Introduction

‘Waste generation’ is one of six product-based environmental indicators the aerospace, defence, security, and space (ADS) DfE Working Group is developing to help industry effectively evaluate and reduce their environmental impacts and business risks. Other metrics include access to resources, hazardous substance use, recyclability potential, energy consumption, and water consumption.

Definition

This position paper broadly defines ‘waste’ as the amount of solid, liquid, and gaseous residues, which are not retained as part of the final product, generated during defined stages of the life cycle of products within the ADS industries and not retained as part of the final product.

ADS Industry Position

ADS firmly believes that:

1. Increased manufacturing activity as a result of rising global demand for ADS products will lead to greater pressure to reduce the environmental impact of the ADS industries
2. Higher environmental standards and demands for greener products will mean the cost of waste management is a major concern
3. Organisations within the ADS industries need consistent, transparent, and accessible data about the generation of waste throughout the life cycle of products to evaluate options for the benefit of the business, environment, and society.
Environmental relevance:

The natural environment acts as a ‘sink’ for wastes, but has a limited carrying capacity. Some wastes are more hazardous and/or are very resilient to natural forms of degradation and can take significant time to convert into a harmless state and therefore require additional attention to limit their burden on the natural environment. Raw material extraction, manufacture, maintenance, and end-of-life disposal of products manufactured by ADS industries generates solid, liquid and gaseous waste. Releasing waste into the environment beyond the capacity or ability of the environment may lead to the degradation of the environment and loss of resources for future generations. There is a social responsibility to sustainably manage material use to meet the needs of society whilst minimising adverse impacts on the environment.

Business relevance:

Waste management and disposal are heavily regulated and represent a significant business cost and liability risk. Reducing waste has the potential to reduce production costs and impacts on the environment, and to meet growing customer and legislative demands for more eco-efficient products. This will also improve the resource efficiency of products within the ADS industries and their business reputation. A consistent approach towards measuring and declaring the amount of waste produced throughout the life cycle of products will enable ADS industries to cost-effectively manage and reduce waste, identify additional revenue streams, and demonstrate their commitment to reducing environmental impacts.

Legal and policy relevance:

There is a growing global awareness and advocacy for transitioning towards a more resource efficient and low carbon economy. The management and disposal of waste is heavily regulated throughout the world but particularly within the EU. There are a growing number of product-based environmental policies and legislation focused on reducing waste sent to landfill, improving recycling rates, and extending manufacturers’ responsibility for particular product groups or waste categories. A consistent approach within the ADS industries towards collating data for declaring the amount of waste produced throughout the life cycle of products from the ADS industries will support the development of effective policies for the benefit of the economy, society, and environment.
About ADS and the Design for Environment working group

ADS is the premier trade association advancing the UK’s Aerospace, Defence, Security and Space industries. ADS comprises around 900 member companies across all four industries, with over 850 of these companies identified as Small and Medium Size Enterprises (SMEs). Together with its regional partners, ADS represents over 2,600 companies across the UK supply chain.

The Design for Environment group reports to the Environmental Working Group of ADS and its remit is to:

- be the industry reference platform regarding product sustainability;
- develop a standard in eco-design for the ADS industry; and
- ensure that eco-design adds value to our products and businesses.

Its objectives are to:

- Promote awareness on product sustainability / eco-design by sharing best practices,
- Strengthen the industry position on product sustainability / eco-design,
- Contribute to legislation-watch in the field of eco-design and related topics,
- Respond to consultation on behalf of the ADS industry sectors,
- Engage on eco-design with other industries,
- Develop a standard for the industry to ensure the deployment of eco-design in the ADS industry’s supply chain (methodology and metrics)
- Anticipate risks (Prevent material obsolescence and material supply disruption, be less fragile to price volatility, avoid potential risks due to non-conformance to legislations, etc.)
- Foresee opportunities (Be the first ADS industrial chain with eco-design considerations standardised and embodied in the products, processes and businesses.)