Executive Summary

ADS Group and Boyden explore how the UK Ministry of Defence can collaborate with industry to reach net zero emissions by 2050.

26th April 2021
In April 2021, Boyden and ADS Group addressed one of the biggest and most pressing questions facing government and industry leaders: How can the UK Ministry of Defence and industry collaborate to reach net zero emissions by 2050?


As part of their collaboration, Boyden and ADS ran a webinar exploring imperatives in the report.

‘*Sustainability – the New Defence Culture?*’ was co-hosted by Francesca d’Arcangeli, Managing Partner of Boyden’s global industrial practice, with co-host and moderator Sameer Savani, at the time, Head of Innovation & Engineering, ADS Group.

Distinguished panellists were:

- **Lt. Gen. Richard Nugee** CB, CVO, CBE, Non-Executive Director Climate and formerly Climate Change Sustainability Strategy Lead

- **Dr Andy Clifton**, Global Sustainability Manager, Engineering and Design, and Rolls-Royce Co-Chair of MOD-Industry Sustainable Procurement Working Group

- **Dr Sam Healy**, BEM Group Corporate Responsibility & Sustainability Director, QinetiQ and Chair of ADS Sustainability Working Group

- **Jayne Moorby**, Marketing Manager, Oxley Developments Co. Ltd and Winner, *The Manufacturer Top 100*²

Our panellists discussed how cultural and process change can be achieved across a broad and multifaceted sector comprising large organisations, SME supply chains and end users with shifting requirements.

Following is an executive summary of the discussion. A full report, including Q&A with the panel is available [here](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/973707/20210326_Climate_Change_Sust_Strategy_v1.pdf).

If you have thoughts on what you would like to see covered in future discussions, please contact [Francesca](#) or [Marc Brooker](#).

---


2. ‘The Manufacturer Top 100’ are the most dynamic leaders and innovators in manufacturing, as nominated by The Manufacturer’s 265k-strong audience, the wider industrial community, and judging panel featuring leaders of industry, academic institutions and manufacturing associations.
Overview

Reaching net zero by 2050 is a complex challenge for the defence industry. It’s also unavoidable. We can’t afford not to change and we must all see ourselves as part of the solution. While many companies across the sector have been making great strides in addressing their greenhouse gas emissions, the Ministry of Defence is driving a step change in the agenda through its report Climate Change and Sustainability Strategic Approach.

How can the sector operationalise the strategy? As individual organisations we need to play to our strengths, seeking transformation in core areas; as a sector, we need to work holistically and collaborate to identify solutions.

Trade organisation ADS Group is turning ideas and recommendations into tangible actions through its Sustainable Procurement Working Group (Chaired by Dr Sam Healy), and its participation in the MOD-Industry Sustainable Procurement Working Group (Industry co-chair Dr Andy Clifton). Through these groups, a key recommendation from our panel can be realised: that diverse businesses in the ecosystem be represented in discussions to ensure a holistic approach and that collaborative solutions do not create consequent negative impacts down the line.

Through the diverse voices in our webinar, four key themes emerged: measurement, designing-in sustainability, enabling agility and leadership to drive transformation.

Measurement

Our panellists agree that designing-in sustainability is fundamental to achieving net zero by 2050. However, planning the milestones and achieving the Prime Minister’s interim targets for 2030 depend on a clear understanding of where we are now, what we need to adapt to and where the gaps are.
Primes have a key role here, leveraging their resources to bring a correct level of understanding, insight and clarity to SMEs throughout the supply chain. That can then be translated into guidance, help and support through frameworks with clear performance indicators achievable by third tier suppliers. Rolls-Royce’s Andy Clifton comments,

“It’s fundamentally about collaboration. As a large organisation, we have more resources to engage external stakeholders to get a more thorough understanding of sustainability and its requirements. As primes, we have a particular role to play in guiding that discussion through the whole SME value chain and, with the MOD as an end user, help provide that understanding, so we all know where we can contribute to reach net zero.”

QinetiQ’s Sam Healy and Chair of ADS Sustainability Working Group, recommends frameworks rather than rigid rules. She explains,

“Making sure the framework is about help and support so that people can contribute, rather than rules to comply with, is absolutely critical. And hearing the voices of smaller and larger businesses, and those in different sectors is crucial, because we don’t want to create a framework that suits only a few organisations.”

As our understanding evolves from environmental impact to ethical requirements, social and community impact, knowledge of how these inter-relate with each other and with the more established needs and expectations of industry and business is critical. Rolls-Royce uses a risk approach, and the MOD-Industry Sustainable Procurement Group, co-chaired by Rolls-Royce’s Andy Clifton, focuses on how emerging risks derived from sustainability requirements and expectations will manifest as opportunity as well as threat. He describes it,

“We put the lifecycle assessment through a business or situational end-point analysis, which tells us this inventory translates into these threats and opportunities. You can then trace back to the point in the design that enables you to do something about it.”

Sector-wide, addressing ethical concerns and social impact is also underway. From 1st January 2021, all contracts must have a social value element (across five broad themes), to the value of 10 percent of the bid. Lt. Gen. Richard Nugee would like to go further.

“I think we can be more sophisticated in what we expect from industry and give clear guidance. For instance, we may try to introduce a requirement that unless a company has its own route to net zero, we won’t accept a bid from them.”
Designing-in sustainability

A key tenet in the MOD report is that we need to address sustainability in the first instance by building-in from scratch, rather than retrofitting buildings and equipment, which will inevitably have to be done, but as a lower priority. It will be better to retrofit case by case, at the appropriate stage. Clifton agrees,

“Designing-in sustainability may initially cost more, but over the long lifecycles of products and services in the MOD and in aerospace, that delivers the greatest amount of value.”

For Sam Healy, designing-in requires an ecosystem approach.

“I think we can do better as a sector to ensure all businesses are represented. We need to be more dynamic bilaterally and as a sector in how we arrange ourselves so that we are having these conversations.”

At an organisational level, Dr Healy points to the need to build sustainability into the heart of the business, so that sustainability is part of every conversation throughout the decision-making process. Oxley is an example of an organisation achieving early success in this through cultural change, making sustainability ‘business as usual’ and fundamental to everything the company does.

“We make change happen through how we lead it and take people on the journey,” explains Oxley’s Jayne Moorby. “It is about communications and making it real in the business. We use visual management with posters, we train our team in business improvement NVQs and set cross-functional groups to look at how they can deliver change, empowering them to implement it.”

For organisations trying to design-in sustainability, Sam Healy counsels,

“There is an opportunity to think about how each of us, uniquely, plays to our strengths and makes a step change. We need not try to be transformational in every area. Lt. Gen. Nugee uses the expression ‘fast follower’ and it’s about picking our moment to build on what other people have been doing.”
Enabling agility

Agility is a recurring theme, particularly in requirement setting, to take advantage of the latest technology and leverage the green energy revolution. Lt. Gen. Richard Nugee asserts,

“We need a more agile approach to requirement setting and allow later requirement changes to be as up to date and agile as possible. It’s about being alert to the significant changes taking place in technology, particularly in the energy sector as we come off fossil fuels, and how we take advantage of that at the latest safe moment.”

Jayne Moorby agrees. With product design taking 20 to 30 years from inception to delivery, third tier suppliers need agile design systems to incorporate innovation throughout the design process. Moorby says,

“It’s about sharpening the process so designs can be reviewed or updated to make sure we have the latest technology built into product design. Suppliers need the opportunity to speak to primes and end users to present that technology, so as an industry we are not using the same technology over and over again. We need to find ways of embedding innovation into the system”.

To achieve this, Moorby suggests shortening the lines of communication between end users and SMEs, enabling new technology to be presented.

“They need to give us an opportunity for genuine change, not a bureaucratic burden. A really clear framework with performance indicators built in, so SMEs can build those into their three-year plans, would be really helpful. Businesses need to be transparent that this is a key focus and part of the bidding process.”

A collaborative approach is crucial. Lt. Gen. Nugee counsels,

“This is all in the art of the possible if we have the right approach with industry – act in partnership and be as agile as possible in future development, rather than imposing things on industry they will find difficult to implement.”
Leadership to drive transformation

For leaders driving transformation through process and cultural change, Lt. Gen. Nugee reminds us,

“First of all, sustainability is about opportunity: for the MOD, to improve our military capability, the way our people live, our buildings, lighting and so on. If you can persuade people there is opportunity and we will be better as a result, it doesn’t take much, because everyone wants betterment in their lives.”

For Lt. Gen. Nugee, leadership is critical, but alone can’t deliver in such a complex environment. To some extent, SMEs can rely on leadership, but primes and large organisations such as the MOD are too big and complex. Nugee asserts,

“Change has to be embedded in all our processes – financial, assurance, supply chain, investment, contractual and acquisition mechanisms – and in the way we do business so people can’t ignore it”. Incremental improvements will change the culture.

In order to drive change down to the day-to-day in small tangible actions, Nugee maintains a delegated model of authority is more effective than a central diktat.

“We need to be as local as possible in terms of commands, budget holders and delegations, so we can optimise what is available and be agile. If you are trying to do something for the whole of defence, you get into a ‘tyranny of volume’. So, we need to use the appropriate level for delegations and decisions to be made, rather than doing it all from the centre.”

In conclusion,

“Collaborative goal setting is the next stage in operationalising the strategy and knowing what we need to deliver by the end of this decade, so we are on the right pathway to 2050,” sums up moderator Sameer Savani.

Boyden host Francesca d’Arcangeli added,

“We have heard the emergence of common themes today and how everyone is coming together in a common cause, breaking issues down, making them tangible and achievable. Collectively, small actions and giving individuals control will change behaviours and generate the culture we are looking to achieve. That is the transformative action we are all looking for.”

Collaborative partnership, communication throughout the ecosystem, jointly agreed KPIs, requirement reviews embedded into delivery systems, and frameworks based on help and support all point to more cohesive, inter-related processes and communications systems. The ‘new defence culture’ is one of enabling all businesses throughout the supply chain: enabling collaboration, change, opportunities for growth, new equipment, military capability, further exports and for businesses in recovery from Covid, as the UK government says, enabling them to ‘build back better’. The full report, including Q&A with the panel is available here.