

**badenova**

*Energie. Tag für Tag*



# RegioWIN „Smart-Industrie“

Ettlingen, 5. July 2016

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Business Development  
and Innovation

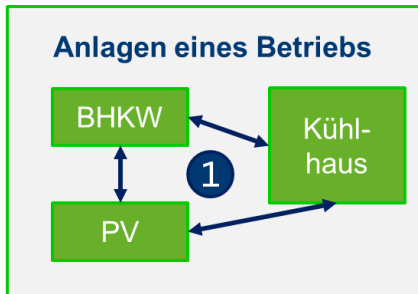


# The German Energiewende is driven by many - example Green Industry Park Freiburg



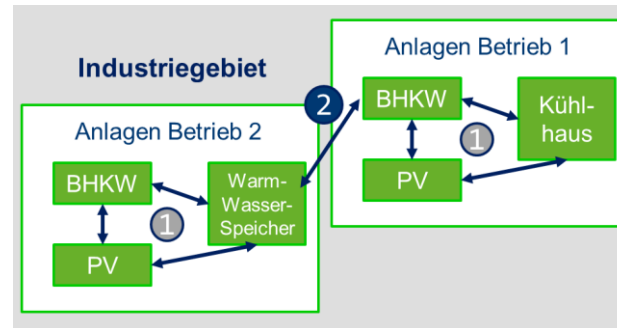
- 1 PV-Anlage, Biokohle, Besucherzentrum Eichelbuck  
ASF Solar / badenova AG
- 2 Biogasanlage  
RETERRA Freiburg GmbH
- 3 BHKW zur Nahwärmeversorgung Landwasser  
Badenova AG & Co. KG
- 4 Pelletkessel mit Absorber Kältemaschine & Energie Management System  
Pfizer Manufacturing Deutschland GmbH
- 5 E-Mobilität  
IKEA Deutschland GmbH & Co. KG
- 6 Wasserstofftankstelle  
Smart2Grid (BHKWs)
- 7 Elektrolyseur - Power to Gas (geplant)
- 8 Fraunhofer ISE
- 9 Technologie- und Dienstleistungszentrum für Erneuerbare Energien  
Solar Info Center
- 10 Solaranlage Messe Freiburg  
FWTM GmbH & Co. KG
- 11 Solaranlage St. Gabriel  
ASF Solar
- 12 Gas- und Dampfturbinenanlage  
Wärmeverbundkraftwerk Freiburg GmbH
- 13 Strom aus Abwasser (geplant)  
IMTEK/Solvay Acetow GmbH
- 14 Erweiterung Technische Fakultät (geplant)  
Albert-Ludwigs-Universität Freiburg
- 15 BHKW (Strom, Wärme, Kälte)  
Micronas GmbH

# Goal of the project: a network of partner for joint innovation and implementation and shared experience



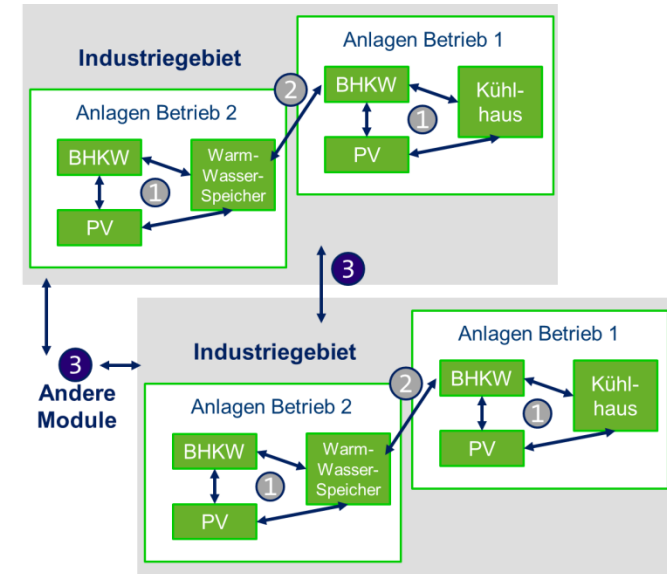
## Networking in the Building:

- Climate control
- High temperature heat pumps
- Thermo electric Elements
- Building monitoring
- Security and Safety



## Networking between Buildings

- WAN Networking (GPRS, SCADA)
- Secure wireless network to combine smart devices
- Distribution of Energy
- Cooperation of Energy usage
- Enable cloud based solution
- Mobile electric and thermal storages (heat-taxi)




## Networking between Areas

- Combination with other projects in the Region
- Cooperation in development between partners

50 efficiency-partners, 15 innovative partners, 3 industrial areas

# Everybody likes the innovative project idea, but

## Time frame doesn't fit with innovation

2013		2014		2015		2016	
17.6.2013 Kick-Off P1	31.10.2013 Concept P1	13.2.2014 Kick-Off P2	30.9.2014 Concept P2	25.2.2015 Kick Off Consultations	18.11.2015 Last Consultation	22.1.2016 Final Proposals	
		12.2014 „Yes, we won!“					
50 partners		25 partners, 1 Mio. € o. f.		15 partners, 0.5 Mio. € own funds		20 partners, 0.6 Mio. € o. f.	

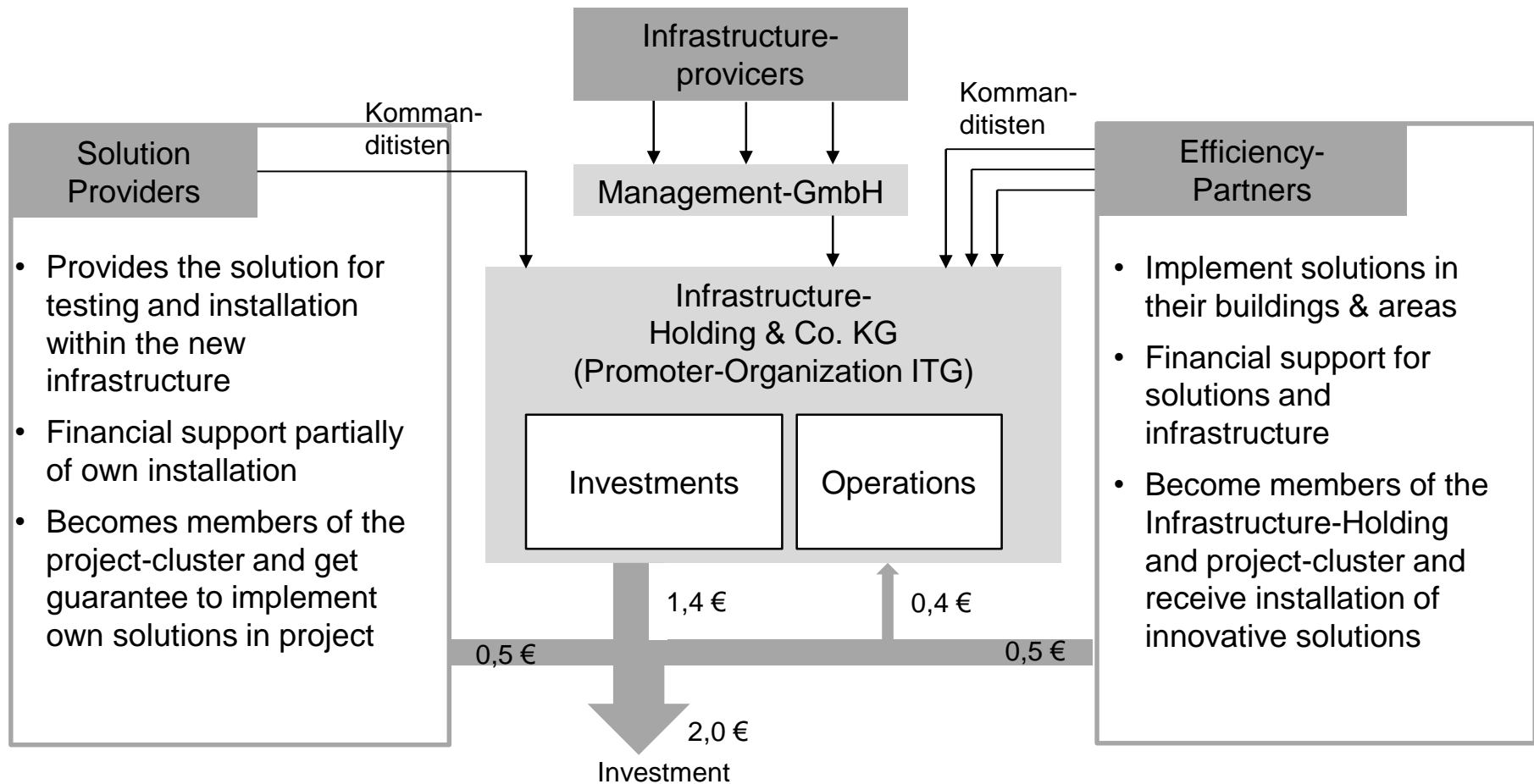
- Cost of proposal: 100 T€ external Consultants, at least 200 T€ internal hours
- Due to regulatory framework the project had to be split up into 4 different funding-regimes resulting in 5 final project proposals
- More than 3 Mio. € is granted for investment, 0 Mio. € is granted for project-coordination, selection of hardware and best “installation places”, and operation (at least a cluster-initiative has been funded)
- A new and independent company had to be created, therefore usage of partner structures and resources is limited (e.g. Innovationsfonds, personnel, IT)

# Annex

# Due to regulatory framework the project had to be split up in 4 different funding-regimes

Innovation	Know-How Pool	Consulting	Implementation
<ul style="list-style-type: none"><li>■ Development of innovations to be implemented in 1 – 3 year</li><li>■ Combination of innovation power of all end-users</li><li>■ Budget 1,8 Mio. €</li></ul>	<ul style="list-style-type: none"><li>■ Promotes exchange of know-how between the participants</li><li>■ Workshops, Meetings and visitor Forums</li><li>■ Budget 0,6 Mio. €</li></ul>	<ul style="list-style-type: none"><li>■ Consultation on the implementation of new applications</li><li>■ Definition of targets for Investments</li><li>■ Funds requested</li></ul>	<ul style="list-style-type: none"><li>■ Investment for technical solution and innovative infrastructure</li><li>■ Low risk through joint implementation and support</li><li>■ Budget 4,4 Mio. €</li></ul>
Research	Cluster-Initiative	Target Applications	Infrastructure-Holding

# Funding Process of Project (by EU), managed by Infrastruktur-Holding ITG



To each EUR of the partner 1 Euro from RegioWIN-funds will be added  
(funds are granted for investment only, operation has to be fully funded by partners)