

IS THE INTERNAL COMBUSTION ENGINE DEAD?

Norway and the Netherlands will ban new sales of petrol and diesel cars by 2025, India by 2030, Scotland and Sweden intend to enforce a ban by 2032, with the rest of the UK and France following by 2040.

Innovation is of course vital to the success of the adoption of electric vehicle technology.

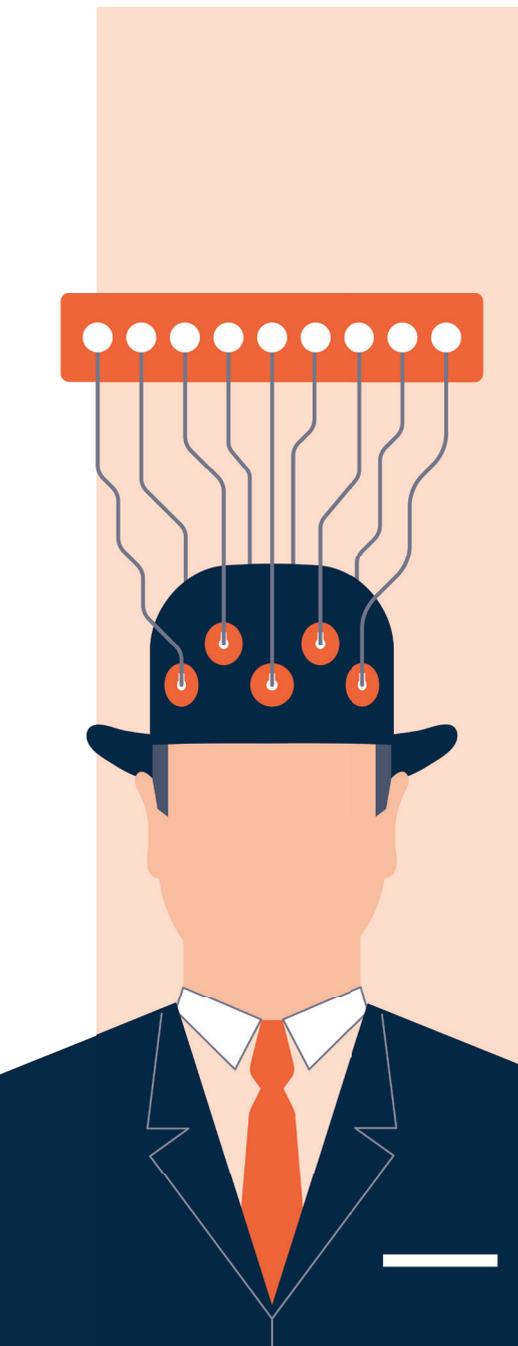
Audi is developing a solar technology that could help to drastically improve the range of its electric cars. Volkswagen plans to invest more than 20 billion euros in zero-emission vehicles by 2030.

Dyson has just announced plans to invest £2.5bn on a 'radically different' electric car; no prototype has yet been built, but the electric motor has been developed, and two different battery types are under development. VW spends \$15 billion a year on research and development - Toyota spends almost \$10 billion. The competition will no doubt drive Tesla forward in its ambitions to produce half a million cars per year by the end of 2018.

ASIDE FROM THE OBVIOUS TRANSPORTATION INFRASTRUCTURE AND ENERGY GENERATION CAPACITY ISSUES, THE PROBLEM WITH ELECTRIC VEHICLES REMAINS THE HIGH COST OF PRODUCTION.

Where is the R&D?

There is significant research and development underway, with innovations in vehicle design and more efficient lower weight batteries increasing the range of the vehicles and lowering production costs faster than anticipated. In addition, the simpler construction of electric vehicles, with fewer moving parts, could also mean that manufacturing will become less expensive, with powertrain manufacturing more likely to be outsourced by the vehicle manufacturer.





The understanding achieved by their analysts of our processes really was significant; few professional bodies we have encountered had their level of engineering expertise, thus giving us the confidence to move forward with a claim.

JON PITT
FINANCIAL DIRECTOR
L.M.G. SOLUTIONS LTD



The supply chain will need to adapt to the different core technologies, with the components required to manufacture an electric vehicle being very different: batteries, chemical processes, electric motors and semiconductors in place of traditional engine components and gearboxes.

Potential areas of eligibility for R&D tax credits?

Over the last 10 years, Jumpstart has been working with clients within the automotive industry, who have been:

Undertaking research and development concerning:

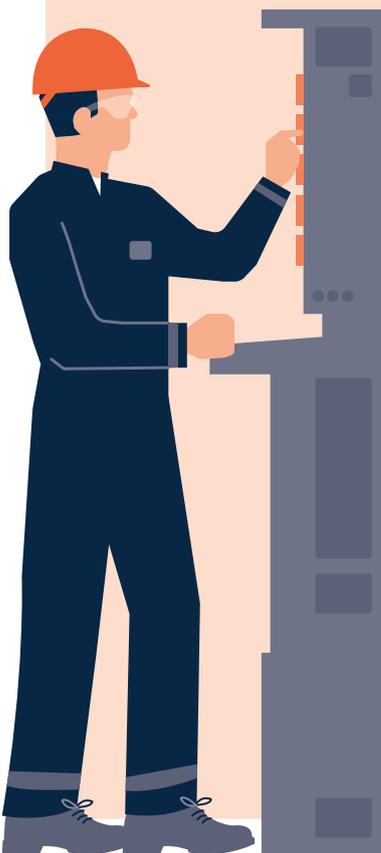
- Improvements to of low emission / low carbon technologies
- Development of lightweight aluminium body structures and electric vehicle powertrains
- Developing infotainment / human machine interface (HMI) capabilities
- Diagnostics and security improvements
- Researching alternative uses for developed technology, and the integration of new machinery and / or processes
- Advancing the technology to 'above industry' standards relating to productivity, quality, and safety.

Which everyday challenges might make you eligible?

Resolving issues relating to:

- Large-scale manufacture of complex components
- Design improvements (simplifying components, reducing parts, new materials, reducing waste and / or material usage)
- Overcoming technological challenges during the development of a method of manufacture, integration of robotics technology, design of advanced tooling and fixturing, etc.
- Developing accurate computer models to evaluate the process.

THERE ARE EXCITING TIMES AHEAD WITHIN THE AUTOMOTIVE INDUSTRY, AND WE LOOK FORWARD TO CONTINUING OUR INVOLVEMENT IN THIS SECTOR.





We are very pleased with the results Jumpstart have achieved for us. As an engineer, I valued the fact that the Technical Analyst was able to grasp the nature of our business and translate that into a robust technical report for HMRC.

TONY SNOW
MANAGING DIRECTOR
LOADPOINT BEARINGS



So, is the internal combustion engine dead?

Look behind the headlines and you will see that some of these bold and ambitious targets do not necessarily imply the immediate death of the internal combustion engine, but rather the adoption of hybrid technologies and the phasing in of fully electric cars through the introduction of new models. Existing, internal combustion engine vehicles will still be produced until the public's appetite wanes. There is no doubt that advances in electric vehicle car performance and transportation infrastructure will lead to a saturation of the marketplace, but there will always be a demand for internal combustion engine cars, albeit a much reduced one, specialising in supply to nostalgic petrol-head buyers, like many of us here at Jumpstart!

Do you recognise any of these situations?

- Or have a project that may fit the bill? If so, speak to a specialist adviser as interpreting the rules correctly and using the right terminology is crucial to success with any claim.
- We have a team of technical analysts, qualified engineers and technicians, who understand the industry and what HMRC is looking for. They investigate processes and technology in detail and help construct a robust case to present to HMRC. It allows our clients to continue to invest in further research and development which helps grow their business.

For a free R&D tax credit consultation and analysis of the potential returns you might expect, contact a member of the Jumpstart team today.

There is no substitute for experience and expertise. Experience gained through years of daily involvement in putting together thousands of successful R&D tax claims. Expertise built through a detailed programme of training and study, maintained and regularly enhanced.

JUMPSTART YOUR R&D TAX CLAIM TODAY.

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