

'A Joint Effort' between the UK and Australia will fast-track innovative approaches to joining materials for Defence.

The culmination of four years' collaborative work between UK and Australian defence was showcased at a Defence and Security Accelerator (DASA) event in March 2022. The event highlighted the technologies developed as part of the 'A Joint Effort' competition, which was launched to find innovative approaches for creating and managing joints and integrating novel materials onto military platforms.

Novel materials and improving the joining capabilities of these materials can offer significant benefits to military capability across land, sea and air, including increased functionality, availability and improved survivability.

UK and Australian innovators presented their findings from the second phase of 'A Joint Effort' and pitched their innovations to an audience of UK based technology integrators and Defence personnel. UK stakeholders were represented at the event and were able to gauge the maturity of the work and identify opportunities for "pull through" into specific projects and applications.

What was on show at the event?

The innovations on show at the event included:

From the UK:

- a new joining process for physical protection which will help produce armour more quickly and cost effectively
- an adhesive, inspired by the natural adhesives used by marine molluscs, which can adhere sensors to surfaces without interfering with sensor functions
- techniques to join dissimilar materials to perform at high temperatures, which could improve the operating performance of assets such as vehicles
- a multifunctional composite joint structure with enhanced damage tolerance and "self-repair" through crack closure

From Australia:

- new adhesive technology to develop reversible and on-demand bonding and de-bonding of components/materials by the addition of novel magnetic nanoparticles
- a novel non-destructive evaluation method for determining the performance and degradation of transparent armour materials, adhesives and systems using THz sensing

- novel modelling approaches for monitoring in situ damage tolerance, damage growth and residual limp home capability of composite joints to support digital twin applications
- novel technologies to enhance the strength of repaired metallic / composite sections through the use of additive manufacture and pinning, reducing the processing damage and increasing the durability of structural joints
- development of new composite resin systems for composite systems that significantly increase the durability of the final cured products as well as provide residual lightning strike protection to this class of material

How has the collaboration between Australia and the UK benefitted the project?

'A Joint Effort' demonstrates the possibility of engaging quickly with partners globally to identify and deliver high-risk, high-reward research. It is the first innovation competition of this kind and has developed methods and ways of working to enable further collaborative competitions across Defence and Security.

Many of the projects shown at the event have built on investments made during the first phase of the competition by extending their teams to include international partners and identifying exploitation routes across both nations. Several of the projects demonstrate true collaboration and aligned programmes of work because of this competition.

Olivia Samardzic, Minister Counsellor Defence Science and Technology, DSTG said: "By working bilaterally, we not only strengthen our science and technology relationship, through diversity of thoughts, burden, resource sharing and resilience, but we also provide support to each on each nation's respective defence industries to overcome the capability challenges we both face. This allows us to deliver capability to the war-fighter that is better tested and delivered at a faster rate than if we acted alone."

John Hunt, Australian Delivery Team Lead, Dstl said: "We got a tremendous amount of value from working with the Australians in this particular bilateral union. We've built up very strong relationships and been able to access a greater pool of innovation from Australian and UK researchers. Our respective indigenous Science and Technology bases are better as a result of this investment."

The 'A Joint Effort' competition has been run in the UK and AUS through DASA and has been managed by the Defence Science and Technology Laboratory (Dstl) in the UK and Defence Science and Technology Group (DST Group) in Australia. The competition has been funded by the Small Business Innovation Research for Defence (SBIRD), part of the Next Generation Technologies Fund in Australia and the Materials for Strategic Advantage programme in the UK. Both nations used DASA as a common assessment framework.

How has this project helped the innovators?

When asked about their experience of being involved with the, 'A Joint Effort', project one supplier said: "The way DASA launches competitions and challenges ensures there's visibility about what our technology could deliver, which is really critical. It helps tailor a project to focus on the end-users. DASA's capability to support projects that are very early in their development has been critical for our growth as a start-up company. It is a risky business, taking technology from concept to proof of concept. DASA has enabled us to do that successfully."

Another supplier noted: "Without the 'A Joint Effort' call, we would never have had the funding to progress our ideas. It would have been a nice idea that went nowhere."

When asked about the next steps for their project, one supplier said: "We've demonstrated the potential of our idea, which hopefully will excite people that there's more to come. We've got potential applications in a variety of areas. Developing strategic relationships with partners familiar with commercialising a finished product will help us navigate and de-risk the product development pathway we need to take."

Another supplier commented: "We've got a patent application in process on the back of what we've learned and found out. There's also more research to be done. We've opened a Pandora's Box in terms of what we can use this technology for in both civilian and defence applications."

[What is DASA?](#)

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[New funding to help spur more global success for UK's independent film, TV and video games](#)

- £21 million funding over three years will help booming screen industries build on existing international success
- Films including Living, The Miracle Club and Good Luck to You, Leo Grande have already benefited

Independent film, TV and video games industries will benefit from a multi-million funding boost to develop new talent, create jobs and target new audiences around the world.

The UK's screen industries boast world-class talent and have been one of the

great success stories of the economy in recent years. They employ more than 200,000 people and entertain millions around the world.

The independent sector has launched the careers of Daniel Craig, Florence Pugh and John Boyega and produced commercial and critical hits such as Belfast and Saint Maud. Globally successful video games include OlliOlli World and Lost Words: Beyond The Page. The creative industries as a whole exported £41.4 billion in services in 2020.

Today the Government is confirming its UK Global Screen Fund will be extended for three years with additional funding of £21 million, which will support the industry to continue growing the economy and providing high wage, high skilled jobs for people in the UK. This follows a successful £7 million trial, which supported more than 65 independent productions including Living, The Miracle Club, Good Luck to You, Leo Grande and Enys Men (which will soon premiere at the 2022 Cannes Film Festival).

The funding will be used to increase exports of UK film, TV and video games to new territories. It will fund the distribution and marketing of content abroad, help productions promote their work at events such as film festivals, and support companies to hire and work with new staff with specialist skills to increase global audiences. It will also help UK producers collaborate on content with international partners.

Creative Industries Minister Julia Lopez said:

There is huge global demand for the UK's world-class screen content and this new funding will help even more films, TV programmes and video games achieve international success.

By supporting producers to export their fantastic content we will create jobs and revenue at home and help project the UK's culture, values and creativity abroad.

Ben Roberts, BFI CEO, said:

In its pilot year the UK Global Screen Fund has already made over 65 awards to support UK companies to build international partnerships and generate new export opportunities. As international collaboration is fundamental to making new films and dramas that audiences around the world want to see, the continued support of the Government in backing our creativity will help to boost our participation and success in a growing competitive industry. We are proud of the incredible craft and talent within our screen industries, and look forward to how we can help grow opportunities for the UK globally over the next three years of this essential fund.

Edgar Wright, director and producer of independent films including Last Night

in Soho, Shaun of the Dead and Baby Driver, said:

Independent film and television is essential to the vitality of our wonderful industry. It allows endless creativity, bold storytelling and the chance to take risks in producing truly original content for which the UK is renowned. It is wonderful to see this further support for independent producers providing opportunities to help our films and TV shows achieve international success so that audiences around the world can enjoy the extraordinary talent and unique tales we have to share.

Emily Morgan, producer at Quiddity Films said:

I joined The Settlers as a minority co-producer alongside an extensive range of international partners and an amazing line-up of funding awards from each of the countries involved. I truly feel that it would have been impossible to raise enough finance out of the UK to take part in the project without the support of the UK Global Screen Fund.

Last year government support helped generate a record £5.6 billion spend in the UK's film and high-end TV industries, with British productions including No Time To Die and The Father becoming international hits.

Successful government programmes, such as the Film & TV Production Restart Scheme and specialist tax relief for the screen sectors, made sure the UK's screen sectors have continued to thrive through the pandemic.

The UK Global Screen Fund, which will run until 2024/25, is split into three strands:

International Distribution

Support for the sale and distribution of UK feature films in selected countries around the world. Funding will help UK businesses carry out promotional activity in target countries and at major film festivals. In the pilot year, this strand supported films including Living, Good Luck to You, Leo Grande and Enys Men.

International Business Development

Support for film, TV and video games companies to develop business strategies to boost their international growth. In the pilot year, grants supported specialist export-focused staff and the development of content tailored towards an international audience.

International Co-production

Support for UK producers to become partners in international co-productions.

This helps the teams get new skills and experience as well as share revenues on film and TV projects. In the pilot year, The Miracle Club and My Happy Ending were supported by this strand.

The International Co-production strand will reopen to applications on May 17, followed by the International Distribution and International Business Development strands which will relaunch in the coming months.

Notes to editors

Further details on the [UK Global Screen Fund](#)

Companies will be able to apply for the international co-production strand from May 17. The following strands will open shortly afterwards.

The Film & TV Production Restart Scheme which supported £215 million in film production spending.

[UK EMT gets key health facilities in Solomon Islands COVID-ready](#)

This was made possible through the UK Government's deployment of its Emergency Medical Team (EMT) who were in the country over the last nine weeks. The UK Government-funded deployment includes experts in emergency medicine, critical care and risk communications and is managed by the British NGO UK Med.

The nine weeks have been busy for the UK EMT 10-member team as they have been supporting Kilu'ufi, Atoifi, Gizo, Taro and Sasamunga hospitals in getting them prepared for potential subsequent waves of COVID-19.

During their deployment, assessments have been conducted at these hospitals to review their capacity and identify areas where they can strengthen the overall capacity of local health facilities and national medical staff.

Following the assessments, the team conducted a Training of Trainers course on different ways to manage patients with COVID-19 for key health workers at the health facilities, helping to ensure a long-term impact of the team's work.

A multi-disciplinary approach was used in conducting the training, where doctors, nurses, and other health staff were all teamed together for their training sessions. This has been important for integrating patient experiences and also can improve teamwork at the facilities.

The training sessions at Kilu'ufi including on-the-job mentoring took two

weeks with an extended stay by three members of the team who have helped set-up a first of its kind High Dependency Unit (HDU) for the hospital last week.

At Gizo hospital, Western province, similar training session was conducted in the morning and afternoon for a week.

The training sessions conducted were: Respiratory Therapy 2 – included responding to deteriorating patients and recognising acute respiratory distress syndrome and acute hypoxemic respiratory failure.

Another, Respiratory therapy 2 – included initiation escalation and weaning of oxygen therapy with skills session was also conducted along with COVID-19 therapeutics and clinical care (case management), COVID-19 special situations in pregnancy and children.

Other training sessions also included COVID-19 IPC-passing points (infection prevention and control), 'donning and doffing' and hand hygiene, respiratory hygiene with skills sessions, triage (sorting of patients based on symptoms) and the role of physiotherapy in COVID-19. These sessions have been critical in protecting both staff and patients.

The team trained a total of 122 frontline health workers to support their response to COVID-19. After identifying a lack of access of information, or in some places disinformation, on COVID-19 prevention and vaccination, they also met with 58 community leaders as part of their community outreach to help make reliable and accessible information more readily available.

Three members of the team, who are now back in the UK, stayed as part of an extended deployment at Kilu'ufi hospital, Malaita province, over the past two weeks.

[Foreign Secretary launches new International Development Strategy](#)

- Foreign Secretary publishes International Development Strategy to respond to a world increasingly affected by geopolitics
- the UK will use aid and investment to create global economic growth and challenge dependency on malign actors to offer honest alternative for low- and middle-income countries
- the Foreign, Commonwealth & Development Office (FCDO) will prioritise bilateral programmes to ensure money is spent on key priorities including educating girls and providing life-saving humanitarian support

The Foreign Secretary Liz Truss has today set out her vision for the future of UK international development. The strategy, which builds on a proud record of global leadership on development, will challenge dependency on malign

actors, offering choice and bringing more countries into the orbit of free-market economies.

The strategy will help address increasing global challenges, delivering investment, supporting women and girls, getting humanitarian assistance to those who need it most, and continuing our work on climate change, nature and global health.

Development will be at the heart of the UK's foreign policy which uses all the levers available – including development, diplomacy, investment, trade, defence and intelligence – to deliver on our foreign policy objectives.

The strategy will use British International Investment and other tools to provide honest and reliable finance to help low- and middle-income countries take control of their futures, giving them an alternative so they are not burdened with unsustainable debt with strings attached. This approach will help deliver the Clean Green Initiative, supporting countries to grow their economies sustainably.

The Government will also use the strategy to rebalance the aid budget towards bilateral programmes. This will give the Government greater control on how money is spent allowing a focus on priorities and improve lives around the world.

Foreign Secretary Liz Truss said:

In an increasingly geopolitical world, we must use development as a key part of our foreign policy. Malign actors treat economics and development as a means of control, using patronage, investment and debt as a form of economic coercion and political power. We won't mirror their malign tactics, but we will match them in our resolve to provide an alternative.

The new strategy, launched today, will ensure that our international development work brings benefit across the globe and here at home. Our strategy will deepen economic, security and development ties globally, while delivering jobs and growth in both the UK and partner countries.

The International Development Strategy sets out four priorities where the UK can meet the needs of countries around the world:

- delivering honest, reliable investment, through British Investment Partnerships, building on the UK's financial expertise and the strengths of the City of London and delivering the Prime Minister's vision for the Clean Green Initiative – supporting countries to grow their economies sustainably.
- providing women and girls with the freedom they need to succeed. We intend to restore the bilateral budget to help unlock their future potential, educate girls, support their empowerment and protect them against violence.

- stepping-up our life-saving humanitarian work to prevent the worst forms of human suffering around the world. We will prioritise humanitarian funding levels at £3 billion over the next three years, to remain a leader in crisis response.
- taking forward our work on climate change, nature and global health. We are putting the commitments of our Presidency of G7 and COP26, and our COVID-19 response, at the core of our international development offer.

Our new approach to development will:

- spend more on country and bilateral programmes rather than through multilateral organisations, empowering the UK to deliver more aid directly to where it is needed. By 2025, the FCDO intends to spend three quarters of its aid budget allocated at the 2021 Spending Review bilaterally.
- use world-class British expertise to support partner countries through providing advice, exchanging lessons and evidence of what works and building partnerships across government, research, business and civil society.
- cut back red tape and excessive bureaucracy around delivering aid and give Ambassadors and High Commissioners greater authority to get programmes delivering on the ground quickly. We will reduce the time it takes to approve a business case from many months to less than six weeks.
- sustain our commitment to Africa and ensure our development programmes in the Indo-Pacific remain a critical part of our ambition to increase our focus on the region.

[UKAEA tribute to fusion energy 'inspiration' Dr Bigot](#)

News story

CEO Ian Chapman has paid tribute to ITER Director-General Dr Bernard Bigot, who died on 14 May.



Dr Bernard Bigot

Dr Bernard Bigot, Director-General of the ITER Organization, one of the most ambitious energy projects in the world today, passed away on 14 May 2022 due to illness.

Prof. Ian Chapman, UK Atomic Energy Authority Chief Executive, said: “Dr Bernard Bigot was an inspiration to all of us working in the field of fusion energy, so I was deeply saddened to hear of his passing at the weekend.

“He transformed the ITER project through his leadership, strength of character and incredible personal commitment. Leading one of the most aspirational but complex endeavours ever undertaken by humanity requires courage, resilience and humility, all of which Bernard displayed unfailingly.

“He knew every detail of the project and his personal capacity and dedication to fusion was unrivalled. On behalf of all of us at the UK Atomic Energy Authority, I would like to thank Dr Bigot for all he has contributed to the global fusion community. He will be deeply missed.”

The experimental campaigns that will be carried out at ITER, based in Southern France, are crucial to advancing fusion science and preparing the way for the fusion power plants of tomorrow.

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