

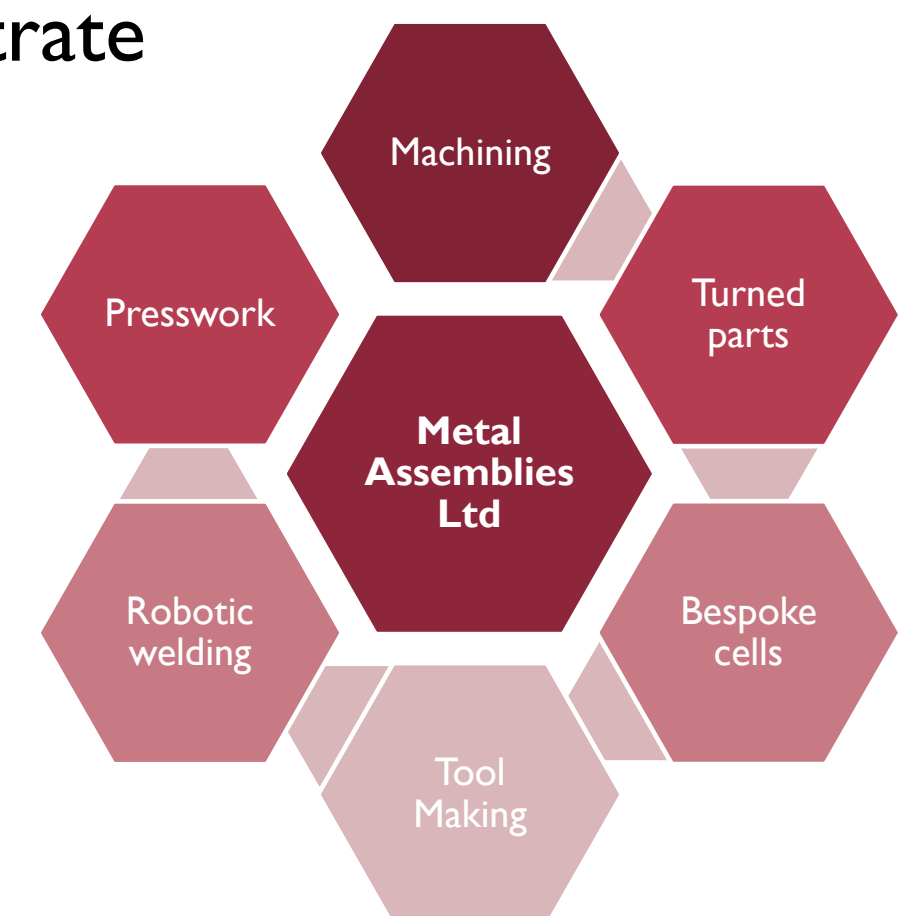
To transform manufacturing processes with a focus on energy efficiency and carbon content

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THE AIM OF THE KTP PROJECT is to generate a **Sustainable Manufacturing Strategy** by integrating energy efficiency and carbon footprint transparency. This is to meet growing customer demands for detailed energy intensity and carbon information and position MAL as a leader in sustainable and low-carbon manufacturing.

The key objectives are to measure energy usage, principally electricity consumption, for various processes and provide detailed carbon footprint data at the component level. By leveraging advanced data collection and analysis, MAL will be able to monitor energy usage, identify inefficiencies, and demonstrate tangible impact.

METAL ASSEMBLIES LTD (MAL) produces press metal parts, machined components & welded assemblies for the automotive supply chain (accredited TS-16949:2016) with over 60 years' experience in the sector. Its customers are 1st tier suppliers to OEMs e.g. Toyota, BMW and Nissan. About 25% of MAL's production is exported to Europe as well further afield to places like Mexico, Brazil, Turkey and Japan.



KTP BENEFITS

The Company

- Development of the Sustainable Manufacturing Strategy (SMS)
- Developing the capability to report the "carbon content" of manufactured components
- Understand energy consumption data in manufacture at both the machine centre and component level.
- Development a systematic and rigorous approach to measuring carbon content.
- Embedding of the data-driven sustainable solutions



KTP Associate

- Accelerated career in the field of Net Zero and Sustainable manufacturing
- Practical application of the novel Aston University's Corporate Sustainability Fitness Model
- Leading on the Strategy development for the Company
- Comprehensive supervision and mentoring
- Professional and personal development



Aston University

- An extended teaching case on sustainable and digital operations, for final-year students, MBA and Executive Education at Aston Business School and beyond.
- Application of corporate sustainability fitness and sustainable operations strategy models developed by the academic team
- Strong academia-industry collaboration to conduct future research in the automotive sector in the context of Net Zero and Digitalisation
- Support of doctoral students, and early-career researchers with data collection and impactful publications.



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