

News story: Wearable technology for injury prevention – market exploration

The Defence and Security Accelerator (DASA) are scoping the potential for an innovation competition addressing injury prevention in the British Army by means of wearable technology. We would like to engage the market to explore market interest and to aid the scope and design of a potential future competition in advance of launch. This will provide us with an understanding of what already exists for injury prevention that can be adapted for military use as well as truly novel solutions.

Background

A study in December 2017 showed that 19.8% of personnel were medically downgraded. Of the physical injuries represented in this figure the most common were musculoskeletal injury (MSKI), environmental injury (from heat and cold) and noise induced hearing loss (NIHL). As with any organisation requiring a physical presence there is an irreducible minimum. The best sports teams work with a 7 to 12% margin for all illnesses and this accords with Commander Field Army's target of 90% deployability. In addition to the human cost behind these figures the rehabilitation of manpower capability accounts for over £100 million per annum.

The British Army is seeking rapid innovations to improve the deployability and overall health of service personnel through the use of data science and technology. The aspiration is to employ practical sensors (wearable technology) that will provide indicators and warnings prior to injury; to allow for early intervention and prevention of injuries.

The three focus areas for this market exploration are:

1. MSKI prevention: MSKI is recognised as the leading cause of medical discharge in the British Army. The study showed that 61% of the Army's non deployable personnel were as a result of MSKI, of which the average soldier took 9.5 months to fully recover
2. environmental injury prevention: heat and non-freezing cold injuries (NFCI) accounted for 2.5% of downgraded service personnel
3. NIHL prevention: 5% of service personnel downgraded were due to NIHL, an increase on the previous year

All three areas are significantly impacting the operational effectiveness of the British Army notwithstanding the personal impact on our personnel.

What we want

We are interested in potential solutions that utilise science and technology as a means to prevent, not treat, injury in service personnel. We are looking for novel methods to provide early warning or prevention methods for physical

injury, specifically using practical wearable technology.

We are also interested in ideas involving novel approaches to the data management and subsequent identification of issues using existing technology.

In the long term any technology must be scalable across the whole force, and should be compatible with the realities of military usage, such as robustness, and cyber security.

We are interested in potential solutions that aim to address any or all of the areas at any level of maturity, particularly those that are at a higher technology level which could be trialled within 6 months. Potential solutions should be presented by teams with the experience and knowledge necessary to establish sound scientific evidence for any potential technology.

By completing the Capability Submission Form neither the Government nor yourselves are committing to anything, but your submissions will be used to help focus the direction of the work and the requirements for a possible themed call in this area in the future.

What we do not want

We are not interested in literature reviews, paper-based studies, preventative medicine, non-technical solutions or marginal improvements to existing capabilities.

We are not interested in static scanning technologies or invasive technologies.

We are not interested in any novel theories for biomarkers or proxies for emerging issues which do not have a sound established scientific basis in the literature.

How to submit a Capability Submission Form

Complete the attached short form
[Capability Submission Form for Wearable Technology](#)
(ODT, 867KB)

, noting the word limits, and then email it to accelerator@dstl.gov.uk by midday 19 October 2018.

Please only provide details of one product or capability per form. If you have a number of potential solutions then please submit multiple forms.

If you have any questions then please email accelerator@dstl.gov.uk with Wearable Technology in the subject line.

How we use your information

Information you provide to us in a capability submission form, that is not already available to us from other sources, will be handled in-confidence. By

submitting a capability submission form you are giving us permission to keep and use the information for our internal purposes, and to provide the information onwards, in-confidence, within UK Government. DASA will not use or disclose the information for any other purpose, without first requesting permission to do so.

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[Press release: Animal welfare boosted by new law coming into force](#)

New regulations have come into force today (Monday 1 October) to strengthen animal welfare, particularly around puppy sales, in England.

These will:

- Ensure that breeders must show puppies alongside their mother before a sale is made.
- Tighten regulations so that puppy sales are completed in the presence of the new owner – preventing online sales where prospective buyers have not seen the animal first.
- Ban licensed sellers from dealing in puppies and kittens under the age of eight weeks.
- Regulate adverts, including on the internet, by ensuring licensed sellers of all pets include the seller's licence number, country of origin and country of residence of the pet in any advert for sale.
- Introduce a new "star rating" for dog breeders, pet shops and others to help people rate them on their animal welfare standards.

These regulations, which are strongly supported by animal welfare organisations such as the RSPCA who've campaigned for a number of years, complement the government's commitment to introduce a ban on third party sales of puppy and kitten sales which has recently been consulted on.

Animal Welfare Minister, David Rutley, said:

These regulations will end mistreatment and malpractice of puppies and crack down on unscrupulous breeders so pet owners will have no doubt their new dogs have had the right start in life.

The licensing systems for businesses that work with animals have not been reformed for almost fifty years. The changes in place from today simplify these into one system for local authorities, help

consumers to make better informed decisions and will further improve animal welfare.

These changes form part of our efforts to ensure we have the highest animal welfare standards in the world. This includes making CCTV cameras mandatory in all slaughterhouses as well as our plans to increase prison sentences from six months to five years for animal abusers.

The myriad of licensing systems that local authorities use to regulate businesses which deal with animals, or animal activities, have been in place for over 50 years. This has led to outdated regulations meaning some businesses require several licences and others, such as home boarding and dog day care businesses, were not always covered.

These regulations introduce a new system for local authorities to use for the different areas of activity (detailed below), simplifying the licences needed by businesses, ensuring all businesses working with animals are covered and driving up animal welfare standards.

A key part of these new licences will be a new “star rating” (out of five) for dog breeders, pet shops and other licensed activities involving animals. This rates these businesses, on welfare and other grounds, and helps buyers use the best breeders as well as local authorities to more heavily regulate the poorer rated (such as through more welfare inspections, increased costs and shorter licences).

This announcement follows [a public consultation](#) which ran from 20 December 2015 to 12 March 2016.

The five areas of licensed activities with animals by businesses are:

- Selling animals as pets
- Providing or arranging for the provision of boarding for cats or dogs
- Hiring out horses
- Breeding dogs and
- Keeping or training animals for exhibition

[News story: International Trade Secretary consults Birmingham businesses](#)

Dr Fox is speaking at a town hall event in Birmingham today (Monday 1 October) where he will seek the views of businesses based in the West

Midlands and call for people across the country to take part in four online consultations.

The consultations focus on new free trade agreements with the USA, Australia and New Zealand, as well as the UK potentially joining the Comprehensive and Progressive Trans Pacific Partnership (CPTPP).

Exports of goods to the USA, Australia, New Zealand and the Trans Pacific Partnership countries were worth £12.7 billion for the West Midlands last year. More than £1 in every £6 of the region's goods exports went to countries covered by these trading relationships.

Getting free trade agreements with these countries will be crucial in fulfilling the new ambition set by the government's Export Strategy to increase exports to 35% of GDP.

Members of the public can submit their views as part of four online consultations which are open until 26 October and last for a total of 14 weeks, which is two weeks longer than the European Union's consultations on new free trade agreements.

International Trade Secretary Dr Liam Fox said:

For the first time in over 40 years we will be able to determine the terms of our trade. That means new trade agreements with our key partners, as well as putting the UK at the heart of the world's fastest growing regions such as Asia.

The US, Australia, New Zealand and countries around the Pacific buy a sixth of all the goods the West Midlands produces and new trade agreements will create even more opportunities for established exporters as well as those looking to go global for the first time.

We are committed to forging new trading relationships that create jobs, boost our vital industries and benefit consumers across the whole of the UK. I urge everyone to seize the opportunity to take part in the consultations and make their voices heard.

Karl Edge, Midlands Regional Chairman at KPMG, say:

Businesses in the West Midlands have a growing appetite for international trade and we're certainly seeing this with a number of our clients. Having an overseas strategy makes sense for any business looking for growth, which is why it's crucial for local businesses to build on this momentum and make the most of the opportunities that trading internationally presents.

With the strengths we have across the region, particularly in sectors like automotive and manufacturing, there's huge potential for the Midlands to expand its international footprint and compete

on the global stage.

Paul Faulkner, Chief Executive of Greater Birmingham Chambers of Commerce, said:

Liam Fox's commitment today is a welcome move that we hope marks the start of serious progress to help exporting businesses in the West Midlands to find new markets after Brexit.

The possibility of free trade agreements with USA, Australia and New Zealand would offer a huge incentive for West Midlands firms to create business there and we will look seriously at following this up by arranging trade missions to these countries.

Today's roundtable is being held in partnership with KPMG. It is the fourth of 12 consultation roundtables held throughout the UK to seek views from interested parties as we deliver an approach that works for the whole of the UK.

Exports of goods from the West Midlands last year were worth £12.7 billion, up 10.9%. The export of services was worth an additional £7.5 billion in 2015, the latest year in which data is available.

More than a sixth of goods exports from the West Midlands are covered by the consultations, with the USA being the Midland's largest export market accounting for 11.2% (£7.9 billion) of goods by value and the CPTPP countries accounting for a further 6.8% (£4.8 billion) of goods by value.

With such potential for West Midlands firms in the global market, it is crucial that the region benefits fully from future trade agreements. That's why the International Trade Secretary wants to hear from all interested parties across the country.

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