

Glasgow students win £600,000 climate satellite design competition

The 10 students designed a satellite to analyse shorelines and coastal vegetation to help scientists and policymakers understand the impact of climate change on coastal regions, as part of the Nanosat Design Competition, run by the UK Space Agency and Department for Transport.

The winning team from Glasgow, named OirthirSAT, beat more than 40 teams from across the UK, aged between 16 and 37, with the judges praising their entry for identifying a clear way to tackle climate change and test new technologies.

Transport Secretary Grant Shapps said:

With satellite launches due to start from home soil this year, there is no better time to support the next generation of space experts in developing satellites to support our mission against climate change.

My congratulations go to OirthirSAT and everyone shortlisted for their hard work throughout this competition, and I applaud the innovation all the teams have shown throughout.

The UK is set to become the first country in Europe to host small satellite launches in 2022, building on the UK's leading small satellite industry and creating high skilled jobs across the country. This will also help UK scientists use space technology to help tackle global challenges, including climate change.

Dr Paul Bate, Chief Executive of the UK Space Agency, said:

Satellite technology plays a crucial role in monitoring our climate and it is fantastic to see so many innovative ideas to help tackle the most pressing issue facing our planet. My congratulations go to the winners from the University of Glasgow for their excellent design.

The countdown to the first satellite launch from UK soil is on and this will be a historic year for our space sector. Being the first country in Europe to offer launch will boost our satellite industry further, creating hundreds of new jobs across the UK.

The Nanosat Design Competition opened in November 2021, with aspiring space scientists invited to design a small satellite suitable for launch from the UK to help inform solutions to climate change.

Five teams were chosen from the initial entries to go through to the final stage, which included a four-month mentoring programme with space sector experts. The OirthirSAT team was announced as overall winners at a ceremony with UK Space Agency CEO Dr Paul Bate and ESA astronaut Matthias Maurer, during the Farnborough International Airshow today (Friday 22nd July 2022).

Freya Muir, a PhD student at the University of Glasgow on the OirthirSAT team, said:

We're so proud to have won the competition and have all our hard work recognised by the sector. It's not just a win for us and the university, but for coastal stakeholders and decision-makers who will get valuable use from our data.

This is an incredible opportunity, and it's hugely exciting to be able to develop our winning design to help protect our coastal communities against climate change.

Joe Gibbs, a PhD student and OirthirSAT's Programme Engineering Manager, said:

The last eight months have been a steep learning curve and we're delighted that the hard work has culminated in the winning proposal. This project has really showcased the current potential in the UK space sector, and we hope to demonstrate further cooperation amongst companies in our proposal to study the effects of climate change on UK coastlines.

I'm excited to not only refine the OirthirSAT proposal in the next phase of the design process, but to also develop an expansive outreach programme to showcase the UK space sector to future engineers and scientists.

Members of the OirthirSAT team, from the University of Glasgow, with European Space Agency astronaut Matthias Maurer at the Farnborough International Airshow. Credit: UK Space Agency

The four other finalists came from Reliance Precision Engineering, in Huddersfield, Sir William Borlase's Grammar School, in Marlow, Buckinghamshire, the University of Kent and the University of Southampton.

Glasgow's OirthirSAT team will use the prize money to build their satellite with ongoing support from the competition's mentors, to help develop their proposal from design to build, with a view to launching from the UK in the coming years.

UK Government Minister for Scotland Iain Stewart said:

Congratulations to the University of Glasgow students behind this innovative satellite design. I look forward to seeing how this UK Government funding helps bring their fantastic ideas to life.

With satellites playing an ever-greater role in monitoring and helping combat climate change, it's inspiring to see Scotland's next generation of scientists exploring new ways that space technology can help us understand our environment.

Scotland's space sector is booming, and now accounts for around one fifth (18%) of the UK space workforce, according to the latest figures. Scotland will also host the UK's first vertical small satellite launches next year, from the SaxaVord and Sutherland spaceports.

Levelling up the space sector is a key priority for the UK Space Agency and there are now 1,293 space organisations located across the UK. Spaceports are set to increase jobs further in the coming years, alongside the growth of regional space clusters, international investment, and emerging technologies such as in-space manufacturing and debris removal.

Further information:

More information about the [OirthirSAT mission](#)

The winning team members:

- Joe Gibbs, PhD, Aerospace Sciences
- Diego Hidalgo De Las Heras, MEng Aeronautical Engineering
- Georgios Tita, MEng Electronics and Electrical Engineering
- Freya Muir, PhD in Geographical and Earth Science (Coastal Modelling)
- Theodoros Serghiou, MEng Electronics and Electrical Engineering
- Ignacio Serrano Martín-Sacristán, BEng Aerospace Engineering
- Gregor MacAskill, MEng Aeronautical Engineering
- Civan Doğan, Computing Science
- Nektarios Chari, MEng Mechanical Engineering
- Natalia Ibagón Sánchez, MSc Robotics and AI

The competition judges:

- Andrew Ratcliffe, Chief Engineer at the UK Space Agency
- Dr Suzie Imber, Associate Professor of Planetary Science at the University of Leicester
- Anita Bernie, Managing Director, MDA UK
- Liz Seward, Head of Space Strategy, BAE Systems
- Professor John Remedios, Director of the National Centre for Earth Observation (NCEO) hosted within the Earth Observation Science group at the University of Leicester
- Dr Merritt Moore, quantum physicist and professional ballerina
- Professor Mark Maslin, Professor of Earth System Science, University College London

Waste criminal to pay £22,555 after depositing illegal waste

The Environment Agency has successfully prosecuted Michael Shilling. He was fined £4,500 and ordered to pay £6,779 costs, a £190 victims' surcharge and £11,086 compensation to Iron Mountain (UK) PLC, at Sevenoaks Magistrates Court. A total of £22,555. The magistrate took into account his guilty plea during sentencing.

Mr Shilling, 61, of Raspberry Hill Park Farm, Iwade, Kent, pleaded guilty to controlling, or being in a position to control the use of, a Scania skip loader. He also pleaded guilty to knowingly causing waste to be unlawfully deposited at Gills Terrace, Otterham Quay Lane in Rainham Kent. The site owned by Iron Mountain (UK), on 14 December 2020.

Image shows a night view of the front of the truck with the driver's door open. The time and date can be seen at the top of the picture

Matt Higginson, Environment Manager for the Environment Agency, said:

This prosecution and the seizure and crushing of the vehicle shows that we will search out and prosecute anyone found to be dumping waste illegally.

Illegally depositing waste without regard for the environment and the law has the potential to harm our natural resources. It is also a blight on communities and undermine the legitimate businesses that follow the rules. You won't get away with it.

We encourage everyone to check that their waste collector is registered as a waste carrier.

On 22 December 2020, an Environment Agency officer was made aware that waste had been deposited at the land at Otterham Quay Lane. On 8 January 2021, the officer received more information, including CCTV footage. The footage showed that Mr Shilling's vehicle entered the site 3 times on the evening of 14 December.

Employee of Iron Mountain (UK) reported the dumped waste, which was smouldering, when he arrived for work on 15 December 2020.

The waste found on site was shredded material comprising plastics, paper,

mattress fabric and fibre. An employee of Iron Mountain (UK) made a statement saying the waste was smouldering when he arrived at work at the site on 15 December 2020.

On 25 February 2021, an Environment Agency officer, accompanied by Kent Police, visited Raspberry Hill Park, near Iwade, Kent. They located the lorry used on 14 December to deposit the waste. The Environment Agency and Kent Police seized and crushed the vehicle for alleged waste offences.

[Check a waste collector is registered as a waste carrier](#)

Mr Shilling's date of birth is 29 March 1961.

The Legislation – The Environmental Protection Act 1990

Section 33 Prohibition on unauthorised or harmful depositing, treatment or disposal, etc, of waste

(1) Subject to subsection (2) [, (2B)] and (3) below [subsections (1A), (1B), (2) and (3) below] and, in relation to Scotland, to section 54 below, a person shall not:

(a) deposit controlled waste [or extractive waste], or knowingly cause or knowingly permit controlled waste [or extractive waste] to be deposited in or on any land unless a waste management licence [an environmental permit] authorising the deposit is in force and the deposit is in accordance with the licence [the permit];

Section (5) states that Where controlled waste is carried in and deposited from a motor vehicle, the person who controls or is in a position to control the use of the vehicle shall, for the purposes of subsection (1)(a) above, be treated as knowingly causing the waste to be deposited whether or not he gave any instructions for this to be done.

Waste crime is a major issue across the country, not only spoiling our environment and impacting on our health. It also effects the economy and undermines legitimate businesses. The Environmental Services Association have estimated that illegal waste activity costs over £1 billion annually in England.

Waste crime is much more than fly tipping. It also includes operating without the correct permits and authorisations. It is large scale illegal dumping, burning of waste, mis-description of waste, operating illegal waste sites and illegally exporting waste.

Waste criminals are becoming more sophisticated by working in a more organised manner and infiltrating legitimate industry. They operate across county boundaries and they are likely to be involved in a wide variety of other criminal activity. Such as drugs trafficking, modern slavery, firearms and fraud.

Recruitment vacancy for Head of Pharmacovigilance

News story

Details of a recruitment for the Head of the Pharmacovigilance team.



This is an exciting and busy post that contributes to the strategic objective of protecting public health, animal health and the environment.

You will lead the pharmacovigilance team and be part of the senior leadership team within the Authorisations Division. You will report to the Director of Authorisations.

Job Title

Head of Pharmacovigilance

Grade

G7

Salary & Pension

£52,289 – £60,188 per annum with Pension Scheme

Annual Leave entitlement

Commencing at 25 days

Role

You will manage the work of the pharmacovigilance team consisting of ten staff including vets, scientists and administrators. You will ensure that the

performance of the team meets the required standards, as defined in the relevant elements of the published standards, and to contribute to the delivery of the VMD's objectives.

How to apply

You must make your application via [Head of Pharmacovigilance – Civil Service Jobs – GOV.UK](#) where you will find a full job description including salary details.

Closing Date

22 August 2022

Published 22 July 2022

[Road reform continues to deliver for road users and taxpayers, says new report](#)

The government's reform programme, which began in 2014/15, has delivered better value for money for taxpayers, led to more efficient planning of road maintenance and upgrades and provided greater confidence for the supply chain, the report said.

The changes involved the move from the Highways Agency to Highways England (now National Highways), a government-owned company. It was accompanied by a five-year funding deal to allow for better planning for the ongoing work to maintain the strategic road network (SRN) – motorways and major A-roads.

This was supported by a threefold increase in investment into the network, which rose to £4.5 billion per annum, as well as new monitoring and watchdog roles overseen by the Office of Rail and Road and Transport Focus.

Ipsos Mori and Risk Solution have evaluated the reforms through a series of reports published in 2016 and 2019.

Today, the third and final evaluation is published drawing on interviews with external stakeholders, suppliers and road user groups, as well as reviews of National Highways' work.

The changes were designed to improve road users' experience, provide value for money to taxpayers and support growth through facilitating quicker and more efficient journeys across the country.

Overall, today's report says that the reforms "have been effective in improving how the SRN is managed, and that they have had positive effects on value for money and road users' experience". It has also led to significant efficiency savings being made, it says.

The introduction of five-year Road Investment Strategies has provided National Highways with greater funding certainty over longer periods, leading to increased reliability and flexibility regarding project delivery and supplier procurement.

Nick Harris, Chief Executive at National Highways, said:

Having secure long-term investment in place has made an enormous difference to the way we operate, allowing us to be more strategic and innovative in our management of the network and in our relationships with our stakeholders.

Ultimately our focus is on ensuring that the strategic road network is as safe and secure as possible, and greater financial security means we have more freedom in considering the best methods of supporting that approach and our customers.

The report said that:

National Highways has made £1.45 billion of efficiency savings in the first five years compared with a target of £1.21 billion. This was in the context of significant growth within the organisation and delivering a much-expanded programme of work.

- Stakeholders believed the changes had allowed National Highways to "identify and focus on the most important long-term priorities rather than frequently switching between issues attracting attention at a particular time, and has more scope to consider what will be needed in future";
- The move away from the Highways Agency to an independent government-owned company had led to "better consideration of the needs and experiences of its customers", including those people and organisations using the SRN as well as communities near the network;
- The funding certainty had, interviewees said, "led to more stability in the enhancement programme with fewer projects being cancelled at short notice, and better planning and coordination of work";
- There was greater certainty for suppliers through the use of longer-term contracts and contracting directly with smaller suppliers, resulting in "greater efficiency in the management of the SRN";
- The increased confidence was thought to have encouraged the supply chain to "invest in capabilities and infrastructure, and improve ways of working through innovation";
- The creation of formal highways monitor and watchdog roles has led to National Highways having greater accountability and focus on customer and outcome-based performance.

The evaluation comes as National Highways publishes its latest efficiency report. The company is continuing to reach its targets on delivering better value for money for the taxpayer, with a cumulative year two efficiency milestone of £471 million reached.

View the [Evaluation of Roads Reform report](#).

General enquiries

Members of the public should contact the National Highways customer contact centre on 0300 123 5000.

Media enquiries

Journalists should contact the National Highways press office on 0844 693 1448 and use the menu to speak to the most appropriate press officer.

Graduation success for our future project managers

A cohort of Sellafield Ltd Project Management Degree Apprentices have graduated at Carlisle Cathedral this week.

These students are one of the first in the country to graduate with a Level 6 Integrated Degree in Project Management.

The 4-year degree apprenticeship is delivered in collaboration with the University of Cumbria.

During this time, they have completed a number of professional qualifications and training courses, such as the Association for Project Management – Project Management Qualification (APM PMQ).

Their apprenticeship has involved a combination of academic learning and practical project experience across Sellafield Ltd.

Placements have taken place across the project professions including construction, commissioning and pre-operations, risk, project controls and project management.

The final stage of their apprenticeship was successful completion at the end point assessment which consists of a professional discussion and a work based project report.

After graduation, the apprentices will be placed in project delivery roles across Sellafield Ltd, ranging from areas such as: legacy ponds, various

value streams and the Sellafield Information Services Organisation (ISO).

Now that they are qualified, our apprentices will begin their journey to progress through Sellafield Ltd's APM accredited project management career pathway.

Andy Sharples, Project Director, Sellafield said:

Congratulations to our project management degree apprentices who have recently graduated from the University of Cumbria.

The success of this programme is a combination of fantastic candidates, a dedicated apprenticeship team and placement managers who ensure it's a success, year on year.

These graduates will be central to delivering our purpose of creating a clean and safe environment for future generations.

Their exceptional degree results are a reflection of their hard work and efforts – they are a credit to our organisation. I wish them every success for their future with us.

University of Cumbria, Associate Professor of Workforce Education and Development Ian Sinker, said:

Our graduation ceremony demonstrates the breadth of our employer partnerships and reinforces our role in contributing to workforce development, with our longstanding relationship with Sellafield Ltd an integral part of this.

We are delighted that our first project management degree apprentices have graduated this summer, completing their 4-year journey.

Graduating alongside this first group from Sellafield Ltd have been other graduates from Rolls-Royce and other employers.

We are proud to deliver Sellafield Ltd's Project Academy, now in its 7th year, and securing a new contract with Sellafield Ltd for the future delivery of this project management degree apprenticeship.