

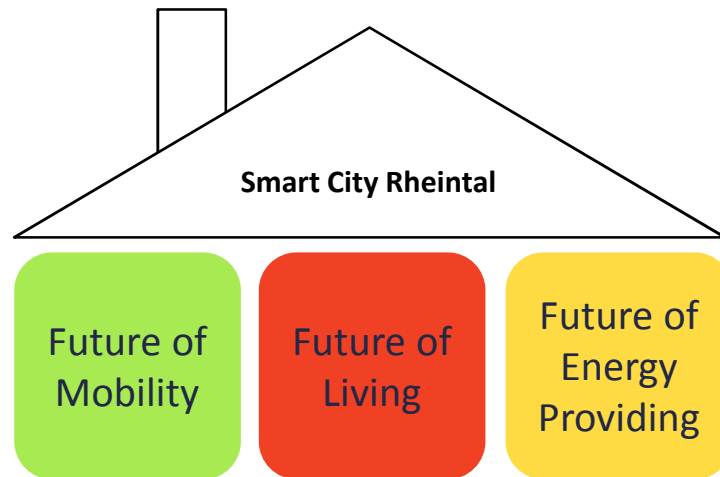
smart city  
rheintal



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# Smart City Rheintal

*The Smart City in the Lake Constance Region*



Initiated by **illwerke vkw**

Privatised Energy Provider

Operates 10 Hydro Power Plants incl. electricity infrastructure

Initiator of **VLOTTE**

Project partners



Funded by



FFG

Austrian Federal Funding Agency

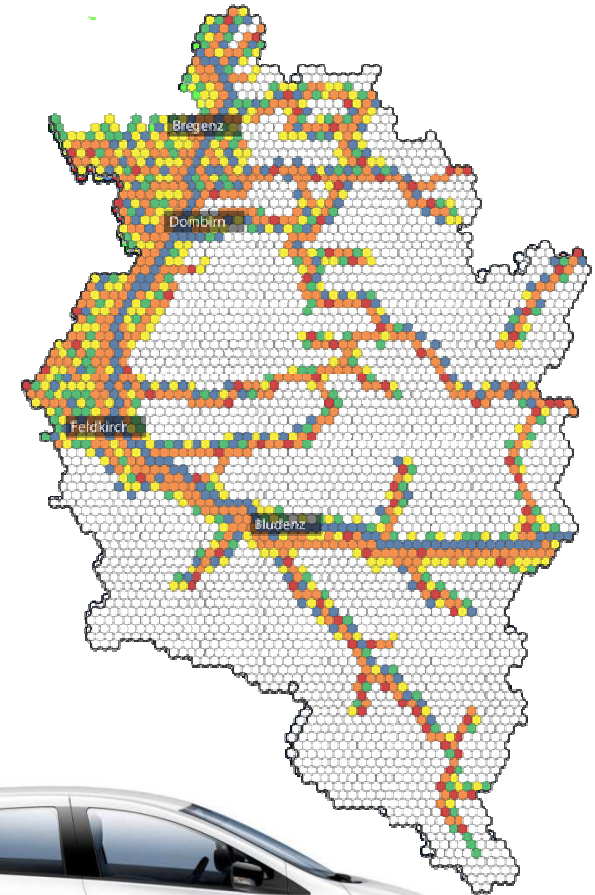


Climate Fonds Austria

# Future of Mobility



- Over **400** EVs today, **122** charging stations, **3** fast charging stations
- Aim, Vision & characteristics
  - MoD systems in (new) districts to reduce the CO2 emission
  - MoD with Smart Grid (intelligent charging)
  - Multi-modal person transport (bus, train, rentable e-cars, e-bikes)
  - A suitable infrastructure (e.g. charging stations) for the Rheintal
  - Meaningful combination of electric mobility and bus, train and bike



Fast Charging Station



Charging Station



357 EVs until end of VLOTTE project (Dec. 2011)  
over 400 EVs today



# Future of Mobility

## *VKW Mobility Card*

- Free rides to try the latest e-cars
- Advices from mobility experts
- Exclusive mobility event invitations
- VKW mobility discounts for the purchase of a new e-car
- Availability of the GPS Tracking System



**VKW Mobility Card**

# Future of Mobility

## *TCO Calculator & GPS Tracker*



### **GPS Tracker**

- Tracking individual driving habits
- To show which trips are also able to handle with a e-car
- Minimizes the fear about ranges



**GPS Tracker**

### **TCO Calculator**

- Calculation of individual driving habits
- Comparison of Total Costs for a gasoline engine and in contrast for an e-car



**TCO Calculator**

# Future of Mobility



## VKW-Solar Power "Share"

- Having the pre-emption for a VKW-Solar Power "Share" when purchasing VLOTTE Complete (E-Car + Public Charging + VVV Ticket)
- Producing own green electricity without having solar plants
- Pure solar energy
- 1m<sup>2</sup> solar cells in Vorarlberg produce the same amount of energy like 100l oil
- Profit from share

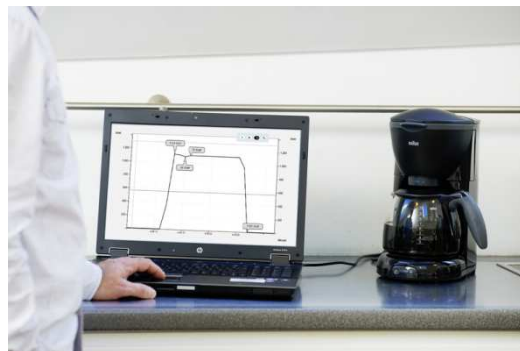


VKW-Solar Power "Share"



# Future of Living and Energy Providing

- Smart Grid: **500** Smart Meters now, **10.000** planned in one city alone
  - In cooperation with pilot project for Smart Metering: **VKW e'klar-Zähler**
- Integration of MoD Solutions in Smart Homes
- Virtual Power Plant, Interaction with Smart Homes
- Energy management system and monitoring
- Vehicle to Grid
- Awareness-raising



e'klar Meter



e'klar Zähler

# Construction projects



## Private Housing



Seequartier, Bregenz

## Public Building



Montforthaus, Feldkirch

## Public Building / Private Housing



In der Wirke, Hard

## Focus for citizens / inhabitants

- New mobility concepts
- Control of cost / energy consumption
- Increased safety
- Improved living comfort
- Practicability for everyday use incl. MoD solutions

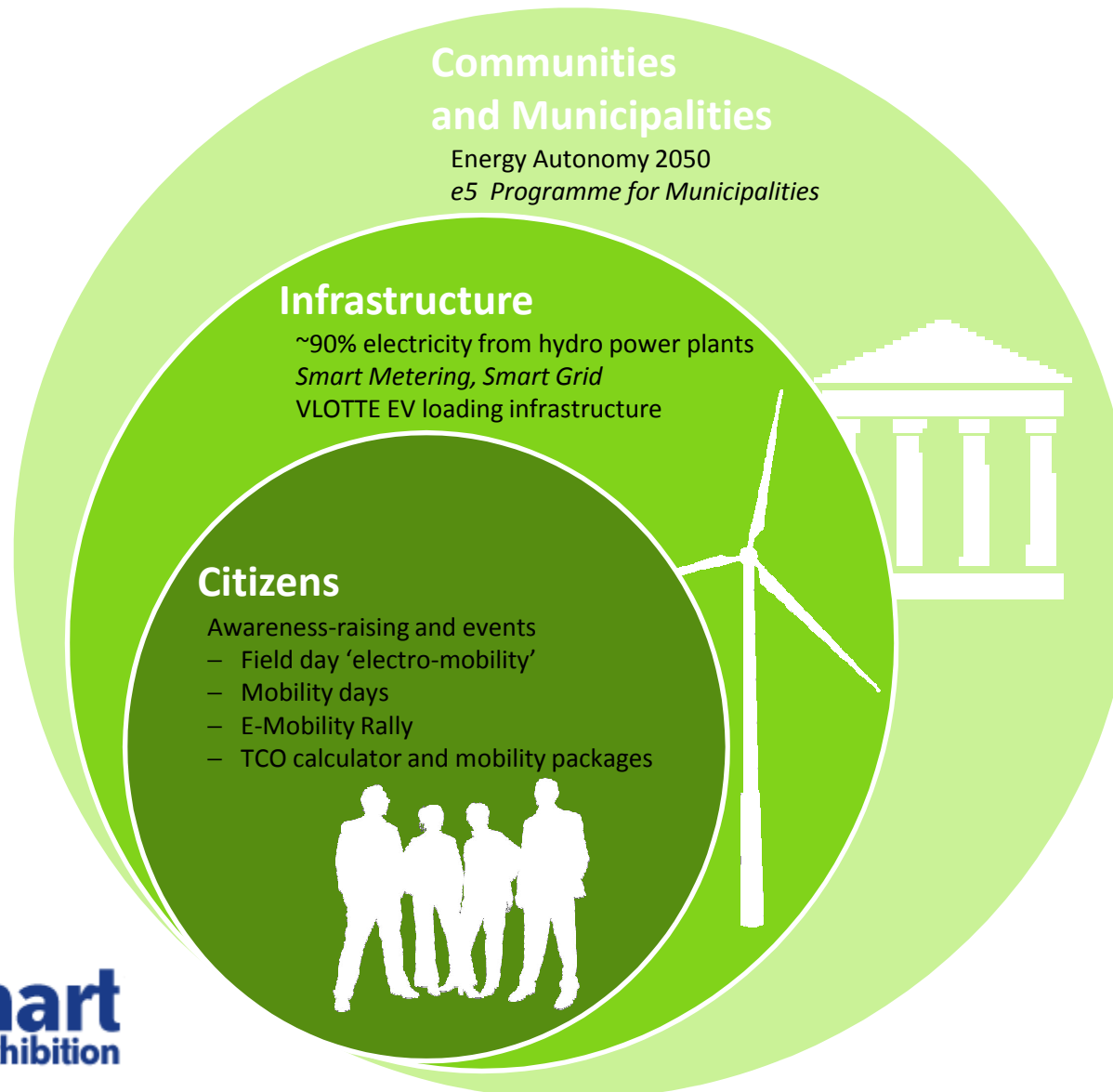




# Smart City Baseline



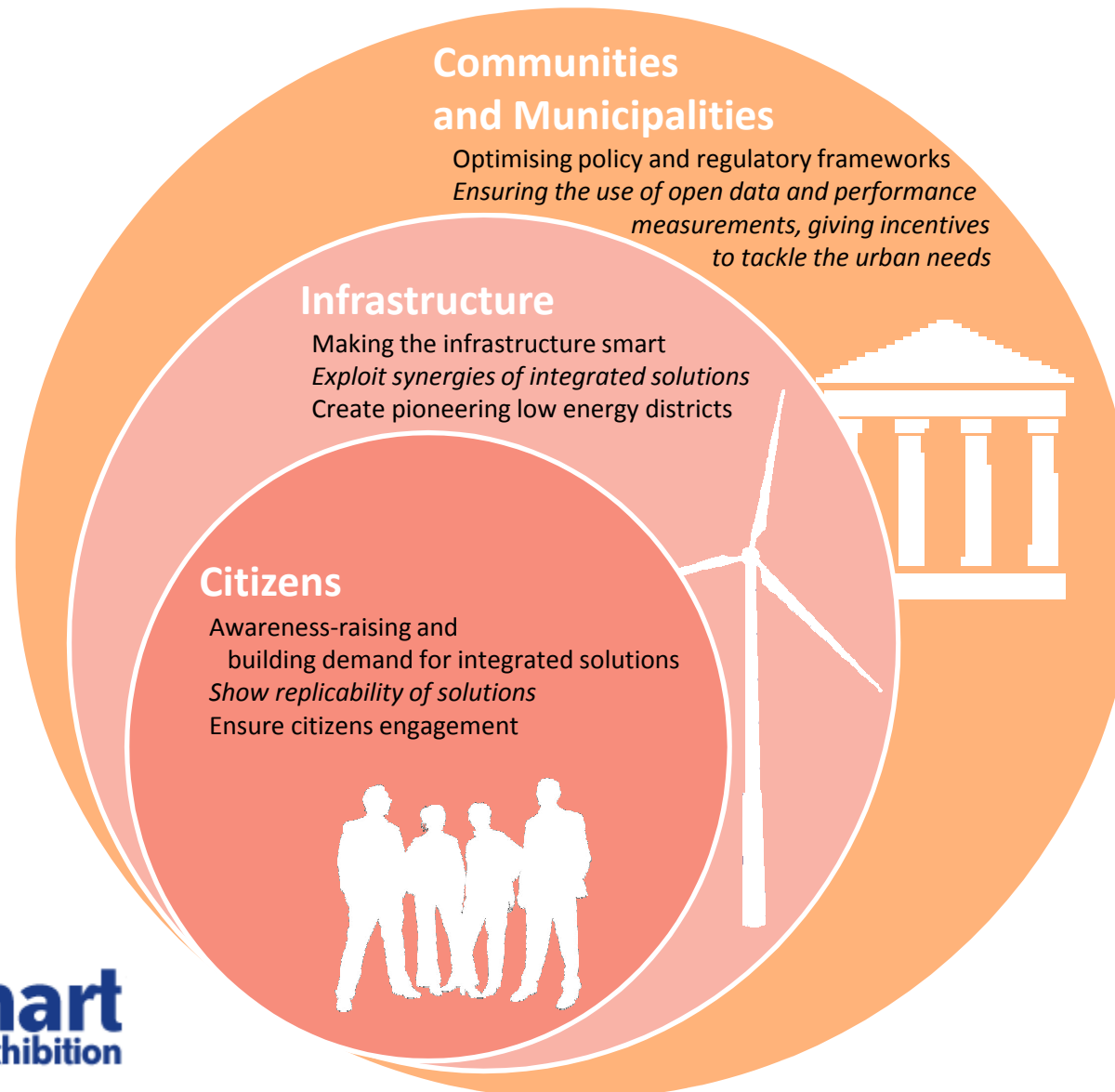
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# Future Challenges



smart city  
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**THANK YOU**

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