

# [News story: DASA showcases innovation at DSEI 2017](#)

DSEI (Defence and Security Equipment International) 2017 was held in London from 12 to 15 September. The industry defence and security exhibition attracted more than 35,000 visitors, providing DASA a great opportunity to network with existing and potential partners and to showcase how we find, fund and exploit innovations for benefit and support of UK defence and security.

We were delighted to showcase and demonstrate products from Oxbotica, Close Air Solutions, Folium Optics and Glyndwr Innovations on the stand throughout the week.

## **Innovation networking**

On Tuesday 12 September, we held a seminar followed by an Innovation Network Event at the Innovation Hub. At our seminar, Lucy Mason, Head of the Defence and Security Accelerator gave an update on DASA activities. She also announced changes to our [Open Call for Innovation](#) competition. The [one page pitch pilot](#) is already proving popular and has received several entries.

[Finding, funding and exploiting innovation for UK Defence and Security presentation](#)

Jim Pennycook, Innovation Partner then explained what funding and support opportunities DASA can offer industry and academic innovators if their product or service could meet one of the defence and security challenges.

[Challenges and opportunities with the Defence and Security Accelerator](#)

[Close Air Solutions](#) and [Oxbotica](#), organisations who have received funding from DASA, explained how DASA had helped them develop their product so it was fit for the defence and/or security market.

## **Innovation into exploitation**

Lucy Mason also took part in a panel discussion on 'Innovation to Exploitation' with the [UK Defence Solutions Centre](#) (UKDSC).

## **Last mile winners announced**

The Minister for Defence Procurement, Harriett Baldwin MP, also [announced the winners to our Autonomous Last Mile competition](#). This development will shape and transform the way the British Army supplies front line troops in the future.

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## [Press release: Change of Her Majesty's Ambassador to Macedonia](#)

2015 – present Chair Mashrek Maghreb Working Group, European External Action Service 2012 – 2015 Head Neighbourhoods Team, UK Permanent Representation to the EU (UKREP), Brussels 2008 – 2011 FCO, Deputy Head International Organisations Department 2007 – 2008 FCO/Department for International Development, Head of Darfur Section, Sudan Unit 2006 Her Majesty's Treasury, Counter-Terrorism Review Team 2006 Helmand, FCO Representative, Lashkar Gar Provincial Reconstruction Team 2003 – 2006 Washington, Second Secretary (Political) 2002 – 2003 FCO, Jamaica and Cuba Desk Officer 2001 – 2002 Parliamentary Researcher

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## [Speech: Defence Secretary Michael Fallon at Faslane](#)

It is a huge pleasure to welcome Permanent and Military Representatives of NATO to Her Majesty's Naval Base Clyde.

Our nation's commitment to the Alliance – the bedrock of our defence – remains absolute.

In the past year alone we've increased our NATO efforts: policing Black Sea skies, leading half of its maritime missions and upping our efforts to mentor Afghan officers. And today, our Prime Minister is in Estonia visiting the 800 UK troops who, supported by our French and Danish allies, are leading NATO's Enhanced Forward Presence providing vital reassurance to our Eastern European allies.

But there's no greater illustration of our commitment to NATO which, after all, remains a nuclear alliance than our investment in the UK's independent nuclear deterrent submarine force. And today, we mark the milestone of its 350th patrol at its home base.

So, before I continue, I would like to thank our brave submariners and our submarine enterprise as a whole. For almost 50 years their efforts and those of their forebears have kept us safe every hour of every day. They remain the ultimate guarantors of our security.

And this event offers us a unique opportunity to remind ourselves why our nuclear programme remains so significant.

## **Protect Our People**

First, it's about protecting our people. Our nuclear deterrent remains our only defence against the most extreme threats to our way of life.

Those threats are intensifying whether they come from North Korea's latest nuclear testing setting off a hydrogen bomb, launching ballistic missiles and reinforcing her reckless defiance of the international community. Or Russia, which not content with aggression in Ukraine and Crimea, has over the last few years repeatedly ramped up its nuclear rhetoric and in its latest exercise involving some 50,000 troops massed on the borders of Eastern Europe will also test nuclear capable ballistic missiles.

Now the UK remains firmly committed to the long term goal of a world without nuclear weapons. As Secretary of State, I reduced the number of deployed warheads on each submarine from 48 to 40 and the number of operationally available warheads to no more than 120. Just as we remain committed to reducing our overall stockpile of nuclear warheads to no more than 180 by the mid-2020s.

Yet, at the same time, we remain realistic. The total number of nuclear weapons in the world did not suddenly fall. Much as we would love to live in a world without nuclear weapons. We cannot uninvent them.

Our deterrent ensures our adversaries are left in no doubt that the benefits of any attack will be vastly outweighed by the consequences.

No credible alternative exists. And we see no reason to change our posture.

Protect Our Alliance But this brings me back to the point at which I started. Our nuclear deterrent isn't just essential for our security. it's essential for NATO's security as well. It forms one of the Alliance's key centres of decision making that complicates the calculations of our adversaries.

What is more, many nations, represented here today signed the Non-Proliferation Treaty (NPT) in the late 1960s, safe in the knowledge they were covered by NATO's nuclear umbrella including the United Kingdom deterrent. Not only did that deal help halt the nuclear arms race at the time, it has helped to cut the world's nuclear stockpile by 85%.

It is no coincidence there hasn't been a major conflict involving nuclear powered states since the end of the Second World War.

## **Protect Our Future**

Finally, our independent deterrent is a promise to protect our future. We don't know what threats lie around the corner.

Yet by giving the next generation every means necessary – from the conventional though to the nuclear – to deal with whatever comes round the corner.

We are strengthening their hand ensuring that they will have the means to deter potential threats into the 2040s, 2050s, 2060s and beyond.

That is why today we're building four Dreadnought class submarines which will enter service in the early 2030's.

That is why we're continuing to spend £1.3Bn over the next three years on facilities here at Faslane. And that is why we are building on the incredible advanced manufacturing skills found across Scotland to transform this base into a Royal Navy submarine centre of specialisation a base for all UK submarines providing 6,800 jobs now and 8,200 in the future.

## **Conclusion**

So I hope you find your visit instructive and informative.

You can rely on the UK to remain not just 100 per cent committed to our NATO alliance but 100 per cent committed to our deterrent – a message Parliament confirmed overwhelmingly last year when it voted to maintain CASD. At the same time, we can never be complacent.

As we look towards next year's NATO summit and beyond we must not just ensure the Alliance's political and military leaders continue recognising the importance of nuclear capabilities as NATO adapts and modernise but continues to make the case about the importance of nuclear weapons to a new generation.

Our national safety the strength of our Alliance and the security of the world depends on it.

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## **[Press release: Primary Authority changes to benefit 250,000 more businesses](#)**

The changes simplify how businesses can comply with regulations by enabling them to choose to work with a single local authority who will offer assured, reliable and tailored regulatory advice.

Around 250,000 UK businesses are expected to benefit from the changes, which will also allow local authorities across the country to offer any business – and any person who wants to start a business – more reliable and tailored regulatory advice.

Launched in 2009, Primary Authority makes regulation easier and simpler for businesses to understand, meaning they can make the right investment decisions first time. 16,000 UK businesses are currently benefiting from

Primary Authority partnerships, and today's extension will make this available to many more. An estimated 250,000 more will have signed up by 2020, over 95% of which will be small or medium-sized enterprises.

Margot James, Parliamentary Under-Secretary of State for Small Business, Consumers and Corporate Responsibility said:

Creating the conditions where every business can thrive is at the heart of this government's Industrial Strategy. Today's changes help bring down the barriers which hold back businesses by streamlining and clarifying regulation, giving businesses the confidence to invest, grow and hire.

We are committed to building an economy that works for all, in which consumers are properly protected, and these changes will ensure Britain remains among the best places in the world to start and grow a business.

For the first time start-ups and pre-start-ups will be able to access Primary Authority, allowing Growth Hubs, Better Business for All and Local Enterprise Partnerships in all corners of the country to provide tailored, local advice on matters of regulation.

Andrew Butler, Community Protection Manager – Trading Standards, Hertfordshire County Council said:

Good regulation and good business go hand in hand. Working with the British Association of Removers enables us to create consistency for their members across the UK.

Tim Jones, Specialist Cheesemakers Association (SCA) Chairman said:

SCA has developed a successful and mutually beneficial relationship with our Primary Authority in Cornwall and would happily recommend this as a model to others seeking to encourage a consistent approach to enforcement and thereby improving product quality and safety to meet consumer needs.

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**[News story: Autonomous vehicles for](#)**

# farming: world first achieved

[Harper Adams University](#) and York-based [Precision Decisions](#) have announced the successful completion of '[Hands Free Hectare](#)' – its project to plant, tend and harvest a crop using only autonomous vehicles and drones.

Using this method returned a yield of 4.5 tonnes of spring barley, against a predicted yield of 5 tonnes. It demonstrates that an entire crop can be grown from start to finish without people ever needing to go into the field to directly work the land.

The team believes it's the first in the world to farm a crop in this way. They now plan to replicate the trial with a winter crop.

## **Open to all**

A number of machines were used in the trial. A lightweight Iseki tractor did the spraying, drilling and rolling. The harvest was then completed with a Sampo combine harvester.

Field work to support decision-making was also done autonomously. Drones with multispectral and RGB colour sensors were used to take aerial images of the field, while a smaller Scout vehicle was used to video at crop level and physically take samples. These were sent back to the agronomist to analyse and assess what chemicals to apply and where, and when the crop was ready for harvest.

All of the machinery is readily available to farmers. The Iseki and Sampo are common models, while the navigation system came from a drone. The technology is open source.

Smaller machines were specifically chosen to limit the impact on the soil, improve precision and plant health. This supports the thinking that in future, farmers will manage fleets of smaller, autonomous vehicles. These will go out and work in the fields, allowing the farmer to use their time more effectively.

## **De-risking innovation**

The whole project cost less than £200,000, funded by Precision Decisions and Innovate UK.

Innovate UK awarded just under £160,000 to support a feasibility study of the modified agriculture machinery. This helped to test the idea, prove its viability and take the project forward.

Clive Blacker, Director, Precision Decisions, said:

“Innovate UK is unique in allowing industry and academia to work on innovative ideas by de-risking projects for the benefit of UK agriculture.”