

Sustainable Defence Support – A DSFDB Sub-Working Group

Circular Economics

0900 -1530hrs 25 October 2023

Introduction

1. On 25 October the Sustainable Defence Support (SusDefSp) Sub Working Group (SWG) convened a workshop at Mott Macdonald Bristol. With attendees from across the commands, academia and industry the workshop provided scrutiny and challenge to inform further development of a Concept Note for Circular Economics in Defence¹.

Context

2. Defence's supply chains are linear in nature and with strategic trends indicating an increased demand across many materials essential to Defence this represents significant supply chain risk. Sourcing and production on many of these materials is unethical and the global market heavily influenced by UK's adversaries while despite the guidance to take a whole life approach to acquisition, consumption and disposal are still not fully understood. Throughout Defences' product lifecycle many product decisions do not consider the sustainability impact of development in design, sourcing, production, in-service or end of life contributing to climate change.
3. These conditions expose risks with our adversaries exerting undue influence, across the supply chain and potential ESG (Environmental & Social Governance) supply chain combined with Defence's contribution to climate change driving in risk that could negatively impact Defence's licence to operate.
4. Conversely there are actions that can be taken to reduce the logistic footprint, attract and retain talent and enable Force Elements greater freedoms and prolonged endurance. In essence our hypothesis is that through the application of **circular economic principles** operational advantage can be delivered through support.

Aim & Objective

5. Defence have drafted a Circular Economic Concept Note outlining how they will operate in the future and ahead of further development this event is to expose their thinking to wider scrutiny.
6. The event exposed Defence Support's current circular economic thinking highlighted some of Defence's activities in this area and shared insight to wider sector practices. This was followed by small group workshops allowing attendees to share their own knowledge and inform further development of the concept note.
7. The concept note will now be refreshed and following endorsement will be released in early 2024. Subsequent experimentation outputs will form part of the evidence base informing Defence Logistics and Support Direction (DLSD).

Presentations

8. Following a warm welcome from our hosts the co-chairs introduced the days procedures and the short presentations² were delivered:
 - a. Marina Coloni from Defence Support set the context covering key elements from the circular economic concept note.
 - b. Thomas Powell provided an overview of the current DESA initiative into circular economics looking to turn end of life assets back into additive material, releasing

¹ Draft Concept Note prior to workshop [Draft Concept Note](#)

² PDF versions of material presented can be accessed on the Team Defence Information website. [Sus DefSp Landing Page](#)

- storage space and securing materials for advanced manufacturing techniques to meet future demand.
- c. DE&S' James Carrick presented the potential issues that DE&S could face in implementing a circular economy and how to overcome blockers as a community.
 - d. Mark Enzer from Mott MacDonald then opened up the non-Defence thinking providing a perspective from the built environment and aligned with strategic direction of the World Economic Forum.
 - e. Mott MacDonald's Sarah Griffiths then brought things to life sharing lessons and insights from their implementation project at London Heathrow.
 - f. Andrew Vivian and Lonoxiang Zhao from the University of Loughborough presented the business decision framework that they have developed and are about to trial with Network Rail.
 - g. The morning session then finished with Sheena Hindocha providing an overview of wider UKRI circular economic programmes and funded opportunities.

Workshops

9. Having heard from the MOD and wider sector after lunch attendees broke into small group workshops to apply their own expertise and provided challenge and insight to inform development of the next iteration of the concept note.

Findings

10. The key outputs from the workshop were:
 - a. The initial reaction was to go straight to a detailed implementation plan, but it was realised a more holistic, big picture view needed to be provisioned for first to act as an overarching roadmap; need to understand the defined outcome of CE to Defence.
 - b. Correct, adequate data extraction was identified as a key task to achieved this; we also require tangible metrics.
 - c. Need to build case studies and a narrative to bring CE to life and support change.
 - d. Value mindsets need to change from purely financial cost to wider 'cost', proper design, circularity impact and whole life cycle – in other words through life value for money (is it cheap to buy initially bur expensive to dispose of).
 - e. What will be the outcome of levers and therefore line of sight to which ones need to be pulled – a FLC may have different ones than Support?
 - f. Circularity needs to be looked in the view of 'systems of systems' – Again a wider impact zooms out across the entire enterprise, not zooming in on specifics supply chain approach.
 - g. Get more from what we have already - work done to date, being done, or planned to be done within wider MOD not through stovepipes within own lenses; need to develop an open forum for sharing ideas with Defence.
 - h. Language translation – MOD to Industry so the exam question posed is clear and precise.
 - i. Diagnostic questions - where it lies? what it looks like? the interplay between wider Defence.
 - j. Circularity wider, more strategic viewpoint – Who is accountable (MOD, Industry, both)? Who owns it in operation? End of life?
 - k. New commercial trust to develop – What are we really being sold? Share wider impact, clear demarcation on commercial impact (if MOD specify key requirements

does this push things forward? Does it advantage or preclude other suppliers, does this matter?)

In summary – The whole picture must be considered not in pockets of subjective isolation.

Next Steps

11. The workshop output will be taken forward by Defence Support Futures in the next iteration of the concept note. The thinking will also help shape S&T investment in the future.

Sus Def Sp SWG Membership

12. If you are not already a member of the Sus Def Sp SWG and would like to receive email updates, then please follow this link and register for email updates: [Sustainable Defence Support Sub Working Group](#)
13. People on the distribution list will receive invites to all future SWG, links to download content of materials and the occasional email update with latest information.
14. If at any time you wish to stop receiving the information, then using the same link you can simply unsubscribe.

Future Meetings

15. We are always looking for hosts and speakers for future events so if this is of interested then please reach out.

Thank you for your support.

Kind Regards

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