



# **Shell Singapore | Media Release 2018**

1. Shell cooperates with Police investigation into suspected product theft from Bukom .....	3
2. Shell continues full cooperation with Singapore Police investigation into fuel theft .....	4
3. Futuristic cars compete in race for efficiency at Shell’s Make the Future Singapore festival.....	5
4. Singapore students come up top at Shell’s Imagine the Future Scenarios competition regional finals .....	9
5. Shell brings thought leaders together to discuss solutions to future energy challenges in Asia.....	12
6. Day 1 of Make the Future Singapore 2018 welcomes thousands.....	15
7. Shell’s Make The Future Singapore 2018 brings bright ideas and innovations to life....	17
8. Shell Eco-marathon Asia 2018 UrbanConcept Winners - NTU Singapore 3D-Printed Car Wins UrbanConcept - Hydrogen Category.....	21
9. Shell’s Singapore Teams Sweep Hydrogen Awards at Shell Eco-marathon Asia 2018.	25
10. Shell Singapore and ITE to ready graduates for industry with MOU .....	32
11. Update on Singapore Police investigation into fuel theft.....	34
12. Shell joins A*STAR’s Model Factory @ ARTC as anchor industry partner .....	35
13. Shell invests in additional propylene storage capacity at Jurong Island .....	36
14. Shell, Energy Experts And University Students Engage In Debate On The Future Of Energy.....	37
15. Shell Singapore Appoints New Country Chairman .....	40
16. Update on Singapore Police investigation into fuel theft.....	41

## **1. Shell cooperates with Police investigation into suspected product theft from Bukom**

Jan 08, 2018

Shell Singapore (Shell) is fully cooperating with the Singapore Police Force as it investigates suspected product theft from the Pulau Bukom Manufacturing site. Shell reported a suspected theft to the authorities after we became aware that we may have been the victim of a crime.

The arrests made by authorities include a limited number of Shell employees. All Shell employees are expected to comply with our Code of Conduct and to uphold the highest standards of ethical behaviour. Breaches are not tolerated and carry serious consequences, up to and including dismissal.

We won't comment further on the ongoing investigation. Our priority remains the safe operations of our site and care for employees and customers. We anticipate a short delay in the supply operations at Bukom, but at this point we expect to continue to meet our contractual supply obligations to customers.

## **2. Shell continues full cooperation with Singapore Police investigation into fuel theft**

Jan 09, 2018

Shell Singapore (Shell) can confirm that eight of the 11 men charged in court on 9 January 2018 are current or former Shell Eastern Petroleum (Pte) Ltd employees.

Shell reported a suspected product theft to the authorities after we became aware that we may have been the victim of a crime following an internal investigation. We continue to cooperate fully with the Singapore Police.

All Shell staff are expected to comply with our Code of Conduct and to uphold the highest standards of ethical behaviour. We will learn from this so we can continue to improve.

We cannot comment further as this is an ongoing investigation.

### 3. Futuristic cars compete in race for efficiency at Shell's Make the Future Singapore festival

Feb 22, 2018

**Make the Future Singapore**, a free festival of bright energy ideas and innovations for Asia, will take place at Singapore's Changi Exhibition Centre from March 8 to 11, 2018. Returning to Singapore for a second year, the public festival will be a platform for conversation, collaboration and innovation around the global energy challenge: how to generate more energy, while producing less CO<sub>2</sub> emissions.

- Make the Future Singapore returns for a second year, showcasing bright ideas and innovations that address the global energy challenge as part of a four-day free access festival.
- Shell Eco-marathon remains the headline act, with over 120 student teams from Asia Pacific and the Middle East competing in the Asian leg of this worldwide programme.
- 10 futuristic cars from Singapore will challenge their peers on the track with their own energy-efficient designs.

Shell Singapore looks forward to hosting the second edition of Make the Future Singapore. Committed to tackling the world's energy challenges, Make the Future Singapore is an important festival to educate everyone about the bright energy ideas and solutions that we can create together for a healthier planet. We invite you to join us at the festival as we learn, explore and journey towards a low-carbon future for Singapore and Asia," said Ms Goh Swee Chen, Chairman of Shell Singapore.

At Make the Future Singapore, virtual reality and hands-on experiences will take visitors on a journey to explore bright ideas from around Asia, see what is happening now to power our world and get a glimpse of what the future of energy might look like. They will be able to discover what it's like to generate electrical energy by dancing, play interactive games, build and race mini saltwater cars, and meet young scientists and energy start-ups.

Headlining the festival is **Shell Eco-marathon Asia**, where over 120 student teams from 18 countries across Asia Pacific and the Middle East will put their self-built energy-efficient cars to the test. One of the world's longest-running student competitions, Shell Eco-marathon is a global programme that challenges bright student minds to design and build ultra-energy-efficient cars, and then put them to the test in competition.

This year's Shell Eco-marathon Asia will see the largest Singapore contingent ever, with 10 futuristic cars from seven tertiary institutions competing to be the most energy-efficient. Contenders from Singapore include a first-time entrant in newcomer Temasek Polytechnic, new cars from institutions like Ngee Ann Polytechnic, as well as returning teams from universities such as Nanyang Technological University and Singapore University of Technology and Design.

#### Participating Singapore Teams

Schools	Teams Participating at Shell Eco-marathon Asia
Institute of Technical Education	1.ElectroLiTE 2.DIZEL ELITE
Nanyang Technological University	1.Nanyang E Drive 2. NTU Singapore 3D-Printed Car

Schools	Teams Participating at Shell Eco-marathon Asia
National University of Singapore	1. NUS Electric Eco Car
Ngee Ann Polytechnic	1.H2GO 2. NP-TurboAce
Republic Polytechnic	1. RP Mark 1
Singapore University of Technology and Design	1. SUTD EV Club
Temasek Polytechnic	1. TP ECO FLASH

Shell Eco-marathon Asia will include two key competitions this year. The longest running competition is the Mileage Challenge where teams compete to travel the farthest on the least amount of fuel. In 2017, the winning team of the Asian leg was efficient enough to travel 2,289 kilometres – the distance from Singapore to Chiang Mai, Thailand – on just one litre of fuel!

The second Shell Eco-marathon competition to take place this year in Singapore is **Drivers' World Championship Asia**. Introduced to the Shell Eco-marathon programme in 2016, Drivers' World Championship challenges the best UrbanConcept teams to combine the proven energy efficiency of their car with the speed and skill of their driver, in a race to see who can cross the finish line first on the least amount of fuel.

For the first time, Shell Eco-marathon Asia will welcome entrants from Kazakhstan, which will be represented by two universities. Students from Kazakhstan National Technical University will compete with a unique ethanol-powered car designed to perform under extreme weather and temperature conditions, mirroring Kazakhstan's diverse climate which ranges from -40C in winter to +40C in summer.

New at the festival this year will be **Make the Future Singapore Lates**, a special after-hours event on March 9, 2018 for those aged 18 and older. Adults have the opportunity to explore the festival at night, participate in discussions about our energy future during Let's Talk – an open-format casual forum – while enjoying live performances and unique food and drinks offerings. Lauv, the American singer-songwriter known for his hit tracks such as "The Other" and "I Like Me Better" will be headlining **Lates**. Having recently opened for Ed Sheeran on his Asia tour, Lauv will be back in Singapore to perform amidst his headline tour around the world. Local electronic pop artist Jasmine Sokko will also be playing at Lates.

Festival visitors are invited to experience a range of different activities:

- Watch as over **120 Shell Eco-marathon Asia student teams** compete to see who can travel the farthest on the least amount of fuel, culminating in the **Drivers' World Championship Asia**.
- Enjoy exclusive access to the **paddocks and technical inspection areas** and a behind-the-scenes look at innovative cars of the future
- Get your groove on at the **kinetic dancefloor** and discover what it is like to generate electrical energy just by dancing
- Get competitive as you build and race your own cars powered by nothing but **saltwater**
- Immerse yourself in virtual reality experiences and enter an **Energy Theatre** to experience what our future world will look like
- Challenge yourself to drive with optimum fuel efficiency at the **Shell Eco-marathon simulators**, and get a feel of what it is like to be a Shell Eco-marathon driver
- Swing your bat and learn about Liquid Natural Gas innovations during the **LNG Baseball game** equipped with virtual reality headsets

- Find out how some buses in London are being powered by waste coffee grounds at the **Bio-bean** station
- See how **Liter of Light** powers rural homes and villages in the Philippines with a solar panel and a bottle of water
- Explore the future of what is possible in truck design, fuel economy savings and CO<sub>2</sub> reduction through an augmented reality experience of **The Starship Initiative**
- Enjoy live performances by international and Singapore artistes including **Lauv, Gentle Bones, Charlie Lim, Jasmine Sokko** and **MICappella**
- Chat with young scientists and energy entrepreneurs at **The Bright Ideas Challenge and Shell #IdeaRefinery**

“Make the Future Singapore has more than just interactive exhibits, robust discussion forums, innovative science presentations by students and the highly-anticipated Shell Eco-marathon Asia. This year’s edition also features an evening segment called Make the Future Singapore Lates, where revellers will be entertained by both local and international acts. We hope that Make the Future Singapore will inspire the next generation to put their hearts and minds together, create innovative solutions and shape our collective future for a cleaner energy world,” said Mr Jason Leow, General Manager of External Relations, Shell Singapore.

As part of Make the Future Singapore, the fifth Asian edition of the Shell Powering Progress Together Forum will be held on March 8, 2018. The forum will bring together more than 150 leaders, young talents and representatives from business, government and society to discuss, debate and catalyse cross-border collaborations to tackle future energy challenges. Themed “Energy for Better Living”, the forum will be an immersive and open dialogue centred on Asian aspirations – balancing the needs of some of the fast-growing economies with the growing pressure on resources to make more and cleaner energy a reality in this region. Since the first forum in Rotterdam, Netherlands in 2012, Shell Powering Progress Together has evolved into a cross-market series of connected events that foster dialogues to help address future energy challenges.

Make the Future Festivals is Shell’s global platform for conversation, collaboration and innovation around the world’s energy challenges. With events hosted in countries around the globe, they aim to provide an opportunity for multiple stakeholders: including students, entrepreneurs, businesses, governments and the public, to experience, test and contribute bright energy ideas.

Make the Future Festivals has six Global Partners:

- Agility: Technical Partner
- Altair: Technical Partner
- HP: Festival Partner
- The Linde Group: Technical Partner
- Southwest Research Institute: Technical Partner
- Toyota: Festival Partner

Make the Future Singapore 2018 is held with support from the Singapore Tourism Board, Ministry of Education, Science Centre Singapore, Innosparks, Strides Transportation and Borneo Motors.

For more information on Make the Future Singapore and to register for free priority tickets, please visit.

### **Notes To Editors:**

To access previous event images, visit: [Shell Eco-marathon Albums](#)

Participating teams as of February 8, 2018

<b>Country</b>	<b>Number of teams</b>
Australia	2
Brunei Darussalam	3
China	4
Egypt	7
India	10
Indonesia	26
Japan	1
Kazakhstan	2
Malaysia	7
New Zealand	1
Oman	2
Pakistan	10
Philippines	17
Saudi Arabia	2
Singapore	10
South Korea	2
Thailand	13
Vietnam	7
<b>Total</b>	<b>126</b>



## 4. Singapore students come up top at Shell's Imagine the Future Scenarios competition regional finals

Mar 06, 2018

Shell provides a platform for discussion and innovation towards a cleaner energy future through Imagine the Future Scenarios Competition and #IdeaRefinery accelerator programme for start-ups



The Singapore team of Yale-NUS College was named the champion in a regional Shell scenarios competition yesterday.

Shell's Imagine the Future Scenarios Competition 2017/2018 received more than 12 entries from Singapore, Egypt and Thailand. The winning team was picked because of their rich references to history and comprehensive exploration of how technology, politics, society and individual choices will shape the future. How they developed plausible but very different futures impressed the judging panel comprising of Shell representatives Doug McKay, VP, Government Relations, Asia Pacific and Competition Advisor, and Phil Turley, Venture Director, as well as Constant van Aerschot, Executive Director, Business Council for Sustainable Development, and Mengmeng Cui, Manager, Accenture Strategy.

"Initially our team faced difficulty reconciling our multi-disciplinary approaches to scenarios formation. Over time, we realised that this was actually a strength for scenario-building. We are enthusiastic to see that the judges enjoyed our presentation and are very proud to take home our win," said Singapore team representative Joshua Phua. Other team members are Aditya Karkera, Jamin Jamieson, Adila Sayyed, Ann Chen and Wen Kin Lim.

The winning students will present their vision of 'A Binary World vs A Dispersed Planet' at the Powering Progress Together Forum in Singapore on 8 March 2018, as part of Shell's Make the Future Singapore festival of bright energy ideas and innovations for Asia.

The competition, in its second year, challenges young visionaries to develop contrasting scenarios based on the theme, "More and cleaner energy in Asia Pacific and Middle Eastern cities in 2050: How residents live, work, and play."

Through analysing trends and the trajectory of technological advancements, the students came up with plausible views of the future.

Dr Mallika Ishwaran, Shell's senior economist and energy policy advisor, says: "It is very interesting to see how young minds envision the future and how they can play a part in addressing the energy challenges of the future.

She adds, "Shell is a pioneer in using scenarios to develop possible visions and Shell Scenarios are 'what if' questions that stretch one's thinking to understand the opportunities as well as uncertainties that lie ahead."

### **About Imagine the Future Scenarios Competition**

Think smart grids and meters, real time data on transportation, centralised sources of energy, and devices that can read your mood and vital signs. The winning entries illustrated future possibilities to help envision how our cities would look like by 2050 and the impact that energy and technology can have on people's lives.

The top entries for this year's competition are:

#### **1st Prize: A Binary World vs A Dispersed Planet by Yale-NUS College, Singapore**

With variables such as the level of centralisation and access to private data, the Singapore team presented two contrasting scenarios on what the future will look like. While one scenario depicted a highly centralised world, with governments and big firms having access to private data, making it easy for them to provide convenient and fuss-free services, the second scenario showed empowered individuals with the autonomy to make their own choices – and even generate their own energy – free to exercise innovation and creativity and carve niches in society.

#### **2nd Prize: Adam Smith as President vs Elon Musk as President by the American University in Cairo, Egypt**

As for the Egypt team, their scenarios explore the role of governments in initiating mass projects versus entrepreneurship as the order of the day, with the government playing a support role in investment policies. In the first scenario, the government leads and regulates agriculture along with other sectors in society, using real time maps to advise farmers on which plants to grow in certain areas to advances in solar water system technology. In the second scenario which focuses on entrepreneurship, the people are provided spaces for research, leading to innovations such as smart fertilizers, use of artificial intelligence to monitor crops, and diversified sources of energy.

#### **3rd Prize: Idea City vs Economic City by Chiang Mai University, Thailand**

Focusing on population density, the Thailand team's first scenario is a city with low population density and an inspiring atmosphere. The abundance of green spaces lets the creative juices flow, coupled with smart technologies and a laid-back life which allows the city to keep its culture and traditions intact. Bustling with people, the second scenario takes us to a city with high population density. Modern technology combined with a highly advanced educational system enable fast exchanges on data and investments, helping the economy to flourish.

### **Imagination and innovation under one roof**

Shell's Imagine the Future Scenarios Competition is one of the highlights in this year's Powering Progress Together Forum.

Another interesting presentation will be by five start-ups that have been selected by Shell to take part in the inaugural Shell #IdeaRefinery – a 20-week accelerator programme focused on developing early stage energy-related start-ups into full-fledged commercial ventures with a strong societal impact.

The chosen start-ups – billionBricks, EnergyNova, Solarite, Tripledot Technologies, and Xnergy – will showcase and pitch their innovations to potential investors during the Powering Progress Together Forum.

Imagine the Future Scenarios Competition and #IdeaRefinery are two Shell initiatives designed to engage the thriving start-up industry in Singapore and today's millennials to think about and get involved in the progress towards more and cleaner energy in a lower-carbon world. These also underscore Shell's commitment to be a catalyst for innovation, collaboration and conversation about the region's shared energy challenge.

The Powering Progress Together Forum with the theme of "Energy for Better Living", will also feature a panel discussion focusing on current and future energy challenges and opportunities facing Asia. Among the panellists will be Dr. Cheong Koon Hean, Chief Executive Officer of the Housing & Development Board of Singapore, and Mark Gainsborough, Executive Vice President of Shell New Energies.

Themed "Energy for Better Living", leaders from both business and government sectors will share their perspectives and discuss strategies on making the global energy transition to a low-carbon energy future to manage the risks of climate change, while also ensuring that there is enough energy for economies to expand and people to prosper. These are some points which will get the discourse going.

### **About Powering Progress Together**

The fifth Asian edition of the Shell Powering Progress Together Forum will be held on March 8, 2018 as part of Make the Future Singapore. The forum will bring together more than 150 leaders, young talents and representatives from business, government and society to discuss, debate and catalyse cross-border collaborations to tackle future energy challenges. The Powering Progress Together theme for 2018 is "Energy for Better Living", and will be an immersive and open dialogue centred on Asian aspirations – balancing the needs of some of the fast-growing economies with the growing pressure on resources to make more and cleaner energy a reality in this region. Since the first forum in Rotterdam, Netherlands in 2012, Shell Powering Progress Together has evolved into a cross-market series of connected events that foster dialogues to help address future energy challenges.

### **About Make the Future Singapore**

Make the Future Singapore, a free festival of bright energy ideas and innovations for Asia, takes place at Singapore's Changi Exhibition Centre from March 8 to 11, 2018. Virtual reality and hands-on experiences will take visitors on a journey to explore bright ideas from around Asia, see what is happening now to power our world and get a glimpse of what the future of energy might look like. They will be able to discover what it's like to generate electrical energy by dancing, play interactive games, build and race mini saltwater cars, and meet young scientists and energy start-ups.

Make the Future Festivals is Shell's global platform for conversation, collaboration and innovation around the world's energy challenges. With events hosted in countries around the globe, they aim to provide an opportunity for multiple stakeholders: including students, entrepreneurs, businesses, governments and the public, to experience, test and contribute bright energy ideas.

### **Media Enquiries:**

Hsu Lin  
Ninemer Public Relations P L  
[hsulin@ninemer.com](mailto:hsulin@ninemer.com)

Hilary Espinosa  
Ninemer Public Relations P L  
[hilaryespinosa@ninemer.com](mailto:hilaryespinosa@ninemer.com)

## 5. Shell brings thought leaders together to discuss solutions to future energy challenges in Asia

Mar 08, 2018

Energy experts, policymakers, business leaders, students and young innovators from across Asia engaged in lively dialogue about solutions to the region's shared energy challenge at the 2nd Powering Progress Together Forum in Singapore

**Singapore, 8 March 2018** - Society faces a dual challenge: how to make a transition to a low-carbon energy future to manage the risks of climate change, while also extending the economic and social benefits of energy to everyone on the planet. In Asia, where urbanisation, living standards and population growth continue to increase, energy demand is higher than ever and is growing fast, with consumption levels increasing.



This was the key topic of discussion at the **Powering Progress Together Forum** that took place in Singapore today. Themed “Energy for Better Living”, the forum brought together over 150 people representing the brightest minds across diverse sectors of society together in an immersive dialogue centred on Asian growth aspirations and the imminent energy challenge facing the region.

Speakers included leaders from both business and government sectors: Dr Cheong Koon Hean (Chief Executive Officer, Housing & Development Board, Singapore), Steffen Endler (Senior Vice President, Siemens Pte Ltd), Mark Gainsborough (Executive Vice President, New Energies, Royal Dutch Shell), Alexandre Lalumiere (Director, Client Sales of 3D Printing, Asia Pacific & Japan, HP), and Nathan Subramaniam (Director, Sector and Projects Division, Independent Evaluation, Asian Development Bank).

Moderated by Jason Pomeroy, Founding Principal of the Pomeroy Studio, the discussion was lively but sobering. The panel shared their perspectives on how the global energy transition will require unprecedented collaboration between policy-makers, leaders from business and non-governmental organisations, and consumers. It also requires focusing on more than the promotion of renewables and energy efficiency as these only address specific aspects of the wider challenge.

Shell recognises the role of energy in enabling a decent quality of life. While technological developments will emerge, multi-sector collaboration to drive effective policy and cultural change is essential to drive low-carbon business and consumer choices and opportunities.

Now in its second year in Singapore, Powering Progress Together is an annual forum, where leaders and stakeholders gather to discuss ideas on how to address Asia's future energy challenges. The forum will also be held in London, UK and San Francisco, USA later this year.

According to the United Nations, continuing population growth is projected to add 2.5 billion people to the world's urban population by 2050, with nearly 90 per cent of the increase concentrated in Asia and Africa. In the fast-growing Asia-Pacific region, energy supply is expected to go up by 60 per cent by 2035 to meet the growing demand associated with the rapid urbanization, industrialization and economic growth taking place. As Asia rapidly urbanises, it needs to do so while reducing its carbon footprint.

Societies and governments thus face a dual challenge: how to make the transition to a lower-carbon world while also ensuring more and cleaner energy for economies to expand and prosper.

“Energy is a vital hidden ingredient in almost every economy, and cities are the biggest users of energy. Occupying less than two per cent of the world’s landmass, and hosting more than half of the world’s population, cities account for more than 60 per cent of global energy use today and this number is estimated to rise to 80 per cent by 2040. Fundamental changes need to happen across the global economy, especially in power, transport, buildings and industry which produce significant carbon dioxide emissions,” said Goh Swee Chen, Vice President, City Solutions – New Energies and Chairman, Shell Companies in Singapore.

She added, “Powering Progress Together is important because it is a venue for us to bring people with bright ideas together to discuss, debate and engage on the important topic of delivering more energy and cleaner energy.”

“We are living in an era of unprecedented urbanisation. The issue of sustainable development has rightly taken centre stage: much of the public debate on sustainability revolves around reducing carbon emissions and increasing the use of green technology for energy sources,” said Dr Cheong Koon Hean.

She added, “However, technology is only an enabler in solving the challenges associated with sustainable urban development. Sustainability can only be attained when a comprehensive and holistic approach is taken, starting with strategic planning choices on how we optimise our land and resources, and develop in an environmentally-responsible manner.

“Following this, we can harness the appropriate technologies to tackle urban and environmental issues. As a city state which is land and resource constrained, Singapore will have to turn to integrated urban solutions which strengthen the water-energy-waste nexus and supply part of our energy needs from renewable energy such as those generated from solar PV. We should also adopt smart technologies to help us to manage our urban services in a more energy efficient manner.”

The discussion continued with two roundtables, each designed to engage industry stakeholders on the following topics:

- **Powering Progress Together Roundtable on How Technology is Revolutionising Manufacturing and Supply Chain (in partnership with HP)** – How modern technology can be implemented to enable sustainable manufacturing and create efficiencies within the supply chain.
- **Powering Progress Roundtable on Accelerating Accelerators** – How corporates can partner governments, investors, and each other for a more collaborative accelerator space.

### **Bright energy start-ups at #IdeaRefinery**

Turning talk into action, this year’s Powering Progress Together forum also showcased promising Singapore start-ups selected in the inaugural Shell #IdeaRefinery accelerator programme by Shell Singapore, ImpacTech and NUS Enterprise that are developing new energy solutions in support of Singapore’s ambition to be a sustainable and smart nation. The start-ups are billionBricks, EnergyNova, Solarite, Tripledote Technologies, and Xnergy.

### **Students imagine the future of Asian and Middle Eastern cities**

Shell’s Imagine the Future Scenarios Competition brings together youths and millennials to discuss future possibilities and develop scenarios on how our cities would look like by 2050 based on this year’s theme, “More and cleaner energy in urban Asian and Middle Eastern homes in 2050: How we live, work, and play.”

A total of 84 university students and more than 12 teams from Singapore, Thailand and Egypt took part in the competition. The Singapore team of Yale-NUS College was named the champion at the regional finals that took place on Monday (5 March). The winning national teams from each

country shared their contrasting visions of future Asian and Middle Eastern cities by 2050 at this year's Powering Progress Together Forum.

### **About Powering Progress Together**

The fifth Asian edition of the Shell Powering Progress Together Forum will be held on March 8, 2018 as part of Make the Future Singapore. The forum will bring together more than 150 leaders, young talents and representatives from business, government and society to discuss, debate and catalyse cross-border collaborations to tackle future energy challenges. The Powering Progress Together theme for 2018 is "Energy for Better Living" and will be an immersive and open dialogue centred on Asian aspirations – balancing the needs of some of the fast-growing economies with the growing pressure on resources to make more and cleaner energy a reality in this region. Since the first forum in Rotterdam, Netherlands in 2012, Shell Powering Progress Together has evolved into a cross-market series of connected events that foster dialogues to help address future energy challenges.

### **About Make the Future Singapore**

Make the Future Singapore, a free festival of bright energy ideas and innovations for Asia, takes place at Singapore's Changi Exhibition Centre from March 8 to 11, 2018. Virtual reality and hands-on experiences will take visitors on a journey to explore bright ideas from around Asia, see what is happening now to power our world and get a glimpse of what the future of energy might look like. They will be able to discover what it's like to generate electrical energy by dancing, play interactive games, build and race mini saltwater cars, and meet young scientists and energy start-ups.

Make the Future Festivals is Shell's global platform for conversation, collaboration and innovation around the world's energy challenges. With events hosted in countries around the globe, they aim to provide an opportunity for multiple stakeholders: including students, entrepreneurs, businesses, governments and the public, to experience, test and contribute bright energy ideas.

### **Media Enquires:**

Hsu Lin  
Ninemer Public Relations P L  
[\*\*hsulin@ninemer.com\*\*](mailto:hsulin@ninemer.com)

Hilary Espinosa  
Ninemer Public Relations P L  
[\*\*hilaryespinosa@ninemer.com\*\*](mailto:hilaryespinosa@ninemer.com)

## 6. Day 1 of Make the Future Singapore 2018 welcomes thousands

Mar 08, 2018

Make the Future Singapore opened on 8 March 2018 where visitors explore the future of energy and bright ideas around the world; More than 120 student teams from Asia Pacific and the Middle East compete in Shell Eco-marathon Asia and bright minds gather to discuss ideas around “Energy for Better Living” at the Powering Progress Forum 2018.

### Day 1 of Shell’s Make the Future Singapore 2018 welcomes thousands

What are the type of energies that power our world today, and what could the future of energy look like? These are topics that visitors at today’s Make the Future Singapore experienced, along with exploring bright energy ideas from around the world.

On Day 1 of the festival, hundreds of school children and other visitors generated electricity on the kinectic dancefloor with their dance moves, and were thrilled to build and race their own cars powered by nothing but saltwater. Visitors were also able to explore bright ideas from around Asia, see what is happening now to power our world and get a glimpse of what the future of energy might look like.



The Starship Initiative – a co-engineering project by Shell Lubricants and AirFlow Truck Company – showcased the development of an ultra-energy efficient truck which aims to reduce carbon emissions produced by road freight transportation. Through augmented reality, visitors learnt how this new truck design would be able to save 1% in fuel economy – equivalent to removing 23,000 trucks from the road.

### More than 120 student teams from Asia Pacific and the Middle East to battle for efficiency

Today, teams put their self-built vehicles through a detailed technical and safety inspection before they will be allowed on the track to compete in Shell Eco-marathon Asia, part of a global programme that challenges bright young minds to design and build ultra-energy-efficient cars. There are two key competitions this year – the Mileage Challenge where teams compete to travel the farthest on the least amount of fuel, and Drivers’ World Championship Asia. The latter challenges the best UrbanConcept teams to combine the proven energy efficiency of their car with the speed and skill of their driver, in a race to see who can cross the finish line first on the least amount of fuel. Student teams will compete in three different categories based on their selected energy source: internal combustion engine (gasoline, diesel, ethanol), battery-electric power and hydrogen fuel cell.

Singapore will again be participating in the competition, with a contingent of 10 cars from 7 tertiary institutions competing to be the most energy-efficient. This year’s contenders from Singapore include a first-time entrant in newcomer Temasek Polytechnic, new cars from institutions like Ngee Ann Polytechnic, as well as returning teams from universities such as Nanyang Technological University and Singapore University of Technology and Design.

New kid on the block, Temasek Polytechnic’s TP ECO FLASH, developed and designed their hydrogen fuel cell in-house for their prototype car at Shell Eco-marathon Asia. A fan favourite,

Nanyang Technological University's NTU 3D Printed Car returns this year with a new energy source – hydrogen. Watch these teams compete for efficiency on the track.

### Powering the future

More than 150 bright minds representing diverse sectors gathered in Singapore to discuss ideas around the topic “Energy for Better Living” at this year’s Powering Progress Together forum. Dialogue centred around Asian growth aspirations and the imminent energy challenge facing the region, and underlined the importance of multi-sector collaboration in driving effective policy and cultural change to drive low-carbon business and consumer choices and opportunities.

Turning talk into action, the business forum also showcased promising Singapore start-ups selected in the inaugural Shell #IdeaRefinery accelerator programme by Shell Singapore, ImpacTech and NUS Enterprise that are developing new energy solutions in support of Singapore’s ambition to be a sustainable and smart nation. The start-ups are billionBricks, EnergyNova, Solarite, Tripledot Technologies, and Xnergy.

### Tomorrow’s highlights

- **Shell Eco-marathon Flag-off:** The regional competition will officially be launched tomorrow in a ceremony that will flag-off more than 120 teams from 18 countries around Asia Pacific and the Middle East.
- **The Bright Ideas Challenge Award Ceremony:** Find out who will be crowned the winner of this Singapore schools competition that challenges students to invent their own bright energy ideas.
- **Make the Future Singapore Lates:** At this specially curated evening event for those 18 years and older, adults will have the opportunity to explore the Festival at night, participate in discussions around the energy future in a “Let’s Talk” open chat forum, whilst enjoying live performances and unique food and drinks offerings.

Due to overwhelming response and space constraints, new registrations to Make the Future Lates is now closed.

### Information and Tickets

For more information on Make the Future Singapore and to register for free priority tickets, please visit Tickets.

### Download photos & videos

To access event images, visit: [https://www.flickr.com/photos/shell\\_eco-marathon/albums](https://www.flickr.com/photos/shell_eco-marathon/albums)



## 7. Shell's Make The Future Singapore 2018 brings bright ideas and innovations to life

Mar 09, 2018

Official launch of the festival by Mr. S Iswaran, Minister for Trade and Industry (Industry) also marks the start of Shell Eco-marathon Asia 2018, a student design-and-build competition showcasing the region's most energy-efficient cars.



Make the Future Singapore 2018, a festival of ideas and innovation for Asia, was launched today at the Changi Exhibition Centre, Singapore, and graced by Mr S Iswaran, Minister for Trade and Industry (Industry); Mr Yuri Sebregts, Executive Vice President Technology and Chief Technology Officer, Royal Dutch Shell; and Ms Goh Swee Chen, Chairman of Shell Singapore.

Through virtual reality and hands-on experiences, the festival will take members of the public, representatives from business, academia, governments, and school children on a journey to explore bright ideas from around Asia, to see what is happening now to power our world and get a glimpse of what the future of energy might look like. They will be able to discover what it's like to generate electrical energy by dancing, play interactive games, build and race mini saltwater cars, and meet young scientists and energy start-ups.



The ceremony featured the flag-off of the ninth Shell Eco-marathon Asia, with 122 student teams from 18 countries across Asia Pacific and the Middle East gathered in Singapore with their self-built vehicles in a competition to be the most energy-efficient. One of the world's longest-running student competitions, Shell Eco-marathon is a global programme that challenges bright student minds to design and build ultra-energy-efficient cars, and then put them to the test in competition.

“Energy systems are undergoing change at varying rates and degrees of complexity, and this is especially evident in Asia,” said Mr. Yuri Sebregts, Shell Chief Technology Officer. “We want to play our part in the transition towards a low-carbon future, and Shell's Make the Future Singapore aims to inspire individuals, communities, governments and businesses in the region to come together and drive change in a responsible way. We want this festival to inspire a whole new generation, and to spark conversation, collaboration and innovation around solutions to the global energy challenge.”

The 122 student teams will be competing in either of two categories of the competition: Prototype – futuristic and highly aerodynamic vehicles – or UrbanConcept – highly economical vehicles that resemble today's cars. 2018 has seen a significant uptake in the UrbanConcept category with a 20% increase as compared to 2017. Students will compete in three different categories based on

their selected energy source: Internal Combustion Engine (ICE) spanning gasoline, diesel and ethanol (biofuel); hydrogen fuel cell; and battery electric power.

Of the 10 Singapore teams participating, more than half chose to venture out of the more conventional gasoline-fuelled vehicles and into the Hydrogen and Battery Electric categories. Republic Polytechnic showed one instance of this innovative spirit with the design of their vehicle, which featured a lighter and stronger aluminium chassis strengthened with a honeycomb structure.



From L-R) Mr Norman Koch (General Manager of Shell Eco-marathon), Mr Yuri Sebregts (Chief Technology Officer and Chief Scientist, Shell Global), Minister S Iswaran and Ms Goh Swee Chen (Chairman, Shell Singapore), with the Nanyang E Drive team from Nanyang Technological University. (From L-R) Mr Norman Koch (General Manager of Shell Eco-marathon), Mr Yuri Sebregts (Chief Technology Officer and Chief Scientist, Shell Global), Minister S Iswaran and Ms Goh Swee Chen (Chairman, Shell Singapore), with the Nanyang E Drive team from Nanyang Technological University

### Participating Singapore Teams

Schools	Teams Participating at Shell Eco-marathon Asia
Nanyang Technological University	1. Nanyang E Drive 2. NTU Singapore 3D-Printed Car
National University of Singapore	1. NUS Electric Eco Car
Ngee Ann Polytechnic	1. H2GO 2. NP-TurboAce
Republic Polytechnic	1. RP Mark 1
Singapore University of Technology and Design	1. SUTD EV Club
Temasek Polytechnic	1. TP ECO FLASH

Vehicles must pass a detailed technical inspection before they are allowed onto the track to see how far they can go on the least amount of fuel. As of noon today, over 84 student teams have passed the technical inspection, of which seven teams are from Singapore.

The competition culminates in the **Drivers' World Championship (DWC) Asia**, an exciting race format. The best teams in the region will compete for their place in the Drivers' World

Championship Grand Final in London on July 8, 2018, in an exciting head-to-head race to find the most energy-efficient driver.

As part of Make the Future Singapore, the second edition of **The Bright Ideas Challenge Singapore** featured secondary school students imagine solutions for a cleaner energy future. From harnessing electricity from peltier tiles or vibrational energy from sound, these youths are making a mark in the STEM field. Broadrick Secondary Students emerged national champion of The Bright Ideas Challenge after a competitive pitch and won for themselves a fully-funded trip to Make the Future London.

### **Make the Future Festivals has six Global Partners:**

- Agility: Technical Partner
- Altair: Technical Partner
- HP: Festival Partner
- The Linde Group: Technical Partner
- Southwest Research Institute: Technical Partner
- Toyota: Festival Partner

Make the Future Singapore 2018 is held with support from the Singapore Tourism Board, Ministry of Education, Science Centre Singapore, Innosparks, Strides Transportation and Borneo Motors.

For more information on Make the Future Singapore and to register for free tickets to the event, please visit <http://sg.makethefuture.shell>.

### **Note to editors:**

To access event images, please visit the following

URL: [https://www.flickr.com/photos/shell\\_eco-marathon/](https://www.flickr.com/photos/shell_eco-marathon/).

### **Speeches:**

- **Minister S Iswaran's Speech**
- **Yuri Sebregts' Speech (Executive Vice President Technology and Chief Technology Officer, Royal Dutch Shell)**

### **About Make the Future Singapore**

Shell's Make the Future Singapore, featuring Shell Eco-marathon Asia, returns to Singapore for a second year from March 8-11, 2018. As a festival of ideas and innovation for Asia, this event has the widest geographical reach, accounting for more than 60% of the world's population.

Headlining the event is the Shell Eco-marathon Asia, where futuristic and fuel-efficient cars built by over 120 student teams from around Asia Pacific and the Middle East will compete to be the most energy-efficient.

Make the Future Festivals is Shell's global platform for conversation, collaboration and innovation around the world's energy challenges. With events hosted in countries around the globe, they aim to provide an opportunity for multiple stakeholders: including students, entrepreneurs, businesses, governments and the public, to experience, test and contribute bright energy ideas.

### **About Shell Eco-marathon**

One of the world's longest-running student competitions, Shell Eco-marathon is a global programme that challenges bright student minds to design and build ultra-energy-efficient cars, and then put them to the test in competition.

Shell Eco-marathon Asia will include two key competitions this year. The longest running competition is the Mileage Challenge where teams compete to travel the farthest on the least amount of fuel. In 2017, the winning team of the Asian leg was efficient enough to travel 2,289 kilometres – the distance from Singapore to Chiang Mai, Thailand – on just one litre of fuel!

The second Shell Eco-marathon competition to take place this year in Singapore is Drivers' World Championship Asia. Introduced to the Shell Eco-marathon programme in 2016, Drivers' World Championship challenges the best UrbanConcept teams to combine the proven energy efficiency of their car with the speed and skill of their driver, in a race to see who can cross the finish line first on the least amount of fuel.

Shell Eco-marathon is a visible demonstration of Shell's commitment to help the world meet its growing energy needs in a responsible way by working together with students, partners and other stakeholders.

### **Enquiries:**

Jason Leow  
General Manager, External Relations, Shell Singapore  
+65 9729 4475/ [\*\*Jason.Leow@shell.com\*\*](mailto:Jason.Leow@shell.com)

Josephine Pang  
Senior Client Executive, Edelman Singapore  
+65 9115 2743/ [\*\*Josephine.pang@edelman.com\*\*](mailto:Josephine.pang@edelman.com)

## 8. Shell Eco-marathon Asia 2018 UrbanConcept Winners - NTU Singapore 3D-Printed Car Wins UrbanConcept - Hydrogen Category

Mar 10, 2018

The UrbanConcept category came to an exciting close on the third day of Make the Future Singapore.

Singapore had its strongest UrbanConcept showing yet, with eight of 10 Singapore teams fronting UrbanConcept cars. Of these, five were battery electric powered cars.

Nanyang Technological University did well again this year, with award-winning team NTU Singapore 3D-Printed Car emerging champion in the UrbanConcept – Hydrogen category, with a best attempt score of 46km/m<sup>3</sup>. In 2017, the team had competed in the battery electric and this year’s strategy to convert the car’s energy source to hydrogen paid off.



“We are very happy to have won the UrbanConcept – Hydrogen category. It was a leap of faith for us when we embarked on the journey to use hydrogen fuel cell due to its volatile nature, and are thankful to Temasek Polytechnic, HES Energy System and ERIAN (Energy Research Institute @NTU) for their knowledge and support. Our next goal is to develop autonomous vehicles to compete in future Shell Eco-marathon competitions,” said Richmond Ten, Team Leader of NTU Singapore 3D-Printed Car from Nanyang Technological University.

The top seven UrbanConcept teams from across the region have qualified for the Drivers’ World Championship Asia regional final, and will compete on Sunday in a race to see who can cross the finish line first on the least amount of fuel. The teams are:

Category	Position	Team	Result
Internal Combustion Engine	First	ITS Team 2 Institut Teknologi Sepuluh Nopember (Indonesia)	314.5 km/l
Internal Combustion Engine	Second	SEMAR URBAN UGM INDONESIA Universitas Gadjah Mada (Indonesia)	266.7 km/l

Category	Position	Team	Result
Internal Combustion Engine	Third	GARUDA UNY ECO TEAM  Universitas Negeri Yogyakarta (Indonesia)	214.7 km/l
Battery Electric	First	LH – EST  Lac Hong University (Vietnam)	129.3 km/kWh
Battery Electric	Second	Nogogeni ITS Team 1  Institut Teknologi Sepuluh Nopember (Indonesia)	125.1 km/kWh
Battery Electric	Third	BUMI SILIWANGI TEAM 4  Universitas Pendidikan Indonesia (Indonesia)	108.0 km/kWh
Hydrogen Fuel Cell	First	NTU Singapore 3D-Printed Car  Nanyang Technological University (Singapore)	46.0 km/m <sup>3</sup>

With this year's winding 1.2-kilometre track featuring multiple turns and gentle slopes, driving strategy and vehicle aerodynamism have played a big role in determining which teams have the most energy-efficient vehicles.

Shell Eco-marathon Global Technical Director Shanna Simmons commented on the teams' resourcefulness, "Shell Eco-marathon Asia is indicative of this generation's aspirations for energy efficiency. It's exciting to see recent technological advances for internal combustion engines, battery-electric systems, and hydrogen fuel cells utilized in this year's UrbanConcept vehicles. The student-built UrbanConcept vehicles, which are modelled after real-world cars, have attained incredible mileage while mirroring modern industry trends – and it reflects of the direction of automotive mobility in Asia."

## Immersive festival experiences complement energy discussions at Make the Future Singapore

Make the Future Singapore Lates saw a strong turnout of millennials actively participating in the festival's evening experiences. Headliner American singer-songwriter Lauv wowed the crowd with a performance of "I Like Me Better", amongst a set list of other hits. The specially-curated evening event gave festivalgoers the chance to explore the festival at night and participate in discussions around the energy future, whilst enjoying live performances and unique food and drinks offerings.



Outside of Make the Future Singapore Lates, visitors have been thrilled with virtual reality and hands-on experiences. The Shell Eco-marathon Simulators proved a hit with the young and young at heart, who pit their skills against other challengers to drive around a digital track with optimum fuel efficiency. Visitors also raced their self-built saltwater cars on a mini track – the perennial crowd favourite – while learning how energy is generated by the chemical reaction.

### Information and Tickets

For more information on Make the Future Singapore and to register for free priority tickets, please visit <http://sg.makethefuture.shell>.

### Download photos & videos

To access event images, visit: [https://www.flickr.com/photos/shell\\_eco-marathon/albums](https://www.flickr.com/photos/shell_eco-marathon/albums)

### Notes to Editors:

#### 2018 Singapore UrbanConcept Teams

Category	Team	Result
Internal Combustion Engine (Diesel)	DIZEL ELITE Institute of Technical Education (ITE)	N.A.
Internal Combustion Engine (Gasoline)	SUTD EV Club Singapore University of Technology and Design	N.A.
Battery Electric	ElectroLiTE Institute of Technical Education (ITE)	51km/kWh
Battery Electric	Nanyang E Drive Nanyang Technological University	43km/kWh
Battery Electric	NUS ELECTRIC ECO CAR National University of Singapore	N.A.
Battery Electric	NP-TurboAce Ngee Ann Polytechnic	N.A.
Battery Electric	RP Mark 1 Republic Polytechnic	N.A.

## 2018 Shell Singapore Media Releases

---

<b>Category</b>	<b>Team</b>	<b>Result</b>
Internal Combustion Engine (Diesel)	NTU Singapore 3D-Printed Car Nanyang Technological University	46km/m <sup>3</sup>



## **9. Shell's Singapore Teams Sweep Hydrogen Awards at Shell Eco-marathon Asia 2018**

Mar 11, 2018

Shell's Make the Future Singapore festival of bright ideas and innovation wraps after welcoming thousands of visitors over four days.

Make the Future Singapore, Shell's festival of ideas and innovation for Asia, came to a close today. The four-day showcase of bright ideas and innovation saw thousands of visitors including students, entrepreneurs, businesses, government and the public coming together to experience, test and contribute bright energy ideas. Headlining the festival was Shell Eco-marathon Asia, where over 120 student teams from 18 countries across Asia Pacific and the Middle East put their self-built energy-efficient cars to the test.

### **Make the Future Singapore**

The public enjoyed festival mainstays like the mini Shell Eco-marathon experience to build and race cars powered only by saltwater. Festivalgoers also generated electricity on the kinetic dancefloor with their dance moves and challenged others on the Shell Eco-marathon driving simulator. Other highlights included Bio-bean, which showcased how some buses in London are powered by waste coffee grounds, and Liter of Light, which powers rural homes and villages in the Philippines with a solar panel and a bottle of water. The festival also played host to the fifth Asian edition of the Shell Powering Progress Together forum, which brought together more than 150 leaders, young talents and representatives from business, government and society to discuss, debate and catalyse cross-border collaborations to tackle future energy challenges.

2018 marks the end of the global festival's two-year tenure in Singapore. Ms Goh Swee Chen, Chairman of Shell Singapore, said: "It has been an enriching experience discussing bright ideas and innovation while working with various stakeholders to map the future of Asian mobility. This is not the end of the road for this festival in Asia. The Make the Future campaign carries on throughout our region through different activities, and the 2019 venue will be announced in due course. I wish the next host country every success."



**TP ECO-FLASH from Temasek Polytechnic wins Prototype-Hydrogen category at Shell Eco-marathon Asia 2018**



**H2GO from Ngee Ann Polytechnic wins Most Innovative Hydrogen Newcomer Award and 1<sup>st</sup> runner-up in the Prototype-Hydrogen category**

### **Drivers' World Championship Asia**

Team SEMAR URBAN UGM INDONESIA from Universitas Gadjah Mada in Yogyakarta, Indonesia claimed victory in the second edition of Drivers' World Championship Asia, in a race to cross the finish line first on the least amount of fuel. The top three teams from the Asia regional final will face off against the best UrbanConcept teams from the Americas and Europe in the

Grand Final to be held at Make the Future Live in London, UK, on July 8, 2018. The overall winner will earn a once-in-a-lifetime experience at the home of Scuderia Ferrari.

Norman Koch, Shell Eco-marathon General Manager, said: "The Drivers' World Championship demands the best in automotive technology and innovation to push the boundaries of energy efficiency. Sharp skills and a sound strategy in handling the vehicle and managing fuel efficiency are imperative in helping the team cross the finish line first. We saw amazing action and excitement today and my congratulations goes to all the teams."

### **Strong showing by Singapore teams**

Singapore teams were the big winners in the hydrogen categories at Shell Eco-marathon. Nanyang Technological University's NTU Singapore 3D-Printed Car won the UrbanConcept – Hydrogen category, Temasek Polytechnic's TP ECO FLASH claimed first spot in the Prototype – Hydrogen category, and Ngee Ann Polytechnic's H2GO won the Most Innovative Hydrogen Newcomer Award and was 1<sup>st</sup> runner-up in the Prototype – Hydrogen category.

"We couldn't believe it ourselves and are extremely elated to win. With no prior experience in designing and building the hydrogen-powered car, we are thankful that our school Temasek Polytechnic and teachers supported us on this journey to represent Singapore in Shell Eco-marathon Asia. Never have we felt such a huge sense of achievement, and we are glad that our hard work and efforts have paid off," said Xu Yang, Team Leader of TP ECO FLASH from Temasek Polytechnic. Temasek Polytechnic is the only school to have built their own compact hydrogen fuel cell in Singapore for this competition.

On Drivers' World Championship, Richmond Ten, Team Leader of NTU Singapore 3D-Printed Car from Nanyang Technological University, said: "Wow, that was such a challenging race and congratulations to Team Semar Urban UGM Indonesia! We believe we have put up a really good fight and learnt so much from this journey and also from all the other teams around us. We thank all who have supported us in this journey and are glad to have represented Singapore in Shell's Drivers' World Championship Asia."

This year's Shell Eco-marathon Asia saw the largest Singapore contingent ever, with 10 futuristic cars from seven tertiary institutions competing to be the most energy-efficient in the region. Contenders from Singapore included a first-time entrant in newcomer Temasek Polytechnic, new cars from institutions like Ngee Ann Polytechnic, as well as returning teams from universities such as Nanyang Technological University and Singapore University of Technology and Design.

### **The Best of the Prototypes**

Shell Eco-marathon Asia 2018 today also crowned the winners in the Prototype category. The best mileage record for the Internal Combustion Engine category was 2,341.1 km/l by Panjavidhya1 from Panjavidhya Technological College (Thailand), beating last year's record of 2,288.9 km/l. Other winners in the Prototype competition included Team HuaQi-EV from Guangzhou College of South China University of Technology (China), with a result of 511.0 km/kWh in the Battery Electric category, and Team TP ECO FLASH from Temasek Polytechnic (Singapore) with a result of 404.3 km/m<sup>3</sup> in the Hydrogen category.

### **Off-Track Awards**

Shell Eco-marathon is about more than winning on the track. Students are recognised for their communications, technical innovation, design, safety and perseverance.

Ngee Ann Polytechnic's H2GO won the Most Innovative Hydrogen Newcomer Award for achieving an optimum balance of technical quality despite the challenges associated with this

energy source. The team also successfully drove train efficiency and aced concept innovation with the car's light-weight, aerodynamic body.

## 2018 Shell Eco-marathon Asia Results

### PROTOTYPE

Category	Winner	Result
Internal Combustion Engine	Panjavidhya1 Panjavidhya Technological College (Thailand)	2,341.1 km/l
Battery Electric	Huaqi-EV Guangzhou College of South China University of Technology (China)	511.0 km/kWh
Hydrogen Fuel Cell	TP ECO FLASH Temasek Polytechnic (Singapore)	404.3 km/m <sup>3</sup>

### URBANCONCEPT

Category	Winner	Result
Internal Combustion Engine	ITS Team 2 Institut Teknologi Sepuluh Nopember (Indonesia)	314.5 km/l
Battery Electric	LH – EST Lac Hong University (Vietnam)	129.3 km/kWh
Hydrogen Fuel Cell	NTU Singapore 3D-Printed Car Nanyang Technological University (Singapore)	46.0 km/m <sup>3</sup>

### DRIVERS' WORLD CHAMPIONSHIP ASIA

Podium Finish	Team	Country
1st	SEMAR URBAN UGM INDONESIA Universitas Gadjah Mada	Indonesia
2nd	ITS Team 2 Institut Teknologi Sepuluh Nopember	Indonesia
3rd	GARUDA UNY ECO TEAM Universitas Negeri Yogyakarta	Indonesia

## **2018 Shell Eco-marathon Asia Off-track Awards**

### **Communications Award**

520 DTU Supermileage

Delhi Technological University, India

The team's well-planned communication strategy took a data-driven approach that led to extensive publicity for the team and for Shell Eco-marathon Asia. Their creative use of social media influencers also helped simplify and drive home the competition and energy-efficiency message to the public. They also involved stakeholders like a Deputy Chief Minister as well as well-known female motorcycle racers to help amplify their messages.

### **Technical Innovation Award**

Team EnduroKiwis

University of Canterbury, New Zealand

3D printing of various vehicle parts has been around for a number of years, but this team has taken a holistic approach to designing and printing the complete engine in a way that is not only optimised for efficient production of the printed parts, but also for optimised engine fuel efficiency.

### **Vehicle Design (Prototype) Award**

Team Huaqi-EV

Guangzhou College of South China University of Technology, China

Team HuaQi-EV produced a slim, tightly-packaged and compact car. Its slender proportions and streamlined shape helped to put an attractive face to efficiency. The eye-catching car featured small wheels to reduce the frontal area of their car and keep its overall size and weight down. This "less is more" mentality was highly effective on the track and encouraged the students to focus on innovative ways to balance out competing needs such as vehicle strength, weight reduction and space requirements. The team's body-on-frame design also helped to produce a relatively low-cost car.

### **Vehicle Design (UrbanConcept) Award**

Team ZEAL ECO-POWER URBAN

Tongji University, China

The car featured clear focus on weight reduction, fuel efficiency through optimising the design for air resistance, friction, a simple and effective design for door hinges and closers, and the integration of systems. The team also showed effective use of tools for virtual design development. It was an excellent job of translating the design process into a well-made final product.

## **Safety Award**

Team GARUDA UNY ECO TEAM

Universitas Negeri Yogyakarta, Indonesia

Safety was evidently ingrained in every member of the team – their behaviour and collaboration on track and in the paddocks reflected an integral approach encompassing workplace and environmental safety and safety of the car. The team went beyond conventional safety simulations and instead used physical experiments (e.g. using a hydraulic press) to test their design and modified the vehicle design and materials based on their test results.

## **Perseverance and Spirit of the Event Award**

NUST Eco-motive

National University of Sciences and Technology, Pakistan

When it became clear on Friday night that the team would not pass technical inspection on time, the team gave away their engine to a team who desperately needed one. They also gave away their tyres, battery and other vehicle parts to help about 20 other competing teams and shared their facilities and tools with others. This demonstrated the true spirit of the competition.

## **Most Innovative Hydrogen Newcomer**

H2GO

Ngee Ann Polytechnic, Singapore

The team managed to achieve optimum balance of technical quality despite the challenges associated with this energy source. The team also successfully drove train efficiency and aced concept innovation with the light-weight, aerodynamic body. The team walks away with a specially designed sculpture and US\$1,200.

## **About Make the Future Singapore**

Shell's Make the Future Singapore, featuring Shell Eco-marathon Asia, returned to Singapore for a second year from March 8-11, 2018. As a festival of ideas and innovation for Asia, this event has the widest geographical reach, accounting for more than 60% of the world's population. Headlining the event was the Shell Eco-marathon Asia, where futuristic and fuel-efficient cars built by over 120 student teams from around Asia Pacific and the Middle East competed to be the most energy-efficient.

Make the Future Festivals is Shell's global platform for conversation, collaboration and innovation around the world's energy challenges. With events hosted in countries around the globe, they aim to provide an opportunity for multiple stakeholders: including students, entrepreneurs, businesses, governments and the public, to experience, test and contribute bright energy ideas.

## **About Shell Eco-marathon**

One of the world's longest-running student competitions, Shell Eco-marathon is a global programme that challenges bright student minds to design and build ultra-energy-efficient cars, and then put them to the test in competition.

Shell Eco-marathon Asia includes two key competitions. The longest running competition is the Mileage Challenge where teams compete to travel the farthest on the least amount of fuel. In 2017, the winning team of the Asian leg was efficient enough to travel 2,289 kilometres – the distance from Singapore to Chiang Mai, Thailand – on just one litre of fuel!

The second Shell Eco-marathon competition in Singapore is Drivers' World Championship Asia. Introduced to the Shell Eco-marathon programme in 2016, Drivers' World Championship challenges the best UrbanConcept teams to combine the proven energy efficiency of their car with the speed and skill of their driver, in a race to see who can cross the finish line first on the least amount of fuel.

Shell Eco-marathon is a visible demonstration of Shell's commitment to help the world meet its growing energy needs in a responsible way by working together with students, partners and other stakeholders.

### **ENQUIRIES:**

**Jason Leow**

General Manager, External Relations, Shell Singapore

**[Jason.Leow@shell.com](mailto:Jason.Leow@shell.com)**

**Josephine Pang**

Senior Client Executive, Edelman Singapore

**[Josephine.pang@edelman.com](mailto:Josephine.pang@edelman.com)**

## 10. Shell Singapore and ITE to ready graduates for industry with MOU

Apr 27, 2018

Shell Singapore and the Institute of Technical Education have signed a Memorandum of Understanding covering a range of initiatives to equip ITE graduates with industry-ready skills that will also improve the talent pipeline to the energy industry.

The MOU, signed on 20 April 2018, covers an agreement for Shell to provide scenarios-based training in the chemical, and oil and gas, sectors, so that ITE graduates come into the industry with skills, behaviours and expectations that fit the industry. Such training will be deployed in a Plant for Authentic Learning at ITE College East (see *Note to Editors*). Shell also will provide internship placements, participate in regular curriculum reviews, and offer scholarships to groom maintenance technicians. The cooperation will last three years and be reviewed in April 2021.

“With Singapore’s manufacturing becoming more advanced and deploying newer technologies, there is a need for technical specialists who can adapt and reskill quickly, possess higher thinking skills while being firmly grounded in the fundamentals. We want to be in the marketplace to provide the solutions. Hence this cooperation to shape talent development and deepen skills mastery,” said Mr Leslie Hayward, Shell Vice President, Human Resource Operations for Southeast and Northeast Asia.

As part of its cooperation, Shell has been conducting career talks at ITE to promote scholarships aimed at ITE students pursuing the *Higher Nitec* in Electrical and Mechanical Engineering discipline.

“In line with our strong emphasis on people and skills development as a Human Capital Partner in Singapore, the scholarships are an avenue to groom quality talents benefiting both the company and the industry,” said Mr Hayward. Applications for this year’s inaugural scholarship programme are closing on 11 May and Shell hopes to find as many strong candidates as possible.

“Shell has been a long-time partner with a shared vision of grooming young talents for the future. We are glad to join hands with Shell to provide our students with opportunities to boost their technical capability through authentic training in school and the industry. With Shell’s expertise, mentorship and meaningful opportunities for students, we can add value to students’ holistic development to give them a head start in their lives and careers,” said Ms Low Khah Gek, Chief Executive Officer, ITE.





**Madam Low Khah Gek (fourth from left), CEO ITE, and Leslie Hayward, Shell Vice President Human Resource Operations Southeast and Northeast Asia (second from right), signed a memorandum of understanding recently on behalf of both organisations, committing to programmes that will equip ITE graduates with industry-ready skills.**

## Enquiries

### Jason Leow

General Manager External Relations  
Shell Singapore  
[jason.leow@shell.com](mailto:jason.leow@shell.com)

### Shalini V

Head/Publicity  
Corporate Affairs & Development Division  
Institute of Technical Education  
[Shalini\\_V@ite.edu.sg](mailto:Shalini_V@ite.edu.sg)  
+65 9004 0429

## Note to Editors:

For more details on how we are collaborating with institutes of higher learning to enhance employability, see [www.shell.com.sg/about-us/awards-and-recognition.html](http://www.shell.com.sg/about-us/awards-and-recognition.html).

## Royal Dutch Shell plc

Royal Dutch Shell plc is incorporated in England and Wales, has its headquarters in The Hague and is listed on the London, Amsterdam, and New York stock exchanges. Shell companies have operations in more than 70 countries and territories with businesses including oil and gas exploration and production; production and marketing of liquefied natural gas and gas to liquids; manufacturing, marketing and shipping of oil products and chemicals and renewable energy projects. For further information, visit [www.shell.com](http://www.shell.com).

## **11. Update on Singapore Police investigation into fuel theft**

May 22, 2018

We continue to be disappointed by what we uncovered last year. We expect all Shell staff to comply with our Code of Conduct and to uphold the highest standards of ethical behaviour.

We are fully cooperating with the Singapore Police Force during its investigations into the theft. We are already taking short- and long-term actions to improve. Shell reported suspected product thefts to the authorities in August 2017 after we became aware that we may have been the victim of a crime following an internal investigation.

## 12. Shell joins A\*STAR's Model Factory @ ARTC as anchor industry partner

Aug 23, 2018

Shell joins A\*STAR's Model Factory Initiative as an anchor industry partner at the Advanced Remanufacturing and Technology Centre (ARTC). The ARTC is a contemporary platform built upon strong public-private partnerships to translate research to industry application, led by A\*STAR in partnership with the Nanyang Technological University (NTU).



**Andreas Krobjilowski, General Manager, Shell Jurong Island (second from right) and Dr Koh Poh Koon, Senior Minister of State, Ministry of Trade & Industry (fourth from right), among other industry members at the launch of A\*STAR's Model Factory Initiative**

Shell will work with ARTC to test-bed advanced and digital technologies, with the aim of applying them extensively in its operations in Singapore and the region.

“Shell continuously innovates to deliver sustained impact on our operations and business. Our collaboration with A\*STAR's ARTC in Singapore, where we have our largest integrated oil and chemical manufacturing site, will help accelerate our development and adoption of advanced manufacturing technologies locally and globally. We are looking forward to piloting technologies in areas such as field execution and plant automation in pursuit of Shell Singapore's goal of being a living lab of innovations,” said Mr. Andreas Krobjilowski, General Manager, Shell Jurong Island.

Read the speech by Dr Koh Poh Koon, Senior Minister of State, Ministry of Trade & Industry, on [A\\*STAR's website](#).

## 13. Shell invests in additional propylene storage capacity at Jurong Island

Sep 04, 2018

Shell has signed an agreement with Oiltanking Singapore Chemical Storage Pte Ltd (OTCS) for an additional two propylene storage tanks at OTCS' terminal in Jurong Island.

“This project reinforces Shell’s commitment in Singapore. In addition to several capacity investments in recent years both for the Ethylene Cracker Complex in Pulau Bukom as well as in downstream derivatives, we are also constantly looking at logistics enhancements to create a seamless supply chain, greater system flexibility and to improve our customer experience,” said Dennis Cheong, Vice President, Shell Chemicals Asia Pacific.

These new tanks will be constructed by OTCS and designed to meet industry safety standards and Shell’s operational requirements. The agreement includes additional pumps and ancillary equipment which will be integrated with existing propylene logistics facilities to enhance overall system robustness.

Propylene is used to produce chemical intermediates that go into a wide variety of everyday products such as foams, containers, paints and coatings. Shell produces propylene in its Pulau Bukom integrated refinery and petrochemicals hub, and transports it to Jurong Island by subsea pipelines.

### Enquiries:

Sonia Meyer  
Shell Spokesperson  
+65 8499 4837 / [sonia.meyer@shell.com](mailto:sonia.meyer@shell.com)

### Notes to Editors:

For more details on Shell’s integrated refinery and petrochemicals presence in Singapore, read more on [Pulau Bukom Manufacturing Site](#) and on [Shell Jurong Island](#).

### Royal Dutch Shell plc

Royal Dutch Shell plc is incorporated in England and Wales, has its headquarters in The Hague and is listed on the London, Amsterdam, and New York stock exchanges. Shell companies have operations in more than 70 countries and territories with businesses including oil and gas exploration and production; production and marketing of liquefied natural gas and gas to liquids; manufacturing, marketing and shipping of oil products and chemicals and renewable energy projects. For further information, visit [www.shell.com](http://www.shell.com).

## 14. Shell, Energy Experts And University Students Engage In Debate On The Future Of Energy

Nov 23, 2018

In a unique opportunity, over 250 students and undergraduates from Singapore, Malaysia and Philippines challenged prominent regional energy experts and global energy company Shell on the issue of climate change and the future of energy at **The Great Energy Debate**, a live panel debate held on 23 November 2018 at the Singapore University of Technology and Design (SUTD). The debate was streamed live at Curtin University, Malaysia and University of the Philippines.

Maarten Wetselaar, Shell Director for Integrated Gas and New Energies, tackled tough questions from the energy-engaged millennials on the 21st century challenge of providing more energy while reducing impact to the planet.

“Energy affects us all. While we rely on energy in our everyday lives, the way in which it’s produced and used is tied to the well-being of our planet. I’m keen to find new ways to engage with young people – and others – to openly discuss the challenges, as well as the opportunities, surrounding the future of energy,” Mr. Wetselaar said.

Of particular interest to students was the role of renewables. Liu Yuchen, a Junior year student from SUTD, came keen to understand how we could transition from the current reliance on fossil fuels to more renewables. On this, Mr. Wetselaar explained: “I see it as my role to prove that new energies can help the environment and also be commercial. We cannot subsidise our way out of climate change. We need to find commercial models so that people want to invest in it on a large scale and we are finding good opportunities in it.”

Leading energy experts participated in the panel and provided their views on meeting the energy challenge and how different sectors of society can collaborate. The panellists were the following: **Wu Changhua**, a China sustainability policy and partnership specialist; **Jay Layug**, former Undersecretary of the Department of Energy and Chairman of the National Renewable Energy Board; and **Peter Godfrey**, Managing Director of the Asia Pacific Energy Institute, based in Singapore. **Professor Peter Jackson**, Head of Engineering and Systems Design at Singapore University of Technology and Design pillar, moderated the live debate. Goh Swee Chen, Country Chairman of Shell Companies in Singapore, also joined the students from various institutions in Singapore in watching the debate.

SUTD’s Professor Peter Jackson noted: “We had a great panel of distinguished experts in energy policy, law, and business and they each approached these questions from a unique perspective. I thoroughly enjoyed the lively exchange of ideas and hope that everyone learnt something from this debate.”

Shell recognises the significance of climate change, along with the role energy plays in helping people achieve and maintain a good quality of life. Shell takes part in the energy transition by finding ways to produce more and cleaner energy.

You can watch the debate on <https://twitter.com/Shell/status/1065847606406918145>



Panellists Engaging The Audience At The Great Energy Debate



SUTD Junior year student, Liu Yuchen, posing his question

## **ENQUIRIES:**

### **Shell**

Name: Ca-Mie De Souza

Email: [\*\*Ca-Mie.DeSouza@shell.com\*\*](mailto:Ca-Mie.DeSouza@shell.com)

### **SUTD**

Name: Melissa Koh

Email: [\*\*Melissa\\_koh@sutd.edu.sg\*\*](mailto:Melissa_koh@sutd.edu.sg)

## **Notes to Editors:**

Royal Dutch Shell plc

Royal Dutch Shell plc is incorporated in England and Wales, has its headquarters in The Hague and is listed on the London, Amsterdam, and New York stock exchanges. Shell companies have operations in more than 70 countries and territories with businesses including oil and gas exploration and production; production and marketing of liquefied natural gas and gas to liquids; manufacturing, marketing and shipping of oil products and chemicals and renewable energy projects. For further information, visit [\*\*www.shell.com\*\*](http://www.shell.com).

## **15. Shell Singapore Appoints New Country Chairman**

Dec 11, 2018

Shell Companies in Singapore announces the appointment of Aw Kah Peng as Chairman from 1 January 2019.

Kah Peng, currently General Manager for the Chemicals Intermediates business in the Asia Pacific, succeeds Goh Swee Chen, who will retire from Shell at the end of January.

Kah Peng joined Shell in 2012 as the General Manager for Global Commercial Strategy. Prior to joining Shell, Kah Peng had a successful career in the Singapore public service, in both the Economic Development Board and as CEO of the Singapore Tourism Board.

Following her initial Shell role in Global Commercial, Kah Peng moved to the Chemicals business as the Global General Manager for Ethylene Oxide & Glycols, prior to being appointed to her current role in 2017. In Chemicals, Kah Peng has delivered significant business value leveraging her deep knowledge and experience in the industry, commercial acumen, passion for people, strong relationship skills, and her drive for excellence. She has helped put the Chemicals business in Asia on a strong foundation for success and growth.

Outside of work, Kah Peng is active in the Arts, loves running and hiking, and mentoring young people.

Swee Chen joined Shell in 2003 as the Chief Information Officer for Shell Oil Products East, having previously worked with Procter & Gamble in the US and IBM in Australia. She was appointed to her current role as Country Chairman of Singapore in 2014, and took on additional accountabilities as Vice President for City Solutions in 2017.

Swee Chen has worked to establish Shell as an employer of choice and partner in Singapore. During her years at the helm, Shell was conferred the first Honorary Partner in Progress award by the Singapore government for its longstanding contribution to Singapore's economic growth and continued interest in social and community development. Shell Singapore also hosted the first Make the Future in Asia, a Shell festival of innovation and ideas. Swee Chen will continue to be active in public service and contributing on the boards that she serves.

### **Enquires:**

Ca-Mie De Souza  
General Manager, External Relations

**[Ca-Mie.DeSouza@shell.com](mailto:Ca-Mie.DeSouza@shell.com)**

### **Notes to Editors:**

Royal Dutch Shell plc is incorporated in England and Wales, has its headquarters in The Hague and is listed on the London, Amsterdam, and New York stock exchanges. Shell companies have operations in more than 70 countries and territories with businesses including oil and gas exploration and production; production and marketing of liquefied natural gas and gas to liquids; manufacturing, marketing and shipping of oil products and chemicals and renewable energy projects. For further information, visit **[www.shell.com](http://www.shell.com)**.



## **16. Update on Singapore Police investigation into fuel theft**

Dec 14, 2018

Any suspected theft will always be dealt with in a serious manner. Shell reported the thefts to the authorities in August 2017 because it is the right thing to do. This was after we became aware that we may have been the victim of a crime following an internal investigation.

We have been working closely with the Singapore Police Force during its investigations into the theft.

We are disappointed by what we uncovered last year. All Shell staff are expected to comply with our Code of Conduct and to uphold the highest standards of ethical behaviour. Breaches are not tolerated and carry serious consequences, up to and including termination of employment.

We acted decisively and have since implemented more measures to prevent this from happening again. These include closer monitoring of products moving in and out of Bukom, tightening vessel management procedures, and stepping up ethics and compliance training. In addition, we are working with government authorities and industry associations to address the issue of oil theft in the industry.

### **Cautionary note**

The companies in which Royal Dutch Shell plc directly and indirectly owns investments are separate legal entities. In this press release “Shell”, “Shell group” and “Royal Dutch Shell” are sometimes used for convenience where references are made to Royal Dutch Shell plc and its subsidiaries in general. Likewise, the words “we”, “us” and “our” are also used to refer to Royal Dutch Shell plc and subsidiaries in general or to those who work for them. These terms are also used where no useful purpose is served by identifying the particular entity or entities. “Subsidiaries”, “Shell subsidiaries” and “Shell companies” as used in this press release refer to entities over which Royal Dutch Shell plc either directly or indirectly has control. Entities and unincorporated arrangements over which Shell has joint control are generally referred to as “joint ventures” and “joint operations”, respectively. Entities over which Shell has significant influence but neither control nor joint control are referred to as “associates”. The term “Shell interest” is used for convenience to indicate the direct and/or indirect ownership interest held by Shell in an entity or unincorporated joint arrangement, after exclusion of all third-party interest.

This press release contains forward-looking statements (within the meaning of the U.S. Private Securities Litigation Reform Act of 1995) concerning the financial condition, results of operations and businesses of Royal Dutch Shell. All statements other than statements of historical fact are, or may be deemed to be, forward-looking statements. Forward-looking statements are statements of future expectations that are based on management’s current expectations and assumptions and involve known and unknown risks and uncertainties that could cause actual results, performance or events to differ materially from those expressed or implied in these statements. Forward-looking statements include, among other things, statements concerning the potential exposure of Royal Dutch Shell to market risks and statements expressing management’s expectations, beliefs, estimates, forecasts, projections and assumptions. These forward-looking statements are identified by their use of terms and phrases such as “aim”, “ambition”, “anticipate”, “believe”, “could”, “estimate”, “expect”, “goals”, “intend”, “may”, “objectives”, “outlook”, “plan”, “probably”, “project”, “risks”, “schedule”, “seek”, “should”, “target”, “will” and similar terms and phrases. There are a number of factors that could affect the future operations of Royal Dutch Shell and could cause those results to differ materially from those expressed in the forward-looking statements included in this press release, including

(without limitation): (a) price fluctuations in crude oil and natural gas; (b) changes in demand for Shell's products; (c) currency fluctuations; (d) drilling and production results; (e) reserves estimates; (f) loss of market share and industry competition; (g) environmental and physical risks; (h) risks associated with the identification of suitable potential acquisition properties and targets, and successful negotiation and completion of such transactions; (i) the risk of doing business in developing countries and countries subject to international sanctions; (j) legislative, fiscal and regulatory developments including regulatory measures addressing climate change; (k) economic and financial market conditions in various countries and regions; (l) political risks, including the risks of expropriation and renegotiation of the terms of contracts with governmental entities, delays or advancements in the approval of projects and delays in the reimbursement for shared costs; and (m) changes in trading conditions. No assurance is provided that future dividend payments will match or exceed previous dividend payments. All forward-looking statements contained in this press release are expressly qualified in their entirety by the cautionary statements contained or referred to in this section. Readers should not place undue reliance on forward-looking statements. Additional risk factors that may affect future results are contained in Royal Dutch Shell's 20-F for the year ended December 31, 2017 (available at [www.shell.com/investor](http://www.shell.com/investor) and [www.sec.gov](http://www.sec.gov)). These risk factors also expressly qualify all forward looking statements contained in this press release and should be considered by the reader. Each forward-looking statement speaks only as of the date of this press release, 2018. Neither Royal Dutch Shell plc nor any of its subsidiaries undertake any obligation to publicly update or revise any forward-looking statement as a result of new information, future events or other information. In light of these risks, results could differ materially from those stated, implied or inferred from the forward-looking statements contained in this press release.

We may have used certain terms, such as resources, in this press release that United States Securities and Exchange Commission (SEC) strictly prohibits us from including in our filings with the SEC. U.S. Investors are urged to consider closely the disclosure in our Form 20-F, File No 1-32575, available on the SEC website [www.sec.gov](http://www.sec.gov).