

Delivered.

The Global Logistics Magazine

ISSUE 03/2020

EXECUTIVE VIEW

PATIENT-CENTERED

Learn why medical device giant
Medtronic thrives on innovation

BUSINESS

PICTURE OF HEALTH

Understand why life sciences
companies are going digital

SOLUTIONS

**WHEN THE GOING
GETS TOUGH**

How to guide your business
through a crisis



WALK ON

How resilience can help you
weather the storm

DHL



Dear Reader,

The coronavirus crisis, which has affected every industry at unnerving speed, has underlined how vital it is for businesses to respond rapidly to new challenges in increasingly inventive ways. Those that can react quickly and creatively have a better chance of bouncing back from disruption and damage. These companies truly know the secret of resilience, which is a theme running through this issue of *Delivered*.

To be resilient, you have to be able to accept and then adapt to your new reality. Companies in the life sciences and health-care sector (LSH) understand this only too well. COVID-19 has highlighted the incredible skills and expertise of innovative LSH teams across the world – and continues to do so. Their response to supply chain shocks caused by the current crisis has been remarkable and, as our **Focus** article points out, includes employing new digital approaches to transform the use of data in manufacturing and the wider supply chain. It’s comforting to know that while LSH companies remain laser focused on helping people in the present, they also realize they must make improvements to their operations for a more resilient future.

Take medical device company **Medtronic**, for instance, one of the heroes of the coronavirus pandemic. Sikko Zoer, Vice President, Global Supply Chain Distribution and Logistics, tells us about the adjustments his company had to make to ensure patients remain at the center of its mission during the rapidly changing COVID-19 situation. Of course, the life sciences sector is keen to be as sustainable as possible and prove that it can make changes to the way it operates while benefiting the environment. **Healthcare for the planet** explores this thinking in more detail, as does our new feature **The debate**.

The impact of COVID-19 has been so severe that it has put many logistics networks under unprecedented strain, as you can read in **Supply chains in crisis**. However, those companies that have made supply chain resilience part of their business culture have been able to cope best with the pandemic, notes Professor Richard Wilding, the world’s foremost supply chain expert and the subject of this issue’s *Delivered*. **talks to** interview. Wilding also reveals why, post-coronavirus, he believes companies will have to make big changes to the way they design their supply chains – including procurement for resilience rather than cost – and the implications this may have for them and wider society.

Finally, we investigate the human side of resilience. **Chris Weeks**, Director for Humanitarian Affairs at Deutsche Post DHL Group, tells us why he believes most people are adept at accepting and dealing with their “new normal,” even in disaster scenarios. And in **The spirit of resilience** we hear from various inspiring individuals – including acid attack victim Katie Piper and Syrian war refugee Randa Mando – who reveal how they triumphed in the face of incredible adversity.

In these difficult times, I hope you will find this issue both enlightening and helpful.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Katja Busch', written in a cursive style.

Katja Busch
Chief Commercial Officer, DHL



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Cover photo: Alex Potemkin/Getty Images; Photos: DHL (previous page); Adobe Stock; Cranfield University; iAircraft

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VIDEO LINK

The icons above indicate
additional online resources.

QUICK THINKING

The challenges of COVID-19 have forced us into new ways of working, and accelerated innovations are already on the horizon. DHL Global Forwarding has done some nimble thinking of its own, developing a free digital platform that gives customers full visibility and control over all shipping and transport modes. The portal, myDHLi, is the only fully integrated online platform for freight forwarding, and merges existing services such as myDHLi Quote + Book and myDHLiAnalytics with new features. Its intuitive and customizable interface incorporates familiar social media functions such as “Follow” and “Share,” can display detailed shipment data and gives users control from pickup to final delivery. The service will be trialed in North America, Europe, Asia, Australia and Africa.



100

The age of Captain Tom Moore, who was made an honorary colonel on his birthday for his incredible fundraising efforts for the U.K.’s National Health Service (NHS). “Captain Tom,” a war veteran, had started a fundraising campaign for the NHS that involved completing 100 laps of his garden, hoping to raise £1,000 by the time he reached his 100th birthday. When his donation page closed at the end of his birthday, he had raised £32,794,701 from more than 1.5 million supporters. A cover version of the song “You’ll Never Walk Alone” – which is also the anthem of both the U.K.’s Liverpool F.C. and Germany’s Borussia Dortmund football (soccer) clubs – featured Captain Tom and had proceeds going to the same charity. The single topped the U.K. music charts and made him the oldest person to achieve a U.K. No. 1.



F.C. Liverpool captains past and present produced a moving video tribute in Captain Tom’s honor.

Captain Tom Moore – We salute you!

bit.ly/LFCTomMoore

IN THE KNOW

“Pocket Guide 2019” – a compact source of information about Deutsche Post DHL Group and its different activities – is out now. The booklet has been designed to provide the group’s key facts and figures at a glance – such as strategy, variety of business models, milestone moments and how the group is making a positive contribution to society and the environment. For a printed or online version, please visit



bit.ly/dpdhlpocketguide

THE BEST CITIES FOR HOME WORKING



A ranking carried out by CEOWorld magazine named San Francisco the world’s best city for remote working. In a timely nod to the new ways many of us have had to do our jobs recently, the survey took into account

factors such as internet speed, number of coffee shops, availability of food delivery, co-working spaces and the number of remote working jobs, plus cost of living considerations. According to this poll of the world’s 60 largest cities, Dubai came a close second, with Delhi third. Las Vegas and New York were also in the top 10, but London and Paris only managed a lowly 15th and 17th respectively.

CEOWorld’s best cities for working from home			
	City	Country	Score
1	San Francisco	USA	85.97
2	Dubai	UAE	85.7
3	Delhi NCR	India	85.65
4	Warsaw	Poland	85.33
5	Bucharest	Romania	85.31
6	Budapest	Hungary	85.24
7	Houston	USA	84.4
8	Kiev	Ukraine	84.28
9	Las Vegas	USA	84.13
10	New York	USA	84.09

bit.ly/CityHomeWorking



CLARION CALL

VentilatorChallengeUK has seen a consortium of businesses – including Rolls-Royce, Ford, Airbus and Formula One teams – pull out all the stops to develop and manufacture ventilators to help protect the National Health Service (NHS) and save many lives. DHL Supply Chain (DSC) is playing its part by helping to manage this complex and remarkable operation.

DSC’s role involved collecting some 3.2 million parts from suppliers, then handling, storing and delivering them to the assembly lines of Airbus and Siemens in Wales, Ford in east London and the McLaren F1 team in Surrey. Final assembly of the ventilators took place at Penlon’s Oxfordshire factory.



A SMART WAY TO SEND

E-commerce deliveries generate a mountain of packaging waste – estimated at 100 billion pieces a year. LivingPackets is one of several companies tackling the challenge. It aims to cut it down with The Box: a sustainable, secure and smart piece of packaging that can be used a thousand times over. The Box is equipped with sensors and an internet connection that can report on weight changes, position, openings, shocks, temperature and humidity. There’s even a built-in camera. An integrated holding system means there’s no need for internal packaging such as bubble wrap, much of which ends up in our oceans. LivingPackets aims to launch The Box in 2021.

livingpackets.com

PANDEMIC PLANNING

In these uncertain times, businesses need all the help they can get to navigate through the current crisis. DHL’s Coronavirus Supply Chain Resource center provides early warning intelligence on the pandemic, as well as recommendations for contingency planning based on its supply chain risk management methodology. Featuring webinars and podcasts, special reports and daily updates, it provides all you need to know about the pandemic’s effect on supply chains. There’s also an option to receive these alerts in near real-time.



bit.ly/Covid19SupplyChainResources



At the wheel

Speed matters to save lives. Maha Al Madi went beyond the call of duty to do so in Dahrhan, Saudi Arabia’s Eastern province. The Retail Supervisor at DHL Express used her own car to move six urgent medicine shipments on behalf of the King Faisal Specialist Hospital. In the early morning, she drove between two sites to facilitate same day delivery before the coronavirus curfew. “We work from the heart, she says. DHL’s purpose is Connecting People. Improving Lives. So, doing this was not extraordinary; it’s just part of our mission to be insanely-customer centric and to do everything with joy.”

1.7

BILLION

The tonnage of carbon that whales could capture out of the atmosphere each year if they returned to their pre-whaling population of 4 to 5 million

Photos: DHL (3); Getty Images; action press; Steve Parsons/dpa; LivingPackets; Adobe Stock (2)

PROPPING UP THE FRONT LINE

As COVID-19 rages across the world, DHL and its workers toil tirelessly to transport life-saving assistance and goods where they’re most needed.



Despite having been released in 1964, Bob Dylan’s classic title track “The Times They Are a-Changin’” may never have been more apropos and prophetic than today. As I write this article, it is hard to truly define what a life sciences and healthcare company is anymore. In light of the urgent need to find ways to save lives worldwide, we have seen hundreds, even thousands of initiatives, both corporate and personal, to try to assist in the battle to thwart the rapid spread of COVID-19 and the associated loss of life, which has had such tragic impact around the globe. Certainly, many of those initiatives have included huge outlays of money, along with large donations of personal protective equipment (PPE), to support embattled healthcare workers who labor so perilously on the front lines treating patients in the race to save lives.

Nevertheless, along with financial commitments and tremendous donations of PPE, we have also seen other ingenious and incredible initiatives to support the hard-hit global healthcare system. Alcohol distillers, breweries, manufacturers of consumer goods and even cosmetics companies are now working to produce hand sanitizer and soaps to help prevent viral transmission. Fashion companies and retailers are actively leveraging their capabilities to produce personal protective equipment – primarily gowns and masks – to supplement the global supply, which has been so severely strained by this pandemic. As PPE and medical equipment manufacturers have open-sourced details on how to build ventilators, face masks and other critical items for healthcare and other essential workers, we are now seeing automotive and other equipment manufacturing companies redesigning lines to support the global need.

Of course, we are also seeing the convergence of some of the world’s leading technology companies, leveraging their artificial intelligence (AI) capabilities to analyze the incredible amounts of data about COVID-19 from around the world. This collaboration of high-tech, biotechnology and biopharmaceutical companies, along with the World Health Organization and national health institutions, is searching for ways to accelerate the development of successful ways to combat the disease and, ultimately, an effective vaccine in order to prevent infection and transmission in the future.

The common link in almost all of these initiatives is finding a way to get the necessary PPE, medical devices and pharmaceutical treatments into the hands of the healthcare workers treating patients on the front lines. That is what our customers have asked DHL to try to do from day one. When China locked down Hubei province on January 23, DHL Express was working on behalf of a major medical device manufacturer to deliver ventilators to the embattled area within days in an effort to try to help save lives.

I can proudly say that throughout DHL, these efforts have continued every single day since the outbreak in China became the global pandemic we are now confronted with. Shortly after China expanded the lockdown to encompass the entire country, including Hong Kong, most major airlines discontinued services to and from China. This made the problem of moving healthcare supplies to China quite a challenge – but we have acted to support the sector with access to dedicated airfreight capacity. We initially moved thousands of tons of medical devices and pharmaceuticals from Europe and the U.S. into China – and now in the opposite direction, as many tons of

PPE, pharmaceuticals and medical devices move out to other countries each and every day.

The challenge has continued to grow, as much of the world’s airfreight capacity has disappeared with the temporary shutdown of passenger flights around the world. Nevertheless, we have been able to leverage our own dedicated flight capacity and secure additional market capacity to keep the healthcare supply chain moving throughout the world.

We are now actively transporting hundreds of tons of PPE, medical devices and pharmaceuticals across the globe each and every week on behalf of our customers. These efforts are not only limited to healthcare but are spread across all sectors, as companies pull out all the stops to make a contribution to this battle. DHL’s strategic imperative is “Connect People and Improve Lives” and this may never have been truer than it is today.

DHL’s battle is not restricted to transportation. We are finding ways to keep warehouses open and healthcare operations going in countries such as Italy, Singapore, India and others where conditions have been exceptionally challenging. In addition to the efforts against the COVID-19 global pandemic, as the southern hemisphere prepares for winter we are also being challenged to continue to support the compliant transportation of all the necessary vaccines to help prevent the spread of another influenza outbreak or other potentially crippling and dangerous condition.

I am amazed and humbled when I see the efforts being made by so many companies in the pharma and medical device industries in order to deliver critical supplies to medical teams and patients. And it is heartening to see how many other businesses are coming in to collaborate, join forces and provide support. If this crisis teaches us anything, it is that together we are stronger – and united, as collaborators and co-innovators, is how we will beat this pandemic.

Everyone in the DHL Healthcare System is committed and working as hard as possible to support the global healthcare system, and we could not be more committed or grateful for the opportunity to try to make a difference. ■ **Larry St. Onge**

✉ larry.stonge@dhl.com



Photos: DHL; Michele Lapini/Getty Images; Yiu Yu Hoi/Getty Images



DATA LIFE

Life sciences companies are using new digital approaches to transform their use of data in manufacturing and the wider supply chain.



MEDICAL MARVEL:
Imaging solutions connect every step of the patient's journey.

In 1747 James Lind, ship's surgeon on the HMS Salisbury, conducted a pioneering medical experiment on 12 members of his crew. They were all suffering from scurvy, a widespread and often fatal condition that afflicted thousands of sailors on long voyages. Lind divided the group into pairs and offered each pair a different treatment. The options included daily doses of seawater, vinegar and cider, but one pair received two oranges and a lemon each day. After a week, the health of the men who ate the citrus fruit had improved dramatically; one was even well enough to resume normal duties.

Lind's experiment is now considered the precursor of today's clinical trials. Although he didn't understand the root causes of scurvy (a lack of vitamin C in the diet), Lind had discovered an effective treatment and had data to prove it. Unfortunately for sailors, citrus fruit was an expensive luxury in Europe at the time. It would be another 50 years before the British navy included lime juice as standard in crew rations.

“Now, with years of data from many thousands of shipments available, we can also apply smart analytics to add value for our customers.”

Larry St. Onge, President, Life Sciences & Healthcare, DHL

Modern medicine is built on data. Novel treatments undergo a rigorous series of trials, and the sector has developed sophisticated experimental protocols and analytical techniques to assess the efficacy – and risks – of drugs and medical devices. Advances in computer modelling and simulation techniques are helping companies to conduct an increasing share of drug discovery and early development work “in silico.”

The quantity of data available to the life sciences industry is growing extremely rapidly. A 2018 analysis by Dell EMC suggested that the volume of data held by the world's healthcare organizations increased by 878% in just two years. Drug companies are also making greater use of secondary sources of data – for example by mining social media feeds for references to rare adverse reactions to their products.

The sector is also investing heavily in new data analysis tools and approaches. In the third quarter of 2019, for example, U.S. investors poured \$1.5 billion into companies that use artificial intelligence (AI) and machine learning techniques for biopharma applications. That sum represents a quarter of total U.S. AI funding over the period.

Minding the gaps

Yet despite their reliance on data for upstream research and development activities, many companies in the pharma and medical device industries have significant blind spots when it comes to the application of data in their downstream operations. Manufacturing and distribution operations in the healthcare sector

are complex and highly regulated. That environment has encouraged organizations to develop “siloe” structures with different divisions, each of which focuses on excellence in their own function at the expense of close collaboration across the wider business.

The sector's frequent mergers and acquisitions add additional complexity. When two companies join forces, they create duplicate siloes in their sales, manufacturing, supply chain and other functions. Connecting and eventually integrating those siloes can take significant time and effort, especially when the merger participants previously used different technologies, processes and organizational structures.

The sector's complex market channels make the picture even more opaque. Many items pass through a long chain of stakeholders – including distributors, wholesalers and pharmacies – before they reach the medical professionals who prescribe them or the patients who use them. A manufacturer may have little direct contact with its end customers in this scenario, and no real idea how its products are being used.

The integration imperative

The healthcare sector's “divide and conquer” approach worked pretty well for decades, but it is now facing significant pressure from a number of different directions. On one side, rising healthcare costs mean payers are negotiating harder with their suppliers, pushing prices down. Similarly, middle-income countries striving to improve the provision of health services to their citizens need to keep a close eye on every dollar spent. Tighter margins force companies to look for significant cost savings and operational improvements, something that requires close collaboration between functions and an end-to-end view of business performance.

On the other side, a new generation of complex, costly and increasingly personalized treatments is forcing companies to rethink their operating models. Where products are short-lived, custom-made or just hugely expensive, high inventories are no longer a feasible solution for supply chain shortcomings.

Then there are supply chain shocks. As the COVID-19 pandemic demonstrates all too clearly, supply and demand in the healthcare sector can be subject to extreme volatility. An organization's ability to respond to such events depends on a clear understanding of the capacity and flexibility available across its operations.

From siloes to data lakes

In response to these challenges, the industry is embarking on a large-scale effort to change the way it uses operational data. Companies are pooling data

from different functions and different parts of the supply chain into integrated “data lakes.” Then they apply new analytical tools to extract more information from that data to facilitate better, faster decision-making.

Merck group, the world's oldest chemical and pharmaceutical company, is building a “self-driving supply chain,” using digital technology and AI tools to improve visibility, forecast accuracy and service levels across its operations (see *Delivered*. Issue 3 2018). Alessandro De Luca, the company's chief information officer, told *Delivered*. that the first stages of its ambitious program had helped to cut forecast variability by more than a third, paving the way for significant reductions in inventory with no impact on service.

Other organizations are using digital tools to allow seamless data sharing between supply chain participants. GE Healthcare and biopharma company



878

The percentage increase in the volume of data held by the world's healthcare organizations in just two years

SCREENING PROGRAM:
Medical companies are using digital technology to improve services.

IN TOUCH:
State-of-the-art technology means faster decision-making.

Photos: Adobe Stock (previous page); Philips; Adobe Stock; Stefan Wermuth/Bloomberg/Getty Images

HANDLED WITH CARE:
Sensitive cargo
needs specialized airport
transport.



GOOD MEASURE:
DHL's SmartSensor
technology, used in its
Thermonet network.



TAKING THE TEMPERATURE:
It's vital to keep some
medicines cool during
transit.

Amgen, for example, have established a digital data exchange system between their respective manufacturing operations. GE manufactures biological materials that Amgen processes into finished products. The new system provides scientists and engineers at Amgen with detailed information from the GE production lines, allowing them to see exactly how variations in raw materials affect downstream manufacturing operations and the quality of end products.

In the medical device sector, companies are taking advantage of internet of things (IoT) technologies to extend their data connections all the way to the point of use. Philips, for example, offers a suite of remote monitoring, upgrade and diagnostic services for its

range of medical imaging equipment. The company says that its remote service engineers can continuously analyze equipment to proactively detect any potential issues and take appropriate corrective action.

Data in logistics and transport

Data is also helping life sciences companies to improve the performance of their logistics processes, says Larry St. Onge, President of Life Sciences & Healthcare at DHL. He describes how DHL is using the data generated by its Thermonet network to help customers improve the reliability and cost-effectiveness of their logistics systems.

"We have operated Thermonet for eight years as a dedicated, standardized network for temperature-sensitive life sciences shipments," explains St. Onge. "The network has multiple elements, including staff trained in suitable operating procedures and certified warehouse facilities around the world, but an important part of the system is its data platform."

Shipments moving through the Thermonet network are equipped with wireless data logging devices that record the temperature outside a package throughout its journey. Those sensors act as an alarm system, transmitting an alert to a DHL control tower if a package spends too long in an uncontrolled environment. They also allow DHL to track conditions across the network, helping it continually to adapt and improve performance. "Thermonet data helps us run an extremely reliable network," says St. Onge. "But now, with years of data from many thousands of

shipments available, we can also apply smart analytics to add value for our customers."

Thermonet data is already being used to aid the selection of transport lanes, explains St. Onge, allowing companies to avoid routes where the risks of temperature excursions are the highest. "Now we are also able to use our data to make recommendations about the most appropriate packaging systems for a given route," he says. "If we see that packages in a certain lane only experience high temperatures for two months of the year, we can suggest that the customer adopts lower-cost passive packaging most of the time, only using the most expensive active cooling systems when they are really needed."

The ability to pick the right packaging solution for every shipment can have significant impact on the overall cost of logistics, says St. Onge. And it can also help companies when supply chains are stretched, enabling them to make logistics decisions that minimize risks while keeping vital supplies moving. "When you combine historical Thermonet data with real-time information on supply chain risk from sources such as DHL's Resilience360 platform, you have a really powerful set of tools to aid logistics operations in demanding and unpredictable environments," says St. Onge.

The healthcare sector is grappling with the most significant challenges it has faced for decades. The industry's mastery of data – in research, in the supply chain and in the wider community – will be a critical part of its response. ■ **Jonathan Ward**

**\$1.5
BILLION**

The amount U.S. venture capital funds poured into companies using AI and machine learning techniques for biopharma applications in the third quarter of 2019

DELIVERY ROOM:
Speed is of the
essence for some life
sciences products.



3 QUESTIONS FOR...

1. What is the situation today for your customers in the healthcare and life sciences sectors?

I don't think any industry has escaped the impact of the coronavirus, but different sectors are affected in different ways. While some businesses have seen dramatic drops in demand, or halted their operations altogether, life sciences companies have a responsibility to keep their supply chains flowing for the sake of people who rely on their products. So our customers are continuing to operate in extremely demanding conditions, and of course plenty of them are right at the front line of the crisis, providing vital supplies to support victims of the virus and working at pace on the development of new tests and treatments.

2. Has the industry had to adapt its supply chains as a result of the crisis?

Yes, we are seeing a big response across the sector. Some companies are reconfiguring their manufacturing to ramp up production of products that are facing urgent demand, and they are having to do that in a very challenging environment with whole economies under lockdowns and other restrictions – and, of course, a pressing need to keep their people safe. Logistics systems are under great pressure too – notably airfreight, which is critical to the sector. The collapse in global passenger air travel has taken around half the normal airfreight capacity out of the system, with the loss of the belly cargo space that was widely used for medical and pharmaceutical shipments.

3. How has DHL responded to support its life sciences customers in the crisis?


The whole organization has mobilized to support customers through the crisis, activating our existing business continuity plans, which did include provisions for epidemic and pandemic situations, and introducing a swathe of new measures designed to protect our people and safeguard our operations. We have task forces in place to monitor the situation as it evolves, allowing us to adapt our processes at a global, regional and local level.

Larry St. Onge
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& Healthcare, DHL
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HEALTHCARE FOR THE PLANET

Sustainability is climbing the agenda for life sciences and healthcare companies. Now the sector wants to prove that it can deliver greater benefits to society with fewer costs for the environment.



In almost every industry, companies are taking sustainability seriously. If it was ever acceptable to think only about the needs of customers and shareholders, that narrow perspective is now deeply unfashionable. Business leaders know that they also need to look after the employees in their facilities, the communities in which they operate and the wider natural environment. Failure to do so has real consequences. Customers, investors and talent may walk away. Non-governmental organizations (NGOs) and protest groups may generate negative publicity or even disrupt operations. Governments and regulators are increasingly willing to impose onerous fines or even shut down non-compliant operations.

The sustainability imperative has also reached the life sciences and healthcare sectors. Pharmaceutical and medical device companies have always been able to claim that their work provides significant social benefits, perhaps reducing the imperative to take action on other sustainability fronts. Increasingly, however, the industry is recognizing that every organization has a responsibility to address the full spectrum of social and environmental impacts stemming from its activities. One area of particular focus for many is the issue of waste and pollution generated by the production, distribution and use of medical products.

Big pharma, big footprint

According to research by the non-governmental organization Healthcare Without Harm and consultancy Arup, the global healthcare industry is responsible for 4.4% of total greenhouse emissions. If healthcare were a country, it would be the world's fifth-largest greenhouse gas producer. Around a third of those emissions are generated at the places where healthcare services are delivered. They come directly from the facilities and vehicles used by health service providers and indirectly from the energy that providers buy for heating, cooling and running equipment.

By far the largest source of emissions in global healthcare, however, is its supply chain: 71% of the sector's contribution to global heating comes from

the production, transport and disposal of pharmaceuticals, medical devices, hospital equipment and instruments.

Other research suggests that the industry has plenty of scope to reduce its supply chain emissions. Lotfi Belkhir and Ahmed Elmeligi at McMaster University in Ontario, Canada, calculated the carbon footprint of the 15 largest global pharmaceutical companies. Their paper, published in the "Journal of Cleaner Production," found that the emissions intensity (a measure of carbon dioxide produced per unit of revenue) varied by a factor of five between companies of a similar size.

Deeper cuts

As is usually the case, environmental excellence requires stamina and commitment. Johnson & Johnson (J&J), one of the best performers in the McMaster University study, has included "Protecting the Environment and its Natural Resources" in its mission statement since the 1970s. The company has reduced its carbon emissions by 10% over the past decade and aims to cut them by 80% by 2050.

Some J&J facilities are already ahead of the curve. The plant in Helsingborg, Sweden, for example – where subsidiary McNeil AB manufactures smoking cessation products – is the first in the company's global network to become carbon neutral across its manufacturing, warehousing and R&D facilities. Instead of burning natural gas to generate process steam, the plant now gets its thermal energy from the city's district heating system, which runs on biogas generated from organic waste. In Beerse, Belgium, subsidiary Janssen Pharmaceuticals is set to be the first industrial site in Western Europe to use geothermal energy. The company is drilling a 2.5-kilometer-deep borehole to access hot water for use in space heating and manufacturing processes. Upon completion, the project is expected to reduce the site's carbon emissions by 30%.

Lifecycle complexities

Switching to low- or zero-carbon energy sources is almost always a good thing, but other initiatives to improve environmental performance in life sciences may involve complex trade-offs. One common

challenge faced by many companies in the sector is the choice between single-use and reusable devices and equipment. Single-use items generate large quantities of waste, but cleaning and reconditioning equipment for reuse can consume significant amounts of energy, water and chemicals. The "best" answer from a sustainability perspective can depend on a host of factors, including the distance devices must travel from manufacture to point of use and the availability of infrastructure for safe, efficient disposal or recycling of biohazardous materials.

GE Healthcare, which produces single-use manufacturing equipment for the biopharmaceutical sector, has conducted lifecycle analyses comparing the impact of its systems with conventional stainless-steel alternatives. The company says that single-use equipment uses significantly less energy and fewer raw materials and consumes 75% less water than conventional systems. GE notes, however, that transport emissions and the availability of low-carbon energy can have a big effect on the overall environmental impact of a biopharma manufacturing cell.

Novo Nordisk, which provides insulin products for the treatment of diabetes, is embracing circular economy principles in an effort to reduce, and ultimately eliminate, the negative environmental impact of its entire value chain. Near its insulin plant in Kalundborg, Denmark, the company has built a biogas plant that generates energy from the plant's organic slurry waste and allows the residue material to be used as soil fertilizer. It is also working to reduce the plastic waste generated by its single-use injection pens. Waste plastic from production is already recycled, and Novo Nordisk is redesigning its products to enable customers to reuse or recycle more of their components.

Finding the best balance

Similar trade-offs are common when it comes to reducing the environmental impact of healthcare logistics activities. "Over the past three years, we've had a growing number of requests from life sciences customers to investigate sustainable packaging solutions," says Pia Morbach, Regional Sourcing Manager (for temperature-controlled packaging) at DHL. "The first question you always have to determine is the customer's priority, which might be to cut carbon emissions, or to reduce the consumption of plastic in the supply chain."

Since many healthcare products need tight temperature control in transportation and storage, the sector makes extensive use of insulated packaging in its distribution networks. Expanded polystyrene (EPS) is the traditional solution here, providing an

appealing combination of low cost, good thermal properties and light weight. As consumers and regulators turn against single-use plastic packaging, however, companies are looking for alternatives. "For healthcare applications, companies are looking at bio-based single-use insulation systems, such as cotton wadding," says Morbach. "And there is a growing interest in returnable packaging, too."

Making the switch to more sustainable packaging isn't straightforward, she adds, noting that the bio-based, single-use solutions currently on the market can't keep shipments cool for more than two days, a requirement for shipments that might need to wait three or four days for customs clearance. Returnable systems, such as those using lightweight vacuum insulation panels, offer very good thermal performance, but users need to factor in the cost,

complexity and carbon emissions associated with the return journey. One possible solution here is the use of pooled container fleets, which can take loads from multiple shippers, reducing the need for empty return journeys.

To date, these challenges – along with their higher upfront costs – mean sustainable packaging systems have found only niche roles in the healthcare supply chain. That role is expected to grow, however, as the industry looks for ways to help its most important patient: the planet. ■ Jonathan Ward



Photos: Adobe Stock (2)



SIKKO ZOER:
Vice President of
Global Supply Chain
Distribution and Logistics.

DELIVERING HEALTHCARE PRODUCTS IN A TIME OF NEED

How Medtronic developed from its inception in its founder’s garage to the world’s biggest medical-device company, making patients the focus of its supply chain mission.

Medtronic was born in its founder’s garage. In 1949, electronics engineer Earl Bakken and his brother-in-law Palmer Hermundslie started a business repairing medical equipment in Bakken’s Minneapolis home. The pair gained a reputation for reliable and innovative work, often improving the devices that they fixed.

In the mid-1950s, Bakken’s work in Minneapolis brought him into contact with C. Walton Lillehei, a University of Minnesota cardiac surgeon. Lillehei was pushing the frontiers of heart surgery but was frustrated by the limitations of the pacemaker technology available at the time. The existing systems were bulky, mains-operated devices. That severely limited a patient’s lifestyle and meant that a power cut could be a life-threatening event. Lillehei asked Bakken if he could come up with a better solution.

Bakken’s first device was extraordinarily simple. He adapted a two-transistor circuit originally designed to run an electronic metronome for musicians, packaging the hardware into a small box with a 9.4-volt battery. Within weeks, Lillehei was equipping patients with the new portable pacemaker, and the success of the product set Bakken’s firm on a trajectory that would see it become the largest medical electronics company in the world.

Today, Medtronic is a \$30 billion business with more than 90,000 employees in 150 countries. It is active in multiple areas of medical technology, with a product range that goes well beyond pacemakers to include everything from artificial heart valves to surgical robots. Those products are developed in a network of 21 laboratories and R&D sites and produced at 76 manufacturing facilities around the world.

One network, one mission

Sikko Zoer, Vice President of Global Supply Chain Distribution and Logistics at Medtronic, is respon-

sible for connecting the company’s manufacturing operations with the estimated 70 million people who rely on its products every year. The organization’s portfolio includes thousands of SKUs and 3,800 people in the supply chain organization who manage thousands of shipments worldwide every day.

The Medtronic supply chain is complex. The company runs a “centers of excellence” model in manufacturing, which involves concentrating the production of key technologies – such as batteries – in specific locations and shipping these parts around the world to be integrated into end products. Its objective, however, is simple. “Our mission is all about the patient,” says Zoer. “The patient is at the center of everything we do. That means ensuring our products are available at the moment a patient needs them.”

76

The number of Medtronic’s manufacturing facilities around the world

Smart segmentation

Like many organizations in the healthcare industry, Medtronic has traditionally ensured product availability by keeping plenty of stock in its distribution network. As with the rest of the sector, however, the company is looking for ways to achieve high service levels at lower cost. The need to control costs is a worldwide phenomenon, says Zoer: High income markets are adapting to the healthcare demands of an aging population, and Medtronic is extending its distribution chains into a growing list of emerging markets. “In our industry, it’s common to rely on distributors in new markets, but our strategy has been to build our own presence as early as we can.”

To balance availability and efficiency, Medtronic is applying increasingly sophisticated techniques across its supply chain. “You need to be smart about everything you do,” says Zoer. “For example, we are now segmenting our product lines and tailoring our supply chain approach to suit those segments. Trauma products, for instance, require very rapid availability, so we have systems that can deliver in

Photo: Selina Pfruner for Delivered.

70
MILLION

The number of people who rely on Medtronic's products every year

three to four hours. Where a product is used in elective treatments, there is more planning involved and customers can often work with a longer lead time.”

Predictive planning and digital twins

New technologies have a big part to play in a smarter supply chain, and Medtronic is making significant investments to ramp up its digital capabilities. “We are introducing integrated business planning across the organization; upgrading our planning capabilities; using new tools for our core planning activities; and developing our use of advanced analytics, predictive analytics and scenario planning,” says Zoer. “We are investing in robotic process automation (RPA) to improve the speed and quality of our internal processes, and in distribution we are working hard to achieve end-to-end visibility.”

Perhaps the organization’s most ambitious ongoing digital effort is a project to build a digital twin of its manufacturing and distribution network. When complete, says Zoer, the new system will significantly increase Medtronic’s ability to monitor the flow of materials and product through its supply chain, helping to make the best possible use of the available capacity. In the longer term, it will be used to inform strategic decisions about the design and configuration of the supply chain.

Front-line innovation

Even the smartest digital tools can’t address some longstanding supply chain challenges. For Medtronic, one key issue is poor visibility at the edges of its networks. Hospitals often keep stocks of medical devices on a consignment basis, reordering inventory as it is used up. Such systems should ensure instant availability, but their effectiveness depends on timely and accurate record keeping, which places an additional burden on front-line medical staff.

Today, says Zoer, Medtronic is working with customers where it makes sense to move away from the consignment model to one in which products are delivered at short notice from forward stock locations managed by its distribution partners. “Using forward stock locations gives us better control and helps improve inventory efficiency,” he says. “And once you have proved to your customers that you get them the things their patients need, when they need them, hospitals find it simplifies their operations, too.”

For some categories of devices, doctors don’t know exactly which product they need until the moment of use. A surgeon implementing stent grafts to treat aneurysms, for example, orders several sizes and chooses the best fit during the operation.

Unused products must be returned to the supplier to be checked, ready for another patient.

This circular supply chain used to involve a lot of delay and complex paperwork, says Zoer, until Medtronic redesigned its logistics processes. “Now, instead of supplying individual valves, we send the hospital a blue box containing a full set,” he says. “Surgeons take what they need, shut the box and send it back. For the hospital, it dramatically simplifies the whole process. They just need to call a number or send an email, and our logistics partner will come and collect the box from a preagreed location on site and return it to us for replenishment and reissue.”

An industry in flux

Innovations such as the “blue box” help Medtronic to deliver on its mission to help patients in normal times, but how is the company adapting to the extraordinary demands placed on global healthcare systems this year? *Delivered.* spoke to Zoer during the early weeks of the COVID-19 pandemic, but the rapidly evolving situation was at the forefront of everybody’s mind. “Risk and business continuity have been an important topic at Medtronic for at least a decade,” he notes. “We spend a lot of time working on a global level to understand where the risks and single points of failure are in our network and what we need to do to mitigate them.”

A demonstration of that strategic approach to risk is the company’s distribution network, which has been designed with redundancy in mind. In Europe, for example, Medtronic runs four main distribution centers rather than one, allowing it to maintain supplies in the event of local or regional disruption.

At the onset of the COVID-19 crisis, says Zoer, his supply chain organization adjusted its logistics systems to compensate for the worldwide drop in airfreight capacity as passenger flight cancellations cut the volume of belly cargo available. More recently, the company has taken a leading role in the global push to increase the availability of ventilators to support patients in critical care.

In a period of unprecedented turmoil, the medical device industry finds itself at the forefront of the world’s battle against a new virus. The agility and flexibility of supply chains across the sector are likely to be tested as never before. The circumstances may be new, says Zoer, but the Medtronic Mission remains the same: “To alleviate pain, restore health, and extend life.” ■ Jonathan Ward



BUSINESS

THE SPIRIT OF RESILIENCE

Learning to become more resilient is vital so that when setbacks occur, we can be ready to face them head on – and come back stronger.

Right now, with the effects of the coronavirus still being felt across the globe, resilience has never been more important. After all, we have to be prepared to accept that fighting and beating COVID-19 is going to be a marathon rather than a quick sprint. Naturally, this is easier said than done, because in tough times it’s easy to give up hope. And this pandemic, which has ravaged lives while taking a grinding toll on jobs and the economy, is one of the toughest in recent memory.

Yet humans are good at rebounding – and rebuilding – after a crisis. If anyone embodied this spirit it was South Africa’s President

Nelson Mandela, who could have been broken by his 27 years in prison but instead came back better and stronger. Despite the immense physical and psychological torment he suffered during his incarceration, he steadfastly refused to give up. “Do not judge me by my success,” he said later. “Judge me by how many times I fell down and got back up again.” After the coronavirus, we’ll get back up again, too.

But is there a secret to being resilient? *Delivered.* spoke to people who tapped into wells of fortitude they didn’t know they had in order to triumph in the face of incredible adversity. ■

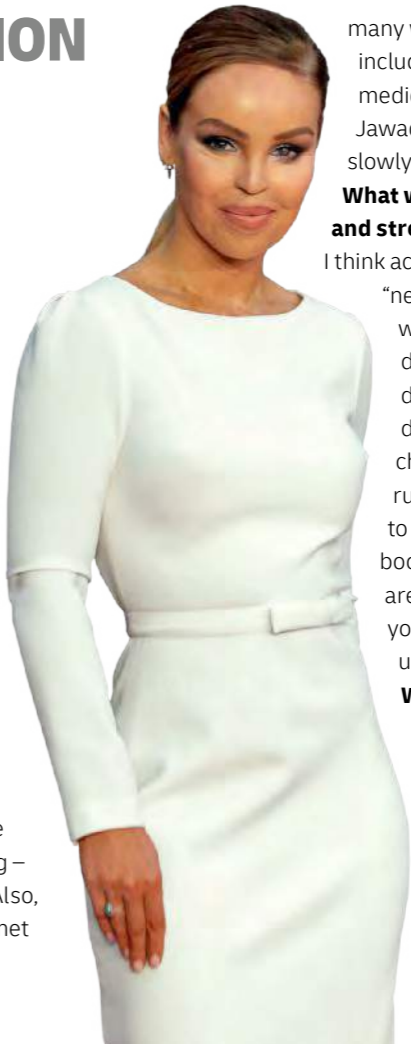
KATIE’S FOUNDATION FOR HOPE

Keeping the faith in dark times

In 2008, Katie Piper was violently attacked in a London street by a man who threw sulphuric acid in her face. She suffered third-degree burns on her face, neck, chest and hands, and lost the sight in one eye. Her injuries were life-altering, but Katie has refused to let them either bring her low or define her. In fact, she has since become a best-selling author, speaker and TV presenter.

You have faced incredible challenges, but thrived. What helped you push on through?

Another individual can take your possessions, your career, your appearance, but they can never take your hope, your drive, your ambitions. You can’t survive without hope. And that’s what I held on to during the dark times. I also found religion during my recovery and found the church to be such a safe space and so welcoming – finding faith really helped me during that time. Also, where there is darkness, there is always light. I met



many wonderful people who were trying to help me, including the incredible National Health Service (NHS) medical staff and my burns surgeon, Dr. Mohammad Jawad – he saved my life. I could start seeing progress slowly, and that’s what gave me hope.

What would your advice be to anyone feeling anxious and stressed during this particular time of crisis?

I think acceptance is the key word here. Accepting the “new normal” is hugely important, because that way you aren’t setting every day up for failure or disappointment. For me, having a routine every day helps reduce my anxiety, getting up, getting dressed, working out, school timetable for the children. Exercise is my biggest therapy – I love running, I love weight training. I also take time to meditate, listen to podcasts, write for my new book, research for my own podcast – for me those are my coping mechanisms, so it’s important to find your version of those to help overcome anxiety in an uncertain time.

What has been your proudest personal achievement?

Ah, that’s a hard one. I’d say my proudest personal achievement are my wonderful girls, Penelope and Belle. They are my pride and joy,

KATIE PIPER

Photo: INTERTOPICS/Photoshot/ddp

and I love spending time with them. I was unsure I could have children after my medical history, so I feel so blessed to have them in my life. My proudest professional achievement has to be my charity, The Katie Piper Foundation – we recently celebrated our 10th anniversary. We have now helped thousands of burns survivors, and those with burns and scars. In 2019 we opened the U.K.’s first burns rehab center, which felt like such a proud moment for us. Our patron Simon Cowell came on the opening day to see the center and meet the staff, nurses and volunteers – it was a really great day.

Is there anyone who particularly inspires you with their resilience?

It has to be my mum, Diane. She is such a strong, inspirational woman. She, alongside my dad, brought me, my brother and sister up so well – we had a really happy childhood. When I was recovering from my attack, mum spent every single day at my bedside (for months) and was my rock throughout lots of operations and tough times over the years. I will never forget what she’s done for me – we actually wrote a book together a couple of years ago – “From Mother To Daughter – Things I’d Tell My Child” – which was brilliant, as I could read her view on our life for the first time. It was pretty emotional!

“Resilience is of course something you can build – if you move through a tough time, you naturally build it over time. And often in tough times, you pull on strength you don’t realize you even possessed.”

Katie Piper
 katiepiperfoundation.org.uk

WHAT IS RESILIENCE?

“Resilience is accepting your new reality, even if it’s less good than the one you had before. You can fight it, you can do nothing but scream about what you’ve lost, or you can accept that and try to put together something that’s good.”

The late **Elizabeth Edwards**, American attorney, bestselling author and healthcare activist

LEARNING THE LESSONS OF RESILIENCE

Finding “the good” in the middle of “the bad”

Randa Mando was a normal, carefree Syrian child with a happy family and social life, who loved going to school and playing with her friends. Then the war began. Randa’s house was located in the center of the city of Homs, where there was an immediate threat of violence and kidnapping, and the sound of explosions was unrelenting. Soon she had to stop going to school because it was too dangerous to leave the house. So, in 2012, when Randa was nine, her parents took the decision to leave Syria and take her to Lebanon. Starting a new life in a foreign country was hard, but Randa wanted to make the best of things. She enrolled in a school featuring teaching participants from the Teach for Lebanon program (part of the 53-nation Teach for All network), and applied herself to her studies. At first she found it hard to learn in English, but Randa refused to give up. As a result, she grew in confidence and her English improved. Now her school is closed due to COVID-19, so she is learning German online, and hopes to join the Beirut branch of the Goethe-Institut, an organization that promotes the study of the German language abroad and encourages international cultural exchange. Randa has had to be resilient for much of her young life, and is dealing with the coronavirus pandemic the same way she has dealt

with other crises: by finding the good in a bad situation. “In my opinion, quarantine has impacted me positively and negatively,” she says. “The negative side is my separation from social life and not being able to leave the house as usual. However, the positive impact is increased awareness about health and the importance of work and daily routines in our lives. Plus, communicating with people is a vital part of our lives, which we didn’t appreciate before COVID-19.”

“Corona added stress and anxiety to my life. I try to minimize its effect through organizing my time and dividing it between exercise and studying.”

Randa Mando
 teachforlebanon.org/



MAKING PEACE WITH REALITY

Acceptance of new situations

The Syrian War has been raging for nine years, but Khulud Halaby, Damascus-based Managing Director of DHL Express Syria, insists it won’t crush her spirit. “At the beginning of the war we didn’t go out,” she says. “Then we realized we had the choice between being unhappy and sad all the time, or enjoying ourselves as much as we can, because we can’t change the situation.” After work – and before social isolation was implemented because of COVID-19 – Khulud tried to make her life as normal as possible. She would regularly have dinner with friends; or on Thursdays, when the weekend begins in the Middle East, she could even go dancing till 2 a.m. if she wanted. Now, life has become restricted once again under lockdown. Khulud believes that resilience is important in times such as these – and that it is the basis of courage. “We have to have courage in difficult times, such as the coronavirus pandemic,” she says. “We have to be flexible to make decisions day by day



– depending on the general situation in the country and the situation in our personal and work lives – and ensure that we protect our people and our families as much as we can.”

 bit.ly/DHLEExpressSY

“In Syria, we don’t think about resilience and courage. We don’t look for them. We don’t even try to develop them. That’s because resilience and courage have become our second nature.”



Khulud Halaby

KEEPER KEEPS POSITIVE

Viewing challenges as opportunities

Keeper Bonase is an orphan who grew up in Cape Town in an SOS Children’s Village – a safe, caring, nurturing community for young people who have lost one or both parents. But when he came of age, Keeper had to leave the Village behind and face a new reality. “That was a scary feeling,” he admits. “But I had to adjust.” He struggled at first, but learned to cope by thinking of new challenges “as a chance to seize an exciting new opportunity, even if the way ahead seems unclear.” Aged 16, he participated in the GoTeach Program, a successful youth partnership between SOS Children’s Villages and DHL that

helps foster work opportunities for disadvantaged children and youth in over 40 countries. He’s now a regional ambassador for the program and works at DHL Global Forwarding as Administrator. Keeper has dedicated his life to youth empowerment and continues to offer his volunteer services to SOS Children’s Villages. “My favorite quote is: ‘Life is like a roller-coaster and a blessing. How you handle your ups and downs in life will depend on the choices you make.’ This is what life is all about – and overall, I am truly thankful for everything, each day.”

 bit.ly/DHLGOTEACH
 keeper.bonase@dhl.com

“What helped me the most was the fact that I had people who believed in me and my career development within the DPDHL family. What also helped was the assurance that I can overcome any obstacles in life if I keep a positive and bright attitude – because a positive mindset results in positive results!”

Keeper Bonase





REBOOTING RETAIL

With store closures now an everyday occurrence in leading retail regions, the coronavirus crisis forcing stores to close across the globe, an economic recession and the sanitary crisis, how will traditional retailers survive and thrive in this new environment and with new consumer expectations and behavior?

The allure of brick-and-mortar stores includes lively display windows, helpful staff and a bevy of goods on shelves. But there are downsides: limited opening hours, seasonal inventory and the distinct possibility of not finding what you want. The inescapable reality of a global pandemic

is also forcing a radical rethink of the rules of retail in 2020. It's a challenge – but for many, it can be a great opportunity. In the international, internet-driven marketplace, where a vast variety of merchandise is only a click away, iconic stores – from Sears to Barneys in the

U.S. to Marks & Spencer in the U.K. – have been hard hit. Even before the COVID-19 crisis, permanent store closures and bankruptcies seemed to be announced almost every day. In the U.S., a record 9,300 retail locations shut up shop for good in 2019, and 2020 will see more.

At the same time, online merchants marked their own milestones, achieving unparalleled sales on Black Friday, Cyber Monday, Prime Day and more in 2019. More recently, coronavirus-related health restrictions in some areas requiring temporary store closures meant that, for a while anyway, online became the only game in town. Experienced e-tailers scrambled to meet demand, while omnichannel companies shifted resources to serve their online businesses – and the ones who didn't have a strong online channel got worried.

The outcome has been what McKinsey calls a "seismic shift in digital engagement." In an April 2020 report, the firm said physical distancing rules in many markets had resulted in higher consumption of online media and significantly accelerated e-commerce. New audiences – many rural or older – were introduced by necessity to e-shopping, delivery and click-and-collect for items such as groceries. McKinsey predicts these novel habits may well outlast a return to customary trading.

In the U.S., App Annie reported that grocery app downloads had reached record highs. Walmart Grocery downloads, for example, increased by more than 460% in April as compared with January. Other delivery apps, such as Instacart and Shipt, have seen their daily downloads surge by 218% and 124% respectively. The big winner of the COVID-19 situation is online grocery, which will see its penetration expand. In the report "The Impact of COVID-19 on Online Grocery," Fabric states: "The online share of grocery sales will approach and could even exceed 10% this year, four years sooner than previously forecasted."

"A company's locality and history matter less now than before," says Brian Lee, Senior Principal, Research at business research and advisory company Gartner L2. "What's most important to the consumer is convenience, price and service."

Yet the blame for what some have dubbed the "retail apocalypse" does not lie solely at the feet of e-commerce, and the pandemic has only pushed it into fast forward. As economist Austan Goolsbee writes in The New York Times, "The broad forces hitting retail are more a lesson in economics than in

the power of disruptive technology." This consumer culture evolution is part tech-driven, part generational – aspects that are intricately connected. Now it's being accelerated by the COVID-19 crisis at an unprecedented pace.

Stores haven't changed much in the past couple of decades, but their customers have. Through various factors, the act of shopping is being redefined. Shoppers who can't remember a world without the internet are driving trends. Influencers and virtual friends trade in Instagram posts, Facebook marketplaces, TikTok, Depop stores or YouTube channels. We are seeing strong momentum in social commerce, and emerging TV channels, such as NBCUniversal, entering shoppable TV.

These consumers want socially aware companies that speak their language and value charitable giving, activism and more thoughtful, sustainable consumerism.

Second time around

In a recent report on sustainability in the U.K., research firm GlobalData found that more than 90% of consumers believe retailers should be acting sustainably – and almost 80% think that retailers are

\$2.5
BILLION

The estimated U.S. market for rental clothing by 2023

93.5

The percentage of U.K. consumers who agree that it is retailers' responsibility to act sustainably



not doing enough to address issues around sustainability and climate change.

“More sustainable and ethical options are growing in popularity, including dedicated retailers, slow fashion and resale apps,” suggests GlobalData analyst Emily Salter. “Clothing retailers could capitalize on this trend by launching rental services, as well as online second-hand marketplaces.”

The clothing rental business could reach \$2.5 billion by 2023 in the U.S. alone, says GlobalData. Startups like ThredUP and Rent the Runway led the

CUSTOMER CONNECTION:
Online retail is here to stay.



charge, but some traditional retailers are muscling in. Lifestyle chain Urban Outfitters and its affiliates participate in the monthly Nuuly clothing subscription service. Even department store Nordstrom has launched a second-hand business, See You Tomorrow, stocked with returned items.

The online resale business is also exploding. Companies such as Rebag, RealReal, Backmarket and Vestiaire Collective are riding the wave of consumer concerns around sustainability – and with the crisis ongoing, we can expect to see more conscientious buyers when it comes to spending. By the end of April, Vestiaire Collective had raised \$64.2 million to grow its luxury resale marketplace in response to investor interest in “Good for the planet, good for the wallet” models. According to the 2019 study “True-Luxury Global Consumer Insight” by Boston Consulting Group (BCG) and Altgamma, luxury resale is a booming market, expected to grow by 12% each year to reach \$36 billion by 2021.

And while the 2020 pandemic hit all sectors of retail, some resellers saw an influx of new wares from lockdown spring cleaning. Rental and resale’s moderate price points appeal to those newly on a budget, and businesses already have in-house cleaning systems. Retail locations of rental services, however, were hit hard; Rent the Runway closed all its brick-and-mortar shops in four U.S. cities in March.

From venture to adventure

Where digital and heritage brands alike can excel is in the realm of experience. It’s likely that, as commerce gradually emerges from months of global lockdowns and restrictions, customers will be sated with the virtual and hungry for the tangible. At the same time, retail locations must manage crowd sizes as well as expectations; buyers may be eager but cautious.

Who tops the experience game? “Nike is probably leading the way regarding brands that are really pushing that experimental, consumer journey, combined with a mix of digital and physical experiences,” says Patrick Kelleher, Global Chief Development Officer, DHL supply chain.

In its New York and Miami flagship stores, the Nike+ Trial Zones have been giving customers the chance to put Nike shoes to the test – kicking balls

BOUTIQUE BUY:
London-based Matchesfashion has been reimagining retail.

with soccer cleats or wearing basketball shoes on in-store courts.

On the luxury side, London-based Matchesfashion has been reimagining retail with a boutique that’s a hotspot for culture and commerce – broadcasting exclusive in-store experiences via podcasts and streamed videos, and offering specialized virtual services with apps and social shopping.

And shoppers visiting The Journey – the Toronto concept store from outerwear brand Canada Goose – can walk through video and audio installations of Arctic conditions, including actual snow and – for really cool customers – a room lowered to -12° C.

The next generation of experiential shopping, however, will be digital-first. The pandemic has shown that companies need new ways to connect to consumers. They will have to make creative choices in the face of the digital reality that is here to stay.

Reinventing stores

It could be the end of stores as we know them, Kelleher believes. “Large stores may become warehouses; the small stores may have zero inventory, stores could be a showroom, a delivery warehouse, a restaurant, and a pop-up market all in one,” he predicts, envisioning a breakdown of retail locations into a practical mix of showrooms and storerooms.

In recent weeks we have seen announcements from U.S. supermarkets Whole Foods Market, HyVee and Kroger, as well as fashion designer Kendra Scott’s chain, about reconverting retail locations into fulfillment centers. U.S. bakery Panera Bread converted its bakery-café business to sell groceries, and H-E-B is selling prepared meals from its restaurant. We are moving from omnichannel to omnisupply.

For retail, adapt or die may be the motto of the coming year, and it’s a slogan that’s been put to a sharp shock of a test in 2020. Agile companies who have adapted, learned and thrived during these challenging months will be ahead of the game for years to come.

Rather than investing in untested new market incursions that may deplete capital, companies can sell directly to consumers online and deliver from regional warehouses – bypassing distributors, real estate and property taxes.

“It’s about a mindset change,” says Kelleher, “and recognizing the importance of this growing sales channel and this new way of reaching consumers at the top level. The ongoing impact of COVID-19 has shown that the online channel is even more significant than we already thought and that it’s here to stay.” ■

Susanne Stein and Nabil Malouli

Photos: Cat Garcia; iStock/Alamy/mauritus images; DHL

3 QUESTIONS FOR...

1. The changing consumer culture may be tough for traditional retailers to tackle. How would you convince them to see change as an opportunity rather than a threat?

Companies that do not adapt to changing customer requirements are doomed to fail. What made companies successful in the past is not what will make them successful now, or in the future. A mindset/strategy evolution is key. Traditional retailers need to ask themselves: Who are their customers and what do they require? Not all customers want the same things.

Companies may have had more power in the past, but we live in times where the end consumer has the power. There is still a place for traditional retailers who evolve to suit customer requirements. Omnichannel is key, as many customers like to combine on- and offline shopping.

2. How can multichannel and omnichannel approaches to retailing meet the needs of contemporary customers and even exceed their expectations?

It’s about delighting customers by anticipating their wishes. The store is increasingly a place where the customer can experience the product regardless of whether they purchase it there or not. Omnichannel is about providing the flexibility – for example putting clothes I want to try in my shopping basket, booking a fitting room online and then actually going to a physical store to try the merchandise. Maybe I would also have a smart mirror that can recommend complementary garments or accessories to go with what I will be trying on. Ideally, I could do the checkout right in the fitting room and decide if I want to take the merchandise with me directly or have it shipped to my home. Omnichannel is about combining all the options relating to convenience and the brand experience to suit me personally. We see in surveys that what customers most value is personalization combined with convenience.

3. How can logistics help fuel the next generation of retail?

At a share of about 20%, online is already an important portion of retail. Logistics are a key component of online sales and possibly one of the few areas where the end consumers have direct touchpoints with logistics companies. From that perspective, the logistics company also represents the brand and influences the experience the end consumer has with the brand. A study from Metapack showed that more than 80% of people perceive delivery as part of their online shopping experience, highlighting how important it is for a brand to partner with the right logistics provider. On the other hand, the logistics linked to online sales are more expensive – especially in the area of fashion, where return rates are higher than 50% and many customers order multiple sizes of an item with the intention of returning some of them. Shipping to homes, return shipping and the quick management of getting returned goods back into inventory is expensive and poses a big challenge, as customers often expect free delivery and returns. Having the right logistics partner is key for brands to ensure great service, quality and brand perception for their end consumers. The right logistics partner can support fast and efficient inventory management and ensure as little as possible obsolescence of inventory. Logistics is no longer a support function, it’s a critical competitive advantage for any company.

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DELIVERING CARGO AT HYPERSONIC SPEED

Could hypersonic transport become a reality in future? Co-imagined by Canadian inventor Charles Bombardier and designer Drew Blair, the BlueEdge Mach 8-10 Hypersonic Freighter is a concept plane whose speed would revolutionize cargo transport. Named for its ability to fly right on the edge of space, the BlueEdge was presented as part of the International Civil Aviation Organization’s (ICAO) annual innovation contest. Conceptualized to use hydrogen as a green fuel source, the aircraft would carry approximately the same load as a B757 cargo plane and fly at an altitude of 125,000 feet (38,100 meters) at Mach 10, transporting its payload (or 220 passengers) from the U.K. to Australia in 90 minutes. ■

 bit.ly/BlueEdgeMach

Top speed (cruising at 125,000 ft):	7,000 mph (11,265 kph)
Maximum thrust output (turbojet engines):	150,000-200,000 lbs (68,000-91,000 kg)
Maximum fuel capacity:	125,000 gal. (473,125 l)
Empty operating weight:	225,000 lbs (102,000 kg)
Maximum takeoff weight:	475,000 lbs (215,000 kg)
Wingspan:	93 ft (28 m)
Cabin length:	115 ft (35 m)
Overall length:	195 ft (59 m)
Cargo capacity:	10 88 x 125 pallets
	11 60.4 x 125 pallets

45 MINUTES

The flying time from Tokyo to San Francisco when accelerating at 35,000-40,000 feet (11,000-12,000 meters)

\$200-250 MILLION

Potential price of a BlueEdge Mach 8-10

10,000+

Flight range in miles (16,000 kilometers)

Illustrations: iOAircraft

MASTER OF DISASTER

Chris Weeks, Director for Humanitarian Affairs, DPDHL Group, describes working on the front lines on Disaster Response Teams around the world, and how the “pretty resilient” human spirit helps us pull through.

It’s nearly 20 years since I started working in the humanitarian field and, during that time, I have found myself in some challenging situations all over the world. My job is to help get relief goods into disaster-affected countries following natural events such as earthquakes and cyclones. I can call on some of the 750 DHL employee volunteers who are all trained and equipped to help to “decongest” airports. This means helping to prevent the bottlenecks that can happen due to the surge in cargo and relief workers all trying to get into the same airport. The operation usually lasts for two to three weeks, and up to 30 volunteers will usually be involved in receiving, organizing and reloading relief cargo for NGOs and U.N. agencies.

There are three teams now, based in countries around Dubai, Panama and Singapore, with volunteers coming from every business unit. These teams are headed up by three outstanding leaders – Gilberto Castro, Paul Dowling and Carl Schelfhaut – who apply the DRT (Disaster Response Team) model in their region. While the help we give is mostly airport related, and experienced airside staff are crucial, we

also need general logistics, warehouse and support staff. So a good mix of experts from all DHL divisions, plus advocacy from our global headquarters where we have Kathrin Mohr, who has decades of experience in project management at this level, is ideal for this operation.

The first time we were deployed as a Disaster Response Team was to Sri Lanka following the tsunami in 2004. We had been working on the plan for a year – and didn’t have to wait long to test the model. Thirty-five volunteers from Dubai worked at Colombo International Airport for three weeks, unloading, storing and reloading 6,000 tons of donated goods from 135 unscheduled cargo flights. While we had issues and it didn’t all go smoothly, we worked with the airlines, army, airport authorities, U.N., NGOs and ministries to keep the airport open so the aid could flow. The model worked, and the DRT was born.

Since the tsunami, the DRT has been deployed 40 times to over 20 countries, from Chile to Indonesia to Mozambique, following earthquakes, floods and cyclones. I remember arriving at Islamabad with Paul

Dowling (longstanding Middle East DRT Manager) one wet, windy Saturday morning to find the airport awash with water, food, clothes and other aid items. We were despairing at the amount of work to do, but one of the local volunteers recruited a gang of 25 laborers from his village and set them to work clearing up and creating order from chaos. The airport was literally strewn with abandoned pallets of aid. Within two or three days we had the situation under control and managed to turn it into an efficient air hub. It taught me a lesson that I teach to the others: If you get in fast and know what to do, the deployment will be much easier than arriving late and having to “catch up.”

During my time in the humanitarian response business, I have seen disaster and tragedy close up and more frequently than many others. While natural events will continue to occur, poorly led and equipped responses are not necessary in this day and age. By learning from past events and training teams on what to expect and how to respond, we can reduce the negative impact and help people recover more quickly. Sometimes you feel despair when you see the tragic consequences of disasters on already poor communities with fragile government structures, but you can only do so much. I remember hitching a ride back from Kashmir in a German army helicopter and having a 10-year-old girl thrust into my arms to look after during the flight. She had lost her parents in the earthquake and was going to a new life in Islamabad. Her hair smelled of wood smoke, she wasn’t very clean, she had a number painted on her forehead for identification, and she was clearly terrified at the noise, strangers and shaking on the 40-minute flight. Upon arrival, I handed her over to the authorities: a new life in the city and institutions until old enough to survive on her own.

One thing I’ve learnt on this journey is that there are three stages of a disaster. First off, you’re thrust into this new universe, where everything looks broken, desperate and chaotic. Your senses are dealing with so much new information, so many new situations, people and dynamics. However, after some time, usually four to five days, a “new normal” starts to emerge, which I call stage two. You operate within this new setup for a couple of weeks, but it’s no longer brand new and becomes tolerable, and life gradually improves. Then one day stage three starts. This is when you suddenly feel you are on the down slope out of the disaster. Something positive will happen that is the trigger for a return to normality. I usually measure the news headlines. When the media is moving on to other issues, you can probably begin to think about “normal life” again. It’s certainly panning out like this in the COVID-19 crisis.

Luckily, the human spirit is pretty resilient, and most people get through the disaster if they haven’t

“By learning from past events and training teams on what to expect and how to respond, we can reduce the negative impact and help people recover more quickly.”

Chris Weeks



been physically struck by it. Endurance athletes will tell you that mental strength and preparation are the keys to success – and, in disaster scenarios, survival. While adversity is a contest to some people, who pride themselves in coping and making the most of a situation, for most it’s something we just have to get through. Taking it a day at a time and not thinking too far ahead works for me. I was also told to focus on the things you can change, not the immovable objects, which also helps. And usually, in the end, if you put your mind to it and find like-minded souls to help you, success/survival is achievable.

People often ask me why I chose this field of work, and I think there are three main reasons. First, out of interest. I studied development economics and am fascinated by how countries can pull themselves out of poverty by good governance and by following certain economic models or doctrines. Unfortunately, corruption often gets in the way and disasters can seriously limit growth. Second, out of professional pride. I want to apply first-world, private sector logistics expertise to a chaotic situation and quickly improve the outcome. Humanitarians do a great job but tend to operate in a silo, so our non-interventionist role at the airport can really help them. Lastly, I love helping people. That’s why I joined this small but growing courier service back in 1980 in London.

As with all successful ventures, it comes down to the people at the top giving us the funding, support and authority to get on with the job. I’m forever grateful to the CEOs over the years for having the trust in us to carry the DPDHL brand into the humanitarian world, to help people afflicted by natural disasters. ■ Chris Weeks

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PULLING TOGETHER:
Chris’s team get relief goods into disaster-affected countries.



Photos: DHL



SUPPLY CHAINS IN CRISIS

The coronavirus pandemic has been an unprecedented shock for global supply chains. How are they responding?

In December 2019, doctors in Wuhan, China, began to see patients with unusual and worrying symptoms. They suspected that the cases of respiratory problems and pneumonia appearing in their clinics were caused by a virus that hadn't previously been seen in humans. On January 12, 2020, Chinese scientists published the genetic sequence

of the new virus. The next day, health authorities in Thailand reported the first case of the new disease outside mainland China. The next chapters of the COVID-19 story unfolded at frightening speed. When the city of Wuhan was placed under lockdown January 23 in an effort to control the spread of the disease, World

Health Organization officials described the move as "unprecedented in public health history." Three months later, half the world's population was being requested or required to stay at home as more than 90 countries introduced strict quarantine rules and movement restrictions. More than 2.7 million cases of the new coronavirus had been positively identified in 210 countries by the third week of April, and more than 190,000 people with the disease had lost their lives. With testing equipment and infrastructure in short supply around the world, officials believe that the true figures for both cases and deaths are much higher.

Economic impact

The new coronavirus has triggered much more than a health crisis. The pandemic has also had far-reaching effects on almost every part of the global economy. Companies have faced significant financial and operational challenges as they strive to keep producing through the crisis.

It has been a busy year for Tobias Larsson, CEO, DHL Resilience360, the cloud-based platform that helps companies to visualize, track and protect their business operations. Organizations in multiple sectors worldwide use the platform as a core element of their risk management, business continuity planning and crisis response activities.

Larsson sums up the impact of the pandemic succinctly: "We are seeing disruption like nothing before," he says. "First, you have a situation where companies need to protect their people from a potentially life-threatening disease. Then you have an issue with production and supply capacity, because businesses are being forced to shut down if they don't produce essential equipment. And in addition, you have huge demand changes. Some sectors, such as automotive, have seen demand collapse, while businesses supplying products that aid the fight against the virus have seen it increase by as much as 800%."

All those difficulties are compounded by the global reach of the crisis. "We have seen a number of major natural and man-made disasters over the last decade – from the earthquake in Japan in 2011 to the flooding in Thailand later the same year – which hit the technology sector particularly hard," says Larsson. "But they were local or regional events that often had global effects."

Today, he notes, demand and supply are being hit in almost every region. That makes it much more difficult for companies to execute their existing resilience strategies, which often rely on the ability to shift production around the globe and switch volumes between suppliers in different regions. "And the impact on different regions is not in sync," adds Larsson. "So, when China was opening its factories

again, their customers in Europe and the U.S. were still shut down."

Logistics feel the strain

Smart logistics strategies are a critical part of many organizations' response to disruptive events. The world's transportation networks have proved extremely adaptable in previous crises, with carriers moving assets, altering routes and rapidly adjusting capacity to meet changing demand.

But the impact of COVID-19 has overwhelmed the ability of many logistics networks to respond, says Larsson. "In every other crisis, we say that suppliers are the critical link," he says. "If they can produce, you can always find a way to deliver."

This year, however, logistics links have been under unprecedented pressure. The collapse in air travel removed up to half the world's normal air

800

The percentage of increase in demand for products manufactured to fight the new coronavirus



NO FLY ZONE:

The collapse in air travel removed up to half the world's normal air cargo capacity.

cargo capacity from the market, since much material moves in the bellies of passenger flights. Port closures and labor shortages slowed the movement of ocean freight. Trucking companies struggled to find drivers, and to overcome border delays and the closure of normal routes.

Even as operators and governments take action to improve flows and reopen key routes, returning services to normal will take some time. "Lots of important assets, from vessels to shipping containers, were stranded in the wrong place," says Larsson. "Now operators need to try and restore a balance."

Uncharted waters

How have different organizations coped with this extraordinary combination of challenges? At the outset of the crisis, says Larsson, all businesses had one thing in common: They weren't fully prepared. "This is absolutely a black swan event," he notes. "Nobody could economically have put in place all the measures they might need to handle disruption on this scale."

As a consequence, the pandemic has not just been a test of existing business continuity plans, but of a company's ability to think and act on its feet.

STACKING UP:
Companies have had to be creative in finding solutions to logistics challenges.



NEW NORMAL:
More protective clothing will be needed as companies get back to business.

"Nobody could have planned for this particular crisis, but the most successful companies are those that had planned for other kinds of crisis," says Larsson. "There are things that are common to an effective response in every crisis – like getting a task force together quickly; ensuring they can communicate effectively and have access to the right information to make decisions; ensuring they can move resources quickly and get funds to the parts of the business that need them. It really helps if you have done this before, if your people are trained in crisis response and have rehearsed these situations."

On the ground, an unprecedented situation calls for innovative solutions. "We've seen examples all over the world of companies doing things they have never had to do before, and very quickly," says Larsson. "Whether that is reconfiguring production lines so workers can operate at a safe distance from one another, or even retooling to make a completely different kind of product."

Companies have been creative in finding solutions to their logistics challenges, too, says Larsson, whether that means teaming up with other firms to share the cost of an air charter, or switching to new routes and new transport modes. The Resilience360 team, meanwhile, has developed its own offerings to meet the needs of the crisis. "We are creating new analytics for our customers so they can track the direct impact of the changing situation on their supply networks," he says. "Whether that's local rules



GEARING UP:
Post-crisis, car production lines are beginning to run again.

governing which business activities are permitted, or the status of critical routes and supply chain nodes." The companies that benefit most from that approach, he adds, are those that have already built detailed maps of their networks, allowing them to monitor potential impact on the operations of second- and third-tier suppliers. Being better prepared has enabled some companies to avoid costs in the high double-digit or even triple-digit millions of euros.

The road to recovery



As governments around the world gradually began to lift virus-related restrictions, companies turned their attention to the post-crisis world. While the recovery phase of the crisis is unfolding at a slower, less breathless pace, it still involves plenty of uncertainty. Medical researchers still don't know when effective treatments or vaccines will be available. Health authorities don't know whether severe social restrictions will be needed to combat subsequent waves of infections. And businesses don't yet understand the long-term impact of the crisis on consumer behavior or economic activity.

Consultants at McKinsey & Company are warning businesses that they need to prepare for multiple post-crisis scenarios, ranging from a relatively quick, V-shaped uptick in demand to a prolonged downturn. And the precise shape of the next normal

will be region- and industry-specific. Some of the changes in customer behavior since the start of the crisis may turn out to be permanent.

Even if they enjoy healthy levels of demand, companies may not be able to operate their future supply chains in the same way. Despite their own best efforts and the availability of large-scale state support in many regions, not every company will have the financial strength to weather the current storm. "Our customers are preparing for an increase in the number of their suppliers experiencing financial difficulties over the coming months," says Larsson. "So they are ramping up their supplier monitoring activities and looking closely at financial results and other signs of distress, such as media reports of workers being laid off."

Organizations will be closely scrutinizing the overall resilience of their supply chains, too, with companies rethinking everything from the size and distribution of finished goods inventories to their exposure to specific suppliers, customers or industry segments. "In such uncertain times," Larsson concludes, "nobody wants too many of their eggs in one basket, especially if that basket is far away in another part of the world." ■ **Jonathan Ward**

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Photos: Martin Schutt/Pool/Reuters/dpa; Meng Delong/Cosfoto/dpa; Aly Song/Reuters



Delivered. stress tests the supply chain with ...

RICHARD WILDING

One of the world's leading logistics experts gives his assessment of how the coronavirus pandemic has impacted the interconnected world of demand and supply.

Professor Richard Wilding has spent a long and illustrious career talking about the vital importance of supply chains. Sometimes he can be a voice shouting in the wilderness, particularly where the general public is concerned. "It's as though some people think goods magically appear on supermarket shelves," he says. "Now, because of the coronavirus, they realize there's a lot of science, technology and people behind that magic."

Wilding is recognized as one of the world's leading logistics and supply chain gurus, so – with panic-buying stripping the shelves in some countries – his thought leadership has been much in demand on TV and radio during the pandemic. Currently Professor of Supply Chain Strategy at Cranfield University in the U.K., he admits to falling into academia "by accident" after spending a number of years in industry. Academic life, however, must be in his blood: He learned to walk in the corridors of the physics department at Sheffield University, where his father was studying for a PhD. "As a toddler, I'd push a little truck full of building blocks up and down," he says. "I suppose that was my first experience of logistics."

It's a subject that has endlessly fascinated him. "One of my early roles was running a brick production facility," he remembers. "I did everything. I had to arrange to get materials out of the ground, then process them, make the product and then ship it, so I was deeply embedded in every aspect of the supply chain. Now my goal is to turn knowledge into action by getting companies to think through all issues concerning their own supply chains. I inspire supply chain leaders to innovate."

With COVID-19 still disrupting lives and businesses, his expertise has never been more essential. "What we're dealing with is unprecedented," he says.

What kind of supply disruptions are we seeing due to the pandemic?

For example, shipping containers are in the wrong place. One analogy would be a supermarket that has all its trolleys by the door. The problem is that, when the customers have used those trolleys, they leave them at the outer reaches of the car park – so you need to have a system to bring them back. That's what's happened with shipping containers: They've been left in different locations across the world. Then there are potential issues with warehousing

that could impact the extended supply chain. Warehouses are filling up because their outflows have reduced. This means that, when cargo arrives at port, potentially warehouses can't take it because they're full, so the ports fill up with lots of containers. This then could mean cargo boats can't unload, so these are sitting out in the ocean waiting to come in. It's an illustration that this is a complex, interrelated system.

Have supply chains coped better or worse than expected?

It depends. I'd argue that those organizations that have been hit by significant disruption in the past have planned proactively and been able to deal with things more effectively. They're continually running stress test scenarios and, as a result, have very good supply chain transparency and monitoring. In short, supply chain resilience has become part of their business culture.

Will current supply chains be able to return to normal quickly, post coronavirus pandemic?

It will take a while for supply chains to rebalance because we've had a massive shock to the system. There are those problems with containers and warehouses that I mentioned, for instance – although I think certain ones will be able to resurrect themselves relatively quickly. There will be other issues, too. Demand for home delivery has rocketed, for example, but I would argue that the majority of supermarkets are losing money on it. That stands to reason, because if they're only charging a few pounds for home delivery, it'll destroy their margins. So the big challenge retailers will have to face is reflecting on the costs they incur while serving their customers, and understanding how the supply chain interacts with their overall finances.

What changes will companies make when designing their supply chains, post coronavirus pandemic?

I think we'll see some big changes, such as procurement for resilience rather than cost. That might include looking for near-shoring opportunities and asking if they really need to buy products from the furthest corners of the world. And can they use additive manufacturing/3D-printing technology positioned close to the market so there's less chance of disruption? These types of things are happening anyway, but the coronavirus crisis will accelerate it. Society will have to adapt, too. For example, if a company can work out a way to make its supply chain more resilient, but does so using more automation and fewer people, then that has big implications for employment. ■ **Tony Greenway**

78 PERCENT

The number of companies around the world that believe the coronavirus crisis has negatively impacted their business

→ THE DEBATE ←

Question: Climate change was among the most dominant public topics before the COVID-19 crisis. Will it ever regain the level of public concern and awareness that it had before? When will we be able to take the long view again?

As the corona crisis gripped the world and sent people into lockdown, they were nevertheless determined not to remain isolated. They reached in unprecedented numbers for digital tools to keep communication open. Intrigued by this phenomenon, we’ve translated

it back into print and online media to bring you **The debate**. This new section aims to present interesting viewpoints about current developments from people in the know, people at the forefront of their field. They may agree, they may disagree – but in voicing their opinions they will engage in thoughtful, compelling dialogue.

To kick off this series, we invited Dr. Kirstie McIntyre, Director, Global Sustainability Operations, HP Inc., and Monika Schaller, Executive Vice President, Corporate Communications, Sustainability & Brand, Deutsche Post DHL Group, to present their thoughts about climate change in what many have termed the “new normal” – our everyday reality once the COVID-19 pandemic has abated. ■

Dr. Kirstie McIntyre: Even though some might argue that, due to the deep recession caused by the COVID-19 pandemic, the most pressing need is to keep economies going, preserve jobs and support industries in whichever ways possible, I do believe there is no turning back where climate action is concerned. On the contrary – I see this crisis as something that will be propelling us forward. At HP Inc., for example, we offer multiple life cycles for a product – new, refreshed and refurbished. As the crisis hit, we suddenly saw an unprecedented demand for refurbished laptops and computers – in fact, we sold out! Where the acceptance of refurbished products was previously a very gradual process, users have now made the switch from looking at computers to looking at computing power, thus enabling us to take a big leap forward in terms of a circular economy.

Our Instant Ink service for subscription cartridges that get delivered just in time has also had an absolute boom, with deliveries to millions of home offices during lockdown.

Our company believes that sustainability is a powerful force for innovation. This belief is a driving factor across many aspects of our business, from product and service design through to new business models around new technologies such as 3D printing and supply chain digitization. It has also been a turning point for 3D printing and I believe we will continue to see a lot of growth here in future, including a move toward more local manufacturing and distribution, at least for a growing number of parts. HP Inc. has set itself bold sustainability goals, intended to drive progress across our entire value chain. These encompass a 30% reduction in greenhouse gas emissions and using 30% post-

consumer plastic in our products by the end of 2025 – and we’re on track to achieve both.

While governments have set environmental targets ranging from the Paris Agreement to the recent EU Green Deal, I do believe it’s increasingly up to private industry to lead the way and pivot to a more sustainable future.

So, as we move forward to an eventual end to the crisis, and eventually also out of the economic fallout from COVID-19, it’s up to corporations to blaze the trail and ensure climate change action remains firmly in focus.

For us at HP Inc. a key growth area is device as a service (DaaS), with HP leasing the products to customers and managing supply, repair and returns, thus enabling businesses to focus on operating expenses rather than adding capital expenditure to their balance sheet – something I believe procurement departments need to focus on much more.

 bit.ly/HPFootprint

Dr. Kirstie McIntyre is Global Director for HP Inc.’s sustainability operations and an early pioneer in green supply chains. Holding a doctorate in engineering, she today leads a team of experts around the world and is lead of HP Inc.’s circular economy program, helping to steer products, operations and services toward a full circular economy model.



Monika Schaller: Climate change is an enormous challenge to humankind. It’s here to stay and in the past years, more and more people all over the world have recognized that we need to act. Still, it’s understandable that we’ve adopted a short-term “damage control” mentality since the world was more or less ambushed by COVID-19. But as we gradually emerge from this first phase of the pandemic (at least in Germany and a number of other countries), there’s increased focus on the task of building more resilient societies and economies over the long term, and climate protection is an urgent priority in these efforts.

In late April, Deutsche Post DHL Group (DPDHL Group) and 67 other German companies across all sectors signed a letter urging the German government to include ambitious climate action in its response to the corona crisis. We believe that stimulus measures should promote long-term economic resilience, and that any such measures must include climate protection. There has never been a larger, more comprehensive appeal for climate action by the private sector in Germany.

Many of the signatories are major international corporations who, like DPDHL Group, have long since integrated climate protection into their business strategy worldwide. These companies are not going to use the crisis as an excuse to ease up on climate; they were committed to climate protection before corona, and they will remain committed after corona. At DPDHL Group, for example, we’ve been working toward our target of zero-emission logistics since 2017. Nobody asked us to do this. We’re doing

it because we, like other leading companies, consider sustainability good business and a vital responsibility.

I don’t believe climate protection and sustainability will fade from view – because ultimately, this is about thinking long term and succeeding long term. And in today’s interconnected world, companies succeed long term by investing not only in their people and products, as they always have, but also in the health of the ecosystems, communities and economies in which they operate. At DPDHL Group, our sustainability programs span environment, economy and society, because all of these aspects need to be healthy if we want our business to thrive.

This is the reality today: In the globalized world, the factors that determine success are interrelated. Opportunities are borderless, and so are threats. The corona crisis has provided an urgent reminder that the great, borderless challenges of our time – whether climate or public health – call for knowledge sharing and collaboration across borders. And it has drawn attention to the fact that we need to be building resilience and promoting sustainability on all fronts.

 bit.ly/dpdhlsustainability

Monika Schaller was appointed Executive Vice President, Corporate Communications, Sustainability & Brand at Deutsche Post DHL Group in July 2019. Her previous experience includes leading roles worldwide at Deutsche Bank, Goldman Sachs, Citigroup Corporate Communications, Bloomberg and CA investment Bank. She has a degree in Business Administration from The University of Vienna.



CRISIS MANAGEMENT – REMAIN IN CONTROL!



SVEN GADE

Based in Fort Lauderdale, Florida, Sven Gade is a leadership coach, workshop facilitator and public speaker. He holds a master’s degree in Mathematics from the University of Hamburg, Germany and earned his designation of Professional Certified Coach (PCC) from the International Coach Federation (ICF). As the founder of LeaderTrip Coaching®, Inc., Sven Gade supports his clients to develop exceptional teams, to drive necessary change and to successfully achieve ambitious goals.

 bit.ly/SvenGade

The COVID-19 pandemic has brought a lot of change and uncertainty. It has caused stress in multiple ways. Some people are worried about their health, others are anxious about their professional future and possible financial problems. Some struggle to get organized in the isolation of their home office, others are overwhelmed by sharing limited space with people at home, and some are just frustrated that their patterns of work are obsolete and their immediate goals are no longer achievable.

In a crisis, many people simultaneously deal with elevated stress levels. These can persist over a long period of time. We all have our individual stories. They can be hidden beneath the surface, not visible to others. But they can quickly lead to overreactions when we interact.

Thinking matters

Whenever an event occurs, our brain first determines whether it is friendly or unfriendly, a reward or a threat. We experience thousands of thoughts every day. They trigger our pleasant or unpleasant emotions. Many of us are largely unconscious of the influence our thinking has on us, minute by minute, hour by hour. Pleasant emotions tend to broaden and build our abilities to achieve our goals. They help us to see more options and respond more creatively. We all know, for instance, how uplifting it is to receive positive feedback. Conversely, unpleasant emotions tend to narrow and limit our ability to perform at our best. Any hostile conversations you have had will most probably have illustrated that. Undoubtably, our emotions shape the decisions we make;

they influence our behavior. Ultimately they determine, positively or negatively, the quality of our work and productivity.

Research has resulted in a wide number of accessible strategies that can readily be used to improve our resilience. Unfortunately, we don’t practice them often enough. We struggle to demonstrate them intentionally and consistently. Here are four essential resilience strategies. They will work both during the crisis and after it.

Know yourself

Take just three to five minutes at the end of your day to think about yourself. Write down everything that comes to mind on any topic you choose to raise your self-awareness. How did you allocate your time? How did you show up as a leader? What caused stress for you? Which emotions did you notice? How did you react? What do you want to improve? Keep your pen moving. Don’t worry about spelling or grammar, get all your thoughts down on paper. Read your notes the next day, repeat the exercise and change the questions as you like. Analyze your data and learn about your “triggers” of unpleasant emotions. Some of them are in your control, such as too much bad news, or anything related to insufficient time management. Other triggers you need to accept. Nevertheless, the better you know them, the better you’ll control your response. Look also for those things that bring joy to your life and fill you with positivity. Spend time with your loved ones, walk in nature, indulge your hobby. These are energy boosters, use them deliberately to light up your day!

Understand others

We are not good listeners! Too often we’re not paying attention to the other person. Our thoughts are floating around, but are not focused on the conversation. At other times, we don’t try to understand the other person – we are just waiting for the next-best opportunity to interrupt and share our side of their story. Make an attempt to listen empathetically to the people you talk to. Allow this little break to process what you have heard. Pay attention to the body language, try to recognize the other person’s feelings, play back the message that you received and avoid wrong conclusions. Be amazed about the depth that your dialogues reach, even if they only last a few minutes. I practiced this high level of listening with a group of experienced leaders before the coronavirus outbreak. They openly admitted that this is not how they interact with their teams. During the crisis, their ability to listen with empathy became an effective leadership tool, helping them to keep people engaged at work in a fast-changing environment.

Inspire performance

Honest and open feedback is a gift! Unfortunately, it is one that isn’t made too often. We shy away from giving constructive

feedback; it is uncomfortable and can cause undesired reactions. Even top executives come up with excuses: “I don’t have time to do it,” or “I wasn’t in the right mood for it.” Their next-best alternative is “drive-by feedback”: a quick and unspecific hit followed by an immediate escape. It leaves the recipient puzzled or even humiliated. Seriously, does that motivate anybody to do things differently? Think about it. Your feedback should encourage the other person to change a behavior, in the best interest of that person – and most likely yours as well. You’d better make this a positive experience! Spend a few minutes to plan your approach. Keep in mind that difficult emotions prevent your people from performing to the best of their abilities. A superficial review of their work only adds to the stress. People look for constructive support to find a better way of working. Understand their situation and enable personal growth!

Make things happen

Teams exist to produce results! Many factors define the success of a team, handling conflicts constructively being one of them. Controversial topics need an open discussion in which everybody tries, without bias, to see the other party’s perspective. But what story do we tell ourselves in those moments? If it is “I am right, and they are wrong,” the exchange has almost no chance of working out well. How often do we see colleagues across departments fighting with one another? They seem to forget that they are part of the same organization, which needs to stand united in order to win in a competitive marketplace. Recently, leadership teams came together to define their approach of dealing with the upcoming pandemic. Team members favored different solutions as their understanding of risk varied. They were able to reach consensus after some of them recognized and admitted that their original idea was not the best. True collaboration needs relationships that work, not individual gains!

The resilient leader

Emotions are part of our human nature; they constantly come and go like ebb and flow. By tuning in to ourselves we can raise our understanding of how we think and feel. It allows us to control our response to emotions as opposed to being controlled by them. Our behavior is not part of our personality, we can learn it and make it more productive. Emotions will always be part of our professional and private lives and they can be demonstrated intelligently. Every single one of us has an impact on everyone we interact with, day in and day out. Resilient leaders know the influence they have on others. They create positive ripple effects that define the success of their teams. In times of crisis, resilient leaders are needed more than ever. You want to be one of them? It is entirely in your hands! ■

Illustrations: Nina Tiefenbach for Delivered.

PUTTING CLIMATE CHANGE ON THE CURRICULUM

Sally Brooks, Executive Principal of Fulham Cross Academy Trust in London, is an eduCCate Global Climate Change Teacher, helping students and staff to better understand the issues and become part of the solution.

In my years as a religious studies teacher I loved to travel and explore in my time off, and I came to understand that we have to take a stance on climate change if we are to avoid catastrophe. It’s no use worrying about education funding or exam results if we don’t have a sustainable world.

My bolt-from-the-blue moment was a trip last year to a 5,000-pupil primary school in Dubai, where every teacher had completed a climate change curriculum course. One reason I was selected to go was that Fulham Cross Academy Trust, an amalgamation of two local secondary schools, had already tried such eco-aware initiatives as making our school blazers from recycled plastic bottles.

Since becoming principal of the trust, I’d also been thinking about ways to galvanize our two schools, to provide a common purpose. Meeting the teachers and children in Dubai, where learning about climate change had been integrated into core subjects, was inspirational. They shared their ideas and fabulous lesson plans with us, and talking to them changed the way I behave, particularly with regard to food waste and recycling (of my children’s clothes, for example).

I suppose it was ironic that we went to Dubai to talk about climate change (as carbon offset for my flight, I donated €45 for tree planting), but I returned to London energized and determined to enroll more staff into the U.N.-accredited eduCCate Global program, which is putting climate change teachers into schools across



the world. A U.K.-based, not-for-profit organization, eduCCate Global provides free e-courses on climate change and green economy, and is a partner of the U.N.’s CC:Learn initiative, which began in 2019. The teachers’ program involves 30 hours of high-level training, with modules on issues such as children and climate change, cities, and gender and environment.

Despite the current global COVID-19 crisis, all our trust’s staff members are doing the course and will complete it by September. As for the pupils, at present we’re approaching climate change through the existing curriculum, but from September will run a course specifically focused on the subject. We are set to be the first Platinum Award eduCCate Global schools in the world.

Fulham Cross also initiates practical projects in our borough, asking Tesco supermarket, for example, to raise funds for two small composters to help recycle food waste from our school kitchens.

Our pupils are mostly more aware of climate issues than their parents and are now enthusiastically pushing them to change their practices.

My new role is time-consuming, but its challenges are worthwhile. Apart from responding to climate change now, many pupils will be working in the green economy in a few years’ time, and we need to equip them for that. ■ *As told to GP Newington*

FACT: More than 225,000 educators worldwide have completed eduCCate Global courses since the organization’s foundation in April 2019



40+

The number of countries where eduCCate Global now operates

30

The number of hours of training required to become an accredited eduCCate Global Climate Change Teacher

41

The number of floors in the Post Tower, the headquarters of Deutsche Post DHL Group, located on the banks of the river Rhine in Bonn, Germany.

Sending a message of hope and care to the world, the building was lit up with a huge red heart and the words “Stay safe” in rotation. Meanwhile, with minimum crew and adhering to all distancing rules, a live jazz session by internationally acclaimed jazz players Peter Materna and Florian Weber was recorded in the building, delivering excellent music to those staying at home.

bit.ly/bonnlivecomPeterMaterna



Photos: Fulham College Academy Trust; DHL

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