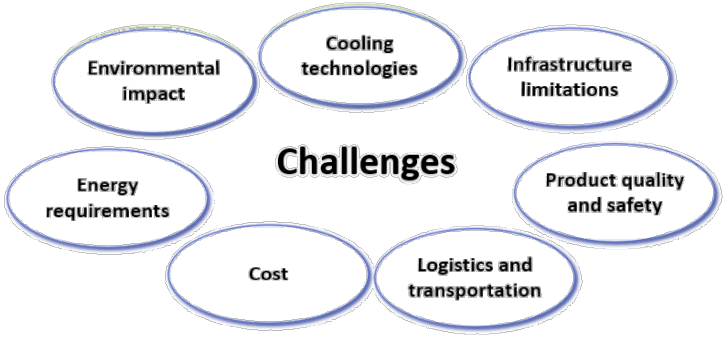
HERIOT WATT UNIVERSITY



ZERO EMISSION COLD CHAIN

BUILDING THE ROAD TO SUSTAINABLE COLD-CHAIN SYSTEMS FOR FOOD RESILIENCE

ZECC meat supply chain simulation

- **Aim:** transport and store temperature-sensitive goods (food, medicine) without GHG emissions
- Design holistic system approach towards more sustainable, efficient, resilient supply chain for temp-sensitive goods considering environmental, social, and economic factors.
- Renewable energy, such as solar or wind power, can also help reduce operating costs and increase efficiency, reduce harmful health effects, and main regulatory compliance
- Need to consider: actors and decision making; renewable sources and energy efficient cooling technology; collaborations; low-emission transport logistics; distribution optimisation
- Outputs: optimal cold-chain strategy based on constraints, technology choice, performance indicators (emissions, cost, quality), temperature and time profiles