

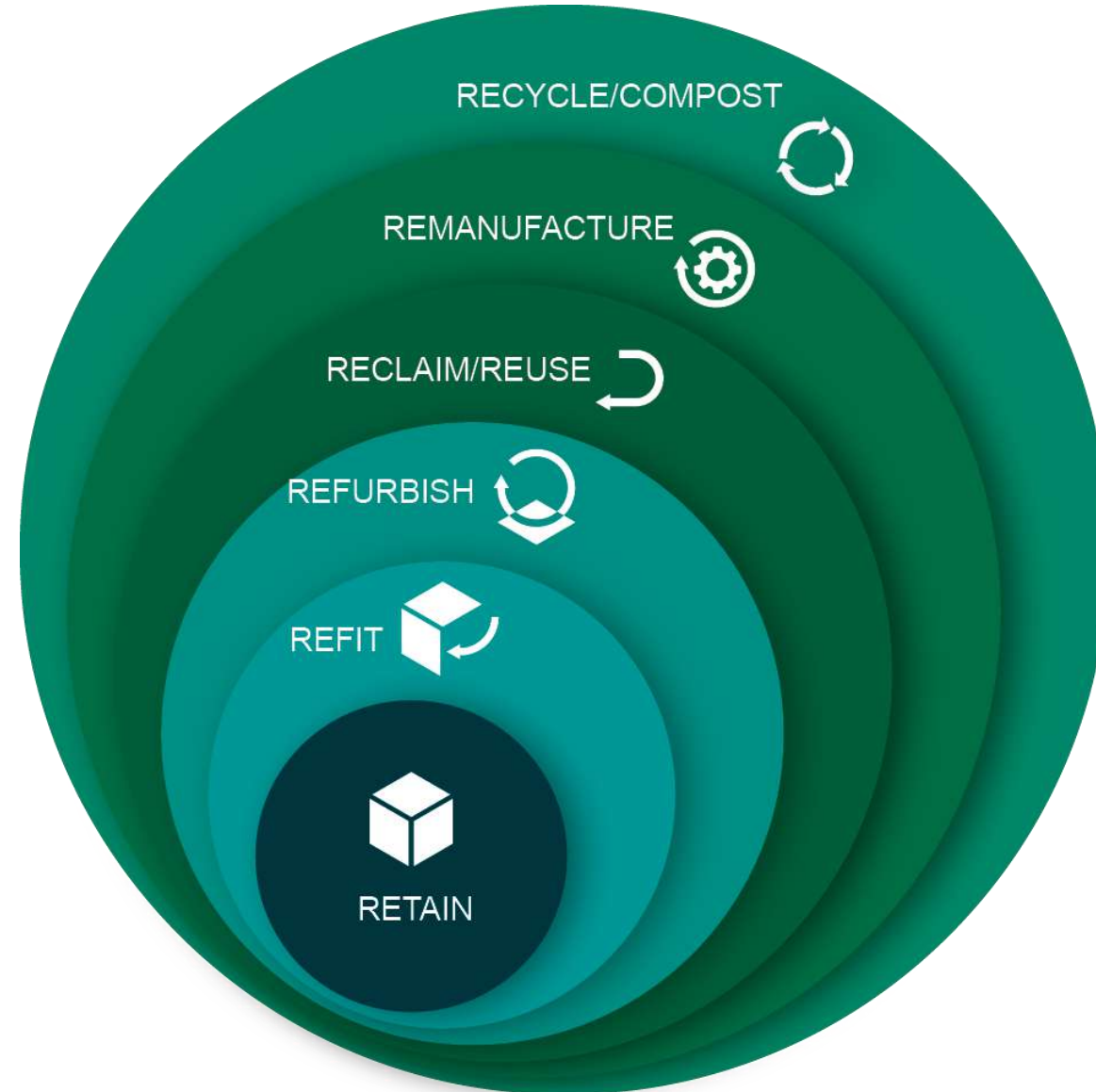
Sustainability challenges and opportunities

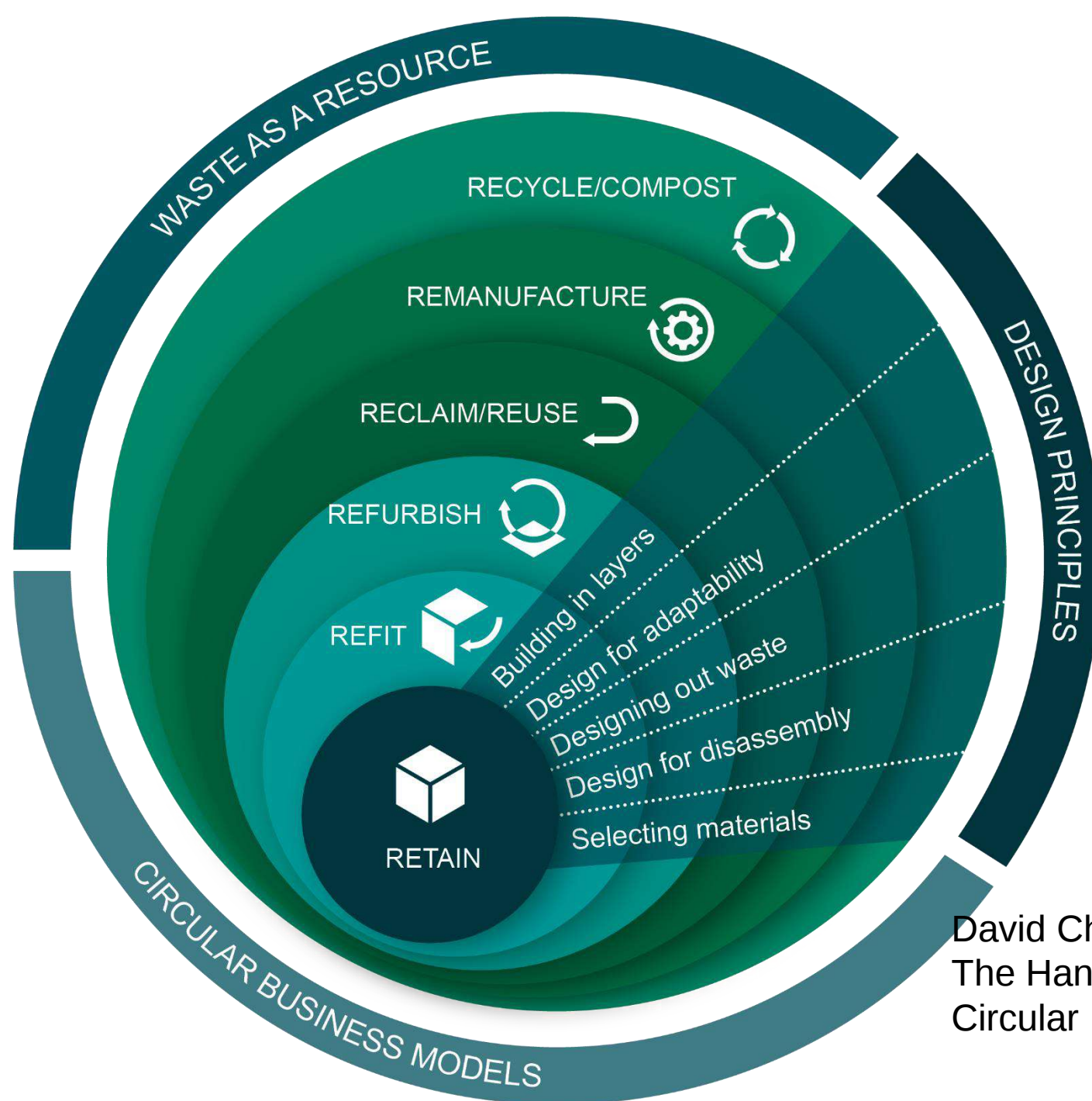
Dave Cheshire





Bootham Plant Life
01923 261663

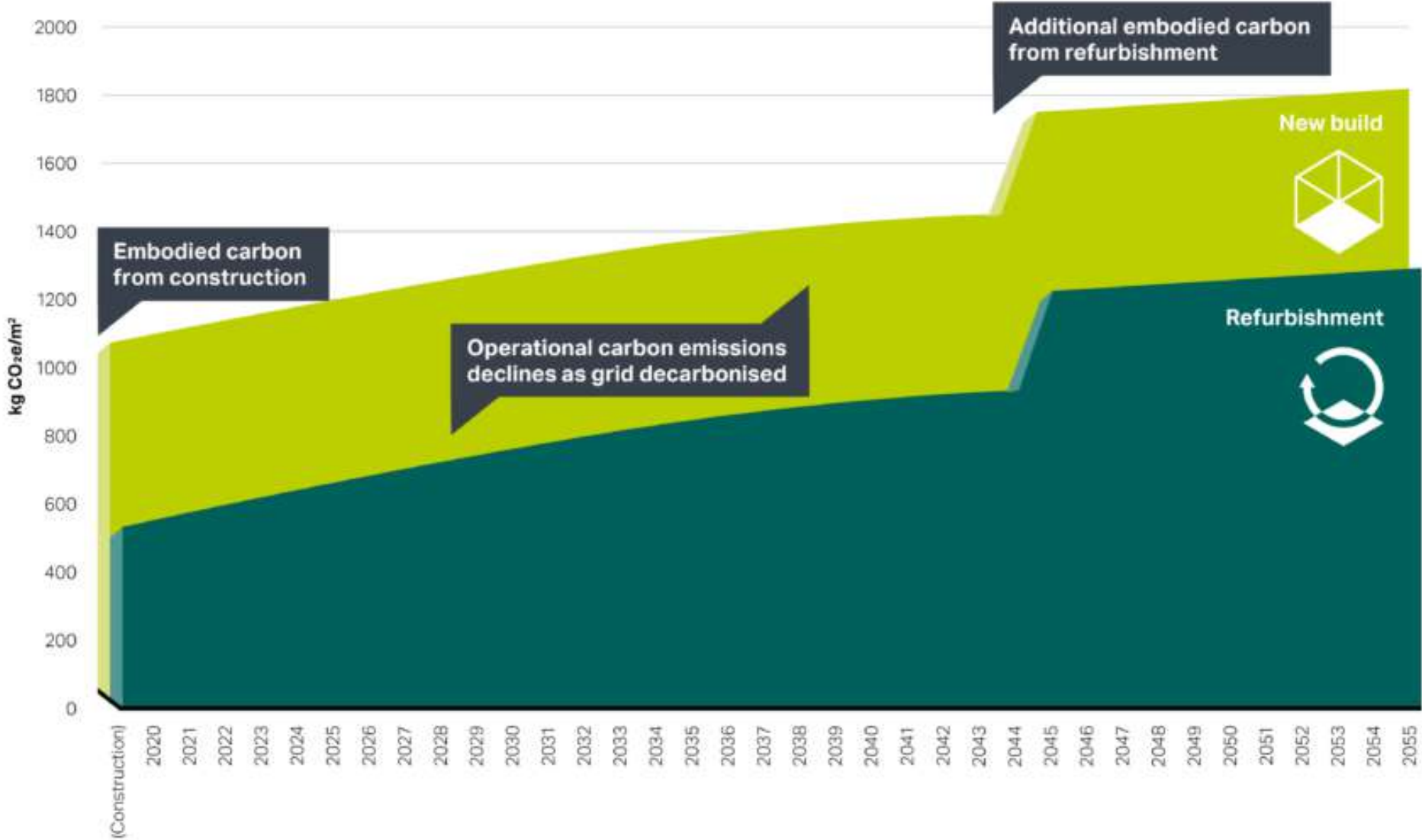




David Cheshire
The Handbook to Building a
Circular Economy

Embodied and operation carbon

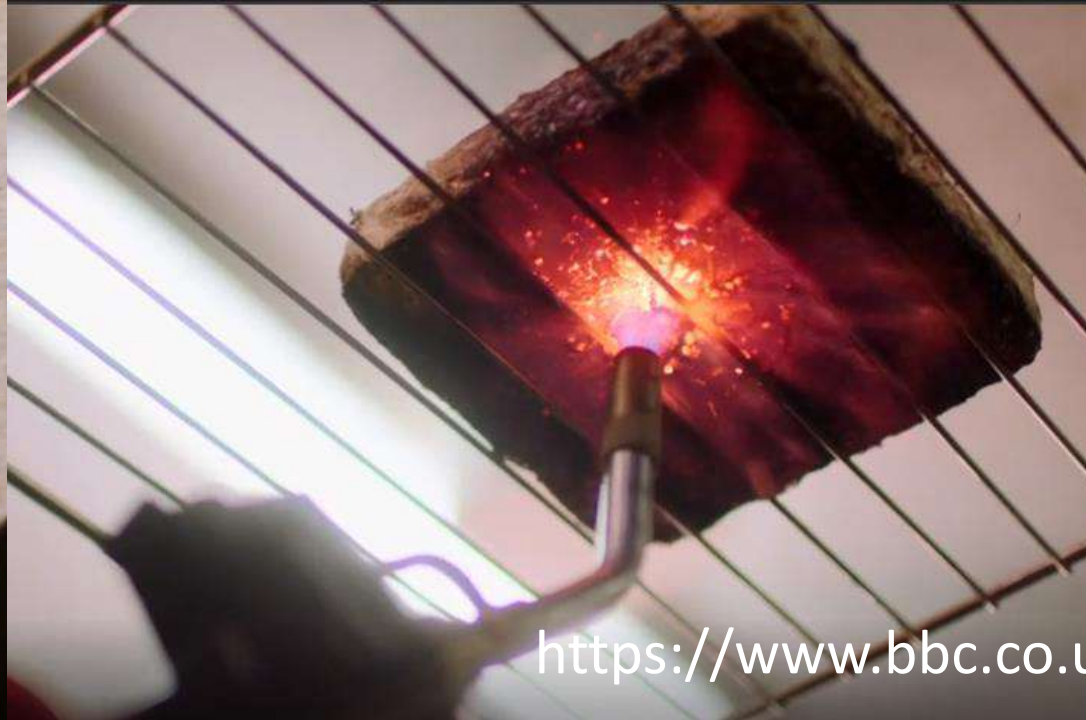
ILLUSTRATIVE WHOLE LIFE CO₂ EMISSIONS
NEW BUILD VS. REFURBISHMENT





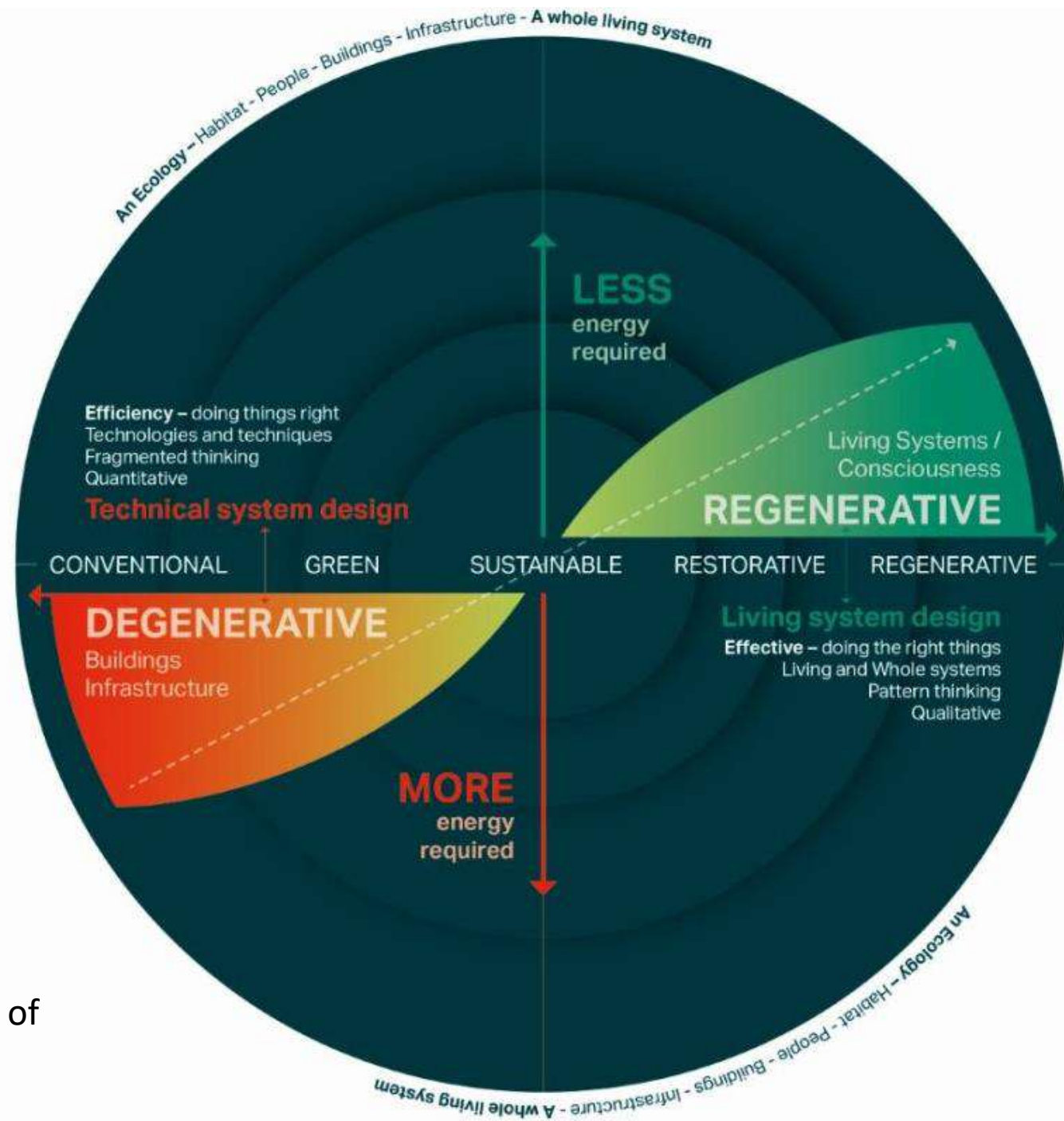
Materials selection

Biohm, mycelium insulation



Naturally self-extinguishing

<https://www.bbc.co.uk/programmes/p06q5pn1>



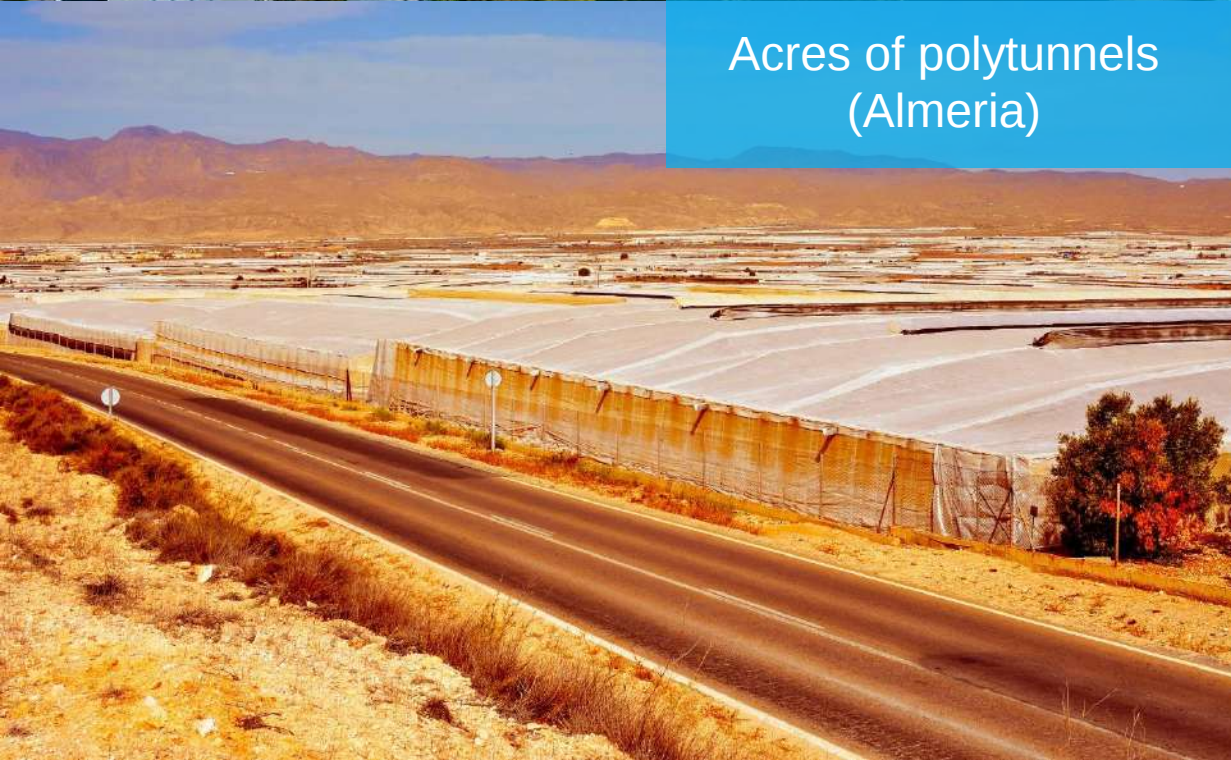
Reproduced by permission of
Bill Reed, Regenesi Group



Water treatment works



Electricity substations



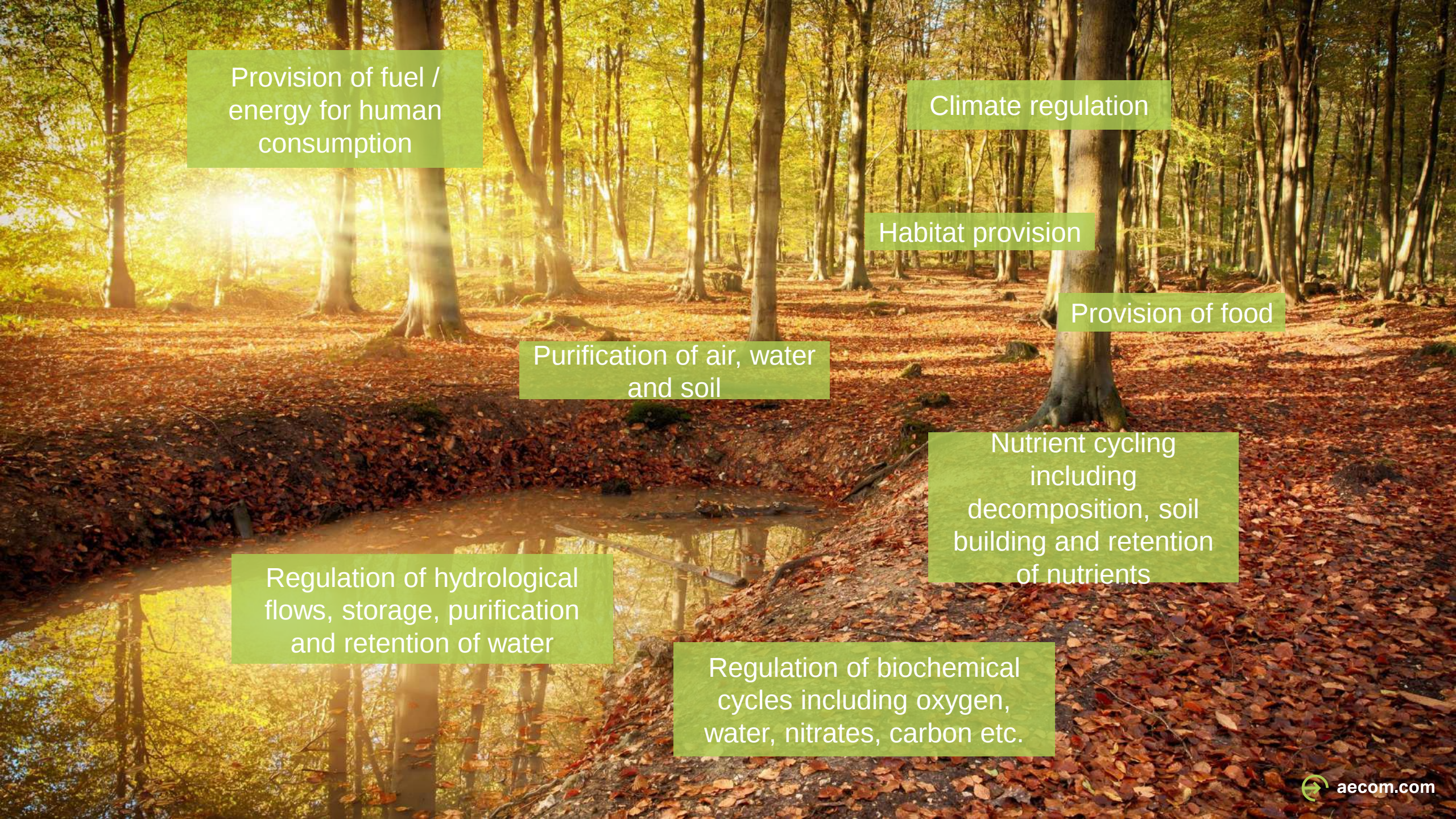
Acres of polytunnels
(Almeria)



Mining limestone for cement







Provision of fuel /
energy for human
consumption

Climate regulation

Habitat provision

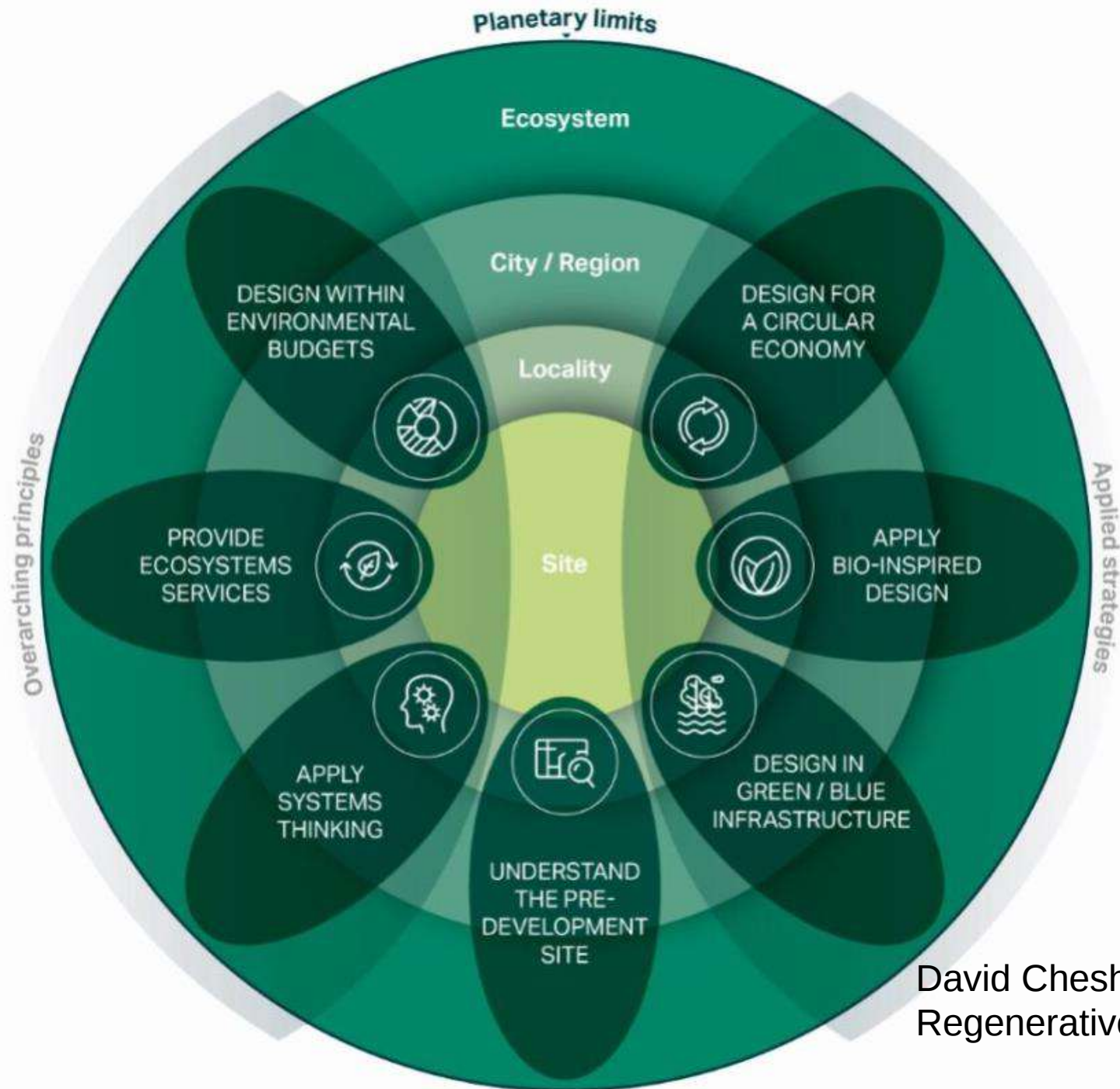
Provision of food

Purification of air, water
and soil

Nutrient cycling
including
decomposition, soil
building and retention
of nutrients

Regulation of hydrological
flows, storage, purification
and retention of water

Regulation of biochemical
cycles including oxygen,
water, nitrates, carbon etc.



David Cheshire
Regenerative by Design



The ICTA Rooftop Greenhouse Lab, Universitat Autònoma de Barcelona (UAB), (Joan Muñoz-Liesa)



Google Bay View, San Francisco Iwan Baan for Google



The PAE Building, Seattle ZGF Architects



Stacking microbial fuel cells, University of the West of England

Shift to an ‘...ideal of design where human environments are symbiotically integrated with ecosystems and contribute to rather than harm ecosystem health.’

Maibritt Pedersen Zari

Thank you.

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