TREND REPORT AUTOMOTIVE

Accelerating digital transformation

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About Expleo

Expleo is a trusted partner for end-to-end, integrated engineering, quality services and management consulting for digital transformation. We help businesses harness unrelenting technological change to successfully deliver innovations that will help them gain a competitive advantage and improve the everyday lives of people around the globe.

Expleo is active in the technology-intensive sectors that make business and society more connected, sustainable and secure. We offer unique access to industry-specific expertise and best practice across the following services: consultancy and business agility, product design, production and in-service support, as well as continuous quality.

Our 15,000 people bring the right balance of boldness and reliability that businesses need to succeed in this disruptive era. We are active in more than 25 countries, generating €1.1 billion in revenue in 2018.

We make a difference in the following areas: Aerospace, Automotive, Banking & Financial services, Defence, Energy & Utilities, Healthcare, Industrial, Insurance, Media, Naval, Public Sector, Retail & Logistics, Telecoms, Transportation.

Contents

Current trends ............................................ 4
Looking forward – what’s coming round the corner? ..... 6
What’s on our minds at Expleo? ......................... 8
Current trends

In 2018, the boundary lines between car companies and tech providers continued to blur. The challenges and opportunities around disruptive technology for the traditional automotive players, as well as those new entrants to the industry such as computer firms, are fast maturing into business as usual. The conversation has evolved from “what does this mean for us?” to “here’s what we’re doing about it”.

Members of the public increasingly expect technology in everything they do. They want their car – or whatever their preferred form of mobility - to link up with all the other elements of their connected lives. This new reality has forced blue chip companies to see their marketplace in a completely different way.

Yet, this isn’t the first time that these long-standing brands have faced market turbulence. 2018 saw their response intensify. Increasingly, standing brands have faced market turbulence. Yet, this isn’t the first time that these long-standing brands have faced market turbulence. In 2018, the boundary lines between car companies and tech providers continued to blur. The challenges and opportunities around disruptive technology for the traditional automotive players, as well as those new entrants to the industry such as computer firms, are fast maturing into business as usual. The conversation has evolved from “what does this mean for us?” to “here’s what we’re doing about it”.

For example, Honda showcased its Dream Drive, the industry’s first integrated driver and passenger infotainment, commerce, services and rewards dashboard. Targeting backseat passengers, Audi unveiled Virtual Reality technology called Holoride that can adapt virtual content, such as a spaceship computer game, to the movements of the vehicle in real time. Mercedes-Benz gave a glimpse of the future with its revamped MBUX interface, which houses refined technology around voice control, intelligent lighting and connectivity to wearable fitness trackers and smartwatches.

Nissan’s Invisible-to-Visible (IZV)_4) technology gives the car a wider field of vision than the driver. It aims to connect with external data sources that will alert the driver to, say, obstructions on the road or vacant parking places. Meanwhile, Hyundai made noise around its “Virtual Touch,”_5) system that allows the driver or passenger to use hand gestures to speak to the car.

At the Geneva Motor Show, Renault turned heads with the fifth generation of the iconic Clio model, fitted with the E-Tech_6) hybrid engine, which aims to democratise driver assistance on the journey to autonomous driving. Meanwhile, the new Twingo houses the new Renault EasyConnect_7) ecosystem, which allows the driver to interface with their digital life.

Manufacturing is also looking to make more from digital technology, as the implications of Industry 4.0 come into clearer perspective. Meeting customer expectations demands reduced-cost and higher-performing supply chains. For example, Groupe PSA’s ‘excellent plant’_8) aims to make production more efficient, safer, cleaner and more responsive to changes in demand.

It’s not just the car brands setting the pace. Tech giants like Samsung, Microsoft or Google revealed new ways of connecting voice-recognition gadgetry, such as Bixby, Azure and Alexa, within infotainment systems. Samsung’s subsidiary Harman_9) has also trialled facial-recognition as a smart tool for security, personalisation and driver performance.

Despite all the excitement around digital transformation and Automotive 4.0 technology, the biggest potential roadblock is still the number of real live human beings who can develop the necessary machine learning, AI and automation. As the worlds of car manufacturing and technology continue to collide and merge, the premium on skilled people – and flexible teams – with the right technical and domain expertise will continue to grow in step.

Are we nearly there yet?
Fully autonomous driving is still some way down the highway, but the technology around Advanced Driver Assistance Systems is accelerating towards that destination. This year’s car shows have already revealed a wide array of fascinating prototypes.

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1) https://global.honda/innovation/2019/ces/driving-show.html
4) https://europe.nissannews.com/en-GB/releases/release-52dd27b017beff01acb83b8eef001ffe-nissan-unveils-invisible-to-visible-technology-concept-at-ces
13) https://europe.nissannews.com/en-GB/releases/release-52dd27b017beff01acb83b8eef001ffe-nissan-unveils-invisible-to-visible-technology-concept-at-ces
Looking forward – what’s coming round the corner?

1. Let’s work together
   The mood music is over. The big band is now playing, and dancers are finding their partners. Nobody wants to be on the side-line watching. Even five years ago, who would have put Cisco and Hyundai, Mercedes and Nvidia, BMW and Lyft, or Audi and Disney together? How car and technology brands collaborate and share the heavy lifting will continue to be a big feature of this year. Already, different sectors are overlapping like never before. Innovation will be as much around imagination and networking, as technological development.

2. Infrastructure for change
   Alongside the vehicles themselves, the focus will widen to include the environment needed for autonomous cars and e-mobility. At the moment, the emphasis is on the interior, rather than the exterior environment, but until cities and society are equipped with the right regulations, charge points, safety systems etc, then too many of the best ideas will remain in exhibition halls.

3. New models for 2019?
   In line with falling numbers of car ownership, especially among young urban drivers, the noise around different mobility models is intensifying. Options for ride-sharing, fractional-ownership, subscriptions and mobility-as-a-service are all disrupting the traditional decision to just-go-buy-a-car. Electric batteries may likewise emerge as a new asset for the e-mobility market, which owners can rent out or use as an energy store. As cars become more connected, secure blockchain technology will secure peer-to-peer (P2P) payments, such as cardless fuel payments and in-car purchases like apps and movies. Blockchain can also guide vehicle-to-vehicle (V2V) connectivity, such as sharing telematic data. Let’s not forget B2B too, as blockchain has the potential to protect data flow along the supply chain.

4. Great ideas, great IT
   Quality assurance, which runs in parallel with innovation, may not earn the same headlines as self-driving, infotainment and e-cars. But without it, the headlines can prove very damaging. All this change is risky, and expensive too. Brands are jostling for position in an ultra-competitive market. They want to be known for setting the pace, not for the recalls. In parallel with innovation, the systems for continuous testing, cybersecurity and enhanced safety will need to develop at pace in the coming year. This thorough approach will save money, time, lives and reputations.

5. The importance of best-shoring
   A recent trend that is likely to increase is the geographical spread of engineering talent. Despite the spectre of trade tariffs and protectionism, which threatens to push up the price of materials and disrupt supply chains, we believe the shift towards best-shoring is critical for firms to ensure the right blend of flexibility, expertise, capacity and cost. Countries such as India and Romania, which have flourishing engineering sectors, are already providing attractive environments for fast-tracking breakthrough technologies.
What’s on our minds at Expleo?

As an end-to-end integrated provider of engineering, quality services and management consultancy for digital transformation, we’re incredibly excited about the prospects for the automotive industry in 2019. Our automotive team delivers turnkey solutions to major OEMs that are looking to outsource challenges around autonomous cars (including ADAS), connected technology and e-mobility.

As a trusted partner, we find the right talent in the right locations. In recent years, we have extended our capabilities to include deep expertise across software and connective technology, such as car-to-x communication systems. We’ve duly grown our R&D capabilities to meet the high demand.

While the smart things we do around infotainment and instrumentation make for better YouTube videos, we’re also fiercely proud of our involvement across the entire vehicle, including all the core features such as trim and lighting, Body in White, chassis, powertrain control, electrical power, signal distribution and more.

We need to be a service organisation as much as our clients. We actively find ways to lessen service disruption, whether through on-demand technical assistance and tailor-made work packages or service centres and turnkey solutions. It also means providing the right mix of local resource and off-shore expertise.

The unique combination of our services has made us a “one-stop-shop” for engineering and quality services, allowing us to provide the right balance of ingenuity and reliability. The race is on to build tomorrow’s mobility, whilst ensuring the uncompromised safety of products, people and our planet. The future will need bold thinking and plenty of rigour, and we’re ready to play our part.
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