

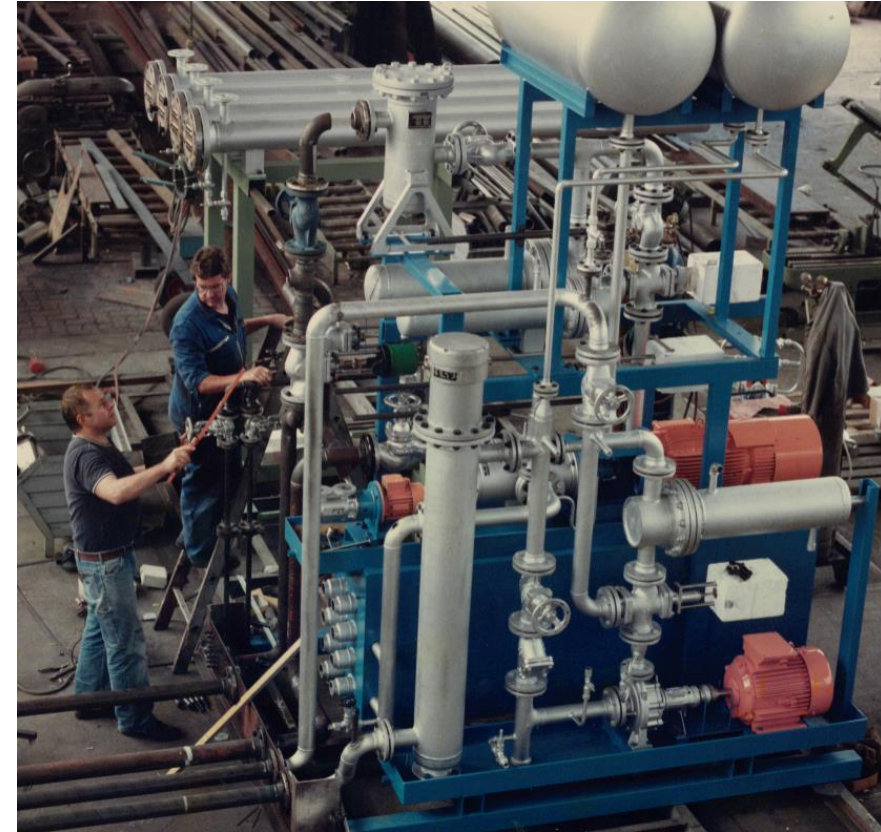
Optimised integration of process heat in industrial environments

Patric Burkhardt,
Managing Director | Aura GmbH & Co. KG



About AURA

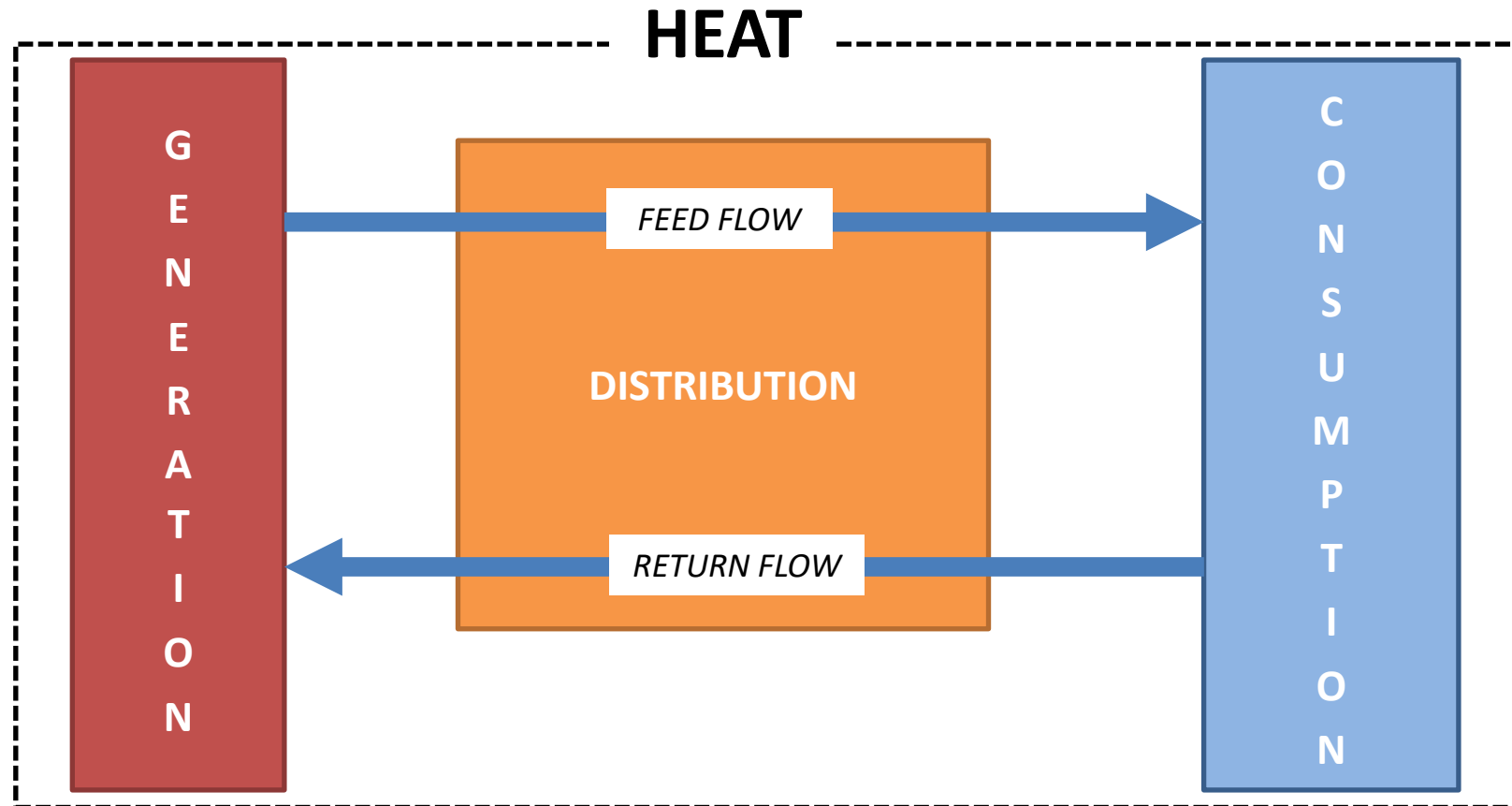
- Family owned company founded in 1982
- Sole focus on process heating system
- International footprint with subsidiary company in Beijing - China
- More than 5000 project successfully implemented
- Full service provider which includes...
project management, design,
production, trouble-shooting,
service and spare part management



Some AURA Reference Pictures



Balance of Plant ... or “Keep Balance of Supply and Demand”



Balance of Plant ... will bridge both perspectives

G
E
N
E
R
A
T
I
O
N

Specification

- Country of Installation
- Temperature / Pressure
- Heat transfer Medium
- Heat Medium content
- Flow
- Installation height
- Height difference between heat generation and consumption

Specification

- Process specification (e.g. cooling, heating cycles)
- Amount of Consumer
- Consumer medium
- Flow
- Delta T
- Max. Power
- Max. Temperature

C
O
N
S
U
M
P
T
I
O
N

Balance of Plant ...

answers the specifications of heat generator

G
E
N
E
R
A
T
I
O
N

Specification

- Country of Installation
- Temperature / Pressure
- Heat transfer Medium
- Heat Medium content
- Flow
- Installation height
- Height difference between heat generation and consumption

Safe operation and process performance

- Local legal binding safety directives to be considered. E.g. EU:
- Pressure equipment Directive (2014/68/EU)
 - Machinery Directive (2006/42/EU)
 - Organic Heat Transfer Safety Requirement (DIN4754)

Balance of Plant ...

answers the specifications of heat generator

GENERATION

Specification

- Country of Installation
- Temperature / Pressure
- Heat transfer Medium
- Heat Medium content
- Flow
- Installation height
- Height difference and distance between heat generation and consumption

Safe operation and process performance

- Film temperature calculation
- Minimum flow calculation
- Thermal content calculation
- Heat loss calculation
- Pressure drop calculation
- Material strength calculation
- Safety valve calculation
- Consider chemical properties of heat medium

Balance of Plant ...

answers the specifications of heat consumer

Safe operation and process performance

- Design of safety concept
- Design of control concept and selection of control valves (3-way, or Globe valve)
- Design and selection of pumps
- Design of cooler (tube bundle, plate, cooling medium ...)

Specification

- Process specification (e.g. cooling, heating cycles)
- Amount of Consumer
- Consumer medium
- Flow
- Delta T
- Max. Power
- Max. Temperature

C
O
N
S
U
M
P
T
I
O
N

Project Modulus - Modulare Leistungsübergabestation

Modular BoP

The aim of the joint project is to simplify the integration of solar heat into industrial process heat systems by developing and testing a standardised, modular interface.

Partners

Deutsches Zentrum für Luft- und Raumfahrt e.V.

Partner AURA GmbH & Co. KG

Industrial Solar GmbH

Protarget AG

Solarlite CSP Technology GmbH

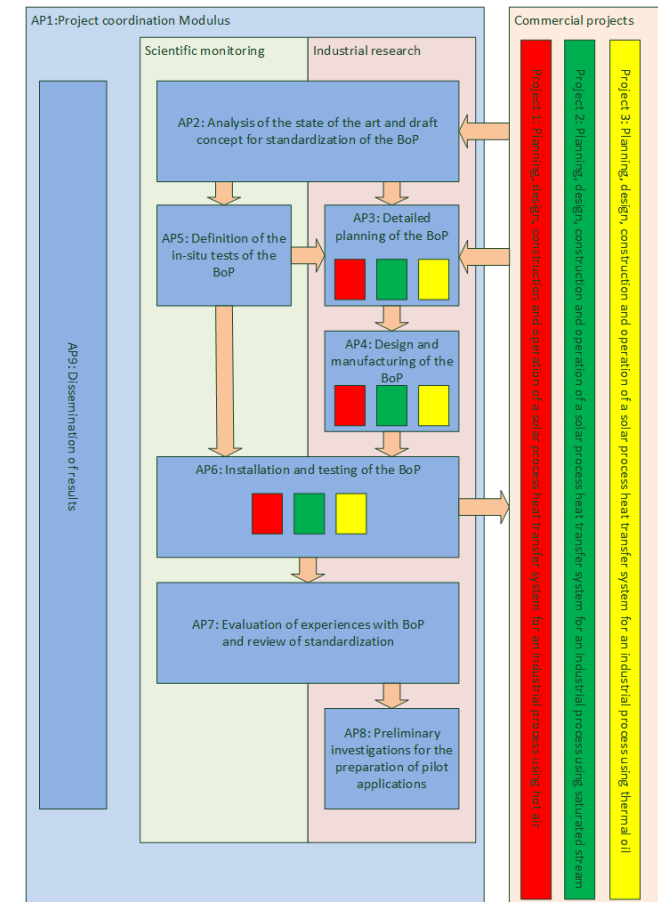
Fraunhofer-Institut für Solare Energiesysteme

Gefördert durch:



Bundesministerium
für Wirtschaft
und Energie

aufgrund eines Beschlusses
des Deutschen Bundestages



Contact us

+49-7274-7006-8110
sales@auragmbh.com
www.auragmbh.com

Follow us:

[LinkedIn](#)



[YouTube](#)