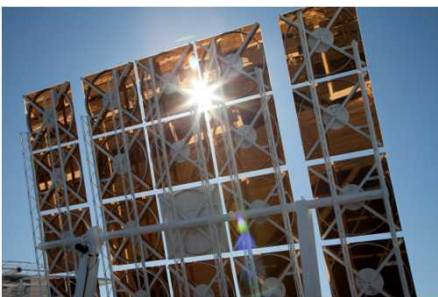


Exceptional service in the national interest



Benefits of Research and International Collaboration for Industry

Clifford K. Ho

Sandia National Laboratories



Sandia National Laboratories is a multi-program laboratory managed and operated by Sandia Corporation, a wholly owned subsidiary of Lockheed Martin Corporation, for the U.S. Department of Energy's National Nuclear Security Administration under contract DE-AC04-94AL85000.

Different Perspectives

- Differing performance and cost targets
- Differing applications
- Differing political focus

➡ Industry benefits from potentially broader market applications

Greater Return on Investment

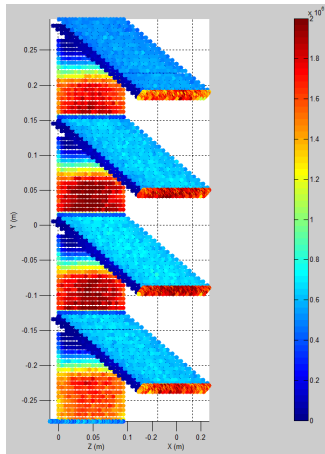
- Cost of research can be divided among multiple research organizations
- Utilize strengths and capabilities of different research institutions
 - Modeling – NREL, ANU
 - Testing – Sandia, CSIRO

➡ Advancements are accelerated for industry at lower costs to individual funding agencies

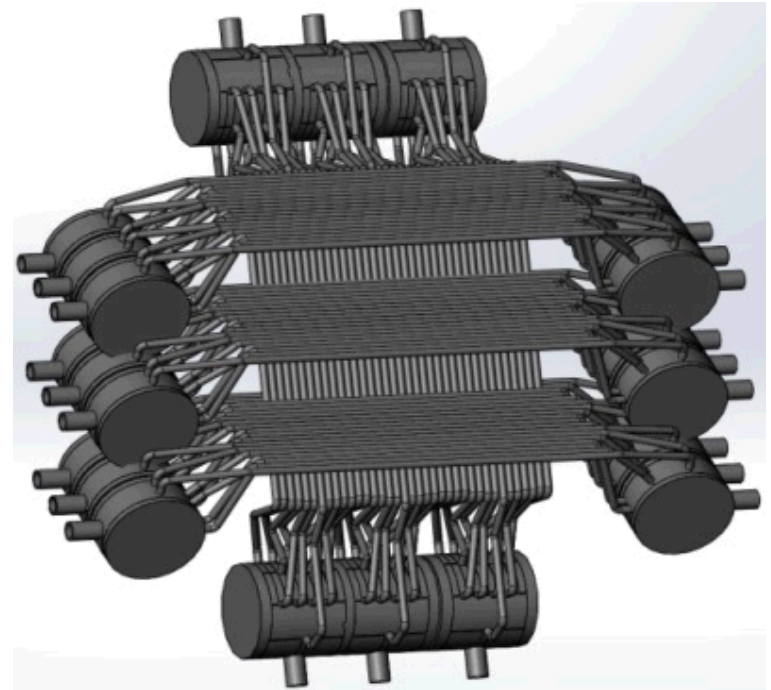
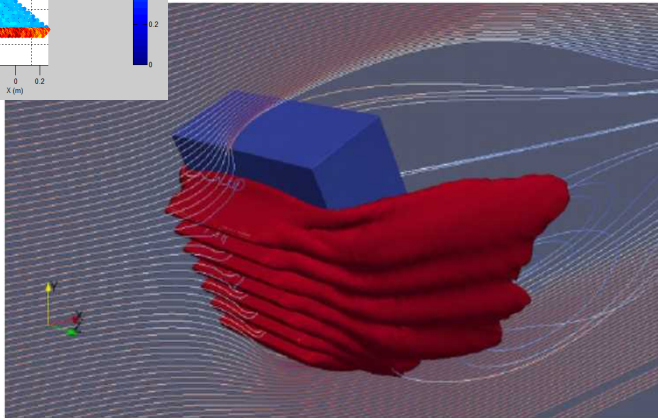
Examples

- Bladed Receiver

- Joint patent application between ANU and Sandia



Modeling at ANU



Testing at Sandia

Examples

- Particle Receiver
 - Joint IP between CSIRO and Sandia to increase performance for larger scale systems ($\geq 10 \text{ Mw}_e$)

