



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?

The Ministry of Defence laid out its position, ambitions and principles in a report¹ published on 30th March 2021, *Climate Change and Sustainability Strategic Approach*, written by Lt. Gen. Richard Nugee, CB, CVO, CBE.

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 <u>Francesca d'Arcangeli</u>, Managing Partner of Boyden's global industrial practice, with co-host and moderator <u>Sameer Savani</u>, 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 100²

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 a summary of the discussion, with Q&A from the panel. A shorter Executive Summary is available here.

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

- https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/973707/20210326_ Climate_Change_Sust_Strategy_v1.pdf
- 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.

Summary

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

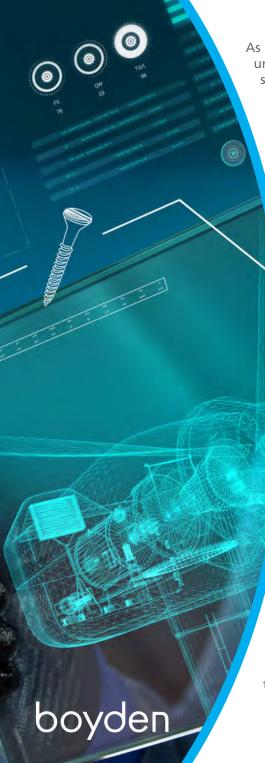
Our panellists agree that designing-in sustainability is fundamental to achieving net zero by 2050. However, planning the milestones and achieving the Prime Minister's interim targets for 2030 depend on a clear understanding of where we are now, what we need to adapt to and where the gaps are.

ADS Group is the trade organisation representing the aerospace, defence, security and space industries in the UK. These sectors generate £79 billion in turnover, including £45 billion in exports, which contributes £33 billion to the UK economy. With 1,100+ member organisations in the UK, ADS works to promote and support their interests at home and abroad.

Boyden is one of the few leadership and talent advisory firms with a dedicated global aerospace and defence practice. The sustainability agenda is driving the future of the businesses the firm supports. The UK government has made clear its bold ambitions in sustainability and climate change and Boyden is committed to helping UK businesses remain at the forefront of global environmental sustainability and leadership.







As recognised by Rolls-Royce's Andy Clifton, 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. Sam Healy, Chair of ADS Sustainability Working Group, recommends frameworks rather than rigid rules. There are two benefits: first, a framework centred around help and support encourages people to contribute and secondly, including the voices of smaller businesses and those in different sectors ensures frameworks suit all businesses not just a minority.

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.

Addressing ethical concerns and social impact is already 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, suggesting that end users accept bids only from organisations with their own route to net zero.

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 and with the right delegation in place. In building-in from scratch, concerns over cost are mitigated by the long lifecycles of products and services in the MOD and in aerospace, which deliver greater value over the long term.

Communications is recognised as a cornerstone of change. Panellists support an ecosystem approach, with businesses throughout the supply chain in conversation to collaborate on process change and sector-wide approaches to designing-in sustainability.

For individual organisations, sustainability needs to be part of every conversation throughout the decision-making process, building it into the heart of the business.

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. Best practice is pursued in change management, with leadership and management techniques, formal training and cross-functional groups empowered to deliver change.

All of this supports the process change that will enable us to design-in sustainability. Implementing transformation in every area of a business, however, would be overwhelming. The panel advises organisations to play to their unique strengths, making a step change in core areas and becoming 'fast followers' in other areas, picking the right moment to build on developments already in progress.

Enabling agility

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

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. Communication is a factor here too. Suppliers need to be able to speak to primes and end users to present new technology and avoid using the same technology again and again because it works from a commonality perspective.

Oxley's Jayne Moorby says shortening the lines of communication between end user and SME will enable new technology to be presented to primes and end users, embedding innovation into the system. Allowing for later requirement changes then becomes an opportunity for genuine change, not a bureaucratic burden. Businesses need to be transparent that this is a key focus and part of the bidding process.

Enabling agility is crucial if progress is to be made. Lt. Gen. Nugee counsels that success here rests on the MOD acting in partnership with industry, being agile in future development and not imposing things on industry that it will find difficult.

Leadership to drive transformation

For leaders driving transformation through cultural change, Lt. Gen. Nugee reminds us that sustainability is about opportunity. By focusing people on opportunity, they will see that their lives will be better as a result: momentum will gather because everyone wants betterment in their lives.

SMEs can rely broadly on leadership to implement change, but for primes and other large and complex organisations, change has to be embedded in every single process – financial, assurance, supply chain, investment, contractual and acquisition mechanisms – and in the way day-to-day business is done. Incremental improvements will accumulate to change the culture.

In order to drive change down to the day-to-day in small tangible actions, Lt. Gen. Nugee insists a delegated model of authority is more effective than a central diktat; trying to do something for the whole of defence involves a 'tyranny of volume'. Conversely, in the delegated model, businesses throughout the supply chain have a voice, they are more empowered and their innovation capabilities are maximised. Exactly the assertions of Jayne Moorby at Oxley.

In conclusion, Sameer Savani points to collaborative goal setting as the next stage in operationalising the strategy. 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'.



Panel Q&A



Sameer Savani

Sameer Savani set the scene.

"In 2019, the UK became the first major economy to legally commit to net zero greenhouse gas emissions by 2050. With many industrial sectors supporting the race to net zero, government, industry and other stakeholders need to collaborate, and defence needs to be a major part of this journey. Today we need to operationalise that strategy and what needs to be done in a collaborative way. Is it a question of cost? Yes, the cost of not getting it right".

In meeting the 2050 target and the Prime Minister's interim targets for 2030, our panellists discussed three key questions:

- 1. How will defence systems operate in the future and what does this mean tangibly for industry?
- 2. What are the key frameworks an MOD and Industry Partnership will need to develop and adopt for success?
- 3. How could these be developed into actionable and measurable objectives through the supply chain?



Richard Nugee

Richard Nugee, where do you see the balance between mitigating defence's impact on the environment, and adapting to climate change?

Both are multifaceted and have different consequences and implications for the Ministry of Defence (MOD). Adapting our equipment to operate in a climate changed world is something we need to put in place as we design new equipment. Retrofitting our existing equipment is not where we need to be. Designing it in is not necessarily more expensive, because in designing from scratch, some of what we are trying to do is the same cost or cheaper.

One of the most exciting pieces is the green energy revolution and transition away from fossil fuels. Adapting to that will lead to a new panoply of different equipment types as well as opportunities for more military capability.

The other adaptation is to ensure our bases are resilient against rising sea levels, wildfires and potential flooding. For that, we need to understand the ecological environment within which we work.

In mitigating our impact, I don't support retrofitting buildings such as Sandhurst, it would be a waste of tax payers' money to start there. We need to start with the new and build it in from scratch. We also need to measure our actual emissions from equipment, property and the rest of our estate, and work from there. So, the balance is to get things right by building to our requirements and retrofitting only later on when costs will have come down.



Andy Clifton





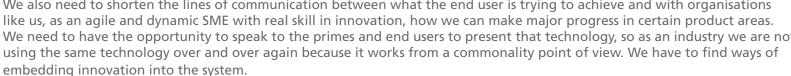
You've got to do both and to achieve balance, really focus on reducing impact, costs and where to invest. From a lifecycle costing perspective, which is fundamental to addressing this challenge, designing-in sustainability may initially cost more, but over the long lifecycles of products and services in the MOD and in aerospace, that delivers the greatest amount of value.

Behind all of this is the correct level of understanding. We have seen net zero plans, what the government has put forward and roadmaps, but there is more work to be done in providing us with the best understanding of what we have, where we need to get to and the milestones that will move us along that road from now to 2050. So, it's about what we need to adapt to and what the gaps are, so we can properly invest and develop reduction capability as required. That understanding is fundamental to doing it properly.

Jayne Moorby, as a supply chain company, you have to try to understand what the MOD customer is looking for, while your products and services go up a supply chain with companies such as Rolls-Royce in the prime domain. Are there specifics you are looking for that signpost the direction you need to go in, from within the supply chain?

Yes definitely. A big frustration is how slowly things move in the defence industry. In product design, because it takes twenty or thirty years from inception of a big programme to delivering it, we are working on very old specifications by the time we get involved as a third-tier supplier. It's about sharpening that process, or having systems built in, so designs can be reviewed or updated to make sure we have the latest technology built into product design.

We also need to shorten the lines of communication between what the end user is trying to achieve and with organisations like us, as an agile and dynamic SME with real skill in innovation, how we can make major progress in certain product areas. We need to have the opportunity to speak to the primes and end users to present that technology, so as an industry we are not using the same technology over and over again because it works from a commonality point of view. We have to find ways of



Sam Healy, how do you see this challenge convening? Who leads, who follows, how does that all come together?

There are two aspects to this. One is about each of us building sustainability more into the heart of our businesses, so as we make business decisions, sustainability is a part of all our conversations, whether it's making an investment, buying a product and so on. Mainstreaming those decisions will make us more effective as individuals.

Secondly, there is an ecosystem approach, where we make sure there is a diverse ecosystem of organisations in discussions, so we don't end up with a tiered approach where the primes all talk to each other. 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.



Jayne Moorby



Sam Healy





Sam Healy

Sam, the MOD strategy makes a bold assertion that we need to take transformative action now. What initial steps could the sector take?

There is an element here of us playing to our strengths. The defence sector is very broad, it's multifaceted with lots of elements to it. We need not try to be transformational in each area. For some it's about logistics, others it's about manufacturing or living labs for example.

So, there is an opportunity to think about how each of us, uniquely, plays to our strengths and makes a step change. If you break it down to the footprint and the sustainable solutions we create, for the transformative bit around the footprint we need to collaborate and talk about how we solve Scope 3 and fix it as a collaboration. For sustainable solutions, on the technology side we can build greater ecosystems, start those conversations and think about how we build it into our contracting from a mechanistic perspective.



In a recent workshop I ran on Scope 3, there was a general feeling that it is better to make a loose framework where all could participate, rather than spending too long creating really tough rules. Making sure that the framework is about help and support so people can contribute, rather than rules we have 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. So, more guidance, help and support, rather than rigid rules, is my recommendation.



A really clear framework with performance indicators built in, so SMEs can build those into their three-year plans, would be really helpful. All of industry is facing recovery from Covid-19 and is under pressure. They need to give us an opportunity for genuine change, not a bureaucratic burden. It needs to be very transparent in businesses that this is a focus and something that is considered as part of a bidding process.



Yes. As Sam and Jayne have pointed out, 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. To Sam's point about playing to the strengths of individual stakeholders in the defence supply chain, that's where that understanding and extra resource can be best placed. We have an understanding of individual footprints, but we are trying to address the footprint and sustainability of a sector and by extension, of society as a whole. 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.



Jayne Moorby



Andy Clifton





Richard Nugee



Sam Healy



Jayne Moorby

Richard Nugee, in operationalising the strategy in the short term, what do some of the solutions need to be?

It goes back to Jayne's point on how to allow later requirement changes to be as up to date and agile as possible. There is also the commercial aspect. We need a more agile approach to requirement setting. For example, with the new frigate currently in design, often one of the first things is to design the energy system that will go throughout the ship and the propulsion system. I am asking the ship builders to make that the last thing they design, because we don't know what the energy solution will be in 10 or 15 years' time. So, 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. We need to build that agility into our systems.

On the commercial side we need to give clear guidance to industry. One piece we may try to introduce is that unless a company has its own route to net zero, we won't accept a bid from them. This is the only way we can effect change to Scope 3 emissions. So, that is the sort of thing we need to do in transformative action. We can bring these commercial experiences into play in the next three or four years, along with industry to make sure it is fair and accurate. This is fundamentally different to what we are doing today.

Richard, in terms of social value in contracts and a climate change element, how does this resonate with building metrics into the contract?

As of 1st January 2021, each contract or bid must have a social value element to the value of ten percent of the bid. Obviously, I would like all of that ten percent on social value to be on climate change. I think we can be more sophisticated in what we expect from industry, such as looking at how the carbon element of a piece of equipment or a contract reduces during its lifecycle. 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 which they will find difficult.

Sam Healy, it comes back to cost, who pays for this transition and how costs are amortised across the lifecycle. This is quite a challenge, isn't it?

It is and it comes back to what you said at the start, 'we can't afford not to change,' so it's around looking and planning ahead and building elements in together. There are different facets to what we do as a sector: designing-in better solutions, looking at alternatives and different ways of doing things will be core elements. It's a risk if we don't act. Energy is going to get more expensive with carbon taxes down the line. So, it's a trade off with the cost of not doing things. As Richard said, we need to take everybody with us on the journey and balance this out between us.

Jayne Moorby: we should focus on some of the opportunities in doing this. In productivity, with digitalisation driving efficiencies in our businesses, there are cost savings and growth opportunities, and a focus on innovation which presents further export opportunities. We shouldn't think of this as a negative we have to achieve, but as a real opportunity to grow.



Jayne Moorby

Jayne Moorby, with the culture change needed to make this shift, are there things bigger companies and departments such as the MOD can learn from SMEs, and quickly?

We make cultural change happen at Oxley through how we lead it and take people on the journey. It is about communications and embedding it, walking the walk, not just talking the talk, and making it real in the business. It's about making it business as usual, something that is fundamental to everything we do in the organisation. We use visual management with posters around the site. We have trained our team in business improvement NVQs, and set cross-functional groups to look at how they can deliver change, with empowerment to make the changes themselves. People feel engaged and involved, but that's easier with a small team working on one site, than in a large organisation.

Andy Clifton: in a large organisation, size, diversity and legacy are all challenges. Rolls-Royce is over one hundred years old and built processes and capability around a certain set of behaviours that we need to adapt from. It involves communications, engagement, knowledge, education and sharing, and increasingly I find that there is a need to be bold and very transparent. There is still an air of hesitancy about these topic areas because it is easy to see yourself as the bad guy, seeing your organisation as part of the problem.

We need to strip it back, look at the capability and what we can achieve and deliver. Also understand the social value of what we do and see ourselves as part of the solution. This is important, because with the structure, organisations and institutions we have, we can't build totally from scratch. We need to move that across and construct the solution. It's what the MOD has done with their climate change and sustainability strategic approach. That's to be applauded. They have looked at the aspects that are important to them and the role they can play. That's what we need to do as individual organisations and holistically as a value chain and a sector to think about solutions and address the challenge.



First of all, this is about opportunity: for the MOD, to improve our military capability, the way our people live, our buildings with insulation, save money on LED 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 everybody wants betterment in their personal lives or in their business.

Secondly, in a big organisation such as the MOD, with two percent of the UK land mass, thousands of sites, hundreds of thousands of people across the world, we rely on process and the way we do business. It is too big and difficult to depend on a leadership type to win through. Leadership is really important but it's not enough, it's got to be embedded in all our processes, assurance, contractual and acquisition mechanisms, and in the way we do business so people can't ignore it. For a big organisation, changing the financial processes and delegations particularly are going to be really important to making this work.



Andy Clifton



Richard Nugee



Richard Nugee

At HM Naval Base in Portsmouth, from where the Queen Elizabeth is sailing soon on her maiden global voyage, the head of that base has total responsibility and over the last ten to fifteen years brought in a fifty percent reduction in emissions because he is responsible for doing so and can save money in the process. In an RAF or army base where the base commander does not have that delegation, they can't deliver the same outcomes because they don't have the ability or the incentive to do so. So, it's about changing the process and changing the system.

That's how you get improvements, and that's how you change culture. Build it in to everybody's day-to-day business and then the culture changes.

Sam Healy, in your multi-sector role, are there lessons to be learned from other sectors around technology transfer or culture shifts?

Absolutely. All our sectors are different, but there are elements about land, buildings and logistics that we can learn from, in terms of thinking and culture change. How have people embedded culture change and to Andy's point, how bold have they been? For instance, we all need to point in a direction where we don't have all the answers in a de-carbonising world. We need to predict there will be disruptors in technology and assume there will be some really positive changes we can tap into. There is a huge opportunity for us as a sector to look at certain areas, for example all the work ADS has done in the aviation sector around aircraft, fuels and the way they are deployed.

Richard uses the expression 'fast follower' and it's about picking our moment to build on what other people have been doing. There is a great opportunity for ADS to continue to have those conversations more broadly.



It's about the culture piece again. We need to look at our capabilities and be prepared to adapt and change as new information becomes available. This is a changing landscape. Initially the conversation was about the environment, then it quickly became about sustainability with social and responsibility aspects and it will continue to grow. Using traditional lifecycle capabilities enables us to look at a lifecycle and a range of impacts. Traditionally they focus on environment impacts, but as the techniques, capabilities and understanding have developed, we have been able to put in more ethical, social requirements around responsible supply chains and have a lifecycle inventory that reflects environmental and social impacts.

The difficulty comes in really understanding what each of these discrete impacts mean and how they inter-relate and affect other things we are trying to do as an organisation. Typically, we use a risk approach and through the MOD sustainable procurement working group that I co-chair we focus on emerging risk and how these issues will manifest as risk in terms of threat and opportunity.



Sam Healy



Andy Clifton









Richard Nugee

So, we put the lifecycle assessment through a business or situational analytic, end-point analysis that tells us this inventory translates into these threats and opportunities, and you can trace it back to the point in the design that enables you to do something about it. It's not perfect, but we can say we have made this decision with our eyes open and have considered environmental sustainability. It's important to go into a decision with your eyes open and be prepared, knowing what risks you are carrying. We have collaborated with a lot of organisations and there are a number of techniques similar to this.

Jayne Moorby, from a supply chain perspective, how do you break this into smaller pieces?

It is difficult because we don't have those kinds of resources. And it has to be a holistic view. Sustainability isn't only about the environment, we have to consider our communities as well, because the economic and social impact on our community is equally important to us. In working with primes, they need to flow down some of that to us, so we can understand very clearly what goals we need to meet. Having those built into contracts as performance measures means it is clear what SMEs need to achieve to be successful in a contract.

Sam Healy, given the work you do on behalf of industry, are there tools, guidance, case studies that companies of all sizes can engage with?

Absolutely. This is one of the goals of my working group, so we can share material collectively and more broadly. There are some fantastic resources available already, so it's really about signposting. We are really keen to work more actively with the SME community to see whether it is pitched at the right level.

Richard Nugee, how do you see some of this flowing down into the arrangements that you have? Are you looking for different collaborations or to change your commercial and procurement processes?

In the MOD we work in a delegated model, so I was interested that the US Marine Corp work centrally. They are a similar size to the British Armed Forces. That wouldn't work in our model. I would expect defence processes – procurement, acquisitions and commercial practice – to change at a defence level, and individual collaborations at command, domain and local level. That's what is important, giving freedom to those below defence level to optimise what they do, so we can take the greatest advantage from different aspects of industry. This is more sensitive than a diktat from the centre, where one size fits all, but fits no-one properly.

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'. If you look at retrofitting 100,000 buildings you will never start. If you look at one building in that particular location, you can start and see an outcome immediately. So, we need to use the appropriate level for delegations and decisions to be made, rather than doing it all from the centre.







Francesca d'Arcangeli

In closing, Sameer Savani commented, "In de-coupling and the democratisation of flowing down, the risk is accountability, with no-one accountable for this challenge. Interim goals and targets are important, together with how we collectively set these. 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".

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".

"This is the beginning of the conversation and these thoughts and ideas will go into future work streams. We look forward to continuing to hold these events. For now, thank you to our panellists for enabling us to have this debate today. Sameer, thank you for moderating and for our partnership with ADS. A very warm thank you to our webinar quests and to Richard, Sam, Andy, Jayne and Sameer."

Conclusions & tangible actions

External Environment

- Understand the status quo, gaps and milestones needed to get to 2030 and 2050
- Understand the ecological environment
- Leverage green energy revolution to create different equipment and military capabilities

Organisational Level

- Evolve lifecycle assessment to add ethical and social requirements to environmental impact
- Use a risk approach opportunities and threats to see how impacts inter-relate

Sector Level

- Adopt an ecosystem approach involving full diversity of businesses in the sector
- Shift the mindset towards cost savings and opportunities coming from innovation
- MOD to act in collaboration with industry
- Primes to lead understanding of sustainability through the SME value chain to end user
- Build in new to requirements, don't retrofit
- Design-in sustainability to generate value over long lifecycles of products and services
- Build KPIs into frameworks so SMEs can incorporate into three-year plans
- Build in systems to update technology throughout the product design cycle
- Allow later requirement changes, and shorten communication chains to inject agility
- Don't try to be transformational in every area, focus on unique strengths
- Make positive opportunities for change, growth and exports as part of the bidding process

Leadership Level

- Build sustainability into all conversations and business decisions
- Primes to recognise economic and social impact on communities
- Primes to build performance measures into contracts
- Learn from other sectors such as aviation and be bold in pushing forward
- Couch change in terms of opportunity and 'betterment' for all
- In smaller organisations, effect change through communications and training
- In larger organisations be bold and transparent in driving change. See the organisation as part of the solution
- End users accept bids only from organisations with their own route to net zero
- Be a 'fast follower,' pick your moment to build on what other people are doing

