TT1: Getting started and key factors for success
Rottenburg, 29.11.2019

Best Practice Project Start

ENTRAIN |AEE INTEC| Sabrina Metz, Harald Schrammel

BEST PRACTICES AND FIRST STEPS

Project initiation (Triggers and Timing)

First steps (Pre-Feasibility)

Best practice examples

Typical operators in Austria

PROJECT INITIATION

- Promising starting points
  - Existing DH systems / revamping of existing DH systems
    - microgrids
  - Public buildings / objects with large heat demands
    - Revamping of heat supply
  - Construction of new buildings, residential areas, city quarters, …
  - Local development concepts, land use or energy planning is conducted
  - Upcoming roadworks (especially for DH grid enlargement)
  - Local initiatives

SMALL, BUT BEAUTIFUL!

- DH for the whole town?
  - Great, but complex
  - Maybe to much for the first project step!

- Start small during project development, plant the seed and let it grow!
  - An info-event with 200 people is not necessarily the first step
  - Find a feasible starting point e.g. with key customers
  - Play with ideas and scenarios
  - Having a small feasible project concept could help a lot to convince stakeholders and consumers
- Better build a small plant than no plant
- DH grids in At constantly grow !

FIRST STEPS: PRE-FEASIBILITY

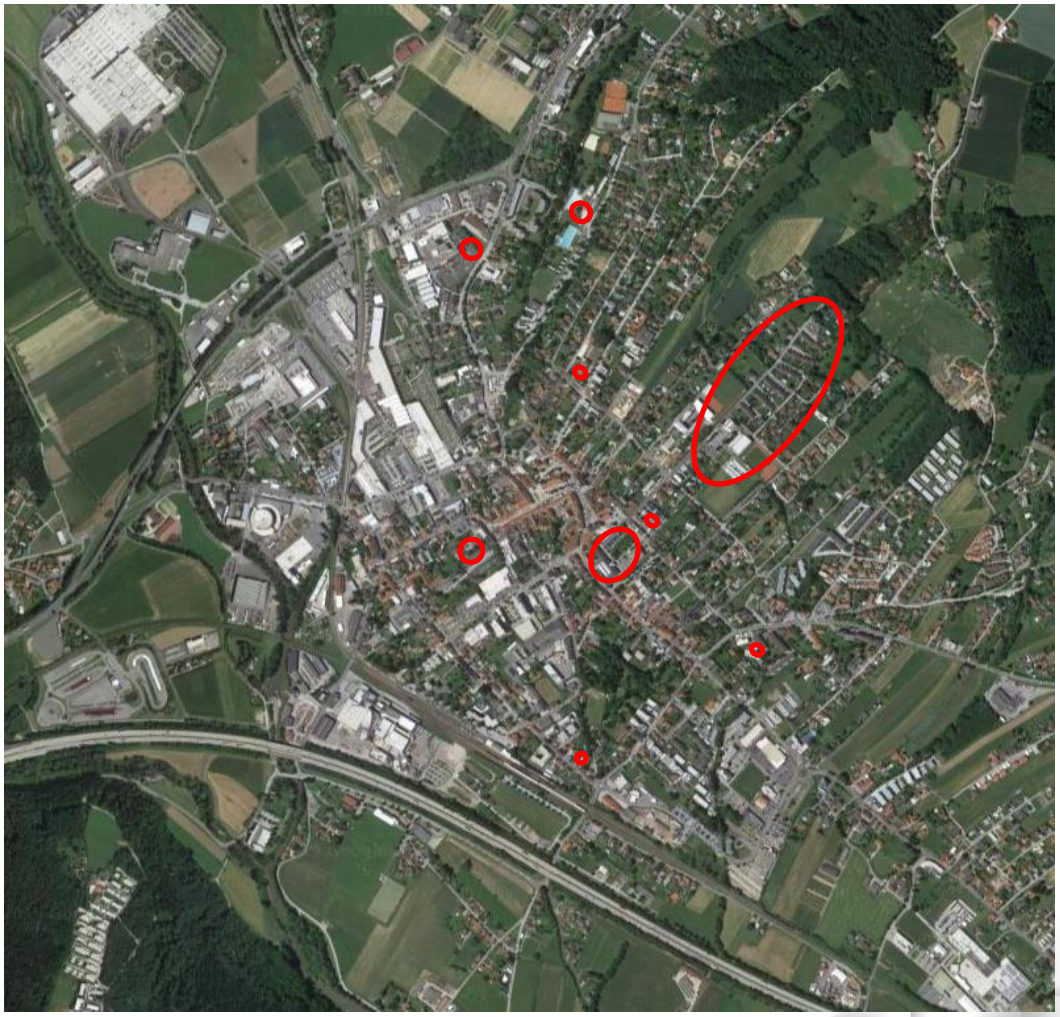
What to do in what order?

- Find out if district heating is technical and economical feasible in the region
  - Conduct a short pre-feasibility study
  - Find possible starting points and some main pipe routes
- Evaluate who could be possible drivers or operators in the region
  - Reach and convince them
- Contact professional planners /experts for a detailed feasibility study
- Convince key customers…

…then public and further customers

MICRO GRIDS AS STARTING POINT

- City with 6.000 inhabitants
- City-wide natural gas grid
- Municipal utility operated several gas-fired micorgrids and stand-anlone heat supplies
- City is motivated to become “renewable”

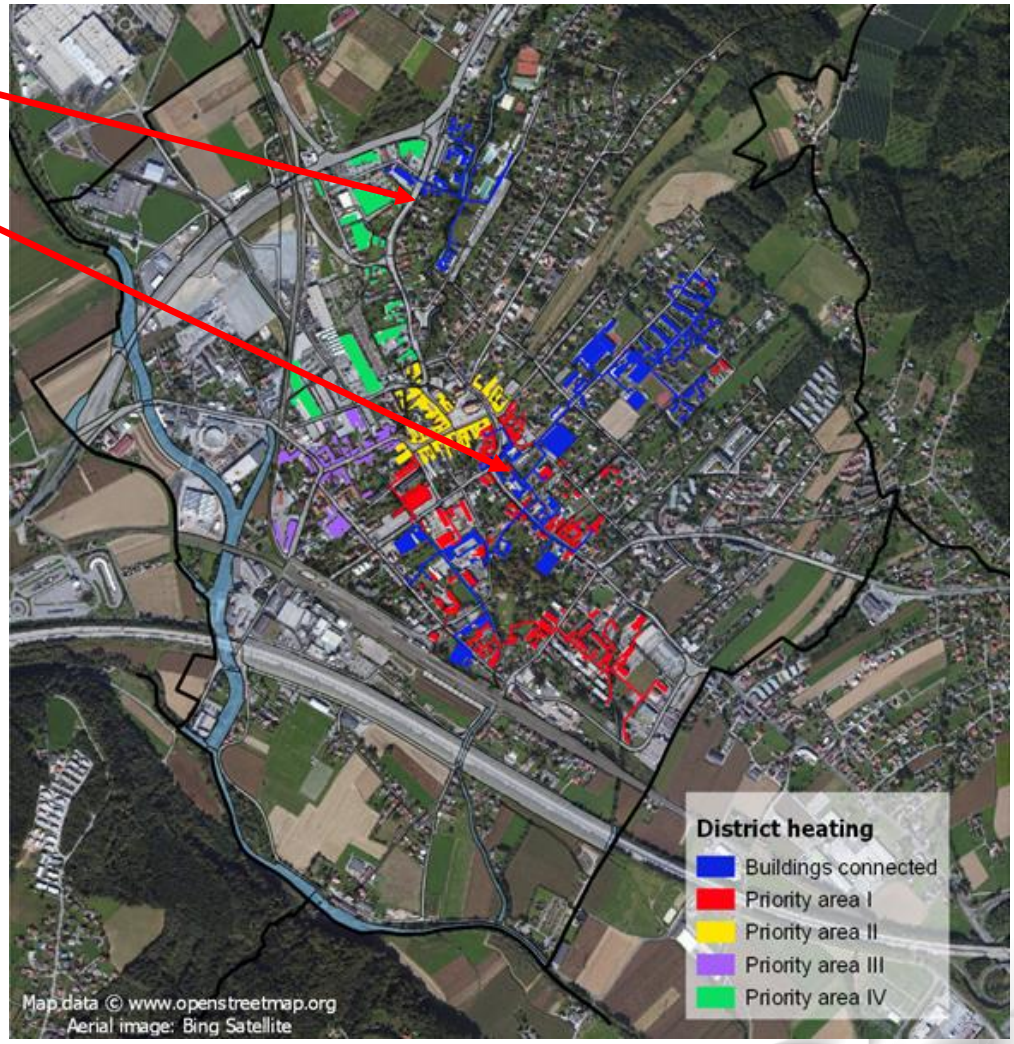


MICRO GRID AS STARTING POINT

- 2009: small biomass DH grid
- 2012: larger biomass DH grid
- 2013-2019: grid enlargement to connect microgrids and new customers
- Still large potential

Current planning:

- 2021: coupling of two biomass grids and integration of school
- 2021-2023: grid enlargement and
- integration of new heat source (biogas and heat pump at waste water treatment plant)



START-UP WITH KEY CUSTOMERS

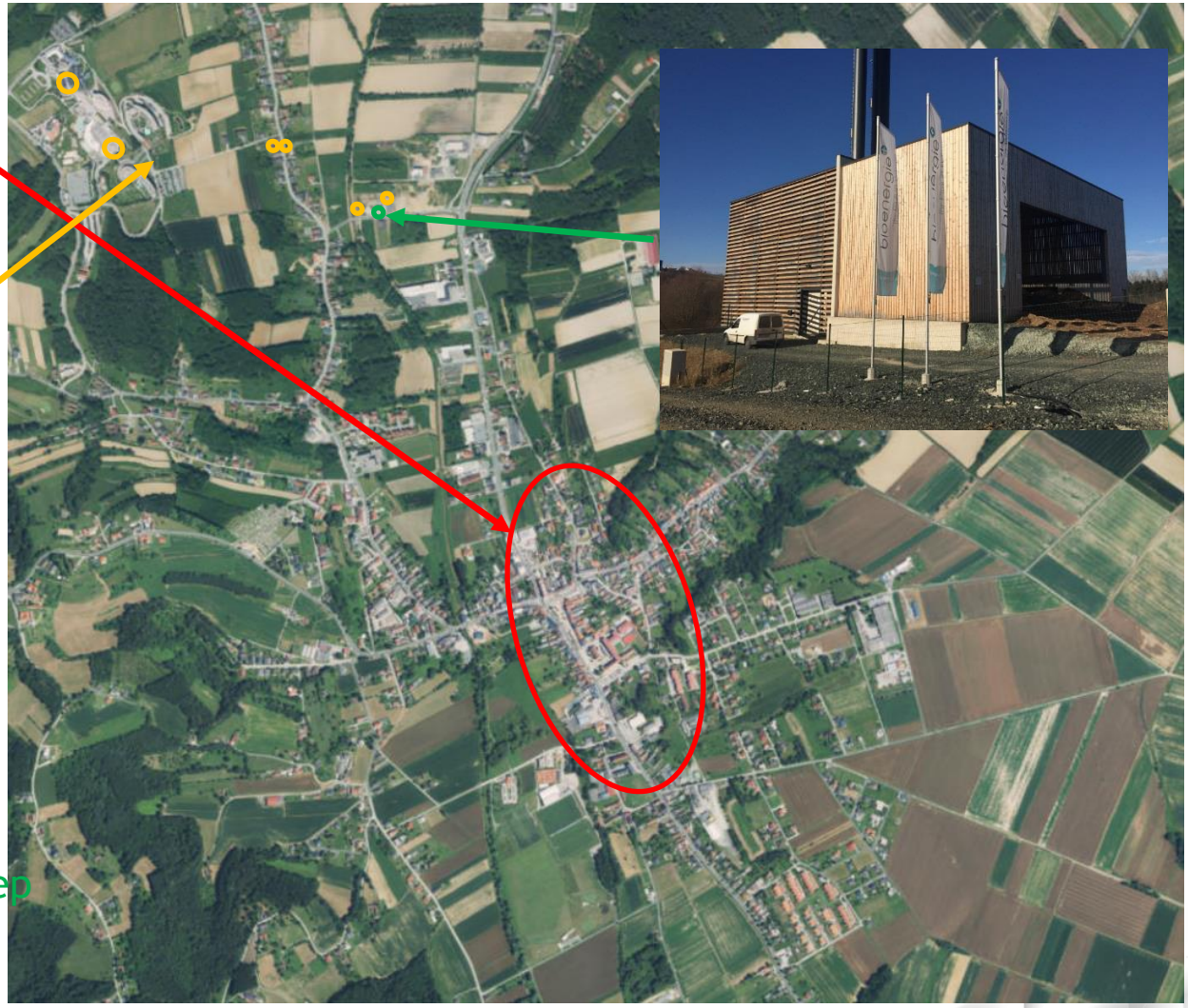
Village with 2500 inhabitants (mainly residential, small companies, hotel,..))

Some large consumers outside village center (tourism, small industry)

First project phase with only 5 consumers

Focus on key customers to create a feasible project

- then address potential
- customers along the route
- Consider grid and plant enlargement enlarge the grid step by step



ALTERNATIVE CONCEPTS

- Biomass DH plant as an additional heat source for existing (large) DH systems
  - Graz, Vienna, Ptuj !!
- DH network without a heating plant
  - Woergl, AT
  - Consider alternative heat sources
  - It´s not only biomass!
- Consider alternative business models
  - Plant and grid operator does not have to be the same company

Image source: Stadtwerke Wörgl

OPERATORS OF SMALL DH IN AUSTRIA

- **Farmers:** group of local farmers form a civil-law association or a private limited liability cooperative → sell their own wood to their plant
- **Individual companies:** build and operate only one biomass DH plant, biomass is bought from local farmers/wood owners, local saw mill industry, fuel traders,…
- **Municipal utilities:** operating one biomass DH plant for municipality, fuel is bought from local sources; operate other municipal services (water, waste, local traffic,….)
- **Medium sized companies specialised on operating biomass district heating plants and networks or ESCOs:** work professional, provide know how and cooperate with local partners (e.g. www.nahwaerme.at, www.regionalwaerme.at)
- **Large utilities:** biomass DH covers only a very small part of their business (power, gas, water, conventional large-scale DH)

THANK YOU!

Sabrina Metz, Harald Schrammel
AEE INTEC
Feldgasse 19, A-8200 Gleisdorf

www.interreg-central.eu/entrain

s.metz@aee.at

+43 3112 5886-234

@ENTRAIN_project
@AEE_INTEC