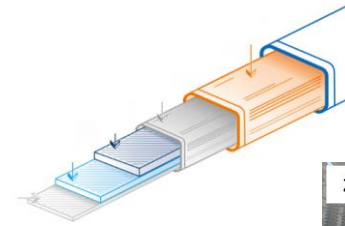


# Advanced second generation high temperature superconductor wire for fusion **SuperOx**



- The SuperOx group:
  - Produce and sell 2G HTS wire
  - Commercialise HTS applications

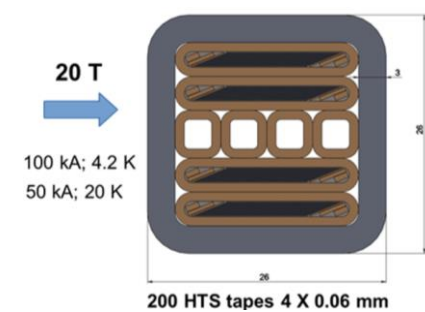
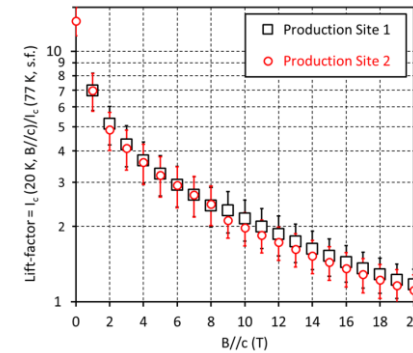
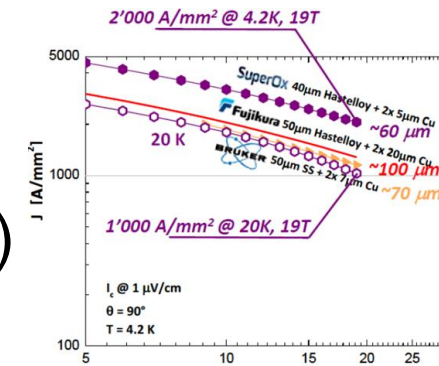


- HTS will turn the fusion dream into reality
  - High magnetic field: path to compact commercial reactors



- Challenges to HTS for fusion---being resolved

1. High  $J_e$  in magnetic field:  
1,000+ A/mm<sup>2</sup> (20 K, 20 T), 2,000+ A/mm<sup>2</sup> (4.2 K, 20 T)
2. Consistent quality: through simple superconductor
3. Production capacity and cost: tonne-scale projects two-digit \$/kAm
4. Cable technology: choice among designs that work



200 HTS tapes 4 X 0.06 mm