

# sphere

#40 2016   
INTERNATIONAL JOURNAL OF THE  
CK HUTCHISON GROUP

## VEHICULATION ASPIRATION

The Greatest Gather **10**

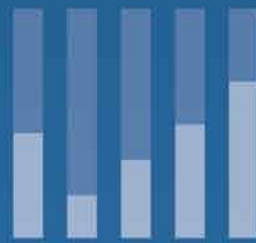
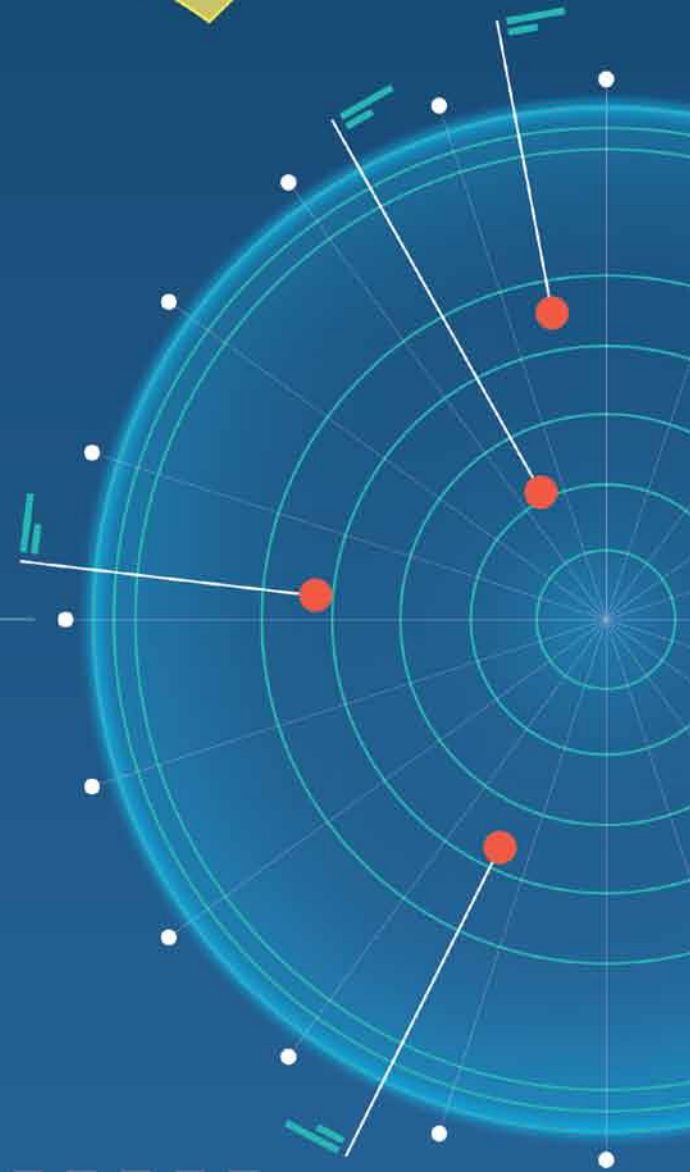
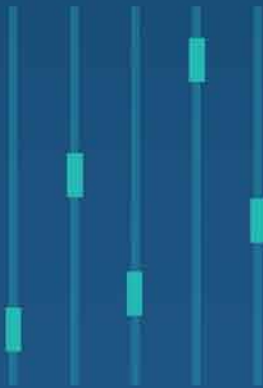
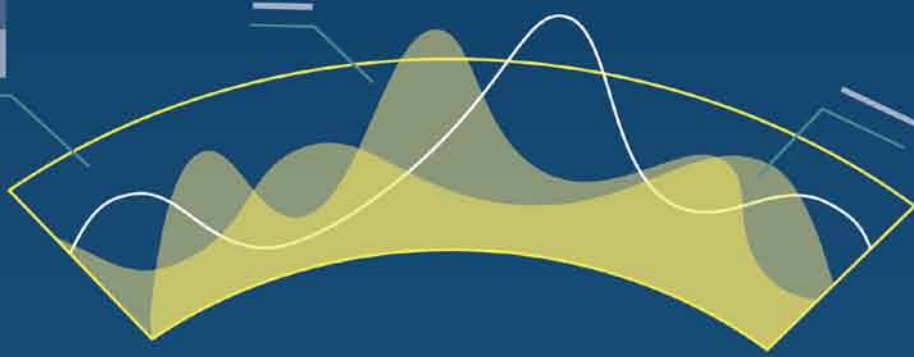
Viral Marketing **20**

HGC's Invisible Agent of Change **24**

Singularity University, Exponential Universe **26**



Download  
Sphere online





**Sphere Magazine #40**  
July 2016

**Cover Illustration**  
By Kaliz Lee

CKHH vehicles defy conventional definitions. Materials and chemical sciences, big data applications and innovative systems mean that old definitions are out of the window. Much of the most useful work is now unseen, remote-controlled and does more than move simply people and things about. Our artist captures the modernity and complexity of the inspiration in our vehiculation.

**Development will require us to not only simply 'make things better', but also harness new technologies and expansive ways of thinking.**

W E L C O M E

## RATIONAL OPTIMISTS

There are those who would have you believe the end is nigh. Doom besets us on all sides and the world is headed to hell in a handbasket.

Well, it just isn't so.

Viscount Matt Ridley, British Lord, scientist and author, presents ample evidence for the rising fortunes of mankind in his book, *The Rational Optimist: How Prosperity Evolves*. From the billions that have been lifted out of poverty, to the improving health of the planet, things are demonstrably getting better for the vast majority of humankind. Lives in most of the world are not nearly as 'solitary, poor, nasty, brutish and short' (Thomas Hobbes) as they were even 200 years ago.

For that development to continue will require us all to persist to not only simply 'make things better', but also to harness new technologies and expansive ways of thinking. The Li Ka Shing Foundation brought Singularity University to

Hong Kong to help students there do just that. And CK Hutchison Group companies have been doing it with vehicles, as you'll discover in our cover story 'Vehiculation Aspiration'.

Agility in developing digital assets through global partnerships and A S Watson's eLabs in Asia and Europe are part of this expanded thinking. New means of using the Internet and broadband are also part of a brighter future envisioned by Hutchison Global Communications and through Group efforts in online marketing.

It is our responsibility to rise to this challenge every day. Our optimism will be buoyed by the rationality that arises from our continuous learning and honest efforts. □

 CK HUTCHISON HOLDINGS LIMITED

All rights reserved. No part of this magazine may be reproduced without written permission from CK Hutchison Holdings Limited. Opinions expressed herein are those of the writers and do not necessarily reflect the opinion of CK Hutchison Holdings Limited. All currency conversions are approximations.

©2016 by CK Hutchison Holdings Limited

(A limited liability Cayman Islands company registered and listed in Hong Kong)

**Published by**  
**CK Hutchison Holdings Limited**

22/F Hutchison House  
10 Harcourt Road  
Central  
Hong Kong

**Available on**  
[www.ckh.com.hk](http://www.ckh.com.hk)

**CK Hutchison**  
**In-house Editorial Team**

Laura Cheung  
Jeremy Lau  
Hans Leung  
Erica Liu  
Wendy Luk  
Ada Chan

**Feedback & Enquiries**  
[SphereE@hwl.com.hk](mailto:SphereE@hwl.com.hk)

**Editor**  
Andrew Work

**Writers**  
Michael Wong  
Alex Fok

**Printing**  
bigboXX.com Limited

**Creative Consultant**

**WHAM™**  
[thewhamagency.com](http://thewhamagency.com)

**Designed and**

**Produced by**  
**HK Magazine**  
South China Morning  
Post Publishers Ltd.  
Tel: +852 2565 2222

**Editorial**  
Xavier Ng  
Sophia Lam

**Creative Team**  
Pierre Pang  
Kay Leung  
Wing Chan

**Illustrations**  
Kaliz Lee

**Production Team**  
Joyce Wu  
Kelly Cheung  
Pauline Wan  
Janice Fung  
Ricardo Ng

# CONTENTS

0 4

## NEWS BITES

### Ports and Related Services

### Retail

### Telecommunications

### Infrastructure

### Energy

And More!

1 0

## RETAIL FOCUS



### Global Suppliers Conference: The Greatest Gather

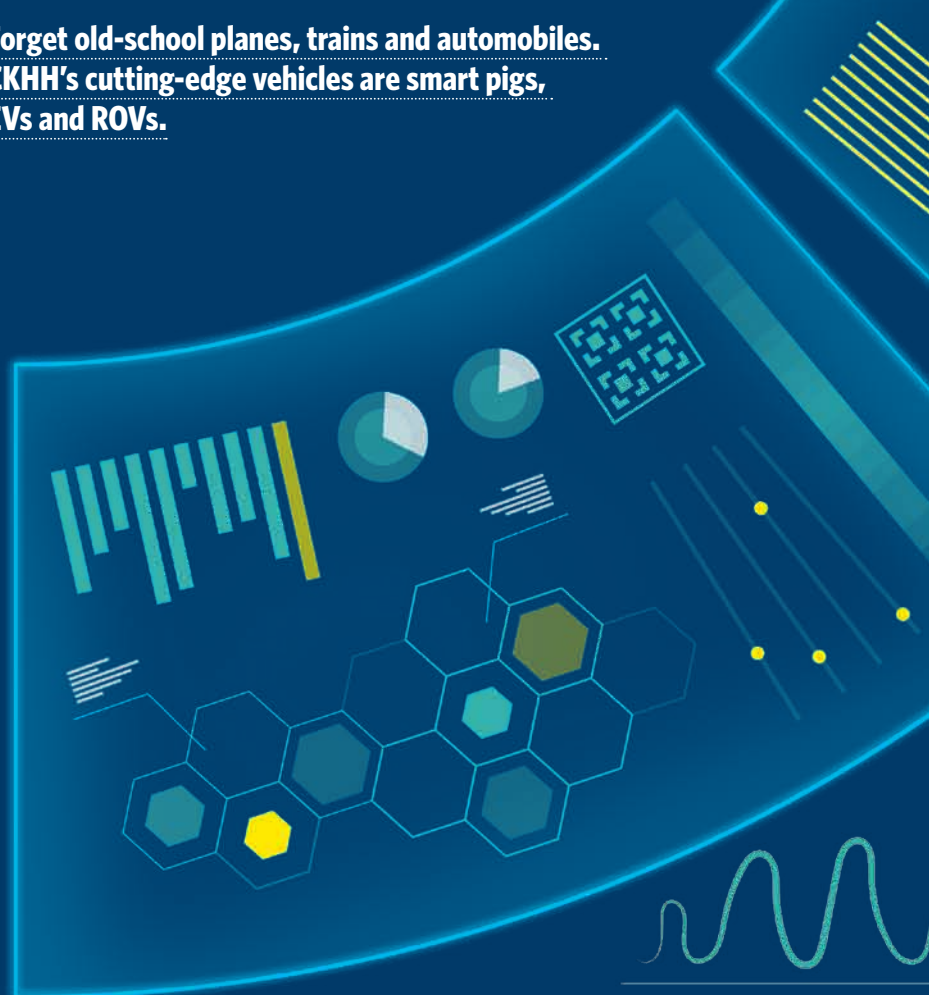
The world's captains of health and beauty gathered to commune on the future of their partnership with the global retail leader, A S Watson.

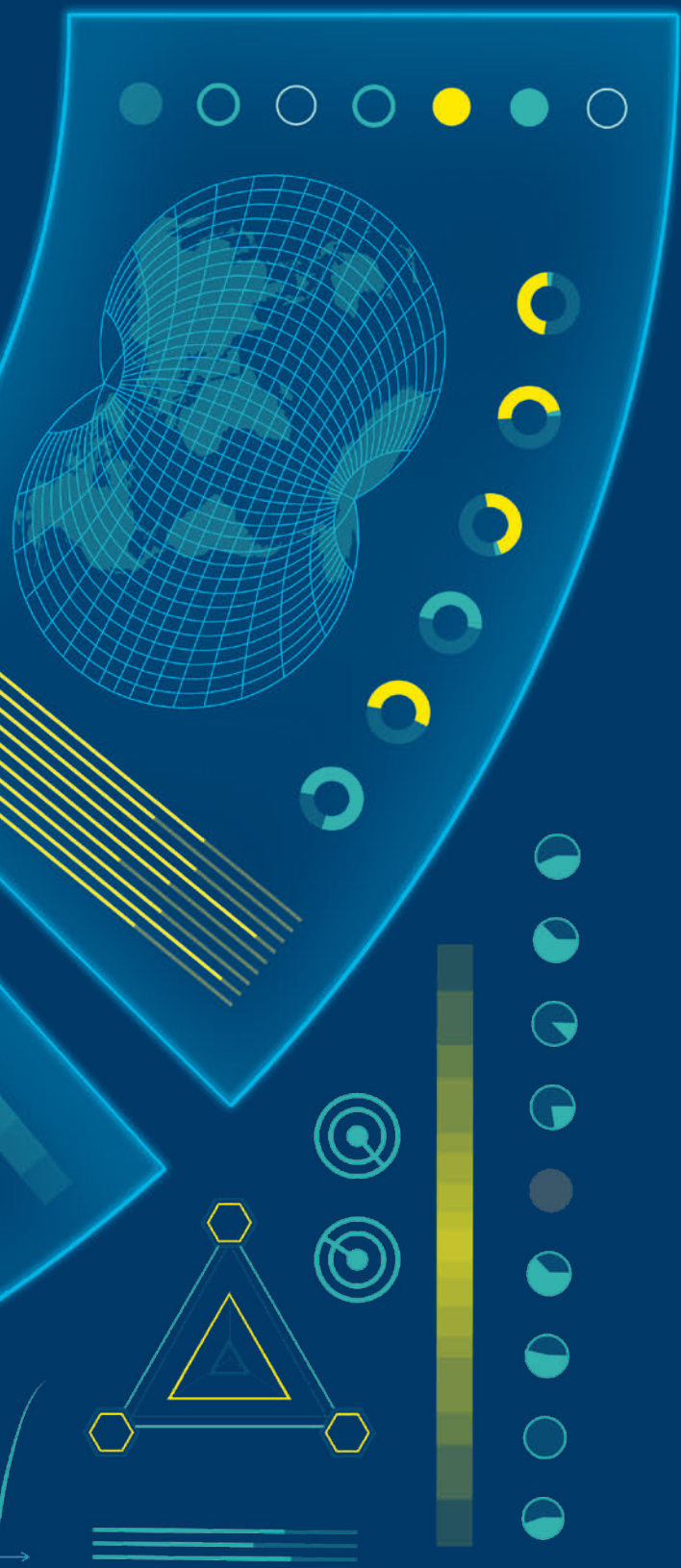
# 14

## COVER STORY

# PIGS, PLANES AND PIPES: CK HUTCHISON'S VEHICLES

Forget old-school planes, trains and automobiles. CKHH's cutting-edge vehicles are smart pigs, EVs and ROVs.





2 0

## MARKETING FOCUS

### In Your Head: Viral Marketing

Long before 'viral' became a good thing, CK Hutchison companies got their marketing into people's heads. From catchy jingles in the '80s to compulsive online sharing today, CKHH has won hearts and minds across the decades.



2 4

## TECHNOLOGY FOCUS

### Broadband: HGC's Invisible Agent of Change

The modern era would be impossible without broadband. Hong Kong is a global leader in cheap, plentiful broadband and for 20 years, HGC has made it happen.

2 6

## PHILANTHROPY FOCUS

### Singularity University, Exponential Universe

LKSF brought Singularity University to 300 "solvers and thrivers who have the potential to change our world" in Hong Kong.

## TELECOMS

### 3 UK - IT'S ALL ABOUT THE SERVICE

3 UK's award-winning service is keeping customers happy. The Best Customer Service – Network category at the prestigious 2016 Mobile News Awards went to 3 UK, based on mystery calls to customer support teams who were rated on their manner, understanding, knowledge, helpfulness, clarity and overall performance. This was reflected in 3 UK being rated “the least complained about” UK network operator, with the regulator, Ofcom, receiving only three complaints per 100,000 customers in the last three months of 2015 – less than one-third of the industry average of 10 complaints.

### ALL YOUR DEVICES, ONE FANTASTIC ACCOUNT

“SmartShare” is Hutch Sri Lanka's innovative solution that enables accessibility of data through one shared mobile data account. The hassle of managing and monitoring data consumption for multiple devices has now disappeared for all Hutch Sri Lanka's subscribers.

## INFRASTRUCTURE

### Powering profits from wind

Cheung Kong Infrastructure and Power Assets have completed the acquisition of Iberwind - Desenvolvimento e Projectos, S.A., a wind energy company in Portugal. Post-acquisition, Iberwind owns and operates 31 wind farms totalling more than 300 wind turbines with a total capacity of about 700 MW, about 15 per cent of Portugal's wind power production.



### NORTHERN GAS NETWORKS: CONSIDERATE

Considerate Constructor Scheme Awards ceremonies in April saw Northern Gas Networks' (NGN) projects from Scotland to Yorkshire recognised for being considerate towards local neighbourhoods and the public, the workforce and the environment. The Church Fenton site won a Gold medal on the basis of strong community work, including communication through house visits and public meetings, and NGN's sponsorship of the local cricket and football clubs, Scouts and Brownies. The Westgate project in Huddersfield also won Gold and many other projects won Silver and Bronze awards – no mean feat.

PORTS

## Hutchison Ports: Millions and millions

Big accomplishments merit a big celebration! Over 350 government officials, customers, partners and stakeholders celebrated Hutchison Port Holdings Trust's Hong Kong facilities reaching a cumulative throughput of 200 million TEUs. In Hong Kong's local dialect: 恭喜! Gung Hei!



### GOODWILL FROM MINISTER GOODWILL

A huge new ambient-temperature food examination facility was opened at Port of Felixstowe by UK Transport Minister, Robert Goodwill MP. The facility covers 3,045 square metres with an additional 840 square metres of office space and meeting rooms and the provision of new offices for the Suffolk Coastal Port Health Authority.

CORPORATE

### THANKS TO CKHH VOLUNTEERS!

The CK Hutchison Volunteer Team headed for the countryside of Hong Kong to celebrate a year's service to their community. About 600 volunteers helped over 1,300 beneficiaries through 3,045 hours of service last year. From elderly persons suffering chronic disease to orphans, CKHH volunteers were there to lend a hand.

TELECOMS

### OVER THE TOP AWARD WINNING!

Hutchison Global Communications (HGC) has won the Company of the Year for Innovation and OTT Leadership – Asia in the IAIR AWARDS® 2016. The awarded project – HGC Application and Content Provider solution – helps Over-the-top service providers to expand service coverage and attract a global audience.



### YOUNG, HIP, VIETNAMESE AND MOBILE

Free SIM cards were given away to young people in the new Vietnamobile shop in downtown Hanoi. This strategic location, next to a high school, is indicative of Vietnamobile's focus on the youth of this nation.





## ENERGY

### Edam East Lloyd Thermal steaming ahead!

In April, Husky Energy commenced production at its Edam East Lloyd Thermal Project in Saskatchewan, the first of three new thermal developments scheduled to come online in 2016. First oil at the 10,000 barrels per day development was achieved about seven weeks after the start-up of steaming operations.

## TELECOMS

### SHARING IS CARING

Hutchison 3 Indonesia celebrated its ninth year of operation by conducting charitable activities for communities surrounding the company and across the country. In all, 750 employees took part, raising funds for deaf persons, orphanages, youth rehabilitation, school renovations and other charities.



## RETAIL

### BIGGER THAN THE PHILIPPINES, GERMANY, FRANCE: ASW'S LOYALTY PROGRAMME

ASW Group has reached a new milestone of recruiting its 100 millionth loyalty member, signed up earlier at Superdrug's Lakeside store in the United Kingdom. ASW keeps recruiting loyal customers to the programme, and has passed 110 million by the end of June 2016.



### PROJECT LOL

Project LOL brought lots of love and laughs to the community via "Elderly Day 2016", held in April. Over 1,300 volunteers from ASW's six retail and manufacturing businesses in Hong Kong and 35 of its business partners brought joy to more than 1,750 elderly people living alone in the city.



## Fired-up about new Hong Kong power plant

In January 2016, HK Electric commissioned the construction of a new gas-fired generating unit which will replace retiring units and meet stringent emission requirements set by the government. Commissioning in 2020, the new unit will maintain power supply reliability and reduce carbon dioxide and other emissions. It also lends to the government's target of increasing the proportion of natural gas generation to 50 per cent by 2020 to clean Hong Kong's air.



### A BEACON OF LIGHT IN THE UNDERGROUND

UK Power Networks Services has won the prestigious Beacon Award for high standards that demonstrate a proactive safety culture above and beyond normal site requirements. The London Underground Northern Line Extension to Battersea saw an upgrade of London's venerable metro's electrical system with over one million working hours without a single lost-time incident!



### CUTTING-EDGE CRANES AROUND THE WORLD

Hutchison Port Holdings is always upgrading! Shanghai Mingdong Container Terminals installed six electric Rubber-Tyred Gantry Cranes (eRTGCs) and two new quay cranes (QCs), while Hutchison Ajman International Terminals installed three hybrid RTGCs, the first ever in Ajman Port. South Asia Pakistan Terminals in Karachi has four new QCs and six new one-over-six RTGCs with remote control operating systems. And Hongkong International Terminals in Hong Kong installed two new barge QCs, to replace jib cranes, driving a 30-40 per cent increase in productivity.



### ENVIRO NZ RESCUES ASTROLABE REEF FROM DISASTER

New Zealand was devastated when the MV Rena, a Greek tanker, ran aground on the pristine Astrolabe reef. EnviroNZ, known to most locals for Kerbside recycling, took on the ginormous task of removing and recycling 144 containers (6,500 tonnes of material) with government and volunteer citizen partners. Scrap steel, 400 tonnes of wood and even 150 tonnes of butter were recycled. The reef and nearby beaches are now recovering, thanks to EnviroNZ and their partners.

### PARK'N FLY MAKES A WISH

When children fly, parents park. Park'N Fly made it a little easier for needy families benefiting from the Make-a-Wish Foundation programme which provides children who have life-threatening medical conditions with a chance to travel to their dream destinations. A total of 632 days of free parking were provided to 79 families while they accompanied their children, courtesy of Park'N Fly.



RETAIL

## ASW: Ringing in 175 years

There's a bell that's been ringing for 175 years at Oxford University, the result of an innovation in battery making. Likewise, A S Watson Group (ASW) keeps on going – and growing around the world. Hong Kong's Chief Secretary, Mrs Carrie Lam, GBS, JP, joined ASW executives, staff and business partners for a celebration of the largest international health and beauty retailer in Asia and Europe, with over 12,400 stores operating in 25 markets.

**There's a bell that's been ringing for 175 years. Likewise, A S Watson Group keeps on going.**

INFRASTRUCTURE

### BRINGING ENERGY TO ELDERLY LIVES

The U3A Network of Hong Kong (U3A) recently celebrated its 10th anniversary. Founded by HK Electric and the Hong Kong Council of Social Service in 2006, U3A has organised more than 4,600 courses to provide more than 70,000 learning opportunities for local retirees. Forty-eight self-learning centres throughout Hong Kong encourage retirees to take an active role in community affairs.



### UK POWER NETWORKS — BEST EMPLOYER

Send your CV in! UK Power Networks is the only power company to get on the *Sunday Times* Top 25 Best Big Companies to Work For list. The firm also won Utility of the Year 2015 for reducing the number and duration of power interruptions, improving customer service and communications, as well as delivering low-carbon, affordable and secure electricity supplies. Congratulations!



OTHERS

## NASDAQ Listed! Chi-Med is on the board!

In March, London-listed Hutchison China MediTech (Chi-Med) completed an Initial Public Offering on the NASDAQ Global Select Market in the US, raising over USD110 million. The listing will support Chi-Med's efforts to become a global force in the discovery, development and commercialisation of targeted therapies for oncology and immunological diseases.

### FREE TALK, DANISH STYLE

3 Denmark has launched Wi-Fi calling for all customers with a Free Talk subscription. Customers will be able to make Wi-Fi calls in rural areas and deep inside modern houses and office buildings where insulation often makes a clear cellular signal tough to get. Customers with iPhones 5C or newer, and those with iOS 9 installed, will be the first to get on board.



TELECOMS

### 3 MACAU'S 4G IS EVERYWHERE!

Indoors or outdoors in Macau, you can be sure 3 Macau has you covered. Its new 4G LTE network covers over 95 per cent of the outdoor areas of the Chinese Special Administrative Region. Those subscribing to the 4G network will enjoy a bigger data entitlement to go with their improved coverage. It's never a gamble with 3 Macau.



### 3 HONG KONG ALL NIGHT LONG

The innovative "Night Fever" Unlimited Data Pack offers unlimited 4G data at speeds not less than 1Mbps from 11 pm to 7 am every day. Hong Kong is famous for heavy video usage at all hours and 3 Hong Kong is now with them all night long.



EXCELLENCE

# GLOBAL SUPPLIERS CONFERENCE: THE GREATEST GATHER

A S Watson Group's 175th anniversary celebrations were marked with the best Global Suppliers Conference yet.





ASW's partners, global giants in their own spheres, gather to affirm their relationship with the retail group.

**T**hey flew in from all over the world. Presidents of global product giants like Unilever, L'Oréal, Henkel, and Procter & Gamble. Third-generation stewards of European fashion houses of long repute and deep tradition. Even Stella McCartney, the fashion giant, shared a thoughtful presentation with the prestigious audience. And they all came to Hong Kong to commune with their partner in bringing their products and brand experience to billions across Asia and Europe: the A S Watson Group (ASW).

Dominic Lai, ASW Group Managing Director, played host along with the leadership of the retail group from across the two continents. By bringing ASW's committed partners to Hong Kong, they could ensure mutual success through a shared vision that was crafted, in part, at the conference.

Over 120 top executives and innovators from 34 suppliers came to the biennial event in Hong Kong, providing a great opportunity to exchange views and strategies on customer engagement. ASW, as the largest health and beauty retailer in Asia and Europe, has an impact on the rise and fall of the fortune of global leaders in the industry. Speaker after speaker from the retail group shared what they had learned in their markets and showed that the way forward for the industry was to succeed by supporting the ASW vision. Each would, if their division was counted alone, be the leader of a massive global player. They are all part of the team that the makers of health and beauty products depend on for sales and look to globally for leadership.

At the forefront of that star team of hundreds of global executives is Dominic Lai, leading the charge by outlining ASW's

**"We are determined to shape our future, rather than let the future shape us."**

Dominic Lai,  
ASW Group Managing Director



The building blocks for another 175 years of success are cemented through the strong relationship between ASW and its partners.

new initiatives and the evolution of its vision. That evolution has seen a new dimension - Innovation - spliced into the ASW DNA, adding to the pre-existing building blocks of Passion, Teamwork, Commitment and Science.

Mr Lai also made a daring announcement articulating the new customer strategy of DARE - Differentiation, Anywhere, Relationship and Experience. This new approach will elevate customer interaction with retailers and products to a higher level in the new era of retail.

**SCALE AND AGILITY**

Mr Lai's strategy for moving forward encompasses many elements building on ASW's natural advantages, like its

massive scale. But he also believes the company must be able to dance, and explains, "Our future plan is to continue to build scale, and, simultaneously, develop agility. Through more experimentation we can build innovation into our day-to-day culture."

Visiting senior executives from key suppliers took the agility message on board. Paul Polman, CEO of Unilever, spoke on a panel at the event. Referring to ASW's 175th anniversary, Mr Polman said, "I don't know where we will be in 175 years, but I hope we will have the same productive, constructive and respectful partnership that we have now with ASW, and that obviously requires all parties to be agile and close to the consumer."

Masahiko Uotani, President and CEO of Shiseido, was thrilled by the event, saying he appreciates "learning from ASW's capability to be customer focused, data driven, [and] strategic, yet operational and front-line oriented".

**PARTNERSHIP THE KEY**

Innovation and making the most of digital assets are essential to the company's future. Mr Lai explains, "I need you to understand that CRM is the new way of marketing, and not something you will only do when you have extra budget. It is THE way of marketing."

He aims to develop these assets through partnership, stressing that ASW and partners must "innovate in the way we

sell both beauty and health together – the way we create customer experience for customers of different generations”.

Jean-Paul Agon, Chairman and CEO of L’Oréal, is perfectly aligned with this vision. Contemplating the future of his company, he talks about L’Oréal’s new structure, which involves “digital transformation, which is absolutely essential. We have had a complete digital transformation of the company”.

Innovation isn’t just an aspiration. ASW has a practical channel for working with global suppliers: the eLab programme, driving its e-commerce platform. ASW’s eLab is the catalyst to connect ASW and its partners, driving innovation and positive transformation.

“We want you to provide us with quality content and to work with our eLab. We created eLab as a centralised platform to provide structural efficiency to you. Instead of working with our 25 markets, you just need to work with our eLab in Hong Kong for Asia, and eLab London for Europe,” says Mr Lai.

**SUSTAINABLE SUPERSTAR**

Commitment to sustainability is crucial, and that vision is shared by Marc Puig, Chairman and CEO of Puig. This third-generation European fashion house owns

Jean-Paul Gaultier and Carolina Herrera. Mr Puig says, “Our idea of sustainability is both for the business model we have, and for the things we are going to pass to the next generation ... We will make sure they are proud of the company they will inherit.”

Companies may not be the only thing the next generation can inherit. Creative genes may be inherited too, even if expressed in different ways. Stella McCartney came to share a vision that has seen her develop her business in more than 77 countries with a diverse range of products across fashion, from lingerie to glamour to children’s lines. Ms McCartney shared her commitment to sustainability with Alan Heaton, Group Finance Director of ASW.

“The idea of being more sustainable, more environmentally minded, more responsible as a [fashion] house and as a business – people really want it, they crave it.” For her, that means no leather products, and no PVC in her products, unheard of in a fashion house.

But she isn’t one to think she’s arrived and can relax. The innovation was in part driven by need. “I don’t think you can ever feel safe,” she says.

Like Ms McCartney, Mr Lai not only feels the heat of ever-present competition, but he also embraces the

**“I hope we will have the same productive, constructive and respectful partnership that we have now with A S Watson.”**

Paul Polman, CEO, Unilever

need for dissatisfaction. “The future belongs to the discontent! We have been quite successful but we are not satisfied with it. We are determined to shape our future, rather than let the future shape us. Actions must be taken today ... I believe the future will favour those who move now and move boldly.” □

ASW executives and Stella McCartney both know sustainability and responsibility are key drivers of successful business.



## OPERATIONS

## PIGS, PLANES AND PIPES:

CKHH'S  
VEHICLES

Forget what you think you know about vehicles and business. CKHH companies are stretching the definitions to deliver world-class operations.

**Y**ou probably think you have a pretty good idea of what vehicles are and what they do. They have wings, wheels, or rudders, are made of steel, plastic and glass, and burn fossil fuels to carry people and things from here to there. You may think vehicles are incidental to most of our businesses. And you may very well think that is all there is to it.

You would be entirely wrong.

CK Hutchison vehicles play crucial roles in all our businesses. Some are made of ice, some hum along silently, some watch from the skies, and some plumb watery depths. A new world of vehicles is upon us, made possible by massive computing power, AI, and the creativity and adaptability of CKHH staff.

## PIGGIES IN THE PIPES

Ice pigs, smart pigs, pig traps – the Group has more than one firm that is big on pigs. These pigs don't make for good ham however, but they do help Northumbrian Water Limited in the UK and Husky Energy Inc in Canada to bring home the bacon.

Pigging is the term that applies to the technology of Pipe Inspection Gauges – PIGs. In the old days, water, oil and gas pipes had to be dug up to be inspected, cleaned and, if needed, replaced: a costly, time-consuming methodology.

Later, simple PIGs made their way into the pipes, allowing firms to clean them through abrasion. But now Northumbrian Water and Husky Energy have taken pigs – so often used that the acronym has become a standard word – into the 21st century.

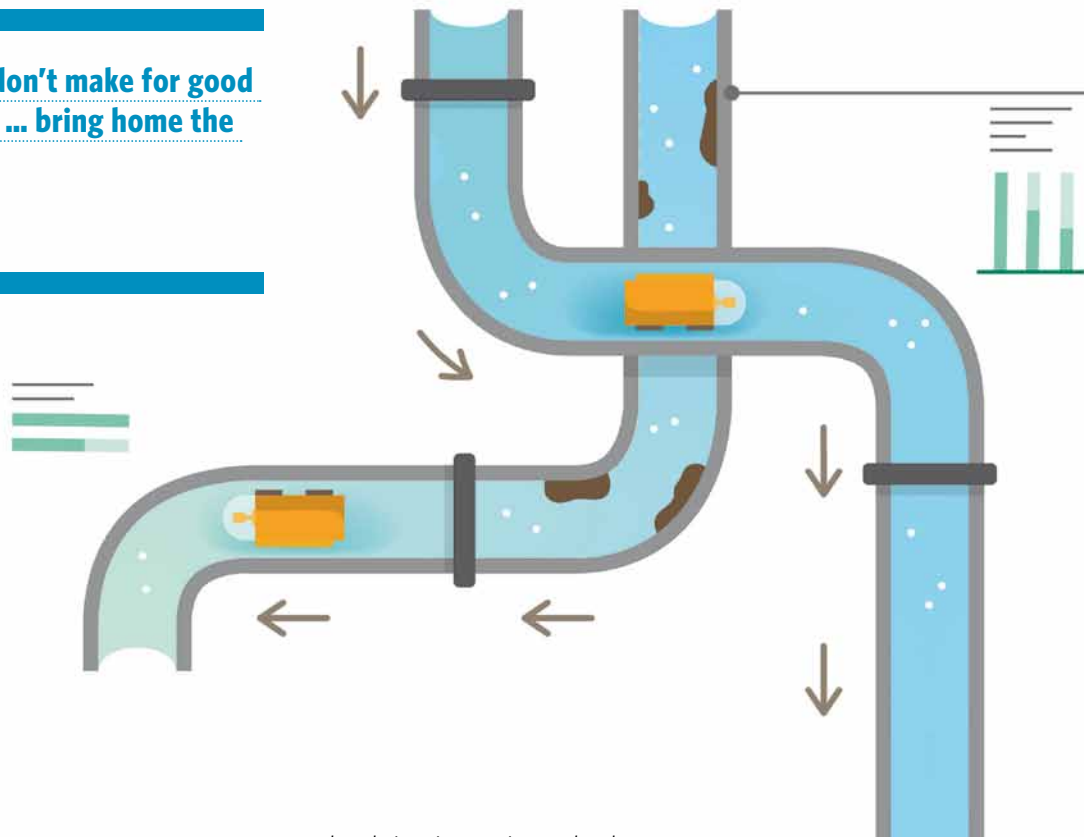
The original pigs were mini-vehicles, and the smart pigs that Husky Energy uses still are. Northumbrian Water, however, has deployed a new, carefully created post-vehicle “ice pig” to clean pipes. A special freezing point suppressant is introduced into water, allowing it to freeze to just the right consistency to flow down the pipes. It has enough abrasiveness to clean the walls of the pipe, but doesn't damage the lining of the pipe wall.

Trials in 2010 led to widespread adoption in 2012 with comparable results to traditional cleaning methods. Ice pigging has since cleaned over 50km of pipe in the Northumbrian Water network.





**These pigs don't make for good ham, but do ... bring home the bacon.**



**SMART PIGS**

Husky Energy has over 30,000km of small-to-medium diameter pipelines spread across the vastness of Western Canada. These pipes must be regularly maintained and monitored - and smart pigs are part of the solution. Smart pigs are wee vehicles that travel the pipes using an on-board computer. Old pigs would scrape the pipe to remove contamination, but newer smart pigs also collect information on minute pipe fractures, wear and tear and other vital data that helps engineers decide whether they need to make repairs, or can leave a pipe be and focus elsewhere.

Pig traps are set into a pipe where it pops above ground and these provide an access point for catching or deploying pigs. The strategic pipeline integrity management programme is aided by engineers learning from the pigs where efforts should be focused to get ahead of potential problems, and what can be left in the ground, making the whole operation more efficient. Pigs may be used to clean a given pipe once a month or more, while smart pigs may inspect pipes every two to five years.

As pigs become even smarter, engineers anticipate that high-definition 3D cameras

and real-time inspection technology may allow technicians to piggyback on smart pigs to inspect pipes in situ, making operations even more efficient.

**IN A YELLOW SUBMARINE**

Moving from pipes to tanks, Northumbrian Water has partnered with tech provider, UK-based Panton McLeod Ltd, to bring a little of The Beatles to water management.

Yellow submarines, individually bearing staff-given names like Ringo (Starr) and Macca (Paul McCartney), are Remote Operated Vehicles (ROVs), controlled by expert engineers who send them into the massive water storage tanks of Northumbrian Water.

About the size of a football, they can access places staff otherwise can't, and can take water samples in real time. Old inspection protocols required tanks to be drained, a costly and expensive procedure that put additional strain on the rest of the system. Now the feisty little ROVs can save time and improve information about water quality in the tanks and about which parts of the tanks need to be prioritised for cleaning and maintenance.



**Ringo (Starr) and Macca (Paul McCartney), are Remote Operated Vehicles, controlled by expert engineers.**



**CLEANING WITH WALL-E**

They aren't the only ROVs in the Northumbrian Water underwater in-tank fleet. The company also works with Pantom McLeod to deploy the VR480, VR600 and VR700 WALL-E-like robots underwater to clean and inspect the tanks.

The number in the model type refers to its size: the VR480 moves on tracks 480mm wide; the VR600 on 600mm tracks and so on. The height of each model is about 600mm - a little more than half a metre.

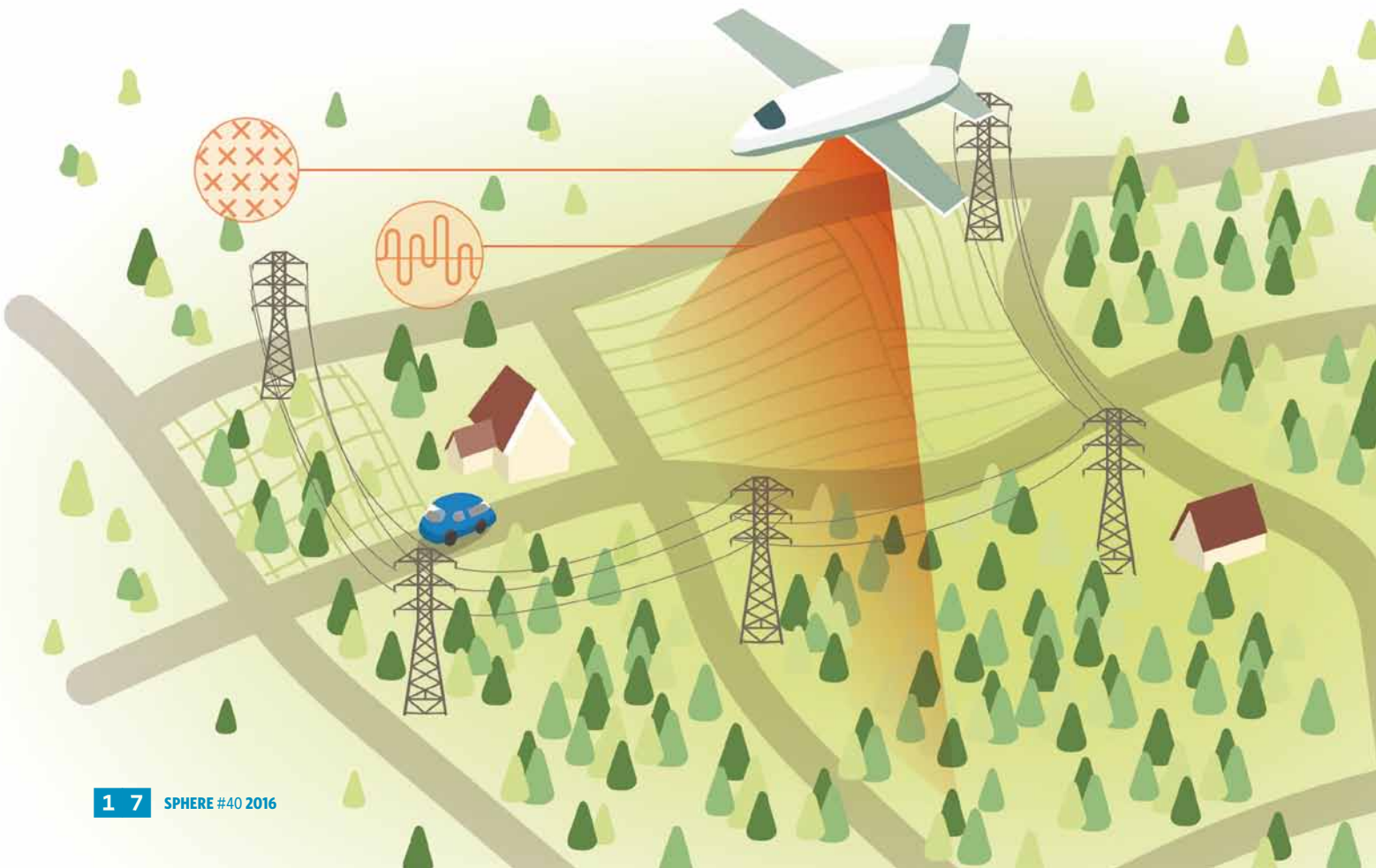
The robots travel in tanks, vacuuming up sediment when cleaning, and inspecting for faults and cracks. Northumbrian Water first adopted the technology in 2003, becoming an industry leader. The Horsley Project saw Northumbrian Water recognise Pantom McLeod for their contribution in helping the company "achieve its goal to be the national leader in sustainable water and waste water services." Using the high-tech service, an extremely difficult-to-access 34-megalitre tank was cleaned, inspected and structurally modified without disrupting regular service to customers.

**EYE IN THE SKY**

High tech can be used in constrained places like pipes and tanks, but has also "slipped the surly bonds of Earth and danced the skies on laughter-silvered wings."

UK Power Networks Holdings Limited has a vast web of powerlines spreading over London, the South East and the East of England, criss-crossing cities, towns, vast tracts of countryside and even forests. Staff have had to pick their way across public and private lands to determine whether those powerlines were at threat of damage from encroaching vegetation growing into the powerlines or being brought into contact from storm or other structural impacts (for example, age or tree trauma).

But now, new technology not only allows the entire surveying process to happen from the sky, but it allows those responsible for surveying the entire network to see a periodically updated image whenever they want. Cutting-edge new technology known as LiDAR makes this possible. A portmanteau of the words





light and radar, LiDAR is a means of using lasers to take images and store them in a massive database. In this case, UK Power Networks makes use of aircraft with the LiDAR technology to fly over the transmission network to create an image of powerlines and anything around them.

Six years ago, the firm first started looking at the technology, but deemed it not quite ready for prime time in terms of costs and proven technology. A second look led to a trial in 2013, scanning two parts of the network. The successful experiment led to the system being implemented across the entire network.

The aircraft does the heavy lifting and provides the overhead vantage point that allows the LiDAR to work. The scanning provides masses of data. Almost too much – the biggest challenge in implementation was updating the asset management database to take on the huge amounts of new, detailed data that is now available.

The impact on business is real. Martin Peters, Tree Manager at UK Power Networks, explains, “From a survey perspective, it would take about three years to foot patrol the network. But

by using the LiDAR technology, all of our network can be covered in three months with much less disturbance to stakeholders. And it’s much safer from an injury perspective for the many staff that had to venture across rough land, rivers and ditches.”

In the future, the technology may allow for identifying specific vegetative species and their current growth rates, making pruning schedules even more cost-effective. Other power providers in the UK have taken note and at least two have followed UK Power Networks in using this technology, according to Mr Peters.

**EV-ERYONE IS DRIVING EVS**

Operational efficiency has been a boon for The Hongkong Electric Company Limited (HK Electric) as it has become one of the major users of Electric Vehicles (EVs) in Hong Kong. But it has also kept track of market developments, staying ahead of its customers’ demands.

It has a growing fleet of EVs in Hong Kong, with these now making up around 37 per cent of its vehicles. The plan is to replace old combustion engine vehicles as they are retired until the whole fleet consists of

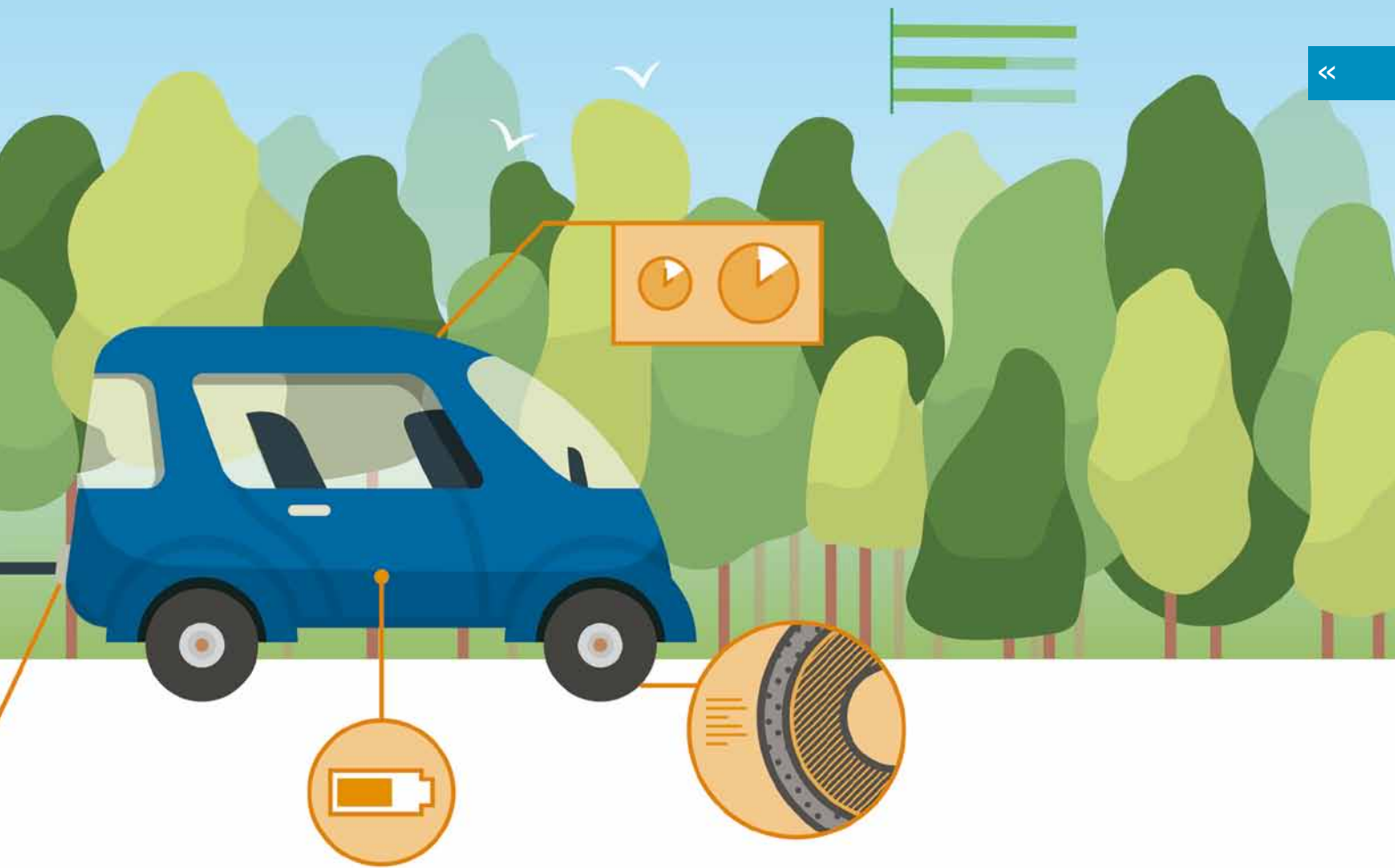
EVs. Various HK Electric offices’ car parks are fitted with chargers and, as vehicles are used in Hong Kong’s small area and spend overnight in a parking bay, charging and range is never a problem. With fewer moving parts, the vehicles have less downtime for repair, meaning they are on the road much more often which lends to greater operational efficiency.

HK Electric’s experience in running its own operations is also enabling it to align itself with government incentives for consumers to use cleaner cars, and with consumer preferences and spending trends.

**HK GOING GREEN**

Hong Kong has possibly the highest first registration tax on new cars in the world. However, in a bid to reduce roadside pollution, the Hong Kong government has waived the tax on purely electric cars, making them popular in the crowded city. Their widespread adoption is now leading to a demand for more charging stations.

HK Electric has responded to this market demand and is helping to smooth the way for those who would like to help improve Hong Kong’s roadside air quality. It launched 10 of its own free-to-use



charging stations across Hong Kong to get things started. Drivers can get a 50 per cent charge in about four hours on a standard charging station, or an 80 per cent charge in half an hour on a quick charge station.

Just last year, HK Electric started working directly with property owners who are fielding more and more requests from tenants to provide charging stations in the car parks of their apartment buildings. Last autumn, the company hosted a seminar with around 200 building operators, developers and service providers to discuss the installation of EV charging. Peter Leung, Manager, EV Support and Development, explains some of the challenges that needed to be overcome.

“Property owners may be concerned about a number of factors, such as the availability of space for installation of EV chargers and adequacy of power capacity at their premises,” he notes.

“With our ‘Drive EV Charge Easy’ service, we provide customers with an all-round technical advisory and support service that facilitates the installation of EV charging

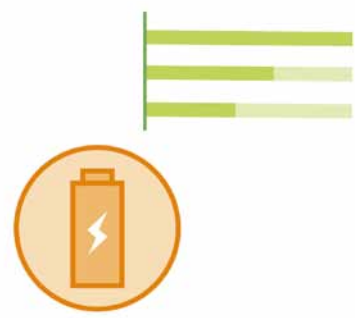
facilities within their buildings,” Mr Leung adds.

A tripartite range of EV charging support services has seen assessments and complete installations delivered in a timely fashion for building operators. From the first successful building estate, with installation of EV charging facilities for 70 parking spaces (soon to be expanded to 240), the programme has since been delivered to over 30 buildings. Building operators appreciate HK Electric’s two-day service delivery pledges for each stage of installation, and help in achieving a viable solution for installing EV charging infrastructure. More interested parties are sure to follow; Mr Leung’s team has fielded several hundred enquiries from owners and managers of residential buildings last year.

“We’re happy to see that more and more residential buildings are installing chargers,” says Mr Leung, looking forward to cleaner roadside air quality in Hong Kong. He is encouraged by the use of EVs and is confident that the only significant barrier to adoption is a lack of information in the community. He and his team are overcoming that barrier by working closely

with communities to get the message across: “It’s pretty simple – and safe!”

CK Hutchison companies have taken the basic concept of using vehicles in the workplace and stretched the limits of current technologies to improve business processes and make a better world for their customers. Next time you take a look at your part of the CK Hutchison Group, look for opportunities where a yellow submarine, piggies or WALL-E could transform your business. □



COMMUNICATIONS

# IN YOUR HEAD:

# VIRAL

# MARKETING

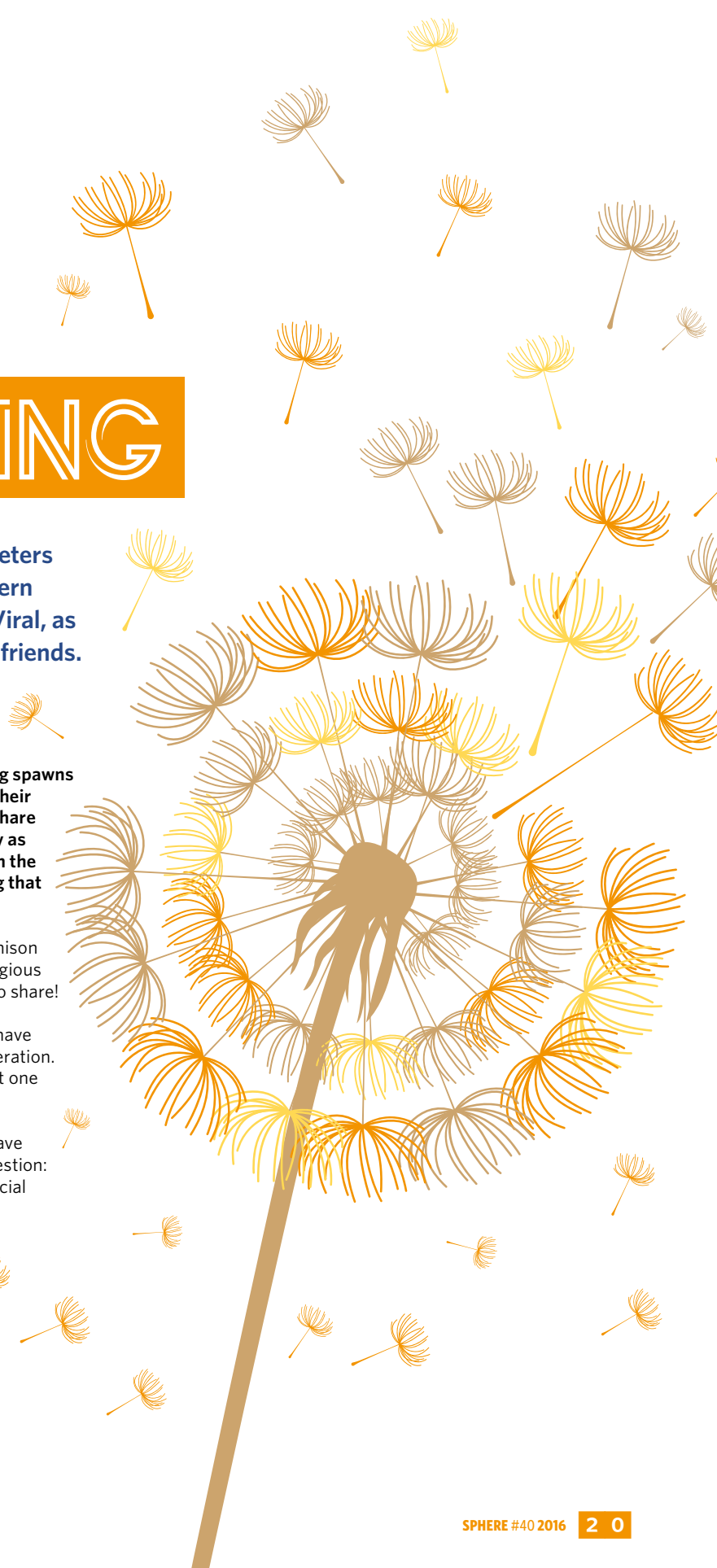
On rare occasions, the stars align for marketers and they have a campaign that, in the modern parlance, goes 'viral'. Viral in a good way. Viral, as in, people can't help but share it with their friends.

**S**ometimes, a piece of art or even advertising spawns a thousand modified forms as people add their creative energies to the original and then share those. In the modern era, sharing is as easy as posting to your social media account, but in the past, it may have been through a catchy phrase or a song that 'everyone' knows.

People are familiar with the term 'viral' now, but CK Hutchison companies have, for decades, found ways to create contagious messages that stick in people's heads and prompt them to share!

In the Group's birthplace, Hong Kong, its retail branches have had numerous successful campaigns that mark each generation. People need only the slightest of prompts to recall at least one CKHH advertising campaign from their youth.

Recent successes in European mobile phone marketing have their antecedents in CK Hutchison's past. It raises the question: How can advertising transcend 'the pitch' to become a social phenomenon?



Leon Lai's relationship with Hutchison Telecoms lasts for more than 10 years.



**JINGLE BELLS**

Ads in the early 1980s used memorable jingles that forced product awareness into people's permanent consciousness with undeniably catchy tunes.

In 1985, Watsons released an advertisement with a jingle that ended with the famous words, "Watson's - Your personal store", which became known to a generation of radio and TV consumers. Watsons' Christmas ad in 1989 used a distinctive and popular Dr Seuss-styled rhyme voiceover, with a familiar jingle playing in the background.

Times changed as the 1990s saw jingles decline in favour of using celebrities, and then the post-2000 rise of campaigns linked to social media.

Mr Clifford Ng, Executive Creative Director at DDB Group Hong Kong, Watsons Hong Kong's advertising agency, says, "Jingles grab attention and are able to convey a message effectively. 'Your personal store' was unique, very simple and direct, and the last few notes were very memorable."

But jingles, once the pinnacle of infectious advertising, became less essential over time. According to this industry veteran, it's not a matter of jingles becoming outdated, but rather a change in the message and a decline in the media of

radio and television that deliver the jingles.

"Jingles, celebrity endorsement, or storytelling, are just means of execution," explains Mr Ng. "When we receive a brief and think of ideas for a campaign, we won't say use jingles, or another particular strategy. Those are only tools. The most important thing is 'what are we trying to say?'"

Although advertising evolves over time as trends change, the variances are usually just in the tone and style of the presentation, such as the typography and the visuals. Instead of what's current and 'in', Mr Ng explains, "Our utmost concern is whether the vehicle can strengthen the message or not."

**THE KING OF POP**

In 1993, Leon Lai, one of Hong Kong's "Four Heavenly Kings" of Cantopop, began his partnership with Hutchison Telecoms in a TV advertisement playing himself. Unlike the other three "Kings", who each collaborated with different phone companies for, at most, two years, Leon Lai's relationship with Hutchison Telecoms lasted for more than 10 years. The ad campaigns would be an inspiration to a generation of youngsters, and the songs used in Hutchison's commercials still resonate with those who grew up in the '90s.

Ms Stella Ip, Director of Operations at Hutchison Asia Telecommunications Limited, offers a unique perspective. Ms Ip was involved with the TV advertising campaign from the beginning. She started with the partner advertising agency and then became a formal member of the CK Hutchison family.

According to Ms Ip, Hutchison Telecoms wanted to launch their new CT2 phone along with their pager service, but at the time, pagers were considered downmarket and were mostly used by blue-collar workers. The company hoped to expand that market.

To reach a broader audience, especially younger people, the team approached Mr Lai and began a close partnership. Each song was tailor-made for each campaign. The creative process involved Hutchison Telecoms, the advertising agency, the artiste, songwriter, and the lyricists. Nothing was left to chance.

The brand name and its products were deliberately excluded from the lyrics. The exposure of the songs was multiplied as they were played on the radio, on TV, and in concerts - something that was unlikely to have happened if the songs had been branded. "We knew it would kill the song, and it wouldn't be able to reach the different channels," explains Ms Ip.



**#DancePonyDance: The campaign was the first time ever that a hashtag was used in TV advertising.**

"The brand recall came instead from the correlation between Hutchison and the song itself, not whether the song had our name in it."

Leon Lai's star power ensured that the advertisements were discussed in the news as a story on their own, adding a dimension unique to celebrity endorsement. The advertisements were spectacularly successful and enduring, and each one had a catchphrase that went viral. Friends would talk about them, students would repeat them in school, and comedians fought to come up with the best parodies. The partnership expanded to encompass not just pagers but all the telecom services. The positive association of Hutchison Telecoms with Leon Lai endures today.

In Ms Ip's words, the effect was "Miraculous... Our advertisements created a lot of discussion, drew attention, and sales continued to rise."

**#TODAY**

The ascension of the Internet and social media today has produced an ecosystem that offers some very different opportunities for smart marketing people on the cutting edge.

In Europe, 3 UK has successfully produced successive campaigns that have gone viral. The #DancePonyDance advert, released in February 2013, featured a Shetland pony dancing and moonwalking to the song, *Everywhere* by Fleetwood Mac. The video has reached over 11 million views on YouTube, and received more than 43,000 shares on social media. Actually watching this 1 minute and 10 second video 11 million times would take nearly 24.5 years!

Its very popular sequel #SingItKitty — featuring a singing cat — was launched a year later.

These campaigns might seem a little silly; in fact, that was the premise of both campaigns. The tagline read, "Silly stuff. It matters". But don't be fooled. These advertisements did wonders for 3 UK, with a 50 per cent increase in relative brand appeal since the new approach to advertising was adopted.

"Sharing over the Internet facilitates our human need for belonging and helps us provide a more immersive and credible brand experience," says Tom Malleschitz, Chief Marketing Officer at 3 UK. "It's imperative today that we create emotional campaigns that encourage people to watch, share and engage with the content and our brand."



**“All good communication campaigns are like cooking: Make use of the best and freshest ingredients.”**

Stella Ip  
Director of Operations,  
Hutchison Asia Telecommunications

The initial campaign was the first time ever that a hashtag was used in TV advertising. Having #DancePonyDance added to the end of the video was a deliberate strategy to help ensure one consistent hashtag was used by people sharing the video. By accumulating shares with consistent hashtags, the advert was able to achieve trending status, which facilitated more shares.

But what was truly driving the campaign to spread like wildfire?

“Strong emotional engagement, and an added element of surprise, is what drives people’s desire to share,” suggests Mr Malleschitz. In fact, a majority of social media users reported that the adorable Shetland pony inspired ‘happiness’ and ‘surprise’.

**ENGAGE**

Mr Ng suggests there are two ways to encourage a viewer to share content. “It’s either because I feel it’s relevant to me,” or, “It’s just so great and interesting I want to share it.” Knowing what may be relevant to a certain target group, or what is great or interesting, may be a bit more complicated. “That takes experience and knowledge about the market.”

When asked whether companies may be drawn to online campaigns to avoid the cost of placing ads in traditional media, Mr Ng advises, “You shouldn’t do an online campaign because you don’t have a budget. You should do it because an online campaign can reach your target audience.”

Whether it be jingles, celebrity endorsements, or online advertising campaigns, both Mr Ng and Ms Ip agree that these are just different tools for different times.

“All good communication campaigns are like cooking: Make use of the best and freshest ingredients. Advertising looks at the best channel and technology available to allow a concept to evolve and develop,” says Ms Ip. Whether 1980s jingles, 1990s pop stars or the power of the hashtag, CK Hutchison’s best marketing minds are cooking up new ways to get brand awareness into hearts and minds around the world. □

Jingles that forced product awareness into people’s permanent consciousness with undeniably catchy tunes.



## TELECOMMUNICATIONS

# BROADBAND: HGC'S INVISIBLE AGENT OF CHANGE

Broadband is the unsung hero of the information age. HGC has delivered its benefits to the people of Hong Kong in both business and entertainment. The pipes are fat and deliver a phat, fantastic future!

**T**he world is agog at the changes wrought by the online giants of commerce and entertainment – big data processing, cheap global telecommunications, and what seems to be the entirety of mankind's learning at our fingertips. In all this, one important element and the role it plays in making all this happen is often overlooked. The information revolution would not be possible without it. Invisible to the general public, it is a powerful agent enabling our transformed lives. It is the power of broadband.

Hutchison Global Communications Limited (HGC) recently celebrated 20 years of

pushing innovation to the people of Hong Kong. HGC came online just as fibre-optics were getting big, or, as Jennifer Tan, Chief Operating Officer of Hutchison Telecommunications Holdings Hong Kong puts it, the company's "timing perfectly fit the development of fibre-optic".

HGC's broadband delivery is now among the fastest and most accessible in the world. In the beginning, it was mostly used by corporate staff as fees were high in order to allow the huge investment costs of this new technology to be recouped. But it was superior to the old copper wire systems and business quickly figured out how to get a return on their investment through adopting the new technology.

The broadband company and its global counterparts found themselves in a virtuous circle. As users determined more ways to use capacity, demand soared. Hong Kong kept up by increasing capacity by 25 times between 2005 and 2015. HGC's contribution is a network of over 1.43 million kilometers of fibre-optic cable, enough to circle the earth about 36 times! Its extensive fibre-optic network in Hong Kong, coupled with a fully fledged international network, provides a wide range of fixed-line telecommunications services locally and overseas.

With a network across the city that now can provide a big pipe for data to flow through, HGC is in a position to deliver on

the promises of the much promoted “Smart City” of the future. Soon, the affordability of Wi-Fi hotspots supplied by HGC’s 1G-speed pipes will make telecoms more convenient as the company provides a plethora of hotspots. In Hong Kong, the expectation of Wi-Fi availability is high as people ask for connections as soon as they arrive at many shopping malls and restaurants. More – and faster – are to come.

**GETTING BUSINESS DONE**

Ms Tan is betting that major corporate users of data will be among their biggest customers, and HGC is offering one-stop enterprise solutions embracing Internet, mobile, private data lines, data centre services and cloud services to corporate customers – the early adopters of new services. The Super Retail Network, for example, allows customers like Pizza Hut and KFC to supercharge their online ordering through the use of mobile apps and back-end software that routes orders to the closest outlets. It also generates immensely useful data on sales and customer intelligence for use in future planning.

With world-class data centre facilities and connectivity capability, HGC is well-positioned to capture cloud computing opportunities. Many new data-hungry services in the cloud collect big data from multiple touchpoints, combine those data, analyse them and then provide management information and analyses, all in real time. Without the fattest pipes for these data to traverse and cost-effective cloud storage, these services would not be possible.

For example, HGC’s Cloud Surveillance allows businesses to watch their assets and operational conditions from anywhere in the world using mobile devices. Video data must be collected, encrypted and sent to mobile devices in real time. The same is true for Star Trek-style Cloud Video Conferencing like that used in the CK Hutchison Group (see *Sphere* #35). Cloud Audience Analytics improves bricks and mortar retail business by bringing to bear analysis from data-hungry applications like facial detection, which analyses consumers’ demographics and expressions when they browse through an array of advertising displays. Broadband allows the complex data to be delivered, analysed and then used to make decisions that maximise in-store layout and product presentation. Cloud Signage allows in-store

digital displays to be changed in real time from a remote location, reducing the need for on-site computer hardware and trained staff. **3** Hong Kong is a pioneer in using this in-store technology.

**PLEASE ME**

It is hard now to imagine the TV era of ‘rabbit ears’ (an indoor TV antenna) and unreliable reception of just one or two stations, especially when looking at the entertainment currently deployed to people’s homes. Broadband makes this possible.

The latest innovation is over-the-top services where the expansion of bandwidth allows businesses to offer purely Internet-based entertainment on demand, bypassing the need for traditional providers like cable TV companies. **3** Home Broadband can now provide broadband at speeds up to 1G to over 1.8 million households in Hong Kong. Its user-friendly “myTV Super” service brings over 19,000 hours of on-demand high-resolution programming to homes.

But too much is never enough. As the network grows, consumers demand even more and businesses are more than happy to provide it. In addition to passive TV watching, consumers are actively communicating with others and working at home over the network. The massive demand puts strains on the system but HGC has responded with its Content Distribution Network (CDN).

**Broadband: Invisible to the general public, it is a powerful agent enabling our transformed lives.**

This advanced and scalable network enables a faster and more reliable delivery of web services like document download, video streaming, two-way communications and a multitude of other bandwidth-hungry services. Online commerce is also sped up, which is crucial as waiting customers often abandon their orders if there are delays or instability in their browsing experience. CDN enables the infrastructure to keep up with fast-rising demand.

While the public may be seduced by sexy phones and racy apps, it is the constant improvement and evolution of broadband that has made the information and entertainment revolution possible. HGC is on board to keep providing the goods in Hong Kong and beyond into the 21st century. This innovation is truly ‘phat’! ▣



EDUCATION

# SINGULARITY UNIVERSITY, EXPONENTIAL UNIVERSE

The LKSF's education mission transcended old-school learning as it brought Singularity University's leading thinkers to 300 of Hong Kong's most promising young minds.

**S**ingularity. The word has its origins in the Middle Ages, but now is very, very modern. It encompasses, in two meanings, the origins of the universe and, perhaps humanity's end. To astronomers, it is the moment of the Big Bang, the dividing line between nothing – then something. To computer scientists, it is the moment when computers will awake and realise their consciousness, growing beyond their human-provided programming.

At Singularity University, the meaning embraces the sense of explosive growth, of mankind at an inflection point beyond which everything will change. Their 'singularity' is not tinged with fear of computers running amok, but is an exciting point in humanity's development when the making of a new world will be possible – if we expand our minds and adopt new ways of thinking.

It was this expanded mindset that the Li Ka Shing Foundation (LKSF) brought to Hong Kong in April this year. The Techcracker Exponential Learning Program welcomed over 300 high school and university students at Chi Sun College at the University of Hong Kong for a cross-discipline look at the future from Silicon Valley's brightest minds.

### SINGULAR SINGULARITY

The 'university' defies old definitions of a venerable school of traditional learning. Founded in 2008, its team of visionaries and partners from around the world are no ivory tower academics, but



Hong Kong based illustrator, Eliot Lee, summarises the speeches at Singularity University into fun, easy to understand and thought-provoking graphics.

hands-on leaders in fields including artificial intelligence (AI), healthcare, big data, robotics and many more.

They seek to “apply exponential technologies to address humanity’s grand challenges”. While normal universities may make the case that they help to solve humanity’s challenges, this can be hard to see as professors specialise in incredibly narrow fields of study, such as the effect of a single molecule on a chemical pathway or the particular meaning of a text written by a long-dead philosopher.

Singularity University believes that advances in science and technology are driving an exponential rate of improvement across many fields, that, when considered together, can solve humanity’s oldest and most persistent problems such as poverty, hunger and saving our environment. The university is a company that supports education, new-tech firms, NGOs, governments and others to work together and move ahead.

Students were energised by this novel, forward-looking approach. Student Andrew Kwok of The Hong Kong Polytechnic

University (PolyU) says he felt like he was “attending a school that has a curriculum from 2020”. Zhou Juntai says he is ready to tackle the big challenges after attending Singularity University, excited by an experience that “introduced many amazing technologies to me, and encouraged me to contribute to solving the global challenges with my knowledge”.

**EXPAND YOUR MIND**

The LKSF invited students directly, addressing them as “solvers and thrivers who have the potential to change our world”. Those solvers loved the programme, and as attendee Peter Gu explains, “Every speech in Singularity University was really inspiring and quite different from traditional ones. It let us know what the coolest people in the world are doing.”

One of those ‘coolest people’ is Chipp Norcross, Singularity University’s Managing Director for Executive and Custom Programs. He spoke regarding the nature of exponential growth and encouraged students to go beyond linear thinking. While students may do well in traditional linear learning

and memorisation, the nature of future growth would involve an acceleration of progress, demanding new ways of applying knowledge.

The Foundation hoped the day would help students “expand their minds” and “give a free, quality programme for Hong Kong students” who perhaps couldn’t otherwise afford it. LKSF prepared students by asking them to consider, before arriving, questions such as “Would you let a robot drive you to school? Would you let a robot cook all your meals?” and “Would you trust your health exclusively to a robot/AI doctor?” Game-changing technologies, when applied, won’t be remote or obscure, but will be a part of daily life. Students designing and using this tech need to think about how it will change people’s lives.

The broad range of technologies discussed included digital biology, AI and robotics, digital manufacturing and 3D printing, and more. Students had ample opportunity to engage with the top-notch Singularity University faculty, flown in from Silicon Valley. Those thinkers gave advice that, while welcome, may prove to be easier said than done. Like managers told to

“Would you let a robot drive you to school? Cook your meals?”  
Students ponder their place in a near future more science than fiction.

**Seeking: 300 solvers and thrivers who have the potential to change our world.**





think long term, but driven by quarterly earnings, students often feel they have to sacrifice deep learning when exam pressure hits. But Neil Jacobstein, Co-chair of the Artificial Intelligence and Robotics Track at Singularity University, encouraged them, saying, “Don’t just learn to get good grades, but to nurture your critical mind.”

Or nurture artificial minds. In his talk on artificial intelligence, he explained to students that they wouldn’t just use their own brains to solve problems, but the new paradigm would see them use AI for “pattern recognition techniques to solve practical business and technical application problems”.

**THE POWER OF EXPONENTIAL TECH**

Amin Toufani, Singularity University Vice President, Strategic Relations, spoke on the way exponential technologies are turning economics upside down. He led with some things that university students are interested in: money and tech (Instagram’s rise and sale for USD1 billion to Facebook after 18 months), sex and death (the Ashley Madison data breach and suicide), and music, satire and finance (the anti-United Airlines viral musical campaign in reaction to a broken guitar, which caused their market capitalisation to drop by USD150 million). These all show the power

of new technologies to change the world outside the technology sector.

Students seemed to appreciate the interaction and inspiration. One high school student, Liang Hui Lin, from Hong Kong’s prestigious Diocesan Girls’ School thought the programme gave her “a new way of thinking” and “inspired the innovative side of [my] mind”.

Beyond science and engineering, students were also inspired to consider the values that they brought when considering how technology could be used. Participant Mavis Tan of PolyU got the message and says she appreciates how Singularity University “encourages people to think about our own values in life, and the way to contribute to the growth of technology to solve human challenges and to enhance the quality of human life”.

Another student, Peng Su, a PhD candidate at The Chinese University of Hong Kong, knew of the Singularity University and was excited about going, posting on his blog, “I have always been curious about Singularity U, this time I have [the] opportunity to get to know them. Thanks [to] the Li Ka Shing Foundation (LKSF) for support!” □

“... an exciting point in humanity’s development when the making of a new world will be possible ...”



