

# GREENHOUSE GAS REMOVALS: MANAGING RESIDUAL EMISSIONS SUSTAINABLY



Engineering  
Net Zero  
In partnership with our planet

ATKINS  
Member of the SNC-Lavalin Group

## CHALLENGE

Net Zero will require disruptive change to take place concurrently across multiple industrial sectors, a technological diffusion at a rate unprecedented in the post-industrial era. Most significantly, Net Zero will require the development of a UK greenhouse gas removal (GGR) 'solutions bank' involving nature-based and technological options that removes 60-90 megatonnes of CO<sub>2</sub> each year by 2050.

GGR solutions can come in many forms but are typically categorised as either nature-based or engineering / mechanical-based solutions. Either solution type will require substantive engagement with communities, society and industry to establish the necessary infrastructure and management practices.

An unprecedented level of investment will need to take place for GGR solutions to be realised at the scales required. The public, private and third sectors face an enormous challenge to ensure these technologies can be delivered effectively, promptly, sustainably and equitably.

There are many opportunities today to start removal of carbon from our atmosphere, mostly through Nature-based Solutions (NBS) but increasingly through emergent engineered solutions, such as Direct Air Capture systems.

Designing and deploying these solutions cost effectively requires a breadth of knowledge and expertise across many disciplines.

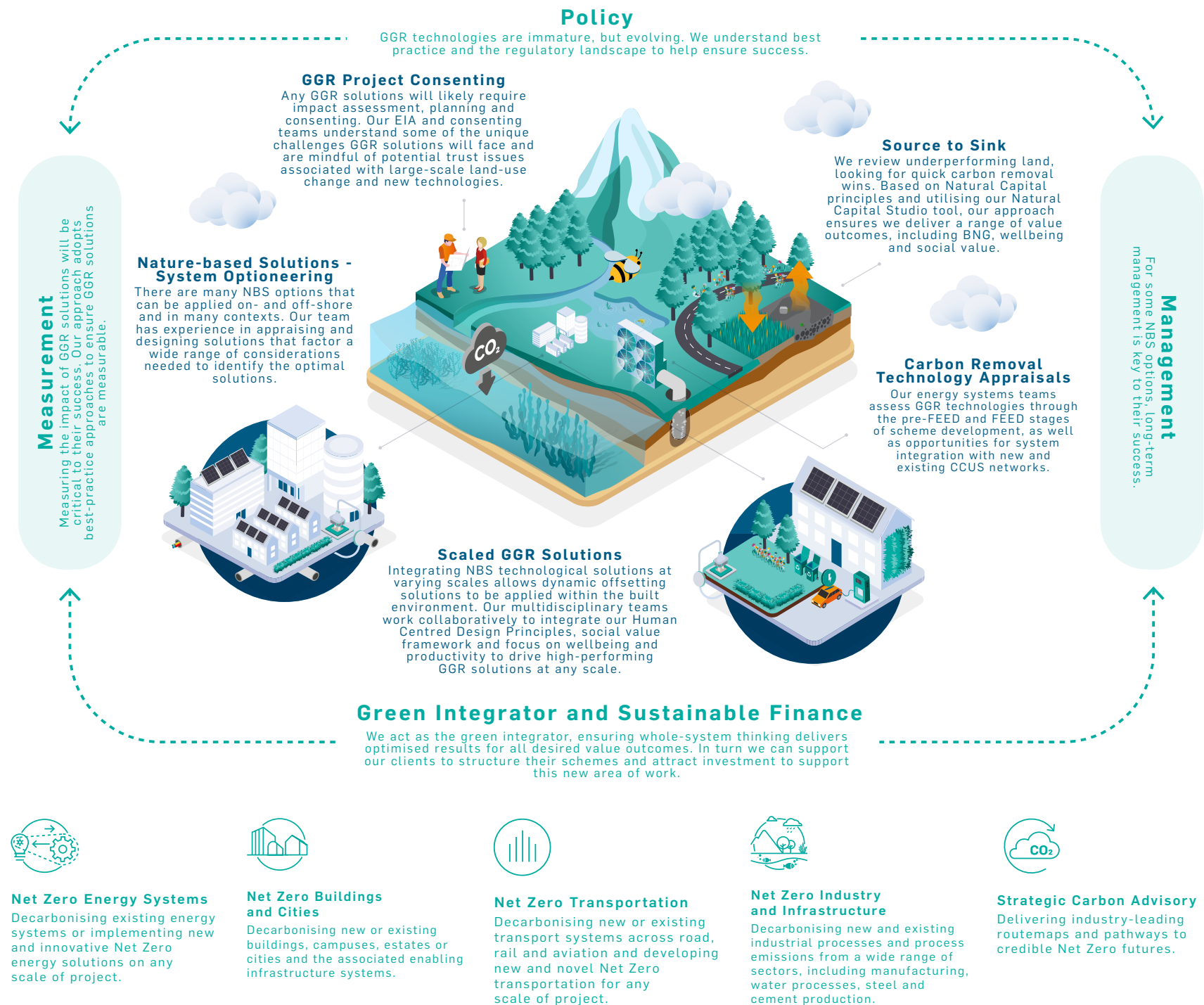
## MAKE CARBON VISIBLE

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.



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