

LES ORRES 8 MARCH 2022

Smart  
Mountain  
for  
tomorrow

18<sup>th</sup> OCOVA FORUM

# COLLABORATIVE ENERGY TRANSITION IN A TOURIST REGION

Ludwig Karg, B.A.U.M. Consult München / Berlin







Allgäu®

# THE ALLGÄU REGION ON THE MOVE

Ludwig Karg, B.A.U.M. Consult München / Berlin







- consultancy
- research
- development

Integrated Climate  
Protection and Mobility Plans

Smart Energy and  
Smart Mobility

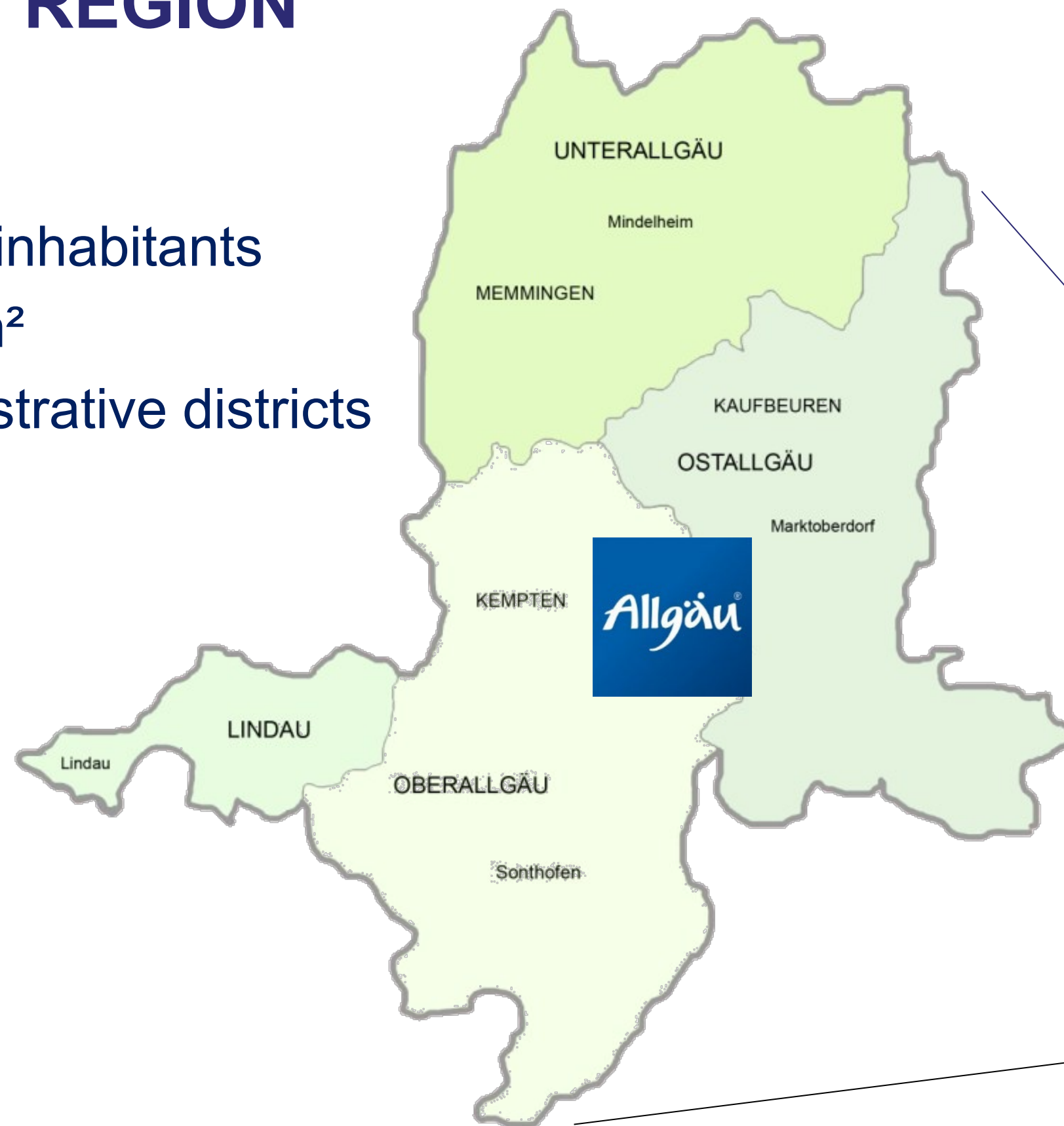
German and European  
Research



- region
- examples
- structures
- projects
- challenges

# ALLGÄU REGION

- 650.000 inhabitants
- 4.600 km<sup>2</sup>
- 4 administrative districts







# MODERNITY BUILT ON HISTORY





# BAD HINDELANG: A LONG TRADITION



Watermill since 17th century >>> ???



**EW//H**  
ENERGIE & SERVICE

Energy Community since 1923



Ökomodell since 1992 >>> ???

- establishment of far-reaching forms of renewable energy supply
- development of methods for cooperative energy transition and community action
- establishing innovative forms of organisation for the future energy system
- dissemination of experiences with cooperative and cooperative energy supply
- socio-scientific findings for the targeted addressing of different stakeholder groups





# ENERGY COMMUNITIES: TRIGGER AND ENABLER

## Renewable Energy Community

Limited Membership & Specific Governance

Proximity to Generation

All sources of RES

100 % RES

Art. 22 of the Directive on the promotion of the use of energy from renewable sources on “Renewable Energy Communities” (RED II)  
national transposition by June 30, 2021

## Citizen Energy Community

Specific Governance, but Broad Membership

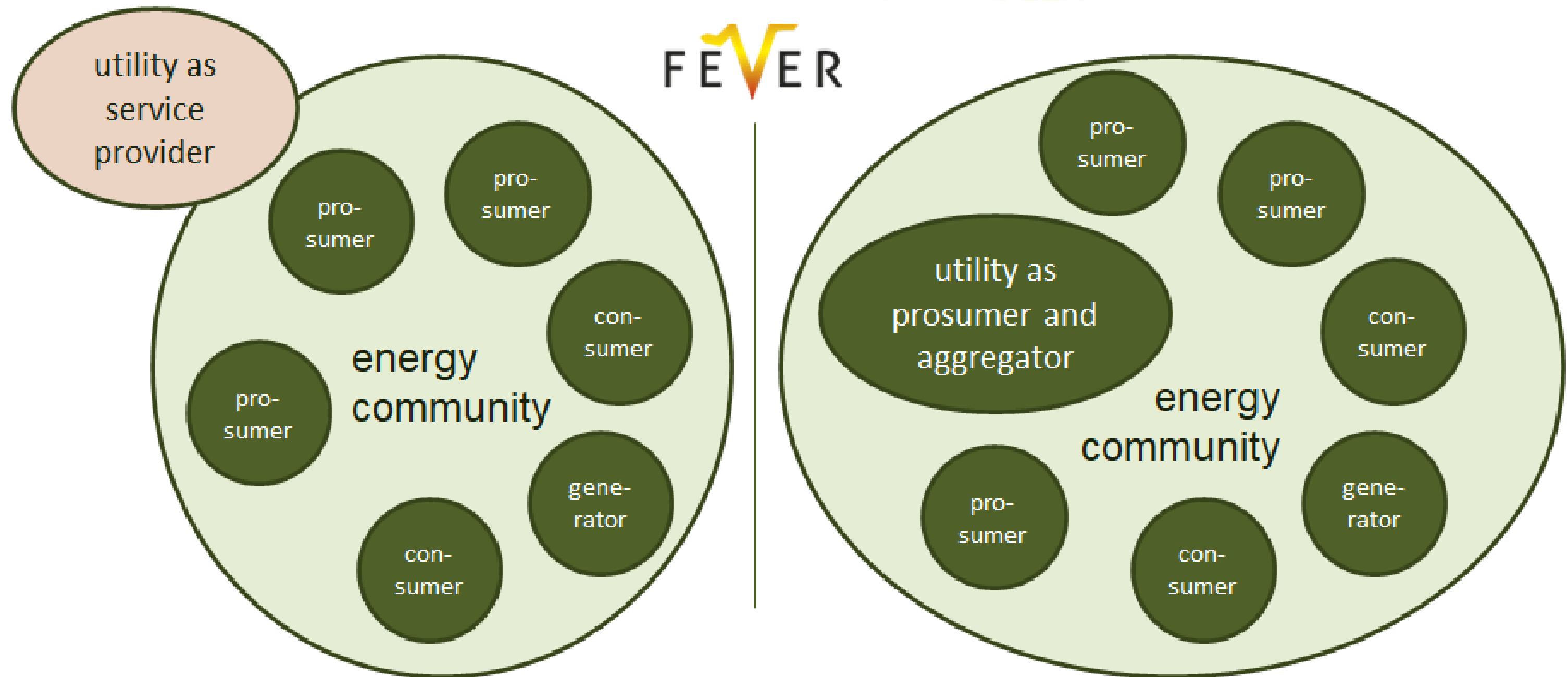
No geographical limitation

Electricity only

Technology neutral

Art. 16 of the Directive on the Internal Market for Electricity Directive on “Citizen Energy Communities” (EMD)  
national transposition by December 31, 2020

# THE ROLE OF UTILITIES





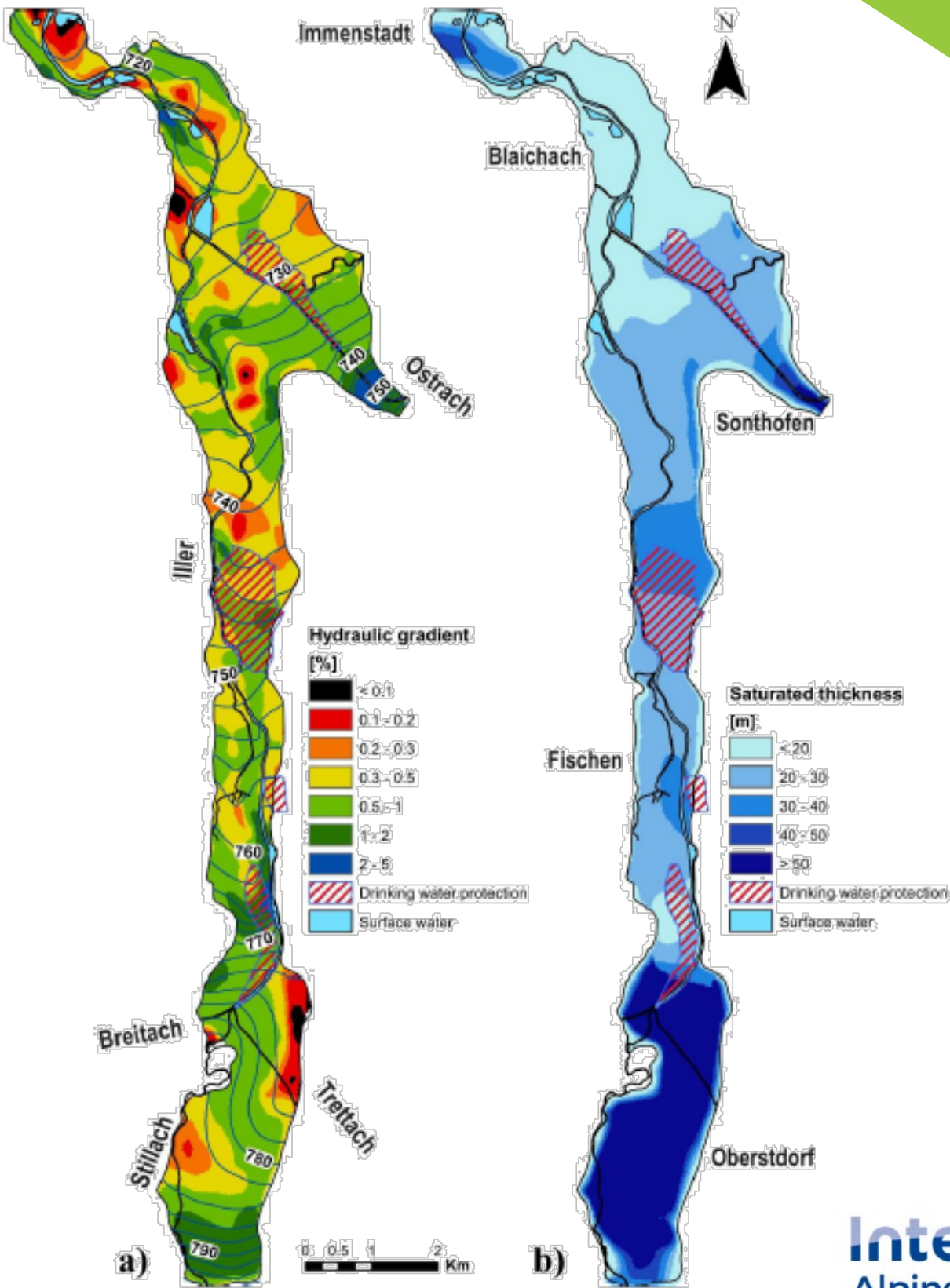
DON'T MIX UP THINGS

**autarky**

**autonomy**



# GEO THERMAL IN THE ALPS?





# GOING ELECTRIC?





# EMMI MOBIL



- call service
- ride pooling
- bus tariff



Naturschutz mit „EMMI“: Neuer Rufbus in Bad Hindelang schont das Klima und stärkt die Mobilität



## IMPROVING CONNECTIVITY





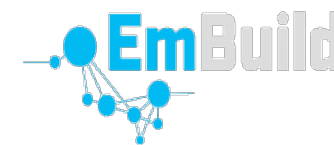
# ALLGÄU GMBH: HOLISTIC APPROACH





# AGENCY FOR ENVIRONMENT, ENERGY AND CLIMATE

- energy advice services
- partner network for crafts and consultants
- support for municipalities, companies and private home owners
- non-for-profit limited company
- many cooperations
- national and international projects:



[www.eza-allgaeu.de](http://www.eza-allgaeu.de)



*eza!*

Energie- und  
Umweltzentrum Allgäu

# MASTERPLAN AND KEY-PLAYERS IN TOURISM



**Oberallgäu**  
Landkreis

**Masterplan 100% Klimaschutz**

Teil 1 Landkreis Oberallgäu



KLIMANEUTRAL

**Hotel \*\*\*\*\* Superior  
Oberstdorf**



HOTEL

**PRINZ-LUITPOLD-BAD**

*Ein bisschen königlich*

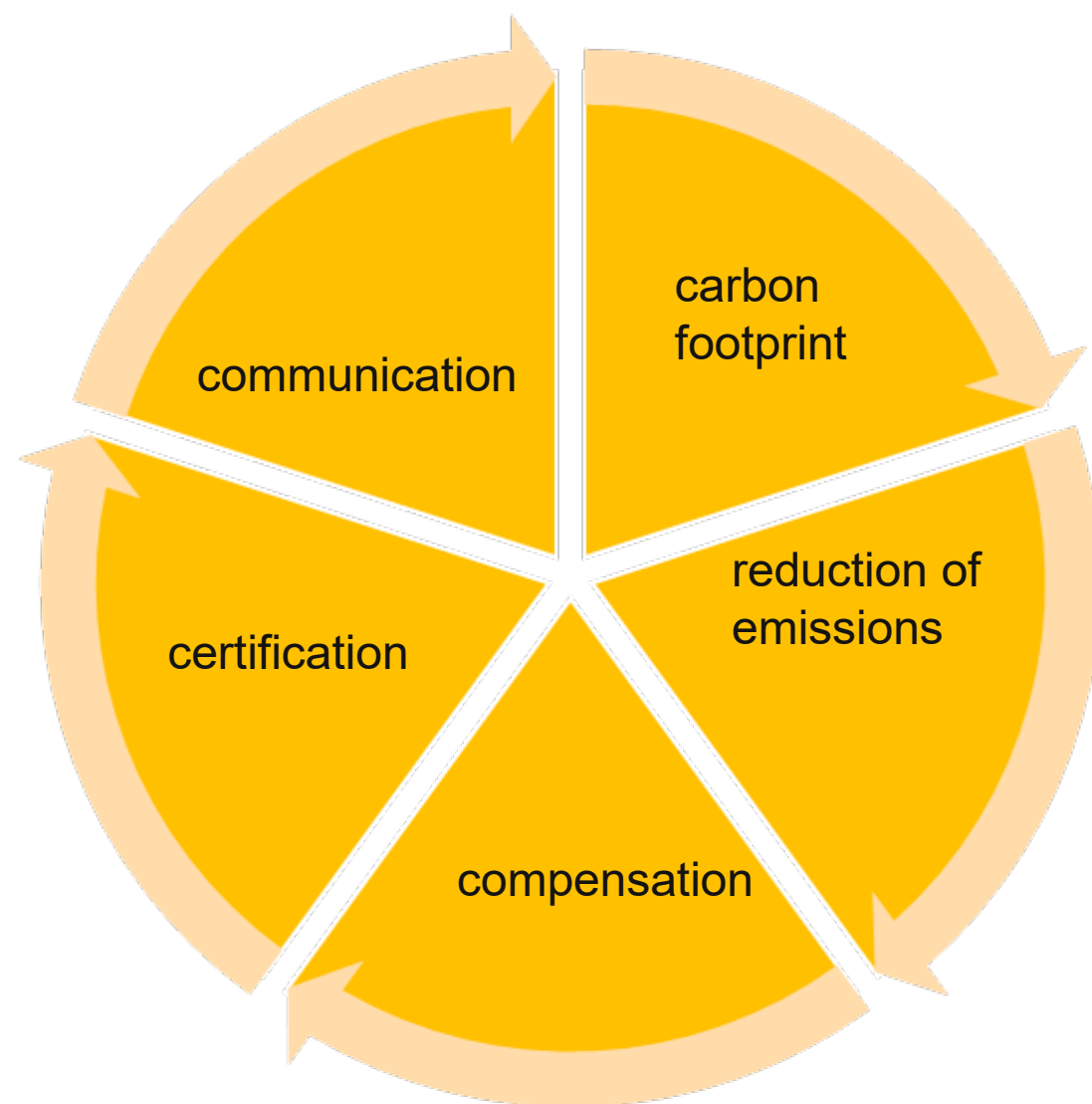


**SONNENALP**  
RESORT • SPA • GOLF

KLIMANEUTRAL



# ALLIANCE FOR A CLIMATE-NEUTRAL ALLGÄU 2030



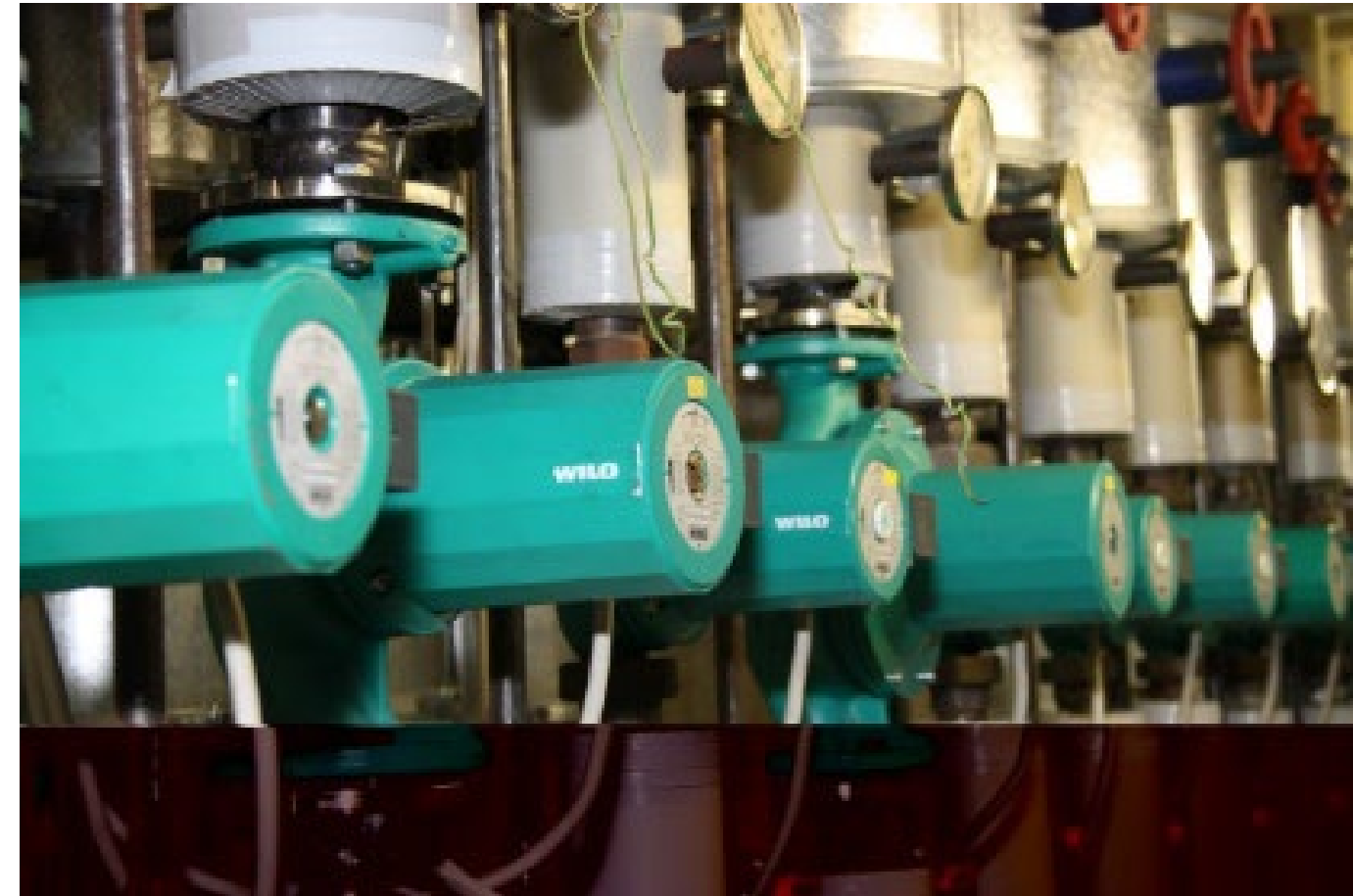


# COMPENSATION OF CO2-EMISSIONS

➤ international projects



➤ regional projects





# ADVERTISING (1)



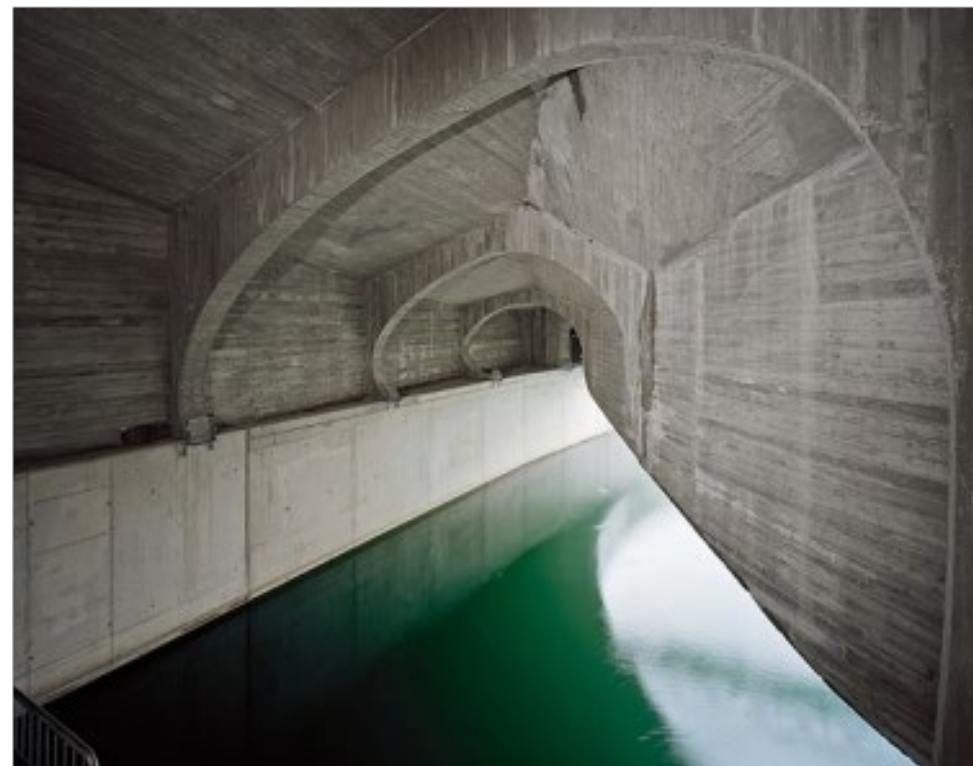
**Sie denken innovativ  
und nachhaltig?**  
**Werden Sie Allgäuer  
Klimaschutz-  
Unternehmen!**

Berichten Sie uns von Ihrem Engagement  
und Ihren Projekten zum Klimaschutz.

[> jetzt mitmachen](#)



## ADVERTISING (2)



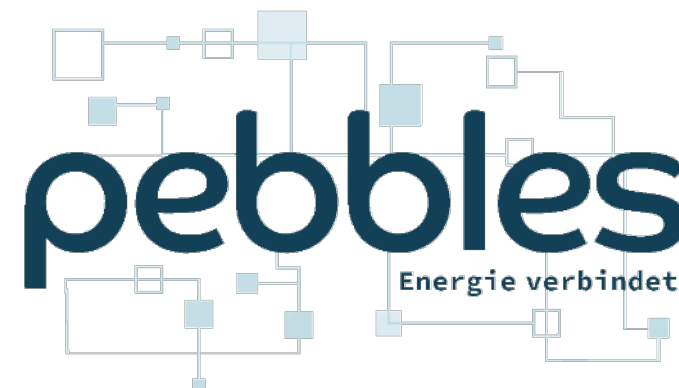
AÜW, Kempten



# WILDPOLD SRIED, THE ENERGY VILLAGE



**IRENE**  
**IREN2**



Vous êtes les bienvenus pour vous joindre à un groupe français qui visitera le village le **5 avril 2020!**





We DECIDE!

Developing Energy Communities  
through Informative and collective actions

ELEKTRIZITÄTSSWERK HINDELANG EG  
87641 Bad Hindelang

# HINDELANG VIA FERRATA 100%

(one of many options)

- energetic refurbishment of buildings with a refurbishment rate of 3% per year (>>> 362 of 1,206 buildings to low-energy standard 70 kWh/a\*m<sup>2</sup>)
- replacing all fossil vehicles with electric vehicles
- expansion of energy production:
  - photovoltaics 2,6 > 15 GWh/a
  - solar thermal 2,0 > 2,6 GWh/a
  - environmental heat 2,3 > 31 GWh/a (309 buldings with heat pumps)
  - hydro power 19 > 23,5 GWh/a
  - wind power 0 > 4,5 GWh/a (2 wind mills á 2,5 MW)
  - biomass / biogas 35 > 35 GWh/a
  - transiton from natural gas to hydrogen



# KRAFTWERK ÄLPELE: MALÉDICTION OU BÉNÉDICTION?

9,0 GWh needed ...

4,5 GWh from hydro station?





# WE NEED TO DECIDE





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**MERCI POUR VOTRE ATTENTION**  
**THANK YOU FOR YOUR ATTENTION**



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