

Creating great online services: how we test services in our research lab

To design online services which improve the experience for users when they transact with DVLA, it is important to understand what our customers need from us.

Our User Experience (UX) team use several different testing methods to get this insight. Dan Williamson, User Research Lead, explains more about user testing at DVLA.

Why, when and where we test

Government services should be as simple, inclusive and accessible as possible so that everyone can use them. If we want our customers to complete a transaction using a certain channel, we need to make sure what we offer them is the best it can be.

Testing happens throughout a service development. We determine the frequency and the method of testing based on the features within the service that have changed.

Under normal circumstances, we do roughly 40% of our testing in [our UX Lab](#). It's a state of the art facility that uses connected devices, cameras and microphones so that we can test developing digital services with users. With participant consent to filming, we record what we find and this footage is used to inform changes to the services and provides evidence for why we make those changes.



The rest of our research is carried out across the country in meeting rooms, in context in a participant's home or place of work, or on the street.

Our testers

Some of our services are targeted at certain types of user (for example vocational drivers or [drivers with a medical condition](#)) and sometimes we will need to speak to specific segments within our customer base (such as [people who have received a fine](#), use certain technology or are of a certain age).

We have a contract in place with a participant recruitment company and we send these specifications to our recruiters together with details of when and where we want to carry out the research.

Before testing starts

Once we have agreed the objectives for the research with the service designer, we plan the session with the interaction designers who build the screens we test.

We may ask questions like:

- which features do we want to test/discuss with the user?
- where do we think we may identify pain points?
- which research technique do we think will work best?

Then we write a topic guide for the session. This contains the main points

and themes we want to cover during the session, as well as prompts for the researchers to remind them where to delve a bit deeper.

The day of testing

We always spend some time getting an understanding of the participants; how confident they are in using digital services, what devices or apps they use and a bit about their socio-economic background. This helps us to get to know them and puts the participant at ease too.

If we are testing screens for usability, we set the scene and give the participant tasks to complete. It is human nature to help people when they get stuck, but as researchers, the value comes from seeing where they fail.

Sometimes we conduct an in-depth interview with the participant. This is designed to understand their behaviour at a deeper level – why they do things in a certain way, how they feel about what we are talking about or what we could do to make things simpler for them.



Outcomes of testing

Every insight we get adds value – whether that is changing the flow of a service, moving things around on a screen or amending content. Every service we have been involved in has been changed based on our research.

It isn't often that we get a real 'Eureka!' moment and a lot of the insights we get are used to inform subtle, iterative changes to a service that make it

more useable, simpler and more inclusive. Equally these small changes could have a benefit to the organisation, such as increasing the ability for customers to self-serve or reducing casework and demand on the Contact Centre.

But sometimes user testing shows that a very small change can be beneficial. While testing the prototype for the [penalty payment online](#) with participants it was identified they did not understand that they needed to tax their vehicle or tell us they were keeping it off road, once they had paid the fine.

On the 'payment successful' page of the service, the participants were told in large bold print that they had to either tax, [register their vehicle as off the road](#) or dispose of their vehicle, however when asked what they thought they had to do next, the majority of users missed that instruction and thought they taken all necessary action to complete their task.

This was fed back and a new prototype was created so that the participant was taken to [pages where they could tax](#), make a Statutory Off Road Notification (SORN) or [dispose of their vehicle](#).



We are committed to user-centred design. We have a great record for user research at every Government Digital Service (GDS) Service Assessment which take place at several stages before we can put our service on GOV.UK.

Our research has been the basis for so many changes, from small tweaks to wholesale change in a constant effort to get these things right for our users.

Now you've seen all the hard work that goes into making a great online service – why not check out the [wide range of services we provide on GOV.UK](#) and try them for yourself?

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[ACT Blade](#)

A Scottish start-up has developed a wind turbine blade that could boost energy production by nearly 9%.

ACT Blade was set up in 2015 after a feasibility study funded by Innovate UK proved its longer 55m blade was technically viable and could offer significant savings. Early analysis suggests the blade could reduce the levelised cost of energy by nearly 7%, giving it the potential to make a significant impact in renewable energy.

Founder Dr Sabrina Malpede says Innovate UK funding has helped every step of the way, from resourcing the team and enabling staff retention to supporting the IP process and helping unlock further investment.

Currently wind energy provides up to 15% of Europe's electricity demand. To create more power, turbines need longer blades. However, most blades are made of fibreglass, which is too heavy to be lengthened and expensive to produce. The blades also erode over time and have to be replaced.

Sabrina was working in the yachting industry when she began to wonder if the same textile used in modern sails could be used to make wind turbines. The idea was so powerful she entered it into an Innovation Challenge run by the Offshore Renewable Energy Catapult, one of Innovate UK's centres set up to support UK businesses.

The resulting collaboration led to the creation of the ACT Blade, the world's first textile blade that was 24% lighter than a traditional fibreglass blade. If a blade is lighter, it can be made longer. Not only that but when compared to a conventional blade the ACT Blade uses less material and so less waste is produced in production.

As the textile covers the entire surface of the blade, the ACT Blade does not need to be painted. A further benefit is that ACT Blades are component-based and therefore relatively easy to dismantle and separate out for recycling.

Sabrina said: "Innovate UK funding has helped the company massively and on several layers. Deployment of new technologies in the wind industry is too expensive and risky for private investors alone."

A prototype 13m-long blade was successfully tested at the Offshore Renewable

Energy Facility in Blyth in March 2020. Three blades will be tested on a working wind turbine at the Energy Technology Centre in East Kilbride and will be producing energy by the end of 2020.

Now a team of eight, ACT Blade is developing a commercial strategy, beginning with 50m replacements for blades on 2MW turbines that will be tested in 2022 on a commercial turbine then commercialised by 2023. The company was also chosen to visit San Francisco at the beginning of 2020 on an Innovate UK-supported Clean+Cool mission.

[Transport for London extraordinary funding and financing update](#)

I wrote to the House on 18 May 2020, to share details of the extraordinary funding and financing agreement reached with Transport for London (TfL). That package of support, which was agreed between government, the Mayor and TfL, included a number of conditions and I am today writing to update Parliament on 2 of those.

To help avoid such drastic action in the future work has been underway on the government-led review of TfL's future financial position and structure, and we have now published the [Terms of Reference for that review](#).

I am pleased to also announce the appointment of the two government Special Representatives to attend the TfL Board; Andrew Gilligan and Clare Moriarty. They will also be able to attend TfL's Finance and Programme Investment Committees. These positions required a specific skillset and have therefore been made through direct Ministerial Appointment.

Clare Moriarty is a former civil servant and has been Permanent Secretary for the Department for Exiting the European Union and for the Department for Environment, Food and Rural Affairs, and she was previously Director General, Rail Executive and Director General for Corporate Services in the Department for Transport.

Andrew Gilligan advises the Prime Minister on transport matters and worked closely with TfL for 3 years, acquiring detailed knowledge of its operations, as former Cycling Commissioner for London.

Bounce-Back plans for Northern Ireland's tech sector

- Exports Minister Graham Stuart has addressed tech businesses in Northern Ireland, outlining a series of measures to help recovery from the challenges of coronavirus
- The new measures will help create and support jobs by increasing exports and attracting international investment
- Northern Ireland's £1bn tech sector is vital to the nation's economy, employing 28,000 people across 1,200 companies

Northern Ireland's flourishing tech sector stands to be one of the biggest beneficiaries of "Bounce-Back" plans to help firms recover from the challenges of the coronavirus crisis.

Speaking to business owners from the country at a virtual event today, the UK Minister for Exports, Graham Stuart, and Minister of State for Northern Ireland, Robin Walker, outlined a series of measures aimed at turning the UK into a global digital powerhouse.

Around 28,000 people are employed in Northern Ireland's tech sector, which is worth approximately £1bn, across 1,200 companies, with Belfast becoming Europe's leading destination city for new software development projects.

The new measures jointly announced by the Department for International Trade (DIT) and Department for Digital, Culture, Media and Sport (DCMS) last month, will seek to increase tech exports to fast-growing international markets, including Asia-Pacific, strengthen scale-ups' readiness to export, and attract investment to drive innovation and create jobs.

The comprehensive package includes the creation of a new Digital Trade Network for Asia-Pacific, which will support small and medium-sized enterprises (SMEs) to break into the Asian market.

The plans also include the launch of a new Tech Exporting Academy, which will provide expert advice to UK scale-ups on subject areas essential to expansion, including regulation, intellectual property, and compliance. The Academy will be led and delivered in partnership with leading professional services firms.

Northern Ireland is fast becoming a global cyber security hub, delivering expertise on threats to national security, critical infrastructure, capital markets, e-commerce and child safety online. The Centre for Secure Information Technology (CSIT), based at Queen's University Belfast, is the

UK's largest cyber security research centre.

In addition, its creative and digital media sector has a wide range of talent and state-of-the-art technology, hosting a dynamic cluster of companies who are working with global clients within animation, audio technology, mobile content and e-learning.

Exports Minister, Graham Stuart, said:

As a global hub of digital excellence, the UK is perfectly placed to grasp the huge opportunities ahead for tech growth – and nowhere more so than Northern Ireland, home to one of the most vibrant tech ecosystems in the country.

This country's tech sector is a huge success story, driving innovation, boosting growth and generating well-paid jobs. I am fully confident that, with the measures we have set out, a tech-centred recovery will allow the UK, and particularly Northern Ireland, to overcome the challenges of coronavirus and reinforce our status as a leading player in digital trade.

Minister of State for Northern Ireland, Robin Walker, said:

I'm very excited about the opportunities the Bounce Back Plan presents for Northern Ireland, which already has very strong foundations in the industry. Northern Ireland is set to benefit hugely from this new scheme as it has an established £1 billion tech sector which is vital to the local economy. These new measures will help these tech businesses prosper in the post-coronavirus economy, not only here in the UK, but internationally.

Northern Ireland Minister for the Economy, Diane Dodds, said:

I welcome these bounce-back measures from the UK Government, which will assist Northern Ireland's tech sector push forward the economic recovery. The tech sector is a cornerstone of the NI economy. I am keen to build on the success that companies in the sector have had, and continue to have, propelled by our world class skills and innovation ecosystem.

Central to this aim is the ability to access key markets such as Asia Pacific, as well as marketing of the world-class tech services that NI companies can deliver. These measures will provide valuable advice and support for our tech firms as they look to compete globally in the current economic climate.

The government's measures are being announced as part of a wider programme of support for the UK tech sector to ensure the industry benefits from trade opportunities, including future free trade agreements (FTAs).

Future FTAs with partners like the US and Japan will enable the UK to go further, setting new standards in areas of digital technology and e-commerce, and encouraging further investment into the UK's world-leading tech companies.

The full range of measures announced by the Government includes:

- Launch of an £8m Digital Trade Network (DTN) for Asia Pacific, a joint DIT-DCMS network, to support UK tech businesses to internationalise in this fast-growing region, attract capital and talent to the UK and enhance UK digital economy collaborations internationally. By increasing UK digital tech expertise on the ground across a number of key markets – including Japan, South Korea, Thailand, Singapore, Indonesia, and Australia, government will help innovative companies access new trade and investment opportunities, and forge new international partnerships for the digital economy. Tech Nation – the UK tech scale up experts – will be joining the Digital Trade Network, which will see businesses participate in an international mission to Asia Pacific, as part of Tech Nation's programmes in fintech, AI and cyber, to support their expansion into the region.
- Creation of a new Tech Exporting Academy, to provide expert advice for high-potential SMEs to support growth into priority markets. Led by leading professional services firms (including Linklaters, Deloitte, KPMG, BDO, Taylor Wessing, EY and Clifford Chance) UK SMEs will receive expert advice across a wide range of areas including legal, tax, intellectual property, regulatory and compliance to help reduce the time to market for exporting and increase UK exports. The support will ensure that women tech founders are represented on the cohorts of companies selected for the export academy.
- A new DIT platform to supercharge UK tech engagement on the global stage and mitigate the impact on firms unable to attend international industry events and investor meetings. This will include a greater presence at international industry events and access to virtual trade shows and virtual event platforms to support international buyer-seller meetings and companies-to-investors introductions. This will be launched in September. Virtual trade shows will allow UK businesses to showcase their capabilities and network with overseas businesses and investors. Technology will be at the heart of the government's new Ready To Trade campaign with specific campaigns on edtech,

medtech, cyber, VR, gaming and animation.

- An expansion in support for DIT's High Potential Opportunities (HPOs) tech programme, to drive foreign direct investment (FDI) into emerging subsectors including 5G, Industry 4.0, Photonics and Immersive Technology, ensuring the UK remains the most attractive destination for tech investment in Europe post-coronavirus. Working closely with the Devolved Administrations, LEPs and industry partners, government will seek to promote the full spectrum of UK tech capability to overseas investors and identify emerging growth markets for UK firms.
- The launch of a new financial technology (fintech) campaign in the UK, including promoting UK fintech companies who enable digitisation and resilience in priority export markets, to enhance UK tech competitiveness on the global stage after Coronavirus and ensure we remain the best place to start, scale and internationalise a fintech business.
- An uplift in outreach and engagement by UK Export Finance's (UKEF) marketing and communications to raise awareness of UKEF's offer among UK tech firms and how UKEF and Trade Finance can help them win and fulfil export contracts.

Tech is a key growth area for the UK, contributing £149bn to the economy in 2018, (7.7% UK GVA) and employing more than 2.9 million people. Last year, the UK attracted a record £10.1bn worth of investment (up 44% from the previous year), more than Germany and France combined.

£1.6m works start to repair Doncaster flood defence embankment

Press release

The Environment Agency has started works to repair a 40 metre slip on a flood defence embankment in Doncaster, which was damaged by last November's floods.



40 tonne excavator being moved to the location of repair works

The embankment, which lies between the River Don and the South Yorkshire Navigation canal at Mile Thorn in the Wheatley Park area of Doncaster, suffered from damage before and during last winter's flood conditions.

The bank slip could be at risk of destabilising the whole river bank if it is left unrepaired.

The £1.6 million works at Wheatley Park are expected to be complete by August and are part of an overall £32 million package of repair works across Yorkshire.

A large 42 tonne excavator has been transported to site using a pontoon, to help with the start of the repair works. Large barges are being used to transport materials in to repair the bank. Rock bags in engineered bays will be used to make the bank much more resistant to erosion.

Access to the site is restricted, so the Environment Agency has worked closely with Doncaster Council to set up a site compound near the site, and the Canal and River Trust has enabled teams to have access from the canal so that equipment can get to site safely.

Tony Hartley, project manager at the Environment Agency said:

This work is a significant repair job in difficult conditions, which will help strengthen this flood defence bank and reduce the risk of flooding to the local area.

We're making good progress and we're working within strict Government guidelines to carry out this work safely.

The repair works are being carried out by the Environment Agency's framework contractor BAM Nuttall and their specialist contractor Waitings.

There are multiple repairs needed in the area but the most significant work is at this section where the bank has slipped. A programme of works is also in place to make repairs to other defects along the river banks.

Since the floods in November 2019, the Environment Agency has checked 650 kilometres of flood defence embankments across South Yorkshire and identified over 100 individual repairs that are required at a cost of £12.8 million, protecting around 6,000 properties.

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