Delivered.

THE GLOBAL LOGISTICS MAGAZINE

ISSUE 05/2014

WIN TICKETS TO SEE FORMULA E

MORE INFORMATION INSIDE

BUSINESS

Nigeria steps up

Follow the pace of change in Africa's largest economy

SOLUTIONS

War on email

Learn who's leading the line against inbox overload – and how

VIEWPOINTS

The entrepreneur of Formula E

Alejandro Agag on how to exceed expectations

COVER STORY

THE DRIVE TO ELECTRIC

Automotive looks toward a charged-up future

Dear reader,

We are in the midst of an e-volution. Elon Musk put the oomph into electric vehicles with the creation of Tesla, and today's market is teeming with electric and hybrid cars of all shapes and sizes, from the tiny Twizy to the smart fortwo, the Leaf, and the Lexus CT200h, not forgetting Prius, the first ever mass-produced hybrid, now on sale in 80 countries and regions globally. Experts predict that by 2025 around one-third of all new cars will be either fully electric or hybrid.

This is great news for sustainable living, but it also brings up issues: how to charge this growing fleet of cars efficiently? How to deal with their batteries? And how can performance be improved?

In this issue of *Delivered.*, we look at the business of electric vehicles, the complexities of battery logistics, and new e-charging technology developed by Qualcomm. On the sports side, we talk to Alejandro Agag, Formula E's CEO, and Nick Heidfeld, Venturi's Formula E pilot, fresh after the first-ever race in Beijing.

In Nigeria meanwhile, Obaniyi Adeoye Ojo has a different take on cars: his is a traditional Nissan pickup, with a woven body made of cane. Our feature on Africa's number one economy would not be complete without paying credit to the spirit of its people, but we also take a close look at what else makes Nigeria tick and how to navigate its often challenging terrain.

Enjoy your read!

Bill Meahl
Chief Commercial Officer, DHL

www.delivered.dhl.com

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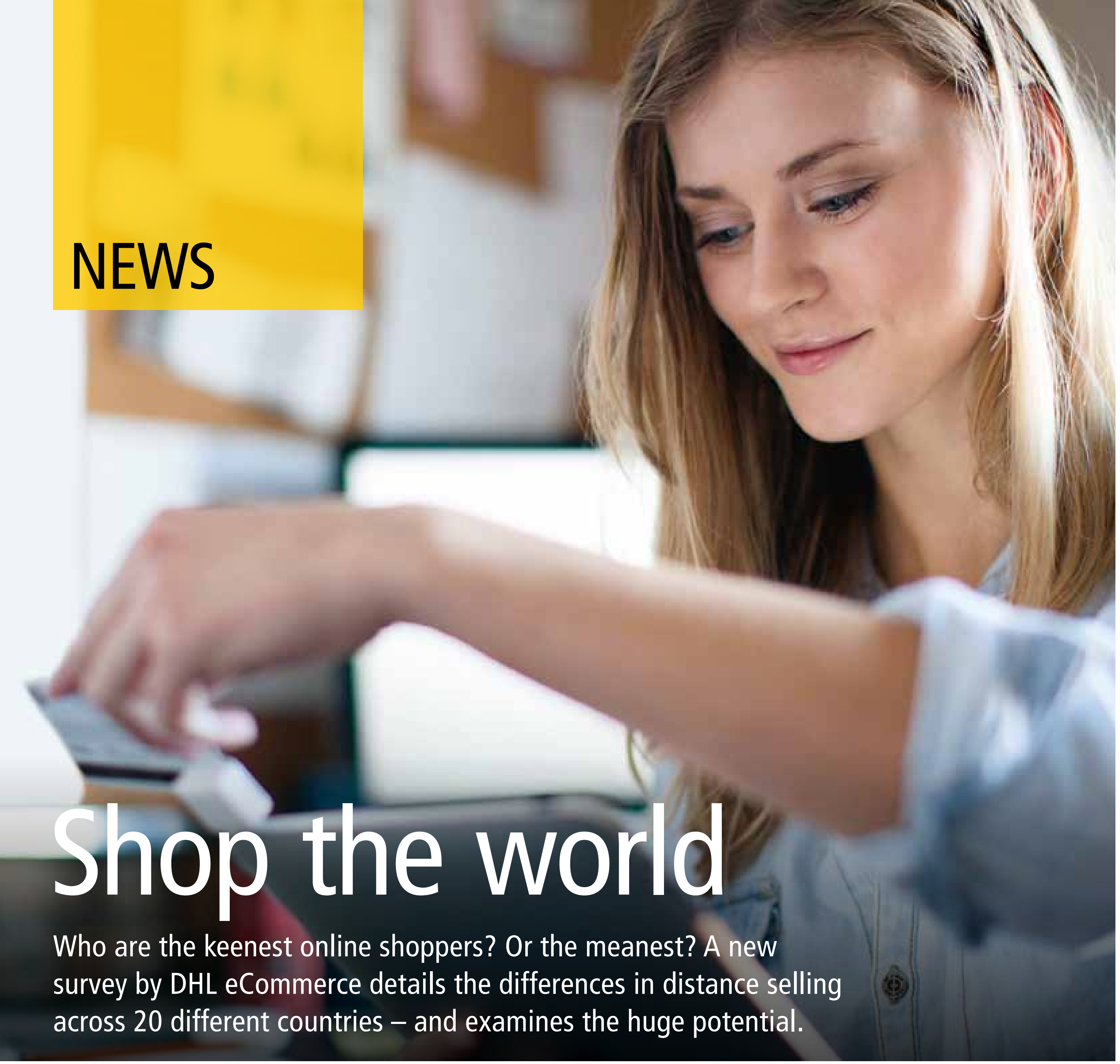
A NOTE FROM THE EDITOR

How much do you know about Africa? The continent is frequently billed as the last frontier for business, and many experts claim the time to enter is now. Africa's enormous potential is often offset by daunting challenges. At *Delivered.*, we are busy tracking the continent for you, talking to experts in key markets and drawing on our own expertise as first movers in logistics in Africa. Mohamed and Amos, a young West African and a young East African, are busy working with me getting the views of young Africans across the continent for an upcoming article, and in this issue we offer you fresh insight into one of Africa's key powerhouses, Nigeria. *—Michelle Bach*

WIN TICKETS TO SEE FORMULA E:
Go to **tinyurl.com/del-tickets** and tell us where you would like to see the race for your chance to win a ticket.



NEWS

Shop the world

Who are the keenest online shoppers? Or the meanest? A new survey by DHL eCommerce details the differences in distance selling across 20 different countries – and examines the huge potential.

How do consumers in different countries shop online? What are the differences and what are the similarities? An extensive international consumer survey on distance selling carried out by DHL e-commerce across 20 different countries both reveals the significant local variations and provides insights into the cultural and structural differences. By following the customer journey from advertising to ordering, payment process, delivery, and returns, it throws light on the consumers' decision-making process at each stage.
The survey of over 11,000 people reveals who are the keenest and who the most reluctant online shoppers, and explores the drivers and barriers to e-commerce in different markets. US consumers remain world champions in distance selling, followed by China and Japan. Consumers in India and Mexico are more reluctant to order online. But emerging markets showed the highest growth potential. The significance of cross-border shopping is also revealed, with 45% of Internet users saying they have ordered from abroad, the main reasons being to buy goods not available at home or at a lower price.
With the global distance selling market expected to grow by more than 10% per annum over the next five years, businesses in every sector will be affected. The survey provides valuable strategic insight into the consumer's decision-making process, helping companies to align their businesses accordingly and capitalize on the huge potential of distance selling.

45%
of Internet users worldwidde have ordered goods from abroad

Learn more:
tinyurl.com/ del-shop

RAFFIA RIDE

We normally think of raffia cane as a material used for making chairs, baskets, and boxes. But what about cars? Nigerian cane-furniture businessman Obaniyi Adeoye Ojo decided to branch out and cover the whole of his pick-up truck, from the roof and bonnet to the seats and steering wheel, with expertly woven raffia palm cane. The result is not only a more natural-looking vehicle, but also an ingenious promotion for traditional Nigerian crafts.

EXPERT LOGISTICS FOR PHARMA PRODUCTS

Strategically located in the heart of Europe, DHL Global Forwarding's new Life Science Competence Center in Leipzig, Germany, provides sector-specific logistics expertise for the pharmaceuticals and life science industries.
Covering almost 3,000 square meters, the facility, which opened in September, contains two temperature-controlled storage areas, 2–8°C and 15–25°C, and monitors for temperature and humidity throughout. Specially trained and qualified staff ensure that pharmaceutical and healthcare products are handled in accordance with all statutory regulations. The center is not only a gateway for shipping temperature-sensitive products between Germany and neighboring countries, but also extends DHL's Thermonet network, providing seamless temperature visibility along the supply chain.

"THE FUTURE OF OUR PLANET DEPENDS ON OUR ABILITY TO EMBRACE FUEL-EFFICIENT, CLEAN-ENERGY VEHICLES."

Leonardo DiCaprio, UN Messenger of Peace, actor, environmentalist, and founder of the Venturi Formula E team

BLUE SKY THINKING

Inspired by the world's first fully electric racing championship, Formula E, DHL has launched the Blue Sky Transport Design Award. The competition challenges designers to come up with creative ideas that could shape the future of sustainable, electric transport. The winning design will be presented at the final FIA Formula E Championship race in London, United Kingdom, on June 28, 2015.

TESLA OPENS PATENTS

Tesla Motors, designer and manufacturer of premium electric cars, has opened up its patents for all to use. The reason for this bold move?
CEO Elon Musk hopes to encourage the advancement of electric vehicle technology and accelerate the advent of sustainable transport – one of the company's main goals – "because Tesla alone cannot build electric cars fast enough to address the carbon crisis," he says.

Learn more about the Tesla patents at:
tinyurl.com/del-tesla

THE STORY

EXPANDING **SUEZ**

Connecting the Mediterranean with the Red Sea, the Suez Canal has been a vital link for trade between Europe and Asia ever since 1869. It is one of the world's most heavily used shipping lanes, yet for most of its length the canal is a single lane with occasional passing places, a situation which can cause waiting times of up to 11 hours.
However, this is set to change. The canal's owner, the Suez Canal Authority, plans to add an extra lane for around half of the canal's 193.3 kilometer length, doubling the bypass area to enable ships to transit in two directions at the same time. Egypt's central bank governor, Hisham Ramez, says the $8.5 billion needed to fund the project has been raised and work has already begun, with an ambitious one-year deadline.
As an important thoroughfare for shipping in the region, the plan to enhance capacity and reduce passage times is welcomed by industry. Seven percent of sea-transported world trade passes through the Suez Canal, between the Red Sea and Arabian Gulf ports, the Indian and Southeast Asian ports, and to and from the Far East. The new lane will double the number of ships making the 12 to 16 hour transit each day from 49 to 97.

Learn more about the expansion of the Suez Canal at:
tinyurl.com/del-suez

PILOTLESS PROJECT: Unmanned Parcelcopter delivers in North Sea.

PARCELCOPTER TAKES ON ITS FIRST REAL-WORLD MISSION

DHL Parcelcopter takes to the skies to deliver medications to the North Sea island of Juist. A worldwide first, the unmanned aircraft, which can carry loads of up to 1.2 kilograms, has been authorized to make the autonomous delivery flights. Following a comprehensive consultation process and extensive testing, the mission is part of a pilot project run by DHL Parcel and its partners to look at how urgently needed goods can be delivered to remote areas.

RECYCLING SCHEME IN LAGOS GETS HELP FROM DHL

WASTE MAKES HASTE: Recycling logistics in Lagos.

An idea can be as good as gold, but sometimes, without the right logistics, it'll go over like a lead balloon. In the Nigerian capital Lagos, the social enterprise Wecyclers had a great idea: incentivize people living in poor areas to recycle their household waste, rewarding them for every recycled kilo. But as demand grew, transporting the waste became a challenge. In came DHL Nigeria, which donated a waste collection van and provides Wecyclers' operations team with regular logistics training – all helping a good idea to flourish.

Learn more about Wecyclers at:

tinyurl.com/del-lagos

$32bn expansion plan for Dubai World Central

Dubai is investing $32 billion in a massive expansion project at Dubai World Central, Al Maktoum International Airport (Phase 1), including the construction of an additional two automated and one non-automated cargo terminals. Once these are completed, Dubai will be able to handle 12 million tons of cargo per annum.

New China-Europe service

DHL Global Forwarding's new weekly block train service from Suzhou in Eastern China to Warsaw in Poland connects China to Europe in 14 days, offering temperature controls, GPS tracking, and less-than-container loads.

FAST TRAIN FROM CHINA: Weekly service launched.

RESPONSIBILITY

GIVING A BOOST TO GREAT BUSINESS IDEAS

Aspiring young entrepreneurs in Uganda are set to benefit from a business incubator project initiated by DPDHL. Youths from SOS Children's Villages will have the chance to pitch their business ideas and win a place on a mentorship program where they will learn the ins and outs of building a business from the ground up.

The DPDHL GoTeach Business Incubator aims to accelerate the successful development of great business ideas, helping young entrepreneurs get on their feet by providing technical and financial support. At the end of the project, three businesses will be selected and offered seed funding, with the winners announced in January 2015.

Photos: Credits

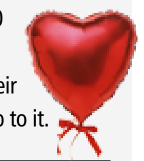
HOLIDAY TRAFFIC

Traditional holidays are often a time for gift giving. As retail figures soar, so too do shipping volumes. With Christmas shopping already under way, we look at some of the holidays that create surges in demand.

FEBRUARY 14

Valentine's Day: celebrated widely

Worldwide, more than 50 million roses are given to loved ones. Flower transporters ship 4.5 times their regular volume in the days leading up to it.



NOVEMBER 11

Diwali: India's Festival of Light

Festivals and big sales go hand in hand. Retailers make up to one-third of their annual revenues, and logistics companies have to quadruple their capacities to meet demand.

NOVEMBER 11

Singles' Day: China

This holiday celebrating the unattached is also a huge online shopping event that has grown so popular it's now the world's largest in terms of sales. Last year, 346 million parcels were delivered.

NOVEMBER 27

Black Friday and Cyber Monday: USA

Consumers rush to take advantage of store sales on the first Friday after Thanksgiving, followed swiftly by its online equivalent, Cyber Monday.

DECEMBER 24-25

Christmas: celebrated widely

The biggest retail event of them all. Worldwide, more than 585 million packages will be delivered this year, with purchases and deliveries continuing up to Christmas Eve.

dhl.com/del-ecom

dhl.com/del-delivery

UK PREPARES FOR LIFT-OFF

SOON BOARDING FOR OUTER SPACE: Artist's impression of the proposed new spaceport.

The UK government has unveiled ambitious plans to build a commercial spaceport, anticipating growing demand for space tourism and a growing spaceplane industry. At a cost of $85.5 million, it could begin operations as soon as 2016. Spaceplane developers including Virgin Galactic and Xcor Aerospace are closely following developments. Reusable spaceplanes have the potential to redefine the economics of the space sector by dramatically cutting launch costs compared to traditional rockets.

Deutsche Post DHL listed in leading sustainability index

Deutsche Post DHL has been listed in both the Dow Jones Sustainability Index (DJSI) World and Europe, having made improvements over the past year in all key categories – economic, environment, and social. The international rating agency evaluated the sustainability activities of more than 1,800 companies. The index serves as a key guide for sustainability-focused investors.

Dow Jones Sustainability Indexes

A SMARTER ENERGY SUPPLY CHAIN

Fundamental changes in the energy sector have prompted logistics experts to rethink traditional energy supply chain models. Shifting geographies of energy demand and production, as well as the development of new unconventional energy sources, mean that energy supply chains are becoming ever more complex.

A white paper on energy supply chain strategy and design, published by DHL, advocates an orchestrated, integrated, data-driven, end-to-end model that increases visibility, traceability, and reliability, and keeps down costs as well as risk. Based on research by Lisa Harrington, Associate Director at the Supply Chain Management Center of the Robert H. Smith School of Business, University of Maryland, the paper recommends a highly integrated approach, including a control tower function, to tackle these challenges and ensure that logistics acts as a key enabler to reducing costs and enhancing profit margins.

Download the white paper at:

tinyurl.com/del-smart

FOCUS:
AUTOMOTIVE

THE DRIVE TO ELECTRIC

Stories of Beijing's toxic air pollution are legion. But this year, the Chinese capital hit the headlines for another reason – when it became home to the world's largest fleet of electric taxis.

FARE TRADE: The first of Beijing's fleet of electric taxis began cruising the streets of the Chinese capital in March 2011.

TAKING CHARGE: A smartphone app for Nissan's LEAF allows users to start charging or check battery status remotely.

So far numbering just over a thousand, together with several hundred charging points, Beijing's zero-emission taxis are being lauded by city authorities as a vital first step towards a clean, sustainable city of the future.

"It's a significant investment in sustainability," says Fathi Tlatli, President Automotive DHL. "The vehicles are more expensive than petrol or diesel models, so a combination of regulation and financial incentives is required to promote adoption. But the idea is that, by 2016, all new taxis coming into service in Beijing will be electric." Today Beijing, tomorrow the world. Tlatli observes that, by 2025, authoritative estimates predict that almost one-third – 31% – of new vehicles coming off assembly lines will be either all-electric or hybrid, making a significant contribution towards global sustainability objectives.

And that's because, as he puts it, "sustainability is no longer an option – it's an imperative". For with the world's population forecast to reach 9.5 billion people by 2050, and the number of cars on the road soaring to 2.5 billion from 800 million today, electric vehicles offer much more than just zero emissions of the sort of smog-inducing exhaust particulates that have made Beijing's air quality notorious.

"The main impetus is the need to de-carbonize transport, with a view to reducing greenhouse gas emissions," says Denis Naberezhnykh, head of low-carbon vehicle research within the sustainable mobility group of the United Kingdom's Transport Research Laboratory. "But there are also a number of other agendas, depending on the actual usage and location of the vehicles – such as fuel supply independence, economic regeneration, the political and economic value of a leadership position in a new technology, and of course local air quality, which is increasingly an issue for cities and urban areas."

"DELIVERING SUSTAINABLE VALUE IS A COCKTAIL OF OPERATIONAL EXCELLENCE, INNOVATION, AND GENUINE COLLABORATION BETWEEN ALL PARTIES."

Pascal Kemps
Sub Sector Head Passenger Vehicles
DHL Customer Solutions & Innovation

Photos: Credits

STIFF CHALLENGES

Even so, all-electric vehicles must overcome some stiff challenges in order to gain wider acceptance. Cost, for one, with each of those taxis in use on Beijing's busy roads being heavily subsidized by local government in order to bolster adoption. Range, for another, with many cars only able to manage 60–100 miles without recharging their batteries – and then sometimes only if air-conditioning, heating, and other features are switched off. The availability of charging points, for another. And, at least at present, a limited number of models on offer.

Despite which, there's been a considerable uptick in the production and sales of all-electric or hybrid vehicles in the last few years.

CROSS-SECTOR APPEAL

As a report recently published by consulting firm McKinsey points out, with sales of Toyota's hybrid Prius model now reaching six million units, and the emergence of popular all-electric cars in the shape of Nissan's LEAF and Chevrolet's Volt, electric vehicles of one sort or another can genuinely be said to have gone mass market. Moreover, the appeal is truly cross-sector, with American manufacturer Tesla Motors achieving strong sales of its premium all-electric Model S and Roadster models.

What's more, say experts, barriers to the adoption of ultra-green all-electric vehicles are shrinking fast. For if that typical range of 60–100 miles isn't much, the reality is that, for most of the time, many typical consumers don't need to travel any further. According to all-electric advocacy website TheChargingPoint.com, for instance, 80% of Europeans drive less than 63 miles every day.

Even so, vehicle manufacturers' development laboratories are working hard to incorporate range-extending and "recharging on the go" facilities into their designs. Solar panels built into vehicle bodies are one option, as is a technology known as Dynamic Wireless Power Transfer, which – literally – recharges batteries wirelessly while vehicles are on the move.

And as for cost, most forward-looking governments are encouraging the uptake of all-electric or hybrid vehicles through various taxation initiatives, typically exempting vehicles from various purchase and road-use taxes. That's why, for instance, Norway leads Europe in the adoption of all-electric vehicles, which accounted for over 6% of the country's vehicle sales in 2013 – a year in which an all-electric car was Norway's overall top-selling model of the month no fewer than three times.

THREE QUESTIONS FOR

Fathi Tlatli

PRESIDENT AUTOMOTIVE DHL

"IT'S ABOUT BEING ABLE TO OPERATE TO A CONSISTENTLY HIGH STANDARD ON A GLOBAL BASIS."

Why is logistics so important to the global automotive industry?
The automotive industry is an arena of intense competition. Effective logistics is crucial, because volume vehicle assembly calls for huge numbers of components to arrive at the right time, in perfect condition, and in the right quantity. In spite of its scale and complexity, inbound logistics doesn't bring direct value in the eyes of final customers. Automotive players are thus willing to optimize their costs as much as possible.
With aftermarket logistics, replacement parts must flow from component plants outwards to vehicle dealers and repair shops – reliably, speedily, and without excessive inventory in the supply chain. Efficient aftersales services bring a lot of direct customer value. OEMs are thus willing to focus on quality and reliability of logistics services.

So what are the key challenges facing a logistics provider?
Primarily, it's about being able to operate to a consistently high standard on a global basis. Our customers are looking for us to have in place appropriate processes and quality standards wherever they have their operations.
Also, automotive players are keen to continuously innovate in their product, market, and manufacturing strategies. Intense global competition means things move very fast and so do the logistics requirements. We must continuously listen to the market and come with adapted solutions to support our customers' strategic moves. For example, we see increased interest in sustainable logistics.
It's about being global in scale, but local and customized in offering and delivery. And at our automotive centers of excellence, we invest in training, process development, and innovation to deliver on that promise.

Are there opportunities for other industries to learn from how the automotive industry manages its logistics?
Very possibly. Many automotive manufacturers engage "lead logistics providers," for instance, to manage their overall supply chains – even those parts of it that the lead logistics provider doesn't directly fulfil itself.
And the aerospace industry, for one, is beginning to replicate this, seeing the advantages conferred by having logistics providers managing other logistics providers. But there are also lessons for the automotive industry in how the life sciences and high-tech industries deal with issues such as temperature control and recycling.
Then, the implementation of logistics solutions in the context of a new product launch is crucial in the automotive world. We have developed a tailored approach and solution set that allows smooth and cost-efficient launches. This approach might be replicable in other industries.
Finally we observe that logistics collaboration with competitors, suppliers or customers is no longer a taboo in the automotive industry. This kind of attitude offers many opportunities to a logistics provider such as DHL. One can only hope that other industries move in that direction.

What's more, there's one area where all-electric or hybrid vehicles don't face a struggle against petrol and diesel models: performance. The power under the bonnet might come from a battery rather than an internal combustion engine, but even the staunchest petrolheads concede that electric vehicles are no slouch when it comes to performance – a message that the growing buzz around the new FIA Formula E all-electric racing car championships can only reinforce.

"In general, drivers who embrace electric drive are finding that, despite some operational challenges, the vehicles can actually perform better than their petrol or diesel counterparts," notes John Maslen, brand director at automotive analysts Sewells Research and Insight. Moreover, he adds, the arrival of so-called "halo" brands such as BMW, with its all-electric i3 and i8 models, is also creating confidence among buyers.

THE RIGHT CIRCUMSTANCES

Fleet operators, too, are getting in on the act. In the right circumstances, explains Maslen, electric vehicles can also work well for a business, especially plug-in hybrids, which combine the performance of an electric vehicle with the reassurance of having an internal combustion engine on standby.

"Companies are proving the benefits of electric vehicles in the toughest of real-world circumstances, particularly in the case of the growing number of van, taxi, and chauffeur fleets who are switching to all-electric power," he observes.

But what exactly are "the right circumstances"? At Cenex, an independent not-for-profit low-carbon automotive centre of excellence, chief executive Robert Evans spearheads a program to help fleet operators assess the suitability of their fleets for all-electric or hybrid operation.

"A lot of blue-chip fleet operators – especially those with corporate and social responsibility obligations to report on their carbon dioxide emissions – are keen to evaluate the practicality of all-electric and hybrid vehicles," explains Evans. "Our job is to help them to do that."

DUTY-CYCLE ANALYSIS

Accordingly, Cenex asks fleet operators to nominate a number of representative vehicle "duty cycles" – routes, together with dropping-off and collection points – and then attaches data logs to the petrol- or diesel-fueled vehicles presently serving those routes.

"Essentially, we're looking to capture distance traveled, typical speeds, the number of stops, accelerations, decelerations, time taken, and opportunities for charging," he says. "At which point, we can pinpoint the carbon dioxide emissions associated with each duty cycle, and also the options for replacing the vehicles operating those routes with vehicles using an alternative fuel – all-electric, hybrid, biogas, and so on."

And while it's difficult to generalize on the outcomes of such analyses – every case is genuinely different, insists Evans – it is possible to conclude that the case for all-electric and hybrid vehicles is becoming more compelling as time goes by.

"Businesses are seeing some very interesting economic rationales emerge," he points out. "It's not just about making an environmental statement or a token gesture. There are genuine opportunities out there, in terms of lower energy costs, tax incentives, enhanced capital allowances, and – in the case of company cars in countries where those are taxed as a 'benefit in kind' – an opportunity for employees to benefit from lower taxation for themselves."

THE COMPLEX LIFE OF BATTERIES

Compared to yesterday's laptop computers and phones, today's equivalents are lighter and enjoy an enviable battery life. Which goes a long way to explaining the appeal of their lithium-ion battery technology to the designers of all-electric and hybrid vehicles: simply put, they can travel further and faster. But forget the shoebox-sized lead-acid batteries of today's petrol and diesel vehicles. The batteries in question are veritable monsters. Even for smaller vehicles, a battery may weigh in at 100–200kg. For larger passenger cars and commercial vehicles, 300kg or more is the norm.

Consequently, the logistics of transporting such batteries calls for some fairly specialised handling equipment, says Fathi Tlatli, President Automotive DHL.

Yet a much more fundamental problem poses an even bigger challenge, he explains – one which affects the choice of transport mode itself. Simply put, thanks to lithium's highly flammable nature, strict regulations govern the shipment of lithium-ion batteries, which are regarded as Class 9 Dangerous Goods under international transport regulations.

So what does this mean for the movement of lithium-ion batteries through the world's automotive supply chains? Thanks to its role as official logistics partner of the FIA Formula E all-electric race car championships, DHL has an especial insight into the challenges, says Tlatli. "In terms of movement by air, approvals are required for new, unused batteries, and their transport on passenger aircraft is forbidden in an increasing number of countries," he explains. "Once a battery has been used – even once – then additional approvals are required, which generally have the effect of prohibiting transport by air. And batteries that have been damaged in any way can't be flown at all."

Road transportation is subject to the same level of complexity, he adds. New batteries are subject to full ADR class 9 restrictions, while used batteries can be shipped under standard conditions if heading for disposal. Damaged batteries must comply with strict packaging requirements – although the exact rules vary from country to country.

Lithium-ion batteries are also temperature-sensitive goods. To avoid the risk of high temperatures discharging a battery to the point where it can no longer be charged, transport and, most importantly, storage must be ensured under temperature-controlled conditions.

"At present, electric vehicles make up less than 1% of global automotive production," sums up Tlatli. "As numbers grow, the challenges of battery logistics will mount."

Roll it all together, and the battle for hearts and minds would seem to be going electric's way. And around the world, legislators are helping the move towards adoption, points out DHL's Tlatli. Simply put, he argues, the numbers of all-electric or hybrid vehicles being produced looks set to soar in the years ahead as tough new environmental legislation comes into force.

In Europe, for instance, vehicle manufacturers' average fleet-wide production must presently meet a carbon dioxide emissions target of 130 grams per kilometer traveled – much tougher than the limits imposed by either the United States or China.

1/3

of all new vehicles in 2025 will be electric, according to expert predictions

SWITCHING OVER

However, by 2020 the European target will have fallen to 95 grams per kilometer traveled, and is expected to be lowered to 75 grams by 2025, a level that will require a significant proportion of overall vehicle production to be all-electric or hybrid in order to comply, according to projections by Roland Berger Strategy Consultants.

Even so, the switch to electric may not be as widespread as such figures indicate, cautions the Transport Research Laboratory's Naberezhnykh. For even as all-electric and hybrid vehicles become cheaper and more practical, the research laboratories of vehicle manufacturers continue to drive advances that make diesel and gasoline vehicles more fuel-efficient, thereby reducing their grams of carbon dioxide per kilometer traveled.

Which is good news for the planet, as well as for those consumers and businesses whose requirements make all-electric vehicles impractical. Even by 2040, according to the 2013 annual ExxonMobil Outlook for Energy, roughly one-third of annual new car sales will be conventionally fueled petrol vehicles. More reassuringly, the largest segment of sales – roughly 60% – will be hybrid models, with all-electric vehicles making up around 10% of output.

So what might accelerate the transition to all-electric? Better information for consumers to base their buying decisions on, says Naberezhnykh.

"The cost of a new vehicle isn't inconsequential, and for consumers who want a cost-benefit analysis there isn't always the information available on present-day costs and opportunities, let alone what might happen to costs and taxation in the future," he points out.

And for governments, sustainability campaigners, and vehicle manufacturers alike, that would seem to be a challenge that shouldn't be too difficult to address. — ***Malcom Wheatley & Tony Greenway***

"FREE LIKE THE AIR": Electric cars from the Autolib sharing service available for use in Paris.

Photos: Credits

ECONOMY DRIVE …

Rising wages in emerging markets have driven up sales of economy cars. So what does this mean for consumers, manufacturers – and the automotive supply chain?

In emerging markets, many incomes are going in one direction: up. According to the World Bank, 17% of Mexico's population joined the middle class between 2000 and 2010. Last year, Brazil's Strategic Affairs Secretariat (SAE) reported that per capita income had risen by 32% between 2001 and 2011, while Ernst and Young said it expects as "many as 500 million Chinese could enter the global middle class over the next decade."

AFFORDABLE TRANSFORMATION

The rise in living standards in these markets has fueled an increase in sales of affordable cars, which manufacturers have been tailoring to meet the needs of local people. The Tata Nano, for instance, which launched in India in 2009 for 100,000 rupees (US$1,600) and achieved pre-launch orders of 200,000, and the Maruti 800, which was produced almost exclusively for the Indian market.

Then there is Nissan, which is reviving its Datsun model specifically for emerging markets. Nissan launched the revamped Datsun in Russia last April, and estimated that sales could reach 100,000 in the country within the next two years. "There is a big emerging population that we call the 'Risers' that Datsun is going to address," said Nissan Motor Corp CEO Carlos Ghosn. "What's important is to have a brand that's addressing the Risers, particularly in the high-growth markets. These markets are going to multiply. It used to be just China, Brazil, India, and Russia, but now we're adding Indonesia and South Africa, we're going to be adding African countries, a lot of South American countries, so this is going to continue."

It must be said that the value brand increase is not simply limited to emerging markets, as proved by record sales of the Dacia in Europe. Yet the growth in emerging markets should come as no surprise. After all, the desire to progress is part of the human condition. "Increasing numbers of consumers in, say, India and China have been able to make the transition from a motorbike to a small car," explains Fathi Tlatli, President Global Sector Automotive, DHL Global Customer Solutions and Innovation. "This is transformational. It's a step up in terms of mobility and stature. It's convenient, helps transport goods, and is an alternative to mass transport."

From a logistics standpoint, however, making "cars for the masses" creates a conundrum for both manufacturers and logistics providers. With smaller cars, saving money is the name of the game, which means that as much cost as possible needs to be driven out of the supply chain.

"This is why we see the automotive industry organising into clusters in some emerging markets," says Tlatli. "It's a way for manufacturers to make sure that all of their suppliers are established near their plants. In China, for example, we have a very big automotive cluster around Shanghai, and another one evolving around Chengdu."

Tlatli also says that it's vital for logistics providers and manufacturers to design automotive supply chains together to take account of every element of a car's lifecycle, from research and development through to design, to product launch and aftersales. "That way, supply chains can be optimized in terms of modes, warehousing, locations, and timings, and assessed with visibility tools and risk management tools," he stresses. *—**Tony Greenway***

Photos: Fotograf/Agentur, Fotograf/Agentur

… AND SUPERCARS THRIVE

It's not just economy cars that are doing well in emerging markets. Luxury vehicles are also enjoying a boom period.

Think there isn't a supercharged consumer base for luxury cars in emerging markets? Think again. At the high end, demand for supercars – high-performance, high horse-powered sports car status symbols for the super rich, complete with eye-watering price tags – is growing. It's why, for instance, Lamborghini increased sales in India to 22 cars in 2013 – and recently launched its new Huracan there – and sold around 230 in China.

10%

Growth in the global luxury car market 2013–2014 (estimate by consultancy Bain & Company).

SHIPPING MORE SUPERCARS

"Manufacturers sell more supercars in emerging markets than they do in the western world at the present time," says Adrien Dedieu, Commercial development coordinator, Automotive, DHL. "Emerging countries are big in population terms so they have increasing numbers of millionaires."

Then there are the premium cars – such as Audi, Mercedes and BMW – which are also doing well despite the downturn in Europe, partly because of the sales growth in emerging markets. In 2011, Rolls-Royce reported an incredible 60% increase in sales in Saudi Arabia. In 2013, Audi sold 36,150 of its models in Russia – a year-on-year growth of 7.9% – and in the first nine months of 2014 set a new record in the Chinese market (including Hong Kong and Macau) with sales of 415,704 cars – an increase of 16%.

"In logistics terms, the luxury car sector is about finished vehicle final deliveries and aftermarket efficiencies," says Dedieu. "That is what the customer is asking for. You don't want to tell them that their new Lamborghini won't be with them for three months." It's why DHL ships supercars individually by Express freight with special types of containers and why global direct distribution systems can be set up for (expensive) supercar parts.

Premium cars are also shipped using specific packaging to ensure product integrity. For example, DHL is currently shipping finished high-value Daimler models via Same Day air freight to end customers, and expects to have delivered 200-plus vehicles in this way by the end of the year.

The company is not simply delivering to buyers, however. It also ships high-value models for manufacturers to exclusive launches, autoshows, and trade fairs. For instance, in May 2013, under the strictest secrecy, it delivered the 2014 Mercedes S-Class to its international premiere in Hamburg in front of 700 customers, journalists, and retailers, employing a special camouflage system to meet the operation's extremely demanding security requirements.

In premium segments there are also all kinds of high-end technological components to ship – and ship safely. "These include valuable IT tools, expensive GPS systems, and state-of-the-art audio systems," says Dedieu. "This brings an additional layer of complexity to the luxury car automotive supply chain." *—**Tony Greenway***

CUSTOMER VIEW

LEXUS MAKES ITS MARQUE

Alain Uyttenhoven, Head of Lexus Europe, explains why the Lexus brand is so deliberately polarizing – and why keeping production in Japan gives the company tighter control of its supply chain.

Photos: Credits

Were the Lexus brand a hotel, says Alain Uyttenhoven, it would be a luxury, characterful, boutique hotel – not a big, smooth, high-street chain. That's because the whole point of Lexus' luxury cars is that they have a unique "look." This makes their aesthetics and proportions polarizing, so they don't appeal to everyone. But that's OK, says Uyttenhoven, Vice President Toyota Motor Europe and Head of Lexus Europe, because Lexus doesn't want to appeal to everyone. Because if it tried, it might be in danger of appealing to no one.

"We want to bring emotion to our products," he insists. "We do that with, firstly, driving dynamics – although we will probably never be the leader in that field; and, secondly and most importantly, with design. That's where we feel we can really make a mark."

The history of Lexus – the premium car division of Toyota – can be traced back to 1983. It was then that Toyota Chairman Eiji Toyoda set the challenge for his company to create a luxury car to rival the world's best. Toward the end of 1989, the LS 400 ("LS" stands for Luxury Sedan) and ES (Executive Sedan) 250 duly appeared in American showrooms and were immediately popular. Twenty-five years on, Lexus now has a global reach and produces a range including a full hybrid hatchback, a sports saloon, and a full hybrid SUV.

Lexus has taken a conscious decision to make its designs progressive. Take its NX model, revealed in April. Its exterior is sculptural and angular, and definitely not mainstream – and, says Uyttenhoven with disarming honesty, you either love it or you don't.

"We can afford to polarize with our design, because we're the fourth brand in the premium car market," he insists. "Our three German competitors – BMW, Audi, and Mercedes – have nearly 75% of the total European premium market, and we're the largest global challenger. Let's say two-thirds of the market loves us and the other third doesn't – well, that's fine because we're not chasing a 100% market share. You'll never hear any top executive in the hierarchy of Toyota-Lexus say, 'We want to be the biggest.'"

It does, however, want to be the smartest. In the auto industry, it's widely accepted that when Lexus first launched, it redefined customer service. "It sounds arrogant – and I don't want to be arrogant – but 25 years ago we brought the concept of 'omotenashi,' or Japanese hospitality, to the global car market," notes Uyttenhoven. "Before then, most car manufacturers were more focused on fixing cars than taking care of their customers. It's like airlines today: it's the onboard service that makes a difference to your reputation. And our smaller number of customers means we are able to offer a more personalized experience in the aftermarket. Because people will only switch brands if they see something that is substantially different from what's already out there."

"BY PRODUCING LEXUS MAINLY IN JAPAN, WE CAN TIGHTLY CONTROL THE WHOLE CHAIN OF INGREDIENTS THAT MAKE IT AN EXCEPTIONAL CAR."

Alain Uyttenhoven

He pauses. "And substantially better, of course. Just being different is not enough."

Lexus produced and sold 523,000 units in 2013 – although, in 2014, the amount will be closer to 600,000. "We want to grow because that's what every company has to do," says Uyttenhoven. "Growth is healthy. But Lexus is not going to grow just for the sake of it. If your ambition is to have 2 million customers... well, like it or not, you are going to have to go mainstream. You will have to shave off the interesting edges."

To date, the U.S. – where the brand first gained traction – has been the country most in love with Lexus. For years, much of the company's energy and focus has been directed towards the U.S., with many Lexus products designed specifically for it. Half of the 500,000 units sold last year went to America.

But things are changing. After the U.S., the biggest markets for Lexus are China, Europe, Japan, the Middle East, and Australia – the main markets for all premium car manufacturers. "We see our European, Chinese, and Japanese markets converging, and offering a counterweight to the U.S.," says Uyttenhoven. "This is because of, for example, CO_2 regulations in Europe, fuel consumption in China, and CO_2 behaviors in Japan. So cars are going to get smaller, although customers still want them to have a premium feel. The Lexus NX, for example, has been designed for Europe – unlike its big brother, the RX, which was designed primarily for the U.S. The NX has been immediately successful in Europe because it's spot-on for that market in terms of size, fuel economy, and handling."

Emerging markets are also important for Lexus, but Uyttenhoven questions the term. "What is 'emerging' these days? The BRICS? Frankly they have already emerged. Russia is our biggest market in Europe; China is fast-growing." Premium car-makers have to bear in mind that, in emerging markets, only the top of society's pyramid are wealthy enough to buy their products, as many emerging markets impose extremely high import duties and taxes on luxury vehicles.

TIGHTLY CONTROLLED SUPPLY CHAIN

The production of Lexus models is not a mainstream process. "Generally, it's so complex to bring all parts together, just in time, in this industry," agrees Uyttenhoven. "The problems of not having the right part at the right time can be immense in, say, a factory that employs 3,000–4,000 people. Essentially, you only have to be missing one crucial part during a full day and you can send those people home. So it's an industry where logistics plays a vital role."

Normally, a car manufacturer's strategy would be to produce locally where possible, as with the wider Toyota company. "We sell Toyota cars to 160 countries around the world," says Uyttenhoven. "And we assemble or produce them in more than 50 different coun

ALAIN UYTTENHOVEN: Fascinated by the fusion of technology and emotion.

tries. This means that Toyota has some kind of vehicle production in 25% of all the countries in the world. So you can see, Toyota's supply chains are complex."

The Lexus supply chain is comparatively straightforward because its models are only produced in Japan. The exception is a Lexus factory in Ontario, Canada, which produces the RX, the bestselling model in North America. "Our Ontario factory supplies a lot of key components from Japan," explains Uyttenhoven. "Yet it's an assembly factory rather than a fully fledged production factory. So by producing Lexus mainly in the Japanese market we can tightly control the whole chain of ingredients that make it an exceptional car."

There are two other reasons why Lexus restricts most of its production and supplier base to Japan. First, global production is not viable because of the relatively small amount of cars the company produces. Critical mass is everything – and Uyttenhoven points out that it is not efficient to run a factory producing fewer than 300,000 units. (The downside to this strategy is increased supply chain risk. The 2011 Japanese earthquake and tsunami, for instance, drastically disrupted Toyota's production in Japan.) Toyota was built on efficiency. It's why the Japanese word *muda* ("waste") looms large in every Toyota plant around the world. In the corporate ethos, any "excess" is regarded as *muda,* which is why the company's production system is characterized by a lack of excess inventory and its factories are much smaller than those of other manufacturers. "The first excess we wanted to eliminate is having our people walk a long way to get from one place to another," explains Uyttenhoven.

7
MILLION+

The total of Toyota's hybrid sales, announced in September. Toyota and Lexus hybrid sales in the U.S. alone are now well in excess of 2 million.

Second, premium cars come with huge expectations in terms of quality and hi-spec components. "When you make a premium car, a lot of the manufacturing is made by the hand of a human being, rather than a robot," says Uyttenhoven. "Take the leather seats of our cars. You might be a supplier making leather seats for mainstream cars, but to make Lexus seats you will need three months of specific training to reach the quality level we need. So if we moved production to other sites globally, we would have to ensure that the resulting quality would be of the same standard currently delivered by the plants that have been producing them for the last 25 years."

AUTONOMOUS DRIVING INNOVATION

Lexus will continue to make sustainability its watchword, says Uyttenhoven. "For us, sustainability is about ensuring that the long-term gain is always more important than any short-term benefits. We also think mobility will have to become more sustainable because we only have one planet with finite resources. So we will maintain our research into fuel cell cars that work with hydrogen until we have invented individual mobility that produces no CO_2."

He also sees a time when cars will be interconnected, and believes autonomous driving will be the next big innovation. Cars can already receive information from the Internet, of course, and the 2015 Lexus CT 200h is being marketed in the U.S. as a car which "Might be the ultimate connectivity device – connected to road, ecology, and music." In the future, however, cars that can interact could dramatically increase road safety. "It will take time to create a regulatory framework for autonomous driving to work," he says. "But we could expect it to simplify our lives. Imagine if, at a busy airport, you got out with your luggage, pushed a button, and told your car to go to its parking space. It would be a huge efficiency gain." Connectivity could also increase vehicle quality and reliability. For example, DHL and key players in the auto industry have been part of the Maintenance on Demand (MoDe) project to develop a commercially viable truck that can autonomously identify where and when its own maintenance is required.

Uyttenhoven, an engineer by training, loves the industry in which he works. "One of the things that fascinates me about cars is the fusion of technology and emotion," he says. "And everyone wants to talk to me about cars, even away from work. I usually say, 'Well, let's talk about them for 10 minutes. But there are so many more areas of life we can discuss.' Yet that just shows how central they are to people's lives." That includes Uyttenhoven, who, apart from recreational flying and cooking, loves restoring classic cars. "I like to work with my hands," he says. "Once an engineer,

SMEs GEAR UP TO GO GLOBAL

Global trends are leading small and medium-sized enterprises to be more enthusiastic about entering international markets, with the majority of SMEs expecting to generate up to 50% of revenues from other countries, DHL research shows.

Small and medium-sized enterprises are driven by the same macroeconomic pressures as their larger corporate counterparts to compete in the global market. New research shows that SMEs have unique challenges in entering international markets, but most aspire to grow by expanding their trade horizons.

In the study "Breaking Borders: From Canada to China, Barriers Trump Growth for Expanding SMEs" from the Economist Intelligence Unit commissioned by DHL Express, a majority of respondents expect to derive between 11% and 50% of their revenues from international operations by 2019. That expectation is as strong among respondents from G7 countries as it is developing markets such as Brazil, Russia, India, China, and Mexico (the BRICM countries). The report draws on the results of a survey of 480 SMEs spread across twelve countries and 20 industries, and interviews with senior SME executives and officials from business lobbying groups.

TOP SME
STRATEGIC CONSIDERATIONS

1. Cultural compatibility
2. Presence of local networks and business acumen
3. Existence of reliable infrastructure
4. Stability of a market's political environment

BREWING UP: SMEs expect to derive up to 50% of revenues internationally by 2019.

Photos: Credits

SMEs SEEK MARKETS SIMILAR TO THEIR OWN

According to the report, nearly 69% of respondents from G7 countries currently trade internationally, whereas only 46% of respondents from BRICM countries do. Yet, a majority of SMEs agreed that international trade was vital to their survival, with a broader client base and stronger revenue topping the list of benefits.

SMEs in developing nations are still more active in markets that resemble their own. Compared to their G7 counterparts, SMEs from BRICM markets are more likely to seek growth opportunities in other developing countries, while SMEs from the G7 economies are more active in other developed markets.

A textile executive from Zenitex in India noted that investing in a developing market generates a better overall return, although it is more difficult to maintain a competitive advantage due to the complex business environment.

To address their concerns about the risks of investing time and resources in unfamiliar terrain, successful SMEs rely on partnerships with in-country businesses that already have local networks.

LONG ON CHINA, SHORT ON AFRICA

Where should SMEs seek opportunity? Because of its stability, rapidly growing middle class, and government-funded infrastructure, China remains a magnet for SME confidence and investment, according to the survey. To succeed in China can be challenging, so SMEs must find the right balance between developing local partners and direct investments of their own.

With its reputation for a lack of high-tech infrastructure and challenging legal and commercial systems, Africa is not recognized by many SMEs as a growth opportunity despite a forecast growth of 5% in 2015 in sub-Saharan Africa. But BuffaloGrid, a UK-based SME, is turning that situation into an advantage. It sells solar-powered cellphone chargers through an existing retail network of coffee shops, eliminating the need to invest in its own distribution channels.

Despite tough competition, economic stagnation, and pressure on margins, most SMEs view international trade as vital to long-term survival in a globalized world. — ***Gary Wollenhaupt***

BUSINESS

Nigeria faces the future

Nigeria is now the largest economy in Africa, and global multinationals are queuing up to tap into its potential. Yet there are still major hurdles for the country to overcome before it can properly silence its critics.

Photos: Fotograf/Agentur

The clouds burst overhead as an army of hawkers wades knee-deep through the rising floodwaters on Akin Adesola Street. In their hopeful, outstretched, hands are Chinese-manufactured mobile phones, plastic sachets of lurid green detergent, and towering bales of pirated Nollywood DVDs.

We are encircled by water: west toward the Benin border, north to the boundary of Lagos state, east toward the cradle of economic growth – the oil delta. This is Lagos in the midst of what feels like a biblical flood. But the “Area Boys” – young gangs who control street trade – don’t seem to be skipping a beat. Here on Victoria Island, in the heart of Africa’s most manic urban sprawl, it is business as usual. Rising floodwaters amount to one thing: a captive audience of stranded yellow kombi taxis and a grand opportunity.

Any reflection on the startling pace of change on the world’s second-largest continent should arguably begin here on the streets of West Africa’s unofficial capital, which remains a mirror to Nigeria’s unbridled economic progress. Here, in this city of around 20 million, the startling disjuncture between the wealthy and the impoverished can be seen in full Technicolor.

Yet the fact is that Nigeria, recently announced as Africa’s largest economy, is no longer a one-dimensional story of oil and corruption. The headlines on newsstands increasingly offer a broader picture. For example, SMEs are growing, and chemical and pharmaceutical products activities in the manufacturing sector grew by 38.5% in the second quarter of this year. Today, Nigeria stands as the world’s 24th-largest economy, slotting in slightly behind Sweden but ahead of energy-rich Norway. There is optimism in the air – even if cynics say it is polluted.

The reason for their cynicism is because the nation’s much heralded growth status has polarized economists, NGOs, and businessmen alike. With its population of 170 million people and economic power, Nigeria has the potential to lead its energetic and ambitious people into a new epoch. But, as the World Bank recently reiterated, a significant portion of its vast population lives on less than $1.25 a day. Meanwhile, youth unemployment is close to 80%, and chronic power shortages continue to stifle business and put a brake on economic growth. Plus there is the threat from Boko Haram, a vicious Islamist insurgency in the country’s remote and sparsely populated north-east. Despite a ceasefire announced in October, the group is, at the time of writing, still holding hostage more than 200 girls seized in this part of the country – a region which, unsurprisingly, has become increasingly marginalized from a trade and investment perspective.

INVESTMENT FLOWS IN

At the epicentre of this 21st-century story of extremes of hope and doubt is teeming Lagos, a magnet for the optimistic poor. Every year about 600,000 locals join the city’s informal economy. The UN estimates that within a few years Lagos could edge out Karachi to become the world’s third-largest city, after Tokyo and Mumbai. It is for this reason that Nigeria’s economic future looks increasingly urban.

If Lagos became independent tomorrow its GDP would be similar in size to Angola. But such breakneck pace also brings with it a propensity for whiplash. The city is also one of the most congested urban sprawls on the planet, with a rudimentary mass transit system and chronic infrastructure problems.

Indeed, the city’s Governor, Babatunde Fashola, recently put the estimated amount required for infrastructure development in Lagos in the next 10 years at $50 billion. No wonder Lagos state has used a Public-Private Partnership (PPP) strategy to solve its vast infrastructure deficit. At the beginning of 2014, the Lagos State Government revealed that 83 roads had been completed in 2013 – as had Nigeria’s first cable-stayed bridge, the Lekki-Ikoyi Link Bridge (although this was publicly, not PPP, funded). The State Government also recently revealed how N160 billion ($981 million) it borrowed from the World Bank has been used to fund its Light Rail project.

Nigeria has also privatized the infrastructure and assets of Parastatal Power Holding Company of Nigeria, splitting the company up in regional distribution and placing the national power grid on a management contract. This is crucial to solve Nigeria’s notoriously

NIGERIA FACTS

The Federal Republic of Nigeria, located in Western Africa on the Gulf of Guinea, is the most populous country in Africa with a rich cultural heritage and diverse ethnic background. Half of its 170 million population is Muslim, while Christianity is practiced by 48%. A former British colony, Nigeria gained independence in 1960. After years of civil war and military rule, it has been on the path to democratization since 1999, with Goodluck Jonathan elected President in 2011. This year Nigeria overtook South

Africa as the largest economy in Africa. While oil reserves still play a major role, Nigeria’s financial and telecommunications sectors are growing fast and it has a promising pipeline of infrastructure projects.

RISING DEMAND: Another container ship arrives in Lagos with goods to fuel Nigeria's new boom.

erratic power supply. Although it will likely take years for the power supply to improve, it is hoped that private investors are placed to access the funding and technical expertise required to make it happen.

Oliver Facey, Vice President of Operations at DHL Express Sub–Saharan Africa, sees this infrastructure scale-up and improved regional trade, from both an SME and multinational perspective, as intertwined. "As multinationals turn to Africa, and as smaller African enterprises look to trade cross-border, regions like West Africa need increased capacity to cope with the rising demand for transportation of goods," he says.

This demand for goods from a growing middle class is a turnaround because, to date, Nigeria's economic growth has been a narrative shaped by oil and gas. Although energy resources only account for 14% of its GDP, they are still responsible for 75% of Nigeria's federal revenue and 90% of exports. But the recent rewriting of Nigeria's GDP took into account thirteen previously uncounted industries which included telecommunications, online sales, film production, and music, each offering promising signs for the future. In short, it's increasingly all about "human energy".

And international companies want to tap into that energy. General Electric recently became one of the global manufacturers to take advantage of this new narrative, with a $1 billion investment over five years in a service and manufacturing facility in Calabar, Cross River State. On a bigger scale, the $9 billion investment of Dangote Group in petroleum refining and petrochemical and fertilizer plant in the Olokola Free Trade Zone is set to transform the area. Nigeria is also making the great leap towards its own car industry. In the last few months Nissan began manufacturing family saloons and SUVs at an old Lagos Volkswagen assembly – foreign cars with a "Made in Nigeria" stamp.

Certainly, foreign investment is increasing. According to a June 2014 report from the United Nations Conference on Trade and Development (UNCTAD), Nigeria's foreign direct investment (FDI) inflow stood at $5.6 billion in 2013. Yet a May 2014 report from Ernst and Young forecasts that FDI inflows to Nigeria will average about $23 billion annually over the next five years and create around 95,000 jobs.

PEOPLE POWER

The bottom line, digging beneath the statistics, is that there is a positive story here and all to play for. To be a dominant world economy, like China or America, two fundamental things are required: a large population and strong productivity. Nigeria is making bullish inroads into both. Simple demography is probably the most fundamental factor. At 180 million, the current population is the world's seventh-highest. By 2050, this is projected to be 400 million, setting Nigeria on course to replace the United States as the world's third most populous country.

This population windfall is part of a broader developing world trend whereby 1.2 billion mostly emerging-economy youth are forecast to move out of subsistence poverty by 2020. For this new generation of local consumers in Nigeria, household discretionary spending will exceed $5,000 for the first time. What this means in the present is Nigeria, as a burgeoning consumer market, is simply too large to ignore.

TEEMING LAGOS: Nigeria's current population is the world's seventh-highest.

Photos: Credits

E-COMMERCE EXPLOSION

According to DHL Express Nigeria's Managing Director, Randy Buday, the growth in the consumer market is a barometer of profound change. "An untold narrative I see in Nigeria is the explosion in the world of e-commerce," he says. "Today Nigerians can get the products they need online. For the last five years, we have seen huge changes in information and communication technology, and this is encouraging not only growth areas like e-commerce but also startups. I have worked in Africa for 30 years and seen great change. Today Nigeria is an entrepreneurial environment – a business frontier, where e-commerce can thrive and where we are seeing better governance. It is, without question, the most exciting, promising, and hopeful time in the nation's post-independence history."

Yet there are challenges on this new economic frontier. Many critics have pointed at Nigeria's banking sector for not doing enough to help foster startups. According to figures from the National Bureau of Statistics and the Small and Medium Enterprises Development Agency of Nigeria, the country boasts over 17 million SMEs. Yet at least 50% operate informally and are handicapped by a lack of access to cashflow.

One major positive in the sector is the efforts by SAP Africa, in partnership with Ernst and Young – both committed to transforming Nigeria's banking sector. SAP's Head of Financial Services for Africa, Darrel Orsmond, believes making the banking sector more internationally compliant will be key to growth. He says, "Countries all over Africa – including Nigeria, the largest economy – are making every effort to increase their levels of regulatory compliance to keep up with legislative and economic requirements for analyzing financial data, including threats and risks. By identifying and eliminating risks in advance through the use of real-time reporting, banks can satisfy the needs and demands of stakeholders thereby reducing risk and increasing regulatory compliance."

MANAGING RISK

Doing business in Nigeria can present certain risks. The DHL Resilience360 solution is a unique and highly customizable supply chain risk management resource that is designed to protect sales, maintain service levels, reduce emergency costs, and enable fast post-disruption recovery. A risk assessment process maps and visualizes the customer's entire supply chain and analyzes the network to identify exposures and vulnerability as well as options for immediate recovery. The Incident Monitoring platform allows real-time tracking of incidents that are capable of disrupting the supply chain – including lanes, nodes, plants, suppliers, and shipments – assesses their potential impact on the end-to-end supply chain, and creates notification alerts with site feedback loops.

For more on DHL Resilience360, contact Tobias Larsson:

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Entering the Nigerian market is still an unknown quantity for many. Heather Frankle, Managing Director of DHL Global Forwarding in Nigeria, says there has been an influx of enquiries about how to do business in the country not only from customers in the West, but also from within Africa. "There are a lot of African businesses coming into Nigeria now and this is incredibly positive," she says. "They tell us they want information about entering Nigeria and, most importantly, becoming legally compliant."

Oliver Facey believes that lateral thinking has always been key to making it in Nigeria. "Because of the crippling congestion in Lagos, a courier van can take up to three hours to collect or deliver customer consignments between the airport and the city center" he says. "Our solution was to use Lagos's abundant water, so we added a DHL boat to our fleet to ferry our parcels and documents from Victoria Island to the mainland, which connects to our aircraft at our Gateway and Hub at Murtala Mohammed International Airport (MMIA). It's a great solution to an enduring problem."

Success on the ground also takes lateral thinking. To this end Lagos offers a laboratory for Africa's future. For both foreign investors and local people, adaptability is key to not just surviving but thriving – a can-do mentality that emerges from the streets. Unless you have struggled across Lagos at rush hour it's impossible to understand the scale, energy, and challenges brought by the new African epoch of prosperity. The markets never close. Informal transactions make up at least 60% of all economic activity in Africa's largest city; where else can you purchase matches, cigarettes, and a fire extinguisher from the same vendor? What looks like anarchic activity in Lagos is actually governed by a set of informal but ironclad rules.

And in Lagos, one thing is abundantly clear: there is little evidence of idleness sinking into despair – even on the street. It feels like a city that wants to break the mould because its people understand that to survive you first need to become a striver. – ***Dan McDougall***

Dan McDougall is a British Foreign Correspondent of the Year.

THE HOPE OF AFRICA

Nigerian civil society activist Hafsat Abiola talks about why her country has so much potential – and why her people are the hope of an entire continent.

When she was eight years old, Nigerian-born Hafsat Abiola told her sister that she was "going to marry a diplomat and travel the world." Later, it occurred to Hafsat that – forget marrying one – she could instead become a diplomat herself. Ultimately, however, she changed tack and studied Economics at Harvard University in the U.S. Hafsat is now a respected human rights, civil rights, and democracy activist.

In truth, Hafsat was always destined to become a champion for democracy. She is the eighth child of the late Chief Moshood Abiola, the uninaugurated president elect of Nigeria and leader of the country's pro-democracy movement who was imprisoned by the military and later died in incarceration in suspicious circumstances. In 1996, her mother, Alhaja Kudirat Abiola, was shot and killed during a demonstration for the Chief's release. "So I became very involved in the democratic movement in Nigeria," says Hafsat. "I do now travel the world speaking up for democracy. And, ironically, by doing that, I ended up marrying a diplomat..."

Hafsat is the founder of the Kudirat Initiative for Democracy (KIND), which seeks to strengthen civil society and promote democracy in Nigeria; and for the last three years she has been Special Advisor to the Governor of Nigeria's Ogun State, with responsibility for the Millennium Development Goals Office. The winner of various national and international awards, Hafsat is also a regular commentator on CNN and the BBC.

Here Hafsat tells us why Nigeria is Africa's most successful economy – and what she believes it must do to ensure investment and growth.

Nigeria is Africa's number one economy now. What makes it so successful?

Our economy is finally diversifying – it's not simply dependent on oil. We have a services sector, which tends to be low-paid unfortunately, and a small but growing manufacturing sector. The manufacturing sector should resolve the problem of unemployment, because there is so much demand for work, particularly in urban areas, and it is better paid. We also have an emerging middle class.

> "THERE IS SO MUCH PROMISE FROM DIFFERENT SECTORS – BUT WE NEED TO GET OUR ACT TOGETHER AND DEVELOP THEM PROPERLY."
>
> Hafsat Abiola

The dichotomy is that Nigeria is also a poor country. What keeps it that way?

We have to do a whole lot better with regards to the rule of law. If we want businesses to invest, they must feel confident that we abide by global rules and by our own national and African rules – and that what you do in Nigeria matters more than who you are. We must address the problem of pirated goods. Until we do, we cannot really ask those companies who make legal goods to open a factory here. And we need longer-term investment in power to run our manufacturing sector.

What are the sectors with growth potential in Nigeria? Some commentators have noted that the country has aspirations to become the technology hub of Africa.

There's agriculture, which must be modernized so that it can attract young people. I can see Nigeria becoming a regional hub for tech, although from everything I'm hearing, Kenya is more likely to be the continental hub. But in Africa there is room for everyone. I think Nigeria is going to dominate the fashion industry, the film industry, and the music industry. We have our own sense of style and we have our own sense of what we like to watch. In Nigeria, you can bring the latest Superman film to the theaters and everyone will want to see it; but no more than they want to see home-grown movies which speak to our own sense of humor and values. Overall, there is so much promise from different sectors – but we need to get our act together and develop them properly.

What do international businesses need to do if they want to invest in Nigeria?

They need to see themselves as partners in Nigeria for the long haul. Also, I think the government, the unions, and the private sector need to coordinate with each other and work together to outline their vision and highlight the kind of skills they require. We have to do that across all sectors. The government then needs to ensure that our labor force can deliver those skills; and it needs to recognize that the private sector is not a charitable venture and has to make a profit. If we can figure out how to train our own people, they will start earning decent wages, and our state will be earning taxes that can then be used to provide essential services. It's a win-win.

HAFSAT ABIOLA: Daughter of Chief Moshood Abiola, she was always destined to become a champion for democracy.

Photo: Robert Samuel Hanson

How would you characterize the Nigerian people?

I really think that Nigeria is the hope of Africa. We Nigerians are very clear about who we are – that we are not lacking and that we are not inferior. Nigerian people are boisterous, buoyant, effervescent, charismatic, happy, and comfortable in their own skin. But we do have a lot to learn from others. We need to learn how to drive for the kind of outcomes that we want; and we need to learn to develop a backup plan – just in case things don't work out in the way we think they will.

Are you optimistic for Nigeria?

I wouldn't describe myself as optimistic, sadly, because I think we are already at a crossroads. We need to stop blaming each other and fighting each other and fight the problems we face instead. We need to ask what we can learn from other countries that have been down a similar road. We are a young country with 60% of the population under 30. In ten years, we will still be a young country – but by then I'd like us to be one that is maturing fast and facing up to our responsibilities. We must become more modernized and not subvert our own institutions to advance personal or group interest. If we do all that, yes, businesses might find us a bit more predictable; but if they can predict us better then they will relate to us better, which could lead to investment. Ironically, I think we have to become less unpredictable and exuberant as individuals so that, collectively, our country can shine brighter.

ABOUT HAFSAT ABIOLA

Hafsat Abiola is the daughter of the late Chief Moshood Abiola, leader of Nigeria's pro-democracy movement. Apart from her role with the Ogun State government in Nigeria, she sits on the boards of several organizations. Hafsat has a BA (Hons) in Economics from Harvard University, an MA in International Development from Tsinghua University in Beijing, and is a prolific writer and public speaker.

tinyurl.com/del-kind

SINGAPORE SHIPPING: The Southeast Asian city state is one of the region's most connected economies.

GLOBALIZATION RECOVERING FROM CRISIS

A multidimensional report on the state of globalization, the 2014 DHL Global Connectedness Index reveals the lingering problems, the top performers, and the enormous potential.

In a world where social media leaps national borders, and overnight global delivery defeats time and distance, you'd think the global economy would be as connected as possible. However, the new 2014 edition of the DHL Global Connectedness Index (GCI) reveals that, while globalization has now recovered most of its losses from the financial crisis, trade growth, as a distinct dimension of globalization, remains sluggish, and the overall level of global connectedness is still quite limited – lower than many people think. This implies that there could be gains of trillions of dollars if it were to be boosted in future years.

"In the aftermath of the financial crisis, globalization has increasingly come under pressure, and international trade negotiations face growing resistance," says Frank Appel, CEO Deutsche Post DHL. "In this environment of uncertainty, the DHL Global Connectedness Index offers a comprehensive, fact-based understanding of globalization, and demonstrates the huge potential for countries to further increase their connectedness. I am convinced that a prosperous world needs more, not less integration."

The DHL Global Connectedness Index provides an account of the world's global connectedness, backed up by regional and country-level analysis covering 140 countries that encompass 99% of the world's GDP and 95% of its population. It focuses on 12 dimensions of trade, capital, information, and people flows (or stocks cumulated from past flows) and is generated based entirely on hard data, drawing on over one million data points from 2005 to 2013.

The new study documents a substantial shift of economic activity to emerging economies that is pushing the world's economic center of gravity eastward. Emerging countries are now involved in the majority of international interactions, whereas before 2010 the majority of international flows were from one advanced economy to another. The 10 countries where global connectedness increased the most from 2011 to 2013 are all emerging economies, with Burundi, Mozambique, and Jamaica experiencing the largest gains.

Advanced economies have lagged in this overall shift of economic activity, which suggests that they may be missing out on growth opportunities in emerging markets. "Counteracting this trend would require more companies in advanced economies to boost their capacity to tap into faraway growth," says Professor Pankaj Ghemawat, co-author of the report and internationally acclaimed globalization expert and business strategist. "This is particularly evident in light of the fact that a decades-long trend toward trade regionalization has gone into reverse."

In fact, the GCI 2014 reveals that every type of trade, capital, information, and people flow measured has expanded over greater distances in 2013 than in 2005, the report's baseline year.

HOW COUNTRIES AND REGIONS PERFORMED

In addition to a comprehensive overview of the state of globalization, the GCI also provides rich insights into individual countries and regions. The Netherlands remains the world's most globally connected country, and Europe is the world's most connected region, with nine of the ten most globalized countries.

Photos: Credits

TOP 10 CONNECTED COUNTRIES

1. Netherlands
2. Ireland
3. Singapore
4. Belgium
5. Luxembourg
6. Switzerland
7. United Kingdom
8. Denmark
9. Germany
10. Sweden

EMERGING CONNECTEDNESS

The top ten countries where global connectedness increased the most from 2011 to 2013 are all emerging economies. Burundi, Mozambique, and Jamaica lead the way.

European countries also average the highest scores with regard to trade and people flows. North America ranks second, and is the leading region for capital and information flows.

The largest average increases in global connectedness from 2011 to 2013 were observed in countries in South and Central America and the Caribbean. Southeast Asian economies stand out for the high depth of their connectedness relative to their respective structural characteristics, such as their size and level of economic development. The top five outperformers were Malaysia, Vietnam, Cambodia, Hong Kong SAR (China), and Singapore. Middle East and North Africa was the only region to experience a significant decline in connectedness.

MEASURING GLOBALIZATION IN 3-D

Compared to other globalization indexes, DHL's Global Connectedness Index offers unique insights by measuring globalization in 3-D. The report looks not only at the depth of international interactions, but also at their geographic distribution (breadth) and their directionality (outward versus inward). This comprehensive approach explains why the GCI "was the only one of the globalization indexes to register what many observers regard as the biggest drop-off in the intensity of globalization when the financial crisis hit," says Ghemawat. "That should boost confidence in using it as the basis for diagnosis and decision-making."

LOOKING AHEAD

Will the world become more connected? The International Monetary Fund projects the world economy will grow faster from 2014 to 2019 than over any of the past three decades. The GCI maintains the biggest threats to continued globalization thus loom not from macroeconomic fundamentals, but the possibility of misguided trade policies or protectionist interventions.

Global connectedness can be increased multilaterally, bilaterally, and via the foreign and domestic policies of individual countries. Given the limited levels of global connectedness, increasing those connections could prove to be a powerful lever for boosting global growth, adding trillions of dollars to world GDP.

Read more about the DHL Global Connectedness Index 2014 at:

tinyurl.com/del-global

TOO MUCH MAIL!

Overflowing inboxes are the scourge of the modern working environment, and are even invading our leisure hours. Companies and individuals won't take it anymore. A survey of solutions for tackling rampant email overload.

A "zero email company" in three years. That's the goal France-based international IT services firm Atos set for itself in 2011. Atos executives estimated that managers were spending 5–20 hours a week just reading and writing emails. "We are producing data on a massive scale that is fast polluting our working environments and also encroaching into our personal lives," stated Chairman and CEO Thierry Breton. "At Atos we are taking action now to reverse this trend, just as organizations took measures to reduce environmental pollution after the Industrial Revolution." The firm underlined its resolve by taking out a trademark on the term "zero email."

81 PERCENT

The proportion of employees at U.S. SMEs who check their work email at weekends.

The 75,000 Atos employees in nearly 50 countries weren't the only ones overwhelmed by overflowing inboxes. A survey by GFI Software of employees in small and medium-sized companies in the United States discovered that 81% check their work email on weekends, 55% do so after 11 p.m., and 59% while on vacation. In 2011, the typical corporate email user sent and received about 105 email messages per day, according to the Radicati Group, a Silicon Valley-based technology market research firm. Despite filters, spam filled 19% of inboxes.

Individual stress means reduced productivity for companies. Email ranks among the biggest "time wasters" at work, along with excessive meetings and constant interruptions, according to Australian software development firm Atlassian. Annual costs per employee were estimated at $1,250 for spam, $1,800 for unnecessary emails, and $2,100–$4,100 due to poorly written communications.

Atos countered by developing its own new collaboration software called blueKiwi. "Those [employees] who are most engaged do not use internal emails anymore," says Robert Shaw, CEO of blueKiwi Software, a division of Atos. Before moving to blueKiwi, Shaw was the global program director for the zero email effort.

blueKiwi takes the logic of social media and adapts its tools to a corporate environment to help employees share information, find in-house experts, and build internal networks. "Employees actually communicate less but absorb more as features such as smart lists, rating, and using the 'like' button make it easier to signal and prioritize," notes Shaw.

Nobody expected to get the job done with new technology alone. "Success depends on behavioral change as well," Shaw recognizes. The firm enlisted an international team of 450 "ambassadors" to help implement better organizational and management practices. Chief Information Officers began hanging out more with the staff. That translates into quicker launches of new business ventures, improved customer experience, better employee engagement and productivity, and more employee collaboration on solving problems, Shaw says.

TOOLS TO STEM THE TIDE

Atos applied those lessons to help the organizers of the 2012 Summer Olympic Games in London and the 2014 winter games in Sochi reduce their use of email. The firm worked with members of the organizing committees to create common team platforms, workflow controls, and special dashboards that slashed the need for email.

Atos is not alone. Firms like Klick Health, a Canadian digital advertising agency, and the LAC Group, a Los Angeles-based information firm, are using proprietary or commercially available social networking software. Market researcher Nielsen simply disabled the "reply all" function. German automaker Daimler allows employees to choose to cut emails while on vacation, with messages automatically rerouted to colleagues via an email program developed by Daimler called Mail on Holiday. At Volkswagen, servers stop routing messages to some employees 30 minutes after their shifts end. U.S. consumer group Procter & Gamble declared a ceasefire on email during the winter holidays. Some firms decree email-free days or half-days.

Efforts aren't limited to household names. The Tomcat Group, a business consultancy in Wichita, Kansas, has No Internal Email Fridays. Chuck Gumbert, operating executive, remains vigilant the rest of the week. "I try to enforce a two email volley limit," he said. "If you can't get the answer you need within two emails, either go see that other person or call them on the telephone. Endless email volleys inhibit productivity." Leverage PR, a Texas-based public relations firm, has established second email accounts for senior staffers. Newsletters, event invitations, social media, and business leads are funneled to junior assistants who coordinate schedules, respond to tweets, and set up calls for Principal Joy Schoffler and her top account managers.

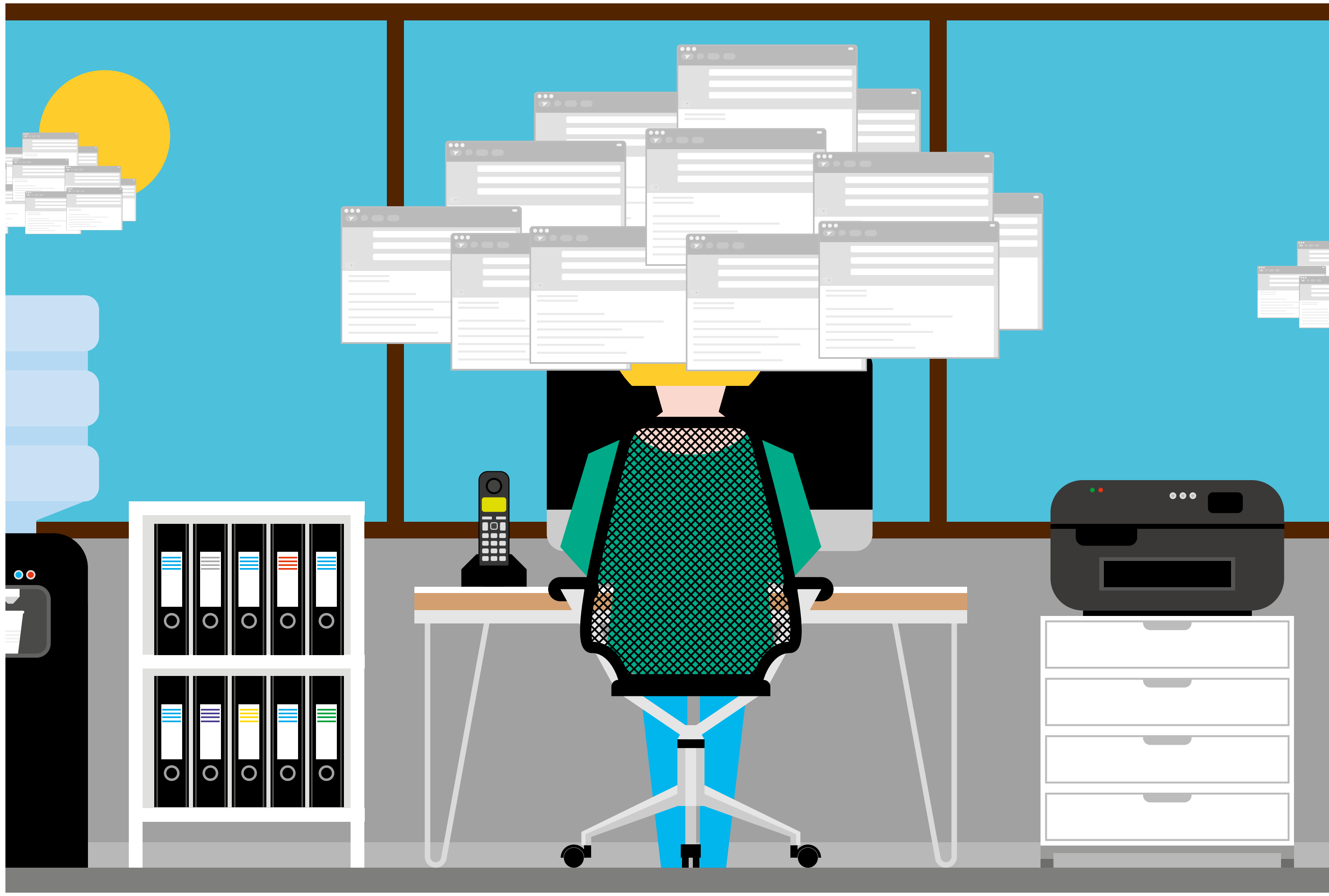
PURSUING PERSONAL SOLUTIONS

Individuals are ahead of organizations. "We don't see [that many] corporate initiatives to deal with email overload," says Allen Falcon, CEO of Cumulus Global, a U.S. cloud computing service provider. "We see it at the personal level." The demand for personal solutions has generated a cottage industry for books such as Alexandra Samuel's "Work Smarter, Rule Your Email" (Harvard Business Review Press), which focuses on teaching individuals how to use filtering and filing tools in Outlook and Gmail to create customized email management systems. Some people use programs like Sanebox to automatically cull less important emails from inboxes. Others advocate old-school tactics such as the Eisenhower Matrix, a simple "important-urgent" (or not) formula for organizing tasks credited to the former U.S. president.

However helpful, inbox management won't stem the tide. To change corporate email culture, Hill+Knowlton Strategies, a Washington, D.C.-based division of the U.S. public relations firm, suggests "putting responsibility on the sender rather than the receiver," says Lindsay Hutter, director of its Global Change + Internal Communications practice. Following this supply-side line of thinking, entire movements have cropped up to encourage better outbox etiquette. The Five Sentences movement strives to keep messages below that limit, while a coalition called the Email Charter offers "10 Rules to Reverse the Email Spiral" (see box). The bottom line, though, is simple: think before you press send. – ***Bill Hinchburger***

SUBJECT: 10 RULES TO REVERSE THE E-MAIL SPIRAL

01. **Respect recipients' time –** it is the sender's responsibility to keep communications short and sweet
02. **Short or slow is not rude –** understand the pressures faced by your respondent
03. **Celebrate clarity –** from the subject matter to the text
04. **Quash open-ended questions**
05. **Slash surplus cc's –** "cc's are like mating bunnies"
06. **Tighten the thread –** don't copy the entire thread unless necessary
07. **Attack attachments**
08. **Give these gifts: EOM NNTR –** If you can fit the entire message in the subject line, do so followed by EOM (= End of Message). End notes with "No need to respond" or NNTR, if that's the case.
09. **Cut content-less responses –** don't reply if you won't add new information
10. **Disconnect!**



Photos: Credits

Learn more about the E-Mail Charter at:

tinyurl.com/del-charter

Learn more about The Five Sentences at:

tinyurl.com/del-sentences

SOLUTIONS

Pushing the electric envelope

On August 22, a new world land-speed record for electric vehicles was set at Bonneville Salt Flats in Utah, USA. The Venturi Buckeye Bullet 3 set an average two-way speed of 342.170 km/h (212.615 mph) over a flying mile. The new record is in the category for electric vehicles over 3.5 tons.

With nearly 3,000 hp, the VBB-3 is the most powerful electric vehicle ever built, and a test bed for electric powertrains subjected to extreme conditions and environments. It is the most recent vehicle in Venturi's Mission 01 program, carried out in partnership with the Center for Automotive Research at Ohio State University, which aims to challenge speed records, and set new benchmarks in the field of high-performance electric vehicles.

The VBB-3 had traveled to Utah in pursuit of that outright land-speed record. Their efforts were disrupted and curtailed by storms and severe flooding, but the vehicle still set the new record in its category.

According to Venturi chairman and CEO Gildo Pallanca Pastor, "We are innovating in order to optimize energy efficiency, one of the greatest challenges facing not only the automobile industry, but society in general."

Learn more at: tinyurl.com/del-buckeye

Photos: Credits

FIVE RULES & TEN STEPS TO COLLABORATIVE CONTRACTING

BY KATE VITASEK

Kate Vitasek is a faculty member of the University of Tennessee's Center for Executive Education. She is the principal author of "The Vested Way: How a 'What's in it for We' Mindset Revolutionizes Business Relationships"; "Vested Outsourcing: Five Rules That Will Transform Outsourcing"; "The Vested Outsourcing Manual"; "Getting to We: Negotiating Relationships for Highly Collaborative Relationships" and "Vested: How P&G, McDonald's and Microsoft are Redefining Winning in Business Relationships."

See the Vested website for more details: **tinyurl.com/del-vested**

The modern supply chain carries with it a complex array of financial and operational challenges: if one part of the chain falters the entire system is at risk, which is why collaboration, trust, and flexibility must become more than mere buzzwords in strategic buyer-seller relationships.

In essence, a company's supply chain and logistics relationships comprise the most important outsourcing arrangements it does. But how does an organization get past the buzzwords to a holistic system that works to the mutual benefit of buyers and suppliers? How do you get it right?

Sadly, more companies get it wrong than right, mainly because they are locked into old-school me-first, I-win-you-lose, and transaction-based ways of doing business. They are not truly aligned with their suppliers and logistics partners. What is needed? A partnership with your supplier that's collaborative, ethical, and that both creates and shares value over the long term – in short a new mindset that embraces a win-win, "what's-in-it-for-we" philosophy. A flexible approach and agreement framework is needed, one that the Nobel laureate Oliver E. Williamson suggests is highly adjustable or adaptable, rather than one that prescriptively outlines detailed transactions, rigid terms and conditions, SOWs, and working relations. University of Tennessee researchers set out to find a better way to develop outsource agreements and their research led them to study some of the most successful relationships such as McDonald's award-winning supply chain relationships with its suppliers, known as The System. This research found that successful agreements operated differently; they moved away from traditional buy-sell arms-length contracts to long-term, win-win relationships based on the what's-in-it-for-we mindset. This approach is called Vested Outsourcing because companies and their service providers/suppliers collaboratively craft contracts that establish realistic and flexible frameworks for long term success.

The Vested business model features five rules that, in conjunction with ten steps (or elements), take companies beyond transactional micro-management to a new level of collaboration and value creation, as outlined here:

RULE #1: FOCUS ON OUTCOMES, NOT TRANSACTIONS

Element 1: Business Model Map

This first step is to understand and document an outsourcing business model. It is vital to map potential outcomes in order to see how well the parties are aligned. The parties will pinpoint the transactions of value, establishing a culture in which the company and the supplier maximize profits by working together more efficiently, no matter who is doing the activity.

Element 2: Shared Vision and Statement of Intent

Once the business model is mapped, the parties work together on a joint vision that will guide them for the duration of the Vested relationship. A cooperative and collaborative mindset opens a conversation between the parties: the result is that they share what is needed, admit to gaps in capability, and aim to focus on the benefits that the other party can bring to enhance any gaps in capability. That vision and alignment forms the basis of a Statement of Intent drafted by the company/supplier teams.

Illustration: Bernd Schifferdecker

RULE #2: FOCUS ON THE WHAT, NOT THE HOW

Element 3: Statement of Objectives/Workload Allocation

This lays the foundation for the parties in the Vested partnership to do what they do best. Depending on the scope of the partnership, the company transfers some or all of the activities needed to accomplish relationship goals to the service provider. Together they develop a Statement of Objectives (SOO) that describes intended results, not tasks.

RULE #3: CLEARLY DEFINED AND MEASURABLE OUTCOMES

Element 4: Top-Level Desired Outcomes

In an effective, successful Vested relationship, the parties work together to define and quantify desired outcomes. This element is a centerpiece of the entire enterprise because without such mutually defined desired outcomes in place, a Vested agreement cannot proceed. Outcomes are expressed in terms of a limited set of high-level metrics. The parties must also define exactly how relationship success is measured. Once the outcomes are in place, the supplier is freed to deliver the required level of performance at a predetermined price.

Element 5: Performance Management

Once Desired Outcomes, Statements of Intent, and SOOs are in place and the agreement is implemented, the parties then measure performance to determine if the outcomes are achieved. The metrics will help align performance to strategy.

RULE #4: OPTIMIZE PRICING MODEL INCENTIVES

Element 6: Pricing Model and Incentives

In order to achieve the desired outcomes, the partners must have a properly structured pricing model that incorporates incentives for the best cost and service trade-off. The approach of many procurement professionals to outsourcing is perennially stuck on one thing: getting the lowest possible service and labor pricing. The Vested model is totally different: the supplier's profitability is directly tied to achieving mutually agreed outcomes. Inherent in this model is a reward for service providers to invest in processes, services, or associated products that will generate returns in excess of agreement requirements. Suppliers have the authority and autonomy to make strategic investments in innovations, processes, and service reliability that can generate more value and a greater return on investment than a conventional cost-plus or fixed-price-per-transaction agreement might yield.

Incentives are a key component, because service providers are taking on risk to generate larger returns on investment. An incentives package delivers the most commercially efficient method of maintaining equitable margins for all parties for the duration of the relationship through a method known as margin matching.

RULE #5: INSIGHT VERSUS OVERSIGHT GOVERNANCE STRUCTURE

The four elements associated with Rule 5 provide the tools for parties to manage and operate the Vested agreement.

Element 7: Relationship Management

A relationship management structure creates joint policies that emphasize the importance of building collaborative working relationships, attitudes, and behaviors. The parties monitor the agreement under a flexible governance structure that provides top-to-bottom insights into what is happening.

Element 8: Transformation Management

This is a new relationship model – people and company ecosystems are changing, they are doing things differently, and probably not operating in familiar comfort zones. Managing this transformation, including transitioning from old to new – along with change management once the new agreement is up and running – is often difficult and complex to implement. It is imperative to preserve as much continuity as possible among personnel and teams as the transition progresses into day-to-day implementation and operation.

Element 9: Exit Management

Sometimes the best plan simply does not work out or is trumped by unexpected events. Business happens, and companies should have a plan when assumptions change. An exit management strategy can provide a template to handle future unknowns.

Element 10: Special Concerns and External Requirements

Governance frameworks are not one-size-fits-all, especially in more technical or complex relationships, such as global supply chains. The final element recognizes that all agreements are different and that many companies and suppliers must understand and adhere to special requirements and regulatory protocols. A governance framework may need to include additional provisions that address specific market, local, regional, and national requirements. For instance, in supplier and supply chain relationships involving information technology and intellectual property, security concerns may necessitate special governance provisions outside the normal manufacturer-supplier relationship.

Developing a business or outsourcing agreement using Vested's five rules and ten elements is much more than delivering a higher level of service on a given activity, a containerload of metrics, counting transactions, or filling seats more cheaply.

Completing the elements enables progressive companies to change their mindset and challenge old-school approaches by establishing a dynamic, collaborative, modern business-to-business agreement. Firms evolve their thinking from the adversarial to the truly collaborative. They move beyond simply paying lip-service about "collaboration" and "partnership" to creating a win-win agreement and an atmosphere that drives transformative change.

VIVID VISION

"Augmented reality," which adds layers of computer-generated information to the real environment, moves from consumer gimmick to disruptive business technology.

Once considered a novelty app for smartphones, augmented reality (AR) tools may be the next technology that profoundly alters the way we communicate and interact with the world.

Imagine an app giving you step-by-step guidance in repairing your car after a roadside breakdown. Now consider a surgeon using the same tools to repair a damaged liver, or a service technician in a power plant getting guidance on a difficult task.

AR – or mixed reality – expands physical reality by adding layers of computer-generated information to the real environment, such as sights, sounds, touch, and even smell. It's a new language of communication that integrates a real-time natural user interface with objects and digital devices. Mixed-reality systems allow users to merge computer-generated 3-D models with real-world objects in a real environment – a technology used in car design. Designers collaborate on a model in real time, and fit existing components into it to try them out.

The technology offers a mixed reality via digital integration of real-world objects. In an AR supermarket, such as that planned by Chinese food e-tailer Yihaodian, where the naked eye would just see blank space, users with AR-capable devices will see a complete store.

Logistics may be the next target for disruption. According to the DHL Trend report, "Augmented Reality in Logistics," AR has the potential to further optimize freight transportation in areas such as completeness checks, international trade, driver navigation, and freight loading. The report outlines eleven use cases for AR across the supply chain, in four main categories: Warehousing Operations, Transportation Optimization, Last-mile Delivery, and Enhanced Value-added Services.

For example, warehousing operations account for about 20% of all logistics costs. Picking, or sending a person to a bin in the warehouse to retrieve an ordered item, accounts for 55%–65% of warehousing costs. AR-aided pick-by-vision offers significant efficiency gains. This mixed-reality system will guide a picker by the shortest route to the correct item, where they can confirm picking through smart glasses or another wearable device. Field tests show these AR systems offer significant productivity improvements, but can they stand up to proven technologies in terms of cost and efficiency?

In the fall of 2014, Markus Kückelhaus, project director at DHL Trend Research, and his team tested a new AR application, pick-by-vision, against the current state of the art, pick-by-voice – a method that uses headphones and a microphone coupled with speech recognition technology to guide workers to the correct locations and products in a warehouse. Pick-by-vision adds the visual aspect to the AR interaction through a wearable computer.

With the average investment for pick-by-voice at around $250 per user, augmented reality devices will have to deliver better value, Kückelhaus says. "We tested the idea that augmented reality will actually help the picker in the warehouse. Pick-by-voice is typically used for delicate operations where a low error rate is important, and that's where pick-by-vision would be most helpful."

The testing will help determine the business case for adopting AR, especially in the early stages of development when capital expenses and implementation costs are higher.

AR can also help to solve last-mile problems. "Wearable technology could ensure that the driver has the correct package and provide directions," says Richa Gupta, a senior analyst with VDC Research. A visual and geo-coded record of delivery could also reduce non-delivery and damage claims, she adds. AR can also support the driver with an analysis of real-time traffic data, displaying relevant information such as blocked or alternative routes.

As AR spreads to new areas, it will not replace the human element. "We're not talking about full automation but helping a person to do the job in a safer, faster way and with higher quality," Kückelhaus says.
— ***Gary Wollenhaupt***

Download the full report at:

tinyurl.com/del-augmented

MIXED REALITY: Virtual interfaces are close at hand.

ELECTRIC DREAMS

New wireless car-charging technology could be a game-changer for the electric vehicle industry – and a boon for the fledgling Formula E championship.

When electric road vehicles started appearing on the market in the 1990s and early 2000s, one of the main questions from potential consumers was, "How will the batteries be charged?"

The answer: "Not very easily."

Basically, it transpired that you had to plug a cable from a power outlet at a charging bay – on the roadside or in your garage at home – into the side of your car, and then wait some hours until the vehicle was juiced up again.

Now, however, wireless technology from global telecommunications company Qualcomm – a founding technology partner and sponsor of the FIA Formula E championship – looks set to make charging electric cars a more user-friendly experience. This is a complete rethink of the charging issue, which could revolutionize the electric vehicle (EV) industry and, finally, be a way to bring electric cars to the mass market. Qualcomm has developed a wireless electric vehicle charging (WEVC) system called Halo, whereby the driver of an electric vehicle simply parks over an electric pad on the floor to begin the charging process. There are no cables and no fuss – so no wonder the automotive industry and the people behind Formula E are so excited by it.

"Essentially what we're doing is transferring electricity across a gap, via electronics built onto the car and into the road," explains Graeme Davison, VP of Technology for Halo at Qualcomm. "It's exactly the same technology that many of us use to charge our electric toothbrushes. We've just changed it so that the power is increased and transferred across a much bigger gap."

GAME-CHANGER

WEVC is the future, says Davison, because it opens up the possibility of "snack charging" – charging little and often – which could also solve the problem of the vehicles' notoriously short battery life. "We think people will have charging pads at home," says Davison. "But then we will also see them appear at places where people park, play, and shop – and there may even be charging at traffic lights and road junctions, too."

And that is an exciting prospect because, ultimately, for both electric road vehicles and Formula E cars, charging on the go – or "dynamic charging," as it's known – is the dream. "If technology is put into the road infrastructure, you would even be able to charge your car as you're driving along," says Davison.

MAJOR BENEFITS

Qualcomm estimates that Halo will appear in the auto marketplace within a two-year timeframe. It's still early days, though, which means that at this year's inaugural Formula E championship, the race cars themselves are not using Halo technology. However, Davison doesn't rule out Formula E using it in the future.

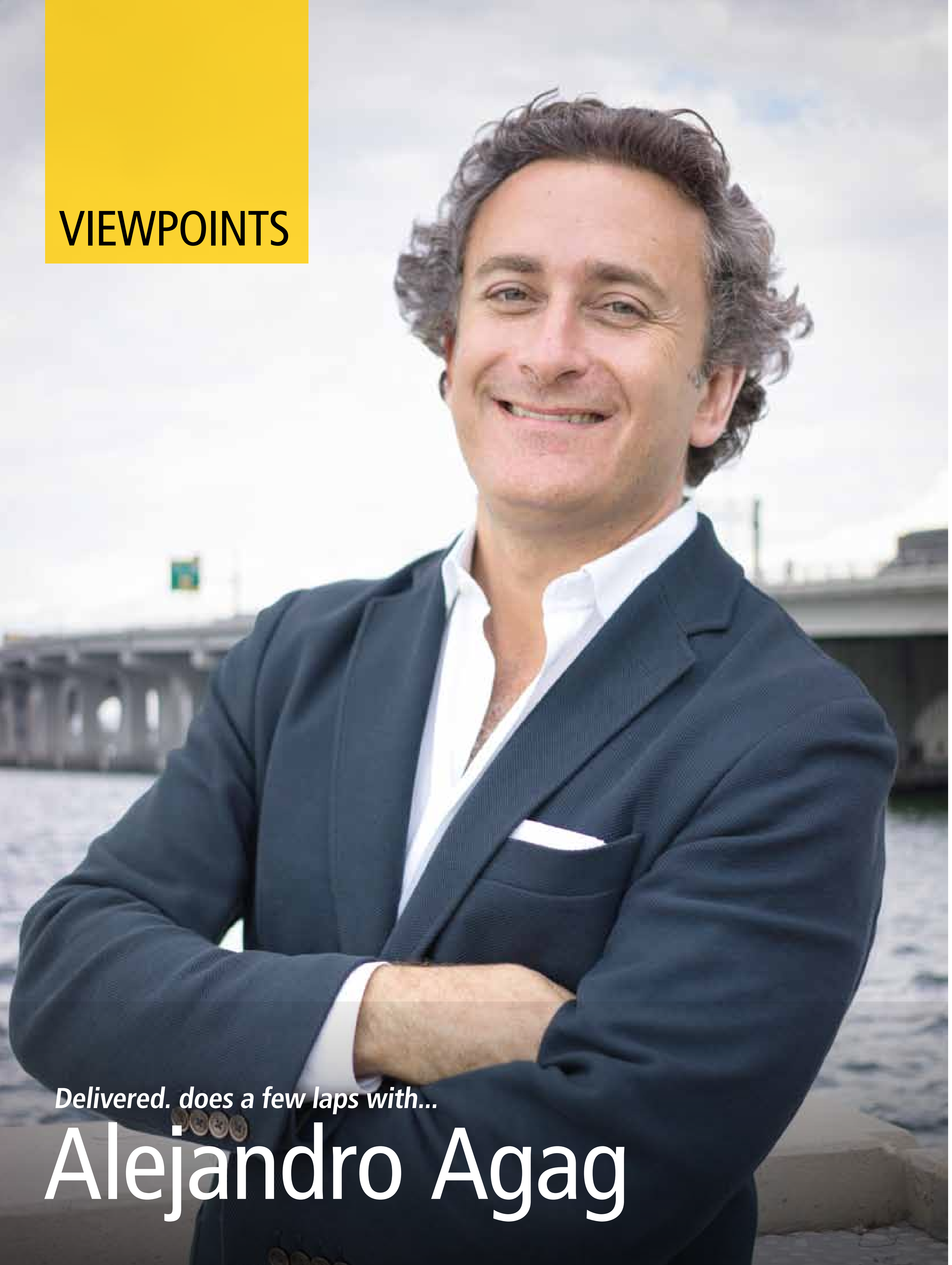
"We did look at the race vehicles using wireless charging this season," he says. "There was no technical reason why they couldn't, but these cars are very new, and because of timescales we didn't want to get in the way of their development. So we started to focus on the other vehicles connected to Formula E, such as the safety vehicles and the official cars, and these are all wirelessly charged. We think that there would be major benefits to the sport if the race cars could use wireless charging technology."
— ***Tony Greenway***

Learn more about the Halo charging system at:

tinyurl.com/del-halo

HALO EFFECT: The Halo charging system is one of the technologies showcased by the Lola Drayson B12/69 EV (above). Not a Formula E car, the vehicle was designed by Drayson Racing Technologies to become the world's fastest electric race car. In June 2013, driven by CEO Lord Drayson, the car set a new world land-speed record for lightweight electric vehicles, hitting 204.2mph (328.6 km/h).

Photos: Credits



Photos: Credits

The CEO of Formula E explains why the world's first fully electric racing series has exceeded his wildest dreams.

When you tell Alejandro Agag – entrepreneur and CEO of Formula E Holdings – that something isn't possible, he'll listen to you politely. Then he'll do it anyway. Take the new FIA Formula E championship – the world's first fully electric racing series, which he co-created. From the outset, many dismissed it as a nice idea, but one which didn't have a chance of ever leaving the pits, so to speak.

Even Agag had his doubts. "When I look back, I think I must have been crazy!" he tells us. "I'm very happy with the result now, but there was a time when there were no cars, no teams, no partners, and no broadcasters. There was just a PowerPoint presentation. We were really the only ones who thought it was doable."

To prove the naysayers wrong, the first-ever Formula E race took place in Beijing in September with the world's media and millions of TV viewers watching. It wasn't without drama. Nick Heidfeld, driver for Venturi, was involved in a terrifyingly spectacular crash after colliding with e.dams Renault's Nicholas Prost. "Thankfully, Nick was unharmed," notes Agag.

Agag started his career in politics in Spain, becoming personal assistant to the Spanish prime minster and then an MEP before moving to London to launch a business career. His introduction to motorsports came in 2002 when, with Flavio Briatore, he purchased Formula 1 TV rights in Spain, and began playing a role in F1 sponsorship. After investing in English football club Queens Park Rangers, Agag and his business partner Enrique Bañuelos launched Formula E Holdings and won the tender to promote the Formula E championship. Agag also owns Spanish motorsport's Barwa Addax Team.

Away from the grid, London-based Agag is a family man. "There's not a lot of time to relax," he admits, "because I'm committed to Formula E. But I love spending time with my four children, who are all boys."

Four boys? That's a lot of testosterone in the Agag household. "I know," he laughs. "But it means I have plenty of replacements in the future if one of my drivers is indisposed!"

> "FROM THE OUTSET, I THOUGHT WE COULD DO SOMETHING BIG – BUT NOT THIS BIG!"
>
> Alejandro Agag

What was the original idea behind the Formula E championship?

It was the chance to start a new event with new technology, and to make motorsport relevant in a space where, frankly, it wasn't doing enough – sustainable mobility and the development of new electric car technology. We thought it was a fantastic opportunity – but we knew that making it a reality would be a huge challenge.

Learn more about Formula E:
tinyurl.com/del-formula

What are your thoughts on the championship after the first race in Beijing?

Beijing completely exceeded my expectations. From the outset, I thought we could do something big – but not this big. When we started getting our first partners on board – companies who really believed in us – such as DHL, for example, Tag Heuer and Qualcomm – we began to think, 'Maybe this will happen!' Then it snowballed. We got this huge momentum and we began saying, 'This is happening!' The first expression of that was Beijing in September. We are overwhelmed by its impact and success.

Where did you watch the Beijing race – and what did you feel about Nick Heidfeld's crash?

I watched the race from the TV production unit because I wanted to be at the heart of everything and to see what the cameras were seeing. As for Nick, he was lucky. It was a big, big, big crash – but the car held together very well and thankfully he was fine.

You have talked about wanting to change public perception of electric vehicles. Has Beijing helped with that?

Actually, Nick's crash changed perceptions. Some people think that electric cars are more dangerous than internal combustion cars, but the fact that his car crashed at that speed, and that he emerged unharmed demonstrates that these cars are safe. We've also shown that electric cars can be fast. So spectators know that electric cars can be cool, and something they could drive in their day-to-day lives. That was always our objective: to raise the profile of electric vehicles.

Are there manufacturers working in the electric car arena that you find particularly exciting?

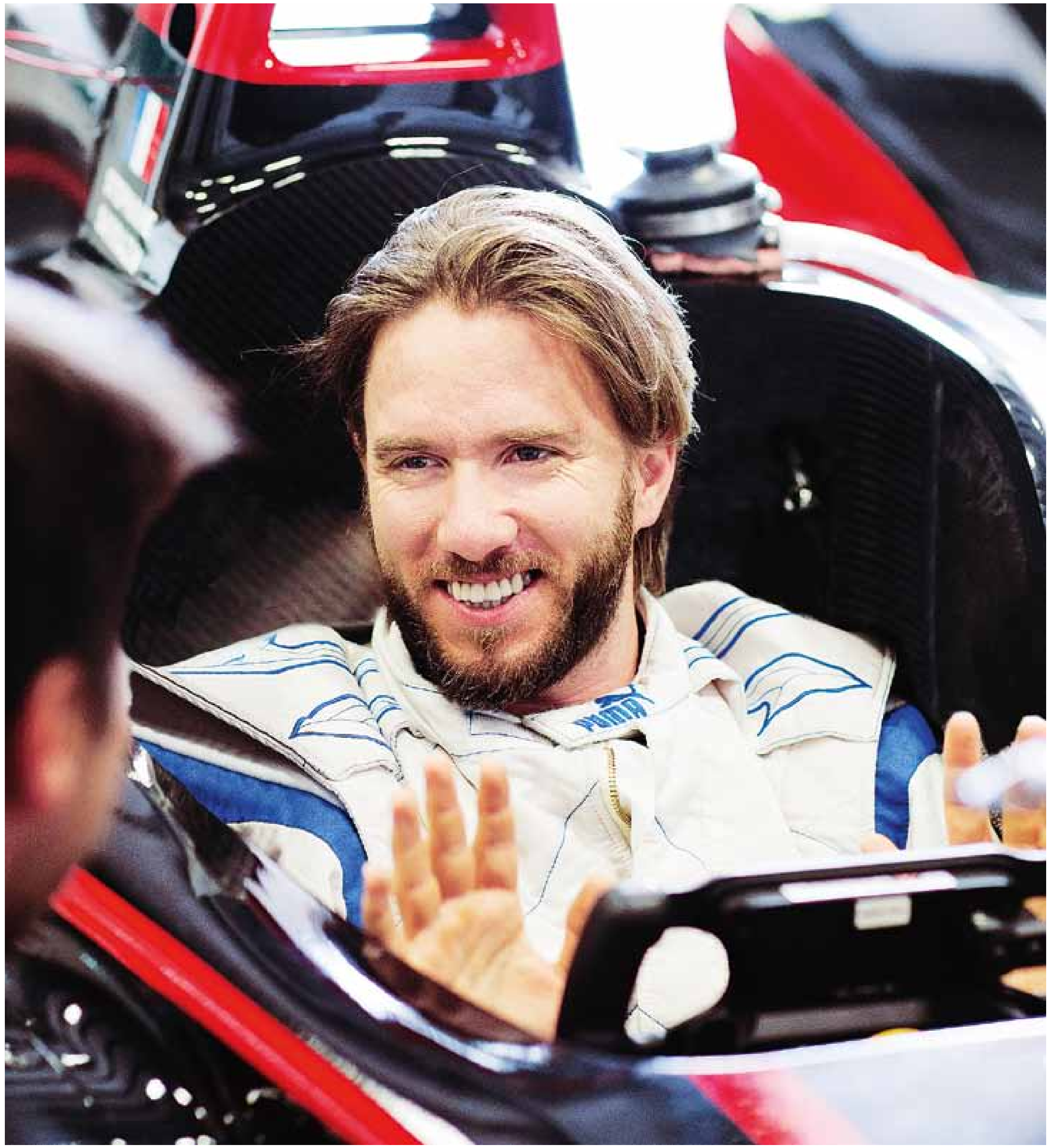
Oh, there are many. Manufacturers in Japan, Europe, and the U.S. are doing interesting things, for example. China is also pushing this technology, which is why it was very important for us to start our championship in Beijing, in order to send a very strong message in favor of electric cars and sustainability in that particular city.

Leonardo DiCaprio is the co-owner of the Venturi team. Has his involvement raised the profile of the sport?

For sure. Having people like Leonardo and Richard Branson on board definitely raises our profile. These are people who are committed to the environment, and we are very grateful to them for becoming involved. We also owe a lot to the drivers. One lesson from Nick's crash is that these guys are really racing. They don't just to go around the track for show. They are fighting for victory – and they're driving to the limit.

THE NEED FOR SPEED

Nick Heidfeld – driver for the Venturi team in the new Formula E electric racing championship – reveals his motorsport hopes, fears, and dreams.



"IT ALL SOUNDS SO COOL": Nick Heidfeld is looking forward to Formula E races in locations such as Los Angeles, London, Miami, Monaco, and Punta del Este.

Photos: Credits

For as long as I can remember, I've loved motorsport. I tried motocross when I was five-and-a-half – although my mother soon put a stop to that – and I started karting when I was eight.

The first time I got into a kart, I was so small that I had to have two tires behind my back, plus a pillow and some strange construction so that my feet could reach the pedals. My father told me he would drive in front of me, but when I overtook him on the second lap he thought, "Hmm. He's not too bad at this." As soon as I started karting I wanted to be a racing driver, so joining Formula One was a dream come true, but not the ultimate dream. That was – and is – to be World Champion.

UNDERSTANDING DANGER

As a child, though, you don't realize how dangerous this sport can be. As you get older, you think about it more and more. Most of my kids are too young to fully understand the danger of what I do – they're four, seven, and nine – but my girlfriend still worries when she sees me racing. I know how she feels, because when I saw my younger brother [Sven, a former Formula Three driver, now Sky Deutschland broadcaster] racing for the first time, I was so scared.

During the first Formula E race in Beijing, when I crashed [in a collision with Nicolas Prost's car], it felt as though I was in the air for a very long time. Two seconds felt like ten. I was scared because I thought it would hurt a lot more than it did, but I was able to walk away. I was lucky and the car held up well – but that shouldn't send out a message to younger racing drivers that nothing will ever happen to them. I was also extremely disappointed, because I was all set to win. And not just win, but win on the last corner of the last lap in the very first Formula E race! Still, Nicolas apologized, and since then we have been driving together for Rebellion Racing [Heidfeld has driven for Rebellion since 2012]. Everything is fine between us.

SUSTAINABLE EXCITEMENT

When I started in motorsport, sustainability issues weren't talked about, but it's part of all our lives now. That's what's so exciting about Formula E. I love racing, but of course I don't do it to hurt the environment – although, unfortunately, that's what everybody does by driving a normal road car. I'm attracted to green technology, so joining Venturi has been great. It's a new team where everyone is coming together for the first time with completely new cars, learning everything from scratch, encountering problems and finding solutions. Leonardo DiCaprio is co-owner. He doesn't get involved in the day-to-day running of the team and I haven't met him yet, but hopefully he will be at some of the races.

People ask me what a Formula E car feels like to drive – and I have to say it's like any other single-seater, although they are a bit slower than Formula One cars. I have to adjust my senses because, as a driver, you listen to a car's engine sound a lot. In Formula E, the sound is very different, so it's been a learning process. And, of course, we have to change cars during the race, which some people thought might be distracting. But I found that after a couple of laps I could get back into the race again.

Before Beijing it was extremely exciting because it felt so good to take part in the first electric single-seater championship around a city circuit. I walked the circuit beforehand and was positively surprised about how it looked – but wasn't sure what to expect. Then I just tried to focus on the race ahead.

Now I'm looking forward to the second Formula E race in Putrajaya in Malaysia in November; plus Monaco next May, which is where Venturi is based, and I'm in contact with the team to see how we can improve things. For me, the icing on the cake with Formula E is to drive in some fantastic locations: Miami, Berlin, Los Angeles, London – it all sounds so cool! I'm really looking forward to Punta del Este in December, too, because I've never been there. Apart from anything else, going to all these amazing cities should guarantee a great atmosphere for Formula E.

BEIJING BUZZ: Taking part in the first electric single-seater championship on a city circuit.

VENTURI TEAM: Learning everything from scratch and finding solutions.

Learn more about the Venturi team at:

tinyurl.com/del-venturi

PUBLISHED BY
DEUTSCHE POST DHL
HEADQUARTERS

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Commercial Register No.:
Registration court Bonn
HRB 6792

Turnover Tax ID No.:
DE 169838187

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Corporate Solutions

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Printing:
Firmengruppe APPL,
sellier druck, Angerstraße 54,
85354 Freising

Paper:
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RECYCLED Paper made from recycled material FSC C004592