[The Nuclear Decommissioning Authority is seeking innovations in remote site monitoring technology](#)

- DASA has launched a new competition: Remote Monitoring of Sensitive Sites
- Funding provided by Nuclear Decommissioning Authority
- £750,000 (excl VAT) available to find and develop innovative technologies that help remotely monitor legacy nuclear sites.
- Closing date: 18 May 2022

The [Defence and Security Accelerator](#) (DASA) is pleased to launch a themed competition called [Remote Monitoring of Sensitive Sites](#), which aims to find innovative technologies that help the collection of data remotely on assets, infrastructure and the surrounding environment/ecosystem in order to make more proactive decisions about managing sensitive sites, now and in future without the physical presence of humans. DASA is running this competition on behalf of the [Nuclear Decommissioning Authority](#) (NDA).

The NDA is charged with cleaning up the UK's 17 earliest nuclear sites safely, securely and cost-effectively. It is vital that monitoring, inspection and security capabilities remain fit for purpose, and where appropriate, are continuously improved or enhanced in order to maintain safe, secure and more efficient operations and to inform future decommissioning efforts across the UK.

[Remote Monitoring of Sensitive Sites](#) seeks technologies that will help achieve a step change improvement in data capture, and which enables new predictive modelling capabilities to proactively improve decision-making whilst also keeping humans away from harm across the NDA's estate.

Key dates and funding

Up to £750k (excl VAT) is available for Phase 1 of the competition, with a maximum of £75k (excl VAT) for each funded proposal.

The closing date for proposals is 18 May 2022.

[Have an innovation? Read the full competition document and submit a proposal](#)

Effective monitoring of sensitive sites: Key challenges

This competition aims to find the next generation of technologies that will enable effective monitoring of sensitive sites which enhance or significantly improve upon existing methods, and enable a step change in predictive modelling capability.

Proposals should address one or more of the following three challenge areas which will enable the NDA to collect data to enable more effective decision making, without physical presence of humans:

Challenge 1: Built environment and infrastructure

Innovative solutions that enhance the detection, identification, and monitoring of complex and high-value physical assets, including equipment and civil structures. Assets of interest include building rooftops, pipelines, and complex facilities. An ability to undertake automated change detection, remote inspection, and condition monitoring of external assets is also of interest.

Currently, on average, roof inspections are undertaken manually every six to twelve months. The opportunity to conduct more inspections to identify issues as early as possible and on-demand would be hugely beneficial.

Ideally, the innovation should be able to detect:

- changes in colour
- water collecting
- physical anomalies i.e. cracks, texture change
- organic growth
- thermal changes over time

Challenge 2: Environmental monitoring and land use

Innovative solutions which enable users to remotely monitor and effectively report on the use of land and environmental aspects of the NDA estate, such as:

- early warning of water effects
- monitoring air quality
- change in vegetation around a site
- monitoring site/non-site interface e.g. traffic surveys
- environmental impact on and around sites e.g. coastal erosion, monitoring a subsea wellhead and borehole on the seabed

Currently, monitoring systems involve physical sensors at a variety of locations on a site by site basis. Data capture is manual and does not allow for easy aggregation of data or integration and analysis of different data types, which is labour and time intensive.

Challenge 3: Security and resilience

Innovative solutions to ensure NDA sites remain safe and secure in a resource constrained environment, and deliver proportionate security in line with the site risk reduction curve during the decommissioning process.

NDA is interested in innovative capabilities that enable:

- perimeter monitoring of sensitive sites remotely and/or from an autonomous vantage point

- resilient and real time hazard, risk and threat identification
- autonomous interdiction capability (the action of intercepting and preventing the movement of a prohibited commodity or person)
- intelligence-based alerting system

[Read the full competition document to learn more about the challenge areas](#)

Have questions? Join our upcoming webinars

Launch briefing

Date: 31 March 2022

Join this session for further detail on the competition, the challenge areas and potential solutions. You will also have a chance to ask questions in an open forum. [Register here](#).

One-to-one meeting

Date: 5-6 April 2022

Sign up for a one-to-one conversation with a competition organiser to ask any questions you have about the competition and submitting a proposal.

5 April 2022. [Register here](#). 6 April 2022. [Register here](#).

Submit a proposal

If you have a solution or technology that may help the NDA better monitor site infrastructure, the environment, or improve the security and resilience of sensitive sites, DASA would like to hear from you. Read the full competition document to submit a proposal.

[Submit a proposal](#)