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1. Shell brings Make the Future festival to Singapore for the first time

Feb 27, 2017

From March 16 to 19, 2017 Shell will host a four-day public event to highlight bright energy ideas and solutions that address the global energy challenges

- **Around 120 student teams will compete at Shell Eco-marathon Asia 2017, culminating in the Drivers' World Championship Asia**
- **More than 100 thought leaders, young talents and representatives from business, government and civil society will discuss, debate and catalyse cross-border collaborations to tackle future energy challenges at Powering Progress Together**

From March 16 – 19, 2017, Make the Future Singapore takes place at Changi Exhibition Centre as the inaugural Asian edition of Shell's global Make the Future Festivals of ideas and innovation. This free-of-charge public festival will feature bright energy ideas and solutions to address the global energy challenge – to generate more energy, while producing less CO2 emissions.

Make the Future Singapore will feature three interactive zones, 'Our Energy Future', 'On the Move' and 'Live, Work, Play'. Through virtual reality and hands-on experiential zones, visitors will be able to explore what is happening now to power our world and see what the future of energy might look like, from renewable energy to natural gas and low-carbon technologies; learn about bright ideas from around Asia; and catch celebrity action on the main stage.

Visitors are invited to experience a range of different activities:

- Watch as **120 Shell Eco-marathon student teams** from the region compete on the track to see who has designed and built the most energy efficient vehicle for the track, culminating in the Drivers' World Championship Asia.
- Get active in the **Zorb energy generators** which allow visitors to challenge each other to generate the most amount of electricity through motion.
- See an ultra-efficient **Shell Concept Car**, jointly developed with Geo Technology and Gordon Murray Design, which uses a third (34%) less energy over its entire lifetime compared to a typical petrol-powered car.
- Take part in a football target challenge where visitors charge up a timer by running on a **Pavegen** tile, buying them as much time as possible to take shots at a target. The winner is the highest scorer in the time they have generated.
- Enjoy **musical performances** by Singapore entertainer and rising Asian star **Nathan Hartono**, as well as local bands Take Two and Disco Hue.
- See demonstrations like the innovative **GravityLight** device which is a falling weight that provides affordable and instant light and power, improving the quality of life for the world's poorest communities.

Powering Progress Together will bring together over 100 attendees to discuss the theme "Cleaner Energy Moves Asia" at the fourth edition of the forum in Asia. It will be a thought provoking session with open dialogue centred on Asian aspirations and dilemmas; balancing the needs of some of the fastest-growing economies with the demands for a better life and healthy planet.

Make the Future Singapore 2017 is held with support from the Singapore Tourism Board, Ministry of Education, Science Centre Singapore and the Energy Market Authority.

For more information on Make the Future Singapore and to register for free priority tickets to the event, please visit www.shell.com.sg/makethefuturesg.

Note To Editors:

To access previous event images, please visit the following URL: https://www.flickr.com/photos/shell_eco-marathon/.

About Shell Eco-marathon

Shell Eco-marathon is a unique, global competition that challenges students to push the boundaries of energy efficiency on the road. There are three regional Shell Eco-marathon competitions held throughout the year in Asia, America and Europe. The competition provides an arena for students to test vehicles they design and build themselves. It aims to inspire young people to become scientists and engineers of the future.

Shell Eco-marathon began in 1939 at a Shell research laboratory in the United States as a friendly wager between scientists to see who could get the most miles per gallon from their vehicle. In 1985 in France, Shell Eco-marathon as we know it today was born. In April 2007, the Shell Eco-marathon Americas event was launched in the United States, and in 2010, the inaugural Shell Eco-marathon Asia was held in Malaysia, up until 2013. The event was held in Manila, Philippines from 2014 to 2016 and moves to Singapore as part of the Make the Future festival for the first time in 2017.

Full list of participating teams as of February 23, 2017:

No.	Country / Territory	Teams
1	Australia	2
2	Bangladesh	1
3	Brunei Darussalam	4
4	China	4
5	Egypt	7
6	India	12
7	Indonesia	28
8	Japan	1
9	Malaysia	7
10	New Zealand	1
11	Oman	2
12	Pakistan	9
13	Philippines	15
14	Qatar	3
15	Saudi Arabia	3
16	Singapore	9
17	South Korea	2
18	Thailand	6
19	United Arab Emirates	3
20	Vietnam	9

About Drivers' World Championship Asia

The very first Drivers' World Championship (DWC) Asia heat will launch at Make the Future Singapore. This spectators' event will challenge students in a race to see who is the fastest energy-efficient driver.

Following the conclusion of the Shell Eco-marathon Mileage Challenge, the top four teams from each UrbanConcept Energy Class (internal combustion, hydrogen fuel cell, battery electric) will be invited to compete in DWC Asia heat, to be held on the final day of the event.

- During DWC Asia, eight of 12 qualified teams will enter an individual time-trial style event;
- Teams will be given a fixed amount of energy, based on their mileage challenge performance, to complete the distance of the final race (maintaining handicapping concept);
- The first car that crosses the finish line, after a determined number of laps, wins and will earn the title of Drivers' World Championship Asia Champion.

The top three teams from Make the Future Singapore, together with the top three teams from Make the Future Detroit and Make the Future London, will all receive an invitation to compete in the Drivers' World Championship Grand Final, held at Make the Future Live in London. **Make the Future has five Global Partners:**

- **Agility: Official Paddock Partner**
- **Hewlett Packard (HP): Official Global Information Technology (IT) Partner**
- **HPE: Official Global Partner**
- **The Linde Group: Official Global Partner**
- **Southwest Research Institute: Official Global Partner**

2. Shell brings leading experts and business leaders together to discuss Asia's cleaner energy future

Mar 16, 2017

Powering Progress Together Forum marks the start of Make the Future Singapore, a four-day festival featuring bright energy ideas and solutions. The forum addresses how innovation, technology and collaboration play a vital role in Asia's future.

Shell today brought experts from multiple fields on energy together at the first Powering Progress Together Forum in Singapore. Themed "**Cleaner Energy Moves Asia**", the 4th Asian edition of the forum saw more than 100 stakeholders from government, business, academia and NGOs, together with Shell's business partners and leaders, discuss, debate and catalyse cross-border collaborations to tackle the region's future energy challenges.



John Abbott, Downstream Director for Royal Dutch Shell, opens the first Powering Progress Together Forum in Singapore themed "Cleaner Energy Moves Asia"

According to Shell Scenarios, Asia's demand for energy could increase by 50% in the run-up to 2040 . To meet Asia's future energy challenges head-on, the Powering Progress Together forum in Singapore focused on the Asian aspirations and dilemmas, and brought representatives from diverse sectors together to come up with innovative technical solutions for cleaner energy that is more affordable and accessible.

"Changes in energy use will need to happen in virtually every part of society. Governments, academics, consumers and companies like Shell will need to work together to meet this enormous challenge. With its willingness to collaborate and its track record for forward-thinking, Singapore sets a great example in this field," said John Abbott, Downstream Director and Executive Committee member for Royal Dutch Shell, in his welcome address at the forum.

Kick-started by a lively discussion centred around “**Asia’s Cleaner Energy Dilemma**” moderated by Marc Carrel-Billiard, Global Senior Managing Director for Accenture Labs, experts from around the region discussed how Asia could balance its increasingly heavy energy needs with lower emissions while maintaining a reliable energy system, through exploring new business models, leveraging technology to push new boundaries, and developing new partnerships and collaboration. Panellists included Mark Gainsborough (Executive Vice President, New Energies, Royal Dutch Shell), Koh Kong Meng (General Manager & Managing Director, Southeast Asia & Korea, HP Inc), Visal Leng (President, Asia Pacific, GE Oil & Gas) and Dr. Alvin Yeo (Director, Industry Development Department, EMA).



Experts from around the region discuss how Asia can balance its increasingly heavy energy needs with lower emissions, while maintaining a reliable energy system.

The forum also featured an immersive experience where a local playback theatre troupe challenged delegates to think both critically and creatively of solutions to make a cleaner energy future for Asia. The theatrical performance was inspired by the pilot Imagine the Future Scenarios Competition, in which the winning student team from Singapore’s Nanyang Technological University presented two contrasting scenarios of how people in Asia would live, work and play in 2050.

The first scenario, “Convergence”, was based on a more collaborative world – both on a community and international level. The scenario focused on life in urban cities, where a common smart energy grid would allow sharing of renewable energies between multiple cities in the same region. Communities benefit from the efficient public transport powered by automatic vehicles, smart utilities, while the cities work as one to transform waste into energy. In the “Divergence” scenario, advanced technological tools such as augmented and virtual reality result in the decentralisation of people’s lives, where everything from work to play can be done from the comfort of one’s home. Households in this world are economically incentivised to generate their own renewable energy and reduce, reuse and recycle, aided by new technologies.

A highlight of the forum was the ***Container of Possibilities: The Twenty Fifty***, an interactive container exhibit featuring a modern Asian concept home of the future. Debuted at Make the Future Singapore, this exhibit featured technological innovations contributed by Shell and its business partners that demonstrated how energy could be produced and consumed in 2050. Inspired by the students' ideas from the Imagine the Future Scenario Competition, the 20-foot shipping container showcases a home that is energy-efficient, technology-enabling and connected.

Some interesting innovations in the ***Container of Possibilities: The Twenty Fifty*** include:

- A *New Energy Economy*, where the future market is set to be a two-way trading platform between homeowners (consumers) and utility providers. Activated solar windows generates energy for homeowners, and this excess energy generated can be stored for later use or sold in the market.
- The Telepresence *Robot™* a telepresence communication platform service that allows homeowners to monitor conditions in the house and create a virtual presence of themselves to feel close to loved ones
- A real-time *Energy Alert* powered by an Augmented Reality (AR) app and markers, which sends notifications to the homeowner's mobile phone about the operating efficiency of his / her appliances and ensure reduced costs associated with breakdowns

Container of Possibilities: The Twenty Fifty also encouraged visitors to poll, and pen their views on what homes could look like 30 years from now. It will begin its Asia tour to other cities later this year.



Container of Possibilities: The Twenty Fifty installation, featuring technological innovations within a modern Asian concept home of the future, was inspired by students' ideas from Shell's inaugural Imagine the Future Scenarios Competition.

In a closing speech, Goh Swee Chen, Shell Singapore Country Chair and VP City Solutions, New Energies, shared, "Shell has long recognised the need to reduce carbon emissions and to

stem the problem of air pollution in many parts of Asia, but we also know that more energy is needed to provide a decent quality of life for people, not only in Asia, but across the world. That is why we have created platforms like the Powering Progress Together forum and the Make the Future Festivals. We are here to challenge existing assumptions and to find innovative ways to solve problems.”

Powering Progress Together Singapore is the opening event for Make the Future Singapore, a four-day festival that features bright energy ideas and solutions that address the global energy challenge. Make the Future is open to the public from March 16 -19, 2017 at Changi Exhibition Centre.

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

About Make the Future Singapore

Make the Future Singapore is a festival of ideas and innovations for Asia that supports bright energy ideas and provides a platform for innovation, collaboration and conversation about the global energy challenge. It is a four-day event that will take place at Changi Exhibition Centre in Singapore from March 16-19, 2017. Through virtual reality experiences and hands-on experiential zones, visitors will explore what is happening now and what the future of energy might look like, from renewable energies to natural gas or low-carbon technologies.

Powering progress together fact sheet

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 <https://www.shell.com/>.

3. Bright ideas and student innovation feature at opening ceremony for Make the Future Singapore

Mar 17, 2017

Official launch of the festival also marks the start of Shell Eco-marathon Asia, a student design-and-build competition showcasing the region's most energy-efficient vehicles.

The first-ever **Make the Future Singapore**, a festival of ideas and innovation for Asia, was officially launched today at the Changi Exhibition Centre, Singapore. Celebrating the best of energy and mobility, the ceremony also saw student teams from Asia Pacific and the Middle East showcase their self-built vehicles at the flag-off ceremony of the eighth edition of **Shell Eco-marathon Asia**. Present at the start line to welcome teams representing each of the 20 countries participating in the competition were Singapore Deputy Prime Minister Teo Chee Hean, Downstream Director and Executive Committee member of Royal Dutch Shell John Abbott, as well as Shell Companies in Singapore Chairman Goh Swee Chen.



(From L-R) Goh Swee Chen, Shell Singapore Chairman; Singapore Deputy Prime Minister Teo Chee Hean; and John Abbott, Downstream Director for Royal Dutch Shell, officially open Make the Future Singapore

“In a fast-changing world, innovation and collaboration are more important than ever,” said John Abbott, Downstream Director for Royal Dutch Shell. “Focused on young entrepreneurs and bright energy ideas, Make the Future Singapore aims to inspire individuals, communities, governments and businesses in the region to come together to find solutions for a lower-carbon future. Through the myriad of activities, Shell wants to build fruitful partnerships and help turn ideas into reality. I have no doubt that the festival will inspire a whole new generation. We are inviting everyone to get involved, feel inspired and help make the future.”

Shell's Make the Future Festivals of ideas and innovation are a global initiative with events in Asia, America and Europe. The Asia event has the widest geographical reach with 20 countries participating, accounting for more than 60% of the world's population.

An annual competition that challenges teams to design, build and drive the most energy-efficient cars, the flag-off also marks the first time **Shell Eco-marathon Asia** is held in Singapore. 123 student teams from 20 countries 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. Students will compete in three different categories based on their selected energy source: Internal Combustion Engine (ICE): Gasoline, diesel, ethanol (biofuel), Gas to Liquid (GTL) fuel made from natural gas, CNG (compressed natural gas); hydrogen fuel cell; and battery electric power. The eighth Asian edition of the student innovation competition welcomes an entrant from New Zealand for the first time in its history.

All vehicles must pass a set of technical tests before they are allowed onto the competition circuit to see how far they can get on the least amount of fuel, and potentially achieve the highest mileage in the competition. As of noon today, over 76 student teams have passed the technical inspection.



Self-built energy-efficient vehicles from 20 countries across Asia Pacific and the Middle East participating at the eighth edition of Shell Eco-marathon Asia

This year, the competition takes on an additional element of excitement with the inaugural **Drivers' World Championship (DWC) Asia**, an exciting race format in which the best teams in the region will compete for their place in the Drivers' World Championship Grand Final in London in on May 28, 2017, competing in an exciting head-to-head race to see who is the most energy-efficient driver.

To drive innovation and creative thinking in the energy and mobility space, Make the Future Singapore also shined the spotlight on young entrepreneurs. Held as part of the opening

festivities, the Shell #makethefuture Accelerator was an interactive event designed to help entrepreneurs turn their bright energy ideas into businesses that can expand across Asia.

Through a combination of talks, strategy sessions and brainstorm discussions with experts from government, the media, Singapore's thriving start-up scene, the event provided a platform for the entrepreneurs to share their challenges and get inspiration to expand their thinking. The #makethefuture Accelerator also featured two successful young start-ups from the Asia region – Capture Mobility, an energy solution that harvests air movement created by passing traffic through specially designed turbines from Pakistan; and MotionECO, a Chinese enterprise that transforms waste cooking oil into sustainable biofuels.



Singapore Deputy Prime Minister Teo Chee Hean and Downstream Director for Royal Dutch Shell John Abbott participating in a football target challenge powered by running on a Pavegen tile. Photo Credit: Singapore Ministry of Communications and Information

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About Make the Future Singapore

Make the Future Singapore is a festival of ideas and innovations for Asia that supports bright energy ideas and provides a platform for innovation, collaboration and conversation about the global energy challenge. It is a four-day event that will take place at Changi Exhibition Centre in Singapore from March 16-19, 2017. Through virtual reality and hands-on experiential zones, visitors will be able to explore what is happening now and see what the future of energy might look like, from renewable energy to natural gas and low-carbon technologies; learn about bright ideas from around Asia; and participate in interactive zones about the future of energy, mobility and innovation by Shell and other partners. For more information, please visit <http://www.shell.com.sg/makethefuturesg>.

About Shell Eco-marathon

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4. Greenview Secondary School team wins for bright idea of turning food scraps into energy

Mar 17, 2017

The Bright Ideas Challenge, a national inter-school competition, called for students to ideate innovative solutions to tackle the energy challenge faced by cities of the future. Team Changemakers from Greenview Secondary School won for their brilliant idea of converting food scraps to energy via anaerobic digestion at an energy treatment facility.

Imagine a world powered by footsteps and natural phenomena, where kinetic energy generated from exercising at the gym could be transformed into and stored as electrical energy – and the aurora borealis (better known as the Northern Lights) and plants coated with luciferin could become the main sources of vibrant street light, making street lamps obsolete.

These are scenarios that could potentially materialise by 2050 as means to future-proof our cities in the face of an energy crisis and climate change. Today, at Shell Make the Future Singapore, 15 student teams from secondary schools across Singapore presented their scenarios and visions of future cities, at the finals of The Bright Ideas Challenge Singapore.



Team Changemakers from Greenview Secondary School received top honours at the finals of The Bright Ideas Challenge Singapore, held during Shell Make the Future Singapore 2017.

Team Changemakers, comprising five students from Greenview Secondary School, emerged as champions after a tough battle amongst Singapore's brightest young minds in innovation. A Shell initiative organised by the Science Centre Singapore and supported by the Ministry of Education, The Bright Ideas Challenge Singapore garnered a total of 70 entries contributed by over 300 students from 34 secondary schools.

The inter-school competition challenged students to imagine how cities will look like in 2050, identify key energy challenges in the future, and articulate their visions by presenting innovative solutions that would help make future cities a vibrant, healthy and clean place to live in.

“All of us are very happy right now, as we truly did not expect to win the first prize. It has been a tough fight against other schools’ teams as their ideas were equally strong. Through The Bright Ideas Challenge Singapore, we have learned to challenge ourselves and think out of the box as a team, and have gained confidence in public speaking and presentations. We want to thank all our teachers and fellow students, as well as our family who supported us throughout this whole journey. We really appreciate their help and guidance,” said Linderio Dianthe Marithe Lumagui, a member of Team Changemakers.

The team’s project focused on solving future problems caused by impending overpopulation, which would increase the production of food waste, consumption of electricity and hence, the depletion of fossil fuels. Team Changemakers aimed to solve these arising challenges by leveraging food waste through an anaerobic digester, harvesting methane to produce electricity.

Jason Leow, General Manager, External Relations, Shell Singapore, said: “Shell has an enduring tradition of innovation and collaboration, alongside supporting an entrepreneurial spirit in youths. By harnessing sparks of human ingenuity, innovation and technology, we hope to drive change and unlock better, cleaner energy for the years ahead. We are extremely proud and heartened to find so many bright young minds and creative ideas that seek to achieve that very ambition of creating a sustainable energy future. Congratulations, Team Changemakers!”

The finals held today was graced by Minister of Education (Schools), Ng Chee Meng, as the guest-of-honour. The judging panel, made up of five representatives from the Science Centre Singapore, Energy Market Authority, and Shell evaluated the student teams based on the following criteria: 1) efficacy towards solving the energy challenge; 2) quality and creativity of the solution; 3) innovativeness and feasibility of solution; 4) robustness of research; 5) overall presentation of the solution; and 6) effective collaboration and project management. To determine the eventual winning team, judging was extended to the public, where visitors at Make the Future Singapore voted for their favourite ideas using the same criteria above. Evaluations from both the panel judges and the public carried the same weightage.

“I’m excited to see our students thinking out of the box, having fun. Educationally, these platforms are important to foster a culture of creative thinking, and inspire our students to venture beyond the classroom for solutions to real world problems. To the student participants, I hope you have gained new knowledge and a deeper understanding of the energy challenges facing us today. To our teachers, thank you for helping to make our students’ learning process interesting and motivating,” said Minister Ng.

Team Changemakers walked away with a \$5,000 prize package for their alma mater, Greenview Secondary School, to spend on improving existing STEM offerings. In addition, the team will embark on a fully-funded trip to Make the Future London come May 25 – 28, 2017. The first and second runner-ups took home a \$3,000 and \$1,500 prize package respectively, while the remaining 12 merit winning teams received a \$300 prize package each.

Final results of The Bright Ideas Challenge Singapore:

- **1st Prize: Changemakers, Greenview Secondary School**
Idea: Leveraging food waste for energy through an anaerobic digester, activated at an energy treatment facility
- **2nd Prize: 2DL’16, St. Patrick’s School**
Idea: Layering roads and floors with piezo material as a means of renewable energy, by converting the pressure generated from road transport into electrical energy – which can be used for lighting up the lamp posts on the streets at night

- **3rd Prize: The Undefeated, Chong Boon Secondary School**
Idea: Harvesting heat energy to produce electricity by applying a thermoelectric effect, utilising Peltier tiles

List of 12 merit winners:

- **Polaris, Bedok North Secondary School**
Idea: Addressing inconsistencies with energy supply against the pressures of globalisation, by pairing decentralised energy storage solutions (e.g. lithium-ion battery packs) with a small grid management system to store energy generated from alternative sources, such as solar energy.
- **HKSS Team 2, Hong Kah Secondary School**
Idea: Harvesting alternative energy from natural phenomenon such as aurora borealis through coronal mass ejection.
- **Corn Artist, Marsiling Secondary School**
Idea: Converting kinetic energy, generated from exercising on gym equipment, into electrical energy.
- **Energy Engineers, East View Secondary School**
Idea: Reducing food wastages and generation of harmful heavy metal waste, using energy generated from the process of vermicomposting.
- **The Pentagon, Broadrick Secondary School**
Idea: Producing energy through rainwater collected from PVC pipes in high-rise buildings.
- **Team United, Broadrick Secondary School**
Idea: Converting kinetic energy generated from walking into electrical energy via piezoelectric transducers in the insoles of shoes.
- **CT1, Clementi Town Secondary School**
Idea: Leveraging light and heat energy to minimise overheating and maximise output of electricity generated by solar panels.
- **HydroNymaz, Punggol Secondary School**
Idea: Developing a HDB Water Recycling Kit to collect water from domestic appliances and channel them to a common water and recycling point.
- **Jurongville BKJ, Jurongville Secondary School**
Idea: Creating a car driven by water from evaporation, based on the concept of a Moisture Mill.
- **Ping Yi Red, Ping Yi Secondary School**
Idea: Designing a turbine blade that captures wind at a greater range and can be built within a small area.
- **Ping Yi Yellow, Ping Yi Secondary School**
Idea: Building solar and wind plants to harvest solar and wind energy at coastal areas in Singapore.
- **Light Planters, Nanyang Girls' High School**
Idea: Coating trees and plants with luciferin, so that they can emit light and eventually replace street lamps as the core light source.

Notes To Editors

About The Bright Ideas Challenge Singapore

The Bright Ideas Challenge Singapore is a national competition that challenges secondary students to imagine creative ideas of how cities of the future might be powered. It is designed to spark young people's curiosity in science and engineering and help deliver the school's curriculum in a fun and engaging way. The competition is a Shell initiative that is organised by the Science Centre Singapore and supported by the Ministry of Education.

About Make the Future Singapore

Make the Future Singapore is a festival of ideas and innovations for Asia that supports bright energy ideas and provides a platform for innovation, collaboration and conversation about the global energy challenge. It is a four-day event that will take place at Changi Exhibition Centre in Singapore from March 16-19, 2017. Through virtual reality experiences and hands-on experiential zones, visitors will explore what is happening now and what the future of energy might look like, from renewable energies to natural gas or low-carbon technologies.

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Royal Dutch Shell plc

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5. Team NTU Singapore 3D-printed car to participate in the Drivers' World Championship Asia tomorrow

Mar 18, 2017

The penultimate day of the Shell Make the Future Singapore festival is one to remember with Shell Eco-marathon Asia on-track action and energising performances off-track



Team NTU Singapore 3D-Printed Car from the Nanyang Technological University (top left) will compete as finalist at the Drivers' World Championship Asia (19 March)

The penultimate day of Make the Future Singapore saw the UrbanConcept competition of Shell Eco-marathon Asia 2017 come to an exciting close. Competing with highly innovative vehicles resembling modern cars, 123 teams from across the region battled it out to go the furthest on the least amount of energy. Team Sadewa from Indonesia took home top honours with a record of 375km/l, setting new records for the UrbanConcept category in Asia.

“With each edition of Shell Eco-marathon Asia, we are encouraged by the quality of thinking displayed by the students, as well as their openness in embracing innovations and energy types,” said Norman Koch, General Manager for Shell Eco-marathon. “We congratulate the UrbanConcept teams who have set new mileage records this year – and look forward to seeing the top teams participate in the first-ever Drivers' World Championship Asia tomorrow.”

A total of five Singapore student teams took part in the UrbanConcept Category today, with four out of five teams – Team SUTD EV Club from the Singapore University of Technology and Design (SUTD), Team NUS ELECTRIC ECO CAR from the National University of Singapore (NUS), Team Hotshot from Ngee Ann Polytechnic, and Team ElectroLiTE from Institute of Technical Education – participating in Shell Eco-marathon Asia for the first time this year.

Team manager Fu Shenluo of Team SUTD EV Club, SUTD's pioneer team participating in Shell Eco-marathon Asia, said: "We had to build our car from scratch without any prior knowledge, experience or resources, unlike some of the other teams whose schools have previously participated in the competition. We had to re-work our vehicle through trial and error, but we are very proud of how the car turned out eventually. Being able to qualify for the on-track race is already an achievement, and we aim to come back stronger in future editions of Shell Eco-marathon Asia."

Team NTU Singapore 3D-Printed Car, participating in this competition for the eighth time, clocked sixth place in the UrbanConcept Battery Electric category with an improved mileage of 84 km/kWh this year from 77 km/kWh in 2016.

"Given that we are almost a completely fresh team, we felt the pressure to do well in this competition. It has been a tough fight – although we received guidance from past NTU students participating in Shell Eco-marathon Asia, we still faced some unexpected challenges along the way that tested our problem-solving skills. The competition is certainly not easy but we are determined to do our best and will bring the same team spirit to the Drivers' World Championship Asia tomorrow," said Richmond Ten, team manager of Team NTU Singapore 3D-Printed Car.

The Drivers' World Championship Asia will see 11 other teams compete in a head-to-head race to be the fastest and most energy-efficient driver in the region. The teams are:

- Team Sadewa; Indonesia
- ITS Team 2; Indonesia
- GARUDA UNY ECO TEAM; Indonesia
- Bengawan Team 2; Indonesia
- Team Cikal Ethanol; Indonesia
- DLSU Eco Car Team – I.C.E; Philippines
- Team LH – EST; Vietnam
- Team Dagisik UP; Philippines
- Nogogeni ITS Team 1; Indonesia
- Team KOOKMIN RACING; South Korea
- Team EnduroKiwis; New Zealand

Mr. Masagos Zulkifli, Minister for the Environment and Water Resources, who was present at the festival, commented: "With climate change being a key concern in Singapore, events like Shell's Make the Future Singapore provide us with real and innovative examples of how we can continue to meet our growing energy demand in a carbon constrained world. Every Singaporean can and must play a part in our fight against global climate change and this festival offers a great and exciting opportunity for everyone to experience these solutions firsthand. On this note, I am truly heartened to see students being engaged and collaborative in this effort to build a more sustainable world."

The last day of Make the Future Singapore 2017 and Shell Eco-marathon Asia will see the remaining four Singapore teams taking part in the final leg of the mileage competition in the Prototype category. An awards ceremony will round up four days of intense competition, crowning the winners of the Drivers' World Championship Asia, the on-track winners of Shell Eco-marathon Asia 2017 as well as off-track winners of the following categories: Communications, Vehicle Design, Technical Innovation, Safety, and Perseverance & Spirit of the Event.



Singaporean singer Nathan Hartono delivers a power-packed performance

Off the track, crowds at the main stage were treated to energising musical performances, kicked off with a set by rising Asian star and Singaporean talent Nathan Hartono. Nathan’s performance was followed by international recording artiste Pixie Lott, an ambassador for the #MakeTheFuture movement. Pixie delivered a performance with familiar and new tunes, including a rendition of ‘Best Day of my Life’ – the song and [music video](#) that marked the launch of Make the Future globally.

Urbanconcept Category Results

Internal Combustion Engine (ICE)

Rank	Team name	Country	School Name	Fuel type	Best attempt (km/l)
1	Sadewa	Indonesia	Universitas Indonesia	Gasoline	374.9
2	ITS Team 2	Indonesia	Institut Teknologi Sepuluh Nopember	Diesel	335.8
3	GARUDA UNY ECO TEAM	Indonesia	Universitas Negeri Yogyakarta	Gasoline	220.8

Rank	Team name	Country	School Name	Fuel type	Best attempt (km/l)
4	Bengawan Team 2	Indonesia	Sebelas Maret University	Diesel	213.5
5	Cikal Ethanol	Indonesia	Institut Teknologi Bandung	Ethanol	197.9
6	DLSU Eco Car Team – I.C.E.	Philippines	De La Salle University	Gasoline	195.9

Battery Electric

Rank	Team name	Country	School Name	Best attempt (km/kWh)
1	LH – EST	Vietnam	Lac Hong University	107.8
2	Dagisik UP	Philippines	University of the Philippines – Diliman	106.6
3	Nogogeni ITS Team 1	Indonesia	Institut Teknologi Sepuluh Nopember	100.1
4	KOOKMIN RACING	South Korea	Kookmin University	97.7
5	EnduroKiwis	New Zealand	University of Canterbury	95.3

Note to editors

To access event images, please visit the following

URL: https://www.flickr.com/photos/shell_eco-marathon/.

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About Shell Eco-marathon

Shell Eco-marathon is a unique, global competition that challenges students to push the boundaries of energy efficiency on the road. There are three Shell Eco-marathon competitions held throughout the year in Asia, America and Europe. The competition provides an arena for

students to test vehicles they design and build themselves. It aims to inspire young people to become scientists and engineers of the future.

Shell Eco-marathon began in 1939 at a Shell research laboratory in the United States as a friendly wager between scientists to see who could get the most miles per gallon from their vehicle. In 1985 in France, Shell Eco-marathon as we know it today was born. In April 2007, the Shell Eco-marathon Americas event was launched in the United States, and in 2010, the inaugural Shell Eco-marathon Asia was held in Malaysia, up until 2013. The event was held in Manila, Philippines from 2014 to 2016 and moves to Singapore as part of the Make the Future festival for the first time in 2017.

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6. Innovative student-built cars set new energy efficiency records at Make the Future Singapore

Mar 18, 2017

Top 12 teams in the UrbanConcept category of Shell Eco-marathon Asia 2017 will go on to compete in the Drivers' World Championship Asia, held tomorrow.



Team Sadewa from Universitas Indonesia, winner of the UrbanConcept competition (Internal Combustion Engine category)



UrbanConcept (Battery Electric category) award winners Team LH-EST from Lac Hong University, Vietnam



The world's first electric vehicle made entirely from thermoformed plastic sheets, designed by Team EnduroKiwis from University of Canterbury, New Zealand



Pixie Lott poses with all-girls Shell Eco-marathon Asia team from India – Team Panthera



Singaporean singer Nathan Hartono delivers a power-packed performance

The penultimate day of Make the Future Singapore saw the UrbanConcept competition of Shell Eco-marathon Asia 2017 come to an exciting close. Competing with highly innovative vehicles resembling modern cars, 123 teams from across the region battled it out to go the furthest on the least amount of energy. Team Sadewa from Indonesia and Team LH-EST from Vietnam took home top honours in the UrbanConcept competition, setting new records for their respective energy classes.

Team Sadewa, which competed in the UrbanConcept competition (Internal Combustion Engine category), outstripped their previous year's record by more than 100km/l, with a winning result of 375km/l. Team LH-EST from Lac Hong University, Vietnam, clinched the top spot in the UrbanConcept competition (Battery Electric category) with an all-time high winning result of 107.8km/kWh.

The top six teams from two of the UrbanConcept energy classes (internal combustion engine, battery electric) have qualified for the Drivers' World Championship Asia heats, and will be entering a head-to-head race to be the fastest and most energy-efficient driver in the region. The teams are:

Internal Combustion Engine:

1. Sadewa from Universitas Indonesia, Indonesia
2. ITS Team 2 from Institut Teknologi Sepuluh Nopember, Indonesia
3. GARUDA UNY ECO TEAM from Universitas Negeri Yogyakarta, Indonesia
4. Bengawan Team 2 from Sebelas Maret University, Indonesia
5. Cikal Ethanol from Institut Teknologi Bandung, Indonesia
6. DLSU Eco Car Team – I.C.E. from De La Salle University, Philippines

Battery Electric:

1. LH – EST from Lac Hong University, Vietnam
2. Dagsik UP from University of the Philippines – Diliman, Philippines
3. Nogogeni ITS Team 1 from Institut Teknologi Sepuluh Nopember, Indonesia
4. KOOKMIN RACING from Kookmin University, South Korea
5. EnduroKiwis from University of Canterbury, New Zealand
6. NTU Singapore 3D-Printed Car from Nanyang Technological University, Singapore

“With each edition of Shell Eco-marathon Asia, we are encouraged by the quality of thinking displayed by the students, as well as their openness in embracing innovations and energy types,” said Norman Koch, General Manager for Shell Eco-marathon. “We congratulate the UrbanConcept teams who have set new mileage records this year – and look forward to seeing the top teams participate in the first-ever Drivers' World Championship Asia tomorrow.”

This year saw the world's first fully recyclable electric car take to the Shell Eco-marathon track at Changi Exhibition Centre. Students from the University of Canterbury in New Zealand produced an electric vehicle made entirely from thermoformed plastic sheets, including the chassis and the outer panels. “The ultimate goal is to show that we can make the most environmentally-friendly car and still be on top of the competition,” said Cam Thompson, 22, Team Manager of the EnduroKiwis. “We want to show that there is a different way to do this and at the same time, start a conversation on being environmentally-friendly.” This is also the first time that Shell Eco-marathon Asia welcomes an entrant from New Zealand.

The last day of Make the Future Singapore 2017 and Shell Eco-marathon Asia tomorrow will see Prototype cars take part in the final leg of mileage competition, followed by the first-ever Drivers' World Championship Asia. An awards ceremony will round up four days of intense competition, crowning the winners of the Drivers' World Championship Asia, the on-track winners of Shell

Eco-marathon Asia 2017 as well as off-track winners of the following categories: Communications, Vehicle Design, Technical Innovation, Safety, and Perseverance & Spirit of the Event.

Off the track, crowds at the main stage were treated to energising musical performances, kicked off with a set by rising Asian star and Singaporean talent Nathan Hartono. Nathan’s performance was followed by international recording artiste Pixie Lott, an ambassador for the #MaketheFuture movement. Pixie delivered a performance with familiar and new tunes, including a rendition of ‘Best Day of my Life’ – the song and **music video** that marked the launch of Make the Future globally.

Pixie also had a chance to meet with Shell Eco-marathon student teams, including Team Eco Traveller from Singapore and Team Panthera from India. Team Panthera, an aspiring all-girls team, had defied convention and silenced naysayers who told them to send boys instead when they tried to purchase raw materials for their vehicle. “We were very excited and encouraged to be given the opportunity to meet Pixie today,” said Team Panthera’s Kashika Tripathi, 20. “Participating in Shell Eco-marathon Asia has helped prove to ourselves and others that machines and tools can equally belong in the hands of women. We hope to inspire more girls back home and from around the region to be bold in pursuing careers in science and engineering.”

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Internal Combustion Engine (ICE)

Rank	Team name	Country	School Name	Fuel type	Best attempt (km/l)
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7. [Singapore only] Shell's Make the Future Singapore ends on high note with Philippine team winning race for efficiency in Drivers' World Championship Asia

Mar 19, 2017

Crowning of Asia's fastest and most energy-efficient driver marks the end of four-day festival of bright ideas and innovation in Singapore.



Winning teams from the inaugural Drivers' World Championship Asia

Make the Future Singapore, Shell's festival of ideas and innovation for Asia, came to an exciting close today with Team DSLU Eco Car – I.C.E from De La Salle University in Philippines claiming victory in the inaugural Drivers' World Championship Asia, where the most energy-efficient student teams competed in a head-to-head race.

Held on a purpose-built 1.19-kilometre circuit at the Changi Exhibition Centre, the Drivers' World Championship Asia saw winning teams from the UrbanConcept category of Shell Eco-marathon Asia 2017 earn a place in the Drivers' World Championship Grand Final to be held at Make the Future Live in London, UK, on May 28, 2017.

Team DSLU Eco Car – I.C.E will be joined in the English capital by Bengawan Team 2 from Sebelas Maret University and ITS Team 2 from Institut Teknologi Sepuluh Nopember both from Indonesia, who rounded out the podium places in the Asia heat in Singapore. They will now prepare to face-off against the best three teams from both the Americas and Europe to be crowned overall Grand Final champions and earn a once-in-a-lifetime experience at the home of Scuderia Ferrari.

Winning driver Carlo Miguel Flores, 19, who used a gasoline-powered car, said: "I can't believe it! None of us can. This is just such an amazing achievement for all of us and we've worked so hard to get here. Now, to be given the opportunity to travel to London and compete for a trip to Italy and see Ferrari, it's amazing. We already can't wait!"

The NTU Singapore 3D-Printed Car team also participated in the Drivers' World Championship Asia today and placed fourth. "We might not have won the top placings in the competition today but it was still a great thrill to be able to race against the other teams. This has spurred us to continue to work on our car so that we have a better chance in next year's competition," said Richmond Ten, team manager.

Norman Koch, Shell Eco-marathon General Manager, said: "Everyone involved in Make the Future Festivals is excited about the possibilities afforded by the Drivers' World Championship and the challenge it offers our competing students. Marrying efficiency with speed has never been easy but I am confident that this competition will uncover some impressive automotive technology for the future. It will also add even more excitement to the on-track action at Shell Eco-marathon, which is great for everyone involved."

The inaugural edition of Make the Future Singapore saw 22,000 members of the public, alongside representatives from business, academia and government and school children, explore the future of energy and mobility through open dialogue and thought-provoking experiential zones.

Notes to editors

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8. Shell's Make the Future Singapore ends on high note with Philippine team winning race for efficiency in Drivers' World Championship Asia

Mar 19, 2017

Crowning of Asia's fastest and most energy-efficient driver marks the end of four-day festival of bright ideas and innovation



Photo 1: Winning teams from the inaugural Drivers' World Championship Asia

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Last year saw Bumi Siliwangi Team 4 from Universitas Pendidikan Indonesia claim the inaugural DWC title in London, before heading off to Maranello, Italy, later in the year. Once there, they joined a group of fellow SEM cars to be the first purpose-built fuel-efficient vehicles in the world to drive Ferrari’s legendary Fiorano Circuit since it was built in 1972 – and later resurfaced using Shell Cariphalte in 2002.

Mattia Binotto, Technical Director for Scuderia Ferrari, said: “It was great to meet everyone from Shell Eco-marathon at Maranello last year and we cannot wait to do the same again in 2017. The enthusiasm that everyone had was inspiring and there is no doubt that these young engineers are the future, so anything we can do to inspire them further is a privilege.”

Norman Koch, Shell Eco-marathon General Manager, said: “Everyone involved in Make the Future Festivals is excited about the possibilities afforded by the Drivers’ World Championship and the challenge it offers our competing students. Marrying efficiency with speed has never been easy but I am confident that this competition will uncover some impressive automotive technology for the future. It will also add even more excitement to the on-track action at Shell Eco-marathon, which is great for everyone involved.”



Photo 2: Team Virgin from Thailand, winners of the Prototype competition (Internal Combustion Engine category)

The last day of Shell Eco-marathon Asia also saw Team Virgin from Sakonnakhon Technical College, Thailand, best the 2016 record in the Prototype competition (Internal Combustion Engine category) with a result of 2,288km/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 474.1km/kWh in the Battery Electric category, and Team UiTM Eco-Sprint from

Universiti Teknologi Mara (UiTM) Shah Alam, Malaysia with a result of 359.4km/m³ in the Hydrogen category.

Aside from the On-Track awards, five Off-Track awards recognised student teams for their outstanding technical and creative skills, as well as their approach to safety and sustainability. Categories included Vehicle Design, Technical Innovation, Safety, Communications and Perseverance and Spirit of the Event.

The ASU Racing Team from Egypt's Ain Shams University was awarded the Safety honours for the design of their Prototype vehicle. In the design process, they mapped various scenarios out, identified the risk and designed the car to minimise the risk. Driver protection and comfort was key to the team, even at the expense of the performance of the car. Driver feedback was also well-integrated into the ergonomic design of the cockpit to enable the driver to perform optimally.

The inaugural edition of Make the Future Singapore saw members of the public, alongside representatives from business, academia and government, explore the future of energy and mobility through open dialogue and thought-provoking experiential zones.

Prototype Category Results

Internal Combustion Engine (ICE)

Rank	Team name	Country	School Name	Fuel type	Best attempt (km/l)
1	Virgin	Thailand	Sakonnakhon Technical College	Gasoline	2288.9
2	Clean Diesel Team	Japan	Hyogo Prefectural Tajima Technical Institute	Diesel	1416.5
3	ZEAL ECO-POWER PROTO	China	Tongji University	Diesel	1061.1

Battery Electric

Rank	Team name	Country	School Name	Best attempt (km/kWh)
1	HuaQi-EV	China	Guangzhou College of South China University of Technology	474.1
2	BIT Econopower Club	China	Beijing Institute of Technology	427.0
3	NSTRU Eco-Racing	Thailand	Nakhon Si Thammarat Rajabhat University	391.2

Hydrogen

Rank	Team name	Country	School Name	Best attempt (km/kWh)
1	UiTM Eco-Sprint	Malaysia	Universiti Teknologi Mara (UiTM) Shah Alam	359.4
2	Eco-Voyager	Malaysia	University of Malaya	255.7

Off-Track Award Winners:

Communications

Team PNEC-NUST-Urban

National University of Sciences and Technology (NUST), Pakistan

Team PNEC-NUST showed that good communications is a state of mind, and not a time of life. Its creative "Go Green" campaign focused on different target audiences and was successfully implemented across the public campaigns, print media, online media and social media. The team's online campaigns were full of creativity – "Creative Pakistan" called for a poetry competition and a poster redesigning competition, while a "Don't be Fuelish" campaign provided fuel saving tips by implementing the use of new technologies. The team also held special events to engage key stakeholders – an inauguration event attended by the President of Pakistan and a special launch ceremony covered by major local news channels.

Technical Innovation

Girton Grammar Shell Eco Marathon Team

Girton Grammar School, Australia

This year's 2017 Shell Eco-marathon Asia Technical Innovation award goes to Girton Grammar School. This Australian high school team has designed, assembled, implemented and tested a device to convert wasted exhaust heat into electricity that augments vehicle electrical operations. This innovation is novel and important because over ½ of the chemical energy that is within fuel is not utilised and is considered waste heat that just goes out the tailpipe.

Vehicle Design (Urban Concept)

Team EnduroKiwis

University of Canterbury, New Zealand

The EnduroKiwis team won for producing a car that brought fresh thinking about recyclability to the competition. By entering a car largely made of a common thermoplastic, the team showed a refreshing and holistic approach to design — it chose a material that was easy to work with, light, low-cost, and easy to re-use. The team's approach to the competition also transcended the challenge of minimising energy use, by focusing attention on how the materials we consume also have an impact on the environment. The car's design paid due care to driver safety and comfort, and the car itself was commendably well-finished and built to the highest standard seen by the judges. Ultimately, the EnduroKiwis car was eye-catching enough to make passers-by stop and look, but the way it was built should also prompt observers to stop and think.

Vehicle Design (Prototype)

*Team Zeal Eco-Power Proto
Tongji University, China*

Team Zeal Eco-Power Proto presented an extremely well-designed and well-executed monocoque ICE design. Team Zeal Eco-Power Proto drew inspiration from nature, in this case dolphins, for the streamlined shape of their car. They were very successful in achieving the difficult balance between design/aesthetics versus power train and transmission, weight and vehicle performance. They designed a fully enclosed vehicle – as a consequence of which Team Zeal Eco-Power Proto achieved a coefficient of drag (Cd) of 0.0622. Considerable thought was given to driver safety, vision and ergonomics. With regards to eco-friendliness and recycling, Team Zeal Eco-Power Proto was also unique in developing an extended service period concept for the vehicle by giving the retired car shell to a high school and providing free technical advice to help develop the next generation of designers. They added a very organic and human touch with leaves and water motif being a part of the car livery.

Safety

*ASU Racing Team (Prototype)
Ain Shams University, Egypt*

We were impressed with the safety mindset of every member of the team that covers all aspects of safety from design, through fabrication of the vehicle, to the race itself. Taking the example of a roll over, the team identified the risk, designed the car to minimise the risk and did an actual roll over test to check the suitability of the design. Driver protection and comfort was key to the team at the expense of the performance of the car. Drivers' feedback was well-integrated into the design of the cockpit creating a very ergonomic workplace for the driver to perform optimally and safely on the track.

Perseverance and Spirit of the Event

*Team Panthera
Indira Gandhi Delhi Technical University for Women, India*

This team inspired not only the judges, but the young girls back home in their town. They continuously showed perseverance, both on the road to Shell Eco-marathon Asia 2017, but more importantly motivating the other teams at the competition with their resilience. As the first all-girl team from India, they went against the norm. It's not every day young girls grow up thinking they will one day be a mechanical engineer, but this group of girls went against all odds and went ahead to build their vehicle whilst still convincing their university to support their participation. Receiving official support at the last minute, the team overcome many hurdles to finally step foot on the competition ground after trying for the second year.

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9. Shell Singapore debuts “Shell Station of the Future” with new Tampines Ave 2 station

Jun 07, 2017

New Shell station is designed as a “mobility oasis” with a broadened suite of offerings and station amenities to enhance customer experience and everyday journeys of the Tampines community.

- Launch of Shell-branded convenience retail, food and beverage offer Shell Select and **Deli by Shell**, including the introduction of Singapore’s first 24-Hour Drive-Thru in petrol station with McDonald’s to bring added convenience to busy and on-the-go Singaporeans
- Features new sustainability initiatives as a pilot to support active mobility and the reduction of carbon footprint for a sustainable city and future



Shell Singapore debuts "Shell Station of the Future" with new Tampines Ave 2 station.

From Left to Right: Mr. Eric Ng (Shell Tampines Ave 2 Station Manager), Ms. Aarti Nagarajan (General Manager, Retail Sales & Operations, Shell Singapore), Ms. Cheng Li Hui (Grassroots Adviser to Tampines Grassroots Organisations and Member of Parliament for Tampines GRC), Ms. Goh Swee Chen (Chairman of Shell Companies in Singapore), Ms. Shane Wan (Head of Retail Marketing, Shell – Singapore, Indonesia and Hong Kong) and Mr. Barry Koh (Project Manager, Shell Singapore)

Singapore – Shell Singapore today revealed its newly refreshed station at Tampines Avenue 2 with a broadened suite of offerings and station amenities. Designed as a “mobility oasis”, it aims to enhance the convenience and connectivity of the community, be it a motorist, cyclist, or a resident looking to refuel and recharge in between journeys. Ms. Cheng Li Hui, Grassroots Adviser to Tampines Grassroots Organizations and Member of Parliament for Tampines GRC, together with senior representatives of Shell Singapore, key partners, Tampines residents and customers graced the official launch this morning.

Enhancing the customer experience and journeys of the Tampines community

The new station marks the launch of Shell-owned convenience retail store, **Shell Select**, and its own food label, **Deli by Shell** which serves an assortment of pastries and sweet treats that are freshly baked on-site daily to enable busy individuals to grab and go without the compromise of taste and quality. Deli by Shell also boasts a new range of Ready-to-Eat meals inspired by local favourites, and the first “**Scoops of Happiness**” concept, featuring an exclusive selection of local ice cream dessert creations developed through an inaugural collaboration with Wall’s.

Ms. Aarti Nagarajan, General Manager, Retail Sales & Operations, Shell Singapore, commented: “This station marks the beginning of a transformational journey ahead as Shell continues to progress with our customers to meet their evolving needs and demands in mobility and convenience. We place customers at the heart of everything we do and together with our frontline service champions, we are committed to better serve our customers in this on-going journey to improve our customer experience. As we believe it is not just where you go, but also how you go that matters, we hope to help our customers ‘**Go Well**’ and make their life’s journeys better.”

Building on the station’s convenient retail offering, Shell has joined hands with strategic partners such as McDonald’s, who share a common vision in bringing value-added convenience to customers. Through the partnership, McDonald’s now operates Singapore’s first 24-Hour Drive-Thru located in a petrol service station. Focusing on takeaways only, this unique new-format caters to customers who are increasingly looking for efficient yet quality food options and one-stop convenience. Both drive-through and walk-in customers can look forward to enjoy their favourite breakfast and all-day offerings at the Drive-Thru.

Kenneth Chan, Managing Director, McDonald’s Singapore, elaborated: “We are always evolving to stay connected and relevant to the lifestyles of our local community. Customers today increasingly value convenience and we want to be at the forefront of modernising the experience for them. With this new-format Drive-Thru focusing only on takeaways, we are providing an accessible 24-hour touch point not only for motorists and cyclists, but also residents in the neighbourhood.”

In the same vein, Shell Tampines Avenue 2 also includes new service amenities such as Singpost POPStation and other self-service kiosks such as UOB ATM machine, NETs self-service kiosk, AXS machine and a newspaper vending machine, for customers looking to get more done in a single visit.

Embracing the new face of mobility towards an eco-friendly and sustainable city

In face of the changing mobility landscape in Singapore towards a car-lite society, Shell is taking strides to cater to a growing community of Personal Mobility Device users by creating “**Take a Brake**” bicycle bay – a first-ever initiative in a petrol service station as a dedicated facility. Strategically located within the Tampines cycling network, it serves to enhance the connectivity of Tampines as an ideal pit-stop for cyclists to rest and recharge in between journeys.

“Tampines is an active community that prides itself on being Singapore’s pioneer cycling town. I am heartened to see that Shell has selected their Tampines station to house the first-ever bicycle bay. This launch complements our current cycling network which Tampines residents can use to enjoy easy access to other parts of the town. It also reflects our care for the environment, so it’s great to see major players such as Shell embracing and promoting active mobility in Tampines as Singapore strives towards a car-lite society.” **Ms. Cheng Li Hui, Grassroots Adviser to Tampines Grassroots Organisations and Member of Parliament for Tampines GRC** commented.

In addition, Shell has introduced new sustainability initiatives in the station as a pilot in a bid to improve energy and water efficiency in its day-to-day retail operations. This includes the use of solar tubing in parts of the station canopy to reduce electricity usage in lighting up the refuelling

area during the day; a rainwater harvesting system where water is reused to water the plants on the green walls and flushing of toilets; and the use of motion detectors, installed at specific areas of the station to ensure that lighting is only activated when necessary.

Ms. Goh Swee Chen, Chairman of Shell Companies in Singapore, added: “Planning for the future, revitalising our operations and staying relevant are important to Shell Singapore. As we come together as a nation to create a more sustainable future for Singaporeans, we at Shell are committed to evolve together and develop smart city solutions particularly in personal transport, in support of the government’s initiative in creating endearing eco-smart towns.”

The revamp across 57 Shell stations island-wide will take place gradually over the next few years with the phased roll-out of Shell Select and Deli by Shell. Station offerings may differ across the stations tailored to varying customer and locational needs.

For more information on the new Shell Tampines Avenue 2, please refer to the **Factsheet**. For Shell station updates, please refer to: **www.shell.com.sg**

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Notes to Editors:

About Shell Retail

Shell aims to be the best fuels retailer in the world. Today, Shell has approximately 45,000 retail stations in more than 80 countries. Over 100 years of experience developing fuel technology and services make it one of the leading providers of innovative fuels.

Royal Dutch Shell plc

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10. Shell produces two new wax products from its Bukom refinery in Singapore

Jul 07, 2017

Shell Eastern Petroleum Ltd (“Shell”) has started producing two new wax products, Slackwax 60 and Slackwax 120, at its Pulau Bukom manufacturing site in Singapore. Shell intends to manufacture 60 kilotonnes of these products annually, serving customers in Asia, Europe and the US.

“Singapore is Shell’s largest integrated petrochemicals production and export centre in the Asia Pacific region. This latest investment affirms the commitment to optimise our assets and capability here,” said Brenda Stout, Manufacturing Director for Shell Singapore.

“This investment is a strategic move to reinvigorate our position in the wax business,” said Maarten van Roon, Global Business Manager for Wax, Shell International Trading and Shipping Company Ltd. “Shell has a strong reputation in the wax market. Our value proposition is in offering security of supply, consistent product quality, and local support to customers in key markets, whether technically or commercially.”

The Shell Trading & Supply companies that comprise the Shell Global Trading Network shall be the exclusive marketer of this new slack wax stream and will have local storage in key markets to support the supply to customers both via direct and indirect channels.

Slack wax is used in the making of candles, petroleum jelly, emulsions, and as well as various other applications.

Notes to Editors:

- Slack wax is a mixture of oil and wax and comes from base oil production at the Pulau Bukom Manufacturing Site.
- Shell produces wax products at its plants in Malaysia (Sarawak), South Africa and Argentina.

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11. Shell launches #IdeaRefinery to scale energy startups, in partnership with NUS Enterprise and ImpactTech

Sep 22, 2017

A corporate accelerator meets development-sprint programme, #IdeaRefinery provides startups with the tools to commercialise game-changing solutions that will support Singapore in the national energy transition

In partnership with NUS Enterprise, the entrepreneurial arm of the National University of Singapore (NUS) and business consulting company, ImpactTech, which provides customised acceleration programmes, and supported by the Energy Market Authority, Shell Singapore today launched a call for applications for #IdeaRefinery – its 20-week corporate accelerator programme. #IdeaRefinery aims to help build a vibrant startup ecosystem in new energy solutions, in support of Singapore’s ambition to be a sustainable and smart nation.

The programme focuses on developing early stage energy-related startups into full-fledged enterprises that can raise capital and scale into successful businesses with a strong societal impact.

“Shell is committed to a cleaner energy future, and we believe that a collaborative approach to innovation will accelerate the development and deployment of new ideas. We are pleased to launch #IdeaRefinery, to work with energy-related startups to bring bright energy ideas to the fore,” said Goh Swee Chen, Chairman, Shell Companies in Singapore.

Five Singapore-registered startups will be selected based on their ability to drive a positive energy implication unto society, in areas including but not limited to solutions for generating energy, reducing the demand for energy, using energy smartly, storing energy, producing clean and renewable energy, and transporting energy. The programme curriculum, which combines the benefits of conventional development sprint and accelerator programmes, is designed to help startup founders cement their footing in the business arena, hone their leadership, pitching and marketing skills, and inspire them towards expanding their innovative energy solutions.

Selected startups will be privy to workshops helmed by both Shell and other industry stalwarts such as Stephen McGrath (Head, Shell Technology Ventures, Silicon and APAC), focusing on exercises around business strategies and pitching, branding and marketing, and global trends in renewable energy. They will also have access to an extensive panel of mentors comprising experts with ample business and entrepreneurial skills. Furthermore, startups will be able to access on-site resources at The Hangar by NUS Enterprise – an on-campus base built to nurture homegrown entrepreneurs.

“NUS Enterprise plays a pivotal role in advancing innovation and building the entrepreneur community,” said Dr. Lily Chan, Chief Executive Officer, NUS Enterprise. “We run one of the most comprehensive university-based incubation and acceleration programmes in Singapore. Our partnership with #IdeaRefinery augments our efforts to serve the larger startup community in Singapore. Together with Shell and our partners, we look forward to building a conducive environment where ideas can flourish.”

“At ImpactTech, we look to empower innovative startups that tackle social issues, and resonated with #IdeaRefinery’s aim of propelling startups with meaningful energy ideas. No one startup is the same, so the means through which they develop and scale also has to be tailored – this is what ImpactTech brings to the #IdeaRefinery programme, through curated and personalised

workshops that each startup will be able to access,” said Ms. Kineret Karin and Mr. Yoav Elgrichi, Founders, ImpacTech.

Registrations for #IdeaRefinery will close on 15 October, with the five selected startups announced in end October 2017. The programme will culminate in a Demo Day at Make the Future Singapore 2018, Shell’s global festival of ideas and innovation – where startups will present their ideas to an audience comprising business leaders, government officials, academia, Shell business partners and venture capitalists.

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Notes to Editors:

About Shell #IdeaRefinery

In partnership with ImpacTech and NUS Enterprise, Shell presents #IdeaRefinery, a 20-week accelerator programme that focuses on developing early stage energy-related startups into full-fledged startups that can raise capital and scale into successful businesses.

Over the course of four months from November 2017 to March 2018, five selected startups will receive mentorship from Shell and industry leaders, absorbing industry insights imparted by them. At the end of the programme, the startups will showcase their enterprise during Demo Day in 2018’s edition of Make the Future Singapore, Shell’s global festival of ideas and innovation.

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12. FueLNG completes first commercial LNG bunkering in Singapore

Sep 27, 2017

FueLNG, a joint venture between Keppel and Shell Eastern Petroleum (Pte) Ltd, has achieved the first commercial Liquefied Natural Gas (LNG) bunker transfer in Singapore by completing truck-to-ship bunkering for the Floating Liquefaction (FLNG) vessel, Hilli Episeyo.

Read the press release on [Keppel Corporation's website](#).

13. Shell's response to The Sunday Times article 'China oil giant enters S'pore petrol station business'

Oct 01, 2017

A front page article titled "China oil giant enters S'pore petrol station business" in The Sunday Times published on 1 October 2017 quoted an unnamed senior oil executive saying that Shell may sell or lease 10-15 stations to Sinopec.

These statements are speculative in nature and to date, have not been verified with or confirmed by Shell Singapore. We are committed to invest and grow our retail business in Singapore and Singapore is a strategic country for Shell. Our network of 57 stations is undergoing a transition to the Shell Select convenience brand. We are improving station offerings to ensure we make life's journeys better for all customers in Singapore and to build sustainability into our operations. We are firmly anchored to this plan.

14. Shell opens 430 Million-litre Lubricants Plant in Singapore

Nov 01, 2017

Shell today opened an integrated lubricants and grease production facility in Tuas, Singapore. At 10 hectares, the site size is equivalent to almost 25 football pitches. It is Shell's 3rd largest lubricants plant in the world and 2nd largest in Asia-Pacific, capable of producing up to 430 million litres (equivalent to 390 kilotonnes) of lubricants and greases every year - enough to change the engine oil of over 12,000 cars, every hour, every day.

Speaking at the opening, Huibert Vigeveno, Shell Global Commercial, Executive Vice President (including Shell Lubricants) said: "This state-of-the-art, highly automated facility in Singapore was built to support our business ambitions here in the APAC region. It serves as a strategic production hub, and will be the centrepiece of our lubricants supply chain network to reliably supply our world-class lubricants to millions of customers in the region. Asia represents over 40% of the world's lubricants demand, and is home to half of the world's largest lubricants markets.

" This facility will also further strengthen our marine lubricant business's presence here in Singapore, the world's second busiest port."

Lim Kok Kiang, Assistant Managing Director of the Singapore Economic Development Board, commented, "We are heartened by Shell's commitment to improving productivity through the adoption of innovative technologies, which is aligned with the strategies of the Energy & Chemicals Industry Transformation Map. With a 50% increase in capacity and six-fold improvement in productivity over its previous plant, the new plant will be yet another great showcase of an Advanced Manufacturing facility that provides Singaporeans with good jobs."

The new plant will be a production hub for products that will be shipped to more than 40 countries, mainly in the Asia-Pacific region. It will produce lubricants carrying Shell's globally renowned brands, such as Shell Helix (passenger car motor oil), Shell Rimula (heavy duty engine oil), Shell Tellus (hydraulic oil), Shell Alexia (two-stroke marine engine oil) and Shell Gadus (greases).

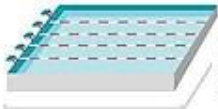


Mr Cheong Kin-Seng, General Manager, Shell Lubricants Supply Chain Asia Pacific; Mr Nick Chong, Vice President of Shell Lubricants APME & SA; Ms Goh Swee Chen, Country Chair of Shell Companies in Singapore; Mr S Iswaran, Minister for Trade and Industry (Industry); Mr Huibert Vigeveno, Executive Vice President of Shell Global Commercial; Mr Damien Chan, Executive Director, Energy & Chemicals, of Singapore Economic Development Board; Mr Dennis Cheong, Vice President of Shell Lubricants Supply Chain; and Ms Hilary Struthers, General Manager Performance & Development, Shell Lubricants Supply Chain.

Shell Tuas Lubricants Plant Singapore


Integrated lubricants and grease production facility

Capable of producing up to **430 million litres** of lubricants and greases annually



equivalent to **172x** Olympic sized swimming pools

Site area is approximately **100,000 square metres**



or the area of **25x** football pitches



Second largest plant in Asia-Pacific



Supply lubricants to customers in **40+** countries



Produces lubricants and greases for the automotive, maritime and industrial sectors



World-class quality

Highly-automated blending, filling and packaging technology



Dedicated world-class lubricant and grease testing laboratory



Tuas LOBP



Shell Tuas Lubricants Plant



Shell Tuas Lubricants Plant is highly automated and can produce up to 430 million litres of lubricants and greases every year.



Shell Tuas Lubricants plant is Shell's 2nd largest lubricant plant in Asia-Pacific and 3rd largest in the world.

Downloads:

[Tuas LOBP infographic](#)

[Shell Tuas Lubricants Plant Singapore - Accessibility Version](#)

[Shell Tuas Lubricants Plant](#)

Shell Tuas Lubricants Plant is highly automated and can produce up to 430 million litres of lubricants and greases every year.

Shell Tuas Lubricants plant is Shell's 2nd largest lubricant plant in Asia-Pacific and 3rd largest in the world.

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Notes to Editors

- Shell fully owns and operates this plant, thus ensuring complete control over product quality.
- The new facility will use state-of-the-art, highly-automated lubricant blending, filling and packaging technology. It is equipped with a stringent quality control system that tests lubricants at all stages of production to ensure products meet the high-quality specifications associated with Shell's brands. All processes at the plant are fully automated and controlled at all stages by skilled operators at control panels installed at the control room and strategic locations in the plant. As part of the focus on quality products, the plant has been equipped with a dedicated world-class lubricant-testing laboratory.
- It is located adjacent to the Singapore Lube Park (SLP) in Tuas, Singapore, a JV between Shell and two other partners who share its facilities. SLP contains an import-export jetty, pipelines and a tank farm.
- Shell operates 50 lubricant blending and grease manufacturing plants globally, 16 of which are located in Asia, specifically, in China, India, Indonesia, Malaysia, Pakistan, Singapore, South Korea and Vietnam.
- Three out of Shell's five base oil plants are in Asia.

About Shell Lubricants

The term "Shell Lubricants" collectively refers to Shell Group companies engaged in the lubricants business. Shell sells a wide variety of lubricants to meet customer needs across a range of applications. These include consumer motoring, heavy-duty transport, mining, power generation and general engineering. Shell's portfolio of lubricant brands includes Pennzoil, Quaker State, Shell Helix, Shell Rotella, Shell Tellus and Shell Rimula. We are active across the full lubricant supply chain. We manufacture base oils in five plants; blend base oils with additives to make lubricants and manufacture grease in 50 plants; distribute, market and sell lubricants in over 100 countries. We also provide technical and business support to customers. We offer lubricant-related services in addition to our product range. These include: Shell LubeMatch –the market leading product on-line recommendation tool, Shell LubeAdvisor - helps customers to select the right lubricant through highly trained Shell technical staff as well as online tools, and Shell LubeAnalyst - an early warning system that enables customers to monitor the condition of their equipment and lubricant, helping to save money on maintenance and avoid potential lost business through equipment failure. Shell's world-class technology works to deliver value to our customers. Innovation, product application and technical collaboration are at the heart of Shell lubricants. We have leading lubricants research centres in China, Germany, Japan and the USA. We invest significantly in technology and work closely with our customers to develop innovative lubricants. We have a patent portfolio with 150 + patent series for lubricants, base oils and greases; more than 200 scientists and lubricants engineers dedicated to lubricants research and development. Customer benefits include lower maintenance costs, longer equipment life and reduced energy consumption. One of the ways we push the boundaries of lubricant technology is by working closely with top motor racing teams such as Scuderia Ferrari and BMW Motorsport.

These technical partnerships enable us to expand our knowledge of lubrication science and transfer cutting-edge technology from the racetrack to our commercial products.

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15. Shell volunteers surpassed target with more than 180 hours of community programmes and raised more than \$80,000 in the Amazing 'Raise'

Dec 05, 2017

The Shell iVolunteers' Amazing 'Raise', an inaugural fund-raising event involving Shell community partners, raised S\$80,000 for Lakeside Family Services and capped a full year of giving back, exceeding 180 hours of community programmes.

Singapore – Shell Singapore completed its full year of giving back to the community with more than 180 hours of community programmes aimed at supporting children and youth from low-income families or with special needs. Shell iVolunteers, an employee-driven volunteering network, marked this milestone with a fund-raising event called The Amazing Raise, which raised S\$80,000. Apart from funds, this event also aimed to raise awareness of the social causes supported by Shell Singapore, as well as fun in volunteering.



Shell iVolunteers purchasing daily necessities for low-income families

All three key community partners of Shell Singapore; namely Lakeside Family Services (LFS), Southwest Community Development Council (SWCDC) and the Institute of Technical Education (ITE), pitched in to organise this inaugural event. Designed like the popular U.S TV series, the Amazing Raise required more than 100 Shell employees to race around the partners' locations and complete challenges designed to simulate the daily struggles faced by the beneficiaries. For example, participants experienced the dilemma of a low-income family choosing daily necessities with limited money. Kaushik Burman, Shell Commercial Fleet Manager, remarked after the event, "It's a very humbling experience and one feels very grateful for whatever one has."

Minister of Social and Family Development, Mr. Desmond Lee, who flagged off the exciting event with Ms. Goh Swee Chen, Chairman of Shell Companies in Singapore, and Mr. Teo Tee Loon, Executive Director of Lakeside Family Services, urged the volunteers to focus on helping the beneficiaries find their own feet. He said, "[Let's not] treat them as cases but to treat them as individuals and families who need that extra support to stand on their own two feet again. Often,

the dignity and respect that we provide to them allow them to recover and to come back, hopefully in the future, to also make a difference.” The event was also attended by representatives from SWCDC and ITE College West.



(From left) Ms. Goh Swee Chen, Chairman of Shell Companies in Singapore; Mr Desmond Lee, Minister of Social and Family Development and Mr. Teo Tee Loon, Executive Director of Lakeside Family Services, attending the Amazing Raise.

Together with funds from The Amazing Raise, Shell raised a total of \$110,000 in 2017 for Lakeside Family Services. Mr. Teo Tee Loon expressed his gratitude to the Shell volunteers, saying “Shell is lucky to have employees like you who have a heart for the community, what you’re doing today, it builds the hearts; it builds the culture of kindness and love.”

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Notes to Editors:

About Shell iVolunteers

Shell iVolunteers is an employee-drive network that connects enthusiastic Shell volunteers from all the offices and sites in Shell Singapore. Shell iVolunteers aims to support children, youth and their families with less privileged background. Since its formation in July 2015, Shell iVolunteers membership has grown from 15 to 450. Shell iVolunteers fund-raise and co-design programmes with its community partners to bring hope and inspirations to children and youth. In 2016, Shell iVolunteers completed more than 150 hours of community programmes.

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manufacturing, marketing and shipping of oil products and chemicals and renewable energy projects. For further information, visit www.shell.com

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 subsidiaries in general or to those who work for them. These expressions are also used where no useful purpose is served by identifying the particular company or companies. “Subsidiaries”, “Shell subsidiaries” and “Shell companies” as used in this press release refer to companies 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 “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 a venture, partnership or company, after exclusion of all third-party interest.

This press release contains forward-looking statements 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 “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. 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, 2016 (available at www.shell.com/investor and 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 2017. 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.