

Green Heat for the Municipality

decentralised – regenerative – co-operative

Municipal Heat Planning
permanently cheap and save
with en-solution

A common welfare
consulting project of
CoopGo.consulting eG



Harald Lesch

(* 28. Juli 1960 in Gießen) ist ein deutscher Astrophysiker, Naturphilosoph, Wissenschaftsjournalist, Fernsehmoderator und Hörbuchsprecher.

Er ist Professor für Physik an der Ludwig-Maximilians-Universität München und Lehrbeauftragter für Naturphilosophie an der Hochschule für Philosophie München.

»Es ist für mich ein völliges Rätsel, dass in einer Industrienation wie Deutschland es nicht klar kommuniziert wird, was es für eine herausragende Chance für die Industrie ist, jetzt diese Energiewende richtig anzutreiben!«

W e m e z e

It is a total mystery to me in an industrial nation like Germany not to communicate clearly what an outstanding opportunity it is for the industry to really drive this energy transition now
Prof. Harald Lesch, Astrophysicist

The Use of Energy Changed over Time

- First crafters followed the Energy
 - A miller worked by the water and a charcoal burner in the forest
- With fossil sources energy became mobile
 - Industries raised everywhere and still exhaust their own resources
- **Regenerative energy everyone can use everywhere**
 - **Our economy urgently needs to use this advantage for technological leadership and low-cost production**



Municipal Heat Planning is The Future Task

Get the chances out of the upcoming German law:

- **Co-operation as a base:** Only together the energy change will work
- **Security for the citizens:** Always enough heat on demand
- **Efficiency with local businesses :** Intelligent use of energy as a site advantage
- **Cost cutting:** Co-operation in energy management keeps prices stable
- **Funded Planning:** Investment now is **urgent: 90% subsidy until 31.12.23 !**



In Cooperation with the Local Industries

Become successful at municipal level:

- Harvest green energy from sun and wind on local level
- Make the local business your energy production partner
- Realise cooperative hydrogen storage solutions
- Use heat from local industries for municipal purposes
- Link energy solutions for SMEs with civilian heat demand



Questions from Local Business to the Municipality:

How will the municipality support my business energy needs?

Why change to local green energy?

Who will burden the different investment costs?

Which technique is ready to market and usable?

Which chances offers an energy partnership?



en-solution got the Answers:

Industrial Plants will produce energy for themselves and others

Cooperative storages supply electric and thermal power on demand

The entire waste heat potential is available for municipal use

Municipal investments are complemented by commercial ones

Municipal heat planning becomes a municipal site advantage

Uncertain ongoing costs become plannable investments



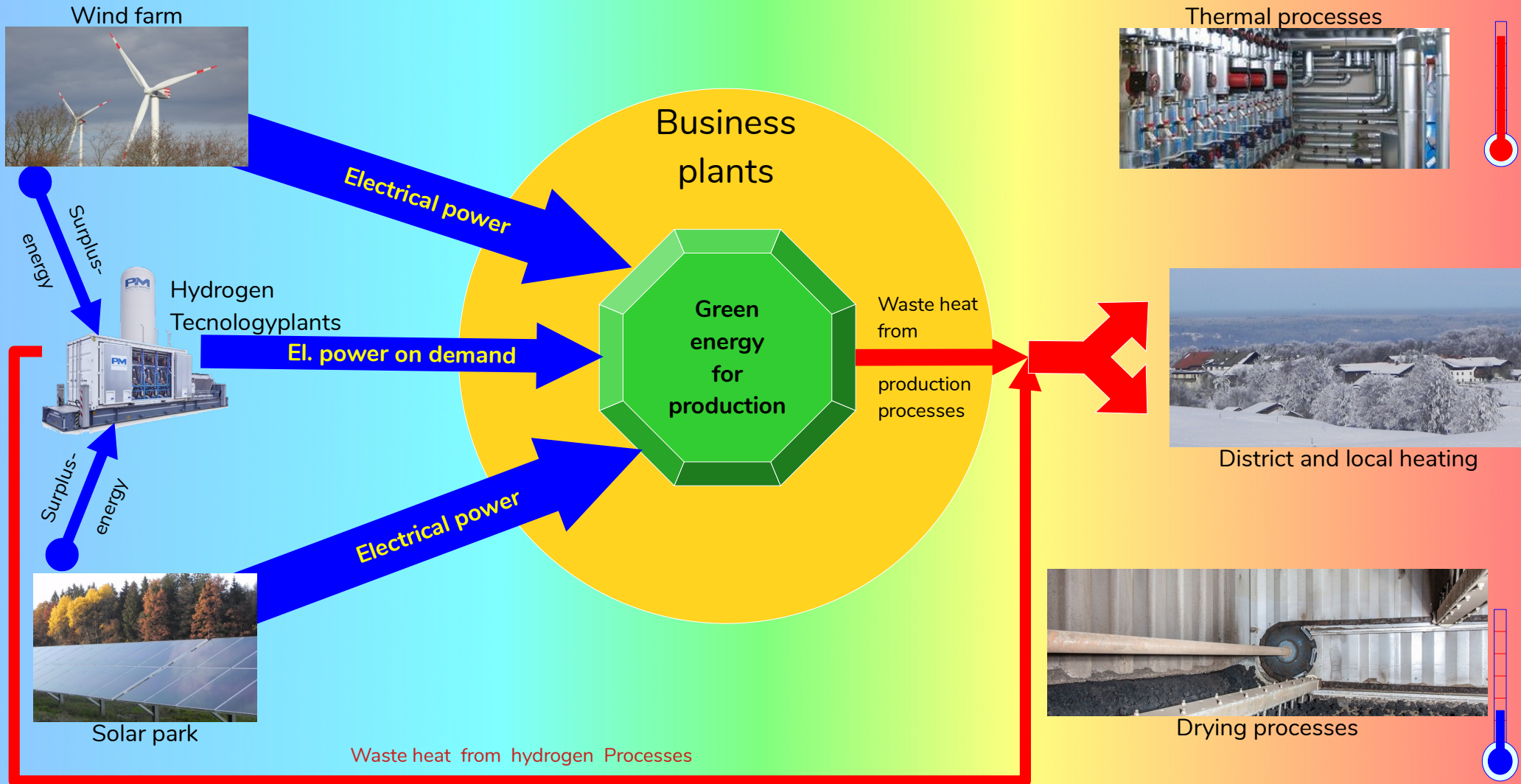
The Solution in a Nutshell:

en-solution Integrates Production and Use of Energy

Harvest green energy

Produce with green energy











Use waste heat efficiently



Green energy save and cheap with
en-solution

en-solution, the blue print for cooperative solution

CoopGo.consulting supports you with project services:

	Businesses as energy producer	Co-operative as logistic hub	Municipalities as heat users
<p>Analysis</p> <p>Who delivers/needs? Which kind of energy? Where are lacks?</p>			
<p>Planning</p> <p>Quantity structure Necessary facilities Co-operative organisation</p>			
<p>Implementation</p> <p>Control of tender and bids Organisation of deployment Monitoring start of operation</p>			

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How CoopGo.consulting supports your Municipality

Local producers

Energy cooperative

Municipal services

Coordination of production



Municipal services



Plants



Civil cooperatives



Building the structure of the municipal/private based energy cooperative

for the operation of:

Redox-batterie storage
Hydrogen components
Closed power grids
Logistics of heat and H₂



Members (businesses) deliver and use locally produced energy



H₂ for mobility of municipal services

Municipal heat planning



District heating



Sludge drying



Local heat for Residential and office buildings

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Examples from European Municipalities:

Sønderborg (DK)

ProjectZero:

- From 2007 to 2029
 - Local businesses deliver heat, e.g Danfoss, local super markets...
 - Municipality planned/built sustainable quarter
 - District heat planning for whole municipality with heat pump + industrial waste heat in progress

<https://www.projectzero2029.dk/en/>

Flensburg (D)

District Heating:

- From 1969 to 2030
 - Today >90% linked to district heating
 - Up to 2025 conversion to large heat pump
 - Inclusion of industrial waste heat
 - CO₂ neutral heating soon reality

<https://www.zfk.de/energie/waerme/stadtwerke-flensburg-bauen-gwp-bis-2025-klimaneutralitaet-grosswaermepumpe>

Haßfurt (D)

Renewable Energies:

- Local Heat and H2
 - Local power need sourced from 111% renewables
 - Batteries + Hydrolyseur for use of surplus power
 - Various local heating networks for settlements and municipal needs

<https://www.stwhas.de/>

The Benefits of **en-solution**

For all Stakeholders

- **Stabilises** the power grids (load balancing)
- **Opens up** heat capacities
- **Minimises** the ecological foot print (climate!)
- **Saves** money and resources
- **Reduces** political and technical dependencies

For the Industrial Partners

- **Lowers** energy costs down to minimum
- **Strengthens** resilience by own energy production
- **Leads to** independence from monopolistic structures
- **Brings down** your CO₂-footprint near zero
- **Saves** costs by a
stable investment instead of rising prices

For the Municipality

- **Saves** reliable **green** power and heat supply for your municipality
- **Supports** planning, tender and bid management independently
- **Increases** the attractiveness of your town for citizens and businesses
- **Simplifies** and speeds up municipal heat planning
- **Drives** the transition to energetic cyclic economy

Who is responsible for **en-solution**?



Bodo Frommelt

- Jobs: Project manager with experience in planning and leadership (> 30 years of experience)
 - Subjects: IT, digitisation, process design, regenerative use of energy
 - Focal points: Link between humans, nature and technique, cooperation and creativity
 - Education: Study of forest sciences and economics; additional training of informatics and project management (LMU Munich, ETH Zurich, FU Hagen)
 - Degrees: Diploma forester (Uni) and postgraduate economics)
 - Academic activities: Researcher at Bavarian Forest Research Institute; Lecturer at TH Rosenheim (Informatics)
- Looking for a balance of ecology and economics to save our environment in a world of limited resources.



Alexander Demmer

- Jobs: executive manager, external consultant, IT- and lean management expert (> 30 years of experience)
- Subjects: Process enhancements, IT best practices, business transformation, business development
- Focal points: Digital transformation, company mergers, digitalisation of SMEs
- Soft Skills: Leading multinational teams, five languages (RO,D,F,UK,I),
- Degree: Business informatics (Uni Saarbrücken)

Well-connected personality with strong interpersonal and social skills. He wants to promote excellence in the SME sector.

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