# Technology: SMES

New superconducting magnet material: MgB2
Consists of: Magnetic coils, cooling system (20 K), control system

Offers rapid charge (minutes) and discharge of power
Replaces a sudden loss in power

Could keep the grid more stable

- Adjust for peaks (especially important for future renewable energies)
- Limit fault current

# Value Proposition

- High energy storage density (20 kJ/kg)
- 95 % energy storage efficiency
- Long life-time (30-50 years)
- Minimal need of maintenance
- No hazardeous chemicals
- “Infinite” cycle stability

# Target groups

1. TSOs
    a. Power quality (frequency management peak shaving)
    b. Short circuit limiting/fault current

2. Industry
    a. Steel manufacturers
    b. Hospitals
    c. Paper producers

# Next step

- Costs (cooling system, operating expenses)
- Find comparable projects
- Could the technology be used for storage/battery?
- Combine SMES+battery?
- Search for partners and pilot customers
- Follow-up contact:
    - CERN + KT
    - Potential customers (TSOs, industries)
    - All other relevant contacts