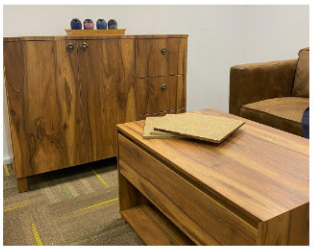
Green Pulse

A Publication from Green in Future, Singapore

Volume 5 Issue 22 · 2021 · www.greeninfuture.com

CONTENTS

Volume 5 · Issue 22 · 2021



SPECIAL FEATURE
WOOD WITH NO WOOD - REIMAGINEME ..... Page 1

FACE TO FACE
Page 4 ..... INTERVIEW WITH DR. ANDREW CHEW

NEWS FEATURE

Urban Sun - world's first urban sun cleans public
space of corona virus for better human gatherings ..... Page 9

Wheel-U Project - An interview with
Page 12 ..... Mr. Mark Feng (Design Odyssey)

Project Mad - An interview with
Ms. Nirit Ellenbogen (Team Lead) ..... Page 15

Page 17 ..... EVENTS CALENDAR

" WOOD FROM NO WOOD "

"Same attributes, naturally friendly"

Along with MPOB – Malaysian Palm Oil Board (a Malaysian government body, research institute and certification body), we have developed the technology to produce the direct replacement for traditional plywood as a base material for wood working and furniture.

CHANNELING URBAN WASTE TO BUILDING NECESSITY

Around the world, plywood continues to see a burgeoning demand as one of the most important base materials for high quality woodworking and furniture in the building and construction industry. Put simply, the global plywood market was worth about US$38 billion in 2017, and is projected to grow to US$54 billion by 2023, according to a Market Research firm IMARC Group.

More logging and illegal logging, becomes more rampant with the growing needs of plywood as a base material in wood working/furniture and building/construction industries. While plywood alternatives like compressed particle board and medium density fibre board are widely available, they do not replicate plywood's engineering properties closely enough to serve as replacements.

In addressing this issue, Reclaims Global, a construction services company, specialising in customisation of excavation solutions, logistics and recycling construction and demolition waste is exploring ways to capitalize on its green credentials. Reclaims is embracing green technologies that may convert organic waste or solid waste into value added products.

" We're really excited about this, because we have the opportunity for a blue ocean strategy, a product with the potential to create a whole new marketplace with no competitor "

- Dr. Andrew Chew (CEO and Executive Director of Reclaims Global)

Reimagine Mother Earth

Started in 2009, Reclaims Global has a vision to develop a holistic business enterprise that contributes significantly to reversing global warming, and dialling back climate change. As part of this effort, the company gave birth to ReimagineME, inspired from "Reimagine Mother Earth" in December 2019.

With a fundamental philosophy of reclaiming the "green" in all urban and organic waste, ReimagineME, together with the Malaysian Palm Oil Board (MPOB) jointly developed a new technology process, an invention to produce a revolutionary panel/board that is a direct replacement for the conventional plywood, OPLY.

This new 'green' technological invention is the company's 'blue-ocean' strategy, and it has been registered with the patent office in Malaysia. OPLY exhibits similar mechanical properties to conventional plywood and in some instances, superior to conventional plywood. Critical parameters for woodworking and furniture manufacturers like bending strength, dimensional stability, face and edge screw pull test, OPLY is superior to plywood. And unlike plywood, OPLY is formaldehyde free or NAF – no added formaldehyde which is important in the decision of consumers today.

OPLY is truly both a recyclable material and also a renewable material. Made from Empty Fruit Bunch (EFB) Fibre, it is the biomass waste of the Palm Oil Industry, the biggest organic waste of the field. The Palm Oil industry produces about 8 million tons of biomass waste annually, a major problem to resolve for the industry. However with this innovation, biomass waste is no longer a waste. In fact, it is now a valuable resource/raw material to be returned back to the economic cycle.

OPLY is a panel made from 'no wood', it is green, it is organic, it is a direct replacement to traditional plywood.

OPLY's impending first factory in Segamat will have an annual production capacity of 36,000 cubic metres. This translates to saving natural forests from logging the size of about 230sq km, size of Malacca or the greater part of KL, or almost a quarter of Singapore. With this production capacity, OPLY will save GHG emissions or CO2 upto 2,200 tons per day. More importantly, Malaysia will be able to re-balance the negatives of the palm oil industry with a progressive positive compensating and complimentary "green' initiative.

Dr Andrew Dekguang Jhou Chew,
Executive Director and Chief Executive Officer

1. What was the inspiration behind ReimagineME?

My mother who is my idol is a great woman, she spent more than 50 years of her life in volunteer and charity work, helping the less fortunate women in our society and underprivileged children in our community. She was involved in the YWCA, SCWO and CWA, all the significant women social organisations that made a difference to women and children in our society. As a child, I used to follow my Mum, to YMCA to put price tags on used clothes in the thrift shop. As I grew older, I longed to do something more meaningful for humanity, for Mother Earth.

We live in this planet, the Mother Earth. So the greatest gift we can give humanity is to protect and preserve Mother Earth for future generations. I believe that for those of us who can, we have the responsibility to do what needs to be done for the betterment of the human race and Mother Earth.

ReimagineME is about giving back to Mother Earth. It is about preserving the declining forests around the world on the 29% of the land mass that makes up planet Earth with the rest being water.

Reimagine a world that does not have to log trees to produce 'wooden' furniture. OPLY is a revolutionary new material that uses palm biomass waste as a resource to make 'wood from no wood', to produce a direct replacement for conventional plywood. It is truly a blue-ocean.

2. The Palm Oil Industry has always been under spotlight due to its high amount of waste. What do you think was the biggest challenge behind this technology invention and what could have stopped others from coming up with this initiative?

We are not the first to attempt using the biomass waste of the palm oil industry to try to create a material and or a product. For the past 15 years, many Malaysian companies have tried to invent and create a material or product, however, all have failed. Malaysian Palm Oil Board (MPOB) spent the past 15 years trying to develop solutions to the palm biomass waste, unfortunately, without any measured success.

The greatest challenge behind this technology invention is approaching palm biomass waste as a resource and not as a waste. It is respecting the fact that the waste has many innate positive properties. The greatest challenge is to figure out just how to capitalize and energize these properties in our favour because these same properties start out as obstacles, issues, and problems if we do not see it as a resource.

The palm oil industry has always been under the spotlight in the international scene as one of the culprits of deforestation. Animal lovers condemn the palm oil industry for killing the habitat of the orang utans, which is debatable. And of course, as the palm oil industry is a core economic pillar of the Malaysian economy, it consequently, produces a fair amount of waste.

Take for example, the palm biomass waste has three problematic issues; the 'bird nest' entangled nature of the waste, the residual oil content, and the residual moisture content, these three issues or problems posed insurmountable obstacles for all who tried earlier. Malaysian Palm Oil Board (MPOB) spent the past 15 years trying to develop various solutions to the palm biomass waste with some measured success. We are privileged and head researcher, Zawawi Ibrahim who spent the past 15 years in MPOB developing solutions to the palm biomass waste. We took a few steps backward and moved forward thinking totally out of the box and approached the palm biomass waste as a resource rather than as waste. In 9 months, we invented OPLY.

" Inventors are good at inventing and entrepreneurs are good at commercialising "

OPLY is the solution to the waste problem of the palm oil industry. Currently, the palm oil industry will either throw back the waste to decay in the plantation as **'fertilizer', but it** releases methane and hence, increases CO2 or they are just burn it, which again increases CO2. It is important to highlight that it is crucial for commercial enterprise to work closely with inventors right from day one. Inventors are good at inventing and entrepreneurs are good at commercialising. Together, we can research, develop, and create a new product that is complex enough to prevent 'copycats', and yet, economical, and viable to produce, we will continue to deepen our relationship with MPOB as we strongly believe that there are many other possibilities of inventions that we can develop together.

3. What's the next big thing that ReimagineME has in store?

Learning from the success of inventing OPLY, we will challenge ourselves to create the next

blue-ocean strategy, that of replacing precast concrete wall with a modular prefab 'green' wall using OPLY. OPLY as it is now, exhibits acoustics insulation properties and thermal insulation properties. We will need to strengthen OPLY without increasing the use of resin and develop a low cost and easy to install modular system that will allow us to like 'lego-blocks' build a wall in minutes.

Precast concrete walls are heavy, unproductive to transport and environ--mentally unfriendly to produce. What if tomorrow a semi-trailer brings in a 40-foot container, then, you lift it up to the floor of a condominium that is currently being constructed. Open the container and you have all the prefab 'lego-blocks' of GWall, take it out of the container and within minutes you would have built a whole series of walls.

4. ReimagineME is part of Reclaims Global, a company that dwells in construction, specialises in recycling of construction and demolished waste. What are the common industrial wastes that could've been developed as the next blue ocean?

I am embarrassed to say that I have not really looked at the recycling and upcycling potential of construction and demolition waste. Currently, the old concrete are crushed into aggregate and recycled to augment new concrete. The old steel rebars are sold to foundries that melt them and reproduce rebars again. Aluminums the same way, and glasses as well. I'm not so sure at this moment whether there is any further 'blue-ocean' opportunities for recycling construction and demolition waste.

In the near future, what we are interested to do at Reclaim is to diversify into small scale landed home property development, that is, designing a 'green' friendly home and incorporating a gamut of recycled and renewable materials in the overall construction of the homes. To incorporate energy efficient materials and to reduce the CO2 footprint.

5. What global impacts can we expect from OPLY 5 years down the line?

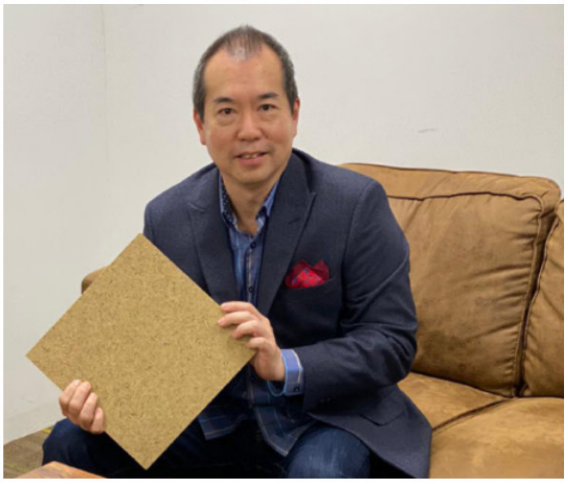
As it stands, the first factory of ReimagineME will have a production capacity of about 36,000cbm annually. This translates to saving natural forests from logging the size of about 200sq km. Potentially, we will also be saving and harvesting CO2 in the magnitude of up to 2,300 tons per day. If all goes well, and we are able to execute the second factory with a production capacity of 360,000cbm annually by 2024, then, the savings to deforestation and dialling back CO2 will be tenfold.

6. In your opinion, in the context of Southeast Asia where economic development is most rampant, which market will benefit most from the green invention of OPLY?

It is interesting that you bring up Southeast Asia. May I enlarge the geography to include the world? What is interesting today is that there exists a conundrum between developed countries and emerging countries. Developed countries do less in the areas of recycling but contribute more to waste and CO2. Conversely, emerging countries because of their lagging development and more importantly, a higher proportion of poverty and inequality of income, do more recycling and repurposing waste as a necessity and contribute less CO2.

Countries like Thailand are using bamboo to build homes. Philippines and India are using recycled plastics to make crude building blocks to build low-cost housing. India is using filtered cooking oil as biofuels to power commercial vehicles. It is also using ash to make 'eco-ash-bricks' to build low-cost housing.

replacement for conventional plywood and it is a fundamental basic material, therefore, regardless of whether it is a developed country or an emerging country, in both instances, they will need to buy and use plywood or in this case OPLY. Countries and responsible governments who are promoting 'green', will certainly benefit from OPLY. These countries have 'green' friendly tax systems that encourage commercial enterprise and consumers to use 'green' materials or products.



7. Having been in the banking sectors for the last 17 years, what about the construction industry that excites you the most to want to make the switch?

My stepping into the building and construction industry was not due to reasons related to the industry. In truth, it is the founders of Reclaims Global Limited; best of friends, Mr. Chan and Mr. Tan. Our Chairman, Mr. Chan was the one that planted the 'seed of green' when he and Mr. Tan incorporated Reclaims Enterprise Pte Ltd 11 years ago, when they did their first recycling of construction and demolition waste project. Our Chairman, Mr. Chan wanted to do more 'green' activities in the industry, which is also why our corporate colours are 'green' and our Chinese name is 'green'. In other words, Mr. Chan planted the 'seed of green'. I was introduced to Mr. Chan and Mr. Tan back in December 2017, we agreed to journey together to do three initiatives; one, IPO the company so that we can create more value two, go downstream to do more mechanised and 'green'construction activities and three, diversify into green technology-driven businesses. Reclaims Enterprise Pte Ltd was restructured and IPO as Reclaims Global Limited in March 2019.

To the initiative of green technology driven businesses, we would either acquire businesses with green technologies, or develop green technologies organically, or collaborate to develop green technologies. ReimagineME is the first successful initiative of collaborating to develop green technologies.

8. With more organisations taking the venture to comeup with green initiatives, what do you think could have been done more to further curb environmental degradation?

The time that I have spent in Malaysia the past few years has been an eye opener. I am amazed and envious that the Malaysian government is so pro-green. In 2011, Malaysia set up Greentech Malaysia to promote 'green' technology initiatives and provided tax exemptions, grants and loans. Recently, it was re-structured, and it is now called Malaysian Green Technology and Climate Change (MGTC) to capture an enlarged scope to include climate change activities.

Respectfully, I would like to see such an initiative here in Singapore. After all, we were the former head of ASEAN and is still one of the leading countries in South East Asia. we should assume a leadership role in the region for 'green' initiatives, global warming, and climate change activities.

I believe in positive reinforcement, positive incentives, the cultivation of positive mindset and the nurturing of positive culture towards being 'green', doing 'green' and embracing 'green'. Positive begets positive. The best and lasting way of curbing environmental degradation and reducing waste is to nurture a culture.

" WORLD'S FIRST URBAN SUN CLEANS PUBLIC SPACE OF CORONAVIRUS FOR BETTER HUMAN GATHERINGS "

Imagine a better place where we can meet again

ROTTERDAM, The Netherlands-Inspired by the light of the sun, and backed by scientific research that proves a new, specific light can safely clean up to 99.9% of the coronavirus, Studio Roosegaarde launches the world's first Urban Sun today.

Daan Roosegaarde and his team of designers, external experts, and scientists challenged themselves to discover how the power of light can be used to combat viruses and therefore enhance our well-being. Research shows that though traditional 254nm UV light is harmful, the new far-UVC light with a wavelength of 222 nanometers can actually sanitize viruses safely.

Urban Sun, a project in development by Studio Roosegaarde, shines a large circle of this far-UVC light into public spaces, cleaning those spaces of the coronavirus. It acts as an additional layer of protection to current government rules. Urban Sun aims to inspire hope. It combats the negative impact of social isolation by aiming to improve cultural gatherings, sporting events, public squares, and schoolyards.

Urban Sun's initial launch took place alongside Rotterdam's most iconic landmark, the Erasmus Bridge. The project debuts as a movie première at StudioRoosegaarde.net with the potential for future exhibits. The project is supported by researchers and experts from all over the world and is based on scientific papers written at Columbia University and Hiroshima University.

Jet Bussemaker, President of the Council of the Public Health & Society Board, the Netherlands' independent parliamentary advising body, praised the project: "It is inspiring. People are tired of COVID19. What we need is courage to find new solutions, to get in touch with each other, and create some intimacy. That is what Urban Sun is doing."

Designing solutions

Studio Roosegaarde has been researching the power of light for many years. The self-funded Urban Sun was begun in 2019. The COVID19 pandemic made the project much more urgent. Urban Sun connects design with science to provide innovative solutions to create spaces for people to meet and exchange in a safer and a more humane way. Urban Sun can be exhibited in any type of public space and serves as a call to action to governments and partners to speed-up and upscale applications.

Creation

Urban Sun is created by Roosegaarde's team, along with external experts and scientists from the Netherlands, the US, Japan, and Italy. The Urban Sun's far-UVC light source is measured and calibrated by the Dutch National Metrology Institute VSL. Urban Sun meets the International Commission on Non-Ionizing Radiation Protection (ICNIRP) safety standards.

The science behind Urban Sun is based on multiple peer-reviewed journal articles authored by scientists from Columbia University and Hiroshima University. The research shows that specific ultraviolet light (far-UVC) with the wavelength of 222nm can reduce the presence of viruses, including various strains of coronavirus and influenza, up to 99.9%. Even though traditional 254nm UV light is harmful, this specific light of 222nm is considered safe for both human and animals.

Daan Roosegaarde: “Suddenly our world is filled with plastic barriers and distance stickers, our family reduced to pixels on a computer screen. Let’s be the architects of our new normal and create better places to meet and interact.”

Authorities about Urban Sun

Leading authorities are enthusiastic about the project and are describing it as hopeful, promising and full of courage: - Carlo D’Alesio from MEG Science and Professor at Politecnico di Milano: “Virtual simulations indicate a positive impact of the Urban Sun in reduction of airborne coronaviruses in public spaces.“

- **Matthew Hardwick** PhD, President at ResInnova Laboratories, Washington D.C., who works with his team of virus experts and microbiologists: “Use of 222nm far-UVC in public space, as in Urban Sun, should prove to be both safe and effective.”

- **Professor Karl Linden**, award winning innovator in UV technologies and founding board member of the International Ultraviolet Association (IUVA), Colorado: “Urban Sun is inspiring. It will make enjoying public spaces safer and I look forward to visiting locations where this far-UVC sun is shining.

An interview with **Mr. Mark Feng**, DESIGN ODYSSEY. SUTD-MIT International Design Centre; Project on Wheel-U

Wheel-U is a passion project turned into a social enterprise idea aiming to bring greater independence to the wheelchair community in Singapore, by reducing their reliance on wheelchair friendly facilities in public. Throughout the city, wheelchair facilities exist, but are not always readily available, which reduce a wheelchair user's ability to carry out day-to-day activities. While the wheelchair is an indispensable equipment to this community, it has the potential to provide much greater support to the user.

1. What inspired this project, and how did you identify this opportunity for contributing to social sustainability?

Wheel-U was inspired by our participation in a social innovation programme held in our university, SUTD by Design Odyssey - our school's very own social innovation club for students. This programme was called DRIVE, and we were encouraged to pursue projects in themes such as the Environment, the Elderly and Healthcare.

Through the DRIVE programme, our team had volunteered at THK Nursing Home and interacted with the elderly there, most of whom were on wheelchairs, which inspired us to create wheelchair assistive devices for them. Later on, we were given an opportunity to collaborate with national paralympian Mr Jason Chee for our project, so we thought - why not go further? We are incredibly thankful for Mr Chee's help and support in guiding our project, and allowing us to understand our target user's pain points and needs. To us, Wheel-U is not about the results we've achieved, but instead the humbling, heartening and meaningful process of creating a sustainable solution for our friends in the community.

2. How do you think your project has developed the love that locals have for Singapore?

Our project hopes to promote inclusivity amongst Singaporeans. By developing assistive devices for wheelchair users, it enables them to become more independent in their daily activities. This bridges the gap between wheelchair users and the physically abled, since wheelchair users can now feel more assured carrying out everyday activities, allowing them to be more self-reliant. We believe this project develops the love that locals have for Singapore by promoting a more thoughtful and supportive community for the wheelchair users. Through developing these assistive devices, we hope to encourage the community to not only acknowledge, but show more care and concern for the wheelchair users and differently abled individuals around us, to build a more inclusive environment for all.

3. How did you find out about COLA and what attracted you to apply for it?

We were encouraged to apply by our kind programme directors at Design Odyssey, who really believed in our project. When we searched up more on the award itself, we were appealed by how much it aligned with our project's aim to provide equal opportunities to wheelchair users and improve their quality of life, which ultimately led us to taking the leap and applying for the award. We are very grateful to the team at COLA for acknowledging our efforts and for the opportunity to inspire other like-minded individuals to start showing a little more love for their community!

4. What advice would you offer to potential applicants who are keen to start their projects?

Starting out on new projects may appear daunting at first—perhaps not knowing where to start, or where you would go with the ideas in your mind. But if we had to give advice to anyone who is interested in embarking on a new project, we believe that the greatest advice would be to not be afraid of failure, and to believe in the process, not the result.

While it may sound cliche, when our team first started out, we were also often hesitant and worried about the success of our project. We had experienced our fair share of failures and hardships, be it in physical prototyping or testing our prototypes with Mr Jason Chee, but it was through these experiences that we came to truly appreciate the growth we had from trying over and over again. Even now, we continue to learn and improve on our ideas - we still make mistakes in prototyping but what matters is that we've gotten past our initial fear of failure and persevere in working towards perfecting our final product!

Through interacting with Mr Jason Chee, we have also gained many meaningful insights after each prototype testing session with him,

and got to know him better as a person as well. We believe our project is not about creating the best wheelchair assistive device, but is instead about taking proactive steps towards understanding and seeking to meet the needs of this community. It is this belief in helping the wheelchair users community that continues to motivate us today, rather than the success of our prototypes.

So if you're thinking of starting a new project, don't be afraid to fail! Only through failing will you get to really grow and get better at what you do. You will find that the greatest motivation comes from finding meaning in your work.

5. What would be the next area you would like to be part of transforming in Singapore to make it a more lovable city?

While studying in university, we realise many students face difficulties coping with their school work, and subsequently developing negative thoughts and feelings of depression. However, although our current society still largely treats mental health as a taboo topic, there has been much improvement over the years in this space. Thus, the next area we would possibly like to look at is in normalising awareness and importance in taking care of our own mental health, especially amongst students who may have difficulties coping with the stressful education system in Singapore. With more emphasis placed on improving and caring for our own, as well as others' emotional, psychological and social well-being, we hope that can be the next step in making Singapore a more loveable city.

An interview with Ms. Nirit Ellenbogen Team Lead of Project Mad in Singapore & North Bridge Road; won the Distinguished awards by Nanyang Polytechnic School of Design & Architecture

1. This project expanded opportuni -ties for more people. What inspired this project, and how did you appeal to design students to participate?

MAD in Singapore students' summit was initiated and conceived from the objective to engage design students from different levels of education, and to invite them to experience how Social Innovative Design Actions, can be initiated and implemented by ground up activities and by students, and how these initiatives can create positive impact at selected public spaces in Singapore.

Another objective was to bring students, industry experts and stake holders from the various communities, together, to get to know each other, to work together, and to witness the power of collaboration. As the main objective was to let the students experience SELF INITIATIVE, we aimed to motivate them, by the opportunity to receive grants to implement the projects they would conceive instead by the common award of grades or other rewards.

As educators, we realized that design students would appreciate the opportunity to initiate real life projects and even receive grants, if being successful, in order to execute them, as this is not a common opportunity for them, in most design schools.

We decided to facilitate this to happen with a 3 days summit, and students were also motivated by the opportunity to meet and collaborate with each other, with industry experts and to be inspired by key industry leaders as speakers.

We learnt that students appreciate competitions, but this competition was different, as instead of the usual few prizes to be won, we decided not to limit the amount of awards, and the only condition to win, was to produce an appealing design proposal. We believe that this principle assisted in motivating the students to participate, and also contributed greatly to foster a true collaboration spirt during the 3 days design incubator.

2. How do you think your project has developed the love that locals have for Singapore?

MAD in Singapore's programme, requested the participants to examine public spaces in Singapore and to identify and explore how these spaces could be better used and to rethink how to reprogramme them and make them more lively and loveable.

We believe that the engagement with a public place, whether as designer or the user, is holding a great capacity to nurture and to enhance our love to Singapore. The community garden at North Bridge Road, is engaging encouraging the residents to engage with their public place and the fact that they have developed ownership for it is a sign of attachment and love.

3. How did you find out about COLA and what attracted you to apply for it?

Nanyang Polytechnic, School of Design, has applied and awarded with COLA awards in the past, and as we appreciate the opportunity to be recognised, it was natural for us to apply again. We appreciate COLA's values and mission as educators.

4. What advice would you offer to potential applicants who are keen to start their projects?

We would like to advise potential applicants not to be afraid to dream, even if their idea seems impossible or very challenging to achieve. If one believes in his or her good cause, they should have the courage and determination to make that happen.

MAD in Singapore was conceived and made possible with very little resources. We had little budget and had to rely mostly on our own passion, hard work and determination.

As we believed in our good cause, it was not difficult to convince other schools and industry partners, to join and contribute their time, talents and efforts, while the only compensation we could offer was the opportunity to be part of an inspiring social initiative.

5. What would be the next area that you would like to see or be part of transforming in Singapore to make it a more lovable city?

As educators, in the way we teach and operate, we would like to continue to nurture and inspire the young generation to be initiative, to care for the country and society and to see their primarily purpose in becoming designers, in making our lives in Singapore, better.

EVENTS CALENDAR

SPOT LIGHT ON UPCOMING EVENTS

31 May to 2 June 2021	Energy & Sustainability Forum 2021, Online. https://europetro.com/event/358
19–20 May 2021	Rethinking materials, Virtual - United States of America. https://rethinkingmaterials.com/speakers/
15–17 June 2021	ASEAN Super 8 , Kuala Lumpur Malaysia. https://www.super8asean.com/
17–18 June 2021	Indo Pacific Flexible Packaging Virtual Summit 2021 Online - Indonesia. http://www.apexevents.cn/ipfps2021/
20–24 June 2021	Singapore International Water Week - Singapore. https://www.siww.com.sg/
20–24 June 2021	CleanEnviro Summit Singapore - Singapore. https://www.cleanenvirosummit.gov.sg/
22–23 June 2021	Future Food-Tech Alternative Protein Summit2021, Virtual - United States of America. https://www.futurefoodtechprotein.com/
20–24 June 2021	World Cities Summit - Singapore. https://www.worldcitiessummit.com.sg/
30 June – 2 July 2021	Future Energy Asia Exhibition & Conference, Bangkok - Thailand. https://www.futureenergyasia.com/

GEO CONNECT Asia 2021

Global Solutions for Asia's Geospatial & Location Intelligence Markets

Hybrid Experience

Wednesday 24th & Thursday 25th March

Sands Expo & Convention Centre,
Marina Bay Sands, Singapore

Mapping the Data-driven Future Economy

Green In Future Readers are entitled to 20% off Conference Fees

BOOK YOUR TICKETS NOW!

Enter Promo Code:
GIFOn (In-person) / GIFVirt (Virtual)