

Press release: Making sense of big data to improve the nation's defence, security and prosperity

The Defence Science and Technology Laboratory (Dstl) has today announced the launch of the Data Science Challenge. The challenge is designed to bring the brightest minds in data science together to solve real-world problems. The first challenges – detecting and classifying vehicles from aerial imagery and the classification of documents by themes– are now open to entrants, with each challenge boasting a total prize fund of £40,000.

The Data Science Challenge is part of a wider programme set out in the Defence Innovation Initiative that aims to build an open innovation 'ecosystem', harnessing the talents of individuals, academia and industry to develop new approaches to complex problems. The Data Science Challenge is piloting new ways of working including the use of crowdsourcing to engage the data science community to develop cutting edge solutions to Defence and Security problems.

The Data Science Challenge includes two distinct problems that will test the participants' ability to mine large unstructured datasets to extract useful information:

- Safe passage: detecting and classifying vehicles in aerial imagery

Being able to automatically detect and categorise vehicles in aerial imagery will dramatically improve how quickly we can assess and identify them. This challenge asks participants to detect and classify vehicles such as buses, cars and motorbikes, from a set of aerial images.

- Growing instability: classifying crisis reports

Analysing data in documents such as media reports can provide a better understanding of a potential crisis situation, growing instability in a particular region or specific theme such as terrorism. Using news material, this challenge asks participants to predict topic tags for classifying unseen reports so that they can be used to improve awareness and understanding.

Minister for Defence Procurement Harriett Baldwin MP said:

Our Innovation Initiative is about harnessing diverse and talented individuals from business, academia, and beyond to keep the UK ahead of our adversaries.

In this latest challenge, supported by our £800 million Innovation Fund, we are calling on experts to develop the latest technology to crunch big data and identify the solutions that will keep us safe.

James Srinivasan, a Principal Data Scientist at Dstl added:

Around the world, governments are using the power of data to meet many of the huge challenges that they are facing. By analysing complex, evolving information, data science can provide invaluable insight that informs how we can best respond to event.

There is real talent out there and we want to encourage the curious to experiment and learn. We are determined to push the boundaries of what can be done, and to keep striving to always be better. This is why we are launching the Data Science Challenge today.

We are keen to encourage all data scientists, not just those in the defence and security sectors, who want to rise to the challenges that we have thrown-down today, to get involved.

The Data Science Challenge is sponsored by Dstl, the Government Office for Science, Secret Intelligence Service and MI5.

Participants can register from today at www.datasciencechallenge.org and have between 3 April and 11.59pm on 17 May 2017 to develop and submit their solutions. Winners from each of the challenges will be announced at the end of May 2017.

The top three entrants will receive cash prizes. The first prize is £20,000, the second placed entrant will receive £12,000 whilst the third will get £8,000.