

Climate satellite design competition opens for next generation of space scientists

Competition entrants will compete for a share of a £600,000 Challenge Fund, enabling them to develop and build their satellite design with the potential to launch from a UK spaceport from 2023.

Nanosatellites are small satellites that can be used to gather scientific data, such as information on climate change, ranging from sea level measurements to mapping deforestation.

The competition is inviting entrants to design a nanosatellite that will inform solutions to help tackle climate change.

Transport Minister Trudy Harrison said:

I am delighted to see the Nanosat Design Competition lift off today. I hope it inspires some of the UK's brightest young minds to launch an exciting career in the UK's thriving space sector.

As we enter a new commercial space age this is a remarkable opportunity to design the technology of the future and be a part of our all-important fight against climate change.

A panel of space experts will judge the competition entries, including Dr Suzie Imber, an Associate Professor of Planetary Science at the University of Leicester, who has worked on leading space missions such as the BepiColombo spacecraft, currently on its way to Mercury.

Entrants will also have the unique opportunity to receive mentorship from industry experts to help develop their designs as well as gain valuable skills to help progress a potential career in the UK space sector.

Ian Annett, Deputy CEO of the UK Space Agency said:

Space technology plays a crucial role in monitoring our climate, and this competition gives the next generation a unique opportunity to design their own satellite to help tackle the most pressing issue facing our planet.

The ability to launch small satellites from the UK will further support our world-leading Earth observation capabilities and create

high-skilled jobs across the country.

As set out in the National Space Strategy, 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, which is a key part of the Government's National Space Strategy.

Entry is encouraged from those aged 16+ from any background and with no requirement for previous knowledge, expertise, or experience in the space sector. Applications close on 7 January 2022.

Visit www.nanosatlaunch.uk to find out more about the competition.

You can also [register to attend a virtual launch](#) event on Thursday 11 November

[Call for proposals to develop guidebooks on doing business and FinTech in Indonesia](#)

World news story

British Embassy Jakarta is looking for an organisation to develop two guidebooks on Doing Business in Indonesia and the FinTech sector.



Background and objective

The British Embassy Jakarta conducted a Business Perception Survey in 2021 to identify key challenges companies have been facing in doing business in Indonesia. 38% of the survey respondents identified clarity of law and

regulations to be their top barriers. This activity aims to develop a guide to doing business in Indonesia by providing clear, detailed and informative guide to market entry and to create conditions for overseas (especially British) businesses to trade, grow and invest in and with Indonesia. This in-depth guide will cover the Indonesian regulatory landscape, including existing rules and restrictions on certain sectors. Specifically for FinTech sector, this guide aims to provide information on regulatory landscape and recommendations on market entry strategy for FinTech companies in a number of specific sub-sectors.

Timing and indicative budget

The project must be completed by 18 March 2021. The budget for this project is up to £40,000 inclusive of all expenses and taxes. Value for money is an important factor, therefore pricing will be considered in the selection process. For further details on the timeline please see [proposal background and guidance](#) (ODT, 140KB).

Guidelines for submitting a proposal

Assessment / evaluation criteria of the proposals

1. Experience and track record
2. Project management
3. Knowledge and methodology
4. Branding and Design Requirements
5. Duty of Care and code of conduct

See [proposal background and guidance](#) (ODT, 140KB) for further details and weighting for each.

How to submit

Bids should be sent to Mercedes White Mercedes.white@fcdo.gov.uk and Laura Wijaya laura.wijaya@fcdo.gov.uk using the reference “Guide to Doing Business in Indonesia and Guide to FinTech in Indonesia”. The deadline for bids is 11:59pm (Jakarta time) on 19 November 2021. Late submissions will not be accepted.

See [proposal background and guidance](#) (ODT, 140KB).

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New campaign to 'Stop COVID-19 hanging around'

- Explainer film demonstrates impact of ventilation on reducing COVID-19 levels
- Clear advice to open windows for 10 minutes each hour when socialising indoors
- New research reveals how only a third of the public understand importance of ventilation

A new campaign launches today (Friday 5 November) across digital channels, radio stations and newspapers, demonstrating the importance of simple ventilation techniques to reduce the risks of catching COVID-19 this winter.

An explainer film – to be used on NHS and government digital channels – has been released by scientists from the Universities of Cambridge and Leeds, in collaboration with the government, demonstrating the positive impact of reducing COVID-19 levels indoors by opening a window for just 10 minutes every hour when socialising with others.

Part of a wider campaign, including national radio and press adverts, the key message will be to 'Stop COVID-19 hanging around'. The film clearly shows the difference in airflow and airborne particle movement when indoors in relation to COVID-19.

Voiced by Dr Helen Lawal, the film demonstrates how, in a home setting, someone infected with the virus talking and interacting with another person produces a build-up of COVID-19 particles in the air. These particles then linger in an unventilated room, like smoke, meaning the risk of catching COVID-19 is significantly increased. However, COVID-19 particles disperse quickly when good ventilation is introduced, even for a short period.

While the life-saving vaccines remain the best defence against COVID-19 – giving over 90% protection against hospitalisation from the virus – people can still catch COVID-19 even if they have been double vaccinated. With around one in three people with COVID-19 showing no symptoms, it could be passed onto others without knowing. With fewer restrictions in place this winter, following the success of the vaccination programme, the act of refreshing air in the home when people have visitors is even more important for everyone to keep infections down.

Dr Thomas Waite, Deputy Chief Medical Officer for England, said:

Small but important actions can help protect us against COVID-19. Getting vaccinations, wearing a face covering in enclosed spaces and taking regular COVID-19 tests all make an important difference but it is also crucial that we don't overlook the value of ventilation.

People with COVID-19 release virus particles into the air whenever they speak, breathe or cough and these can linger in unventilated settings. With winter fast approaching and people spending more time indoors, it's vital everyone understands the importance of using ventilation, such as regularly opening windows – even if just for a few minutes – to keep the air moving and prevent infections.

The campaign comes as new research reveals almost two-thirds (64%) of the public didn't know that ventilation was an effective way to reduce the spread of COVID-19 at home. And only around a third of people (29%) are currently ventilating their home when they have visitors over. Only 3% of those surveyed continued to ventilate their homes for a period after their guests left.

Professor Catherine Noakes, Professor of Environmental Engineering from Leeds University, said:

As winter approaches, people will naturally spend more time indoors, welcoming friends and family into their home as the weather gets colder. While we've all been looking forward to this for so long, it's important to remember that coronavirus is still around us and can easily spread in the home.

If someone is infected – and they might be showing no symptoms – COVID-19 particles are released into the air by coughing, talking or simply breathing. In an enclosed space, the infectious particles can build up over time. They remain suspended in the air, increasing the risk of other people in the room breathing in the infectious particles, especially if there is no ventilation or fresh air helping to refresh the air being breathed.

With this in mind, as we meet more people inside, it's so important to use ventilation, such as opening a window, even for just a short time, so fresh air can disperse and blow COVID-19 particles away and decrease the risk of others being infected.

In the run up to Christmas, as people spend more time socialising together indoors during the winter months, the potential for breathing in infectious COVID-19 particles will increase. The research showed that more than half (52%) of people will welcome an additional three people per week into their homes who do not live with them, and almost a third (30%) of households stated they will be entertaining more people in their homes than normal in the run up to Christmas.

As well as opening windows for a few minutes every hour to dilute virus particles, other simple actions the public can take to reduce the spread of COVID-19 include wearing a face covering over the mouth and nose in busy indoor spaces, such as public transport or shops. In addition, the government advises everyone to continue taking free rapid lateral flow tests regularly, particularly before mixing in crowded indoor spaces or visiting vulnerable

people. Testing is the quickest and easiest way to find out if someone has the virus, even if they show no symptoms.

Professor Stuart Dalziel, from the University of Cambridge who was part of the team that helped create the experiment, said:

This experiment clearly shows the impact that ventilation can have on dispersing built up COVID-19 particles in the home or indoor environment. With smoke representing COVID-19 particles moved around with the air, you can see that these particles hang around in the air when we are indoors in a room without ventilation.

However, these particles disperse much more quickly and leave the room when we let fresh air into the room, so the chance of others breathing them in is greatly reduced. We hope that this experiment helps people understand the impact that opening a window, even a little, can have on reducing the risk of inhaling COVID-19 particles, if present, when around others indoors.

Dr Helen Lawal, the GP and TV Doctor who voices the film, said:

As we head into the colder months, we will of course be wanting to meet up with friends and family more inside our homes, especially in the run up to Christmas. As cases of COVID-19 increase, however, it is incredibly important to remember the simple actions we can take to reduce the risk of catching COVID-19. Make sure you open your windows for a few minutes at a time to dilute virus particles that could build up if you have guests that are carrying COVID-19.

Also please remember these additional actions that will keep us, and those around us safe: wear a face covering; continue to take regular rapid lateral flow tests to help give you peace of mind that you're not spreading the virus; get a PCR test if you have any symptoms, and get your COVID-19 vaccination booster if you're eligible.

[Visit gov.uk/coronavirus for more information.](https://www.gov.uk/coronavirus)

Background

± Opinium online survey conducted across a representative sample of 3,000 people in England, 15th – 20th October 2021 over 18 years.

£3 million more to reduce brain injuries at birth

- Patient Safety Minister announces £3 million for second phase of programme to improve maternity care and reduce brain injuries at birth, bringing total investment to over £5 million so far.
- Royal College of Obstetricians and Gynaecologists (RCOG) in collaboration with the Royal College of Midwives (RCM) and THIS Institute will lead second phase to roll out tools and training across the NHS
- Programme will help achieve ambition to halve the rate of brain injury during or soon after birth by 2025.

NHS maternity staff will benefit from a further £3 million to improve the safety of the women and babies they care for, the Patient Safety Minister has announced today.

The funding will support the RCOG, RCM and THIS Institute to deliver the second phase of a programme to reduce brain injuries at birth, which can have a devastating impact on babies and their families.

The first phase, announced in July 2021 included nearly £2 million to develop tools and training to monitor and respond to a baby's wellbeing during labour, and manage complications with babies' positioning during caesarean sections.

As part of the first phase, over 500 healthcare professionals and over 140 women and birth partners were consulted. Nearly all healthcare professionals surveyed agreed there should be a national approach to monitoring babies during labour, adopted by all NHS Trusts. Women and their birth partners called for better information, clear communication and involvement in decision-making.

Under today's announcement, the RCOG, in partnership with the Royal College of Midwives and The Healthcare Improvement Studies Institute at the University of Cambridge (THIS Institute), will develop a national programme to roll out tools and training products. It will also seek to address workplace culture factors, such as ensuring midwives and obstetricians are working together to deliver safe care. For example:

- the development and testing of national tools to monitor and identify any deterioration in the baby's health during childbirth;
- training for midwives and doctors focusing on teamwork, cooperation and positive working relationships, alongside technical skills, is being developed and pilot tested;
- a strategy to improve national databases to help identify what enables excellent care, bringing together CQC reports and published data on national brain injury rates; and
- a childbirth safety culture toolkit to be developed and piloted which

will include a new approach to ensure the whole system learns from good practice and mistakes.

Patient Safety Minister Maria Caulfield said:

I want every mother and baby to get the best possible care and start to life and am committed to supporting our dedicated NHS staff to make positive changes, backed by over £5 million of investment.

The second phase of this vital programme will help us improve maternity care and prevent mothers and babies from suffering the trauma of a brain injury during birth.

I thank the Royal College of Obstetricians and Gynaecologists for leading the work to roll out tools and training to support maternity teams to provide excellent care.

Dr Edward Morris, President of the Royal College of Obstetricians and Gynaecologists, said:

We are delighted that funding has been awarded to our collaboration to deliver phase two of the Avoiding Brain Injury in Childbirth (ABC) programme. By drawing on expertise from across the health sector, and listening to the experiences of women and their families, we are developing tools to support maternity units in providing the best possible care to pregnant women and their babies, and establish clear processes for effective fetal monitoring.

Any event of avoidable brain injury is tragic, for the newborn, for the family, and for the midwives and obstetricians involved. All maternity staff want to ensure that both mother and baby have the best possible outcomes. The development of these approaches to monitor babies is key to supporting maternity staff to safely deliver babies. We are grateful to all the women and healthcare professionals who have been involved with the design of this national programme. This collaborative approach has provided us with a robust base on which to build as the programme enters the second stage.

Gill Walton, Chief Executive of the Royal College of Midwives, said:

While rare, brain injury to a baby is devastating for the mother and her family, and even more so when those injuries could have been avoided. We must do all we can to prevent this happening and this latest funding is a boost to that end.

The call from women, midwives and doctors is clear. They want and need support, tools, training, and systems to stop these tragedies happening. This welcome injection of money and the work it will fund will take us further towards reducing brain injury around birth, and the RCM along with our partners in this initiative will continue to work to hard to make this happen. There is more work to be done but this is another positive step in the right direction.

Professor Mary Dixon-Woods, Director of The Healthcare Improvement Studies Institute, said:

The outstanding feature of the Avoiding Brain Injury in Childbirth (ABC) programme is that it's co-designed with maternity staff and those using maternity services. By combining clinical expertise, lived experiences, and the best possible scientific evidence in this area, ABC will support better identification of when babies are deteriorating and the right escalation and action when babies need it. ABC will also address the challenges of impacted fetal head at caesarean section – a problem that needs to be addressed through high quality training and support.

This is a wonderful chance for maternity staff and those using maternity services to get involved at thiscovery.org/abc in co-designing education, training and a cultural toolkit.

Jacqueline Dunkley-Bent, Chief Midwifery Officer for England, said:

The NHS is committed to improving safety for women and babies in maternity services, and this second phase of the Avoiding Brain injuries in Childbirth programme is the next step in making the NHS the best place in the world to give birth.

These new tools – to spot warning signs at an earlier stage – will help keep families and their babies safe from life-changing brain injuries and achieve our goal to halve brain injuries during birth by 2025. In addition, the government previously provided almost £450,000 to the RCOG to develop a new workforce planning tool to improve how maternity units calculate their medical staffing requirements, to better support families and babies.

Due to be freely available to NHS Trusts across the country next year, the tool will calculate the number of obstetricians at all grades required locally and nationally to provide a safe, personalised maternity service within the context of the wider workforce.

The programme will help achieve the government's ambition to make the NHS the best place in the world to give birth and halve the rate of brain injury during or soon after birth by 2025. NHS England is investing £95 million,

announced earlier this year, to deliver 1,200 midwives and 100 consultant obstetricians.

[Education Secretary puts climate change at the heart of education](#)

Young people will be empowered to take action on the environment as part of new measures designed to put climate change at the heart of education.

Announcing a range of measures in a speech at COP26 today, Education Secretary Nadhim Zahawi will set out his vision for all children to be taught about the importance of conserving and protecting our planet.

Teachers will be supported to deliver world-leading climate change education through a model science curriculum, which will be in place by 2023, to teach children about nature and their impact on the world around them.

Children and young people will also be encouraged to get involved in the natural world by increasing biodiversity in the grounds of their nursery, school or college by taking small steps like installing bird feeders.

They will be able to upload their data onto a new, virtual National Education Nature Park – which will allow them to track their progress against other schools in the country, increase their knowledge of different species and develop skills in biodiversity mapping.

Combined, the grounds of schools, colleges, nurseries and universities in England take up an area over twice the size of Birmingham, so improving their biodiversity could have a significant impact on the environment.

Children and young people will also be able to undertake a new Climate Award in recognition for their work to improve their environment, with a prestigious national awards ceremony held every year.

The Climate Leaders Award will help children and young people develop their skills and knowledge in biodiversity and sustainability, and celebrate and recognise their work in protecting the local environment. For example, young people may choose to undertake a project that delivers change in their local community, such as increasing the biodiversity of a neighbourhood piece of land or helping to deliver experiences for younger children to explore nature and local woodland.

It will be developed in collaboration with children and young people so that we can ensure it supports them in making an impact in their local communities.

Pupils and students will be able to progress through different levels of the award, 'bronze', 'silver' and 'gold', in a similar way to the Duke of Edinburgh Awards.

Education Secretary Nadhim Zahawi said:

We want to deliver a better, safer, greener world for future generations of young people and education is one of our key weapons in the fight against climate change. Empowering teachers in every school to deliver world-leading climate change education will not only raise awareness and understanding of the problem, but also equips young people with the skills and knowledge to build a sustainable future.

The COP26 summit has further amplified the UK's commitments to become a world leader in sustainability right across the education system by engaging young people and bringing them on our journey towards net zero and a green future.

And it goes beyond the classroom – our National Education Nature Park and Climate Leaders Awards will let pupils get hands on experience of understanding, nurturing and protecting the biodiversity around them.

Today's measures will also build on government's pledge for every new school delivered under the Department's school rebuilding programme to be cleaner, greener and net-zero in operation.

The Education Secretary will also confirm plans to test innovative new Energy Pods that can replace gas and coal boilers and supply all a school's heating and hot water without any carbon emissions. These are being tested first in some schools and then could be rolled out to other public sector buildings.

'Energy Pods' are a low to zero carbon plug and play technological solution which provide heating and hot water to existing school settings via solar panels and technology to maximise their output.

The innovation will first be tested in some schools and colleges and if successful could be extended across the school estate and into more public sector buildings.

In addition, from December 2021, all Further Education (FE) teachers trained via an apprenticeship will be required to integrate sustainability into their teaching, through modelling sustainable practices and promoting sustainable development principles in relation to their subject specialism.

These measures, brought together in a draft sustainability and climate change strategy, will be built on over the next 6 months in collaboration with young people, educators, sustainability experts and environmentalists before the final publication of the strategy in April 2022.

Today's announcement comes as part of the Department's commitment to keep the education system at the forefront of sustainability and innovation and help meet the government's target of reducing emissions by 78% by 2035 and reaching net zero by 2050.

As well as launching the draft Sustainability and Climate Change Strategy, the Education Secretary will today host a panel session, in partnership with Italy and UNESCO, at COP26 attended by education ministers from around the world. He will chair the session and let education ministers from around the world talk about what they are doing and make formal pledges to take significant actions.

UNESCO Assistant Director-General for Education Stefania Giannini said:

For the future of our planet, we need to learn for our planet. We welcome the United Kingdom's commitment to climate education through its efforts to place sustainability at the heart of their education system.

New UNESCO data found only half of national educational frameworks have a reference to climate change in them so we are partnering with the Department for Education for today's event at COP26 where global education leaders will be able to make pledges that set out how they will tackle climate change through education in their countries.

Italian Minister of Education Patrizio Bianchi said:

These steps from the UK, as well as the many other pledges we have received, recognise the vital role of education in the fight against climate change. In Italy, we have introduced climate and sustainability education as a key part of learning to provide everyone with the knowledge, skills, values and attitudes to learn for our planet and act for positive change.

If other countries do the same as us, the UK and other G20 nations then we stand a better chance of winning this fight.