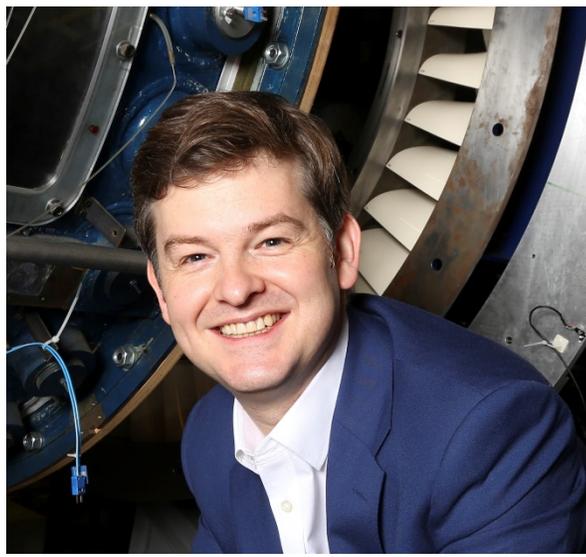


Boosting innovation and implementation

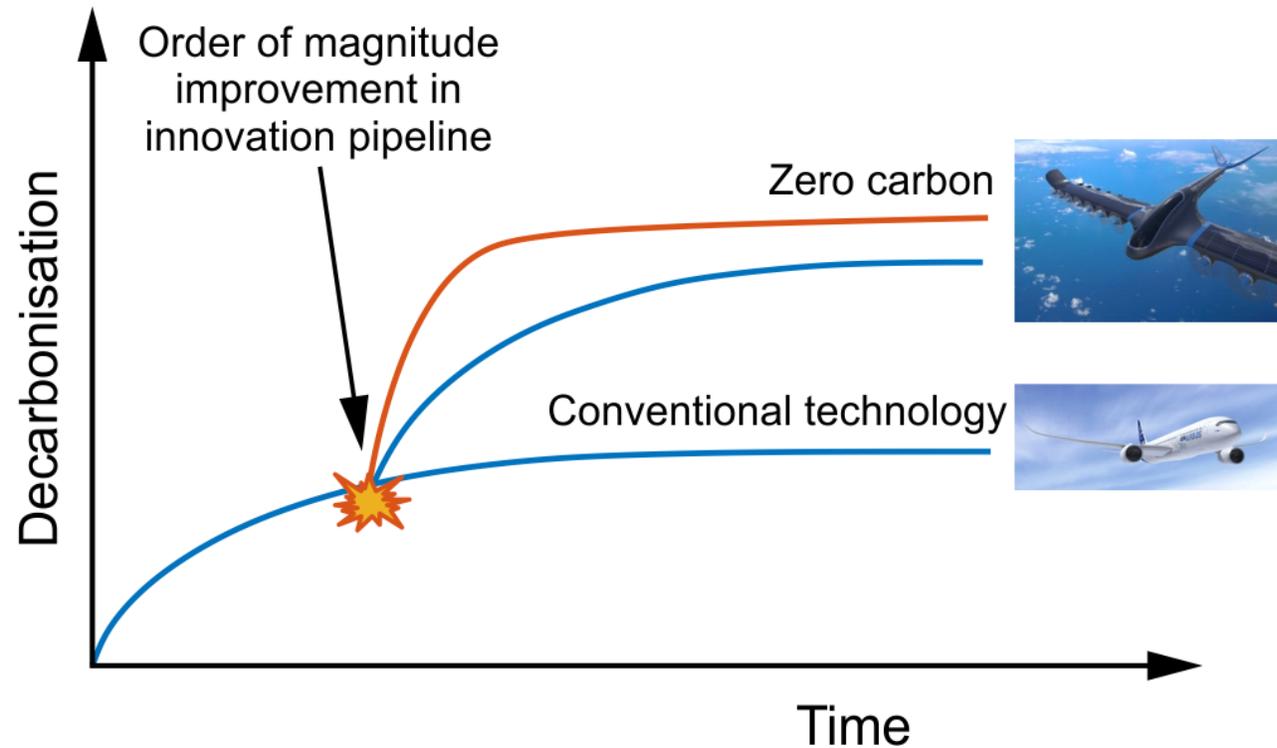
Prof Rob Miller

Director, Whittle Laboratory
University of Cambridge



Accelerating technology development

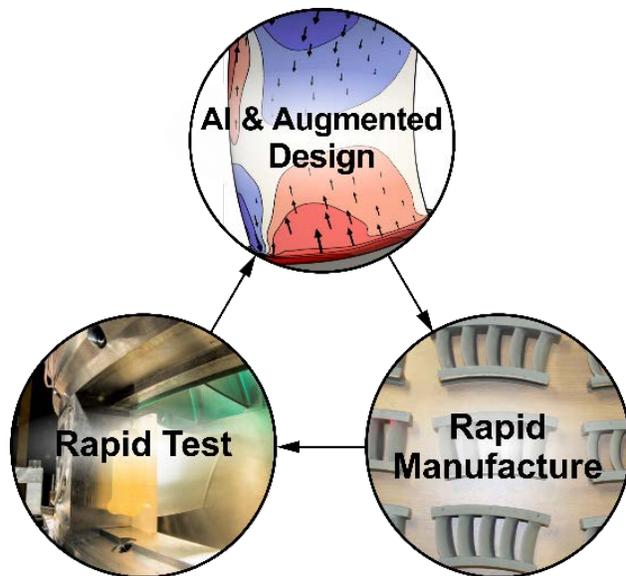
Aim to reduce time and cost by a factor of 10



The winners in a zero carbon world will be companies and countries who can adapt to technology change more quickly

Tightening the circle between idea, test and learning

- Small sharp focused teams help break down natural human communication barriers
- Removal of top down management and bureaucracy encourages fast bold action



Formal trial:
2005 – 2 years
2017 – 1 week = 100 times faster



Rolls-Royce



Innovation explodes when development cycle time occurs at a natural human time scale of days not years

Scaling rapid technology and policy development

The New Whittle Laboratory



Embedding multidisciplinary industry and academic teams

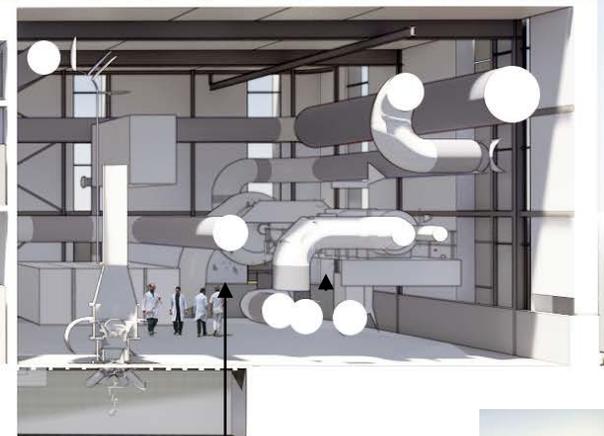
Accelerating robust policy delivery (scaleup, infrastructure, investment and technology)



Sustainable Markets Initiative



Rapid manufacture
Ability to realise concepts rapidly in the physical world



Rapid testing -
Scaling rapid testing to 80% of aero need



Only by radically changing the way we develop technology and robust policy can we reach net zero carbon by 2050

Thank You

