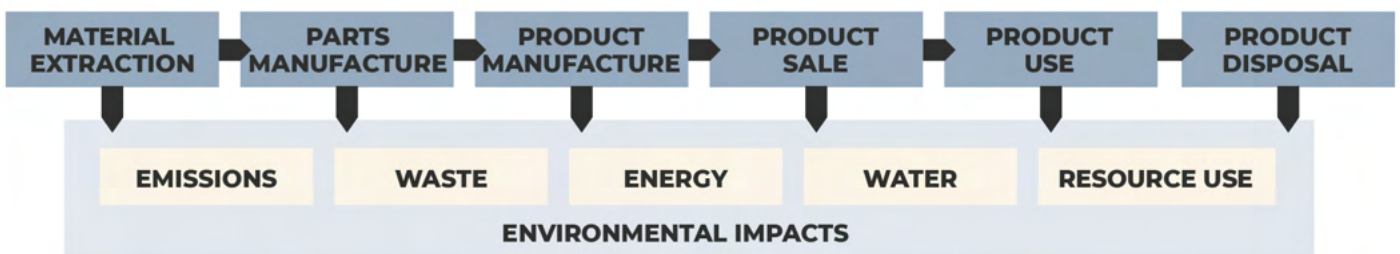



**IMPROVING
PRODUCT AND PROCESS
PERFORMANCE**
WHAT IS LIFE CYCLE ASSESSMENT?

An LCA helps businesses evaluate the effects of potential changes against business as usual, factoring in costs and environmental effects (e.g. carbon emissions, waste) among a range of criteria. An LCA impacts product and process development and moves it towards a more sustainable direction by allowing businesses to evaluate the supply chain and environmental effects of planned changes.

LCAs demonstrate how various elements in the life cycle of a product, from extraction to disposal, contribute to the production of emissions, waste, water, and other environmental impacts. This knowledge gives businesses the power to reduce their environmental impacts effectively.



Whether you are an innovation and manufacturing veteran or a company just embarking on your journey, HSSMI will help you to conduct an LCA in order to:

UNDERSTAND HOW TO IMPROVE YOUR ENVIRONMENTAL KEY PERFORMANCE INDICATORS	OPTIMISE USE OF ENERGY, WATER AND OTHER RESOURCES	REDUCE GREENHOUSE GAS EMISSIONS AND WASTE LEVELS
SELECT PROCESSES, PRODUCTS OR SCENARIOS THAT DELIVER IMPROVED OPERATIONAL & ENVIRONMENTAL IMPACT	COMPLY WITH EU/UK ENVIRONMENTAL REGULATIONS	IMPROVE IMAGE AND BRAND VALUE

WHY HSSMI?

HSSMI is a sustainable manufacturing innovation consultancy with extensive skills and capabilities in circular economy. This enables us to provide an independent perspective on your organisation's journey towards environmental impact improvement. We appreciate that each manufacturing business is different and endeavour to provide tailored solutions that work for your business's way of thinking.



WHAT DO WE OFFER?



HSSMI can help you evaluate the environmental impact of your product via a series of steps. Each step can be done in person or online.



The first step is structured around a workshop that includes expert advice and facilitation from our consultants. The purpose of the workshop is to understand the priorities and objectives of your business and define the products, impact categories, scenarios and the boundaries to be included in the LCA.



Data collection will be carried out to create an inventory of data on the materials and processes. Emissions, waste, energy, water, and resources consumptions will be calculated within the products' life cycle. HSSMI will model the life cycle inventory by using the LCA SimaPro software. The outcome of this stage will be:
Data Source and Assumptions. HSSMI will take on any challenge from literature search to on-site data collection.
LCA Modelling. A model will be developed according to the boundaries defined in the previous stage (Production, Manufacturing, Distribution, Use, End of Life).



HSSMI will quantify the potential environmental impacts based on the life cycle inventory and create a baseline comparison table that clearly explains the results per impact category, the 'hot points' during the product's life cycle and contrasts with other similar products.



HSSMI will develop a report explaining every step of the assessment highlighting the results and recommendations. The report will be divided into the following sections:
Methodology
Modelling and Assumptions
Results
Recommendations