IT’S TIME
WE BELIEVE IN THE POWER OF INGENUITY TO BUILD A POSITIVE HUMAN FUTURE IN A TECHNOLOGY-DRIVEN WORLD
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ALAN MIDDLETON, CEO

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PA PERSPECTIVES

OUR NUMBERS
Continued growth in technologies presents ever more opportunities for our clients to seize the momentum and reach their goals. Our clients’ success is our success. We continue to expand our client base both internationally and across sectors, and we are working on some of the most exciting projects in the world.

INNOVATING TO EXCEL
What’s clear is that the world isn’t slowing down. Technologies are developing faster and faster. One of the things that differentiates PA Consulting Group from the competition is that we don’t only help our clients find new ways of doing things. We also invent the innovative solutions they use to achieve such exceptional results.

Indeed, innovation has always been at the heart of our work and that’s more important than ever. How organisations respond to new technologies has a huge impact. One of the biggest issues on our clients’ minds is how they plan for, and fully embrace, the transition to a more automated, intelligent world, driven by advances in digital, robotics and machine learning. Artificial intelligence is creating entirely new ways of living, working and spending our leisure time. It’s also causing a lot of fear for people that their jobs will cease to exist, for executives that they’re missing a trick by not taking advantage of the new-found opportunities, and for everyone given the consequences for society.

We’ve been playing a positive role in this interaction between technology and humans for more than 70 years. So we’re well versed in many of the opportunities and challenges it throws up. Our experience has taught us that humans will continue to play an essential role in the workplace – they’re vital to driving progress.

HELPING ORGANISATIONS AND SOCIETY SUCCEED
Our active partnership with The Carlyle Group gives us a strong platform and is helping us to fulfil our potential. Client demand has allowed us to attract more of the best people and to acquire market-leading businesses.

As we look to the future, I’m excited at the many opportunities our people will have to impress, delight and surprise our clients. And I’m confident that the combination of our experience and our agility will allow us to make a valuable contribution to the direction society will take.

IT’S THE SYNERGY BETWEEN HUMAN AND MACHINE THAT’S HELPING ORGANISATIONS TRANSFORM
Every day our people are working with, not against, machines in a constant quest to get the best possible results for our clients. That’s whether they’re at our UK labs designing a new medical device to increase the chances of survival of newborns, working with a major bank in the United States to create a strategy for tackling illicit flows of capital, or transforming a charity’s ability to make smart decisions using data. It’s the synergy between human and machine that’s helping organisations transform.
Transport Authority, among other things, services in the city. For the Roads and have even more confidence in public government’s aim to make sure people claims. In Dubai, we’re supporting the decisions on workers’ compensation government agency responsible for conducted a wholesale transformation the company’s sustainability targets.

shelf and transport space, and deliver on more attractive to consumers, take up less their packaging to make their products company Hershey’s, we revolutionised transport system. At global confectionery behind the world’s fastest ground-based delivery of the technology that underpins In North America, we accelerated the RESULTS FOR OUR CLIENTS to better lives for people and the planet.

In the UK, we transformed the Home Office’s visa services making it much easier for people to apply and cutting the decision-making and processing times. And we’re working with Hampshire County Council to explore how voice-activated technology can support vulnerable people.

WE’RE RAISING OUR PROFILE AND GROWING OUR BUSINESS

While we’ve been helping our clients, we’ve also put increased effort into building our own business – where innovation is core to everything we are and do.

Recently, we’ve appeared on more industry platforms, published and promoted more thought leadership and appeared more often in the press. Last year we teamed up with D/SRUPTION magazine to host the inaugural Disruption Summit Europe that kick-started conversations about creating cultures that inspire and reward efforts to disrupt. And our global Innovation Matters research is generating interest in what it takes to create growth and revenue from innovation.

We’ve boosted our aviation capability by acquiring London-based consultancy Nyras. Together we focus on strategic and commercial consulting across the sector, in particular for large, multinational airlines and major airports. Nyras is renowned for its transaction advisory services in the industry, and the acquisition will allow us to access new markets and enhance our offer to our joint and new clients.

WE’RE FOCUSED ON A BETTER FUTURE FOR SOCIETY

Every day I’m inspired by the brilliance of our people and their commitment to channelling their skills in the pursuit of truly meaningful outcomes.

That includes supporting the leaders of the future. We ran our sixth Raspberry Pi competition, challenging students from across the UK to put their innovation and coding skills to the test. This year we asked participants to come up with ideas for saving the planet – and their inventions were exciting. Our partnership with Teach First continues to make a real difference for talented schoolchildren, as our people teach and mentor students from disadvantaged backgrounds. And I’m pleased that in 2018 we’re partnering with Career Ready to launch Springboard – bringing students from challenged schools into PA to learn about consulting and gain valuable business skills.

It’s not just our work in local communities that contributes to a positive human future. It’s also the work we do to help other organisations to harness the power of innovation for the good of society that’s moving the needle. In September we chaired a panel at the United Nations (UN). Industry leaders described how business can support the UN’s Sustainable Development Goals – which are oriented around big issues like poverty, inequality and environmental degradation. The message was clear: business as usual isn’t working, and achieving real progress will require businesses to harness new disruptive technologies. The financial prize for business is big – some US $12 trillion – but the prize to society is even greater.

Our work with the UN Global Compact aligns fully with our partnership with the Ellen MacArthur Foundation, to help organisations make the most of the circular economy.

It’s fantastic to have so many opportunities to shape the future – whether that’s through involvement in the global initiatives I’ve described or working with such a diverse set of clients. I’d like to thank every one of our clients for choosing to work with us.

THANK YOU
RIGHT

PLACE.

RIGHT

TIME.

RIGHT

UNIVERSE.
You’ve got the cleverly crafted brand. You’ve got a product that customers want. You’ve been working at customer experience for years. Shouldn’t that be enough to have customers banging at your door?
WELCOME TO CUSTOMER 4.0

It’s clear that power now rests firmly with customers. It’s very easy to tell the world what we like and don’t like, and to see what other people are thinking, feeling and doing. We can find out about the latest developments in any area, often as soon as they happen. And it’s quick and easy to make a noise or find alternatives if you’re not happy with a product or a service.

This is a world where customers have a network of people, brands and organisations that inform, influence and inspire them. To get them banging at your door, you must become part of that network. We call this Customer 4.0 and we’re helping organisations keep up – and get ahead.

BREAKING BOUNDARIES

Everyone between eighteen and 30-something has grown up as a digital native. They have personal devices that bundle services to educate, entertain, transact, research and so on. That has defined their expectations – technology just works. They’re social in all they do, live life in groups (physical and virtual), and share and seek opinions. They tend to collaborate and co-operate, and don’t readily recognise boundaries – including those between brands and customers. They’re driving the shift. And research has shown their significance to be profound – they’re influencing back ‘up’ the generational line to Gen X, Baby Boomers – and even the Silents.

Whichever social group we’re in, Harvard Business School professor Clay Christensen says we all have ‘jobs to be done’ as customers. We choose products and services that allow us to achieve the ‘outcome’ we’re looking for. That defines the way we measure the success of products and services. For example, many of us look for different things from a holiday: to explore, to relax, to learn, and so on. That’s what makes one customer different from another – not primarily their demographics or firmographics.

CHALLENGING ASSUMPTIONS

This view of the customer opens up new ideas for designing a business and interacting with other people and organisations in the customer’s universe. For example, if someone booking a holiday wants to learn a language, a travel company could provide courses at a local language school – or offer the chance to stay with some native speakers.

And organisations may find they’ve been making false assumptions. We helped an international airline rethink some preconceptions about their customers. They’d based decisions on the idea most ‘premium’ passengers were travelling for business, for example, but only half of them were. Creating a clearer picture of their segments allowed them to change their marketing, and opened up a £35 million revenue opportunity.

This ‘outcome-based’ segmenting identifies high potential growth spaces to innovate – giving a new way to decide on the direction to take your business. It uncovers areas of ‘important but unsatisfied’ outcomes. It’s possible to work out the scale of the opportunity by looking at the number of customers in this category. Deliveroo, the food delivery company, wouldn’t have been able to calculate a financial measure of their potential market easily. By looking at the number of customers who valued high-quality food from their favourite restaurants – but were dissatisfied with the current delivery services on offer – they identified a sizeable opportunity.

BRIDGING GAPS

It’s time for organisations to work out what forces are at work in their customers’ universe, not just things they control like brand and promotion. And to explore ways to collaborate or contend with those forces to make their products and services relevant to the customer. What’s needed is a genuine map of a customer journey as opposed to just their interactions with the organisation itself. It’s important to identify the forces with the strongest impact on customer behaviour – and make advocates out of the best customers. This advocacy – or ‘badvocacy’ – has become a hugely powerful form of promotion.

Of course, technology has a central role to play. With data growing exponentially, more powerful and responsive analytics will be needed. The Internet of Things is bringing exciting options for services, and artificial intelligence (AI) is transforming relationships with customers. AI-powered tools allow business process automation that frees up the humans to focus on the more intimate activity that creates value for customers. AI-powered chatbots meet our expectation of instant service support, for example. Virtual and augmented reality could completely alter what you offer customers by giving them a sensory experience that captures the attention, senses and imagination.

All these technologies are opening up a world of opportunities for smarter and closer relationships with customers in every sector.
TO GET CUSTOMERS BANGING AT YOUR DOOR BECOME PART OF THEIR UNIVERSE
THE PROMISE OF VOICE TECH

In the Customer 4.0 world, technology makes it possible to be in the right place at the right time. And one of the biggest new opportunities is in voice technology.

If you haven’t got a voice-activated speaker like Amazon Echo, Apple’s HomePod or Google Home, you may soon find yourself in the minority. Analysis by Juniper Research suggests that by 2022, 55 per cent of US households will have such smart devices. Even if you’re not using one at home, you might find one in your next hotel room. US hotels have been early adopters – allowing them to quickly accommodate or anticipate guests’ wants and needs. Juniper forecasts that voice assistants across all platforms – smartphones, tablets, PCs, speakers, connected TVs, cars and wearables – will reach 870 million devices in the US by 2022. That’s an increase of 95 per cent over the 450 million estimate for 2017.

CREATING VOICE VISIBILITY

What does this explosion in voice-activated technology mean for your organisation? Boosting or creating some ‘voice visibility’ should be high on your priority list. And it makes sense for that to be a focus of any digital transformation plan.

Each digital voice assistant has its own ‘development capability’. Amazon Echo has ‘Skills’ and Google Home has ‘Actions’ for example. Clearly, a first step in becoming voice visible, is to develop these ‘voice apps’. That’s because they let you offer a more ‘frictionless’ experience for customers than having to find a website, write in a search field and click in a box. And it’s important to optimise your online content for voice search so people can get instant answers. The two main differences between written and voice search are that people are likely to say more than they’d type and to phrase their search as a question.

It’s feasible for pretty much any organisation to reach customers this way – brands, manufacturers, retailers, utilities, you name it. To do so, your tactics will need a rethink.

CAPITALISING ON POWERFUL NEW DATA

‘Voice data’ can give you much greater insight into customer behaviour. Not only is it real-time, but because people phrase a search as a question, they ‘tell’ you more about what they’re really looking for – and potentially why. It will allow new segmentation, for example. What’s more, AI can analyse speech patterns and estimate the emotions behind the question. And voice data can be integrated with data from other channels to allow greater insight into customers and their universe. It all adds up to being able to offer a more personal service and create brand loyalty.

STARTING THE CONVERSATION

Most of this is about being ready to react when people ‘speak’ to you – but there are also opportunities to be proactive. The sort of notifications you get on a mobile phone are possible for voice-tech. And this will have a valuable role in keeping people safe. In care homes or where people live alone the speakers could ask questions or warn people if sensors picked up unusual activity, for example. We’re exploring how voice-activated technology could help vulnerable people live independently, see page 21.

It’s clear that more and more of us are adopting this new way of interacting with online content and services. And we’ll all expect to be able to do it wherever we are and for whatever reason: at home, at work and on the move. So, for organisations wanting to succeed in the Customer 4.0 world, it’s time to think ‘voice-first’.

BOOSTING ‘VOICE VISIBILITY’ SHOULD BE HIGH ON YOUR PRIORITY LIST
The Law Society wants to make sure it offers its members services they value. Not least because while today solicitors in England and Wales have to join, that may change – meaning the Society’s revenue would no longer be guaranteed. And, like other organisations, the Society is facing the ‘customer-led revolution’. Technology has changed the way people connect and relate. Organisations need to decide how to fit into their customers’ universe: the network of people and organisations who inform, inspire and influence them.

With all this in mind, the Law Society is developing a stronger membership offer as part of a wider transformation programme. They had research into what members from different types of firm thought of their services. But there were no real differences across these segments. Our experts teamed up with the Society to help them see members as individuals with goals instead.

Then we worked closely with people across the organisation to express its value in those terms. So the Society is: a voice that speaks for the profession – representing lawyers to protect their interests; a career companion – providing advice to help lawyers progress, from when they come into the profession to when they retire; a practice enabler – providing learning and development to help lawyers to keep up with best practice and give clients good service; and an informed source – providing news and information to keep lawyers up to date.

The Society now has a value proposition to anchor their new operating model, shape how they present their services and communicate with members in a compelling way.
World Vision UK provides life-changing support to four million vulnerable children around the world – including nutrition, clean water and education. The charity raises most of its funds by giving donors the chance to ‘sponsor a child’ – but sponsorship’s appeal seemed to be waning.

World Vision UK asked us to take a look at their data on patterns and sources of support gathered over many years. Our analysis revealed that they were disproportionately targeting a single demographic group, via a single channel. As such they were missing out on valuable sources of revenue – including new sponsors. At an intense, focused half-day ‘black box’ workshop, we explored the data together.

The analysis demonstrated to the senior stakeholders that they could take a dramatically different approach. So they asked us to help them develop their marketing and fundraising strategy as an element of a five-year organisation-wide transformation. The plan included targeting new demographic groups, like young families, likely to feel an affinity to World Vision’s cause – and who use digital channels on a regular basis.

We also developed a bespoke modelling tool for World Vision UK. It makes it easy to assess the impact of the new strategy. And they can test new products, different target donors and mixes of channels – alone or in combination. That means they can identify the best ways to hit fundraising targets.

Our business intelligence and analytics expertise and in-depth knowledge of the sector have helped kick-start a transformation in the marketing and fundraising strategy to get donations growing again. For the millions of children who need support, that’s great news.

Our collaboration with PA took us forward in leaps and bounds. Sharing our data with PA meant we needed to put our faith in them from the start. And it paid off. At the data workshop, for example, we learned more from our data in three hours than we could have discovered in three months working alone.”

— Steve Wood, Director of Marketing and Communications, World Vision UK
Veolia Water Technologies (VWT) is a global company specialising in water treatment solutions. It provides the complete range of services needed to design, build, maintain and upgrade treatment facilities for industrial, commercial and municipal customers. VWT were looking for new ways to deliver more value to their customers using digital solutions and innovative business models.

They asked us to help them develop and test digital services that would appeal to their customers. Our expert team brought a strong customer perspective, combined with detailed knowledge both of the water market and digital strategy and technology. We combined our insight with the expertise of VWT’s team to create a long list of ideas.

We used our experience in the sector to identify their customers’ current and future needs and the particular capabilities VWT would need to offer attractive new digital services. This work informed a review and analysis of the long list. VWT tested two preferred options with customers - who liked both. One offers new ways to access Veolia’s engineering capability, and this allows operators to manage equipment more efficiently. The other uses advanced data science and analytics to help customers make more effective use of data to optimise water treatment processes. We helped VWT pilot these services, getting valuable customer feedback. Having learned how to make the services most effective, they’re now offering them to more customers.

Using our think big, start small and scale fast strategy, VWT now understands how to profit from the power of digital, and the skills they’ll need. They’re moving from just selling products to selling services, with the agility and capability to succeed in a fast-changing digital world.
Artificial intelligence is offering organisations even more opportunities to get smarter, faster. But it’s not a ‘bolt on’ solution. Organisations that will thrive in the future recognise that AI and digital need to be part of everything they do.
Barely a week goes by without a headline about the latest AI breakthrough. It can outwit humans at chess. It can teach itself poker and outbluff top players. And it can outdo doctors when it comes to predicting heart disease. Each headline is another reminder. AI is clever. AI is exciting. In short, AI is a key part of our future.

WHAT KIND OF FUTURE IS IT GOING TO BE?

Exactly how do companies and the public sector see themselves harnessing AI. Do they want to automate simple tasks to cut costs, save time and effort, and free their people up for more involved thinking? Do they want deeper insights into their customers to give them a better experience? Or do they want AI’s cognitive clout to help make decisions about their strategy and how to put it into action? And how will they make sure they have the workforce with the right skills?

A QUANTUM LEAP

While organisations ponder their options, the AI economy grows faster and faster. In the next seven years, revenue from enterprise AI applications is forecast to grow from US $1.62 billion to US $31.2 billion. The move towards commercially available quantum computing will allow a leap in processing power not yet seen. There’s a move to ‘app-less’ use of technology where voice is the primary method of our interaction with computers. That will result in a convergence of multiple technology silos (AI, the Internet of Things, mixed reality and blockchain) allowing a more holistic approach.

If you’re not already drawing on this power, you might feel you’re missing the boat, or giving your competitors a head start. You might also worry that you’re pushing yourself into long-term investment decisions at a time when the technology is still developing fast.

So what will you need to remember before placing that bet?

EXPLOIT THE DATA

The saying ‘data is the new oil’ might be starting to sound a little worn. But it’s still true. Where organisations come up short is in their ability to mine the data for insights. Exploring all your data could open up new opportunities.

AI’s insights are only as reliable, and useful, as the data they’re based on. Or, to put it another way: rubbish in, rubbish out. While AI can help screen out all those subjective biases that can undermine human judgement, it can’t distinguish good data from bad without extensive and ongoing training. If a health insurer uses AI to mine heart-rate monitor data that turns out to be inaccurate, it could price insurance wrongly. So organisations still need to dig for the right data, especially if they’re trusting AI to scour it for insights. And they’ll need to set the right parameters for that activity to make sure weak data isn’t skewing the conclusions.

The ethics of how AI reaches decisions and takes action will become increasingly important. People are becoming much more aware of (and concerned by) how their data is being used. The ‘oil supply’ may start to be subject to constraints and we’ll see the value of data increasing dramatically both to organisations and individuals.

AS THE TECHNOLOGY IS ACCESSIBLE ON A SMALL SCALE, YOU CAN START BENEFITING RIGHT AWAY

As the technology is accessible on a small scale, you can start benefiting right away. You’ll also take less risk than you would by attempting wholesale change in one step. And you’ll ease your people and structures into change while building up an internal AI capability as you go. Follow the mantra: think big, start small and scale fast.

We helped a Dutch public transport company cut costs by using predictive algorithms to make tram maintenance more efficient. They’ve since applied what they learned to other maintenance work.

YOU’LL ALWAYS NEED PEOPLE

Organisations will need to take their people with them, even though they’re changing the very basis of those people’s assumptions about work and careers. So they’ll need to make the people part of the change. That will mean getting them to help shape the vision for AI and the form that early experiments take. When we worked with the public sector in Denmark to scope the services where AI could make a difference, we involved staff. They welcomed being engaged, listing the repetitive tasks they’d be glad to take off their desks.

Digital technology is developing so fast that there will never be an obviously ‘right time’ to ramp up investment or change course. But it’s always the right time to become clear on what you want digital transformation to do for you.

AI is likely to drive fundamental change in the skill sets required in the workplace, which will have a wide ranging impact – on how and where we work, the skills we need and value, and education. Artificial intelligence isn’t the same as human intelligence: it will be these human characteristics that come to the fore. Ironically, the technology could drive us to be more human, and it will be those organisations that proactively grasp the opportunity who are more likely to succeed.
While we’re optimistic and excited about the way digital technology is opening up opportunities for individuals and businesses alike, we’re mindful that there will always be those who want to exploit it for nefarious ends. Organisations are spending more and more on cybersecurity – but what’s important is to invest in the right defences. We’re working with clients to check their resilience. Running simulations allows us to test governance structures, clarify roles and responsibilities, and develop people’s ability to make decisions in real-time. Other priorities should be protecting against ransomware and updating outdated technology.

As well as working with clients to make sure their cyber-security measures are robust, we’re involved in a wide range of initiatives to support society – and vulnerable people in particular.

In November 2017 we brought together industry, academia, the military and civil servants for two days of collaboration. In this Artificial Intelligence Hackathon, we were looking for ways to keep the world safe. Teams immersed themselves in working out how artificial intelligence could enable better decision-making and meet defence objectives more efficiently, focusing specifically on systems, support, training and future workforce areas.

Online sexual exploitation and abuse of children is the most sinister form of cyber crime. Rapid technology development across the world means the risk of child abuse is increasing.

In response to this growing threat, we led the production of a groundbreaking report with the WePROTECT Global Alliance, a group of 82 countries, supported by organisations such as Interpol, the U.S. Department of Justice and the UK’s National Crime Agency. Our work with the Alliance will ensure countries and organisations have a consistent global approach to identifying, managing and preventing this persistent threat.

To read more about our work helping protect vulnerable groups visit paconsulting.com/vulnerabilities
VIRGIN HYPERLOOP ONE

Imagine being able to travel from Dallas to Austin in 20 minutes. Or Dubai to Abu Dhabi in 12 minutes. Virgin Hyperloop One is reinventing transport by developing the world’s first hyperloop. With speeds two to three times faster than high-speed rail and an on-demand experience, a hyperloop can reduce a 300 km commute to under 20 minutes — smashing today’s traditional transportation boundaries. A pod, which can carry cargo or passengers, moves through a tube built under- or overground. Magnetic levitation guides and lifts the pod, and vacuum pumps remove the air from the tube. It’s fully autonomous, all-electric, zero emissions and cheaper to build than high-speed rail.

We’re helping Virgin Hyperloop One make the new system a reality. Our systems engineering and enterprise architecture experts have been working on the plans for the complex software and traffic control systems that will be needed. With our support, Virgin Hyperloop One was able to accelerate delivering the software systems requirements needed by 30 per cent.

We’ve also given Virgin Hyperloop One the expert support to devise and set out a robust road map for achieving their vision. That road map articulates the steps required along the journey to take this totally new technology and bring it to life.

As members of Virgin Hyperloop One’s Partner Advisory Board, we’re working closely with the company and other partners to get a commercially operating hyperloop up and running, and ultimately change the way we live, work and travel.

CHEST

We’ve helped the American College of Chest Physicians (CHEST) make more of its valuable data by developing a cloud-based platform to store it and make it easier to access. CHEST Analytics is a respected source of insight on pulmonary conditions. Clinicians, pharmaceutical businesses, medical device companies and CHEST’s members all find CHEST Analytics extremely valuable. The platform helps CHEST find and package data to match customers’ requests more quickly. And it helps CHEST target services and marketing better by managing their data better. With the new platform, the CHEST Analytics business is poised for growth into the future.

“With PA’s help to creatively cultivate and analyse our unique clinical and training data, we are really beginning to change the way industry views CHEST. The platform PA built means we can offer members customised data. Industry is beginning to view CHEST from the perspective of a true partner that can assist with all aspects of product development, not just from an education and post-product launch perspective.”

— Robert A Musacchio, PhD, Chief Operating Officer, CHEST Enterprises
With competition in the mortgage market in the Netherlands growing, Rabobank needed their sales operation to be flawless. Making sure customers who made an initial enquiry went on to complete their application was vital.

The lender’s systems were making this hard. Data generated by an enquiry at a branch was recorded differently from when the same customer contacted the call centre or visited the website. We helped Rabobank link the data for the first time. The software we wrote can match data to individuals even when their information isn’t consistent. When the software spots that a customer’s application has faltered, it issues an alert. This means a salesperson can contact the customer to help complete their application.

Analysing the data produced clear evidence of where sales teams needed to focus their effort to maximise sales. What’s more, with an accurate picture of the customer journey for mortgage products, the bank was able to make the whole process smoother.

Rabobank was so impressed with the results from this work, they’ve since applied the same approach for over 25 different products. Our initial project for the bank was an inspiring demonstration of the potential of AI to increase sales and improve the customer experience.

"With PA’s help, we got powerful insight into the way customers were using our various channels. Connecting what we knew about people’s activity on our website with our CRM data meant our branches could give a substantial boost to their performance. Aligning the data showed them ‘moments of truth’: points in a customer’s interaction where they were missing opportunities – taking too long to respond to enquiries, for example. PA’s data-driven approach and their sensitivity to our business and our commercial challenges helped us accelerate our digital transformation – putting customers at the centre of it all.”

— Willem Oudijk, Manager Sales and Distribution, Rabobank
HAMPSHIRE COUNTY COUNCIL

HELPING PEOPLE LIVE INDEPENDENTLY FOR LONGER USING DIGITAL TECHNOLOGY

Voice-activated technology will transform the way we all live in our homes, allowing us to control appliances or get information without lifting a finger. We think it could revolutionise life for older people who rely on social care. So we’re working with Hampshire County Council (HCC) and Amazon to find out.

HCC has secured Local Government Association funding as part of their national programme to explore how digital technology can promote independence and wellbeing for people using social care services. The project involves trialling Amazon Echo with 50 adults in this situation.

Our first task is to get users familiar with Echo so they can ask ‘Alexa’ (Echo’s voice persona) to carry out preloaded ‘skills’, like playing music or checking the weather. For the second phase, our digital experts are developing bespoke skills for the device. One of the first enables Alexa to remind the person to take their medication.

In the final phase, we’ll be involving social workers, carers and people needing care to understand how Echo can be integrated into the wider care system. One initial idea is to develop a skill that removes the need for carers to register their visits, freeing up more time for them to interact with the people they’re looking after.

The project, which builds on our long-standing multi-award winning relationship with HCC as their care transformation partner, has huge potential to improve the quality of care people receive. It also promises important financial savings at a time when social care budgets are under intense pressure.

HOME OFFICE

DELIVERING FASTER, MORE RELIABLE VISA AND IMMIGRATION SERVICES BY MOVING TO A NEW CLOUD PLATFORM

The UK Visas and Immigration and the Immigration Enforcement directorates of the Home Office are transforming their services. New technology is making it faster and easier for people to apply for visas and for Home Office staff to make millions of decisions each year.

As the transformation progressed, it became clear their existing cloud-hosting platform was inadequate. The Home Office asked us to help them move the entire infrastructure to a new cloud partner – and make the transition without disrupting the critical services they deliver each day.

Our IT assurance and delivery experts joined forces with the Home Office team and other partners to design and manage the transition. We collaborated at every stage, from an initial feasibility assessment through to early-life support once the infrastructure was up and running. Keys to success included working closely with business stakeholders and third-party suppliers, using an Agile methodology, managing the plan rigorously and having the right technical expertise.

This was one of the largest and most complex UK public sector cloud transformation projects to date – staff will be able to handle over a million cases a year. And the switchover itself took five days.

The new platform is making the new digital systems faster and more reliable for members of the public and staff handling cases. The new infrastructure supporting the platform also allows the technology team to build and release new capability in six minutes instead of a day. And decommissioning older technology saves £4 million a year. The Home Office team are now well equipped to continue developing innovative digital services quickly and effectively.

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READY FOR ACTION
As change accelerates in the world around us, you have to be nimble to stay ahead. As businesses bring new ideas to market in response, the competitive landscape in every sector is experiencing disruption. Taking an Agile approach is proven to help business leaders not only deal with these challenges but also to thrive and grow.
RACING TOWARDS THE FUTURE

New ‘digital-born’ competitors, unencumbered by legacy structures and systems, and driven by fearless ambition, aren’t waiting around for the big players to catch up. They’re racing towards the future and they’re moving at breakneck speed.

For your organisation, this might not be news. You probably already see the need to start serving customers in new ways. You want to get better at predicting and exploiting new opportunities. But planning to develop new ideas and implement change in a conventional way means you could lose the race even before you leave the blocks. It’s time to change.

DOING TRANSFORMATION DIFFERENTLY

Many businesses still plan change in a traditional way – as a series of interdependent projects, with results typically delivered at the end of each cycle. Each cycle can last up to five years. So, by the time the benefits are delivered, the world has moved on.

What’s needed now is something more flexible – an approach that lets you constantly adjust and readjust to new and evolving realities. This is where Agile comes in. It’s an incredibly powerful way of driving change.

WAY BEYOND THE IT DEPARTMENT

Agile approaches for projects have been in use for more than a decade, originally by software development teams. Agile techniques encourage and enable teams to ‘test-learn-change’ in an ever-evolving process (rather than directing them towards some fixed, already defined end point). Regular iteration and evaluation reduces implementation risk and makes it easier to stop unprofitable projects before you incur large losses.

More and more organisations are using Agile approaches to undertake transformations large and small so they can respond faster and more effectively to change. It can inject a new sense of purpose and energise people in any sector. We have extensive experience in leading successful Agile programmes for organisations around the world – including the largest ‘Scaled Agile’ transformations in banking, life sciences and the UK Government.

A CULTURE OF CONTINUOUS LEARNING AND INNOVATION

Agile offers a suite of distinctive tools and methods, but becoming an Agile organisation is about more than putting those into practice. To realise the flexibility and speed of Agile, you need to change your culture too. Whether you succeed in doing this depends on your leaders.

‘Command and control’ doesn’t support an Agile culture. Instead, leaders need to think of themselves as ‘facilitators’, asking “what can I do to make my teams successful?” The focus should be on enabling the team and promoting a culture of continuous learning and innovation.

The shift to Agile extends beyond leadership style to structures. Agile promotes flat structures and decentralised decision-making. Leadership becomes a collective responsibility for the whole team, so encouraging and developing highly engaged leaders at all levels is key. Start thinking of ‘leadership’ as a personal attribute rather than a grade, and you’ll find this makes it possible for people at all levels to take the initiative and contribute more.
**WHAT DOES AN AGILE ORGANISATION LOOK LIKE?**

We think organisations should move to Agile ways of working to make the most of the rapid changes happening in technology and customer behaviour. Here’s how it can look in different sectors.

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<td><strong>ONGOING CUSTOMER FEEDBACK</strong></td>
<td><strong>SHORTER TIME TO VALUE</strong></td>
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<tr>
<td>A retail bank releases an online service to a subset of customers to get feedback over a specific period – several months, say – making continual adjustments before releasing it more widely.</td>
<td>A fashion retailer sets up a social listening programme to find out what customers are saying online about their new digital stylist service. That helps them improve it sooner rather than later.</td>
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<tr>
<td><strong>A START-UP CULTURE</strong></td>
<td><strong>RESPONSIVENESS TO CHANGE</strong></td>
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<td>A large, well-established utility demonstrates entrepreneurship by setting up an independent digital-only electricity brand to disrupt itself and the competition.</td>
<td>A government department sets up an online service it can easily redesign to incorporate changes in legislation or regulations at short notice.</td>
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<td><strong>A SIMPLIFIED ORGANISATION</strong></td>
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<td>A pharmaceutical organisation streamlines its research and development processes, cutting the number of ‘hand-offs’ between departments – and the time it takes to get a new drug to market.</td>
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**SCHRODERS**

**BECOMING MORE COMPETITIVE BY TRANSFORMING INTO AN AGILE GLOBAL ORGANISATION**

To stay competitive, global investment managers Schroders need faster delivery, increased efficiency and improved quality from their IT organisation. To get IT teams working more closely with the business, Schroders asked us to introduce Agile ways of working across the global IT organisation.

We put together a team of experts experienced in Scaled Agile, business design, technology transformation, and people and talent to work with the Schroders transformation team.

Together we reconfigured their IT teams so they’re dedicated exclusively to individual areas of the business. This new operating model allows IT specialists to work closely with specific business colleagues, focus on their needs and deliver new capabilities faster.

A major part of the transformation was an ambitious programme of Agile training and coaching. Our experts ran courses for more than 600 IT, technology, change and business professionals. We supported this with practical coaching as the Agile teams launched and moved into business as usual.

We helped Schroders recruit a global team of ambassadors for the programme. And we supported the IT leadership in rethinking the IT organisation’s culture – to empower people to make decisions and take ownership.

Now that they’re using Agile methods, the IT organisation is completing projects faster – over nine months the speed of release went up by 20 per cent. The number of projects seen as ‘at risk’ has fallen by 60 per cent. And they’re creating systems closer to what users want – over the last year the business satisfaction score has gone up by 20 per cent. There’s a much closer, more productive relationship between the technology teams and the business. And this will support Schroders’ ambitions for the future.

**HM COURTS & TRIBUNALS SERVICE**

**TRANSFORMING THE COURT SYSTEM TO OFFER A 21ST-CENTURY SERVICE**

UK justice is often cited as the envy of the rest of the world. But the service the public and professionals experience in bringing it about can be slow and frustrating. Processes are often unwieldy and staff hamstrung by systems and procedures. Court buildings are often outdated and IT has fallen behind the revolution that’s taken place in wider society.

So HM Courts & Tribunals Service (HMCTS) asked us to develop a radical vision for them. They want a better court system that empowers their staff, capitalises fully on new technologies and operates out of modern, efficient facilities.

Our business design experts developed an outline for a new operating model for the new vision. That helped set the direction, build confidence and inject pace so that, after just 12 weeks, we had a comprehensive view of the future and a clear business case. We then embarked on more detailed design work, liaising widely across HMCTS, to develop a clear plan for turning the system around. Armed with this detail, HMCTS secured the £720 million government investment needed to make their vision a reality.

We were also heavily involved in delivering the vision. Our change experts worked side by side with the internal HR team to manage the ‘people’ aspects of the overhaul. We’ve helped restructure the workforce, build a modern ‘proposition’ for staff, and equip people with new personal and digital skills.

Our initial design work helped HMCTS clear the first vital hurdle in their bid to bring the court system right up to date. And our subsequent support has helped them to make sure that the new service lives up to – or exceeds – what the public wants.
Danish Labour Market Insurance makes decisions on workers’ compensation claims and advises in cases when people make private insurance claims. They faced the triple challenge of being merged into a larger organisation, a new strategy and a new management team. They asked us to help them establish plans to drive those changes.

We interviewed all their senior managers and used the analysis of those interviews to develop new structures and processes. We also advised on communication, helping generate a strong sense of excitement and positive energy about the changes ahead.

The new organisation is now in place – allowing them to focus on new strategic priorities.

In one of the most complex equipment programmes they have ever run, the Ministry of Defence (MOD) is building seven Astute-class nuclear-powered submarines to maintain the UK’s naval defences.

With the manufacture of the sixth submarine under way, the prime contractor had submitted their final proposal to the MOD, who asked us to help with the final negotiations and get the best value for money for UK taxpayers. The MOD also wanted help with moving the contract through the complex approvals process much faster than usual. The standard approvals process for a contract like this typically takes 115 days, but there were only 30 days to go before the contract had to be signed.

We looked closely at the build programme and associated costs to see where savings could be made and to develop evidence to support negotiations on the final deal. We also developed a robust plan for securing ministerial sign-off for the final contract which detailed the key activities that needed to take place. This included engaging with more than 65 stakeholders across government and creating a strong evidence base to help them make prompt decisions. Throughout, we had to make sure the contract was scrutinised properly despite the shorter timescale.

We helped secure approvals within 30 days – cutting the time it normally takes by 85 days. This allowed the final contract to be signed within the challenging timeline. In addition, our support in negotiating the final deal enabled the MOD to secure savings of £110 million on the £1.4 billion contract.
We believe the future is firmly in our hands. It’s up to all of us how we use resources, prioritise investment in technologies to better our people and planet, and prepare the next generation to lead. That sense of purpose guides our approach to our work with clients.
THE MANY FACETS OF SUSTAINABILITY

Sustainability is a defining challenge of our times. And it’s time to step up. Sustainability is an essential element of progress – in how we do business, how we overcome global challenges, and how we support and learn from future generations.

THERE’S VALUE IN THE CIRCULAR ECONOMY

Much of what we produce ends up in landfill, with only a small fraction of the value we put into making things recovered after use. With a finite level of resources, volatile commodity prices and a growing global consumer middle class, business needs to change.

Today’s economy is primarily linear, and follows a ‘take, make, use, and dispose’ model, relying on large quantities of cheap, easily accessible materials and energy. We need to work towards a ‘circular economy’. This aims to get the most value from, and make the best use of, products, components and materials at all times. It means focusing on consuming services rather than purchasing assets and maximising inherent value in products and by-products. It will inevitably mean reducing material and energy costs, reusing, refurbishing and recycling.

We think this is vital. That’s why we’re a member of the CE100, a group of leading global organisations seeking to accelerate the transition to a circular economy, set up by the Ellen MacArthur Foundation. Members include Unilever, Philips, Apple, Cisco, Google, Nike, eBay and Ikea. The Foundation estimates that the circular economy will create in excess of €1 trillion in value in Europe alone by 2025. We’re leading thinking and activity around how business can get better at selling products that have multiple lives and the potential of the sharing economy. We’re working with clients to advance the move to a circular economy by building reusability into appliances for large manufacturers. And we’ve joined forces with start-up Skipping Rocks Lab to take on one of the biggest challenges facing the world – finding an alternative to plastic waste. Together we’ve helped design Ooho – a completely biodegradable (and edible) drinks container, see page 37.

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THE UN’S SUSTAINABLE DEVELOPMENT GOALS (SDGs) PROVIDE VALUABLE GUIDANCE FOR WHERE OUR PRIORITIES FOR INVESTMENT SHOULD LIE. THEY’RE 17 PLEDGES TO OVERCOME SOME OF THE BIGGEST CHALLENGES THE WORLD FACES BY 2030 – CHALLENGES LIKE POVERTY, INEQUALITY AND ENVIRONMENTAL DEGRADATION. BUSINESS ENGAGEMENT IS KEY TO DRIVING PROGRESS IN THOSE AREAS. ACHIEVING THE SDGS REPRESENTS A US $12 TRILLION COMMERCIAL OPPORTUNITY. BUSINESS IS ALREADY MAKING EFFORTS, BUT AT THE CURRENT PACE THE GLOBAL COMMUNITY RISKS COMING UP SHORT. TO DATE, EFFORTS TO ACCELERATE PROGRESS TOWARDS THE SDGS HAVE LARGELY FOCUSED WITHIN INDIVIDUAL ORGANISATIONS AND THEIR EXISTING VALUE CHAINS.

WE’RE MEMBERS OF THE UN GLOBAL COMPACT, THE UN’S GLOBAL BUSINESS NETWORK. OUR CEO, ALAN MIDDLETON, CHAIRCED A PANEL DISCUSSION AT THE LEADERS SUMMIT IN NEW YORK IN SEPTEMBER 2017 FOCUSED ON HOW ORGANISATIONS CAN ACHIEVE BREAKTHROUGH INNOVATION IN PURSUIT OF THE SDGS. WE HIGHLIGHTED THE NEED FOR ORGANISATIONS TO STRIVE FOR BREAKTHROUGH INNOVATION – LOOKING BEYOND INCREMENTAL CHANGE TO FIND NEW BUSINESS MODELS THAT DELIVER BOTH SOCIETAL AND ECONOMIC OUTCOMES. AND WE CONTINUE TO ADVOCATE FOR HOW DISRUPTIVE TECHNOLOGIES WILL ACCELERATE PROGRESS BY ENABLING ORGANISATIONS TO OPERATE IN NEW AND FAR MORE SUSTAINABLE WAYS – WHILE SEIZING HUGE COMMERCIAL OPPORTUNITIES. THEY’RE AVAILABLE NOW AND WE’RE HELPING CLIENTS DEVELOP STRATEGIES AND SOLUTIONS USING THEM. YOU CAN READ MORE ABOUT THEM ON PAGES 32 AND 33.

DISRUPTIVE TECHNOLOGIES ARE AT THE HEART OF OVERCOMING GLOBAL CHALLENGES

The UN’s Sustainable Development Goals (SDGs) provide valuable guidance for where our priorities for investment should lie. They’re 17 pledges to overcome some of the biggest challenges the world faces by 2030 – challenges like poverty, inequality and environmental degradation. Business engagement is key to driving progress in those areas. Achieving the SDGs represents a US $12 trillion commercial opportunity. Business is already making efforts, but at the current pace the global community risks coming up short. To date, efforts to accelerate progress towards the SDGs have largely focused within individual organisations and their existing value chains.

We’re members of the UN Global Compact, the UN’s global business network. Our CEO, Alan Middleton, chaired a panel discussion at the Leaders Summit in New York in September 2017 focused on how organisations can achieve breakthrough innovation in pursuit of the SDGs. We highlighted the need for organisations to strive for breakthrough innovation – looking beyond incremental change to find new business models that deliver both societal and economic outcomes. And we continue to advocate for how disruptive technologies will accelerate progress by enabling organisations to operate in new and far more sustainable ways – while seizing huge commercial opportunities. They’re available now and we’re helping clients develop strategies and solutions using them. You can read more about them on pages 32 and 33.

YOUNG PEOPLE FULFILLING THEIR POTENTIAL WILL CREATE A BETTER FUTURE FOR ALL OF US

We support the leaders of today and develop the leaders of tomorrow. The promise young people hold inspired us to form a partnership with Teach First, an organisation that aims to end inequality and make sure no child’s success is limited by their background. In 2017 we worked on updating their careers and employment programme, see page 35.

We run an annual competition for schools and colleges to encourage innovation and programming and coding skills. In 2017 we were looking for inventions to make life better for people with conditions that limit their ability to do things the rest of us take for granted. In 2018, our sixth year, we asked them to do no less than save the planet. You can read about the winning entries on page 34. They rose to the challenge of coming up with ideas on the theme of sustainability: addressing the main challenges – energy use, food production and scarcer resources. We’re also joining forces with Career Ready, a UK-wide charity linking employers with schools and colleges to open up the world of work to young people. Together we’re running Springboard: a week-long programme for 16- and 17-year-olds in our London office. They complete a business challenge and take part in a series of skills workshops on problem-solving, team work and presenting.
ACHIEVING THE UNITED NATIONS’ SUSTAINABLE DEVELOPMENT GOALS REPRESENTS A $12 TRILLION COMMERCIAL OPPORTUNITY
12 BREAKTHROUGH TECHNOLOGIES THAT WILL HELP OVERCOME THE WORLD’S BIGGEST CHALLENGES

The UN’s Sustainable Development Goals (SDGs) are 17 pledges to overcome some of the biggest challenges the world faces by 2030 – challenges like poverty, inequality and environmental degradation.

We’re working with the UN Global Compact, the UN’s global business network, to identify the technologies most likely to transform business in future. And to explore how those technologies could help businesses do business in a better way – minimising waste to protect the environment or having a positive impact on society, for example. We’ve developed a briefing for businesses on each.

You can read about them in more detail on paconsulting.com

UNMANNED AVIATION SYSTEMS

This tech is transforming the way we monitor crops and environmental conditions, make deliveries to remote communities and provide emergency services, law enforcement and search and rescue. Its potential lies in the ability to fly in conditions humans can’t – or won’t – and in increasing the distance they can travel without human intervention.

NEXT-GENERATION ROBOTICS

New sensors allow robots to recognise and respond to their environment. And they can use software and algorithms to interpret the data and control their movement. These new designs make it easier and safer for humans to interact and work with these robots.

THE INTERNET OF THINGS

This tech is set to transform our lives as profoundly as mobile communications and the internet have. Sensors allow virtually any physical object to be connected to the internet. In energy production, manufacturing, transportation and our home lives, the benefits of sensing, communicating and interpreting data are still increasing exponentially.
Digital Agriculture
Using new and advanced technologies, this will help farmers and other stakeholders improve food production – and feed the ever-growing population. This tech will make agriculture more productive, more consistent and use time and resources much more efficiently.

Artificial Intelligence (AI)
AI’s ability to transform vast amounts of complex, ambiguous information into real insights means it could solve some of the world’s most enduring problems. Its applications are already widespread – and its potential for transforming lives is huge.

Gene Editing
This tech has allowed the in-depth study of diseases, meaning clinicians and researchers can understand and address root causes. It has exciting – though sometimes controversial – applications, from direct genetic modification to the production of new drugs. It has widespread potential in the fields of agriculture and biofuels.

New Realities
Virtual reality and augmented reality change how we view and interact with our own world and how we create immersive experiences in new worlds. In future, it will be possible to carry out many education, business and leisure activities inside virtual spaces.

Microbiome
Research into the concept of using bugs instead of drugs and chemicals is unlocking new ways to treat chronic disease and mental health. And microbiota will increasingly be used to tackle and prevent many diseases – in crops and humans.

Additive Manufacturing
This tech can cut waste, challenge global supply chains (through localised manufacturing) and offers flexibility in the manufacturing process. The business case for using it in small-scale and customised production is clear, so expect to see rapid expansion of the technology’s applications in both industrial and consumer uses.

Autonomous Road Vehicles
Autonomous vehicles (AVs) are opening up new business opportunities, changing ownership models, and posing big challenges to regulators and town and city planners. Their success depends on more than the technology. Regulation, insurance and commercial models are just some of the areas that need to come together to make AVs more widespread.

Blockchain
The potential for this trusted, tamper-proof way of recording transactions for any digital asset is vast. For example, it could transform property and land rights, medical records, intellectual property and ownership of goods.

Big Data
As more aspects of our lives become monitored and connected, it’s difficult to imagine an area where big data won’t have an impact. The ability to capture and analyse data creates meaningful insights or actionable information. It can be used to answer questions, identify trends, spot anomalies or explore information in more detail than ever before.
RASPBERRY PI COMPETITION

CHALLENGING YOUNG PEOPLE TO CREATE LIFE-CHANGING INNOVATIONS

We want to inspire the innovators of the future. Every year we ask school and college students nationwide to use a Raspberry Pi minicomputer, additional hardware and their coding skills to create innovations on a specific theme. In 2018, we were looking for inventions to improve sustainability and help save the planet. More than 100 teams entered, amazing us with their ideas.

The winners were: a smart recycling bin that tells you which compartment your rubbish should go in; a system for automatically turning street lights on and off to save energy; and a wind- and solar-powered battery charger made from mostly recycled material.

The awards ceremony in London was hosted by TV presenter Maggie Philbin. The judging panel included Sarah Wilkinson, CEO, NHS Digital; Nial McCollam, Chief Technology Officer, Lloyd’s Register; and Rory Cellan-Jones, BBC technology correspondent. They were delighted by the young people’s creativity and team spirit, as well as their technical skills and enthusiasm for solving problems. The judges were especially impressed with the teams’ drive to make sustainability engaging – each invention had concentrated on user experience so they could become a seamless part of everyday life.

We’re passionate about technology and innovation, and this competition is a platform to guide the next generation to be as involved in it as we are. And while we hope to inspire them, each year the teams impress and inspire us.

OUR 2015 COMPETITION WINNER JOINS OUR TEAM

Ahmad Khattab is an inventor working in our Global Innovation and Technology Centre. He joined us in September 2017 – and was one of the winners in our Raspberry Pi competition back in 2015. He built a doorbell that could call your phone, text you, email you a photo of the person at the door, tweet you or live-stream high-definition video locally and on YouTube. Winning the prize inspired Ahmad to join our summer internship programme that year. He worked with fellow interns and our technologists to develop a defibrillator that could be recycled or reused – as part of our focus on the circular economy.

He’s now in our graduate scheme and is enjoying working in teams including designers, material engineers and software developers to create world-first consumer products. “I really enjoy learning something every day and working in an organisation focused on solving problems in totally new ways,” says Ahmad. “There’s such a variety of projects going on and it’s exciting to think I’ll continue to work on groundbreaking technology.”
Since 2014, we’ve worked with Teach First, a charity aiming to end inequality in education by making sure no child’s success is limited by their background.

From the start, our partnership has helped to mentor and coach new teachers to help them build the leadership skills to overcome their day-to-day challenges. We’ve also helped small education start-ups and social enterprises that Teach First help to grow, looking for ways to improve educational outcomes for pupils from the poorest backgrounds.

This year we’ve focused on advising Teach First on their Careers and Employability Leadership Programme (CELP) and their university access programme (Futures). Through CELP, Teach First trains middle leaders to improve careers provision in schools. And Futures provides support for sixth-form pupils applying for university, including mentoring and helping with UCAS applications.

The need for programmes that support young people to make informed and ambitious choices about their futures is clear. Research shows that children from low-income families have less chance than their wealthier classmates of getting into university – especially the most selective institutions – even when they have the same results. The same is true when they apply for jobs and apprenticeships.

Teach First wanted to grow CELP from a successful pilot in 43 schools to a national programme with 100 schools. And they wanted to improve customer service for both CELP and Futures. Our business design specialists worked with Teach First’s team to develop a model for growing CELP and refining the customer journey for both programmes.
A few miles from the UK city of Cambridge sits our Global Innovation and Technology Centre. Built by award-winning architect Richard Rogers, it’s key to our drive to build a positive human future.

Home to the very latest technology – and some of the world’s finest brains – it’s where we bring innovation to life. That means we have the unique space to come up with solutions to client problems, test them in the real world and manufacture them.

We’ve imagined, prototyped and developed world-firsts in communications, defence, healthcare, manufacturing and transport there. That includes the world’s first private digital telephone exchange, one of the first speech recognition systems and the three-minute pregnancy test.

That was all in the last century. Since then, we’ve created one of the earliest satnavs, the ‘inhaler of the future’ and a remote-controlled landmine detector – among many other things. More recently, we created 3D-printed glasses, training for engineers using virtual reality headsets and drones that are transforming agriculture.

The Centre gives us the unique space, tools and expertise to make a real impact through tangible innovation. As we push forward as an organisation, it will let us prove ideas work in the real world, not just on paper, giving us an exceptional ability to deliver results.
London start-up Skipping Rocks Lab has come up with an alternative to plastic water bottles. It’s a flexible container called Ooho, made from seaweed extract, that’s 100 per cent naturally biodegradable. When someone has finished drinking the water they can even eat the container.

We’re helping the business develop the machine to manufacture the containers. Skipping Rocks Lab will lease the machine to businesses to use on their premises. The retailers will then be able to produce water- or juice-filled Oohos daily on-site, rather than taking up storage space with stock. The business ultimately aims to help stop up to one billion plastic bottles reaching the ocean every year, and stop the 300 million kg of carbon emissions that go with them. As well as using nine times less energy in the production process, the material has the potential to be cost competitive with plastic.

We started working with the business after meeting their team at an event run by the Circular Economy 100 programme in late 2016, and our team of mechanical and process engineers has worked closely with the Skipping Rocks Lab team of scientists on developing and testing the machine since mid-2017.

The business hopes to have a small number of machines with clients by the end of 2018. In the meantime, they’re testing Ooho at events like outdoor food markets and marathons.

The potential for Ooho doesn’t stop at replacing water bottles. The material can be a substitute for many single-use plastics, from ketchup sachets to miniature shampoo bottles.
THE CO₂ EMISSIONS CHALLENGE

Every year we rank the top carmakers in Europe according to their performance against CO₂ emission targets. Volvo, Toyota, Renault–Nissan and Jaguar Land Rover are on track to meet their 2021 targets. But six major manufacturers – Volkswagen, BMW, Hyundai–Kia, Fiat Chrysler, Peugeot–Citroën and Ford – are not.

AGILE – A CHEMICAL ROMANCE?

We check out the connection between some of the body’s chemicals and Agile working techniques. Dopamine, oxytocin and serotonin are released when you feel motivated, valued and confident. Agile priorities boost production by celebrating milestones and creating an environment where it’s okay to learn from failing, for example.

INNOVATION MATTERS

With insights on how to make a success of innovation gleaned from over 800 senior executives, our 2017 innovation report highlights four priorities. Organisations generating substantial increases in revenue and growth focus on the future, design innovation into their organisation, create an innovation culture and build a network for innovation.

GDPR: IT'S TIME TO GET SERIOUS ABOUT DATA PROTECTION

The EU General Data Protection Regulation (GDPR) brings in greater requirements for visibly protecting confidential information and much stricter penalties should an organisation experience a breach. Organisations need to focus on data held about EU citizens, unambiguous consent and how they use third parties to manage data. It’s a game-changer.

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EMBRACE THE BENEFITS OF SERVITIZATION

Offering customers extra services alongside physical products is a great opportunity – or could even be key to survival as profit margins are eroded. To make a success of servitization you need to engage with customers, make data the driving force and get technology up to the mark.

THE IMPACT OF BREXIT ON AUTOMOTIVE MANUFACTURING IN THE UK

Some UK factories could close because they would be uncompetitive. Plants run by Honda and Toyota are most at risk of closure after Brexit, according to our research. The UK exports over 1.2 million cars a year with over half going into the EU. If current high levels of uncertainty continue, demand and sales could fall by 5 to 10 per cent.

ARE YOU READY FOR THE CUSTOMER 4.0 REVOLUTION?

We’re now in a a Customer 4.0 world – failing to live up to customers’ expectations could cost you. You can achieve relevance and value by positioning yourself in the customer’s universe, being there when they need you and getting out of the way when they don’t.

AGILITY IS ESSENTIAL FOR ORGANISATIONAL SURVIVAL

No one can predict the next Airbnb, Google, Monzo, Netflix or Uber, but we do know technological changes will continue to disrupt markets. Organisations that are agile will adapt, survive and thrive. It means having a start-up culture, a flatter structure, being responsive, prioritising well and constantly listening to customers.

THE WORLD OF BANKING IS CHANGING

Marcus Agius, Chairman of PA and former Chairman of Barclays, discusses the challenges facing banking, including new regulation, greater competition and Brexit. In terms of regulation, he suggests US President Trump’s activities will have the biggest impact – with any deregulation there likely to be followed in other financial centres.

DIGITAL BUSINESS MODELS FOR THE AUTOMOTIVE AND INDUSTRIAL SECTORS

Forming new partnerships will have the biggest impact on your digital capabilities: technological knowledge, analytical/big data skills, digital mindset, flexibility and development speed. It’s also important to embrace digital transformation by using small, incremental springboards – what we call lighthouse projects.
OUR NUMBERS
You’ve been reading about what we think, what we do and how we do it. Behind all that there’s a team of over 2,600 technologists, innovators, strategists, leaders and developers.

We’re working out of 25 offices around the world in nine global industry teams:

Consumer and retail | Defence and security | Energy and utilities
Financial services | Government and public sector | Healthcare
Life sciences | Manufacturing | Transport, travel and logistics

In 2017 we generated £400m in fee income and delivered £65m adjusted EBITDA.
About PA

An innovation and transformation consultancy, we believe in the power of ingenuity to build a positive human future in a technology-driven world.

As strategies, technologies and innovation collide, we turn complexity into opportunity.

Our diverse teams of experts combine innovative thinking and breakthrough technologies to progress further, faster. Our clients adapt and transform, and together we achieve enduring results.

We are over 2,600 specialists in consumer, defence and security, energy and utilities, financial services, government, healthcare, life sciences, manufacturing, and transport, travel and logistics. And we operate globally from offices across the Americas, Europe, the Nordics and the Gulf.

PA. Bringing Ingenuity to Life.