



On the road to **net zero** with the **UK Driver and Vehicle Licencing Agency**

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On the road to net zero with the UK Driver and Vehicle Licencing Agency

Since 2018 Thales has achieved reductions of over one third in the carbon footprint of the UK's driving licence, tachograph and residence permit cards supplied to the Driver and Vehicle Licencing Agency (DVLA).

Addressing climate change

In 2019 the United Kingdom became the first major economy in the world to pass a law committing the country to achieving net zero carbon emissions. A legally binding target date of 2050 was set.

Meeting this critical environmental challenge requires profound change. Virtually every industry will need to develop and adopt new processes and solutions that reduce, and ultimately eliminate, reliance on fossil fuels.

The secure identity document industry is no exception. Reflecting this, the UK's Driver and Vehicle Licencing Agency (DVLA) and Thales are working side-by-side to reduce the environmental impact of the UK portfolio which consists of secure driving licence, tachograph and residence permit cards.

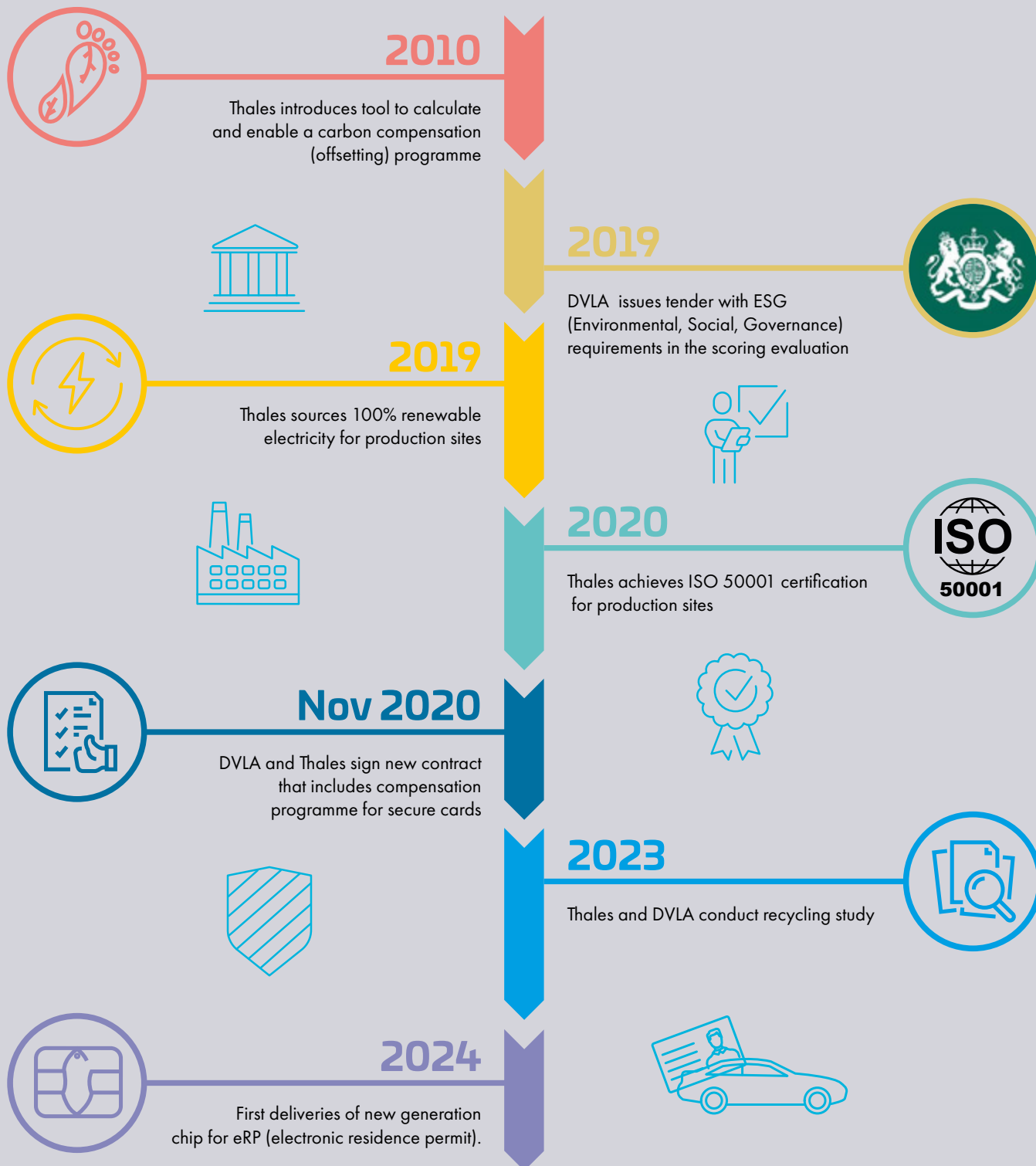
Environmental progress, including on-going reductions in carbon emissions, must be combined with other long standing priorities. Certainly there can be no compromise in security. Cards must be fully protected against the threat of forgery and counterfeiting. Cards also need to maintain the highest standards of durability and security, and deliver optimum value for money for UK taxpayers.



Managing secure national credentials for the UK

The DVLA is responsible for registering and licencing the UK's drivers and vehicles, and is recognised as a centre of excellence for sourcing and issuing secure cards. Since 2012 Thales has been DVLA's supplier of over 100 million secure cards, as well as a number of key components for the card personalisation system that the DVLA uses to encode them.

Thales and the DVLA have been working together for many years to reduce the environmental impact of secure cards:



Driving licences

The driving licence issued by the DVLA is not only used to prove the holder's driving entitlements. The photocard and associated data also enable the licence to be utilised as a trusted means of identity.



Tachograph cards

Commonly known simply as tacho cards, Thales supplies the DVLA with four different types. These are issued to:

- Commercial drivers to store details of their recent driving activity
- Companies responsible for fleet management
- Approved workshops responsible for installing motion sensors in vehicles
- Authorities performing roadside checks.

To ensure compatibility with the in-vehicle and other business systems that together comprise the EU and EEA tachograph scheme, all tacho cards have an embedded contactless microchip with specialist software and data storage.



Residence permit cards

Thales also supplies the DVLA with residence permit cards. The DVLA issues these on behalf of the UK Home Office to non-UK citizens who have a right to live and work in the UK. The residence permit cards also incorporate a microchip to securely store and manage the cardholder's biometric and personal data.



The environmental challenge of millions of secure cards

On average, Thales supplies the DVLA with 12 million secure cards every year. This carries with it a significant environmental impact.

Historically, the manufacture of these cards has relied heavily on fossil fuels. This includes not just the card manufacturing and logistics, but also key raw materials such as the microcontroller, inks and polycarbonate plastics.

Across all these areas, reducing environmental impacts without compromising other key performance characteristics can present significant challenges. For example, the use of polycarbonate currently remains essential for ensuring security and physical integrity. Polycarbonate cards are highly tamper-resistant, and offer the outstanding durability necessary to support card lifespans of up to ten years.



The credible approach to cutting carbon emissions

Thales shares the UK government and DVLA's desire to reach net zero.

By 2040, Thales is aiming for net zero operations-related CO₂ emissions. On the roadmap for this low carbon ambition, the company is committed to a 50% reduction in absolute CO₂ emissions related to its operational processes and energy consumption by 2030, compared with a baseline of 2018.

For its secure cards and identity document portfolio, Thales's pursuit of these ambitious environmental goals is reflected in a comprehensive programme of action which includes:

Applying eco-design principles

For the DVLA, key product design changes include halving the size of the microchips embedded in tacho and residence permit cards without impacting the applications available on the card and without compromising the security. This has resulted in an equivalent reduction in the CO₂ emissions associated with the chip.

Decarbonising operations

All the factories in which Thales manufactures secure cards are accredited to the internationally recognised ISO 50001 standard. This focuses on efficient energy management and, more specifically, reducing energy consumption.

All these factories also use 100% renewably generated electricity, which accounts for over 70% of their combined energy consumption. Between 2018 and 2023, energy-related emissions in manufacturing sites have been reduced by over 80%.

Other initiatives reducing environmental impacts include continuous operational improvements and changes in design and printing technology that have further reduced waste during production.

Supporting High quality Carbon Offset Programs

For the remaining emissions, Thales further mitigates the CO₂ emissions of its secure driving licence, tacho and residence permit cards for the DVLA by investing in high quality offsetting (compensation) programmes. For offsetting the cards sourced from Thales, DVLA specified three projects that aligned with their own environmental, social and international development priorities:

- Planting forests in the UK
- Restoring mangroves in Kenya
- Distributing clean energy stoves in Bangladesh

In 2023, these projects offset 1,628 tonnes of CO₂ emissions on behalf of the DVLA, bringing the overall total since the programme began to 3,000 tonnes.



Delivering and sharing quantifiable results

Within UK government departments and bodies, the framework for achieving net zero is set out in the Greening Government Commitments. The DVLA is fully on board with these protocols, which include the requirement to publish an annual report detailing progress across a range of environmental impacts. Crucially, Thales is able to support these processes by sharing transparent, credible and quantified figures on the outcomes of its own environmental initiatives.

This includes on-going engagement and collaboration between Thales and its key supplies, which is creating an ecosystem in which continuous reduction in environmental impacts, including carbon emissions, is shared with the DVLA.

Cutting one third the carbon footprint of the UK driving licence

Thales and the Driver and Vehicle Licensing Agency (DVLA) cut carbon footprint of UK driving licence, and tachograph and residence cards, by over one third in 5 years.

These figures are calculated using Thales's Life Cycle Assessment tool for its identity cards, which follows recognised standards (GHG: methodology of lifecycle, carbon neutral protocol). This comprehensive calculator, designed with Quantis, supported by Solinnen, assesses the operational environmental impact of materials, packaging, transportation, document production and distribution, as well as end of life.

Similarly, to ensure the credibility and effectiveness of its carbon offsetting programme, Thales works with independent, internationally recognised organisations such as Climate Impact Partners.

The most recent environmental audit published by the DVLA, which covers the period 2021/2022, shows that the organisation achieved a 44% reduction in its CO₂ emissions, compared to the baseline year of 2017/2018.

However, the journey is far from over.

Continuing the journey together

Teams from the DVLA and Thales continue to meet regularly to pursue new opportunities to reduce CO₂ emissions, and other environmental impacts such as plastic waste. Notably, this includes a recent joint study that has outlined the potential to implement a recycling programme for secure cards that are returned to the DVLA when they expire.

At Thales, the focus is on reducing the use of virgin fossil based polycarbonate. From 2024, the company will start offering polycarbonate that utilises fewer fossil based raw materials and renewable or recycled alternatives in the production process. Looking further ahead, the ultimate goal is to transition to plastic that is completely free from virgin fossil based raw materials. Instead, bio-based raw materials (derived from plants) or raw materials from circular economy (i.e. chemically or mechanically recycled) will be used, while still achieving the same high standards of durability, security and fraud resistance.



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