



European
Solar
Thermal
Industry
Federation

Solar district heating

1 December 2016

16h30 – 18h30



European
Solar
Thermal
Industry
Federation

Solar district heating

1 December 2016

16h30 – 18h30

- 16:30 Introduction**
Stephan Fintelmann, KBB & ESTIF Board
- 16:40 Prospects for District Heating in Europe**
Eloi Piel, Euroheat and Power
- 17:00 Opportunities for Solar District Heating**
Thomas Pauschinger, Solites
- 17:20 XXL Solar District Heating: Big Solar**
Christian Holter, SOLID
- 17:40 Technology challenges for SDH and large solar thermal applications**
Kaj Pischow, Savo-Solar & ESTTP Steering Committee
- 18:00 Debate**
- 18:20 Conclusions**
- 18:30 End**



European
Solar
Thermal
Industry
Federation

SDH in Germany

- Definitely increasing acceptance and activities from the 'innovative' utilities.
- Still strong need to shift focus on RHC, but situation definitely improving at policy level.
- Need to promote DHC as solution for the energy transition, today's image of DHC is still too often the 'old technology'. More modern DHC will automatically lead to SDH.

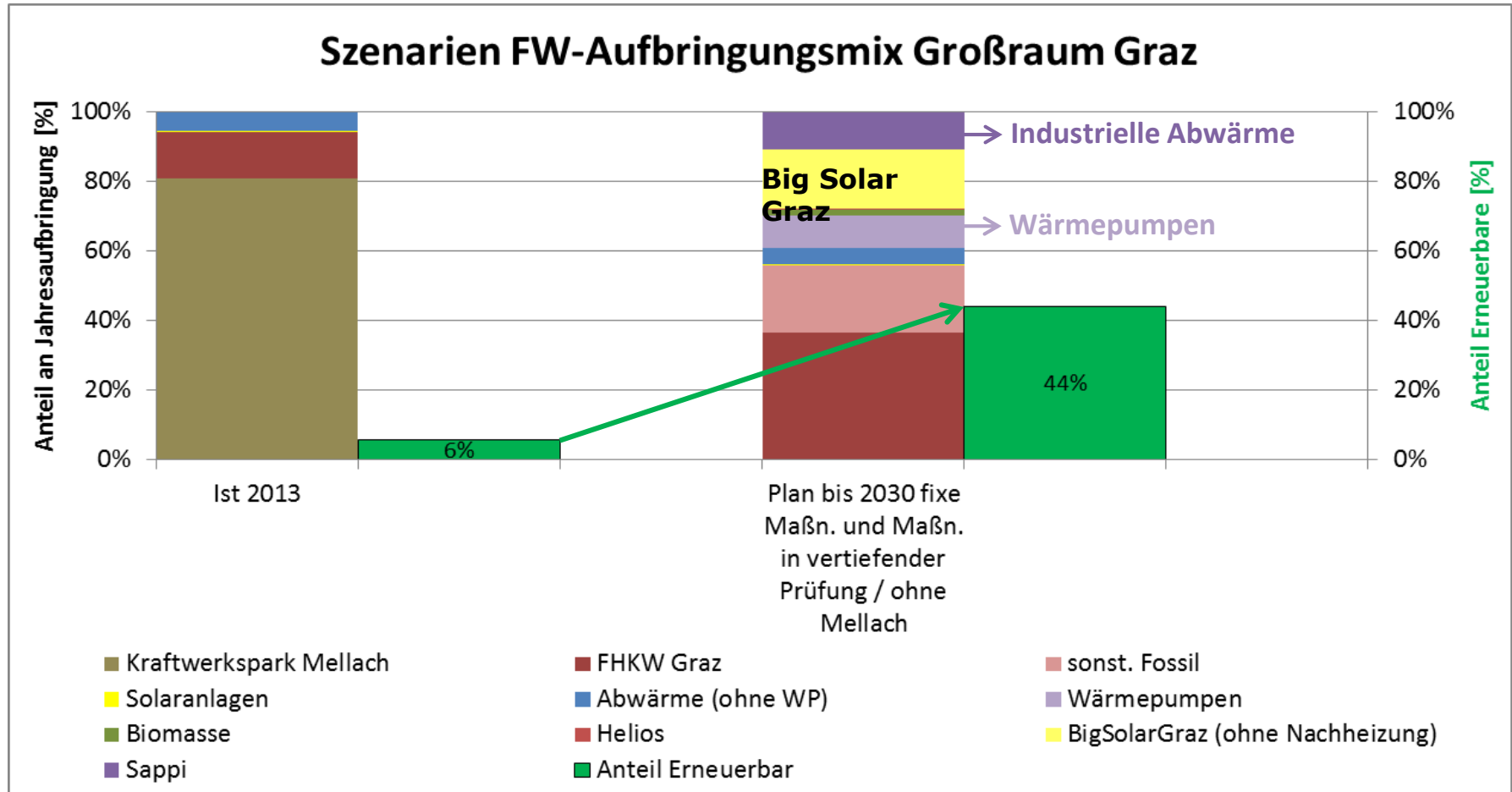


European
Solar
Thermal
Industry
Federation

SDH in Germany

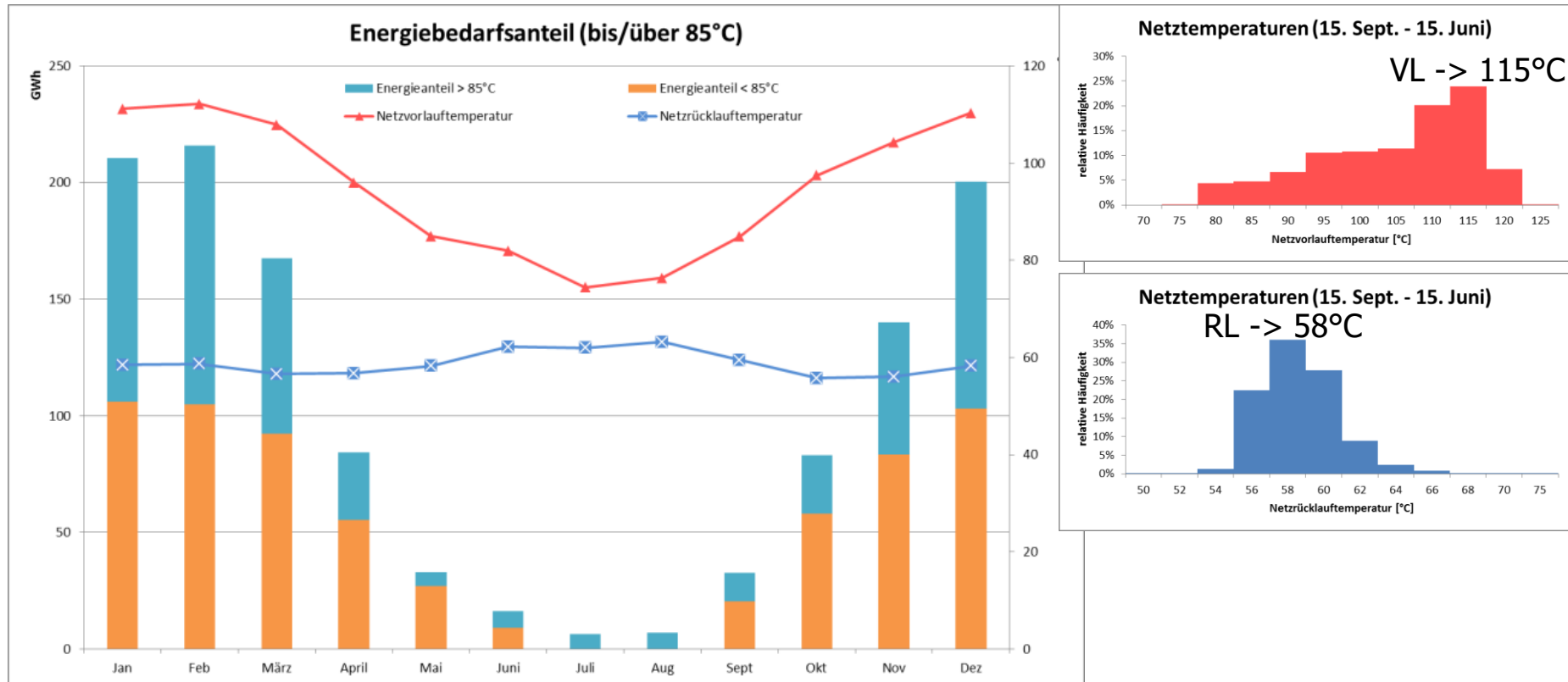
- Government plans 'Energy Efficiency Strategy Plan for Buildings'
- More or less a constant DH contribution of 80 TWh/a until 2050.
- A long term share of 15 % ST in DH leads to ~12 TWh/a SDH, -> 30 Mio m² ST -> ~ 1 Mio m² to be installed per year until 2050.

Condition today → from 2020 onwards



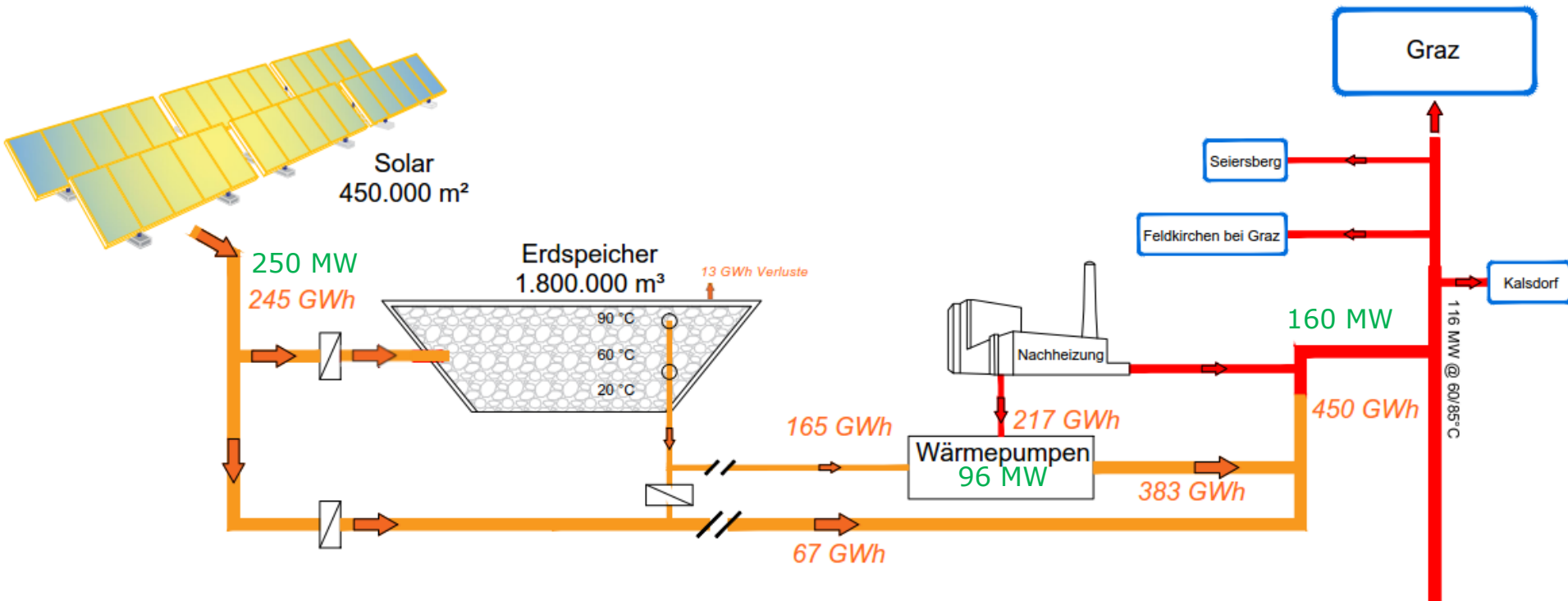
Source: Grazer Umweltamt & Energie Agentur, Prutsch, Götzhaber, Papousek; Vortrag bei Fernwärmetag in Velden, 16.3.2016

Framework requirements



- ⇒ Current network temperatures allow a maximum of 50% of Big Solar conceptual share – this corresponds to a solar coverage of 30%.
- ⇒ The results from the simulations show an economic optimum under current framework requirements at ~ **20% solar coverage**.

System concept optimum

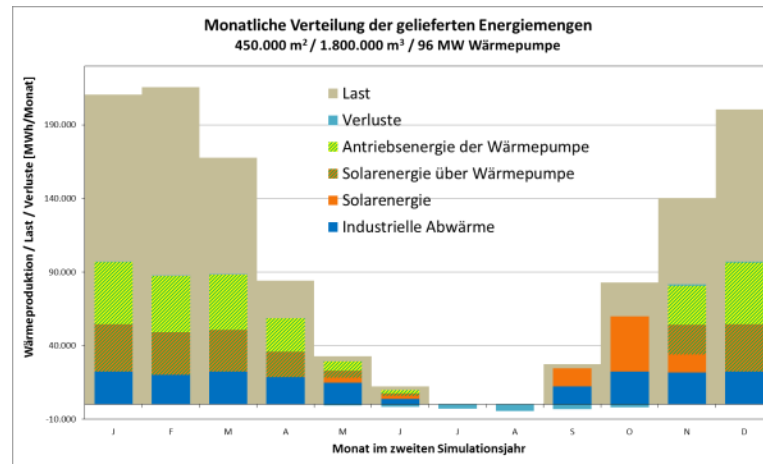


Solar coverage:

approx. 20 %

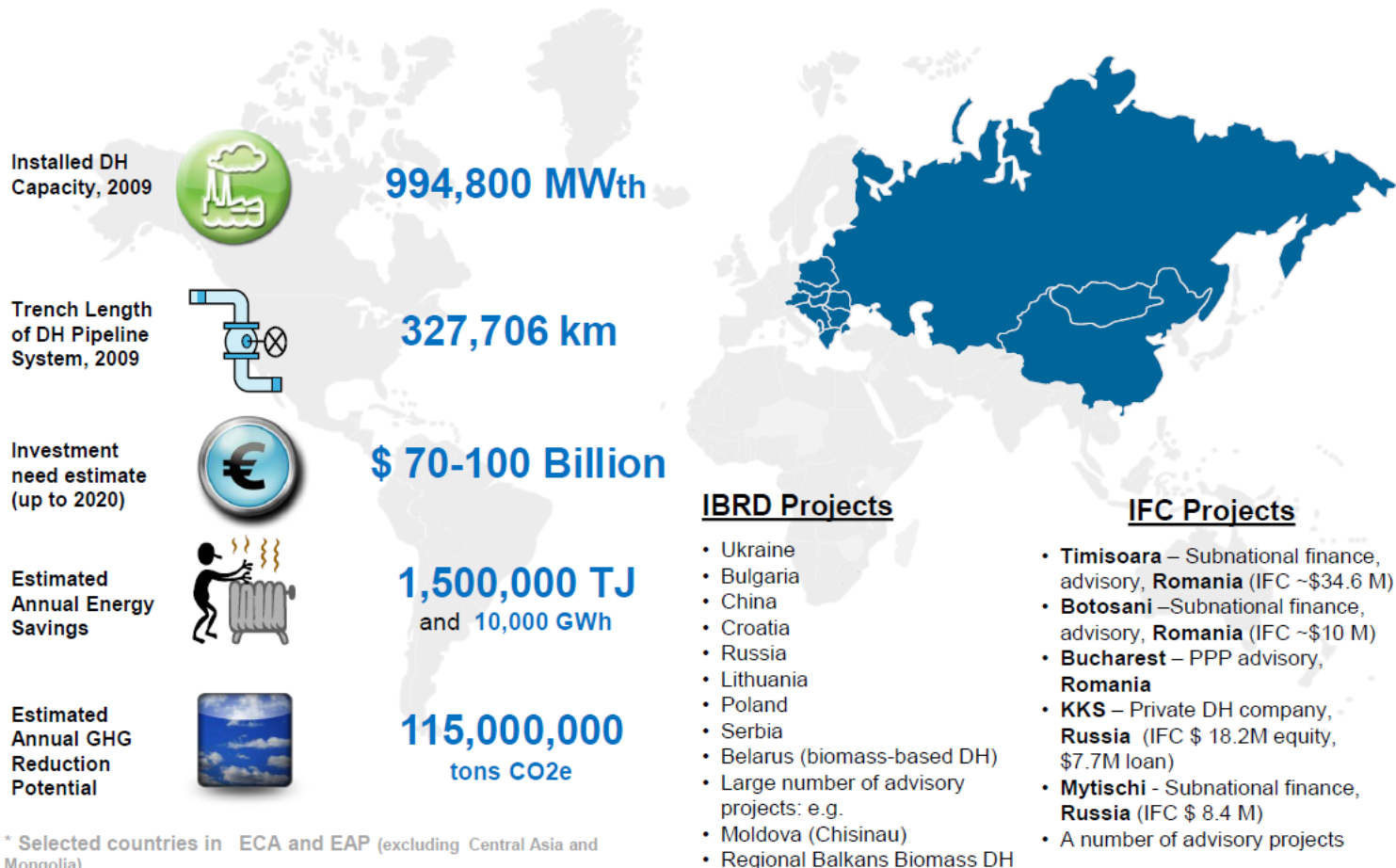
Total capital expenditures:

approx. 200 Mio. EUR

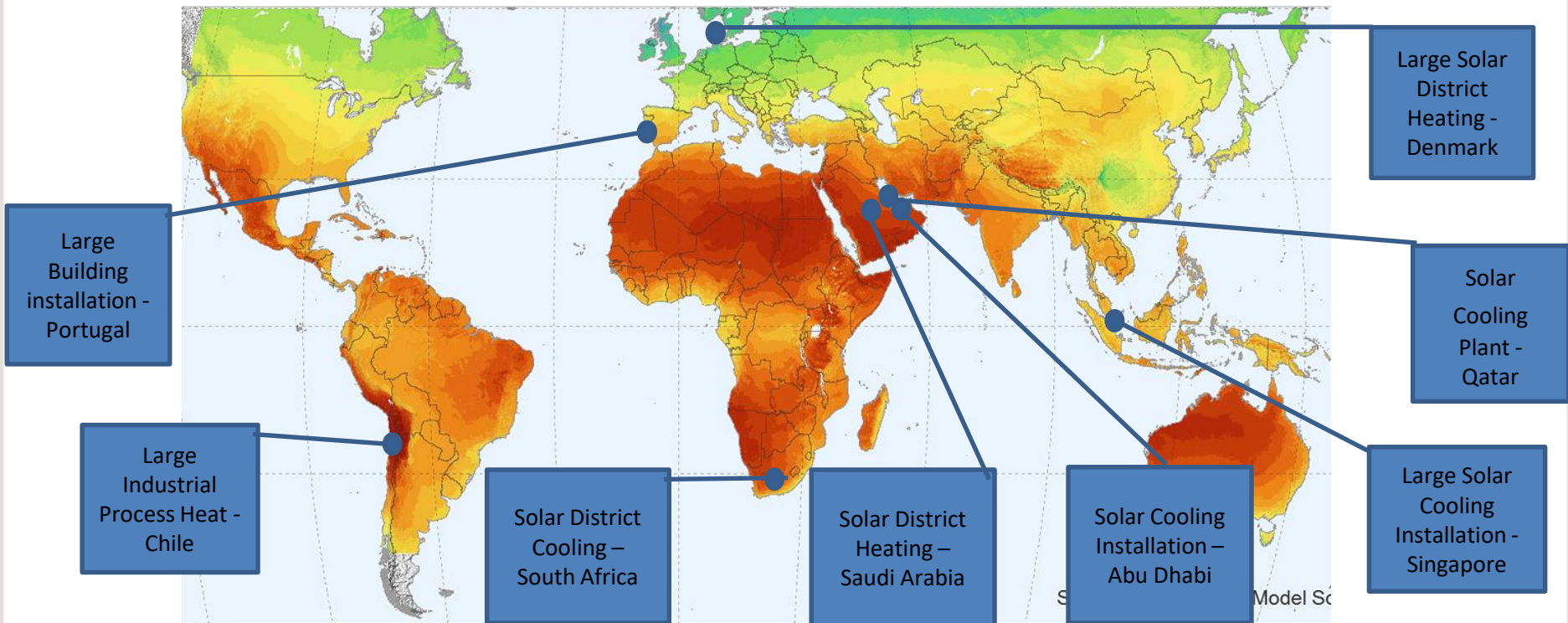


- Heat supply in Graz: Situation → Goals
- Solar heat for urban district heating
- „BIG Solar Graz“: Results of the feasibility study
- **Next Steps & World Wide Potential**

District Heating in Developing Countries



Medium & marge Scale Solar Heat (and Cooling): European technology with strong export potential



Large-Scale District Heating and Cooling Applications in Europe by 2015

