

# Energieversorgungslösungen auf Quartiersebene

**SWITCHING FORM BUILDING TO DISTRICT LEVEL**

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- Teilnehmer
- Aufgabenstellung
- Ergebnisse



Picture Source: © Markus Pernthaler Architekten

# BACKGROUND

- WEC YEP Cycle #1 2015 – 2018
- Weiterentwicklung von der Gebäudeebene zu Quartier



Picture Source: © Markus Pernthaler Architekten | © Nussmüller Architekten

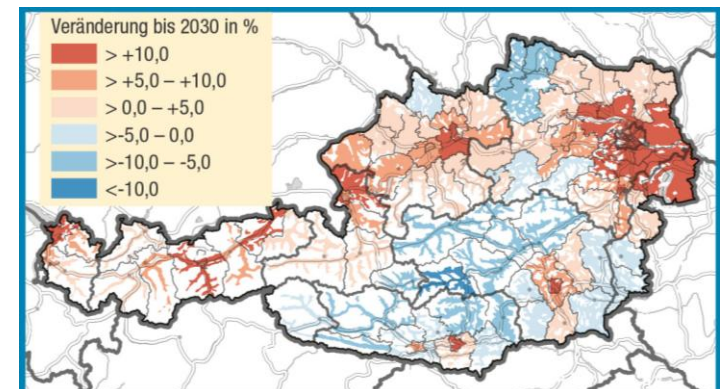
# Teilnehmer

- Momir Tabakovic | 1. contact person
- Benjamin Böckl | 2. contact person
- Herbert Hemis
- Daniel Nauschnegg
- Michael-Alexander Berger
- Johannes Wall



# INITIAL SITUATION

- Megatrend Urbanisierung
- Bedeutungszunahme Stadtquartiere
- Energieversorgung im Austausch (Energiewende, Elektrifizierung, Dezentralität, etc.)
- Beispiele und Technologien
- Stande der Umsetzung in Österreich



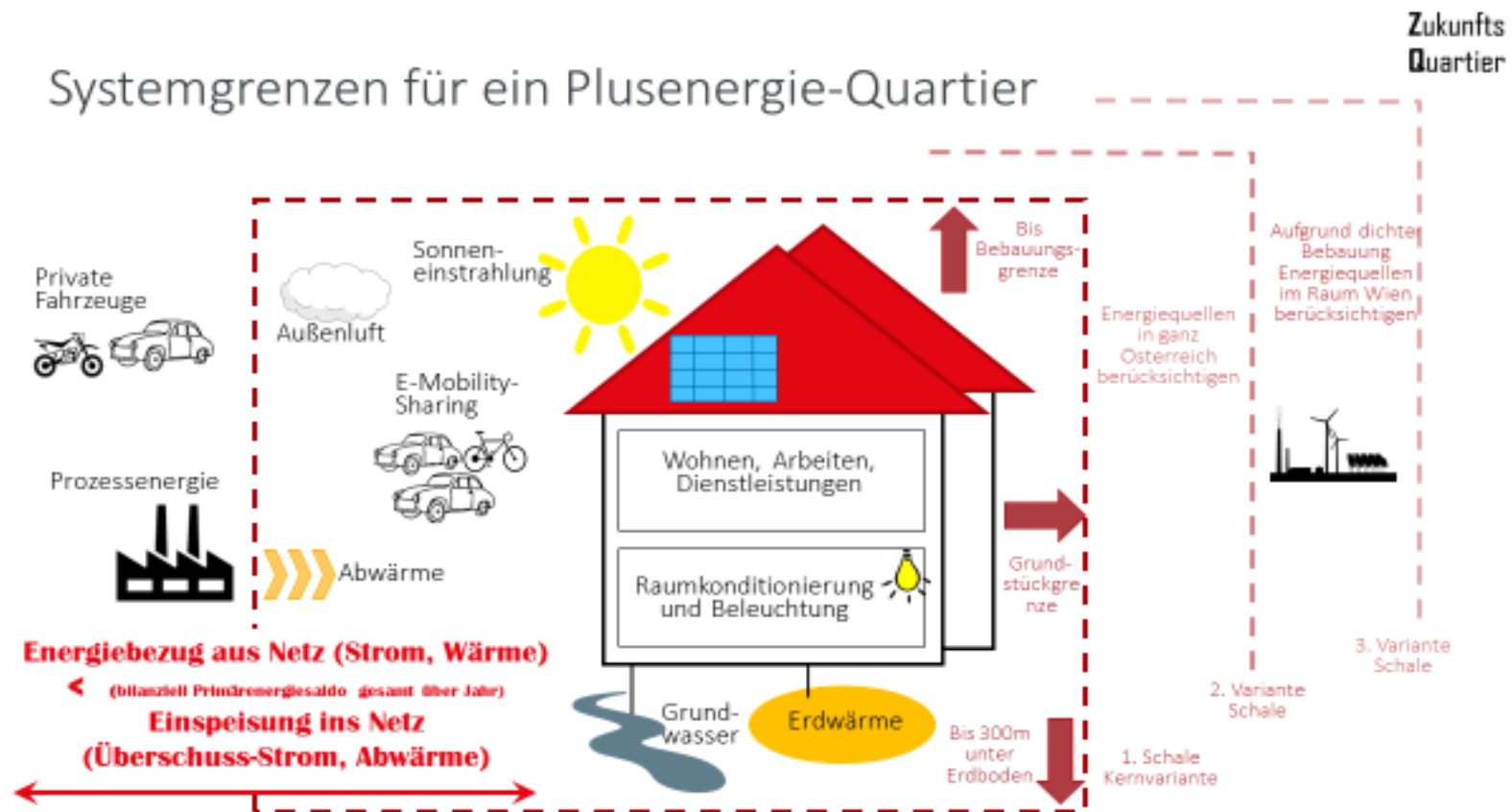
Source: VCÖ Factsheet 215-12 | Data: ÖROK 2014, Statistik Austria 2014

- Interdisziplinäre Betrachtung von Energieversorgungslösungen auf Quartiersebene
- Fokus auf Plusenergiequartiere – d.h. gebäudeübergreifende Energiekonzepte
- Vergleiche von versch. Länder/Regionen
- Empfehlungen

1. HINTERGRUND UND FOKUS
2. INTERNATIONALER UND NATIONALER KONTEXT
3. ENERGIEVERSORGUNGSLÖSUNGEN AUF QUARTIERSEBENE
4. AUSGEWÄHLTE PLUS ENERGIE QUARTIERE/ZUKUNFTSQUARTIERE
5. EMPFEHLUNGEN FÜR PLUS-ENERGIE QUARTIERE
  - 5.1. FÜR VERWALTUNG
  - 5.2. FÜR ENTWICKLER

# Definitionen

Die vorgeschlagenen Systemgrenzen für ein Plusenergie-Quartier im Projekt Zukunftsquartier (FFG) umfasst 3 Schalen



**WORLD  
ENERGY  
COUNCIL** | **AUSTRIA  
YOUNG  
ENERGY  
PROFESSIONALS**



# Empfehlungen für Plus- Energie Quartiere – Für die Entwickler (Auszug)

- Die Anforderungen der Energieraumplanung ganzheitlich zu denken und umzusetzen
- Nicht zu vergessen gilt es die zukünftigen Bewohner, Nutzer und Anrainer des zu entwickelnden Quartiers
- Frühzeitig Variantenstudien zur optimalen Versorgung und Steuerung aller energietechnischer Komponenten vorzunehmen
- Bedarf es geeigneter Geschäftsmodelle mit umfassender rechtlicher Grundlage und Absicherung

# Empfehlungen für Plus- Energie Quartiere – Für die Verwaltung(Auszug)

- Öffentlichen Verwaltung Anreize zu schaffen und begleitende Fördermaßnahmen, welche diesen Prozess unterstützen
- Planungsverfahren gebäudeübergreifende Energiekonzepte einzufordern und die Mindestinhalte zu definieren. Dies kann auch über diverse vertragliche Lösungen (z.B. städtebauliche Verträge) fixiert werden
- Anwendung von Siedlungsbewertungssystemen
- Ein neues Rollenverständnis zwischen der öffentlichen Verwaltung und den Energieversorgungsunternehmen sowie Projektentwicklern

# Thank you

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# GROUP MEMBERS

## **Ing. Momir Tabakovic PhD., MSc.,**

get his PhD. degree in Renewable Energy from the Technical University in Bratislava and his MSc. degree in Renewable Energy from the University of Applied Sciences(UAS) Technikum Wien. He is researcher and lecture at the University of Applied Sciences Technikum Wien in the field of renewable energy, especially in the field of Building-integrated photovoltaics, thermoelectricity and smart city.

He is a member of the Austrian Photovoltaics Technology Platform. For several years he is member of the World energy council and the International and European Thermoelectricity Society. Within the European project Dem4BiPV (Development of innovative educational material for Building-integrated Photovoltaics) he is responsible for the integration of BIPV course in the master program at the university AS Technikum Wien. He is also leading national and international smart city and building projects that deals, especially with the integration of Photovoltaics in the building skin.

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# GROUP MEMBERS

## **Dipl.-Ing. Daniel Nauschnegg**

has a degree in energy technology and successfully completed his business studies at the university of applied sciences in Krems. He is a energy autonomy coach and consultant for renewable energy.

Since 2011 he is CEO of an electrical installations company specializing on photovoltaics and energy storage. Since 2014 he operates an engineering office on energy coaching, education and training.

Since 2017 he is member of the Austrian Standards committee 235 on economic energy usage in buildings. Furthermore he is contributing to the OVE – Austrian Electrotechnical Association – working group on photovoltaics and storage systems. He is also member of the federal guild of electricians.

# GROUP MEMBERS

## **DDipl.-Ing. Dr.techn. Johannes Wall BSc.**

studied structural engineering and economic engineering at the University of Technology of Graz and the University of Calgary in Canada. His theses dealt with pump storage power plants and hydropower energy payback ratios, performing a life cycle assessment. His PhD thesis was on “Life-cycle orientated Modelling of Planning, Tendering and Awarding Processes” focusing on the consideration of sustainability aspects in planning and project management processes.

Until 2017 he was an university project assistant and doctoral candidate at the Institute of construction management and economics at Graz University of Technology. Since 2018 he is responsible for sustainable building at the Ed. Züblin AG in Frankfurt.

Johannes Wall is a regular contributor to several working groups including the IG Lebenszyklus. Furthermore he is author and co-author of several national and international publications in the field of the life cycle orientated building project management.