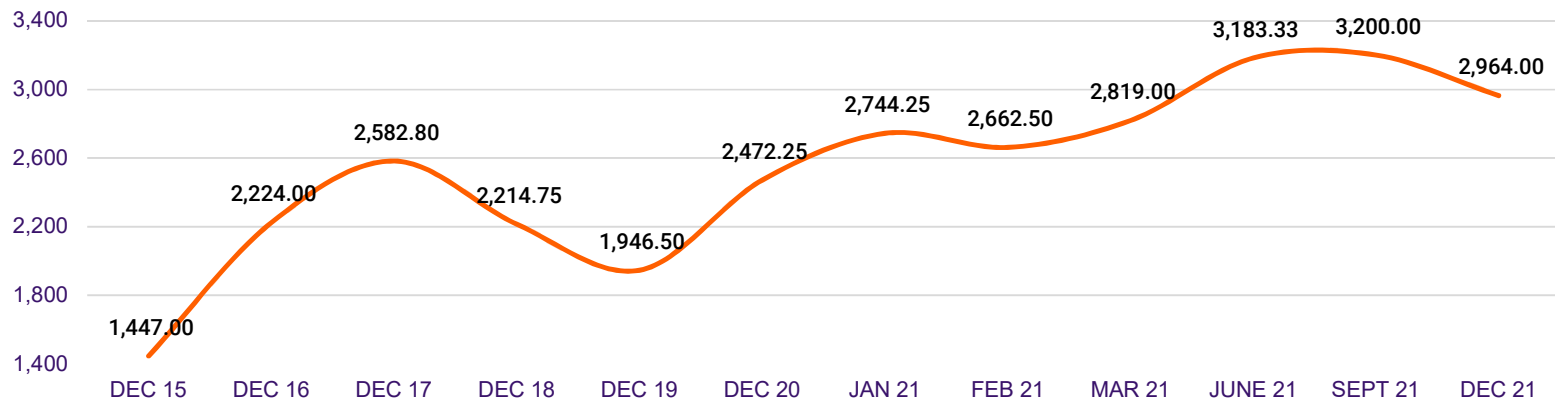


Prefabricated bathroom units are assembled with finishes in a factory before it is transported to a construction site for installation. PHOTO: LIANHE ZAOBAO

POTENTIAL KEY RISKS

Potential Risk	Potential Impact	Controls to Mitigate Risk
Fluctuation of material price	<p><u>Steel bar price</u> Dec 2019 : RM1,947 Dec 2020 : RM2,520 Dec 2021 : RM2,964</p> <p><u>Bulk cement price</u> Dec 2018 : RM206/m³; Dec 2019 : RM222 Dec 2020 : RM214 Dec 2021 : RM275</p> <p><u>Copper</u> Dec'19 : USD6,000; Dec'20 : USD7,800; Dec'21 : USD9,551</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)



An aerial photograph of the Sunway South Quay development at dusk. The scene features several modern high-rise buildings with illuminated facades, reflecting in a large body of water in the foreground. The sky is a mix of blue and orange, suggesting sunset or sunrise. The overall atmosphere is one of a modern, vibrant urban environment.

THANK YOU

SUNWAY SOUTH QUAY