Upgrade of the Grenoble High Magnetic Field Facility

Status: build in 1990 with several upgrades in order to improve reliability and safety but with the same 24 MW power level since 25 years
Aims: Generate higher fields with 36 MW / Allow rapid field sweep with numerical control / Master electricity cost with HTB Grid access
Schedule: 30 MW on magnet will be available at the end of step 2 in 2021 and 36 MW at the end of step 3

Perspectives
- Add an heat exchanger on the inner feedback loop in order to:
  - allow maximum power of 36 MW all year long
  - promote calories process by connecting to buildings heating systems
- Improve electrical power quality by reducing reactive power and harmonic pollution