





# HOW INNOVATION IS DRIVING AN AUTOMOTIVE SKILLS GAP THAT THE UK CAN FILL

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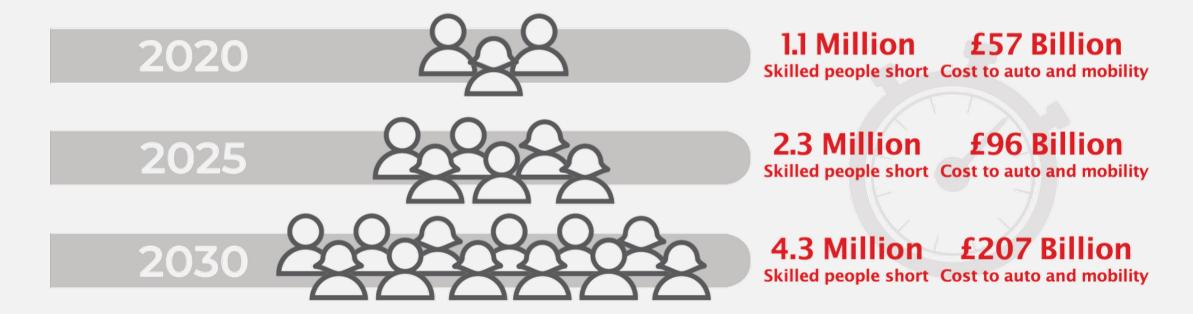
Digital Intelligent and Technology Centre

Lotus



The Automotive Industry is facing a giant skill shortage How can collaboration and innovation help solve the problem?

The issue: the skills gap is doubling every 5 years.



### Customer expectations have changed

'DON'T INTEGRATE EVERYTHING INTO MY CAR, INTEGRATE MY CAR INTO MY LIFE'

#### **CUSTOMER NEEDS PER AREA OF LIFE ENERGY** Managing energy consumption HOME **MOBILITY** and charging Living in a safe Getting from and comfortable A to B environment ( )<u>@</u> HEALTH **FINANCIALS** Paying with physically and integrated (H) mentally fit financing solutions CUSTOMER GAMING SOCIAL Playing games Engaging and such as FIFA or exchanging on Mario Kart social platforms SHOPPING **ENTERTAINMENT** Shopping for Enjoying movies, all kinds of WORK television and products and Earning money listening personal care by creating value to music and acquiring knowledge

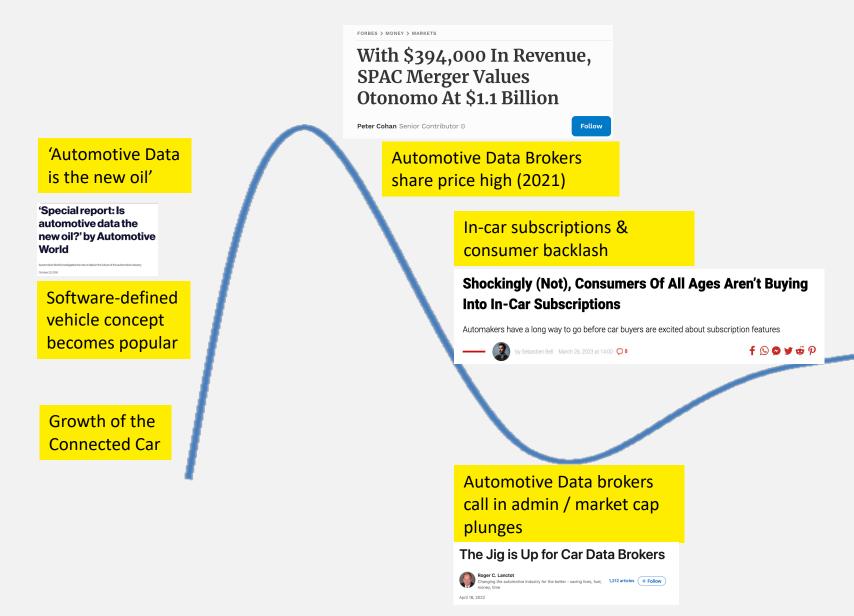
A digital ecosystem opens avenues for greater customer value

- 95% of customers require a seamless process across online and offline channels 1
- 86% of customers are willing to pay more for a seamless customer experience 1
- 65% prefer to receive personalized offers from automotive OEMs instead of 3rd parties 1
- 64% are more likely to recommend brands that deliver experiences to customers <sup>1</sup>
- Higher level of interest in features that provide updates on maintenance, traffic/ road safety, and suggestions for safer routes. More work is necessary to improve the willingness to pay extra for connected technologies in developed markets <sup>2&4</sup>
- Understand What is value for the customer. What is fit for the brand. Then Experiment how
  customer data and innovation can sustain acquisition efforts

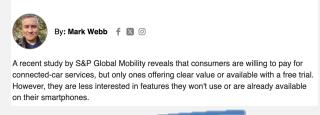
1 frog.co survey of 1,000 customers

- 2. Deloitte consumer study
- 3. Digital Auto Report 2023 Vol 2 (Strategy &)
- 4. Mckinsey (what consumers want and are willing to pay, Oct, 2023))

### IF YOU WANT TO KNOW THE FUTURE, LOOK AT THE PAST



Outlook around customer appetite continues to mature



HOW MATURE IS THE AUTOMOTIVE ECOSYSTEM?

### We will face more headwinds and guardrails though...



• East-West/ North-South **geopolitical tensions** 

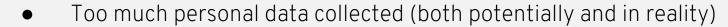
### Evolving regulatory regime – e.g.

- Expanding "Right to Repair" laws (e.g. in Massachusetts, USA and EU)
- Data residency
- Cybersecurity
- Digital services and market Acts

- Data "ownership" it will be <u>more nuanced</u> than generally thought about. 'Trade secrecy' or object of confidentiality <sup>1</sup> qualification may be an exception than granted
  - External factors reflecting the geopolitical reality, regulatory regimes and customer perceptions will be an influence
- With connected car data transfer growing exponentially (one study estimated it at 10 exabytes per month), OEMs will need a unified approach to drive value

## And the industry still needs to improve its image....

# \*Privacy Not Included



- Most (84%) share or sell the data includes "informal requests"
   from the government or law enforcement
- Most (92%) give drivers little to no control over their personal data
- Lack of consistency in the industry around alignment and conformity to a set Minimum Security Standards
- Instances of breach among major players in the industry affecting millions of users

One automaker say in their California Privacy Statement that they can collect (among so many other things) your "Genetic, physiological, behavioral, and biological characteristics."

Another couple of auto makers also say they can collect "genetic information." It gets worse. One of them says they can collect information about your "sexual activity" and "intelligence" (which they apparently infer from your personal data) and can share that information with "marketing and promotional partners" or for their own "direct marketing purposes."



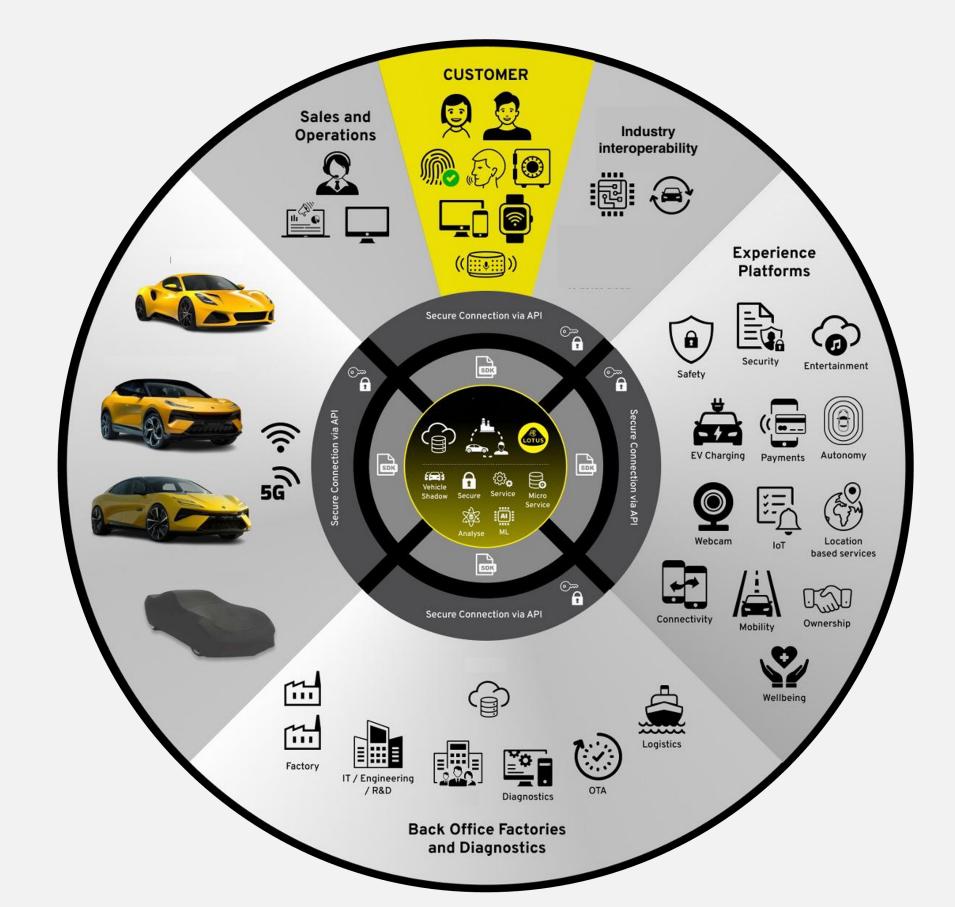
Opting out of vehicle data: However, "if you no longer wish for us to collect vehicle data or any other data from your Tesla vehicle, please contact us to deactivate connectivity. Please note, certain advanced features such as over-the-air updates, remote services, and interactivity with mobile applications and in-car features such as location search, Internet radio, voice commands, and web browser functionality rely on such connectivity. If you choose to opt out of vehicle data collection (with the exception of in-car Data Sharing preferences), we will not be able to know or notify you of issues applicable to your vehicle in real time. This may result in your vehicle suffering from reduced functionality, serious damage, or inoperability."

TESLA'S CUSTOMER PRIVACY NOTICE

https://www.tesla.com/legal/privacy

# A BLUEPRINT FOR CONNECTED EXPERIENCES

- Champion an ecosystem to collaborate across diverse set of aspirational partners for new products and services
- Loosely coupled architecture with compliant data residency and secure interfaces for data sharing and allow for individual brand identities to shape offerings
- Acknowledge customer demand for increasingly personalised products and services
- Recognise that revenue potential from recurring services could boost OEM revenue from car sales by some 30% by 2030¹



### Others have been here earlier to learn from....

Other industries and existing initiatives



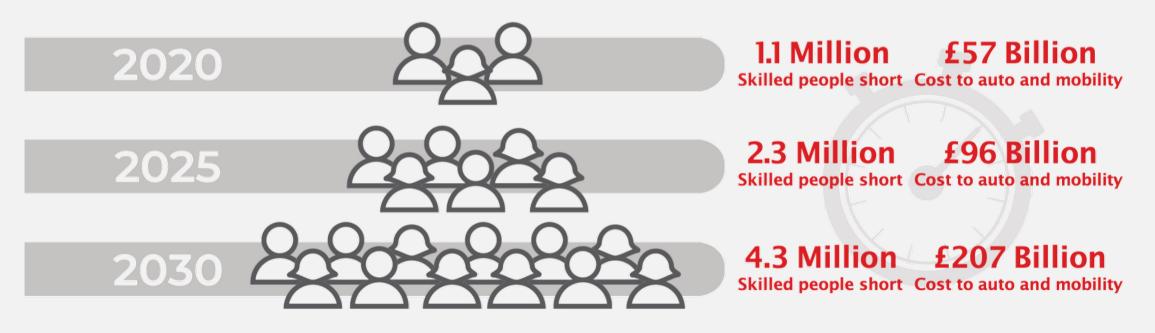




Drive for collaboration and Open Standards as a mechanism to move away from Siloes, putting the customer's needs and interests at the centre of innovation

### Ecosystems like ours require specialist skills The UK can lead the auto industry again in these areas

The issue: the skills gap is doubling every 5 years.





### Get involved with us

• To know more and collaboration opportunities, please reach us

### **Peter Virk**

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Thank you!