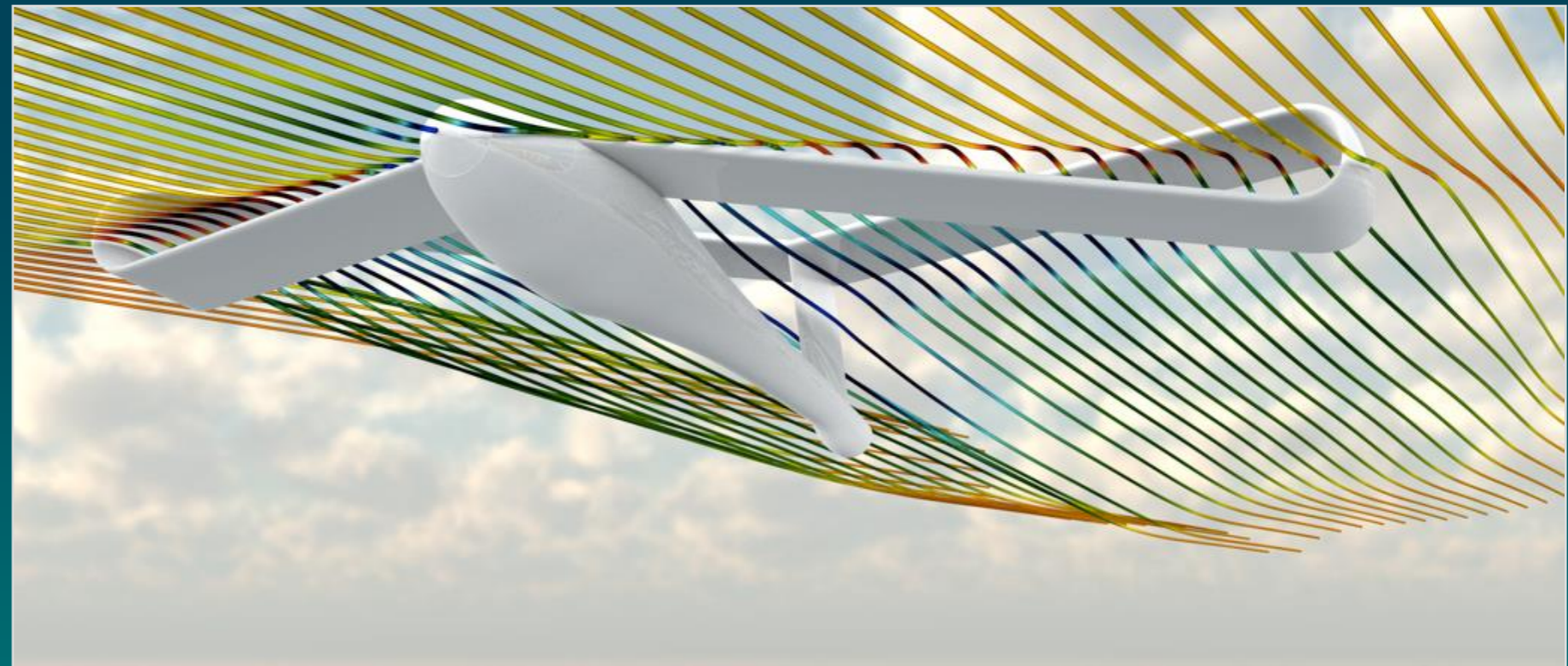


Mass Customisation in Engineering

A proposed design loop for bespoke unmanned aircraft

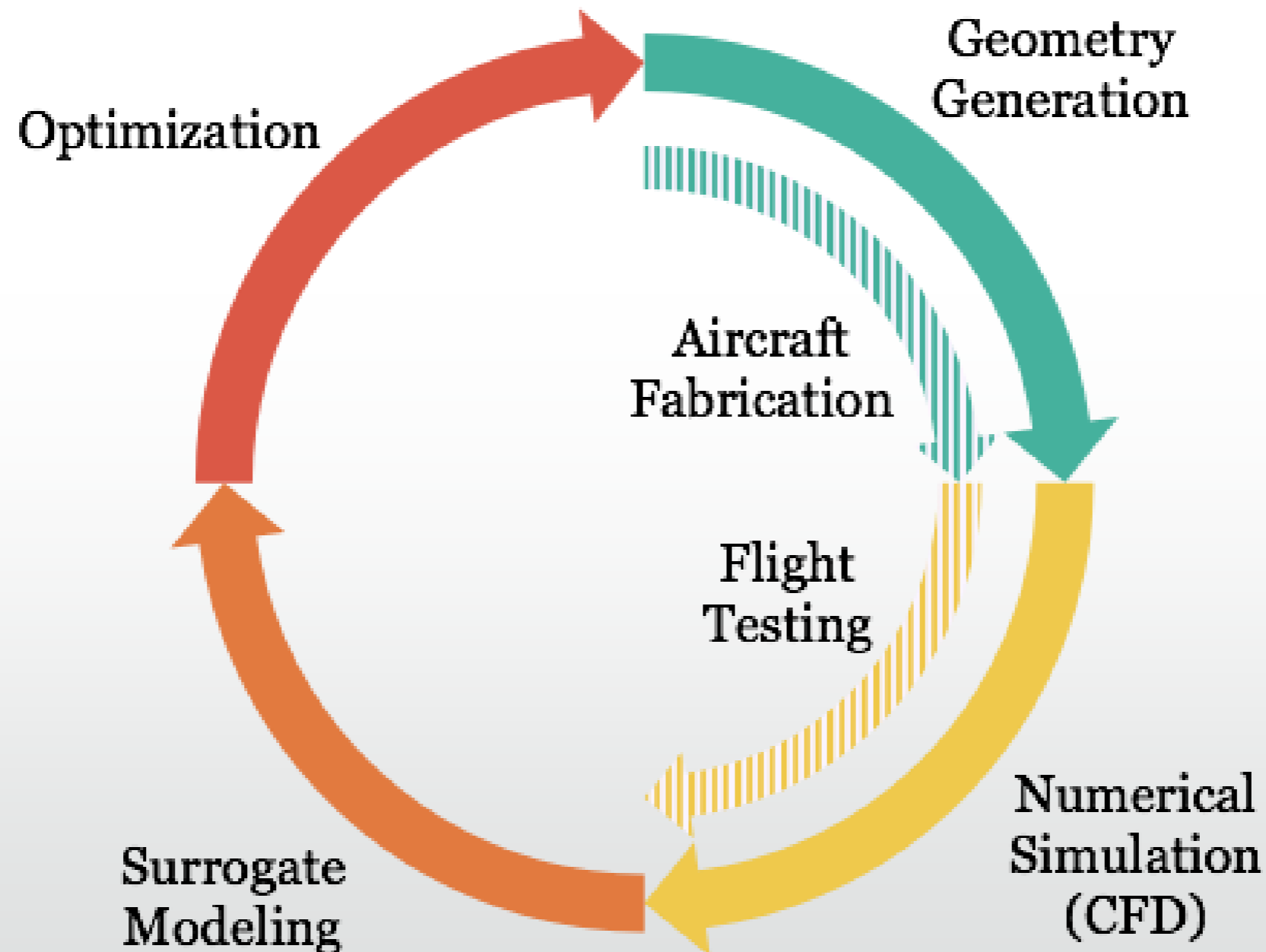
Chris Paulson
András Sóbester
Jim Scanlan



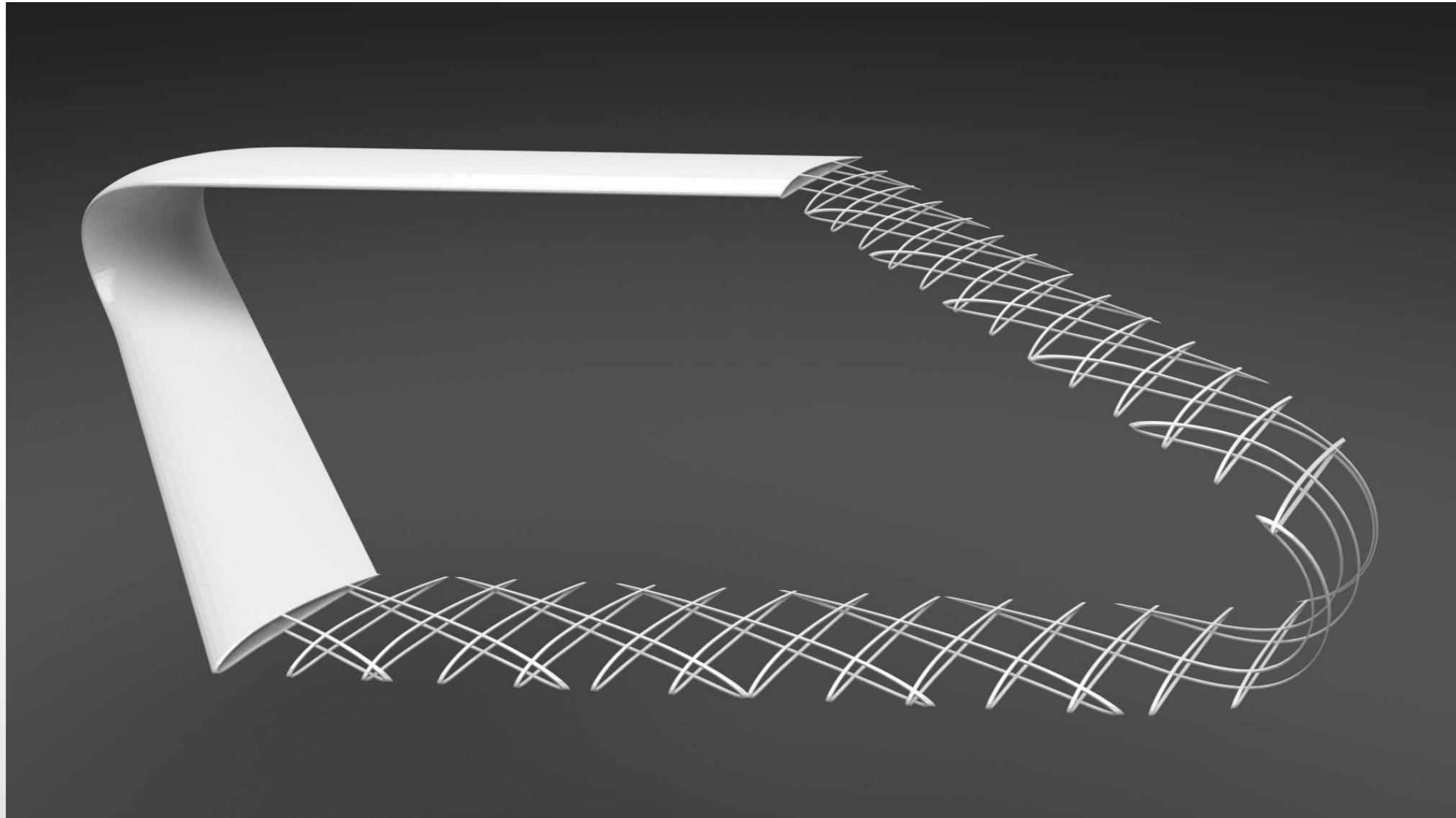
The Big Question:
(The three minute talk version)

How can an optimal, bespoke aircraft be design and
manufacture an in less than a day?

Our Proposed Design Loop

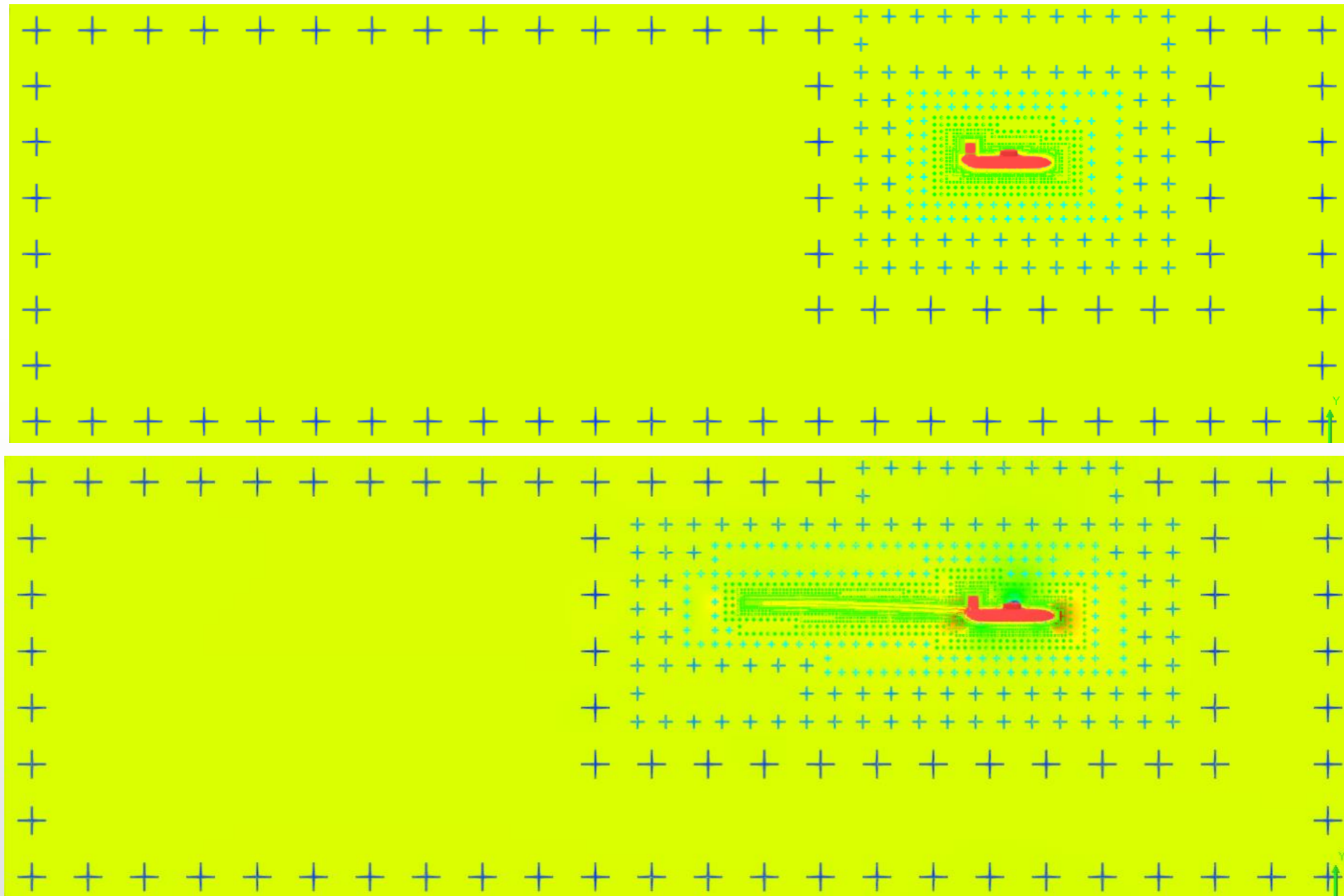


Geometry Generation and Fabrication



Highly Parametric Geometries powered by AIRCONICS

Numerical Simulation



Results from XFLOW, a 'Meshless' Lattice
Boltzmann CFD Solver

Real-World Testing

Low-Cost
Autopilots

Flight Testing



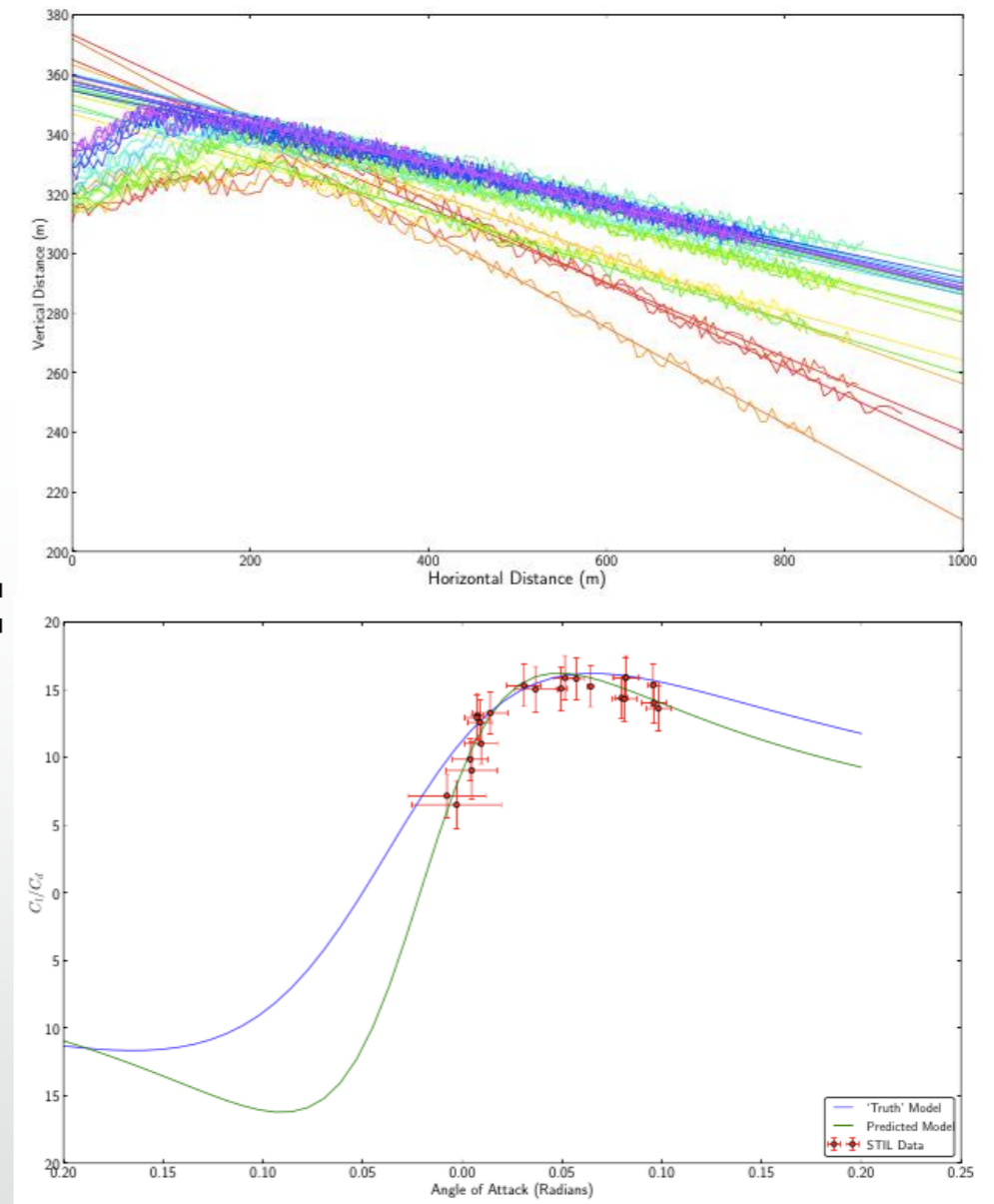
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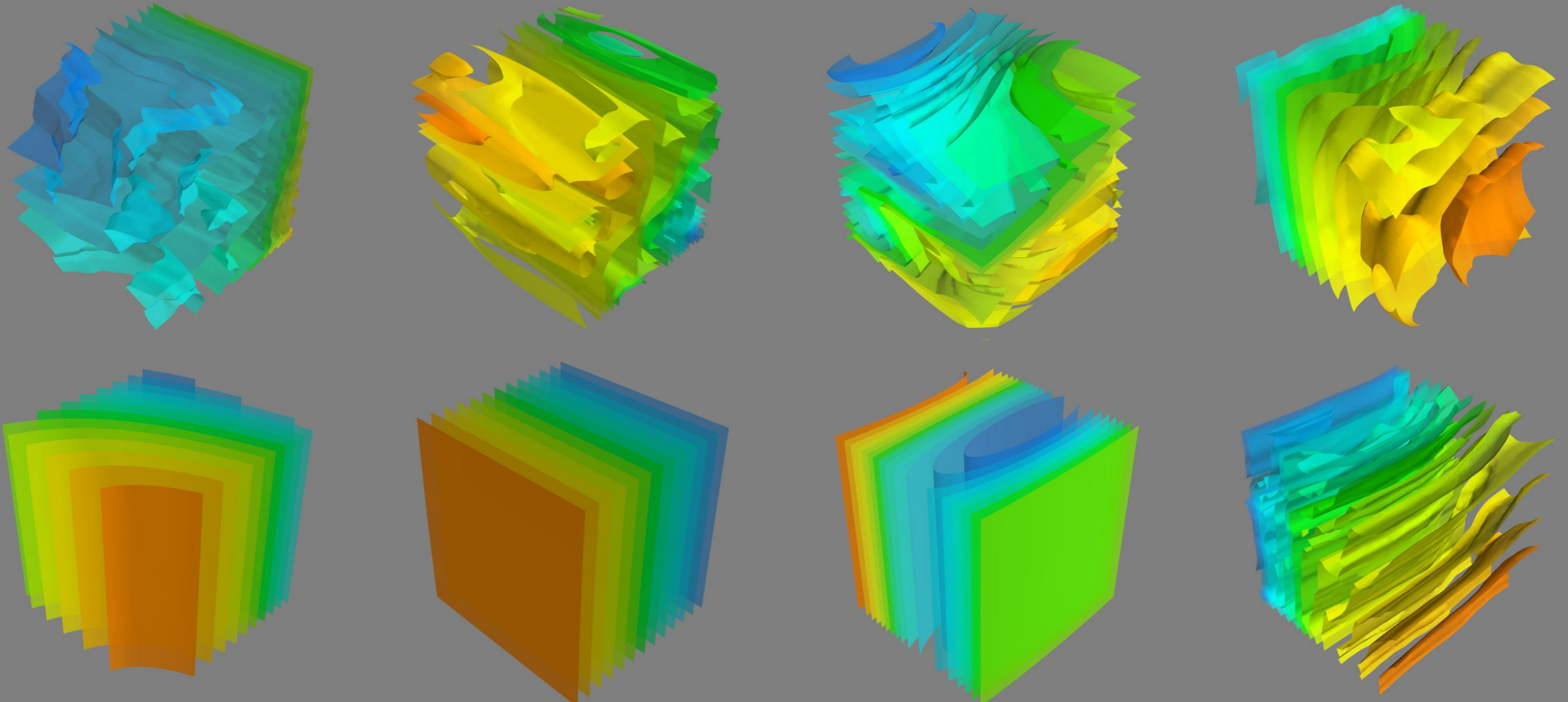
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~£150

Aerodynamics Data



Surrogate Models



Optimisation

