

INDUSTRY AND INFRASTRUCTURE: OPTIMISING YOUR PATH TO NET ZERO

CHALLENGE

Heavy industry, manufacturing and large utilities, such as water, are integral to the smooth running of our societies by producing and/or supplying the resources, materials and products we need and managing and treating our wastes. In particular manufacturing and heavy industry are the engine room of our global economy, driving growth, prosperity and improved living standards.

All these sectors share similar dynamics and challenges around consumer behaviours and preferences, the challenge of efficient operations, supply chain and operational logistics and value chain complexity. The production of resources and products has become ever more efficient, reducing costs, whilst increasing throughput and improving quality and reliability. However, the manufacture of materials such as cement and steel remains deeply challenging when it comes to addressing the embedded carbon created through the current industrial processes, but alternative and process solutions are emerging.

In the future (and the future starts now), not only will industry and infrastructure owners need flexibility to accommodate new value chains, emerging technology and automation, they must also meet rising customer expectations for products and production to be greener, with a reduced carbon

footprint and with less impact on the surrounding environment.

This challenge has three principal drivers:

- Government Net Zero legislation, tightening requirements across all sectors to deliver our 2050 goal
- Increasing customer (and regulator) awareness and demand for sustainable and carbon-neutral products and resources
- Industry leaders and their workforces' own recognition of a shared responsibility to safeguard our planet

Our whole-system thinking approach provides an end-to-end capability across the whole lifecycle of assets in industry and infrastructure, including working closely with colleagues and partners in the energy and transport sectors to ensure our clients' aspirations and commitments to Net Zero are achieved.

MAKE CARBON VISIBLE

We do not see carbon as clearly as we see cost. It is often invisible in the design and construction process and obscured in production behind more obvious concerns of throughput, quality and reliability.

To effectively tackle carbon we must see it, clearly and in all areas where it occurs, and quantify it such that we can prioritise our interventions and measure our success. Atkins' carbon accounting tools ensure that construction and operational carbon is visible in the

end-to-end process, upstream in material and component supply and downstream in distribution and end-of-life recycling.

We extend this visibility across the entire team to enable a proactive, Carbon Value Engineering (C-VE) focus on major contributors. Our detailed carbon budgeting allows success to be measured, inspiring our people and demonstrating commitment to customers, society and our world.

As part of our whole-system approach, we have developed a range of other targeted propositions that complement and interface with this Industry and Infrastructure offering:



Net Zero Energy Systems
Decarbonising existing energy systems or implementing new and innovative Net Zero energy solutions on any scale of project.



Net Zero Buildings and Cities
Decarbonising new or existing buildings, campuses, estates or cities and the associated enabling infrastructure systems.



Net Zero Transportation
Decarbonising new or existing transport systems across road, rail and aviation and developing new and novel Net Zero transportation for any scale of project.



Strategic Carbon Advisory
Delivering industry-leading routemaps and pathways to credible Net Zero futures.



Greenhouse Gas Removals
Deploying a range of nature-based solutions on varying scales to help clients optimise land use and integrate nature-based offsetting solutions into the built environment. We also provide GGR technologies appraisals.

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