

IEA TECHNOLOGY COLLABORATION PROGRAMME ON

HEAT PUMPING TECHNOLOGIES (HPT TCP)

**Current
participating
countries**



Austria
Belgium
Canada
China
Denmark

Finland
France
Germany
Italy

Japan
Netherlands
Norway
South Korea

Sweden
Switzerland
United Kingdom
United States

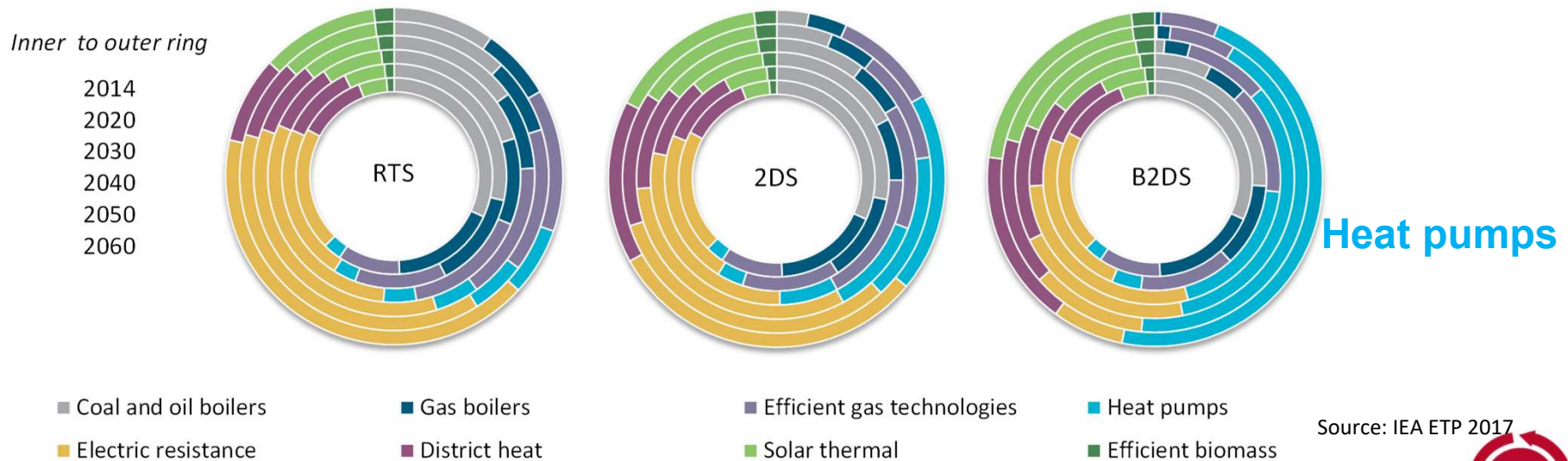
www.heatpumpingtechnologies.org



RELEVANCE OF HPT TCP: EXPECTED ENERGY DEVELOPMENTS

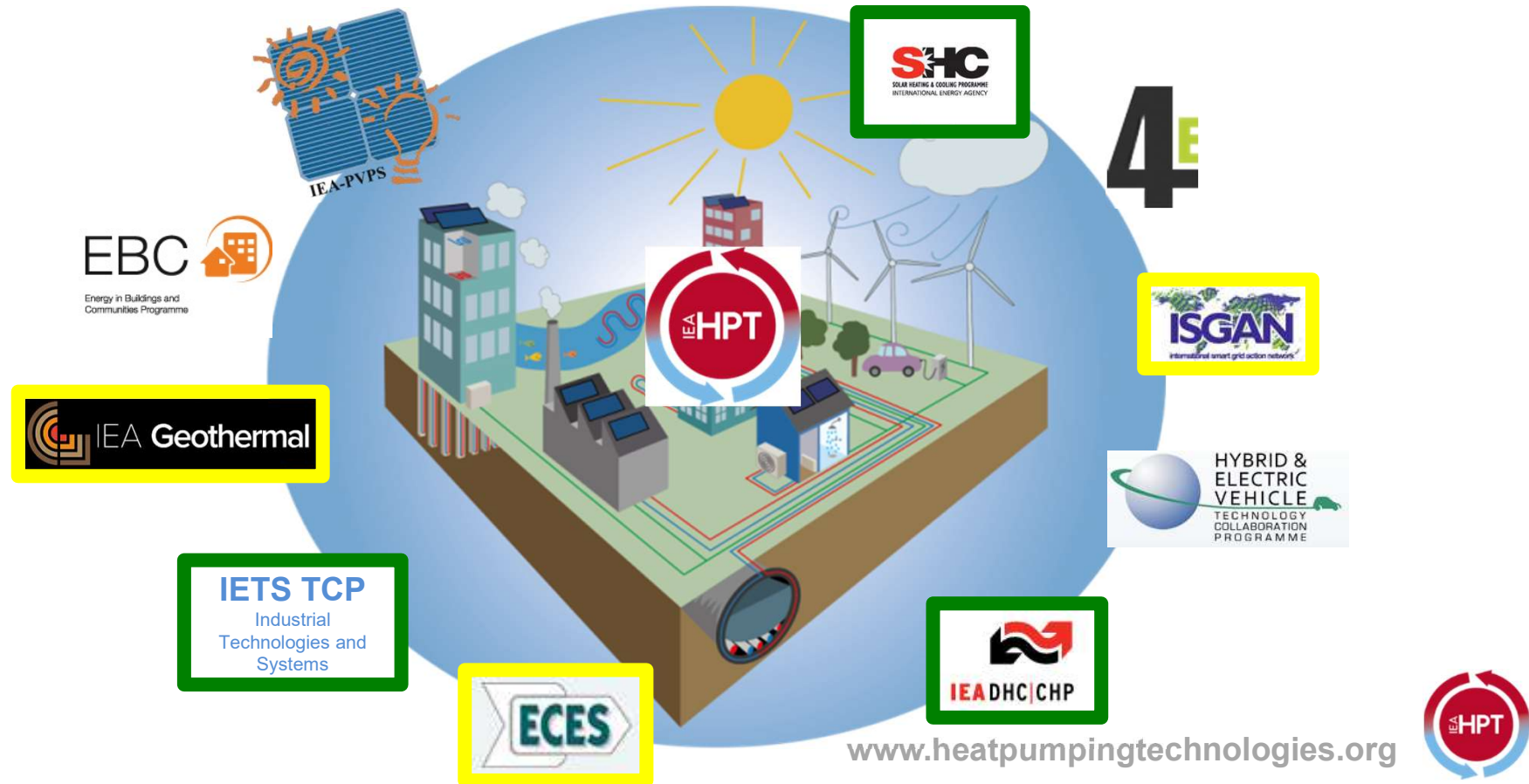
IEA ETP 2017 shows that **heat pumping technologies** are a **critical enabler** to reach **climatic ambitions** and their **deployment** needs to be **increased** more than tenfold

Evolution of heating equipment in buildings to 2060



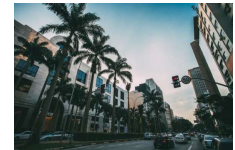
Source: IEA ETP 2017

HPT TCP IN A SUSTAINABLE WORLD AND OTHER TCPS



KEY CHALLENGES: STRATEGIC PLAN FOR 2018-2023

- a. **Affordable** and competitive technologies for **heating**
- b. **More efficient cooling and air-conditioning**, especially in warm and humid climates
- c. **Flexible, sustainable and clean system solutions** (e.g. in urban areas) using combinations of heat pumping technologies with **energy storage, smart grid, solar and wind energy, thermal networks, energy prosumers**, etc
- d. Possibilities offered by the developments in the area of **digitalisation and Internet of Things**
- e. **New or special markets and applications**, including automotive, industry and consumer products (e.g. white goods)
- f. **New, alternative or natural refrigerants** with **lower global warming potential**, high thermodynamic potential and low toxicity for both new and existing applications



Welcome to contact us



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