


TAKING  
**COOPERATION**  
FORWARD

 Project Meeting No. 3, June 18<sup>th</sup> 2020 (online)

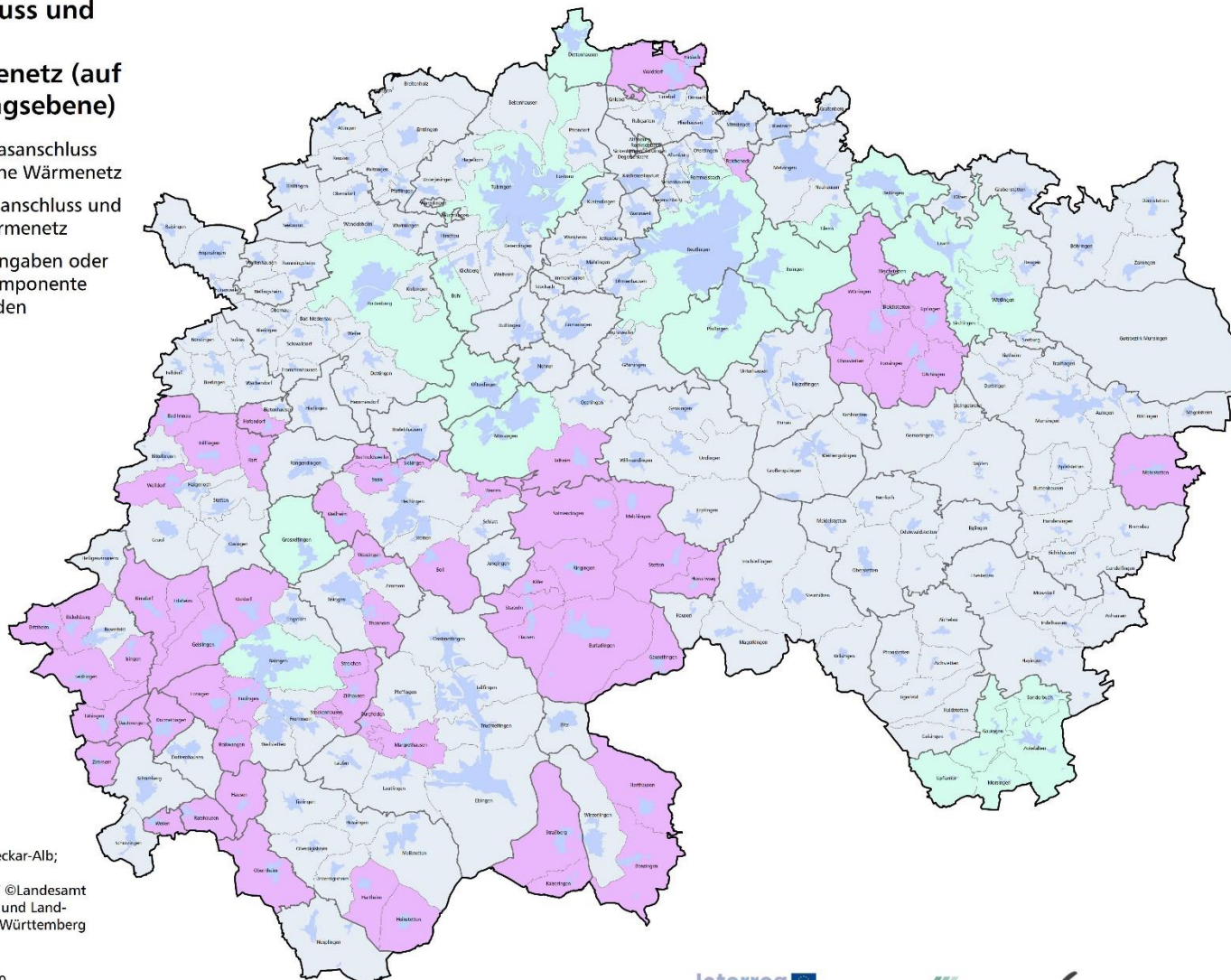
 **Economic feasibility of bioenergy villages in the  
Neckar-Alb Region, Germany**

 RVNA (PP 8) Joachim Zacher

# RES HEAT POTENTIAL ASSESSMENT

## Gemeinden ohne Gasanschluss und ohne Nahwärmenetz (auf Gemarkungsebene)

- ohne Gasanschluss und ohne Wärmenetz
- mit Gasanschluss und mit Wärmenetz
- keine Angaben oder eine Komponente vorhanden



Stand 12.05.2020

Datenquelle:  
Regionalverband Neckar-Alb;  
GVS; ENBW;  
ATKIS ®-DLM25 BW ©Landesamt  
für Geoinformation und Land-  
entwicklung Baden-Württemberg  
(www.lgl.bw.de)

Maßstab 1 : 100 000

0 5 10 15 km

# POSSIBLE OPERATORS (MODELS)

- **Entrepreneurs / Contractor / Local farmers**
  - ➔ „Classic approach”, especially with biogas waste heat that is used for the heat supply. In the Neckar-Alb there are lot of examples like Römerstein-Böhringen or Grosselfingen near the Zollern Castle;  
but remember: Required space 1: 60 SDH/biogas
- **Municipalities / Local Government / Public utilities**
  - ➔ „Classic approach“, especially in big- and medium-sized municipalites, usually without the use of renewable energies;
  - ➔ In the Neckar-Alb region, the new residential area "Hechingen-Killberg" (> 500 inhabitants) is to be developed by the municipal utility company and this area is to be supplied entirely with solar thermal and geothermal energy
- **(Bio-) Energy cooperatives, e.g. St. Peter or Niedereschach**
  - ➔ <http://www.buergerenergie-st-peter.de/pdfs/broschuere-bioenergiedorf.pdf>
  - ➔ <https://www.ben-eg.eu/>



# WHY ENERGY COOPERATIVES?

Energy cooperatives play an important role in the decentralized expansion of renewable local heating networks:

- many projects cannot be implemented because private companies and public utilities have to achieve a high return and many projects also need a minimum size to cover the overheads of companies
- they pool the capital of private individuals and thus open up another source of finance for achieving the energy transition
- their regional orientation and co-determination are considered success factors that promote acceptance
- democratic participation of the members
- disadvantage: please note the bankruptcy risk!



## Buerger-Energie Tuebingen eG



Guenther Gamerdinger

The business of the cooperative is managed by a board.

This position is currently held by Mr. Guenther Gamerdinger and Mr. Wilfried Kannenberg.

Both are volunteers for Buerger-Energie Tuebingen.



Wilfried Kannenberg

<https://buerger-energie-tuebingen.de>



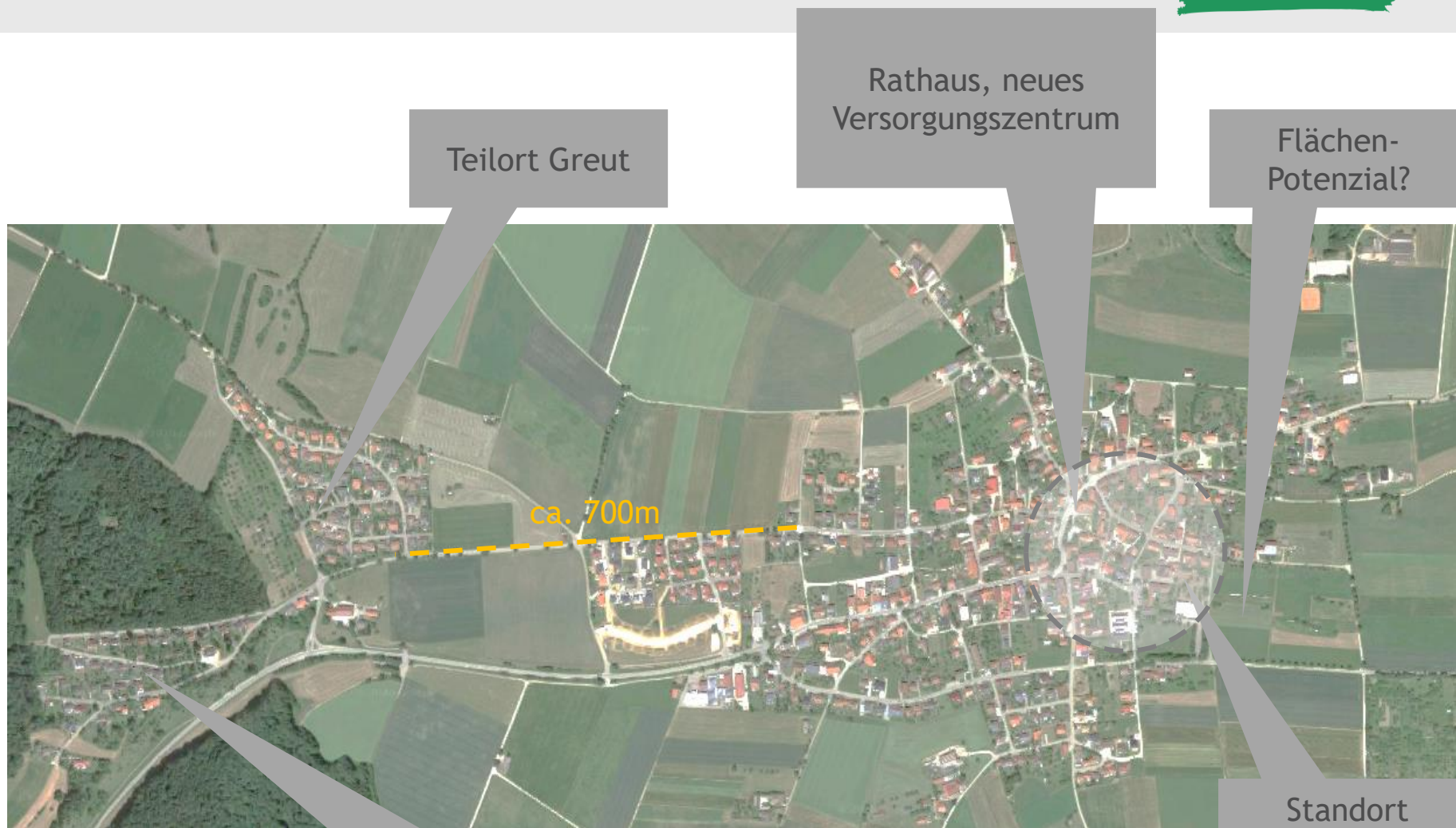
# SUCCESS FACTORS

- For the start you have to find a nucleus, either municipal properties or local companies with high heat requirements
- Cost reduction through synergies is essential: glass fiber (5 G phone network), renewal and repair of water pipes, power lines and sewage pipes etc. (→ coordination!)
- Sightseeing tours to converted bioenergy villages
- Target group-specific addressing of homeowners based on life experience
- Individual approach to homeowners („house warfare“) to overcome the sluggish decision



# MEHRSTETTEN

ACRONYM



Teilort Greut

Rathaus, neues  
Versorgungszentrum

Flächen-  
Potenzial?

ca. 700m

Standort  
Heizzentrale

Südliches Greut,  
Empfehlung dezentrale  
Heizung?



# RESULTS / LESSONS LEARNED (1)

- An individual implementation solution must be found for each bioenergy village.
- Based on the engagement of the stakeholder groups in the village the operator structures and the selected operator company types differ.
- The heat pricing is based on individual, village-specific pattern; the full cost of heat supply in all villages is below the full cost of fossil heat supply fuel oil base.
- For a successful implementation of bioenergy villages sufficient agricultural and renewable resources, a compact village structure, a suitable, conseqare location for the energy systems and social skills important are essential.





### Important social skills are

- Good village community (establishing identity, feeling of belonging)
- Actors who enjoy the trust of the population and drive the project forward
- Community representatives who support the project
- Transparent, open-ended planning and implementation of the project, in which the citizens are creative and can participate financially
- The participants' inner conviction that only sustainable solutions are sustainable in the long term

