BUILD NEWS

SIBL Newsletter

MAY 2022

TABLE OF CONTENTS

Tackling Climate Change with BIM

Have you wondered why it is so steaming hot, both outdoors and indoors, these days? Over the decades, from 1980 to 2020 the annual mean temperature has increased from 26.9°C to 28.0°C.

Climate change is one of the most serious issues of the modern world. Atmospheric carbon dioxide is surpassing levels unmatched in millions of years. Storms are becoming increasingly worse, caused by excessive moisture in the atmosphere due to the increase in temperature. For a sustainable future, we need to reduce our carbon emission levels.

Building Information Modelling, or BIM, a tool that can support this process. BIM is a digital database of a facility that brings together information about the different components of the facility. This allows information to be accessed and shared for a number of different purposes.

Beyond time and money savings for construction projects, it has the potential to help the construction industry tackle the challenges of climate change that include energy consumption, waste, and increase resilience of the Built Environment.

It is estimated that approximately 40% of global carbon emissions are linked to the construction industry. The build-up of greenhouse gas leads to carbon dioxide in the atmosphere to be trapped with more heat in the planet. Reducing carbon emissions directly addresses global warming.

By adopting BIM practices, there is greater potential to reduce carbon emissions through every stage of the building process and minimize the whole life carbon emissions of structures.

BIM for enhancing building efficiency

Though it is more common for BIM to be applied on new build project, there is potential for it to be used retrospectively on older buildings. This is an area where significant improvement can be made to combat climate change, particularly by retrofitting and renovating with a view to improve the quality of buildings and its energy efficiency, while keeping its occupants comfortable.

More importantly, older buildings tend to be less energy efficient than the newer buildings, due to improvements in construction and better sensitivity towards sustainable design in recent years.

However, it is wasteful, expensive, and environmentally harmful to tear them down to rebuild. If over 80% of existing building stock is still going to be in our Built Environment, we need to look at smarter ways to improve the use of space, occupancy and performance of existing buildings.

To do this, we need to understand our buildings better. This is done by collecting and analyzing information on how our buildings operate, allowing us to make better decisions about a building's environmental impact. One way to do this is to apply smart sensors to a building, which can collect environmental and operational data of the building in real time.

Climate Change in Singapore

The Singapore government is taking concrete steps to mitigate the impact of climate change through the Singapore Green Plan, a whole-of-nation movement to advance Singapore's national agenda on sustainable development.

The Green Plan charts ambitious and concrete targets over the next 10 years, strengthening Singapore's commitments under the UN's 2030 Sustainable Development Agenda and Paris Agreement, and positioning us to achieve our long-term net zero emissions aspiration as soon as viable. This is important because climate change is a global challenge, and Singapore is taking firm actions to do our part to build a sustainable future.

BIM helps meet environmental targets

With BIM, we can model, measure and accurately plan carbon emissions to meet sustainable and environmental targets. The increased availability of digital databases containing environmental impact information on different materials and processes allows project teams to prospectively analyze data related to energy consumption, resource use, and resilience.

The environmental impact of a project can be modelled and fully considered at the inception of the construction project, with the implications for sustainability fully understood and specified. This leads us to a model of proactive asset management, with increased exchanges of accurate information for better collaboration and engagement with planning policies and stakeholders.

BIM for enhancing building efficiency

One example of smart building is the iViva platform by local company Eutech Cybernetics. The platform allows sensors to be installed within a building and co-related back to the BIM database. This creates a digital twin that allows facility management to predictively operate the building systems and apply machine learning to diagnose and rectify problems before they occur.

Functional changes can be made when knowledge and performance intersect on another. BIM Engineers possesses the access in start producing eco-friendly design via technology that has a better vision and progression in projects. BIM Engineers has the potential to create diversified solutions that benefit public interest and environment health.

About the Author:

Kavitha Sri Annathurai | HR Engagement Specialist

Kavitha Sri is an HR engagement specialist in AcePLP Pte. Ltd where she is closely involved in the BIM content environment, social media, the production of multimedia materials, employee engagement and ideation strategies to shape the company's position in the Built Environment. She works to represent the hopes and dreams of young people starting out their careers in the Built Environment, and endeavors to help them shape a brighter future through their skills and knowledge in digitalisation and sustainability.

Connect with her in LinkedIn:

https://www.linkedin.com/in/kavitha-sri-annathurai-146aa320b/

SINGAPORE GREEN BUILDING COUNCIL

gmap.sgbc.online

Accrediting Green Building Professionals

The SGBC Green Mark Professional Qualification Scheme succeeds the BCA Green Mark Specialist programme and aims to uplift, upskill and recognise green building competencies of professionals active in the built environment sector.

Certification Types

Green Mark AP

The Green Mark AP certification qualifies industry professionals with the knowledge and expertise needed for the implementation of Green Mark projects.

- Green Mark Accredited Professional *(Green Mark AP)*
- Green Mark Advanced Accredited Professional *(Green Mark AAP)*

Green Mark AP (FM)

The Green Mark AP (FM) certification qualifies industry professionals with the knowledge and expertise needed to maintain and operate green buildings.

- Green Mark Accredited Professional (Facilities Management) *[Green Mark AP(FM)]*
- Green Mark Advanced Accredited Professional (Facilities Management) *[Green Mark AAP(FM)]*

Continuing Professional Development

A key feature of the SGBC Green Mark Professional Qualification Scheme is the establishment of a Continuing Professional Development (CPD) framework for all Green Mark APs. Through a host of meaningful programmes and activities, Green Mark APs are able to remain abreast of industry trends and stay ahead of sectoral developments.

Green Mark AP certifications are renewed annually upon fulfillment of the renewal requirements.

Renewal requirements **for Green Mark AP and Green Mark AP (FM)** → **12** SGBC-GMAP CPD Points

Renewal requirements **for Green Mark AAP and Green Mark AAP (FM)** → **18** SGBC-GMAP CPD Points

About the scheme | Upcoming CPD activities | Renewal Requirements | Frequently Asked Questions

Singapore Green Building Council
Block H Level 2, BCA Braddell Campus
200 Braddell Road, Singapore 579700

Tel: (65) 6732-5518
Email: gmap@sgbc.sg

Sansan DX Roundtable & Sake Appreciation Evening

The built environment industry is one of Singapore's key economic pillars, and is projected to grow the most in 2022 amongst all sectors, according to a MAS survey last December. Five months on, work measures are easing back to normal and many firms in the construction and facilities management sector have their hands full keeping up with project schedules and manpower crunch.

One of the keys to remain competitive and relevant in the new economy remains "Digital Transformation". But most still struggle to make sense of the term's true meaning for them, and more critically, have no idea where to start.

On Friday, 27 May, Sansan Global organised its first Digital Transformation (DX) Roundtable, with industry leaders in attendance, ranging from Building & Facilities Maintenance, Building Contractors to Civil Engineering Services and more.

Throughout the pandemic, Sansan Global has been helping companies within the built environment to work smarter through digital technologies and partnering them to manage the digital change mindset within their teams.

The roundtable's main objective is to bring together leadership peers from multiple disciplines and facilitate high-level dialogue on digital transformation.

The main conversations were led by Sansan's Regional CEO Sansan Edward Senju, as participants exchanged insights with one another on their company's immediate, short-term and long term digital priorities. Ultimately, the key questions involved what DX really meant to each company, the challenges that can arise, and the strategies and solutions that can be recommended to address these challenges.

The event's proceedings took a turn towards a more relaxed tone, as sumptuous Japanese fare was served for dinner, and attendees enjoyed a hugely informative and fun sake tasting workshop afterwards. The different sakes signified the various aspects and ways to approach DX, and the session eventually wound down as the attendees enjoyed in-person networking with much cheer.

All in all, the Sansan team is heartened by the warm response to the event and positive feedback.

Learning about Sake, which is fermented alcohol made from Japanese Rice, containing water, rice, yeast, koji (a type of fungus), and a lot of umami. Its official name is known as Seishu or Nishonshu, and it is the national drink of Japan.

Industry leaders at the digitalisation roundtable discussions. Jack Oei from Success Forever Construction and Maintenance Pte Ltd shares his thoughts about digitalisation.

Edward Senju, Regional CEO at Sansan Global, provided closing thoughts on digitalisation trends in the construction industry, referencing the concept of digital kaizen.

The event was co-organized with the Singapore Institute of Building Limited and featured industry leaders from across the Built Environment, such as consultants, main contractors, sub-contractors

The event was held in co-working space One & Co at Twenty Anson. Five types of Sake were introduced as part of the cultural appreciation evening: Imayotsukasa Junmai (Sake #1), Toko Junmai Ginjo Genshu (Sake #2), Eikun Junmai Daiginko Ichigin (Sake #3), Kiminoi Junmai Daiginji Yamahai (Sake #4), Daishichi Junmai Daiginjo Horeki (Sake #5).

Drinking buddies (from left):
David Tang from Bespoke Builders, Sean Lee from E-Tech, Edward Senju from Sansan, Jack Oei and Ben Phua from Success Forever Construction & Maintenance Pte Ltd

Sake top-ups were generously served to merry participants celebrating Friday evening.

If you're interested to find out more about this DX Roundtable's key insights and are keen to explore future runs of Sansan's DX Roundtable sessions, do reach out to the team at sansanglobal@sansan.com

For now, Kanpai to many more to come!

SIBL launches Sustainability Game Terra 2236 to drive environmental awareness

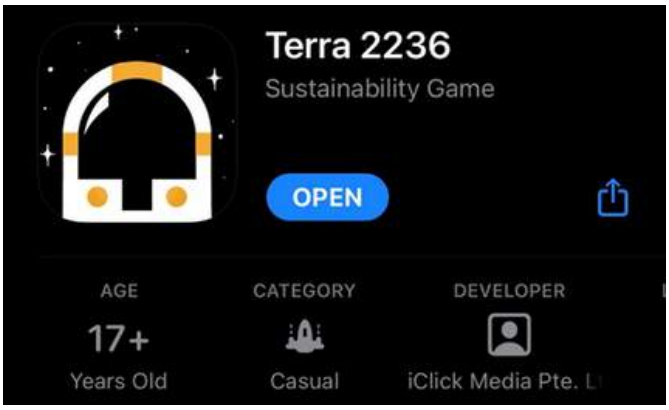
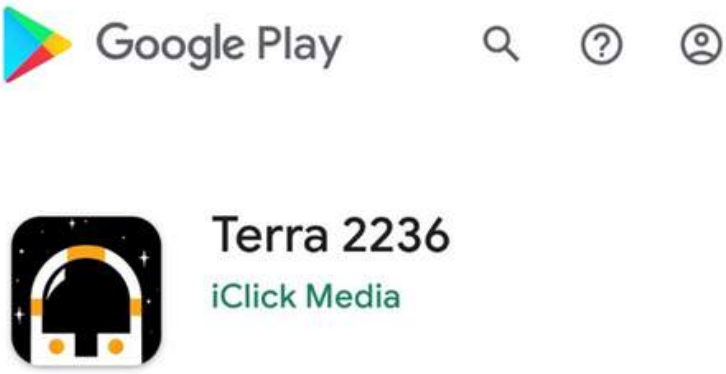
As part of the Singapore Institute of Building Limited's (SIBL) effort to support the SG Green Plan 2030, SIBL, together with our collaborators iClick Media and GreenA Consultants has embarked on an initiative to increase environmental awareness among the Woodgrove Community through gamification - Green Living Through App Based Education and Gamification.

We are proud to announce the launch of our mobile game app, Terra 2236. Imagine the year 2236 and you are an astronaut who lands on an uninhabited planet .

Come and join us on this futuristic adventure, where you will learn about sustainability concepts while exploring the terrains of the ocean, dried river bed and overgrown city.

The mobile game app is available on both iOS and Android devices.

Download the Terra 2336 game below by clicking the following link or scanning the QR code now!

Download Terra 2236 on iOS Apple Store	Download Terra 2236 on Android Google Play Store
	
https://apps.apple.com/sg/app/terra-2236/id1621483694	https://play.google.com/store/apps/details?id=com.iClick.Terra2236

Remember to like our Terra 2236 Facebook and Youtube page!

Have something to tell us? We'd love to hear from you!

Write us at admin@sibl.com.sg