



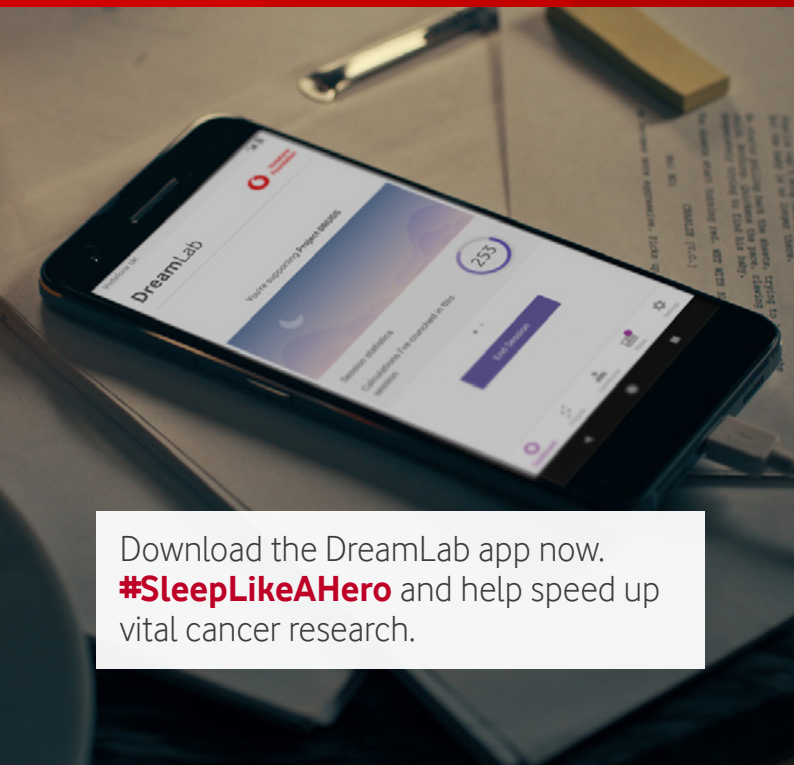
We're developing technology for society

We're creating a healthier, safer, low-carbon society

Now more than ever, technology is being created to solve some of society's most pressing social and environmental challenges. Advances in mobile tech, big data analytics and the Internet of Things (IoT) are game-changers.

Vodafone is a global leader in mobile tech and IoT with over 30 years' experience of connecting people, places and things. Our business, along with our charity, the Vodafone Foundation (UK registered charity 108962), are tapping into this expertise to develop technology that's creating a healthier, safer, low-carbon society.

Mobile app speeds up cancer research



The Vodafone Foundation is working with researchers at Imperial College London to develop **personalised cancer treatment** using the processing power of smartphones.

New science suggests that **tailoring cancer treatment** based on a person's DNA, rather than where in the body the cancer is, could make it more effective.

The DreamLab app is making this cutting-edge research possible by **harnessing the power of smartphones** to run millions of calculations to match genetic profiles with possible combinations of cancer drugs. The app then uploads the results to Imperial College.

[Find out more about DreamLab](#)

Download the DreamLab app now.
#SleepLikeAHero and help speed up vital cancer research.



IoT makes people and places safer

Our IoT is connecting cars, homes, animals, property and outdoor spaces to the internet, making society safer and more secure

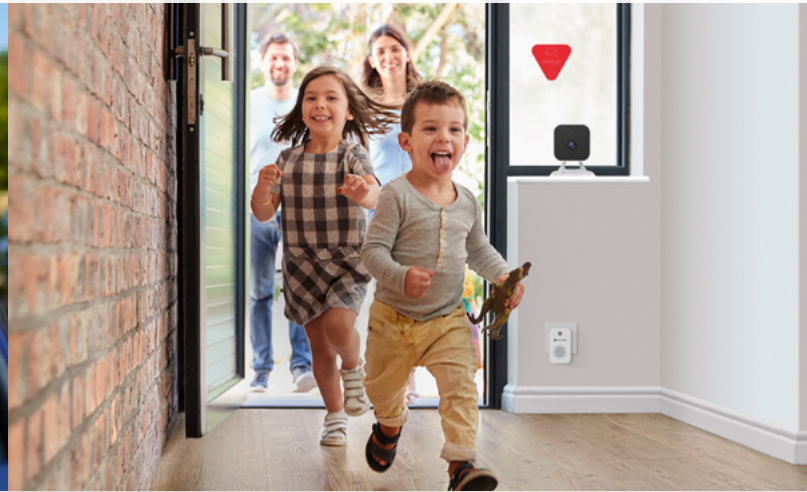
Safe car travel



V-Auto connects cars to the internet allowing drivers to monitor routes and speeds. It also rates how safe a person's driving is. If the car is involved in a crash, we'll get in touch to see if the driver needs roadside assistance or emergency services. If stolen, the tracking device means the car can be easily located.

[Find out about V- Auto](#)

Secure homes



V-Home, our home security system developed with Samsung, connects a range of home security devices – cameras, sensors and sirens – to a smartphone, so people can monitor their homes remotely. It also alerts the user through the app, a text or call if the alarm is triggered.

[Find out about V-Home](#)

Protecting spaces



Our intelligent CCTV camera is protecting property and spaces from anti-social behaviour. It's a solar powered, high-resolution camera that can be used anywhere, even with no power supply or limited coverage, making it ideal for monitoring issues like fly tipping in remote areas. Footage can be viewed in real-time on a smartphone, tablet or PC.

[Download Smart Camera \[PDF: 2.77MB\]](#)

Better calving



MooCall connects farmers to their animals during calving to help reduce the chances of difficult births and the loss of calves and cows. It's a tail-mounted sensor that monitors the cow's tail movement to help predict when the cow is going into labour. MooCall then alerts the farmer's phone through an app about one hour before calving starts.

[Find out about MooCall](#)

Big Data helps local authorities improve services

Connecting more people and things to the internet has led to an **explosion of data**. All the data generated from the beginning of time to the year 2000 would be less than we now create in two days.

Big data is a mass of various types of information that can be analysed to reveal **trends and patterns that help inform decision-making** – but it's only as good as the intelligence gleaned from it.

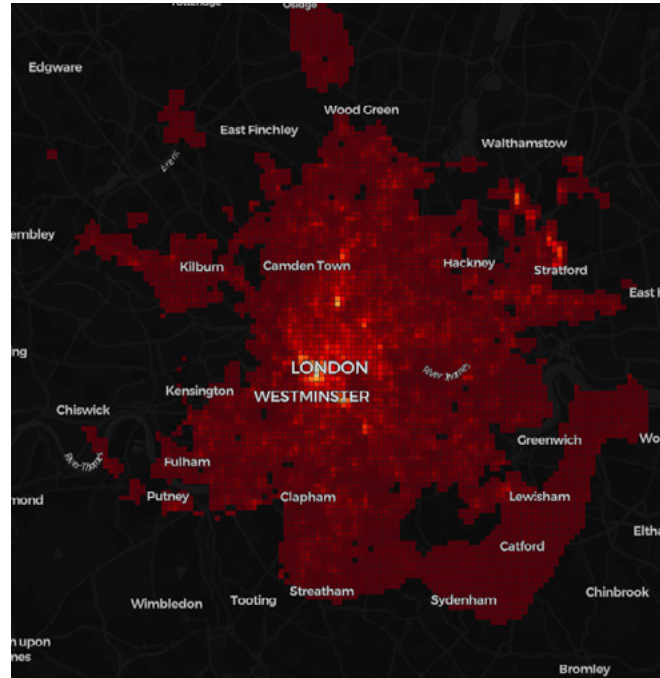
So, we're working with specialist analytics companies to help local authorities make sense of this information, providing insight that means they can **improve existing services and design new services or infrastructure faster and more cheaply**. For example, we're helping local authorities:

- **Tackle air pollution** – by understanding the causes of pollution to identify hotspots and design a targeted pollution reduction strategy in response
- **Improve well-being** – by exploring trends in people's movements and the use of transport to create campaigns that encourage positive behaviour change
- **Reduce congestion** – by looking at all types of transport to understand the causes of congestion, so they can develop alternative transport systems to help reduce it

Respecting our customers' privacy



We recognise people have concerns about how their personal information is collected and used. Respecting our customers' privacy is a top priority for us. Any big data analysis is just that – big. It's looking at trends of a population as a whole, not individuals, and insight is always anonymous. For more on our commitment to people's privacy, see [Vodafone's Privacy Portal](#)



Low-carbon business

Communication technologies, in particular IoT, could play a big role in combatting climate change by reducing greenhouse emissions.

Vodafone's IoT – such as smart energy metres, street lighting and logistics – helped avoid 5.3 million tonnes of CO₂e globally in 2018 alone. That's the same as taking over one million cars off the road for a year. We're also working hard to cut the carbon impact of our business.

Connected devices cut CO₂ and energy

In the UK, we have a range of IoT that helps businesses cut energy use and emissions. Our **smart logistics solution** is connecting vehicles to the internet so fleet managers can monitor driving routes, style, safety and fuel to **identify ways to be more efficient**. It's delivering fuel savings of up to 30% and less fuel means less cost and CO₂.

Working with Dell and energy consultancy, Utilitywise, we've created an intelligent energy management system that connects different equipment – such as lighting, heating and air conditioning – in multiple buildings through our network. This gives **unrivalled real-time insight** into buildings' energy use, allowing users to **improve efficiency, cut energy and costs**.

See more on how our [IoT is transforming business](#)





Reducing the carbon impact of our business

Connecting millions of people, businesses and machines, and sending vast amounts of data 24/7, relies on large amounts of energy. If we don't make changes, the telecoms industry will account for **2% of global GHG emissions by 2030**, similar to the aviation industry.

At Vodafone, we're working hard to reduce the carbon impact of our business, even as demand for our products and services grows. Our UK business is powered on **10% renewable energy** generated on-site at our two wind farms – and we're aiming to source **100% renewable electricity by 2025**.

We're reducing our CO₂e emissions year on year. In 2018, they were **14% lower than five years ago** – even as our customers' data use soared. We're working towards our new global goal to **reduce emissions by a further 40% by 2025**. To achieve this, we're investing in more efficient network equipment and introducing a range of efficiency measures across the sites, such as free-cooling. [Read our carbon footprint report \[PDF: 506KB\]](#)

Electrifying our fleet

The UK is set for **ultra-low emissions transport** as it phases out diesel and petrol cars – and we're getting on board with the electric vehicle revolution.

Vodafone is part of Ford's 'Clearer Air for London' trial of plug-in hybrid transit vehicles: the first of its kind globally. The van is zero-emissions for over 30 miles for inner-city trips but has a petrol engine for longer journeys and can charge on the move. Ford is the first manufacturer to offer this type of technology in a transit van.

Moving towards a fully electric fleet isn't without its challenges. Our engineers need vans that are reliable and fit for purpose. But as superfast charging and long-distance batteries evolve, the opportunities for transitioning toward electric are getting closer than ever.



Extending the life of mobile phones

We offer an **in-store take-back scheme** where we'll pay customers for their old handsets, which are then sent to other countries to be reused. If they can't be reused, the **phones are recycled** and the money from the parts is **donated to our charity, The Vodafone Foundation**.

We're also trialling an **in-store phone-repair service** that is helping people fix a range of issues – from broken screens to battery replacement to software fixes – at a very competitive price to help extend the life of mobiles. We're initially offering the service in a few UK stores but plan to scale up next year.

Our customers can also opt to insure their mobile or tablet with us to cover loss, damage or theft anywhere in the world. Find out more about our [Trade In service](#) and [insurance](#)