

SReg - Smart Region

First results of master plans in cities surrounding Vienna
(Baden, Mödling, Wr. Neudorf)

www.smartcities.at

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Content

- Introduction (SReg project)
- Method of approach
- Development of roadmaps
- Preliminary conclusions (incl. difficulties and setbacks)



SReg project

- Climate and Energy Fond
- **Smart city entry-level project** - involve preparatory work for future smart city demonstration projects and explore options for future implementation

- **Project partners:**

Energie- und Umweltagentur GmbH (coordinator)

Verein Energiepark Bruck /Leitha

TU Wien / Energy Economics Group EEG

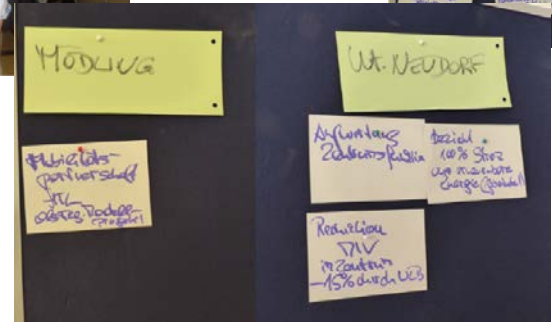
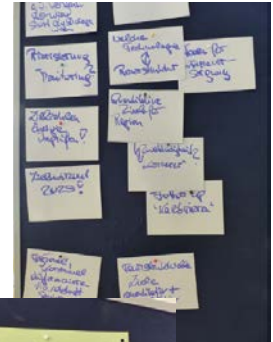
Municipalities: Baden, Mödling and Wr. Neudorf

Smart City / Smart Region Approach

- ... promote the links and interaction of cities with their surrounding
- ... ensure high life quality, prosperity, and securitylow use of energy and resources increasing use of RES
- ... new technologies (renewables, mobility, energy, building, etc.)
- ... integrate new resource benign and intelligent technologies (renewables, efficient energy- and mobility-technologies, ICT etc.)
- ... aims to change participatory processes (including stakeholder , citizen participation, etc.)
- ... treat challenges in the fields of mobility, energy, buildings, settlements, population, and economy comprehensively

SReg – Goals

- Basis for the future Smart-City-developments in the region
 - Visions, roadmap, action plan
 - Common strategy
- Cooperation
 - Stakeholders involvement
- Long-term goals
 - RES
 - GHG
 - Sustainable mobility
 - Energy efficiency
 - Reduction of energy consumption

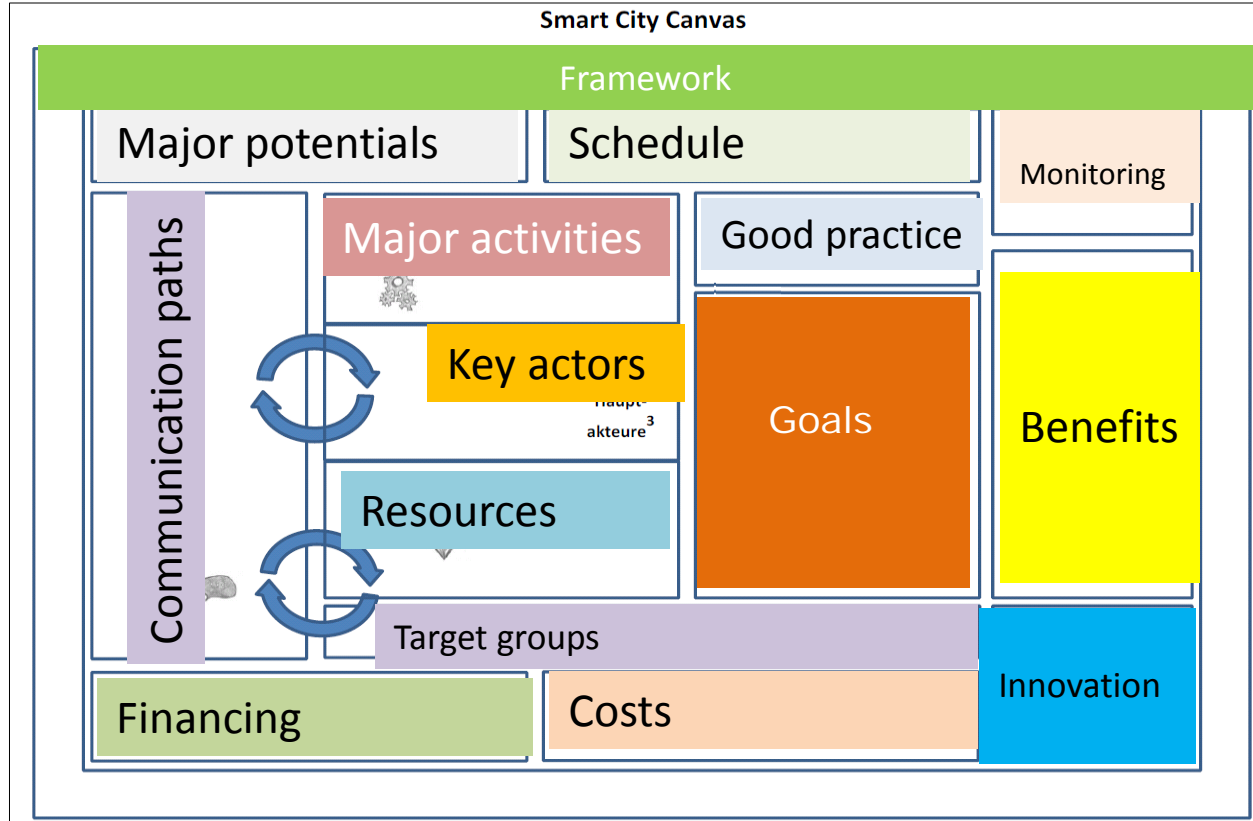


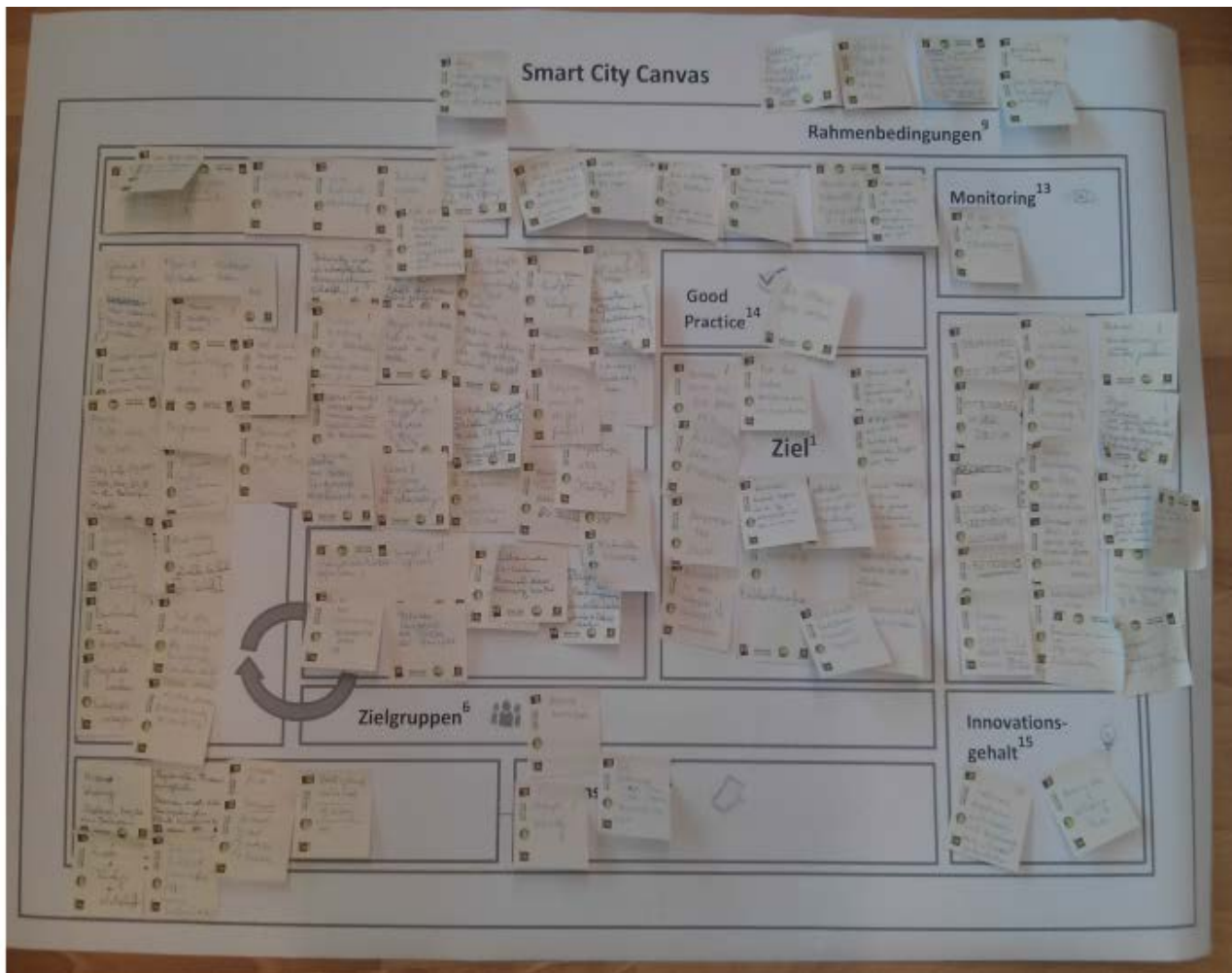


SReg – Method of approach

- Step 1: Development of the **Vision** for every participating municipality
 - Specific goals, common targets for a region, etc.
- Step 2: **Roadmap 2025**
 - Selection of the measures
- Step 3: **Action plan**
 - Short-term actions relevant for every municipality
- Step 4: **Demo-project**
 - Description of possible demo-projects

Smart City Canvas







Smart City/Region Vision

The most important factors in making urban region “smart” are:

- Increasing energy efficiency
- Increasing the share of renewables
- Reducing GHG emissions

... mobility: new modal split

... building redevelopment, passive buildings, improvement of public spaces, etc.

... energy: RES for electricity and heat



Smart City Measures -Deriving priorities

1. **Mobility** (public transport, parking management, cycling, e-mobility, car-sharing...)
2. **Buildings und public spaces** (city development, urban spaces...)
3. **Energy systems** (RES, infrastructure...)
4. **Communication, information und behavioral changes**



Smart City Measures - Mobility

Public transport

- Smart-City-Cards
- Smart payment systems (e-Ticketing, dynamic pricing models)
- Better passenger information, route planning and connections
- Better incident management planning

Parking management

- Expansion of P&R system

Pedestrian and bicycle traffic

- attractiveness of foot- and cycle-ways



Smart City Measures - Mobility

E-mobility

- Yes for some municipality vehicles, but not for private cars

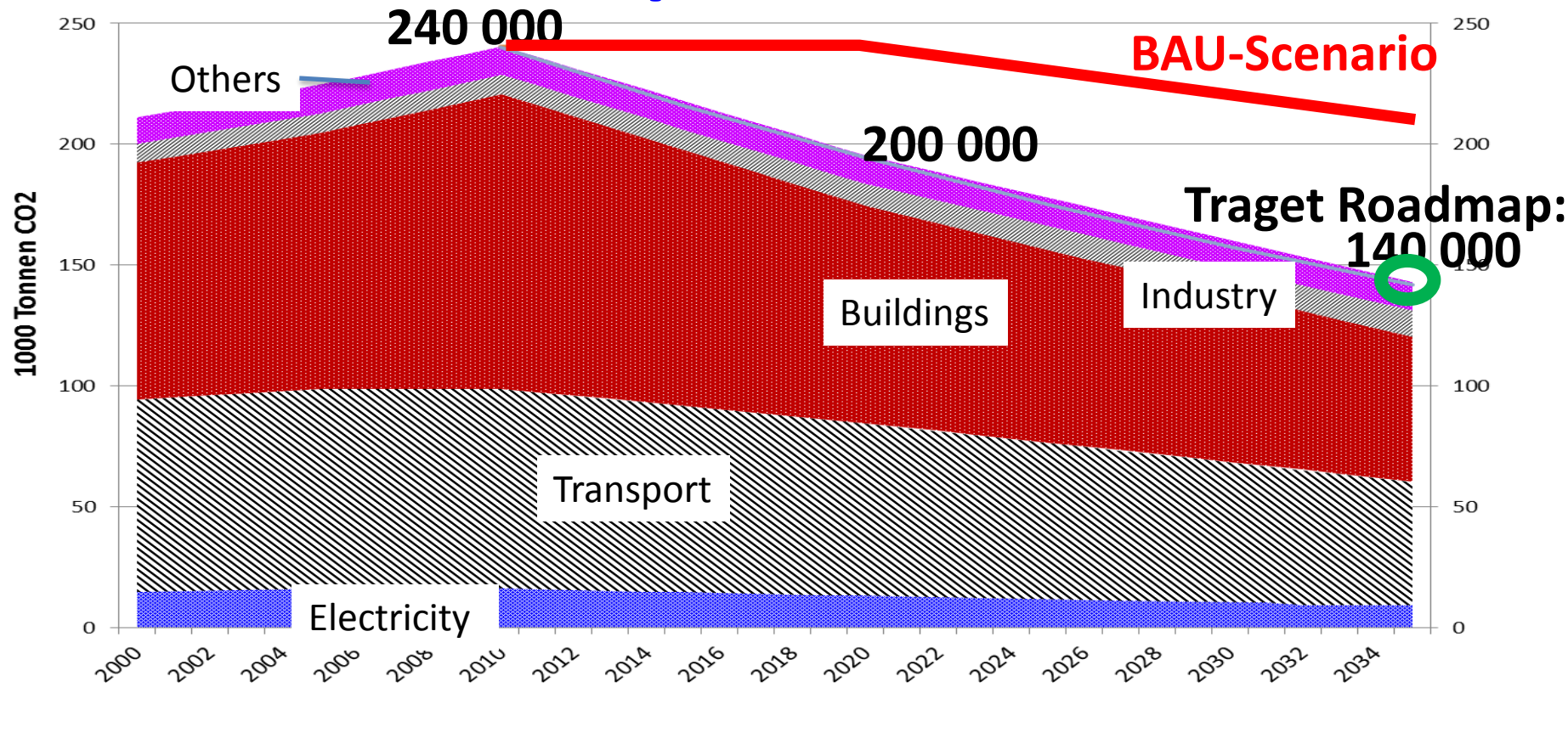
Smart mobility

- Mobility platforms, Apps
- Traffic monitoring and control (ICT)

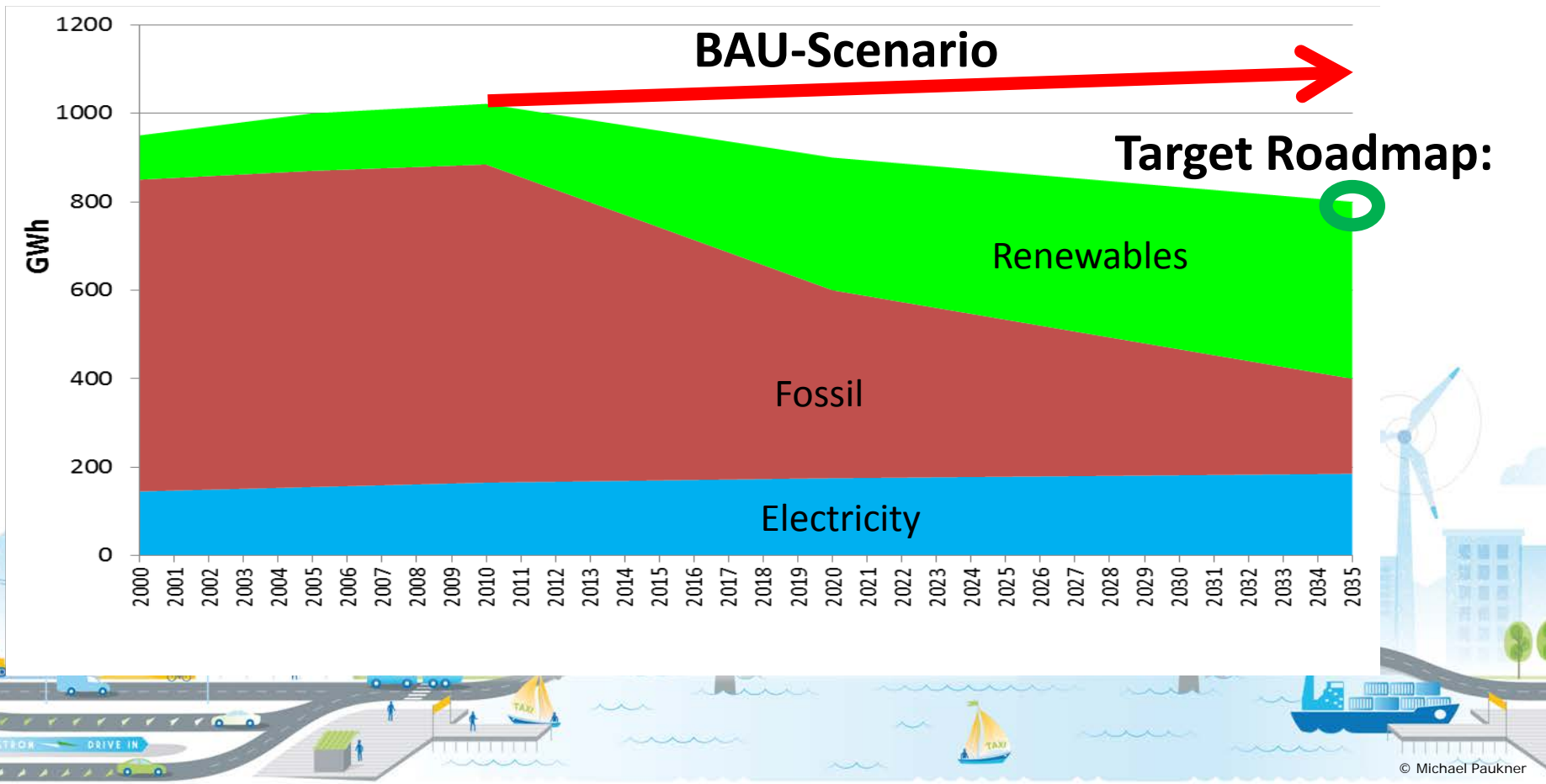


Development of roadmaps and specific problems

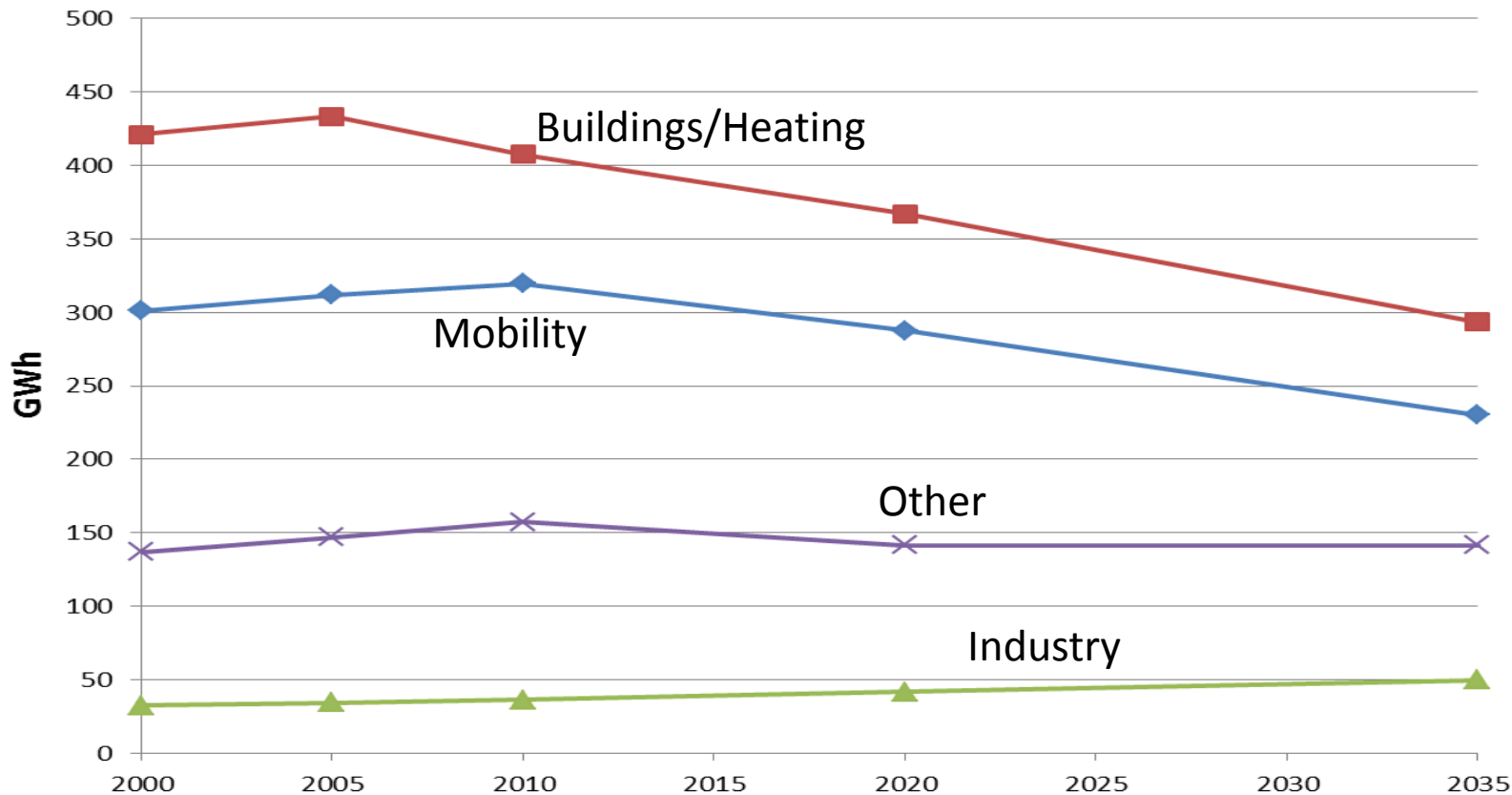
Roadmap CO2 BADEN



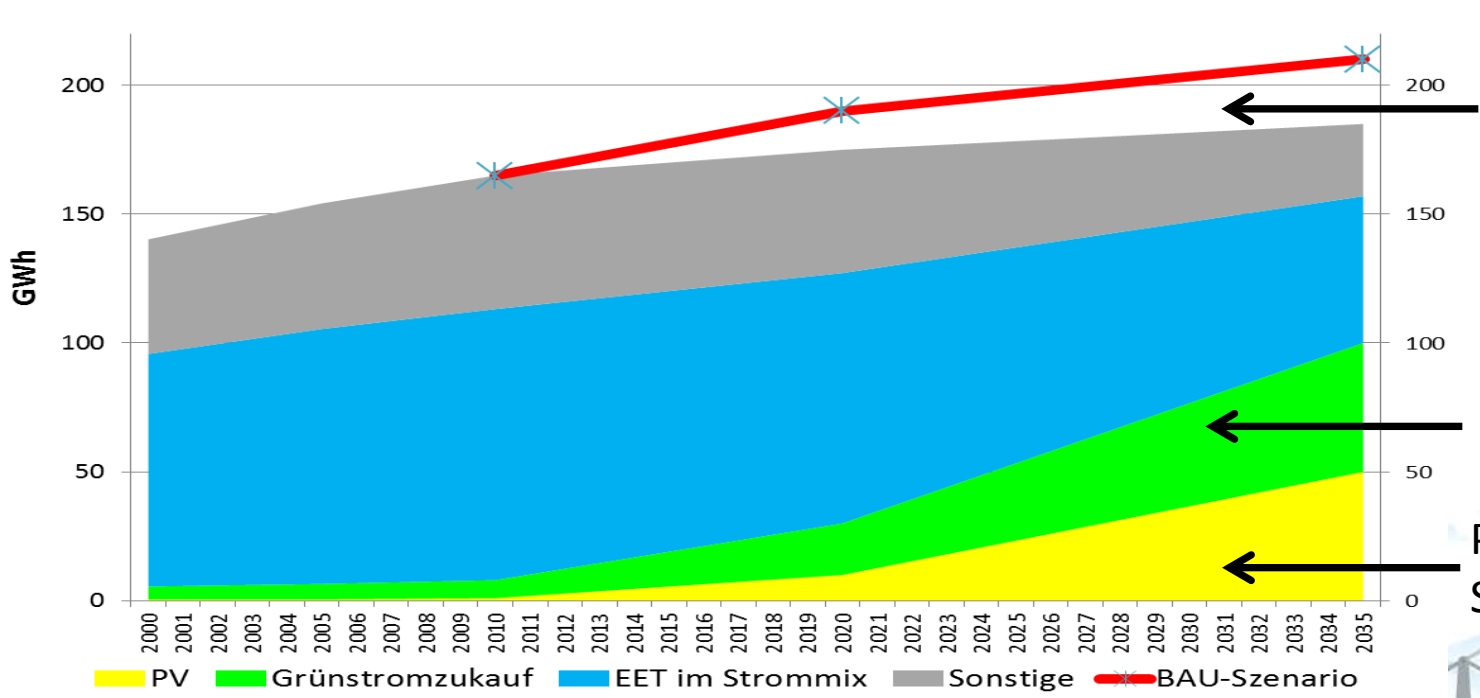
Roadmap Energy BADEN



Roadmap by sector BADEN



Roadmap Electricity BADEN (Energy)

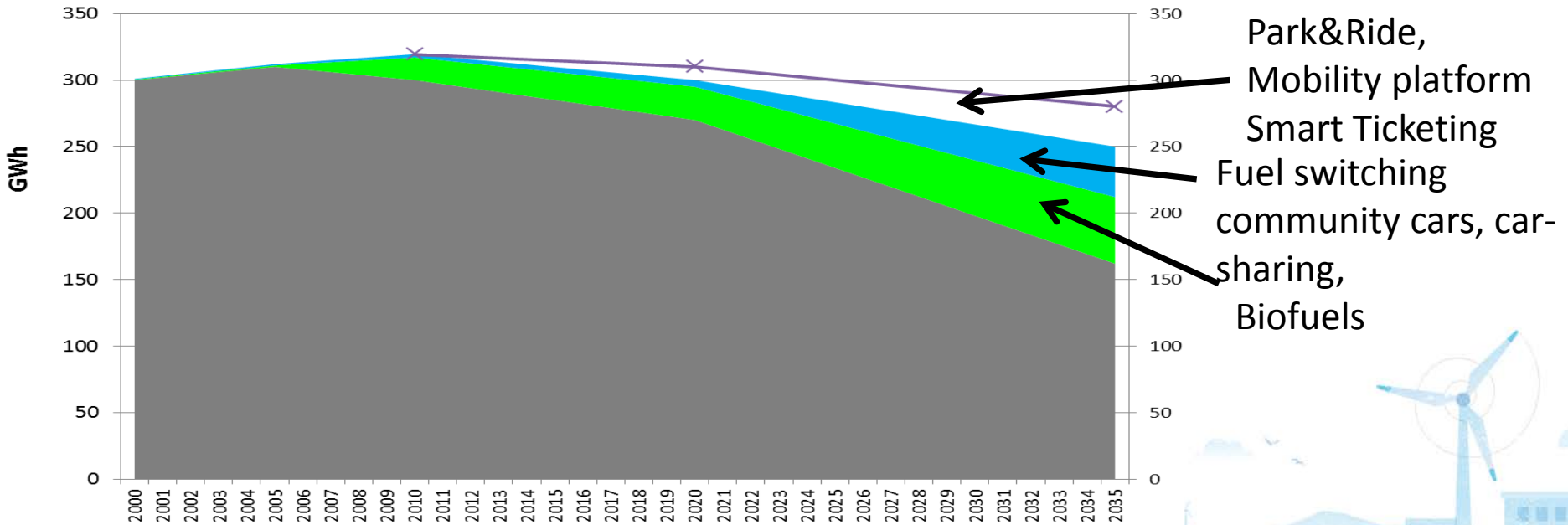


Smart metering,
new Tarif models,
LED-Street-Lighting

Increase purchase
of Green electricity
PV on new buildings,
Subsidies PV

Target: 110 GWh Electricity from RES by 2035

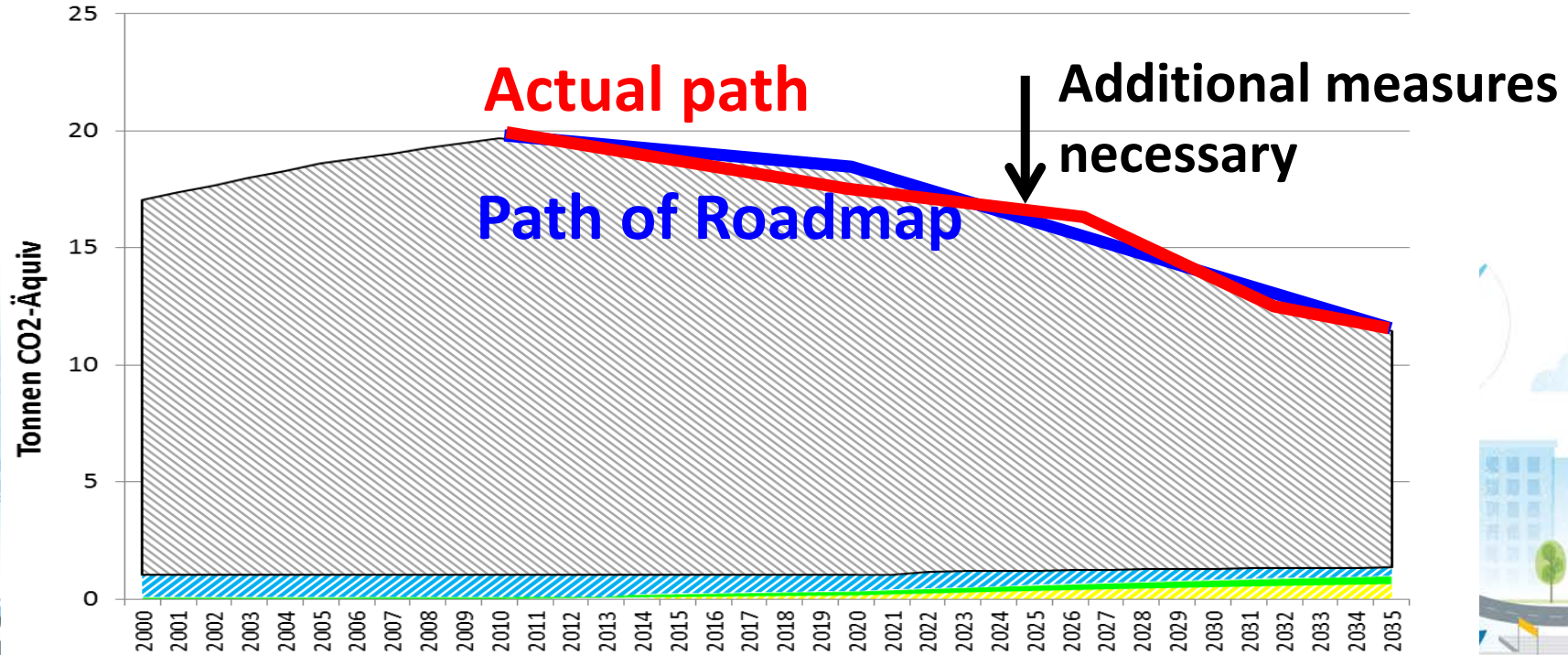
Roadmap Mobility BADEN (Energy)



Ziel: 183 GWh im Jahr 2035, davon 144 GWh Biofuels

The relevance of monitoring

Example: Roadmap Electricity BADEN (CO2)



Examples for specific problems :

- How to deal with biofuels?
- What are the real geothermal potentials?
- How to deal with purchase of green electricity?
- Transport: how are CO₂-Emissions calculated? incl. or excl. Public transport?
- How are current CO₂-Emissions really calculated?



Conclusions (preliminary)

- Difficult to commit cities to a project (two communities Stepped out)
- No definitive solutions for the specific development areas so far;
- Reliable data for initial CO2 emissions are a major problem;
- Deriving a detailed road map: either based on sound data or continuous monitoring process
- Best strategy: Monitoring process is most important
- Discrepancy in the analysis: aggregated measures and targets for cities as a whole vs specific target areas