Success of the Austrian Large-Scale Solar Systems Program

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Background…

- Political objectives to decarbonize
- ~ 46% of ultimate energy demand in Austria for heating (compared to only 20% for electric energy user)
- Very good positioning of Austria due to long-lasting tradition of solar thermal systems (2nd worldwide KWth/1.000 inhabitants)
- "small" solarthermal is increasingly under pressure

Funding Programme large-scale solar plants

Programme objectives

- Starting point for a broad implementation of large-scale solar plants
- Practical experience & scientific progress
- Dissemination of project outcomes (public data)

Aims of the Climate and Energy Fund

- Substitution of fossil fuels
- Acceleration of renewable energy
- Increase in energy efficiency

Create a new market segment

Funding is provided for…

1. Construction of solar systems

- Solar systems in the range of 100 – 10.000 m²
- New technologies and innovative approaches
- in the range of 50 –500 m²
- 5 thematic areas

Funding is provided for...

2. Accompanying research

- Consulting of applicants before submission (quality assurance)
- Measurement of plants in operation
- Improve knowledge and gain real life experience
- Publication of results & Know-How transfer

SHC Award 2017

- Climate and Energy Fund of Austria wins the International Energy Agency Solar Heating Programme SHC SOLAR AWARD in Abu Dhabi
- IEA SHC Solar Award for outstanding leadership or achievements in the field of solar heating and cooling
- *„...innovative subsidy program to support market expansion of large-scale solar themal systems*" – Ken Guthrie, chairman of the IEA SHC

The call 2019

- 14.05.2019 – 28.02.2020
- Deadline mandatory talk with accomp. Research 21.02.2019
- Budget: 2,6 Mio € + Eler Cofund
- Up to 10.000 m² fundable
- Up to 50 % funding but no more than 750 K€ (or 1,25 Mio € for ELER-cofund) per Project
  + Input from the accomp. Research

5 thematic areas

- Solar process heat
- Solar district heating
- High solar ratio (at least 20%) in business and service enterprises
- Solar in combination with heat pump
- New technologies and innovative approach

+ 25 % if project is monitored by accomp. research

Thematic area	**Max. funding (€)** per MWh solar yield
Solar process heat	700 Euro/MWh
Solar district heating	550 Euro/MWh
High solar ratio	950 Euro/MWh
In combination with heat pump	1.100 Euro/MWh
New technologies	no restriction

No limit with ELER-cofund


What we funded
So far…

Examples of funded solar systems

Solar district heating

Solare Biowärme Mallnitz

Examples of funded solar systems

Sports facility

Bundessportzentrum Faaker See

Examples of funded solar systems

Fruit juice production

Obstsaftproduktion Krispel

Examples of funded solar systems

Solar district heating

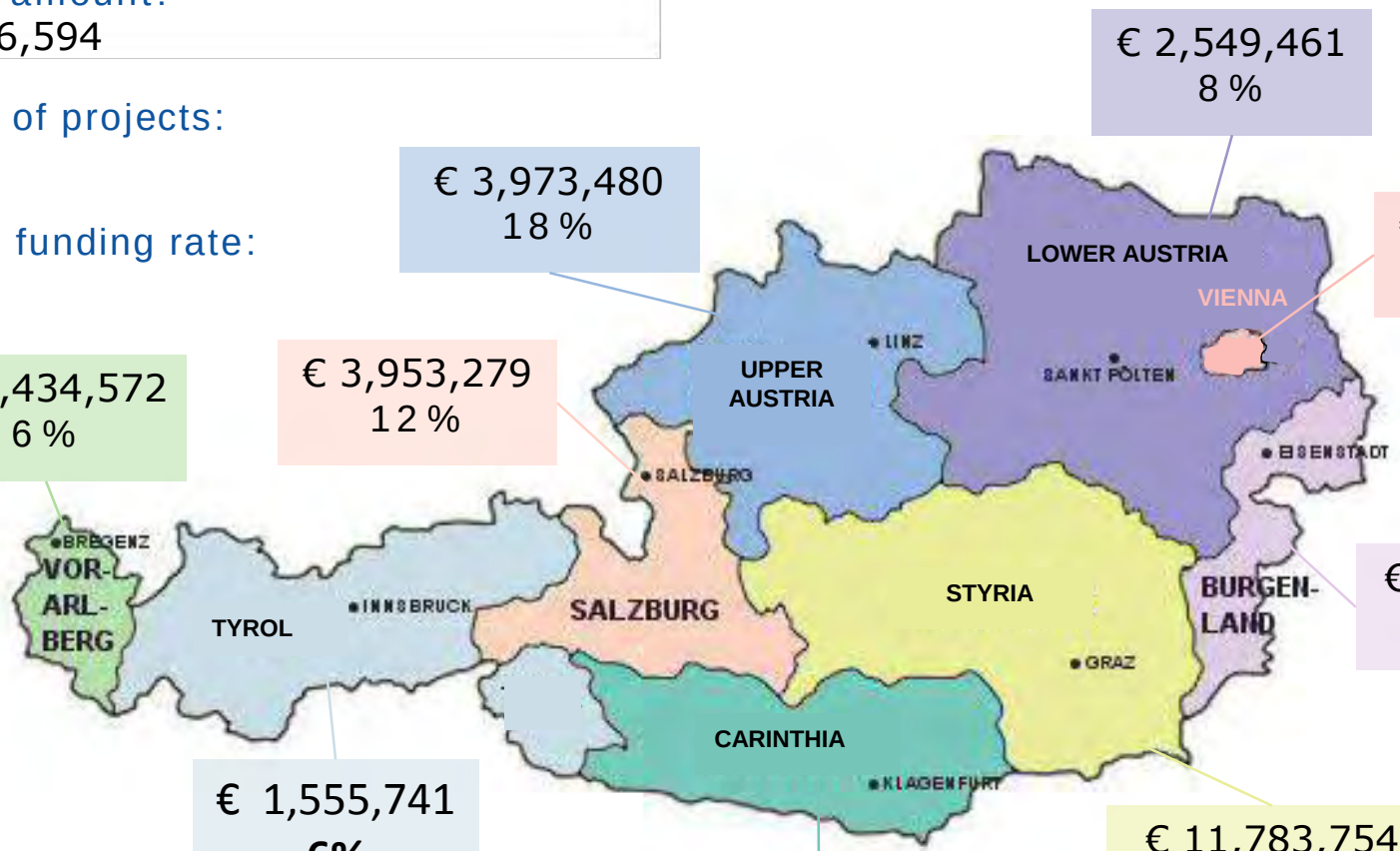
Stadtteil Lehen in Salzburg

Funding by federal states (Call 1-9)

Subsidy amount:
€ 32,446,594

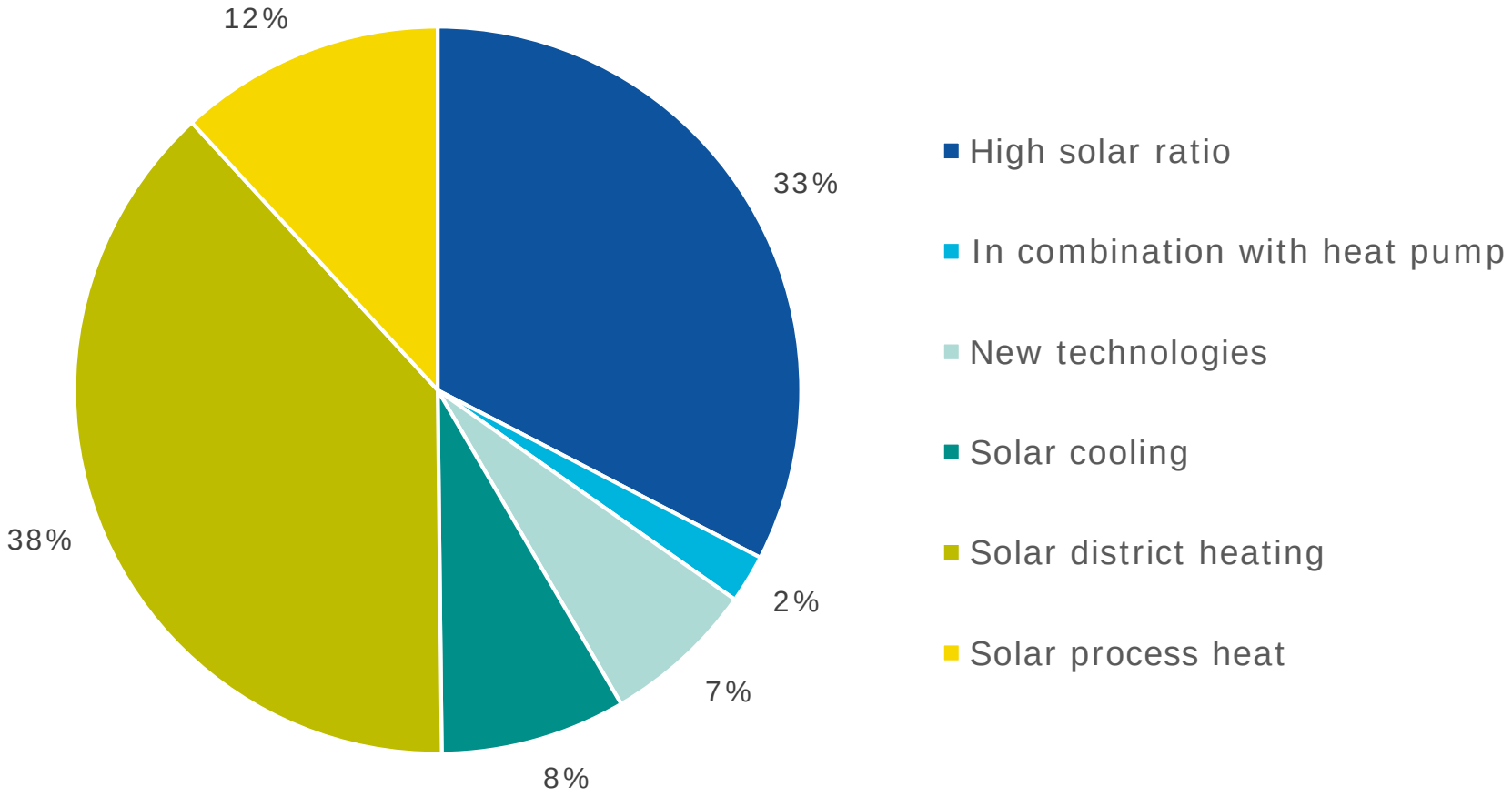
Number of projects:
279

Average funding rate:
34.5%

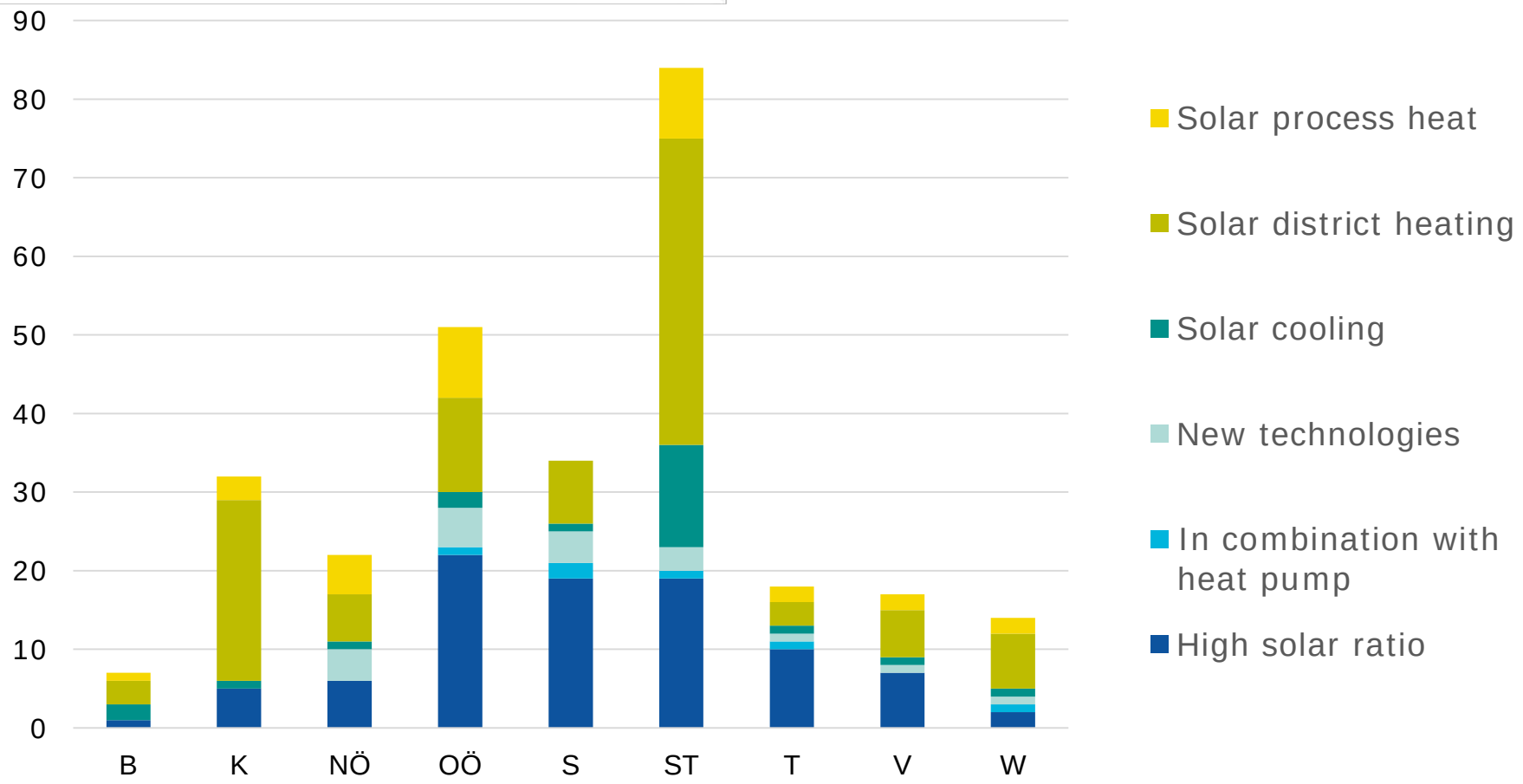


Distribution among thematic areas (Call 1-9)

Nr. of projects



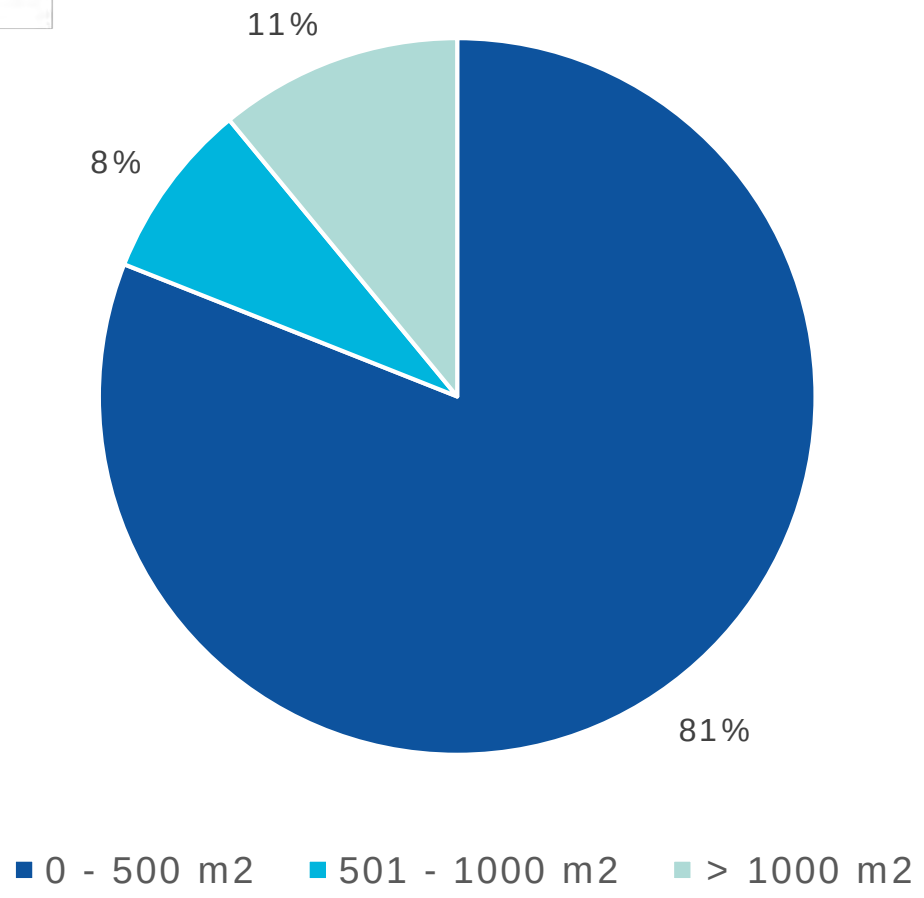
Geographical spread of projects (Call 1-9)



Distribution of collector area (in m2) among size category

Average collector area:
423 m²

Biggest collector area:
7.020 m²



Conclusions

- Accompanying research appreciated by community
- Economies of Scales are there but still cost vary by project
- External factors remain challenging(e.g gas prize, building permits)
- Innovations spread over time (e.g HP + TCA)
- Expertise for big solar is needed
- Few player in the field of big solar, but their projects are getting bigger
- SDH is a key thematic area in the funding programme

To be continued…

- Future political focus in Austria is open
- National heat strategy is under preparation
- Time would be ripe for the next level big solar in Austria (10.000 m^2+)
- Big solar can be an important element in future energy systems
- Big solar should be integrated into intelligent hybrid energy systems (funding programmes)

Further Information

www.klimafonds.gv.at

www.solare-grossanlagen.at

"Solar Thermal in Austria– an Economic Engine Powered by Sun"

https://www.youtube.com/watch?v=TaZJVYPezu4

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