

INTERNATIONAL INSTITUTE OF REFRIGERATION

**The transition to alternative technology :
the European experience**

SIDE EVENT

WEDNESDAY, NOVEMBER 6, 2019

IIR ACTIONS ON ALTERNATIVE TECHNOLOGIES IN EUROPE

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www.iifiir.org

The IIR

- ✓ Intergovernmental Organisation
- ✓ Dissemination of knowledge on all refrigeration technologies and uses : food, health, air conditioning, heat pumps, cryogenics...
- ✓ **59** member countries, including 19 EU countries (UK included)
The EU is an observer
- ✓ Network of **400** experts
- ✓ **500** corporate and individual members in the EU and outside the EU

IIR Actions with the EU

- ✓ the F-gas regulation (working group, IN...)
- ✓ projects : Frisbee, Elicit, Cool Save, Supersmart, Real Alternatives, Real Alternatives for Life, Cryohub

Others ?

Several projects are on alternative technologies :

- Frisbee and moreover Elicit on magnetic refrigeration
- Real alternatives on alternative refrigerants
- Cryohub on cryogenics for energy storage in refrigeration storage

« Alternative » technologies

- ✓ alternative refrigerants : already in place!
IIR conferences on natural refrigerants (Spain 2018, Japan 2020...), on ammonia and CO₂ (North Macedonia 2021...), HFOs (UK 2018, Japan 2021...)...
guides on ammonia, CO₂
- ✓ alternative technologies : still niches; IIR conferences on « Caloric cooling and applications of caloric materials » (Germany 2018, USA 2020, ...)
- ✓ IIR conference on Rankine cycles (UK 2020), on phase change materials and slurries (Canada 2018, Italy 2021...)

EU challenges

- ✓ The F-gas regulation : evaluation...
- ✓ The energy efficiency and integrated solutions in buildings, districts... Is there enough attention to cooling ?
air conditioning challenges
others (food losses, cryotherapy...)
- ✓ technological developments, information and training are still needed
→ European and national action plans ?



THANK YOU

QUESTIONS ?

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