Introduction

Water use 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, waste production, and energy consumption.

Definition

This position paper defines water use as the abstraction, supply, and consumption of water along the life cycle of products.

ADS Industry Position

ADS firmly believes that:

1. Increasing demand for water and the need to transition towards a more resource efficient economy requires water efficiency at each life cycle stage of a product to be a consideration in decision making.
2. Due to the long lifecycle of the product, and the size and complexity of the systems that support their manufacture, the long term availability and impact of water use is a major concern.
3. We need a consistent and transparent method for measuring the lifecycle water demands of our products to help us identify risks and opportunities for reducing water consumption throughout the whole value chain.
Environmental relevance

We rely on the natural water cycle for supporting the health and wellbeing of all life. The environmental impact associated with consuming water varies both spatially and temporally, and is driven by factors such as the source of the water, the rate of abstraction, the treatment of water, and if the water is sourced from regions of scarcity or abundance. Additionally, the consumption of water has many indirect environmental impacts such as emissions from the production of energy to extract, treat, and distribute water. Over-abstraction of water can lead to water shortages and degradation of the local environment, which could lead to famine and conflict.

Business relevance:

Water is a vital resource to support industrial processes, such as the manufacturing of products within the ADS industry value chains. Some of these products have both long life cycles and long production runs meaning water use is therefore both a current and long-term future consideration. Increasing industry demand and growing population could affect the future availability and cost of water and impose a substantive risk on maintaining business continuity.

There is a need to better understand and safeguard businesses from water related risks, such as potential future water costs, water quality, and interruptions in water supply. Additionally, there is a nascent business requirement to account for and declare the water footprint of products.

A consistent approach towards detailing and reporting water use at the product level will enable the ADS industries to cost-effectively manage exposure to water risks and account for water use. Accurate and transparent accounting of water use will also enable the ADS industry to demonstrate their commitment to reduce impacts on the environment.

Legal and policy relevance:

There is increasing regulatory concern for the conservation of water and transitioning towards a resource efficient economy. A consistent and transparent approach within the ADS industries towards collating data for evaluating water use at the product level will support the development of effective policies and standards 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.)