



Delivered.

THE GLOBAL LOGISTICS MAGAZINE

50

STONE MILESTONE

DHL celebrates 50 years of business

Delivered.

**CUSTOMER FOCUS:
HOW COMPUTERS
CAN MAKE
A DIFFERENCE**

**CELL PHONES:
FAZE OR CRAZE?**

**GO EAST:
NEW EXPRESS
DELIVERY TO THE
SOVIET UNION**

**NEW TV AD:
AIN'T NO
MOUNTAIN HIGH
ENOUGH**

**NEW
!!!**



50 YEARS
EXCELLENCE. SIMPLY DELIVERED.



Photo: DHL



Photo: DHL

DEAR READER,

This year marks a special moment for the world of business. Half a century ago, when the first humans stepped onto the moon, three entrepreneurs stepped into new territory on Earth. Their names: Adrian Dalsey, Larry Hillblom and Robert Lynn. By establishing DHL and inventing the international air express business, they transformed logistics and created a vital conduit for today's fast-paced global economy.

In doing so, these pioneers also laid the foundation for a rapidly expanding company that now covers every aspect of logistics, has the largest worldwide presence and is one of the 100 most valuable brands in the world. Our employees are united by a common purpose of "connecting people, improving lives." Every day, they give their best for our customers.

As DHL turns 50, it has retained its agility, passion and "can do" spirit. That makes us proud, and is one more reason to look into the future with confidence and optimism. In fact, we believe that core parts of our DNA – the drive to promote global exchange, leverage new technologies and embrace sustainable solutions – will also be essential for shaping a better planet.

This special anniversary issue of *Delivered* is not just about us. It takes a look at the evolving business landscape over the past 50 years, focusing on key industries that have been vital to our success. It honors trailblazers throughout the ages. And it takes a glimpse into the next 50 years. In addition, it reflects on the meaning of success – then, now and in the decades to come.

I hope you enjoy exploring this issue and find it an inspiring journey into the past and future.

Sincerely yours,

Frank Appel



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INDUSTRIES

COMMERCE ON A
GLOBAL SCALE



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BUSINESS

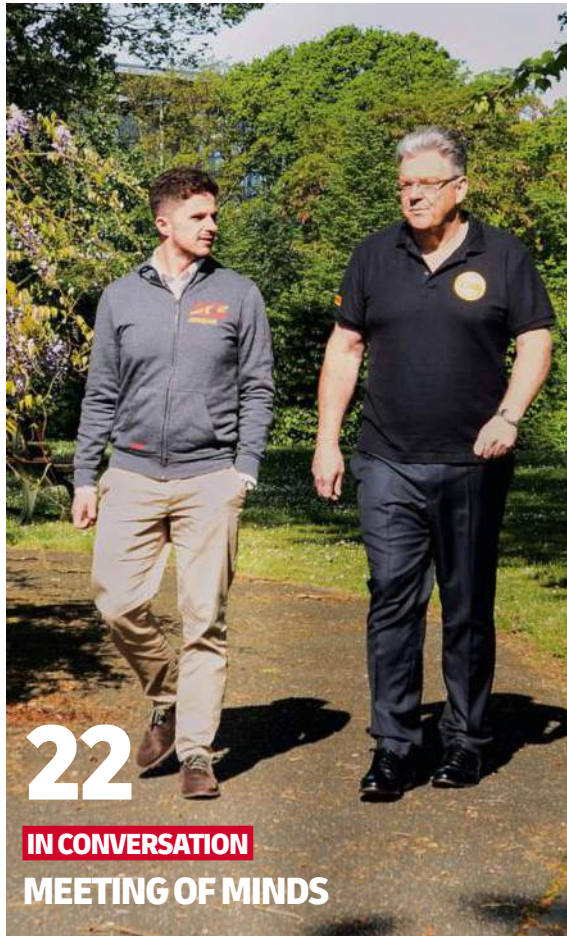
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Photos: Easyturn/Getty Images; Adobe Stock; Lenscap/Alamy; Guenter Klein for Delivered.; Illustration: Danae Diaz for Delivered.

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COMMERCE ON A GLOBAL SCALE

DHL's first customers came from industries that have changed radically over the past 50 years, changing the world in the process.

As multinational companies expanded into new markets during the 1970s, they needed to share information across their global operations. Back then, that process was physical, using paper documents and, eventually, digital tapes and disks. Companies needed quick, reliable shipment of envelopes and small packages. That's where the three young men Dalsey, Hillblom and Lynn saw their opportunity, creating a courier service that was faster and more secure than existing alternatives and thereby creating the express courier industry. DHL's first customers came from four industries that have helped to define the modern world. Today the company has a dedicated industry sector approach, with teams of experts offering tailored sector solutions, and has expanded to offer the entire spectrum of logistics and supply chain solutions. And, like DHL, those industries have grown and changed dramatically in the past 50 years.

FINANCE

Where there is commerce, there are banks. One of DHL's very first contracts was with the Bank of Hawaii, for the delivery of documents to the Federal Reserve Bank. The U.S. central bank soon became a customer in its own right. Within two years, other financial institutions and banks followed, using DHL's overnight service to beat the postal system and ensure faster and more reliable transportation of documents and cheques. And as those businesses expanded their relationships with institutions in Asia and elsewhere, DHL expanded its finance industry customer base too.

The past 50 years have been a period of extraordinary growth and upheaval in the international financial sector. In the years after World War II, commercial and financial relations between the U.S. and Canada, Western Europe, Japan and Australia were governed by the Bretton Woods system. That agreement attempted to stabilize international commerce by pegging currencies to the dollar, which in turn was convertible to gold. By the end of the 1960s, however, the system was creaking as other economies grew larger relative to the U.S. In 1971, President Nixon abruptly abandoned the dollar's convertibility to gold, and over the next few years the other participants in the system gradually abandoned it, allowing their currencies to float.

In the following decades, the financial sector entered a wave of unprecedented deregulation and globalization. Banks expanded their territories and grew by acquisition. New global financial centers emerged, notably London. In 1970, the U.K. banking sector's assets were roughly

the same size as the country's GDP. By 2005 they were 5 1/2 times larger. DHL opened its first office in London in 1974, driven by demand from the financial sector and the booming oil industry.

Technology would play an increasingly important role in banking too. In the 1970s, banks relied on telephones and telex systems for real-time communications. In 1977, the Society for Worldwide Interbank Financial Telecommunication (SWIFT) launched a secure electronic messaging service that became the backbone of international communication in the sector. End customers were benefiting from technology too. In 1967, the first automated teller machine (ATM) was installed by U.K. bank Barclays at its branch in Enfield, North London. By 2016, bank customers worldwide were making almost 100 billion cash withdrawals a year from the now ubiquitous machines. In the 1980s, banks started to offer online access, using direct dial-in connections or services such as Prestel in the U.K. and Minitel in France. The emergence of the World Wide Web in the 1990s led to mainstream adoption of online banking, and by 2019 more customers were accessing such services via mobile phone apps than conventional web browsers.

While the finance sector has embraced digitalization, the fast, secure movement of documents and small packages remains essential to its day-to-day operations. DHL has continued to develop its support for the unique needs of the sector. In 2015, for example, it launched London's first express helicopter service, providing a congestion-beating, direct link between Heathrow airport and the financial districts of the City and Canary Wharf. Similar services are also operating in New York and Los Angeles. ■

Photos: Easyturn/Getty Images; Rich LaSalle/Getty Images

CONSTRUCTION

In 1969, building work on the twin towers of the World Trade Center in New York was underway. Completed in 1972 and 1973, the 110-story buildings were the tallest in the world. They took that crown from the nearby Empire State Building, which had held it for 40 years, but kept it for only two years until overtaken by the Sears Tower (today Willis Tower) in Chicago.

Skyscrapers were important business for DHL. Early customers included the Otis elevator company as well as other big players in the construction sector. They needed to move plans, orders and contracts quickly and efficiently between customers, suppliers and contractors. Today, the company is built into the heart of the construction sector. DHL's Supply Chain and Global Forward divisions keep industry players supplied with the tools and materials they need and manage the movement of the large, complex and delicate equipment required for major commercial, industrial and infrastructure projects.

The Twin Towers no longer dominate the New York skyline. They were destroyed in the terrorist attack of September 11, 2001. But the world's enthusiasm for tall buildings remains. The current record-holder, at 828 meters, is the Burj Khalifa in Dubai, built in 2009. It too is set to be overtaken in 2020 by the 167-floor, 1000-meter Jeddah Tower, currently under construction in Saudi Arabia.

Its biggest projects may be the ones that grab the headlines, but understanding the true scale of the construction industry requires a wider view. Worldwide, the construction sector is the largest consumer of resources. It accounts for around half of annual global steel production, for example, and uses 3 billion metric tons of raw materials. Today, the sector employs more than 100 million people and generates annual revenues of \$10 trillion – and DHL's Engineering and Manufacturing sector experts are on hand around the world to support this ever-growing industry. ■



ENERGY

Oil has dominated the global energy landscape over the past 50 years. It overtook coal as the world's largest source of primary energy in the mid-1960s, and until the early 1970s it was a cheap and readily available fuel. By the middle of that decade, however, oil had come to dominate political, economic and strategic thinking in much of the world. Saudi Arabia overtook the U.S. to become, briefly, the world's largest oil producer, and it and other members of the Organization of Petroleum Exporting Countries (OPEC) sought to control markets and oil supply around the world. A series of oil crises pushed prices up fourfold, unleashing a search for new oil reserves as consuming countries looked to diversify their sources of supply and producers sought to profit from a hugely valuable commodity.

In Europe, development of the North Sea oil and gas fields, which had begun in the 1960s, accelerated dramatically, with annual production peaking in 1999 at 398 million barrels. Oil companies ventured into remote regions of Siberia and Alaska. Technically challenging deep-water exploration and production expanded around the world, with significant investments in the Gulf of Mexico and off the coast of Brazil.

The global expansion of oil exploration and production was an opportunity for DHL, which supported oil industry customers by shuttling documents and tapes of seismic data across their rapidly expanding production networks. By 1977, DHL was working right at the heart of the sector, opening an office in Aberdeen, Scotland, to support North Sea customers and starting its first service to Saudi Arabia.

The shifting dynamics of the oil market also upset the balance of power in the industry. In the 1970s, state-owned national oil companies controlled only 10% of the world's known oil reserves. By 2013, that figure had risen to 90%. Now the pendulum is swinging again. Developments in technology have opened up new sources of oil and gas. These "unconventional" production techniques include the extraction of oil from the tar sands of Canada and the use of hydraulic fracturing techniques to release deposits of oil and gas from relatively impermeable rock. The widespread use of unconventional techniques has helped the U.S. to overtake Russia and Saudi Arabia to reclaim its place as the world's largest oil producer.

Oil is also under pressure from other energy sources. Concerns about price volatility, availability and the environmental impact of oil have helped to drive the development of non-fossil fuel energy sources.

Proponents of nuclear power say it still has a vital role to play in meeting rising electricity demand, but the sector has struggled against significant headwinds, including high costs and major accidents at Three Mile Island in the U.S. in 1979, Chernobyl, Ukraine, in 1986 and Fukushima, Japan, in 2011.

Renewable energy technologies, especially wind and solar power, have fared much better: By 2017 they made up 10% of the global energy mix, up from almost zero in the 1970s. Renewable power generation capacity is currently growing at more than 20% per year. The renewables industry's scale has helped to bring costs down to the point where these technologies can compete directly with new fossil fuel power stations, but the world is only just beginning to tackle the challenges presented by power sources that are intermittent and unpredictable.

All that means the oil era is far from over. Global demand is still growing, and most forecasters expect that growth to continue until at least the 2030s. Nor is the oil going to run out. BP estimates that known oil reserves and currently available extraction techniques could deliver twice the oil the world will need until 2050. It seems most likely, therefore, that the industry will keep pumping until society decides that, for the sake of the climate, the remaining oil should be left in the ground.

As the energy industry has grown and changed, so has DHL's involvement. In 2012, the company opened a dedicated Energy Center in Houston. Today DHL plays a central role in all areas of the energy industry, supporting the construction, operation and maintenance of assets around the world with a team of global sector specialists, with expertise in everything from heavy lift operations and rig move management to inventory planning for maintenance and support operations. ■



SHIPPING

International trade flourished during the 1970s, and major shipping lines invested in bigger, faster cargo vessels to meet growing demand. Where there is cargo, there is paperwork, however, and if manifests didn't arrive at ports on time, lines had to pay demurrage charges as their vessels waited to dock. DHL's new express delivery service helped reduce that cost overnight, allowing shipping companies to send documentation ahead for processing prior to their arrival at destination ports.

The first documents transported by DHL were carried by Dalsey and Hillblom themselves, on commercial flights between San Francisco and Honolulu. Word about the new service spread quickly in the industry and by 1970 the company had 40 customers, many of them in shipping.

In that year, international seaborne trade moved 2.6 billion metric tons of cargo. More than half of that cargo was crude oil and petroleum products. By 2017, shipping volumes had quadrupled to 10.7 million metric tons. Today's maritime industry isn't just bigger, however: Almost every other aspect of the sector has also changed. Until the millennium, global trade broadly followed the "colonial" pattern that had existed for more than a century. Developing nations exported large quantities of raw materials and imported relatively small quantities of consumer goods. Today, many of those countries are integrated much further into the supply chain. They have become major importers and exporters of manufactured components and finished products.

Then there's the composition of the fleet. Oil products now account

for less than a third of total maritime trade, and today's tankers are smaller than the vessels of the past. In the 1970s, the industry looked for economies of scale, ordering ultra large crude carriers (ULCCs) capable of holding around 4 million barrels of oil. By the end of the decade, however, the rising oil price meant such cargoes were too costly (almost half a billion dollars per consignment in today's prices) and the vessels too inflexible. Modern-day tankers are around half the size.

The 1970s and 1980s also saw the containerization revolution. The first container vessels, built or converted during the 1960s, had a capacity of less than 1,000 twenty-foot equivalent units (TEUs). Ten years later, the industry was already building its fourth generation of vessels, with capacities greater than 4,000 TEUs. Today's largest container ships have a capacity of more than 20,000 TEUs. By 2005, the global container fleet had overtaken the capacity of the general cargo fleet. By 2017 it was almost 3 1/2 times larger. Today, DHL doesn't just move container paperwork. The company's Global Forwarding division is the world's second-largest freight forwarder, managing the transport of more than 3 million TEUs of containerized cargo every year.

Container shipping requires appropriately equipped ports, and the development of container ports around the world paints a clear picture of the way trade flows have evolved in recent years. In 1993, ports in China are estimated to have handled only 2.7 million TEUs of containerized freight. Today, six of the world's top 10 container ports are in China, and the country handles around 200 million TEUs every year. ■

Jonathan Ward



Photos: Deepol/plainpicture; ddp



LONG VIEW:
DHL was founded by three San Francisco-based businessmen in 1969.

A CHANGING BUSINESS IN A CHANGING WORLD

In half a century, DHL has grown from an idea into a leading global logistics company. The world it serves looks very different too.

During 1969, NASA launched four Saturn V rockets from Kennedy Space Center in Florida. The culmination of the Apollo program, the third and fourth of those missions delivered people to the surface of the moon for the first time in history. Meanwhile, on the other side of the country, Adrian Dalsey, Larry Hillblom and Robert Lynn began making deliveries of their own, establishing a small courier business to ship legal documents from San Francisco to Honolulu.

Manned flights to the moon to came to an end in 1972, as NASA shifted resources to other projects, such as the Skylab space station. No human has since been back to the lunar surface. DHL, the company founded by Dalsey, Hillblom and Lynn, is now part of the Deutsche Post DHL Group, a €61 billion business with around 550,000 employees in 220 countries and territories worldwide.

The company will still ship documents from San Francisco to Honolulu, but the breadth and scope of its activities has expanded beyond recognition. Today, DHL logistics professionals manage millions of shipments every year, involving the transport of

everything from consumer e-commerce orders between China and Europe to 250-metric-ton chemical manufacturing equipment destined for construction projects in the U.S. Here's how the last 50 years unfolded in global logistics and in the wider world.

The oil crisis

In 1973, members of the Organization of Petroleum Exporting Countries (OPEC) embargoed oil exports to a number of countries, including Japan, Canada, the U.K. and the U.S. Their action caused the price of a barrel of oil to quadruple, from \$3 to more than \$12. While the embargo only ran for six months, oil prices never returned to pre-crisis levels, and the shock spurred developments in fuel-efficiency, alternative energy sources and the search for new sources of oil around the world.

Dawn of the data age

In 1974, a packet of Wrigley's chewing gum sold at a supermarket in Troy, Ohio, became the first product to check out using the now ubiquitous Uniform Product Code, or barcode. That technology was a significant step in the transition from paper-based to digital record-keeping and information exchange. A year later,

X4

Increase in the price of oil over the six months of the 1973 oil crisis

1969

DHL

Established

1972

MOON

First Moon landing

1973

OIL CRISIS

OPEC decides on oil embargo

1974

DHL

launches services to Asia

1974

BARCODES

Product barcodes introduced

1977

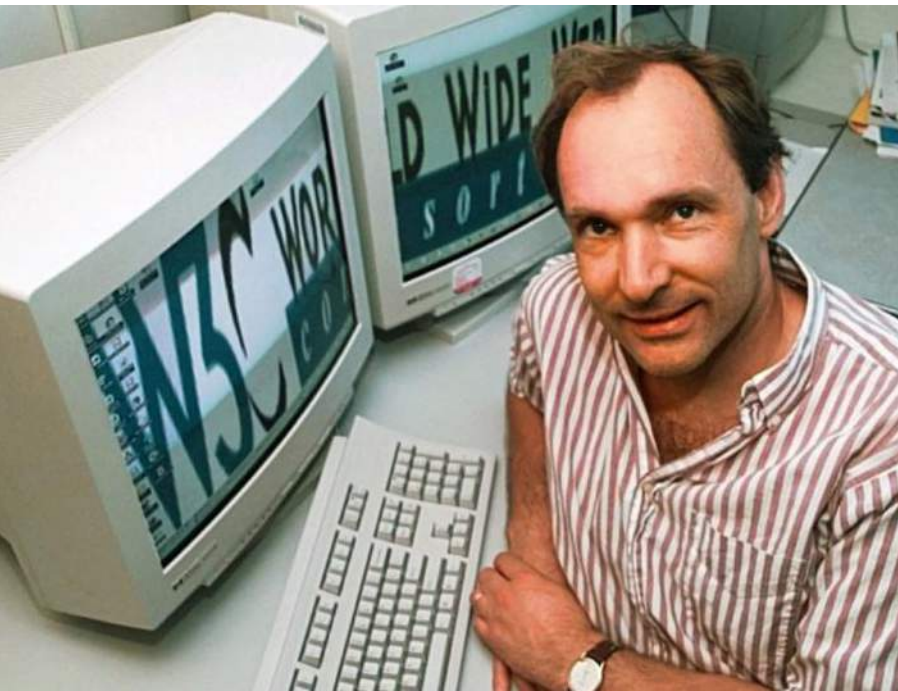
COMPUTERS

First mass-produced personal computer introduced

1978

DHL

builds own dedicated computer network, starts shipping packages as well as documents



WEB MASTER:
Thanks to his work on the World Wide Web, Tim Berners-Lee unleashed a wave of internet innovation.

the Transportation Data Coordinating Committee released the first standards for Electronic Data Interchange (EDI), a system that allowed companies, suppliers and logistics providers to share orders and shipping manifests over computer networks.

A healthier world
In 1979 the World Health Organization announced that smallpox had finally been eradicated. The disease, which was fatal in around 30% of cases, was eliminated by a worldwide vaccination and containment program that ran for two decades. Eliminating smallpox was a logistical as well as a medical achieve-

ment, requiring coordinated effort from thousands of healthcare workers and hundreds of governments and international agencies. During the final stages of the campaign around 200 million doses of vaccine were distributed each year, often to remote locations in Africa and Asia.

Delivering effective healthcare to billions of people around the world is still creating demands for sophisticated logistics capabilities. The smallpox vaccine could be freeze-dried, making it easier to transport. Many other medicines, especially the new generation of biopharmaceutical products, have short shelf lives and require careful temperature control during handling and transportation.

People of the planet
In 1987, the world population exceeded 5 billion for the first time. Rapid population growth has been a defining feature of the past five decades: The number of people on Earth has more than doubled since 1969, from 3.6 billion to an estimated 7.7 billion today. The distribution of humanity around the world is also changing. The population of the U.S. reached 200 million in 1967, for example, and at the beginning of the 1970s there was no country with more than one billion people. China passed that watershed in 1982, with India following in 2000. The population of both countries now exceeds 1.3 billion. By 2010, more than half of Earth's inhabitants were city dwellers. Today, the rate of global population growth is slowing down, with better education, healthcare and economic prospects in many countries leading to smaller families.

Building the web
In 1989 Tim Berners-Lee, a British computer scientist working at the CERN particle physics laboratory in Geneva, devised a system that allowed computers to share

text, images and other resources across the internet. It was his innovation that paved the way for the seamless, user-friendly connectivity that we take for granted today. And while the resources and services now available on the World Wide Web are infinitely more sophisticated than the simple, static pages that Berners-Lee produced, they still use many of the same fundamental technologies.

Berners-Lee and colleagues at CERN released the code for the first web browser and web server into the public domain in 1993, unleashing a wave of innovation that has been building momentum ever since. Many of the businesses that have gone on to disrupt entire industries were established in the early years of the web: Amazon in 1994, for example, and Google in 1998. Today, more than half the world's population has access to the internet.

Trading standards
The 50 years after the end of World War II saw rapid expansion in global trade, driven by the widely held belief that closer economic ties between countries would help to preserve peace and lift people out of poverty. In 1994, international trade underwent its biggest transformation in decades: the creation of the World Trade Organization (WTO).

While the forerunner of the WTO – the General Agreement on Trade and Tariffs (GATT) – governed trade in goods, the new organization had a greatly expanded remit, including trade in services and intellectual property. Today, 164 members of the WTO are responsible for 98% of world trade. A further 22 countries are in negotiations to join the organization.

Mapping the human genome
In 2003 an international consortium of 20 research institutions announced that it had completed a 13-year effort to sequence the 3.3 billion base pairs that make



BARCODE:
The introduction of bar codes in 1974 simplified transactions, digital record-keeping and information exchange.



MAASTRICHT TREATY:
In 1992, the signing of the Maastricht Treaty by the original 12 member states founded the European Union.

HEALTH
Smallpox eradicated

1979
1983
DHL
establishes air-freight network

1984
DHL
becomes first express delivery company to begin services to Eastern Europe



1986
DISASTER
Nuclear disaster in Chernobyl, Ukraine

DHL
becomes first express delivery company active in China

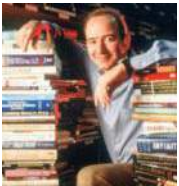


1989
EUROPE
Fall of Berlin Wall marks end of Cold War

1989
WWW
World Wide Web invented

1992
EUROPEAN UNION
Maastricht Treaty establishing European Union signed by 12 original member states

1994
AMAZON
founded



WTO
World Trade Organization (WTO) founded

1996
DHL
introduces internet shipment tracking

1995
DEUTSCHE POST
Under the second German postal market reform, Deutsche Post becomes a private company



1998
GOOGLE
founded

Photos: ap/dpa/picture alliance/SZ Photo; mauritius images/Norbert Michalke; DHL; Getty Images; Heiko Kuwertig/Alamy; Paul Souders/Getty Images; Caro/Hechtenberg

\$2.7
BILLION

Cost of the Human Genome Project. Gene sequencing costs less than \$1000 today

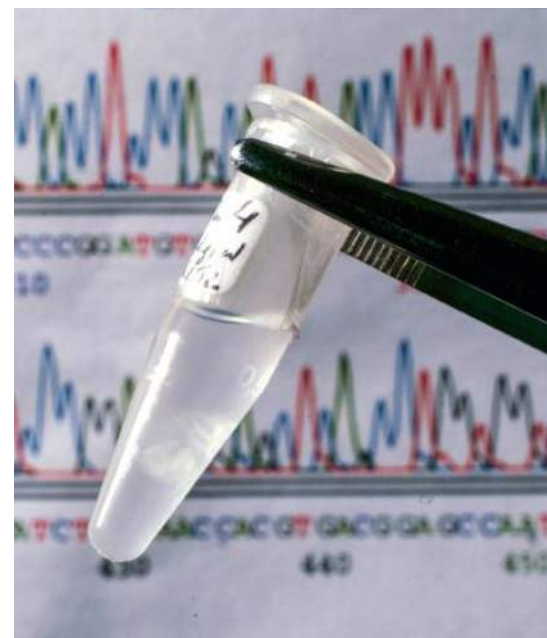
up the DNA of a human being. The \$2.7 billion Human Genome Project remains the largest collaborative research effort ever undertaken in the field of life sciences.

A greater understanding of the behavior and influence of genes is unlocking new insights in a wide range of fields from archaeology and forensics to medicine. Technologies for the analysis of DNA have progressed extremely rapidly in recent years, making genome sequencing much faster, easier and cheaper. The Human Genome Project was a mosaic, combining information from multiple individuals, but by 2007 automated sequencing technology allowed the full genome of a single individual to be mapped for the first time. A project now underway in the U.K. aims

to map the genomes of 100,000 people in an effort to identify the genetic factors that underpin a variety of rare diseases.

Destiny calling

By the turn of the 20th century, many people in rich countries owned a mobile telephone, and hand-held computers were becoming powerful and useful enough for some enthusiasts to abandon paper diaries in favor of an electronic gadget. Industry observers predicted a “convergence” of the two categories of device. Apple wasn’t the first company to bring such a product to market, but a combination of smart industrial design, usability and effective marketing meant the 2007 iPhone came to define the category.



Photos: Danner/David; Science & Society; Manuel Brea Colmeiro/Getty Images; Li Muzi/Xinhua/action press; iStockphoto/Getty Images; Nikola Wolf/dpa

Today, more than 90% of adults worldwide own a mobile phone, and the vast majority of those devices are smartphones. In developing regions, smartphones have become the primary means of internet access for millions of people, with ownership levels exceeding those of the developed world.

Coping with the aftermath

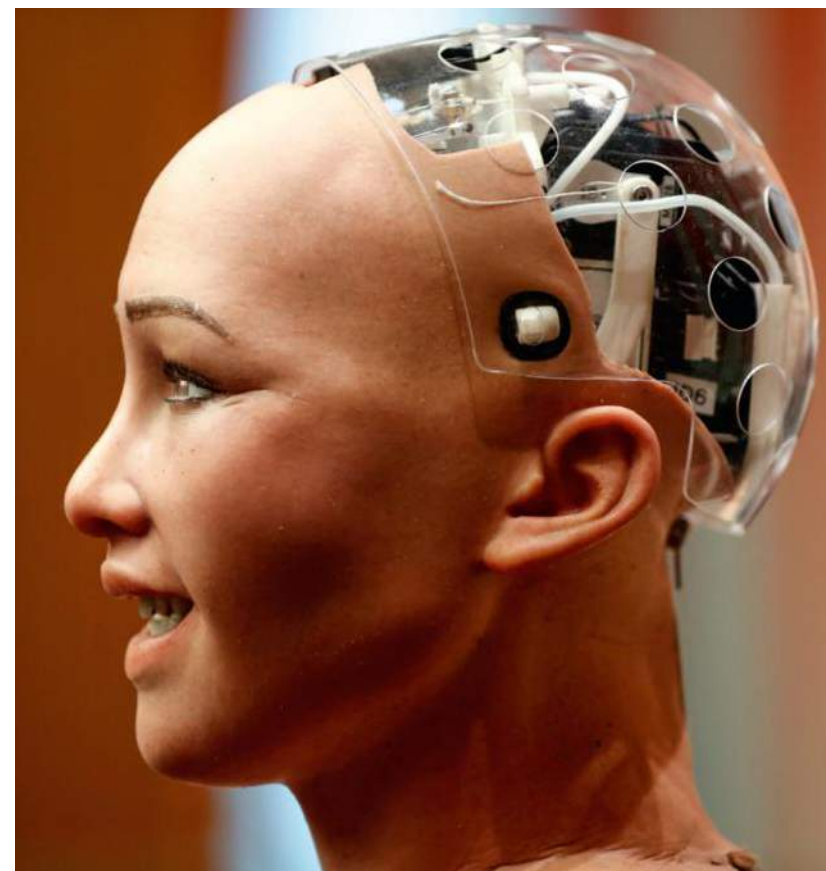
In 2011, a magnitude 9 earthquake off the coast of Japan caused tsunami waves that flooded land up to 10 kilometers inland from the Pacific coast of Tohoku. The disaster killed around 16,000 people, destroyed tens of thousands of buildings and led to a partial meltdown of the Fukushima Daiichi nuclear power station.

The impact of the tragedy reverberated far beyond Japan. In the ensuing months, companies in Europe and the U.S. faced shortages of critical components caused by the destruction of manufacturing facilities in the affected area. Some of those organizations had no idea that their supply chains depended upon products or materials that came from affected suppliers.

The Tohoku earthquake was not unique in its impact on global supply chains. Later in 2011, for example, flooding in Thailand affected around a quarter of the world’s hard disk drive production, leading to shortages and prices rises that lasted for two years. These events pushed supply chain risk to the top of corporate agendas, with companies acknowledging a significant unintended consequence of globalization.

The silicon brain

The idea of a machine that can think like a person is older than the computer itself. Since the 1960s, Computer scientists have been experimenting with algorithms that mimic human capacity to solve complex problems. Their ideas have now moved decisively from the laboratory into the mainstream. Google’s DeepMind Artificial In-

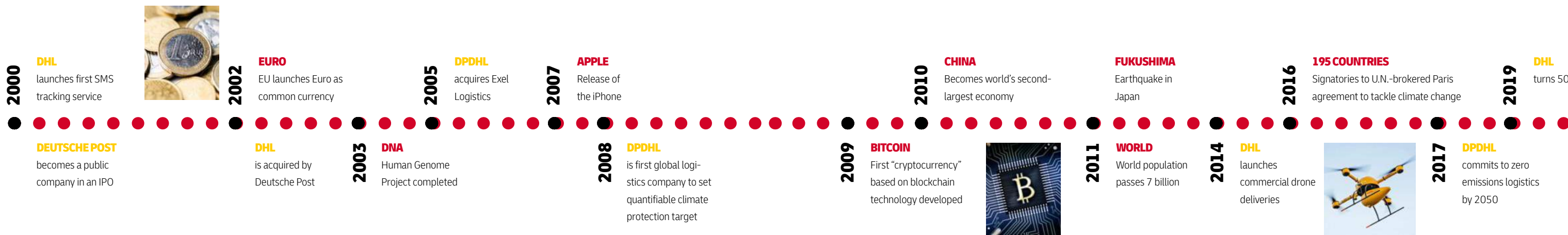


ALMOST HUMAN:

AI and robotics are busy transforming business and society.

telligence (AI) unit made headlines in 2016 when it built a program that beat world champion Lee Sedol at the game of Go, once thought too complex for a computer to master.

Computers are outperforming humans in plenty of other areas too: reading the number plates of speeding vehicles or putting names to faces, for example. As AI technologies grow ever more capable, they are becoming equally controversial. Some see them as a powerful tool that will help to address many challenges in business and society. Others worry about their potential impact on jobs, security and privacy. ■ Jonathan Ward





THE NEXT 50

How might another half-century reshape the world of business and logistics?

Predicting the future is never easy. If DHL's first 50 years have shown anything, it's that the world changes fast and in unexpected ways. There's little doubt that the same will be true over the next five decades, but some trends already underway today provide a glimpse of tomorrow.

An age of autonomy

Algorithms, data analytics and artificial intelligence are already changing the way business is done. Companies increasingly rely on insights derived from digital data to support their day-to-day operations. Over the next 50 years, they are likely to hand more decision-making responsibility to the computers themselves. Fully automated planning and forecasting tools will be linked to the systems that manage business operations.

Meanwhile, the development of new automation technologies will allow execution to become increasingly hands-off too. In manufacturing, "lights-out" production is already a reality. Industrial equipment maker Fanuc has operated fully automated factories since 2001, for example, and electronics company Foxconn opened its first fully automated production site in China in 2012.

Automation and autonomous decision-making are now extending beyond the factory floor and into the wider supply chain. JD.com, a Chinese e-commerce company, opened a fully automated fulfillment warehouse in Shanghai in 2018. Self-driving trucks are already operating in off-highway applications, such as large mine sites. The International Transport Forum predicts that on-road automated trucks will be in widespread use by 2030. Trials involving the use of robots for last-mile deliveries are underway in several cities and university campuses. By the middle of the century, it is quite possible that consumers will be buying products that have been designed, procured, manufactured and delivered entirely by robots.

The zero-carbon world

In June 2019, the U.K. became the first major economy to commit to net zero carbon dioxide emissions by 2050. The announcement came the day after energy major BP warned that an increase in the number of

extreme weather events during 2018 had pushed up global energy demand, leading to an unexpected rise in greenhouse gas emissions.

Governments and corporations around the world have pledged to make significant reductions in their emissions over the course of the century. Keeping those pledges will require a significant acceleration in the adoption of energy efficiency technologies and alternatives to fossil fuels.

The shift to a zero-carbon economy will demand behavior changes too. In logistics, airfreight and long-distance shipping will be difficult to decarbonize. Their costs could increase, encouraging the adoption of alternative modes, such as rail. New technologies, such as vacuum-tube "hyperloop" systems, may emerge as a solution for the rapid transit of goods and people between cities. In urban environments, deliveries may be piggybacked onto existing shared mobility infrastructure, using spare capacity in autonomous vehicle fleets.

New frontiers

If DHL's founding coincided with the peak of the first space race, its 100th anniversary may be associated with the age of interplanetary travel. U.S. Space agency NASA has plans to establish a permanent base on the moon during the 2020s. A key goal of the mission is to test technologies that will eventually be used to take people to Mars. In the private sector, SpaceX is developing heavy-lift rockets and crewed spacecraft for a Mars mission. Founder Elon Musk has told journalists he is targeting a 2024 launch.

Supporting people who live and work at least 54.6 million kilometers from Earth will be a logistics challenge of unprecedented scale and complexity. The first trips to the red planet will rely on supplies the crews take with them, and on equipment dropped in advance by unmanned spacecraft. Any permanent colony would need to be highly self-sufficient, probably using additive manufacturing techniques to fabricate critical parts and equipment on-site. For everything else, they will need to plan ahead: Express delivery services to Mars will take at least five months, orbits permitting. ■

Jonathan Ward

WHAT THE FUTURE HOLDS – THEN AND NOW

For DHL’s 50th anniversary, *Delivered.* has curated a selection of predictions for the future and revisited forecasts from the past.

An article published in DHL’s 30th anniversary magazine in 1999 made some rather spot-on predictions for the future of technology, logistics and the once new phenomenon of e-commerce.

It’s easy to be wise in hindsight. But looking at them now, forecasts such as “trade will become more global”

PREDICTIONS FROM 1999

- 1** E-commerce worth hundreds of billions of dollars every year will be driven by growth in the internet, prompting huge demand for logistics services.
- 2** Technology will get faster, enabling the delivery of more data and video, bringing richer and better service.
- 3** Growth in IT reliability and a worldwide standard of encryption will mean greater possibilities for using the internet as an infrastructure for business.
- 4** The growth in miniaturization will mean people can access the internet through small personal devices and make financial transactions wherever they are.
- 5** It will be possible to live without touching cash.
- 6** Trade will become more global, leading to more goods being shipped over ever-greater distances.
- 7** Transport, both ground- and air-based, will become faster and quieter.
- 8** Political requirements will mean there will be more regulation of the internet, and that customs barriers will remain.
- 9** Machine translation will bring down international communication barriers.
- 10** The emergence of the euro and other common currencies will prompt an acceleration of cross-border trading in goods and services.

Source: DHL 30 Years magazine ‘The next ten years’ by Manek Dubash

and “greater possibilities for using the internet as an infrastructure for business” seem almost quaint.

Technological advances across the board have created a world that would be all but unrecognizable to our 1999 selves. Nothing illustrates this better than experts’ predictions for the coming decades.

Never mind trade becoming more global: The MIT Space Logistics Project aims to develop an interplanetary supply chain that will enable sustainable space exploration of the Earth-Moon-Mars system and beyond. In the not too distant future, we could be installing solar panel farms on the moon that wirelessly power the Earth, or even booking holidays to explore the Milky Way.

A space elevator, according to NASA, is not a pie-in-the-sky idea, with researchers around the world optimistic that one can be built. A Tokyo-based firm, Obayashi Corp, plans to build one by 2050, and China seeks to pip them at the post with their version as early as 2045.

“Star Trek”-like teleportation could become a reality, even to the point of teleporting a piece of physical mail by 2043, according to research and consulting agency Quantumrun Forecasting. “In principle,” explains Professor Ronald Hanson at Delft University of Technology, “it should be possible to teleport ourselves from one place to another.” In his experiment, atoms have already been successfully teleported three meters.

Technology won’t just be faster and more reliable, with people accessing the internet “through small personal devices” (today we call them smartphones), it will transform and enhance the way – and length of time – we live. We’ll be able to digitize medicine in dozens of ways, including a body shop that can grow new human organs to replace the originals as they wear out. Or we can merge with machines, with our smartphones integrated into our bodies or brains, “constantly scanning your biometric data and your emotions,” as professor and author Yuval Noah Harari claims. Contact lenses may give us superhuman eyesight, and with the emergence of engineered clothing, such as the exoskeleton

PREDICTIONS FOR THE NEXT GENERATION

- 1** An interplanetary supply chain between Earth, the moon and Mars – and beyond – could harness solar power on the moon, mine asteroids and establish depots on the red planet.
Sources: MIT Space Logistics Project; Popular Science; NBC
- 2** The biotech revolution will enable us to live healthily for longer, for example with shops that grow organs to replace ours as they wear out.
Source: CEO Magazine
- 3** We could see the teleportation of the first piece of physical mail by 2043. And in the distant future, maybe ourselves.
Sources: Quantumrun Forecasting; TIME
- 4** AI will be able to hack the human organism, predict feelings, make choices and manipulate desires.
Source: Mind Matters
- 5** A space elevator between Earth and a space station could be in use by 2050.
Source: NBC
- 6** Humans will merge with machines, as smartphones are embedded in our bodies or brains, constantly scanning biometric data and emotions.
As told by Yuval Noah Harari, an Israeli historian, at the Fast Company European Innovation Festival
- 7** Contact lenses will grant us “Terminator” vision, enabling zooming, night vision and visible data fields.
Source: Foresight in Hindsight
- 8** Advances in nanotechnology will overcome illness and human limitation, for example with robotic red blood cells that hold up to 200 times more oxygen.
Source: Popular Mechanics
- 9** Powered exoskeleton clothing will become commonplace, for example in the form of an exoskeleton suit for heavy lifting or helping to walk after paralysis.
Source: Business Insider
- 10** Fully immersive virtual reality could simulate reality entirely, eliminating the chasm between real and unreal – and begging the question of what is real and unreal.
Source: Big Think

Photo: Colin Anderson/Blend Images LLC/Getty Images



suit recently created by Hyundai, heavy lifting could become a snap.

Of course, great powers call for greater responsibility. Fully immersive virtual reality could be capable of simulating reality completely, with the chasm between real and unreal lacking meaning for many. The cultural and philosophical quandaries raised by this type of technology haven’t even begun to be explored. And artificial intelligence may soon be able to make choices

on our behalf and manipulate our desires, believes Max Tegmark, author and physics professor at MIT. He is a vocal advocate for AI safety.

Whatever happens in the next 20, 30 or 50 years, it certainly won’t be boring. With the current breakneck speed of change and innovation, the next generation may look at these predictions with the same nostalgia we feel when we consider those from 1999. ■

Christine Madden

MEETING OF MINDS

DHL is 50 – and one man has been there for a good part of that journey: John Pearson, CEO of DHL Express. By contrast, Jordan Racek only joined the company four years ago and is in his first full-time job. What happened when the two of them met to discuss business, technology and life across a generation?

At first glance, John Pearson and Jordan Racek seem like two very different people. For a start, they're from different backgrounds and generations and are at completely different stages of their careers.

John has spent 30-plus years with the company. In that time, he has been all over the globe, from Bahrain to Brussels and from Australia to America, with senior positions in sales, marketing and general management. Born in 1963, he is, by definition, a baby boomer. It's a term he doesn't like, but more about that later.

By contrast, Jordan is a millennial who is just starting out on his employment journey; he joined DHL in 2015 and works at DHL Customer Solutions & Innovation in Germany.

So it's no surprise to find that these two colleagues from opposite ends of the DHL spectrum have very different perspectives on a range of diverse topics, including mentoring, millennials, digitalization and

“Developing people is literally responsibility number one.”

John Pearson, CEO, DHL Express

e-commerce. Yet when they got together to talk about their lives, careers and views on the world, they found a lot to agree on too.

This, then, is what happened when Jordan met John...

John Pearson: How did you enter the world of work?

Jordan Racek: I'm from Slovakia, but went to university in Denmark and ended up staying for four-and-a-half years. I worked various part-time jobs ranging from working with horses to sales at IKEA; then, as part of my degree, I got an internship with DHL. This is my first full-time job after university.

JP: I think it's interesting how we fall into companies – and how our careers evolve. I tell my own kids that if they show up, work hard, clean their shoes, contribute, get involved and are “team players,” then they'll probably do OK and be promoted. I remember being at the Customer Service department in DHL Paris shortly after I took the EU CEO role and noticing a guy who caught my attention – I asked who he was. I was told: “Oh yes, he's good. He only joined last week, but he's really involved. He comes in before everyone else, he wants to read every report, and he volunteers for every task.” The word “involved” really caught my attention as I thought it really captures the type of people we want and who can contribute to making us better.

Here's something I often, in fact always, ask in interviews. If I asked someone who knew you well: “What three adjectives would you use to describe Jordan?”, what would they say?

JR: “Willing,” “flexible” and “fun.”

JP: OK, good. All of those will get you a long way and flexibility in big companies is important – know what you are really focused on and know what you are prepared to be flexible on. When I'm interviewing people for a job, I'm essentially assessing them against three things: “Can do. Will do. Will fit.” To explain that a little further – Can do: Do they have the technical capability to do the job? Well, if they're sitting opposite me for a second interview, they probably do. Will do: Do they run to work, or do they walk to work? How passionate are they about what they do? And will fit: Do they fit upward? That's not the most important thing in my opinion. Do they fit sideways? Do they fit downward? Those are more important. I have a question for you: You're part of the “millennial” generation. Do you relate to being called a millennial? I have to say it's a word I don't find especially helpful.

JR: Why not?

JP: I just feel you can't group people in that way. We never really used terms such as “baby boomers,” “Generation X” or “Generation Z” in the past; but suddenly, they're everywhere. Although I did hear a definition of millennial recently that I quite liked: “Someone who gets interested easily and bored easily.” Maybe that's broadly found in all millennials?



Photos: Guenter Klein for Delivered.

In truth, I think being a millennial is mostly used to describe young people's propensity for technology. Yet life is about so much more than that. For instance: Do millennials play sport differently to other generations? I don't think so. Is their relationship with their partner fundamentally different to other generations? I don't think so. I just don't like putting a badge on an entire group of people. Because how can you possibly compare millennials in, say, Slovakia with millennials in, say, Ireland? You can't, because they're different people living completely different lives.

JR: Whenever I hear the word millennial I think of avocado sandwiches, people working on a beach in Bali and gyms in the workplace. But do I relate to it? Yes, I do. I like avocado, I could work in Bali, and I would love a gym in my workplace! The popularity of the word is also connected to the rise of social media and Instagram influencers – digital nomads who travel the world and have millions of followers. To answer you directly, I do see my generation as millennials. Sadly, I also think the older generation very often sees us as those who just ask, but don't deliver.

JP: You mentioning a gym at work is interesting. In England, back in the 1800s, factories such as Rowntree Mackintosh and Quaker Oats offered crèches, company doctors and much more to their workers. They had a hugely philanthropic approach toward their people: If it had been invented then, a gym would have been the least of it! So I think we have to be careful about attributing that kind of facility and offering to millennials when several generations ago some companies were offering things that went far beyond what's on offer today. Let me ask you this: What do you like most about your work?

JR: It's the environment. It's extremely diverse and international. I really feel as though I travel the world every day without having to get on a plane. I have colleagues in Singapore, I have colleagues in the U.S., and a lot of the events we do are global. I'm working on an event now in Japan. Also, I work with technology and it challenges me. I wouldn't say I was a digital native or a technology evangelist when I joined DPDHL; but my career has been largely shaped by technology and digitalization.

JP: The rise of technology has obviously had a hugely positive impact on your generation. I'm interested to know if you think it presents any challenges too?

JR: Well, there's nothing more annoying than going out with a group of friends who are on their phones all the time. I went through this phase myself, so there's a lot to be said for online detoxing. And sometimes social media paints a picture of your life, but doesn't show the reality. Also, before social media, if you wanted to get a message out to your contacts, it took time to reach everyone. Today, all it takes is one tweet, and that can have a downside. You might get on a plane as the CEO of a company, but when you get off the plane you find you're no longer CEO because of one misjudged tweet you sent in the departure lounge. So, yes, everything is very fast, but the speed of descent has also increased. We have many more communication channels than ever before, and that can be a challenge. Why? Because sometimes we're overflowing with information that we don't need and put out messages that aren't necessary.

JP: You mentioned digitalization. That's another word we have to explain well and be careful with.

JR: Why?



JP: Well, if companies talk about digital transformation programs they need to explain in very clear terms what they expect from such a program, and secondly what it means to everyone involved. There was a company called DEC – Digital Equipment Corporation – that was founded in 1954. So the word digital itself has been out there for a long time. Digitalization, in my mind, is simply the latest “form” of technology. When word processors replaced typewriters, no one thought their job had fundamentally changed. Things became easier, yes, but people simply viewed word processors as a natural evolution of the technology they'd been using. I also think we make this whole digitalization area too complex. I saw an Instagram yesterday that said: “Eighty percent of success is attributable to communication” and I think we often make things difficult for ourselves by not communicating properly. I just think the word digitalization is an ineffective way of communicating what it is we're actually doing. But what's your view? Do you see a gap between millennials who are more digitalized and the rest of us?

JR: Well, I agree: I do question why we always have to give everything a name.

JP: So why do you think we gave digitalization a name?

JR: In one way, I think it's because digitalization is a nice word, it's a cool word – so why not use it as often as possible? But I also think it's because our world is changing. My sister is seven years younger than me and has used technology in her studies, which is very different to when I was at school. With that thought, I have a question for you: How has technology changed your life in the last 15 years? For instance, do you use your smartphone a lot? Do you use Instagram? You've hinted that you do. How has digitalization affected your life as “John at home” – and how has it affected you as “John, the CEO of DHL Express”?

JP: On a personal level, I've embraced it. Admittedly, some things I get to later, depending on their complexity. For example, I use certain services via my laptop rather than on my phone. My son says: “Do them on your phone!”, but I tell him: “Oh, it works on the laptop: It's fine!” So I do love it. Professionally speaking, the level of services and education that people can gain through their devices now is just phenomenal. The ease of everything – from booking an Uber through to the online shopping experience – is close to my heart, because e-commerce is such an important part of our growth story at the moment. I was sitting with the CEO of ASOS the other week, and he told me it won't be long before we can point our phones at the TV screen and say: “I like the blue suit that James Bond is wearing.” Your phone will then tell you the brand of Bond's suit and show you five other similar ones. Then you make your choice without pushing a button because you can say: “I would like to order model

number 1234.” Then you get the suit the next day. And people want things quickly. When I was nine or 10 years old, if the comic I was reading was advertising a badge or sticker, I had to send an SAE – a stamped addressed envelope – and allow 28 days for delivery. A month later, my envelope would come through the post with my badge or sticker. I reminded the ASOS CEO about this and he said: “John, if my kids didn't get something they'd ordered within three days, they'd probably forget they'd bought it!” That really made me think about speed and how quickly people expect things.

JR: Millennials wouldn't forget because we expect everything immediately! We would opt to have it delivered on that day so we couldn't forget.

JP: But what if it wasn't delivered?

JR: Then we'd complain and, in an ideal world, get an extra one. I think there's so much emphasis on speed these days.

JP: Which is not all down to technology. Or maybe it is. Think about how international trade used to be done a couple of hundred years ago: If you wanted to buy a bale of wool from Australia, you'd have to go there by ship. That would take three months. You'd go to the farm, you'd see the sample of the wool and then you'd take that sample back by boat to your buyer in the U.K. Another three months. And then you'd send an order by mail, which would take one or two weeks; and then, within another six months, you'd finally get the wool you saw a year earlier. Even one generation ago, people had the job title of “overseas sales representative” on their business card – which would involve lengthy trips abroad with a briefcase full of brochures to drum up business. Sometimes they'd need visa extensions and have to ask for more brochures to be posted out to them! Everything took time. These days, people can create something magical in their garage and have it “on line” on the world stage tomorrow.

JR: I have a final question. I have a mentor – and what I find great about her is that she points out things that should be obvious, but that I don't see because I'm in my hamster wheel, getting on with projects and managing deadlines. I don't tend to get the eagle's perspective on a problem and realize: “Ah, OK: Actually the problem has been me all along.” So I think mentoring is very useful because it helps a person develop. I think every manager should be a great mentor. That's why it's good for somebody like me who is at the start of their career to meet someone with experience like you who can tell them: “OK, I've done it this way, and these were the challenges for me as an individual.” But my question is: Can it work the other way around? Can company managers learn from millennials? Managers should be willing to hear what their people have to say. But I also think it's the responsibility of employees to give them honest feedback.



JP: Mentoring when done well is very valuable. A good mentoring session works both ways, not just one way – although only if the manager is inclined to learn and listen. I know mentors who just speak at people. They do listen a bit, but they don't imagine that any good is going to come their way from the other side of the table. I'll sometimes have a career discussion with someone for a couple of hours and at the end they'll look surprised and say: “You're so busy, but you just spent two hours with me.” In my view that's my job. It's right in the middle of all our job descriptions. Developing people is literally our number one responsibility. And if I spend time interviewing people or discussing their career and that person is still in the company 10 years later, having done two or three other jobs in two or three other countries... well, that's a pretty productive two hours as far as I'm concerned. In fact, one of my favorite phrases on this topic is: “Two ears and a mouth, and they are to be used in that proportion.” The mentor shouldn't be there simply giving answers. Instead, I should be asking you: “Tell me Jordan, why did you approach things that way?” Not: “You should have done it this way!” I can then take away things I've learned from your answers. I've been approaching this talk with you like that, by the way. I truly believe we can recirculate things we've learned from each other for the benefit of the customer – but only if we're all listening. ■



In order to truly represent all ages, *Delivered.* asked 82-year-old Gunter Klein to take on a special project. A well-known photographer who spent decades “snapping” heads of state and celebrities in Germany's former capital, Bonn, Gunter came out of retirement to take the photos for this story.

Photos: Gunter Klein for *Delivered.*

BLAZING A TRAIL

The founders of DHL were pioneers who changed the logistics industry. Here are 50 other innovators who helped make a difference to the world – in either small or significant ways.

Adrian Dalsey, Larry Hillblom and Robert Lynn may not have known it at the time but, by the late 1960s, they had become trailblazers in the world of logistics. Their idea was simple enough, even if making it a reality was somewhat harder: They wanted to establish the world's first international door-to-door express delivery service. The trio started their new company in 1969 and named it after the first initials of their surnames: D-H-L. And with that, the international express industry was born.

The world should celebrate pioneers and innovators such as these three groundbreaking San Francisco businessmen. That's why *Delivered.* has highlighted 50 people who, by themselves or as part of teams, have helped break molds and push boundaries. It includes everyone from the inventor of the internet to the round-the-world yachtswoman-turned-environmental campaigner; from the father of the modern computer to the grandmother who unknowingly became the world's first online shopper; and from the inventor of the shipping container to the young man who created a bra that can detect signs of breast cancer. The individuals you'll read about over the following pages come from every walk of life and all age groups. Some are currently making their mark with new or established projects, others are from centuries past. Some are well-known, others less so.

Of course, this is just a small selection of trailblazing names – not an exhaustive list. But all have, in one way or another, helped make our world a more interesting, informed and progressive place. And for that, we salute them. ■

ELON MUSK (1971)

An engineer turned technology entrepreneur, Musk has founded and co-founded numerous companies, among them PayPal, Tesla and SpaceX. He has set out to revolutionize transportation both on Earth and in space.



TRADE & TRANSPORT



BEVERLEY BASS (1951)

First female captain at American Airlines, who in 1986, led the first all-female American Airlines crew in the history of commercial jet aviation on a flight from Washington D.C. to Dallas, Texas. "It was a huge deal," she remembers. "It was one of the highlights of my career."

ERNST DICKMANN (1936)

Dickmanns and his team conducted pioneering research into autonomous driving and, in 1986, developed a "Robot Car" that could drive in traffic all by itself. This was long before big names such as Google entered the field.



LOUIS DANZAS (1788–1862)

French lieutenant in Napoleon's army who established freight forwarding company Danzas in 1840. After the Franco-Prussian War in 1871, the company moved its headquarters from France to Switzerland, changing its name to Danzas & Cie. Fast forward a century and, by the early 2000s, Danzas & Cie – by then a subsidiary of Deutsche Post AG – had become known as DHL Danzas Air & Ocean, finally becoming DHL Global Forwarding in 2005.



DAN KOHN (1972)

Kohn developed the first music store on the internet and, in 1994, through his NetMarket website, made the very first secure online commercial transaction, selling a CD of Sting's "Ten Summoner's Tales" to a friend in Philadelphia. The CD was bought for \$12.48 plus shipping. The

next day, the New York Times wrote a story about NetMarket, calling it "a new venture that is the equivalent of a shopping mall in cyberspace."

KATHERINE JOHNSON (1918)

Johnson, an African-American mathematician, was one of the women who worked as "a human computer" at NASA, the American space agency, in the middle of the 20th century. Her calculations of orbital mechanics were critical to the success of the first and subsequent U.S. manned spaceflights, and later helped astronauts land on the moon.



KRISTO KÄÄRMANN AND TAAVET HINRIKUS

The duo behind financial technology firm and banking industry disruptor Transferwise, which offers cheaper foreign exchange rates than most banks. By May 2019, after a new investment round, the company was valued at \$3.5 billion, making it Europe's most valuable fintech startup.

JEFF BEZOS (1964)

Jeff Bezos is synonymous with the name Amazon, which began as an online bookstore in 1994, and grew to become the world's largest online sales provider.



Illustration: Studio Pong for Delivered; Photos: DHL: Dan Kohn; NASA/Topfoto; Joshua Roberts/Reuters/dpa; Angelika Bardehle/SZ Photo/dpa; Beverley Bass: Lucy Nicholson/Reuters/dpa



CEDRIC ATANGANA (1993)

Young African entrepreneur and CEO of WeCashUp, a platform that enables online companies to accept and disburse payments in 36 African countries via a single API integration.



GERARDUS MERCATOR (1512 – 1594)

Dutch cartographer, geographer and cosmographer whose world map – created in 1569 – is considered “one of the most significant advances in the history of cartography,” heralding a new era in the evolution of navigation maps.

JACK MA (1964)

Chinese businessman, investor, philanthropist, co-founder and executive chairman of multinational technology conglomerate Alibaba Group – and role model for startups everywhere.

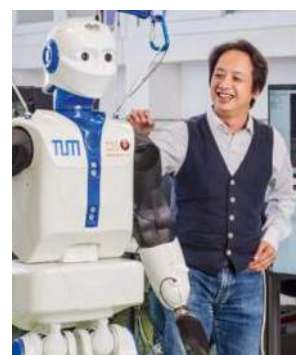
SIR TIM BERNERS-LEE (1955)

Without Berners-Lee the world would look very different, because there would be no internet. This forward-thinking engineer and computer scientist invented the World Wide Web in 1989.



PROF. GORDON CHENG (1968)

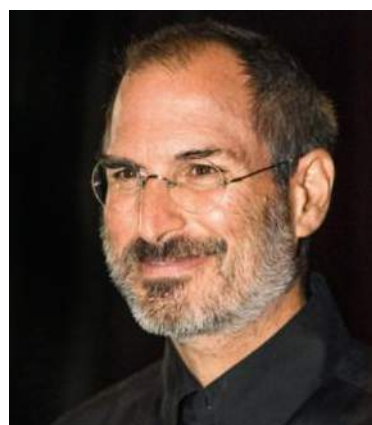
Creator of innovations in the field of robotics, particularly humanoid robotics, including robot “skin” that can recognize changes in temperature, pressure and proximity to other objects. He has been conducting research into, among other things, brain-controlled robotics and has played a key role in developing the thought-controlled exoskeleton.



TECHNOLOGY & SCIENCE

STEVE JOBS (1955 – 2011)

Inventor, designer and co-founder of Apple and a pioneer of the micro-computer revolution of the 1970s and 1980s. It was under his guidance that the iPod, iPhone and iPad were launched and emerged as game changers in technology.



SIYA CHUG (1998)

Young entrepreneur and CXO of Mara Phones, which debuted the first wholly made-in-Africa smartphone in 2019.

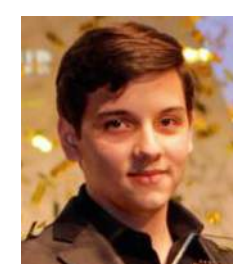
JOHANNES GUTENBERG (1400 – 1468)

German inventor who introduced the movable type printing press to Europe, which started the printing revolution and became one of the most important inventions in history.



RAY TOMLINSON (1941 – 2016)

American computer programmer who revolutionized communication with the invention of the email system. Tomlinson – who pioneered the use of the @ symbol in email addresses – sent what is considered to be the first email in 1971.



JULIAN RIOS CANTÚ (1999)

Student and CEO of Higia Technologies. Cantú developed a bra that can detect early signs of breast cancer and was named “Global Student Entrepreneur of the Year 2017” by Entrepreneurs’ Organization (EO).

KONRAD ZUSE (1910 – 1995)

German civil engineer and inventor who is regarded as the inventor of the modern computer. In the late 1930s Zuse invented the Z1, the world’s first electro-mechanical binary computer; and then in 1941 he unveiled the Z3, the world’s first programmable, digital computer.



MARYAM MIRZAKHANI (1977 – 2017)

Brilliant Iranian mathematician who was the first and only woman to date to win the Fields Medal, mathematics’ most prestigious prize. Mirzakhani was also the first Iranian woman to be elected to the U.S. National Academy of Sciences.



SISTER MARY KENNETH KELLER (1913 – 1985)

Catholic nun and computer science expert who helped develop the groundbreaking computer programming language BASIC.



WILLIAM B. SMITH JR. (1929 – 1993)

An engineer who co-founded Six Sigma, a set of tools and techniques for process improvement, while working at Motorola.

GLADYS WEST (1930)

American mathematician whose work was instrumental in the development of GPS (Global Positioning System) technology. She was inducted into the United States Air Force Hall of Fame in 2018.

SUSTAINABILITY & SOCIETY

BEA JOHNSON (1974)

Leading light of the zero waste movement who has influenced people across the world to adopt the 5 Rs: refuse, reduce, reuse, recycle, rot.



LEONARDO DICAPRIO (1974)

The Hollywood actor and environmentalist has long been a champion of environmentally friendly cars and drives the most recognizable hybrid in the world: the Toyota Prius.

WARREN BUFFETT (1930)

American business magnate who has pledged to give away 99% of his fortune to philanthropic causes, primarily via the Bill & Melinda Gates Foundation.

BILL GATES (1955) & MELINDA GATES (1964)

Founders of the Bill & Melinda Gates Foundation, which aims to enhance healthcare and reduce extreme poverty globally, and, in the U.S., to expand educational opportunities and access to information technology.





PETER TABICHI (1983)

Science teacher from Kenya who pledges 80% of his salary to local community projects in Pwani village, a remote location where approximately 95% of students live in poverty. Recently, Tabichi won a \$1 million global prize

recognizing and celebrating the impact and importance of the world's best educators.

JACQUES-YVES COUSTEAU (1910–1997)

Renowned ocean explorer, scientist, author and researcher Cousteau co-developed the aqua lung and pioneered marine conservation.



MUHAMMAD YUNUS (1940)

Bangladeshi social entrepreneur, banker and economist who was awarded the Nobel Peace Prize for founding and developing the Grameen Bank. The bank has lifted millions of Bangladeshis out of poverty by providing small loans to those unable to get them from traditional lenders.

OHAD ELHELO (1989)

Israeli social entrepreneur and the founder of Our Generation Speaks, a fellowship program and incubator that aims to bring Israeli and Palestinian leaders together through entrepreneurship.



WANGARI MUTA MAATHAI (1940–2011)

Kenyan environmental political activist and Nobel laureate who founded the Green Belt Movement, an environmental non-governmental organization focused on the planting of trees, environmental conservation and women's rights. In 2004, she became the first African woman to receive the Nobel Peace Prize for “her contribution to sustainable development, democracy and peace.”

JEAN TODT (1946) AND ALEJANDRO AGAG (1970)

Todt (President of the Fédération Internationale de l'Automobile, aka FIA) and Agag (a Spanish entrepreneur) created the Formula E Championship, the world's first fully electric racing series, which had its inaugural championship in Beijing in 2014.



DAME ELLEN MCARTHUR (1976)

British yachtswoman who broke the world record for the fastest solo circumnavigation of the globe in 2005. In 2010, she established the Ellen MacArthur Foundation, a charity that works to accelerate the transition to a circular economy – a drive to minimize waste and maximize resources.



PETER BENENSON (1921–2005)

British lawyer, human rights activist and the founder of Amnesty International.

ALEXANDER VON HUMBOLDT (1769–1859)

This Prussian scientist was ahead of the curve when it came to climate change: He first predicted it more than 200 years ago. While trekking through the South American rainforests, Humboldt recognized the interconnectedness of nature and how human interference could have a potentially devastating impact on the environment.



Photos: Tony Karumba/AFP/Getty Images; ATP/dpa; John Phillips/Getty Images; Everett Collection/action press; Javier Arcenillas/LUZ/fotografia; Jacques Witt/Sipa/action press; Granger Historical Picture Archive/Alamy

BILLIE JEAN KING (1943)

Former number one tennis player, outstanding advocate for gender equality and winner of the “Battle of the Sexes” match against Bobby Riggs in 1973.

PELÉ (1940)

Brazilian soccer legend – and the only player to have won three FIFA World Cups.

ROLAND THOMAS AND DHL TEAM

In May, inspired by DHL's 50th anniversary, DHL Express manager Roland Thomas climbed Mount Everest. He also inspired 14 colleagues to trek across Nepal to Mount Everest's base camp. Between them they have raised over \$100,000 for charity Direct Relief.



KATHRINE SWITZER (1947)

Activist who made history in 1967 as the first woman to officially take part in the Boston Marathon which, until that point, had been an all-male event. During the race, some officials physically tried to stop her running, but she defiantly carried on. Fifty years later, Switzer ran the marathon again, aged 70.



JANE SNOWBALL (1912–1995)

A 72-year-old grandmother from Gateshead in the U.K. who, as part of a 1984 initiative to help the elderly, used her TV remote control to order groceries (margarine, cornflakes and eggs) from her local supermarket. Arguably, Snowball was the first-ever online shopper.

LISLE HESSE (1919)

Former schoolteacher who, in 2019, was elected to her home town's council in Germany at age 100.

ATHLETES & EVERYDAY HEROES

GEORGE RESCH, AKA TANK SINATRA (1980)

“Tank” scours the world for good news stories and publishes them on his website, Instagram and Facebook. His positive message has hit a nerve: On social media, he has more than a million followers.

VANS DOBBIE

The first woman in New Zealand to own and captain her own fishing trawler. Besides being a solo parent, Vans was over 50 years old when she bought the fishing vessel in the 1970s, enrolled in Nautical college and passed her seamanship and navigation exams. In a totally male industry, Vans successfully fished the waters out of Auckland before selling out of the industry some 10 years later.



JEAN-LUC VAN DEN HEED (1945)

French sailor who, at 73, became the oldest person to sail solo around the world, winning the Golden Globe Race 2018 after almost six months at sea.



AASE BRIEG LINDBERG (1935)

After Aase Brieg Lindberg retired from a 40-year-long career with Scandinavian Airlines (SAS), she realized she wasn't ready to be a pensioner, so became a Customer Service Advisor at DHL Express Denmark. Today – at the age of 84 – she's still not ready to clock off.

JUNKO TABEI (1939–2016)

Japanese mountaineer who, in 1975, became the first woman to reach the summit of Mount Everest. Tabei was also the first woman to scale all “Seven Summits” – the highest mountains on every continent.



Photos: Boston Globe/Getty Images; DHL (2); Ang Tsering/Yomiuri Shimbun/Asian News Network/dpa; private

192 HOURS

The duration of the operations
on the surface

\$1.2 MILLION

The cost per kilogram
of delivering payloads
to the moon

\$4.5 MILLION

The cost per kilogram if you
want your payload to be
transported on the moon
and get a ride over the lunar
surface from an Astrobotic
lunar rover

MISSION TO THE MOON

Where next for DHL shipments? How about the moon? Meet the Peregrine Lander, a new spacecraft vehicle set to deliver cargo to the moon in 2021. Astrobotic's new lunar lander is designed to carry payloads for governments, companies, universities, nonprofits and individuals. The payloads relate to resource development, scientific investigation, technology demonstration, exploration, marketing, arts and entertainment.

Roughly the size of a compact car – just a little over 6 feet (1.8 meters) tall and 8 feet (2.4 meters) wide – it is powered by a cluster of five main engines and can carry up to 200 kilograms of cargo at a rate of \$1.2 million per kilogram.

In collaboration with Astrobotic, DHL will offer a MoonBox service that allows people to send keepsakes to the lunar surface, with prices starting at \$460. ■



www.astrobotic.com

28

The number of payloads
that will be delivered
to the moon as part of the
first mission

2 MONTHS

Upper limit of moon
mission duration

5 MAIN ENGINES

Peregrine is powered by five main
engines and twelve Attitude and Control
System (ACS) engines



WORLD VIEWS

Fifty years can make a world of difference to business. Since that time, globalization has made supply chains an invisible but increasingly essential part of our lives; China has become an economic powerhouse; Dubai has transformed into a global logistics hub; and a growing middle class has fueled massive demand for consumer goods in Africa and Asia. Six business and thought leaders select their most significant developments over the past decades – and forecast what the business landscape might look like in the future.

DR. JOHN GATTORNA

Executive Chairman, Gattorna Alignment

Supply chains are all-pervasive in our lives and have been around since the dawn of mankind. But it is only in the last 50 years that we have become more conscious of their underlying presence. This was largely due to two factors: the study of distribution management/logistics/supply chain management becoming an official management discipline in the late 1960s; and the increasing pace of life in the latter half of the 20th century and first few decades of the 21st century. This operating environment has placed a huge emphasis on the sustained performance of supply chains at domestic and international levels. Today, contemporary supply chains are undeniably the world's central nervous system.

It is no coincidence that the great period of sustained growth and prosperity through the globalization of cross-border trade that the world has experienced post-World War II largely coincides with the rapid development of contemporary multinational enterprises and their associated supply chains. This development has seemingly only faltered once, during the Great Financial Crisis (GFC) of 2007/2008, and that was caused by financial failures rather than supply chain failures.

The original DHL startup has been in the vanguard of the entire development from the very beginning (1973), and has since grown into DPDHL, one of the world's major global supply chain providers.

And now we are entering the new era of digitisation, driven by technology, in which data is moved instantly around the world, thus



driving our supply chains even faster and providing customers with more security, assured provenance and ultimately greater satisfaction. All that remains to be done now (and it won't be easy) is to improve the alignment of our organization designs at corporate and government levels, and global trade will again accelerate to the next level – and thus overrun the “disruptive” effect of the rising nationalist movement that has raised its ugly head in recent years. ■

Dr. John Gattorna is an educator, author and Executive Chairman of Gattorna Alignment, a Sydney-based specialist supply chain advisory firm. For over 40 years, he has been a key contributor to shaping the thinking, understanding and practice of logistics and supply chain management across the globe.

 www.gattornaalignment.com

Photos: private; Adobe Stock

Photos: Mark O. Rogers; Yung's Harmony



CHRIS FOLAYAN

Founder & CEO, MallforAfrica

Global e-commerce trade has exploded over the past few years with the advent of more free trade agreements being signed, the cost of getting online reducing globally, and more people being able to start their own e-commerce sites easily within minutes without programming knowledge. As a pioneering platform for e-commerce in Africa, MallforAfrica.com has seen the growth first hand and DHL has been part of that growth with us. The world has seen a huge positive shift with no end in sight. By 2021, online retail e-commerce will account for approximately \$5 trillion. E-commerce needs two major ingredients to survive: payments and logistics.



Delivery has always been a huge factor in e-commerce success and we have seen shipments get to our customers faster year-over-year with both our brands, MallforAfrica.com and MallfortheWorld.com. As a platform that ships millions of items to over 100 countries, we haven't found a better and stronger partner than DHL to help deliver products to our customers. ■

Chris Folayan is a successful serial entrepreneur with over 20 years of experience in marketing, technology, startups and corporate companies. He is the founder of the Mall for Africa and the Africa Made Product Standards (AMPS), serves on several boards and mentors various CEOs in companies based across Africa.

 www.malloafrica.co.za

LIZA NG

Chief Operating Officer, Air Hong Kong

Fifty years ago when DHL

started its operations in the U.S., Hong Kong was still shaping itself as a key manufacturing base.

Nobody back then could have imagined that Hong Kong would become the major international trading, logistics and financial hub it is today. Air Hong Kong started carrying DHL

express cargo with our overnight express network back in 2002. Back then, we would never have imagined exports from Asia could grow so fast. Since 2010, we have become a key contributor to HK International Airport – the world's busiest international cargo airport for nine consecutive years, with an annual throughput of 5 million metric tons.

With the opening of the Hong Kong-Zhuhai-Macau Bridge and the third runway due for completion in 2024, huge emphasis is being put on infrastructure connectivity and economic development within the

Greater Bay Area. With this and the vast increase of purchasing power from Asian countries, including China, I strongly believe that Hong Kong is again strategically positioned for this wave of robust growth, this time more so from the opposite direction. The expansion of DHL's Central Asia Hub in Hong Kong is timely and we look forward to growing the business together at this exciting time. ■

Liza Ng joined the airline industry in 1990 and has broad experience across many customer and commercial service areas for Cathay Pacific, Cathay Dragon and Air Hong Kong. She is currently an Executive Member of the Board of Airline Representatives Hong Kong and a member of the Hong Kong Immigration Department Users' Committee.

 www.airhongkong.com.hk



HH SHEIKH AHMED BIN SAEED AL MAKTOUM

Chairman of Dubai Airports;
Chairman and CEO, Emirates Group

One of the most common questions people everywhere ask about Dubai is how a city that was just a small fishing village barely 50 years ago managed to establish itself as a world-leading logistics and aviation hub and a global tourist destination. What is not widely known is that none of the long list of Dubai's achievements over the years is a random occurrence, but the outcome of a carefully crafted strategy based on a bold and ambitious vision and collaborative approach.

It started with the opening of Dubai's first airport in September of 1960 – a humble affair involving a strip of compacted sand for a runway and a small terminal building, but still a major undertaking at the time – and one that would change the course of the world's aviation history. It was the brainchild of Sheikh Rashid Bin Saeed Al Maktoum, who not only understood the importance of developing the infrastructure necessary to support transportation and logistics, but also the significance of global connectivity. His decision to opt for an open skies policy from the get-go was the single most important development in transforming Dubai into a global hub.

Guided by this vision, Dubai went on to create some of the most successful brands in the world of aviation, including Emirates, Dubai Duty Free and Dubai International (DXB), the world's number one airport by international passenger traffic since 2014.

Dubai's leadership understood that aviation and logistics were the very heart of a thriving economy and invested in top-class infrastructure to enable its success and growth over the years.

Today the aviation sector is one of the most important contributors to Dubai's economy and creates employment for hundreds of thousands of people. It is estimated

that by next year, the sector will collectively constitute 37.5% of Dubai's GDP and account for 29.5% of employment in the emirate. Based on a collaborative model, Dubai's aviation and logistics sector also owes much of its success to the contributions of our local partners, as well as to international businesses that embraced Dubai in its early days. One such partner is DHL, with whom our partnership goes back 43 years to when it launched its operations in Dubai in 1976. This year DHL is celebrating a landmark anniversary of 50 years, which is a tribute to its ability to develop and deliver on its ambitious vision. On this occasion, on behalf of Dubai's aviation community, I would like to congratulate DHL on its tremendous success and thank the team for its significant contributions to supporting the ongoing development of Dubai's logistics and aviation business. ■

His Highness Sheikh Ahmed bin Saeed Al Maktoum

is Chairman of Dubai Airports, President of the Dubai Civil Aviation Authority and Chairman and CEO of Emirates Group. He is Chairman of the Dubai Supreme Fiscal Committee, and Second Vice Chairman of the Dubai Executive Council. His career in the aviation industry began in 1985, when he was appointed President of the Dubai Department of Civil Aviation. Emirates, the national carrier, was launched at the same time, with His Highness appointed Chairman.

 www.emirates.com

 www.dubaiairports.ae



PROFESSOR RICHARD WILDING OBE

Professor of Supply Chain Strategy Logistics, Procurement
and Supply Chain Management, Cranfield School

2019 is a significant birthday for both DHL, which is now 50 years old, and the Chartered Institute of Logistics and Transport, which is 100 years old. We can commemorate the past, celebrate the present and, importantly, look to the future.

One hundred years ago, the first transatlantic crossing by an airship took place, Bentley Motor Cars was founded and diversity championed with the first woman to take her seat in the House of Commons in the U.K. Fifty years ago, we had the first flight of a Boeing 747 and the first man on the moon – and DHL was formed!

Global trade has similarly accelerated, enabled by innovation in transport and information technology.

A critical challenge today is the increasing volatility, uncertainty, complexity and ambiguity (VUCA) that logistics and supply chain professionals face. This presents a challenge because what worked 100 years or even 50 years ago no longer works today. Our supply chain processes, infrastructure, information systems and leadership skills all need to adapt to facilitate trade that is both economically beneficial and environmentally viable, but importantly also kind and beneficial to society. That means facing up to the injustices that create poverty, marginalization and exploitation. This is a responsibility of every leader in logistics and the supply chain so as to ensure a sustainable future for all. ■

Professor Richard Wilding OBE is a recognized expert in logistics and supply chain management and Chair of the Centre for Logistics & Supply Chain Management, Cranfield School of Management, U.K. He is also Chairman of the Chartered Institute of Logistics & Transport U.K.

 www.richardwilding.info



Photos: Ahmad bin Said Al; Adobe Stock

Photos: private (2)

has traditionally been a male-dominated environment – though not exclusively so. At DHL too, women performed crucial work even in the early days – like Marjorie Dalsey, who supported her husband Adrian and DHL's other co-founders by doing the billing and paying bills from 1969. My own career has grown through the Chartered Institute of Logistics and Transport (CILT) and, as a Council Member, I founded WiLAT in Nigeria in 2010 with the aim of promoting the industry to female members and supporting their career development. We have now grown to over 2,000 members globally – a number we are looking to steadily increase.

Diversity has paid off, as more women have joined the institute and made CILT their career partner. This year's annual WiLAT meeting

AISHA ALI-IBRAHIM

Port Manager, Lagos Port Complex, Nigeria

Over the past decades, logistics

has traditionally been a male-dominated environment – though not exclusively so. At

DHL too, women performed crucial work even in the early days – like Marjorie Dalsey, who supported her husband Adrian and DHL's other co-founders by doing the billing and paying

bills from 1969. My own career has grown through the Chartered Institute of Logistics and Transport (CILT) and, as a Council Member, I founded WiLAT in Nigeria in 2010 with the aim of promoting the industry to female members and supporting their career development. We have now grown to over 2,000 members globally – a number we are looking to steadily increase.

Diversity has paid off, as more women have joined the institute and made CILT their career partner. This year's annual WiLAT meeting

marks another remarkable milestone – we will be in Manchester, U.K., celebrating CILT at 100 years! I am proud to promote WiLAT within CILT as a unique platform for encouraging, empowering and supporting professional women in the Logistics and Transport industry. ■

Aisha Ali-Ibrahim has over thirty years' experience in the seaport industry. She is a Fellow of the Chartered Institute of Logistics and Transport, a Fellow of the African Center for Supply Chain, a Fellow of the Nigerian Institute of Shipping and a Fellow of the Institute of Management Specialists, as well as a Fellow of Port and Terminal Management Academy of Nigeria.

 www.wilat.org



LIFE AT 50

Fifty. It's an age that tends to focus the mind: a milestone moment that forces us to take stock of everything we've achieved in our lives.

Maybe that's because 50 is seen as a designated halfway mark, a point where society expects us to slow down rather than speed up. But why should we? Particularly when some of us are just getting going and regard age as a state of mind – if we think about it at all. Take Lee Shau Kee, who recently stepped down as Chairman of Hong Kong-headquartered Henderson Land Development Co. Yes, at 91, he was looking forward to spending more time with his grandchildren; but Lee remains director of the company, is still very much involved in major decision-making and is planning to continue with his charity work.

Because there is, undoubtedly, a big upside to being 50 and over. The more years under your belt, the smarter and better informed you are. And with greater knowledge comes greater experience so, naturally, people are keen to get your perspective on the world.

Perhaps there's no better example of this than The Elders, an age-defying independent group of global leaders – who no longer hold public office but help tackle the world's most intractable problems – that was co-founded by Nelson Mandela in 2007. Current members include Ban Ki-moon, former U.N. secretary-general (75); Hina Jilani, the pioneering lawyer and human rights champion (66); Ellen Johnson Sirleaf, former President of Liberia (80); Jimmy Carter, former U.S. president (94); and Desmond Tutu, archbishop emeritus of Cape Town (87). When asked why the group had been formed, musician and co-founder Peter Gabriel said: "In traditional societies, the elders always had a role in conflict resolution, long-term thinking and applying wisdom wherever it was needed." In other words, sage advice, experience and enterprise never go out of style.

Yet the benefit of age is not simply about the wisdom you can impart to other people. At 50, you also become more confident about what's right for you personally.

Gina Din-Kariuki is one Kenya's most influential businesswomen, and founder and executive chair of management consultancy The Gina Din Group. When she turned 50, it wasn't a negative experience. It was a positive revelation: "I realized I finally settled down to who I was," she told Business Daily Africa. "It's been absolutely incredible. At 50, there are certain things I turn down and I'm not afraid to turn them down." You have greater perspective than you did when you were younger, too, have a better EQ/IQ balance and are less inclined to sweat the small stuff. Admittedly, you may have to work harder at keeping physically and mentally fit, but you know that your body will be more responsive as a result and your mind will be relaxed and constantly inquiring.

Curious and relevant

Happily, our brains are not like hard drives. However old we are, there's always enough storage for more data – and that keeps us vital and connected to the world, as designer Karl Lagerfeld proved. A prime example of the benefits of lifelong learning, he regarded age with scorn and – with his ravenous appetite for knowledge – always managed to stay curious, agile and relevant. True, Lagerfeld shunned social media, but he kept himself plugged into the zeitgeist in other ways, consuming and buying the latest technology as soon as it became available.

Looking to the future

In business, 50 is worn as a badge of honor. The older a company or organization is, the more prestigious it becomes, particularly when it reaches its half-century. Sadly, it doesn't always seem to work that way with humans. Perhaps it should. If we take a pioneering leaf out of Lee Shau Kee's and Karl Lagerfeld's book, a more positive, dynamic and forward-looking life will await us. To blaze with the senior citizen stereotypes. We could step into the future feeling ageless, in control and reveling in the power of possibility. ■ *Tony Greenway*



Illustration: Danae Diaz for Delivered.

DELIVERED. GETS SOULFUL WITH...

KEN ALLEN

He's a renowned turnaround expert, credited with successfully transforming DHL Express after the 2008 global economic crisis. Media pundits and employees also love him for something else – his love of song. The “singing CEO” Ken Allen, who now heads DHL eCommerce Solutions, talks about how music makes all the difference, even in business strategy.

When he was a young man growing up in Horbury, a small mining town in Yorkshire in the North of England, Ken Allen discovered Northern Soul, a music movement with a heavy beat and fast tempo based on U.S. soul music that was particular to the region.

Dancing to tunes like “Out on the Floor” by Dobie Gray at local clubs, he swiftly took to singing along and using a tune on occasion, be it on a walk with a sweet-heart or when making a point to a group of friends. Funny or sweet – Allen had found a way to inject music into conversation when he wanted to make a particular point.

They say you can take the man out of Yorkshire, but you can't take Yorkshire out of the man. And so, as he moved from the north of England to a career that truly spanned the globe, Ken Allen took the essence of his home county – a humble simplicity, a particular brand of humor and a love of music – added a global twist and created a strategic approach for success.

What does music mean to you?

Emotion – and communication. Music can be very uplifting, can make you energized, calm or focused. It's also one of the best and simplest ways of communicating with people, across cultures and language barriers. That's why I've introduced music in many of our employee programs, as part of our strategy, and I've also sung in front of groups of investors and journalists.

How do you combine music and strategy?

Very simple: In 2010, as our focus shifted from turnaround to success at DHL Express, we created a strategy called “Focus” that just contained four pillars and an underlying foundation of us being the most international company in the world – and one which aspires to be insanely customer-centric. We needed to make sure every one of our employees in 220 countries and territories understood this – and we needed to be sure that it was understood by a courier or warehouse worker as much as by a senior manager. That was the only way we could get everyone to move “As One” – something we truly believed to be our key strength. The uniting factor was music. We put a song to each pillar of our

strategy and made sure employees across the world knew those songs. They were, for example, sung at town halls and other gatherings.

So, essentially, you've used music as a key part of business strategy?

Yes, you could say that. I like to keep things very simple – and music is a simple way of transporting a message to a wide and diverse target audience. So in that sense, it's a strategic communications element. One needs to carefully calibrate when to use it, though. Obviously, when times are tough, you first need to take a hard look at your business, as we did in 2008-09, for example. Music was what came at the end, as we started to turn around and wanted to ensure that all members of our global team understood where we were headed.

You also used a famous Diana Ross song.

Can you tell us more?

Yes indeed – although, as a fan of music, I have to tell you that it was Tammi Terrell and Marvin Gaye who first sang what would later be the DHL Express theme song, “Ain't No Mountain High Enough.” We first used it in a 1991 ad, and it expresses what DHL is all about. “If you need me, call me. Wherever you are, no matter how far... I'll be there in a hurry.”

As you need to move with the times, 20 years later we had the song recomposed by renowned producer Paul Epworth, who's worked with the likes of U2, Adele and Coldplay. We ran one of the biggest global ad campaigns based on the song that year and produced an app for phones. We also ran internal talent competitions, and our employees and managers across the world often still sing it at internal events. During my time as CEO of DHL Express across Africa, Asia, the Arab world – in fact probably in most of our countries – I had the chance to sing it with people there. It's simply beautiful. Music unites us all. ■ Michelle Bach

CATWALK KING:
Ken Allen models the DHL
T-shirt by fashion brand
Vetements in 2016.



WHAT'S THE STORY, MS. EIMAN?

SMOOTH OPERATOR

Named after British singer Sade, Sade Eiman is one of the newer members of the DHL family. With the company for two years, she is a customer service agent at DHL Express South Africa who makes customers happy with a tune and feels connected to colleagues across the world via DHL's Certified program.



I feel truly uplifted by my recent Certified International Specialist (CIS) experience. A group of us went through five days of induction about our company, our global network and our customer focus. At the end, I received my CIS passport; it's modeled on a real passport and has my photo and the first stamp, showing I'm a Certified International Specialist. As I learn more and join more modules and activities, I'll get more stamps. I now carry this passport with me everywhere. It makes me feel proud to have a new qualification and to be connected to colleagues in 220 countries and territories across the world. As part of CIS, we all receive the same experience, we speak the same language and we connect "As One" to deliver excellence for our customers, no matter where in the world we are. It might sound like a cliché, but as I know from working with colleagues across our network, it really is true – we work as one family.

I'm a passionate person by nature, but this program has ignited my passion even more. I love singing, so at the end of the course I performed a version of the hip-hop song "Ghetto Superstar" for my course mates to uplift them and encourage them to remember that we're all one big team of super-stars who make things happen at DHL.

The other day a customer asked me about my name, and as she loves music by my namesake, Sade, I sang her a line from "Cherish the Day." It made my customer happy, and I was delighted to have achieved that.

I also just got a South African passport. One day soon I hope to travel – it would be great to meet other DHL-ers on my journey, show them my CIS passport, see theirs and get to know them as members of our global family. ■ As told to Michelle Bach

FACT: Certified is a group-wide initiative focusing on employee engagement and cultural change. With Certified, DPDHL Group aims to certify each and every employee – to benefit its own people and its customers

290,000+

Number of employees who have participated in the Certified training initiative in recent years

80%

Percentage of the workforce the DPDHL Group wants to certify by 2020

Photos: Zanele Malaza/DHL; Alamy; Illustration: Getty Images



1969

The year it all started. Three young men and an old two-door Plymouth Duster formed the humble beginnings of DHL. Their mission was straightforward: The team would drive themselves around the streets of San Francisco collecting paper documents, hop on a commercial flight to Honolulu and hand-deliver to their customers. This entrepreneurial spirit was shared by family and friends, who helped the company to expand its services across borders to new territories. Now, 50 years later, the company has grown from a small team of three founders and their helpers to over half a million people, and one car has been replaced by a fleet of bikes, scooters, trucks, cargo ships and even autonomous drones. Over five decades, DHL has become a global company with the founders' three initials now an iconic brand known far and wide across the world.

