



Shaping Change Through Strategic Partnerships: CapitaLand Development's Experience

Presenter:
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Built Environment Challenges



Labour shortage



Slow adoption of digitalisation



Lack of transparency in cost management



Meeting sustainability goals



Supply chain disruption



Geopolitical volatility

Strategic Partnerships



Implemented initiatives under the Growth and Transformation Scheme (GTS) in 2021, including forming strategic partnerships in the built environment to drive:

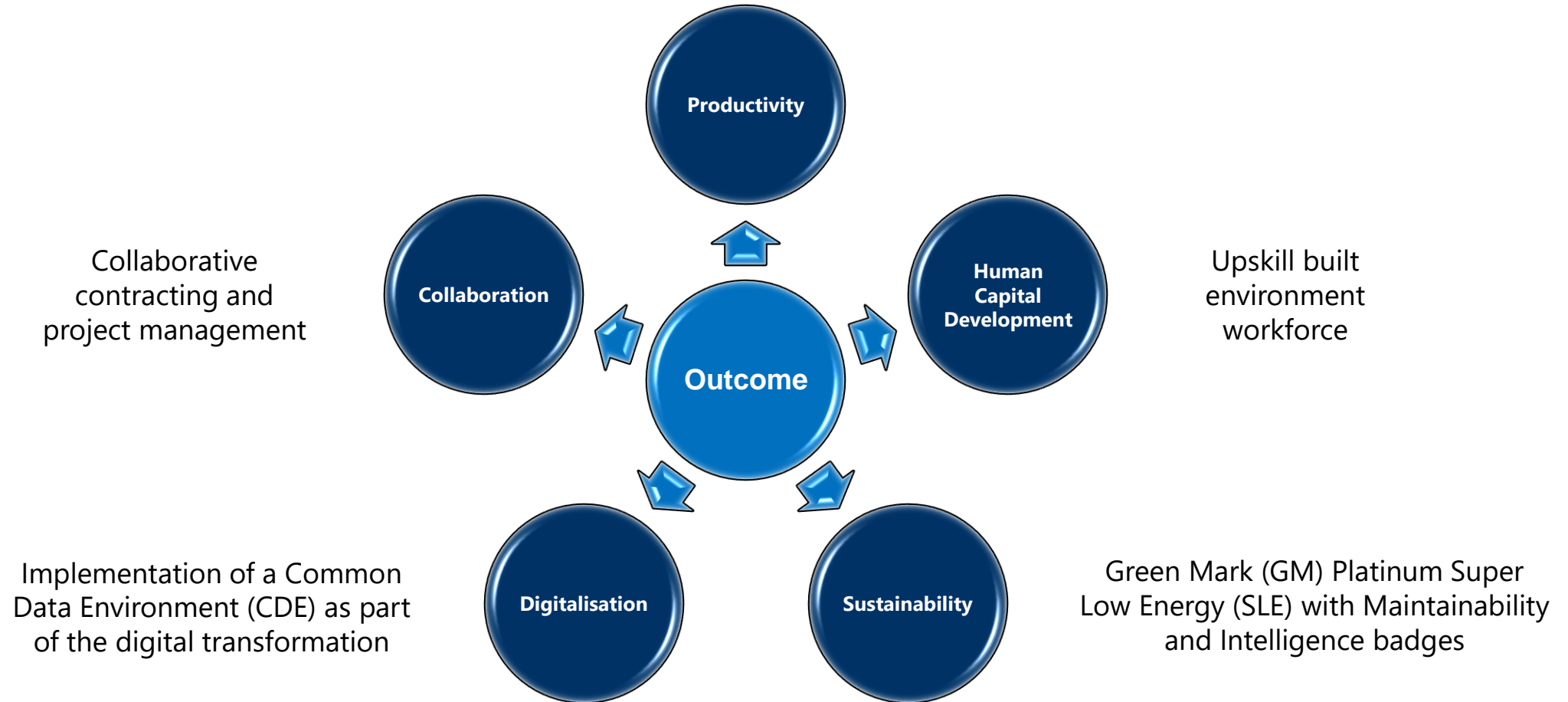
- Innovation
- Productivity
- Sustainability



Among the developers to lead an alliance with contractors and consultants

Target Outcomes of the Strategic Partnerships

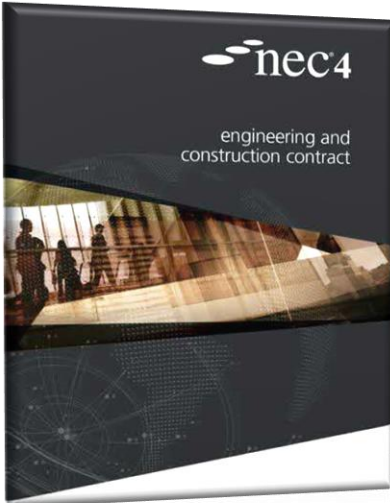
Exceeding minimum required site productivity levels



Initiatives Led by CLD & Partners

CLD Initiatives

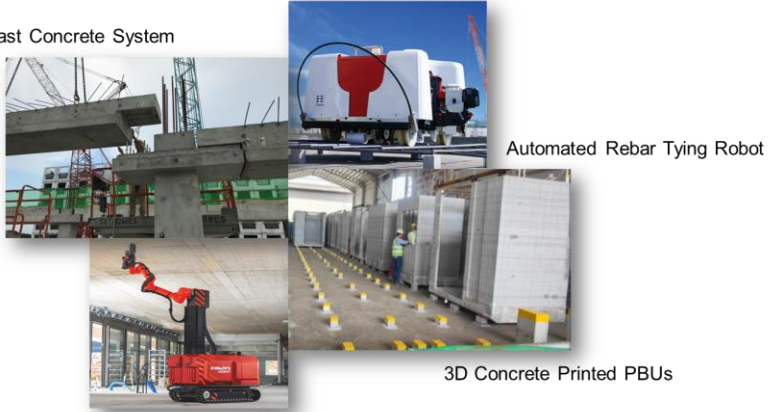
Other GTS Partnering Initiatives



New Engineering Contract 4 (NEC4)

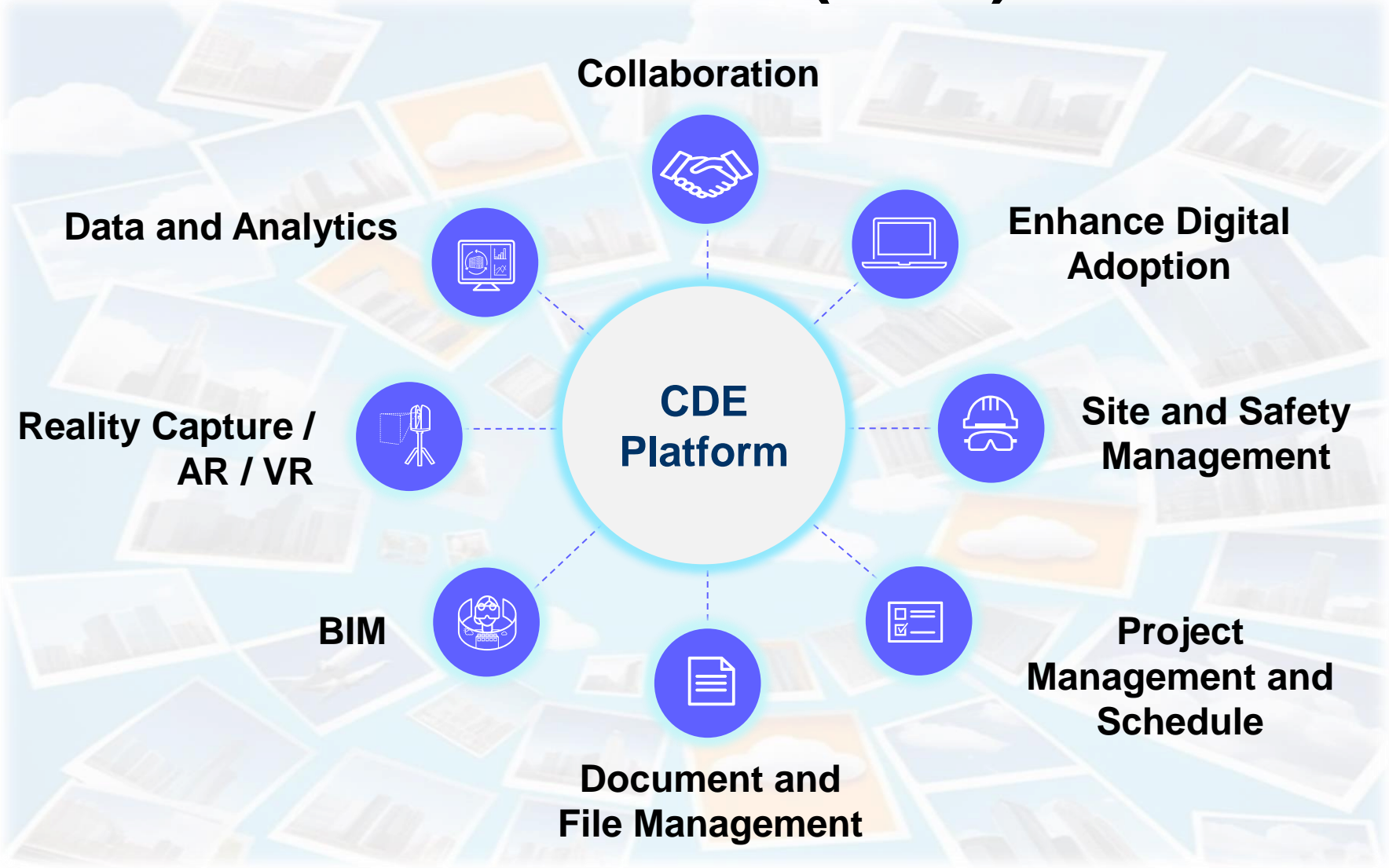


Common Data Environment (CDE)



Automation and Design for Manufacturing and Assembly (DfMA)

Common Data Environment (CDE)



Collaborative Contracting



CapitaLand Development embarks on the New Engineering Contract 4 (NEC4) journey with ADDP, KCL, Alpha, Mott MacDonald, Threesixty and Nakano for Singapore Science Park's first residential development.

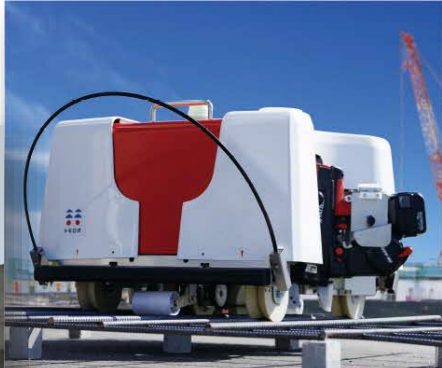
- ✓ Clear and Straightforward Language
- ✓ Offers Flexible Contract Options
- ✓ Promote Collaborative Approach
- ✓ Enhances Transparency in Project Management
- ✓ Proactive Risk Identification
- ✓ Ensures Fair and Equitable Treatment



Source: scl.org.sg

Other GTS Partnering Initiatives

Advanced Precast Concrete System



Automated Rebar Tying Robot



Automated Drilling Robot



3D Concrete Printed PBUs

CapitaLand's GTS Projects



**Geneo –
1 Science Park Drive**

- *Drilling Robot*



J'den

- *CDE / 3D Concrete Printed PBU
/ Rebar Tying Robot*



ParkTown

- *CDE*



**Upcoming
Residential Development
at Science Park**

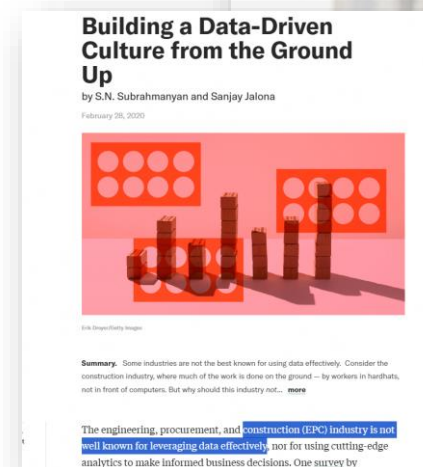
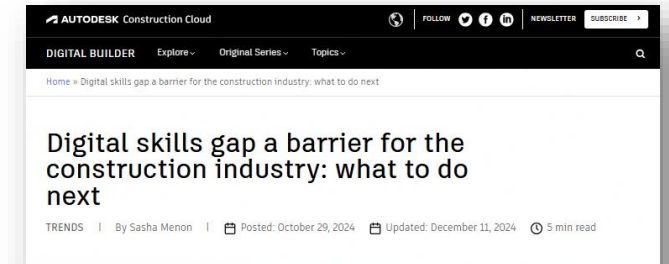
- *CDE / NEC4*



Future Projects

Our Journey So Far

- + Willingness of partners to step out of comfort zone
- + More open sharing of experiences from adopting new initiatives
- Differing competencies across built environment
- Inertia towards new approaches
- Different rate of digital adoption
- Lack of data standardisation
- Maturity of alternative solutions



Shape Change Through Other Partnerships Beyond GTS



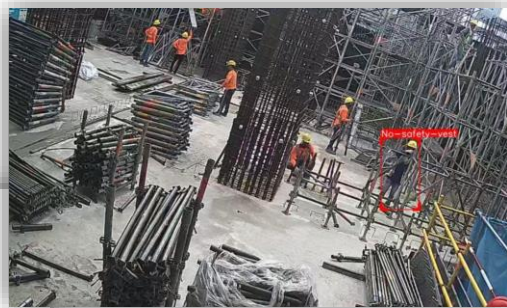
- Established in late 2021
- S\$50 million fund designed to foster a culture of innovation within CapitaLand

>100 pilots to-date

The collage features several key elements:

- CO2:** A close-up image of a concrete mixer with the text 'CO2' overlaid, representing carbon footprint reduction.
- Comparison of Power Consumption (October):** Two line graphs comparing power consumption (kWh) for 'Outdoor Power Consumption (Diesel)' and 'Outdoor Power Consumption (EMMS)'. The Diesel graph shows a peak of 865,470 kWh, while the EMMS graph shows a peak of 132,000 kWh, indicating a significant reduction in power usage.
- Alarm Item Statistics:** A bar chart showing the number of pre-alarms from January to December. The highest number of pre-alarms occurred in April (around 75,000). A legend identifies categories: 'Falling Pre-Alarm', 'Static Pre-Alarm', 'Falling Pre-Warning', 'Control Hook Pre-Warning', 'Control Hook Pre-Warning', and 'Static Pre-Warning'. A text box notes: 'Falling pre-alarms: Enhance and standardize, identify and prioritize measures resulting in decreased frequency of pre-alarms.'
- Hard Hat:** A white safety helmet, symbolizing safety and innovation in construction.

Shape Change Through Other Partnerships Beyond GTS



And many more...

- Launched in 2020
- A global platform to advance innovation and collaboration in sustainability

A Continuing Journey



**Mindset Shift and
Analyse Process Gaps**

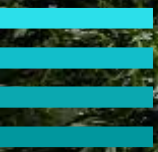


**Explore New
Technologies**



**On-board more Value
Chain Partners**

Jewel Changi Airport, Singapore



Thank you

CapitaLand
Development

CapitaLand Development