

MOTOR VEHICLE INDUSTRY SKILLS SUMMIT

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WUKO
CAR PARTS

1st November 2023

IN PARTNERSHIP WITH

IMI INSTITUTE OF THE
MOTOR INDUSTRY





INSTITUTE OF THE
MOTOR INDUSTRY



TechSafe[®]

There's more to Motor.....

Franco Boscarelli FIMI

Partnerships Manager

www.theimi.org.uk





THERE'S MORE TO MOTOR

More change this decade than the previous 100 years



"We are facing fundamental changes. The automotive industry is undergoing a **fundamental transformation**".

Ola Källenius, CEO Mercedes-Benz Group

Our Collective Challenge - Transition to a Mobility Sector



Autonomous

Today ADAS

Tomorrow autonomous machines

Inner-city shift



Connected

Vehicle to everything (V2X)

Cybersecurity

Personal data

Big data



Electric

Electric powertrain

Battery technology

Hydrogen fuel cell

Maintenance & repair shift



Shared Mobility & Mobility as a Service

New ways of purchasing mobility

Transition to new retail & business models

New market entrants

Vehicle Autonomy

In more detail

The Path to Autonomous Vehicles

SYNOPSIS[®]

LEVELS OF DRIVING AUTOMATION



0

NO AUTOMATION

Manual control. The human performs all driving tasks (steering, acceleration, braking, etc.).

1

DRIVER ASSISTANCE

The vehicle features a single automated system (e.g. it monitors speed through cruise control).

2

PARTIAL AUTOMATION

ADAS. The vehicle can perform steering and acceleration. The human still monitors all tasks and can take control at any time.

3

CONDITIONAL AUTOMATION

Environmental detection capabilities. The vehicle can perform most driving tasks, but human override is still required.

4

HIGH AUTOMATION

The vehicle performs all driving tasks under specific circumstances. Geofencing is required. Human override is still an option.

5

FULL AUTOMATION

The vehicle performs all driving tasks under all conditions. Zero human attention or interaction is required.

THE HUMAN MONITORS THE DRIVING ENVIRONMENT

THE AUTOMATED SYSTEM MONITORS THE DRIVING ENVIRONMENT


IMI ADAS research

IMI INSTITUTE OF THE MOTOR INDUSTRY
1871-1920

IMI RESEARCH
APRIL/2023

MEETING THE DEMAND FOR SKILLED VEHICLE TECHNICIANS IN THE AGE OF ADAS

An Analysis of the Skills Gap and Future Outlook for the Next Decade

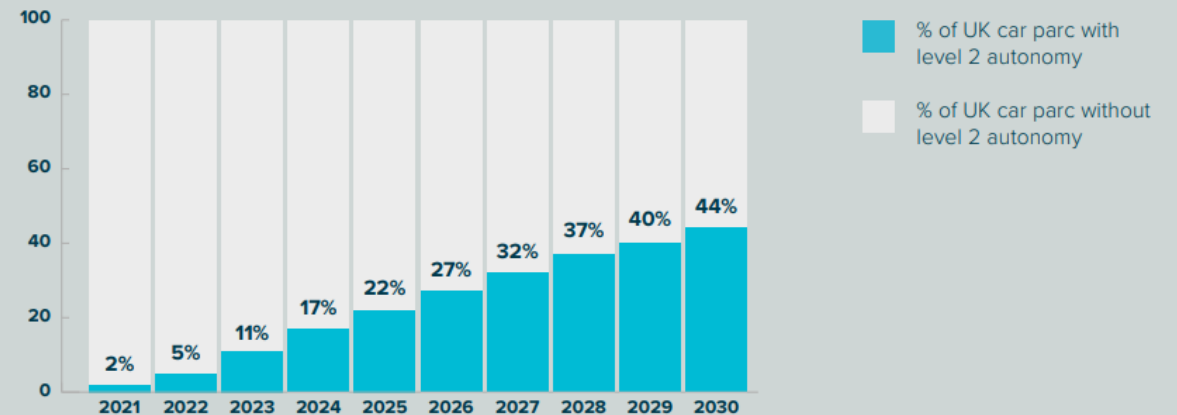


- As of the end of 2022, 5% of the UK car parc has some level of level 2 autonomy, with rapid growth expected over the next decade.
- The IMI forecasts that 44% of the UK car parc will have level 2 autonomy by 2030

IMI analysis

Proportion of UK car Parc with Level 2 autonomy

The IMI believes that, as of the end of 2022, 5% of the UK car parc has some degree of level 2 autonomy. This is set to rise rapidly over the next decade, as all new vehicles as from July 2022 are mandated (EU regulation) to include several safety components a number of which include Level 2 autonomy. The IMI forecasts that 44% of the UK car parc will have level 2 autonomy by 2030.



Connected Cars

In more detail

Some new acronyms to learn

- **Vehicle to Vehicle (V2V)** - live safety scenarios are taken into account by the driving characteristics of nearby vehicles. Speed, direction, steering and braking are all shared between vehicles which are nearby. Road dangers such as reckless drivers and emergency response vehicles could be tracked using **V2V**.
- **Vehicle to Pedestrian (V2P)** - With sophisticated sensor technology, pedestrians are alerted to the driver who can act accordingly to avoid accidents.
- **Vehicle to Infrastructure (V2I)** - Connecting to local authorities that can alert drivers about traffic, weather and alerts that may affect their driving ability. Advanced systems send traffic light data, nearby building sites, bridge heights, and pedestrian crossing data to all help aid vehicle and driver safety that would not otherwise be captured in outdated mapping data.
- **Vehicle to Cloud (V2C)** - Enabling so much data to be utilised. Including diagnostic reporting, location data, or connecting to a device that is part of the IoT space.
- **Vehicle to Everything (V2X)** - Part of all the above. All the connections to and from the vehicle, with a combination of improving the safety of drivers, the road and its traffic.

Electric Vehicles In more detail

Government Policy



UK New Car Registrations

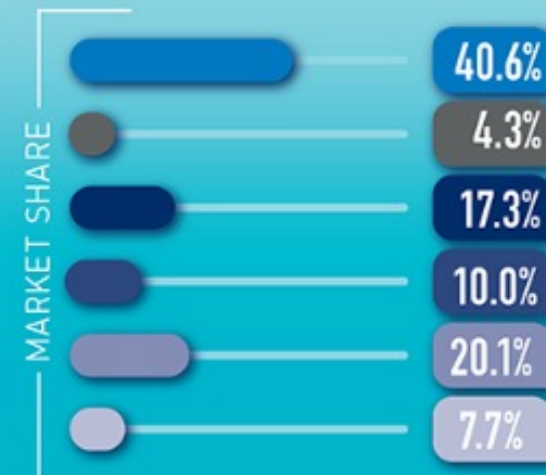
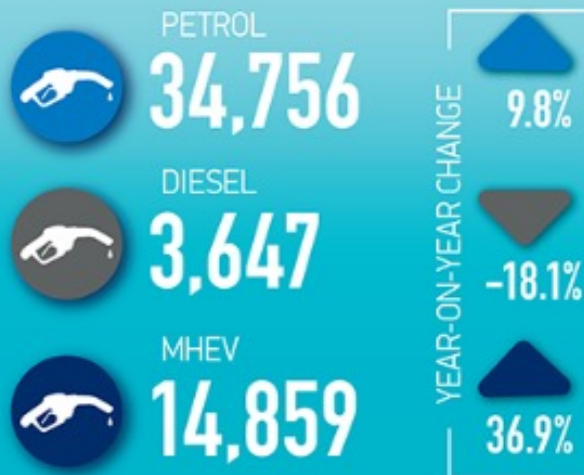
AUGUST 2023

NEW CAR REGISTRATIONS

TOTAL: 85,657

24.4%

YEAR-ON-YEAR CHANGE



Market disrupters – Chinese EV manufacturers coming to Europe

 Great Wall	 GEELY	 BYD	 CHERY	 XPENG	 NIO	 SAIC 上汽集团 SAIC MOTOR	 AIWAYS
 ORA 欧拉汽车	 GEELY	 BYD Bus & CV	 CHERY	 XPENG	 NIO	 MG	 AIWAYS
 Saloon BEV	 VOLVO	 BYD	 VANTAS			 MAXUS	 ROLAND GUMPERT
 Great Wall Pickups	 LOTUS	 DENZA JV with Daimler				 ROEWE 荣威	
 HAVAL	 ZEEKR					 Feifan R - BEV	
 TANK	 LINK & CO	 CHANGAN					
 WEY	 GEOMETRY						

Currently in the UK or expected to have a presence by 2025

Changan has a research centre in the UK since 2010 relocated to Birmingham in 2015

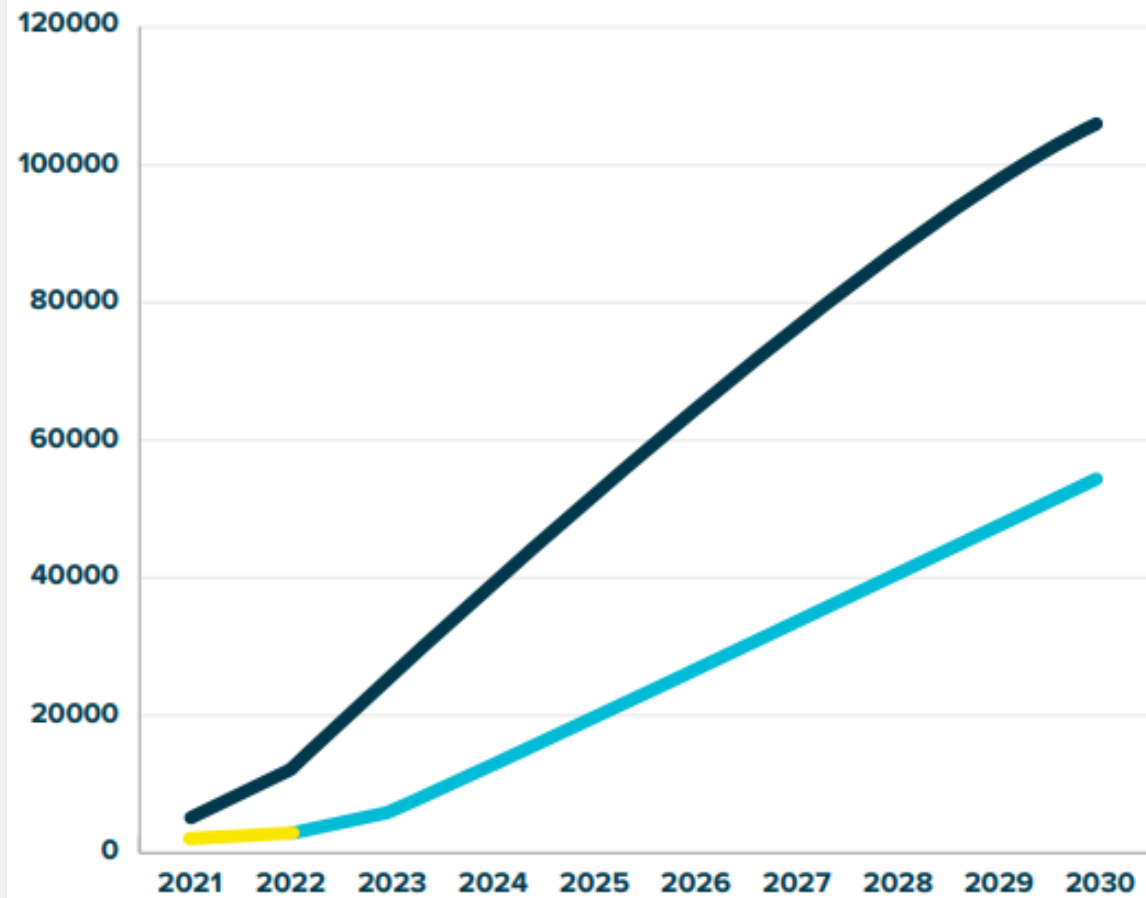
Change

**What is the impact having on people who work in the sector?
What impact is this change having on you in your role?**

Forecast gap between predicted number of technicians required to service and maintain Electric Vehicles and TechSafe EV Technicians

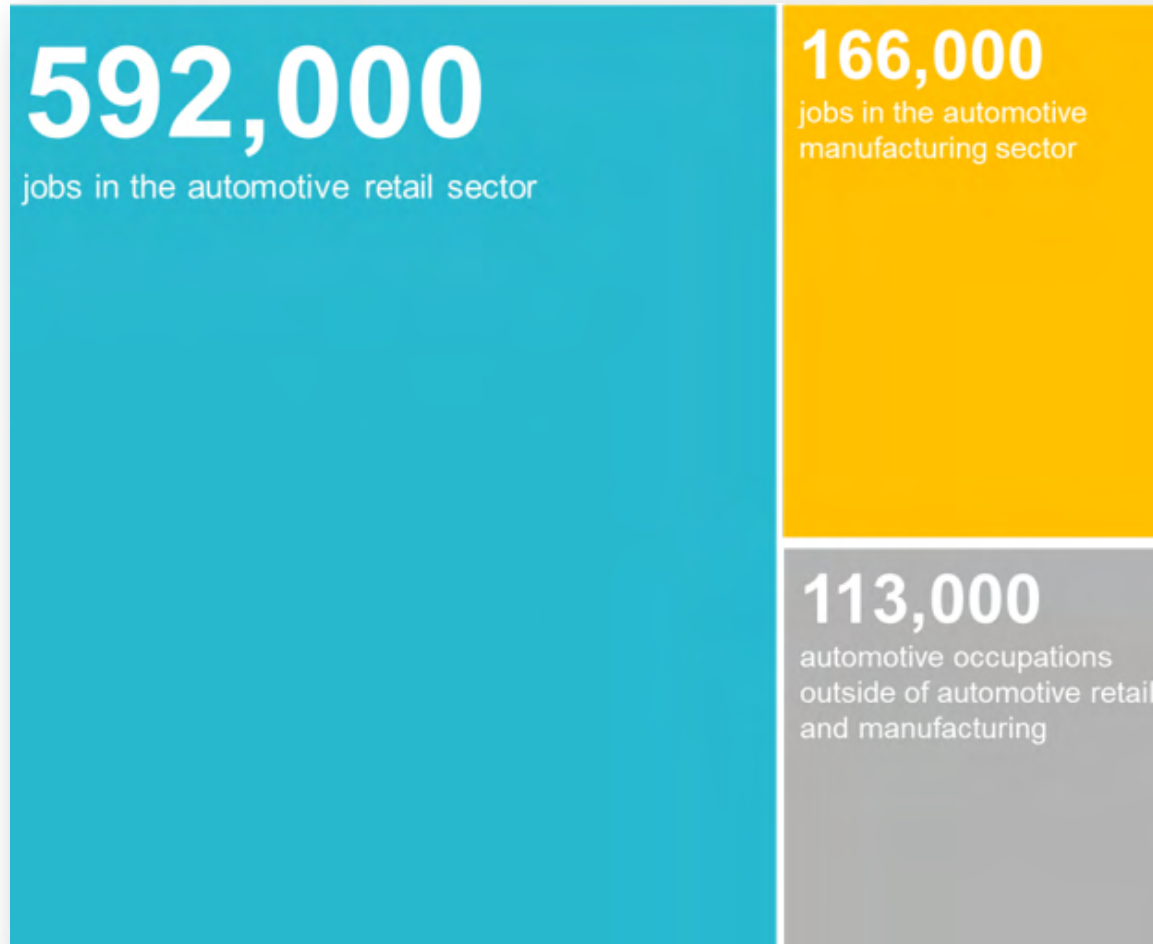


Forecast gap between predicted Cars with L2 autonomy on UK roads and the number of ADAS qualified technicians



- Minimum ADAS qualified technicians
- ADAS TechSafe eligible qualified
- ADAS TechSafe eligible qualified forecast

The UK Sector



Talent

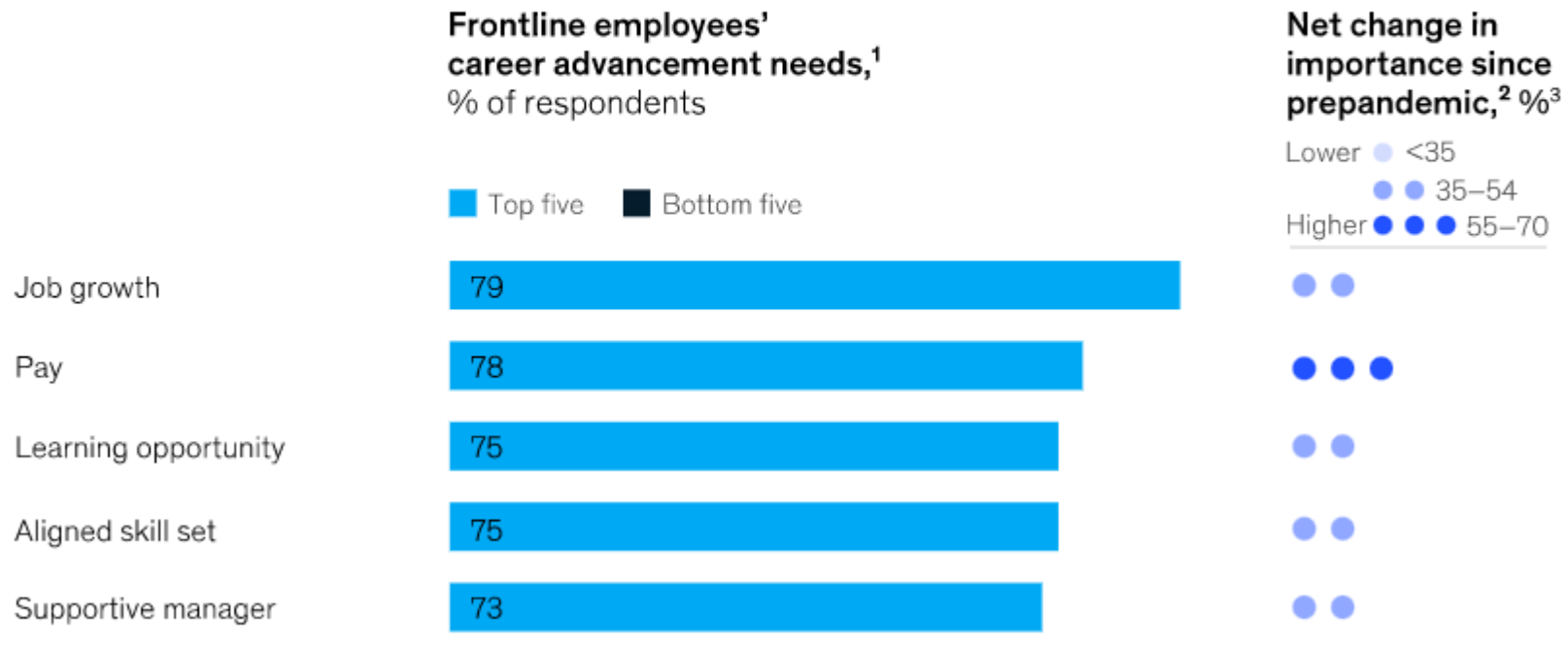
Attract

Develop

Retain

What do employees want most from their employer?

The top five career advancement attributes focus on growth, compensation, and a supportive work environment.



Solutions? In more detail

IMI Professional Register with TechSafe Recognition

Certification & Retention



*Tech*Safe[®]

OZEV support – and ministerial support



Office for Zero Emission Vehicles



EV/Hybrid Vehicle Development Solutions (Light Vehicle)

Note...Heavy Vehicle versions also available

IMI Accredited Assessment

Accreditation

IMI Accreditation Electric Vehicle Technician - Full Route

IMIA-ATA...

Find your nearest Provider



IMI Qualifications

Qualification

L1 Award in Electric/Hybrid Vehicle Awareness

Level 1

603/1465/5

Find your nearest Provider

Qualification

L2 Award in Electric/Hybrid Vehicle Hazard Management for Emergen...

Level 2

603/1467/9

Find your nearest Provider

Qualification

L2 Award in Electric/Hybrid Vehicles Routine Maintenance Activiti...

Level 2

603/1466/7

Find your nearest Provider

Qualification

L3 Award in Electric/Hybrid Vehicle System Repair and Replacement

Level 3

603/1468/0

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Qualification

IMI Level 4 Award in the Diagnosis, Testing and Repair of Electri...

Level 4

610/0975/1

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ADAS Development Solutions

IMI Accredited Assessment

Accreditation

Advanced Driver Assistance Systems (ADAS) – Calibration

ACC-AOM...

Find your nearest Provider



IMI Qualifications

Qualification

IMI Level 1 Award in Advanced Driver Assistance Systems (ADAS) Aw...

5 Hours Level 1

610/1337/7

Find your nearest Provider

Qualification

IMI Level 2 Award in Advanced Driver Assistance Systems (ADAS) Ca...

16 Hours Level 2

610/1338/9

Find your nearest Provider

Qualification

IMI Level 3 Award in Diagnosing, Rectifying and Recalibrating Adv...

39 Hours Level 3

610/1339/0

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Hydrogen Development Solutions

IMI Qualifications

Qualification

IMI Level 1 Award in Hydrogen Vehicle Awareness

 4 Hours  Level 1

 610/1543/X

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Qualification

IMI Level 2 – IN DEVELOPMENT

Find your nearest Provider

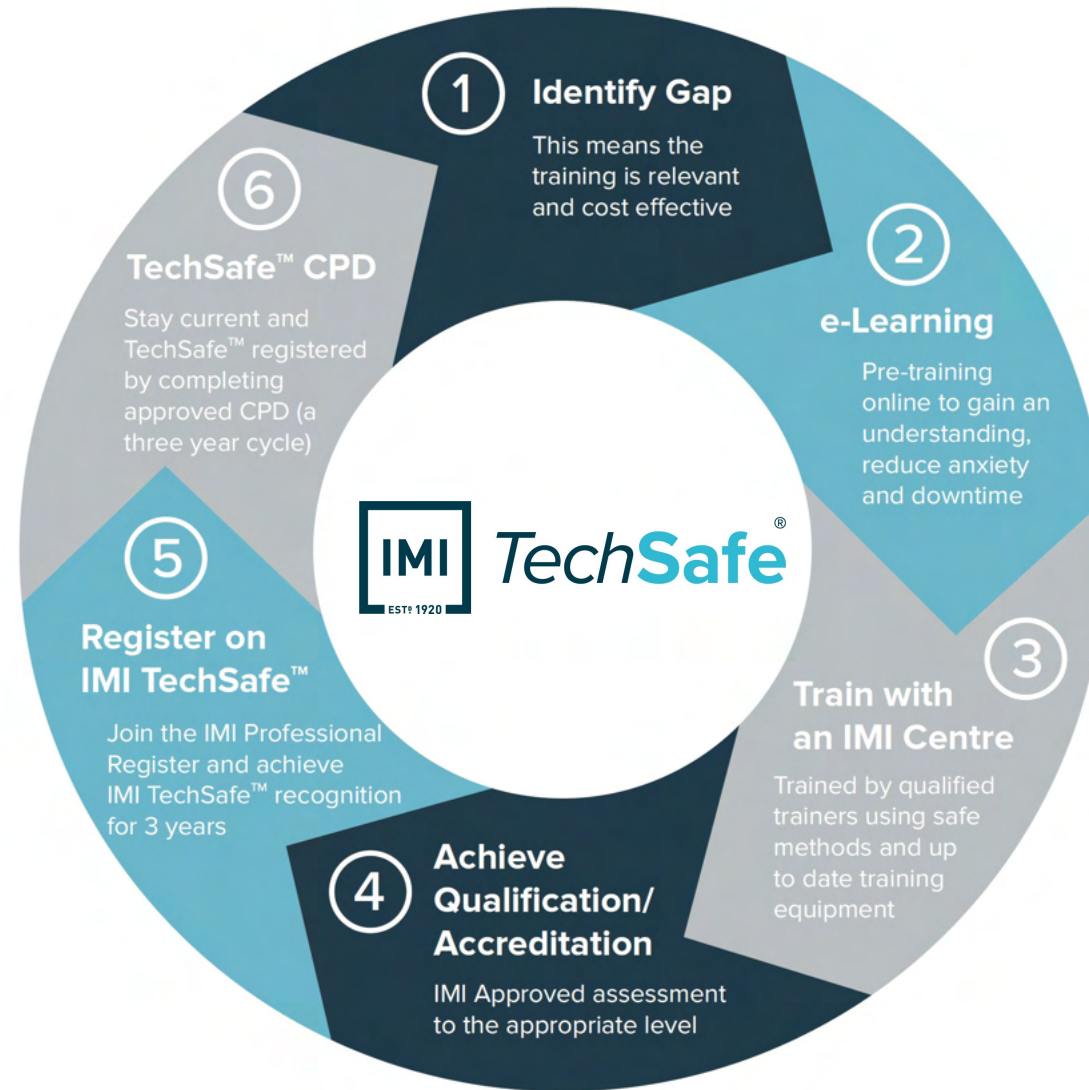
Qualification

IMI Level 3 – IN DEVELOPMENT

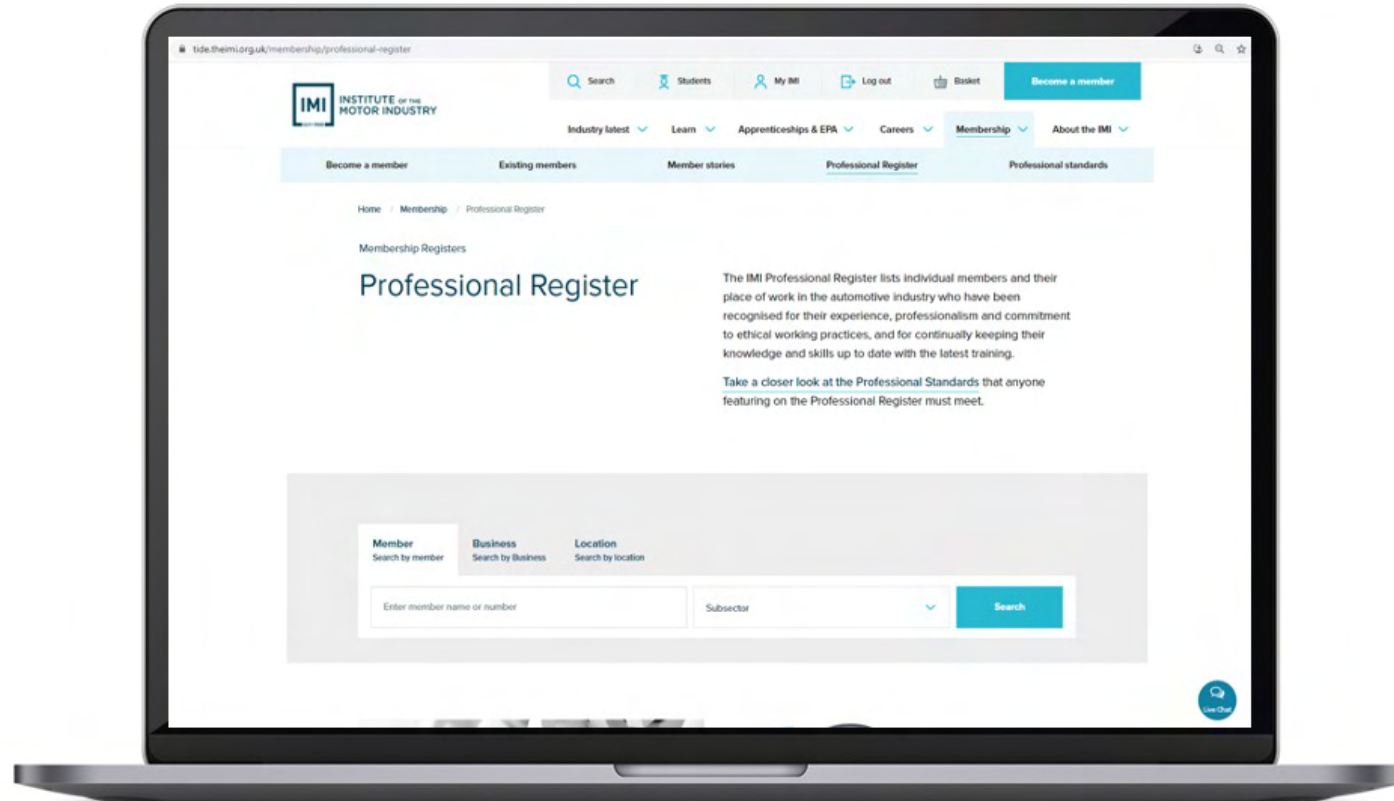
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TechSafe Process



Professional Register



THERE'S MORE TO MOTOR

WHY IS THIS CAMPAIGN NEEDED?

111,400+
ROLES NEED TO BE
FILLED IN THE NEXT
10 YEARS

26,000
OPEN VACANCIES
—
SECOND HIGHEST
INDUSTRY VACANCY RATE

ONLY 19%
OF THE CURRENT
WORKFORCE ARE
FEMALE



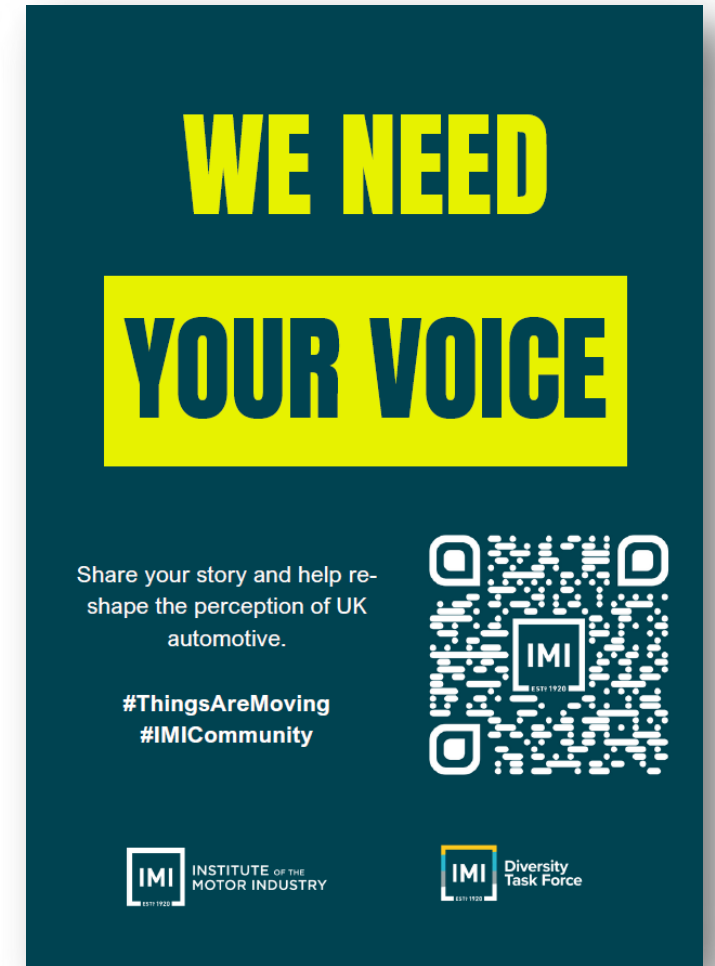
INSTITUTE OF THE
MOTOR INDUSTRY



Diversity
Task Force

How can you get involved?

- Share our campaign activity – went live on **6th September 2023**
- Share your '**Real Voices**' stories to inspire the future of the sector.
- Use our **digital toolkit** to help recruit 'Real Voices' and raise awareness.
- Contact us for future opportunities about how to get involved!



Three ways to keep the conversation going

1) Fill in the Commitment Card:

LSIP | FUTURE SKILLS HUB

Thank You

Thank you for joining us today and identifying and agreeing actions to address key skills and recruitment challenges faced by the Motor Industry.

As an employer you are a really important part of the solution and we are asking you to help us improve skills provision by contributing in one or more of the following ways.

I would be happy to contribute in the following ways:

- By offering a placement to a student
- By offering work shadowing to a teacher
- By delivering a talk to students sharing my sector or workplace expertise
- By meeting curriculum specialists to assist with sector knowledge
- By offering a group visit to my premises for students

NAME:

COMPANY:

EMAIL:

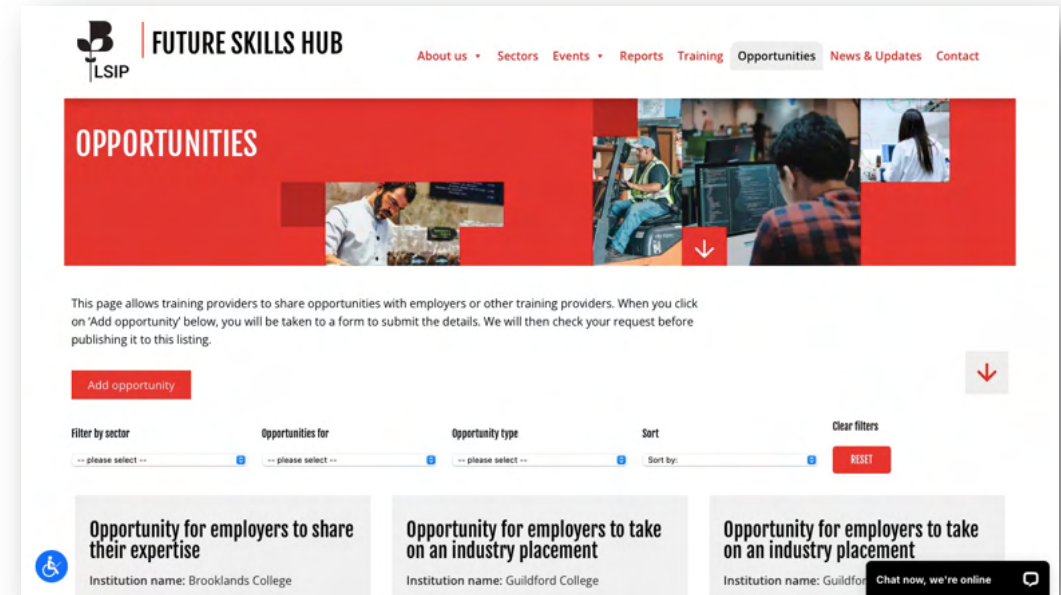
TEL:

LOCATION:

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2) Engage with local skills opportunities with providers:

surrey-chambers.co.uk/future-skills-hub/opportunities/



3) Visit the Future Skills Hub website:

surrey-chambers.co.uk/future-skills-hub/