

# 100%-Renewable-Energy-Regions - The Bottom Up Initiative from German Regions -

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#### Structure



- 1. Project frame
- 2. Project procedure
- 3. Examples: Front runners of the network
- 4. Benefits for the regions
- 5. International projects and campaigns

## German Project "100% RES Regions"



- Supports regions, communities and cities aiming to cover their energy demand with renewable energy since 2007
  - Overview of regional actitvities using the 100ee-Map
  - Know-how transfer, consulting, lectures and information materials
  - Supporting regions via public relations activities
- Is conducted by the IdE (Institute decentraliced Energy Technologies) located in Kassel
- Financed by the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety and technically adviced by the Federal Environment Agency till Dezember 2013
- Now continued as a self-supporting network









## From R&D- Project to "100ee-Regions-Network"

2007-2010

#### **R&D Project**

Overview 100% Renewable Energy Regions, Case Studies, Accompanying Research, Knowledge Transfer between Regions, Conference, Website

2010-2013

**Network Development "100ee-Regions" in Germany**Supporting the "100ee-Regions" by Expert Advice, Lectures, Workshops and Development of Management Structures for efficient Networking

**Further Development of Network Activities** 

since 2014 Cross-sector cooperation (Local Administration, Associations, Industry..)
Marketing Campaigns, Expert Advice, Benchmarking, Conference



### Goals of Municipalities and Districts in Energy Turnaround

Environment and Climate Protection

Development of RE and Energy Efficiency



Decentralization

Citizens'
Participation

Regional Added Value Creation

## Basic concept: sustainable energy supply and regional development



- Energy conservation, energy efficiency and renewable energy are equal goals
- The potentials of all renewable energy sources are developed in a sustainable way:
   economical, environmentally safe and socially acceptable
- The three sectors electricity, heat and mobility are considered likewise



## Three categories of regions





pioneers for the regional energy turnaround



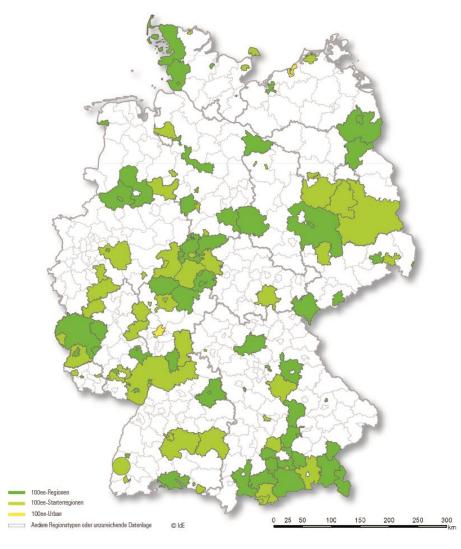
pioneers in urban regions



 preliminary step towards a 100ee-region

## **Geographical Distribution of "100ee-Regions"**





#### Number of Regions:

- ■100ee-Regions: 79
- ■100ee-Starter Regions: 58
- ■100ee urban: 3

Total: 140 Regions

Area: 105.000 km<sup>2</sup> (30%)

Citizens: 21,2 Mio. (26%)

### How to become a 100ee-region



#### First step: presentation of the region

- hand in questionnaire and information material
- telephone interview with project staff

#### Second step: the decision of the project team

classification into a category based upon a rating system

#### Thrid step: registration of the region

- admission on the 100ee-Map
- awarding with certification on the annual 100ee congress



## **Evaluation procedure**





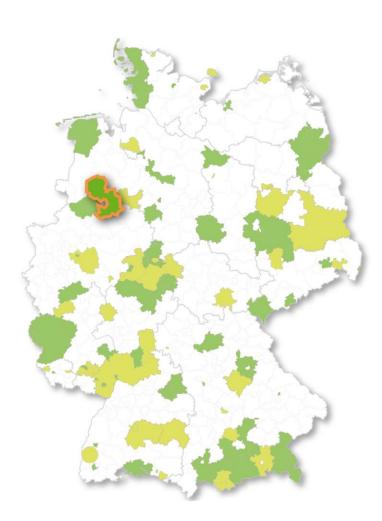
| Criteria on 5 Levels  | total 33 |
|-----------------------|----------|
| Defining Criteria     | 2        |
| Target Level          | 6        |
| Operational Level     | 15       |
| Status Level          | 7        |
| Local Particularities | 3        |

- All Criteria are equally weighted (0-3 Points per Criterion)
- Pioneer Regions have already reached a maximum of 80 points, Starter-Regions of 39
   Points

Bildnachweis: IdE 2013

## Osnabrück: Achieving goals through cooperation between city and surrounding area





- District and city in Lower Saxony
- Inhabitants: 360.000 (district) and 160.000 (city)
- Area: 2.121 km² (district) and 120 km² (city)
- 100% Climate Protection Masterplan
  - Target by 2050: Reducing 95% of CO<sub>2</sub> Emissions
  - 100% RE (electricity, heat, mobility)
  - 50% energy demand
- RES Percentage in 2013:
- Electricity: 30% (district), 4% (city)
- Heat: 11% (district), 2% (city)

## Benefits through cooperation between city and surrounding area

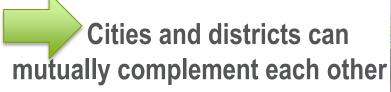


#### **Cities**

- •Cities cannot fully meet their energy supply with RES within their own limited areas
- Main focus: energy saving and efficiency, climate friendly mobility, PV roof units
- can provide know-how and have sufficient capital for investments

#### **Districts**

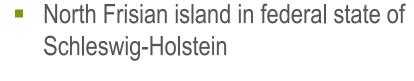
- •Often have large areas with potential for RE produktion
- Priority: develop renewable energy
  - investments with participation from cities are possible





## Pellworm – North Frisian pioneer in the field of renewable energy and climate protection





Inhabitants: 1.150

Area: 37 km<sup>2</sup>

RES Percentage in 2013:

Electricity: 275%





## Pellworm – renewable energy pioneer for more than 30 years



RES round table

Future: CO<sub>2</sub> neutral & self sufficient

**2002:** First public biogas unit

Today: testing smart grids and storage technologies

Public wind-park company was founded

**2000**: decentralized project for EXPO

Municipality opened energy office

1983: 300 kW solar power station & three 25 kW wind-energy units

Middle of the 1990s: energy concept to become self-sufficient

End of 1970s: testing first small wind energy systems





## 100ee-Regions-Network: Our services

#### **Expert Advice**

- Workshop-Moderation
- Lectures
- Consulting
- Advisory Boards



#### **Know-how Transfer**

- Working Papers
- Best Practice
- Workshops



### **Marketing and Public Relations**

- Awarding the "100ee-Region" Lable
- 100ee-Regions-Map
- Website / Newsletter / Social Media
- Poster Session at National Conference







### **Networking**

- Annual National Conference
- Matchmaking of Experts
- Co-organizer of Regional Exhibitions and Conferences



## **Get connected – 100ee-regions congress**



11.-12. November 2014 in Kassel www.100-ee-kongress.de





deENet







Bildnachweis: IdE 2013

100%

### **EU Project – 100% RES Communities**



- Funding: EU-Commission
   programme Intelligent Energy Europe (IEE)
- Supported by
  INTELLIGENT ENERGY
  EUROPE

- **Project team:** 12 partners, 10 EU-countries
- Goal: Connecting 100% RES communities all over Europe; Twinning actions, capacity building
- Core elements: Covenant of Mayors and SEAPS, RES Champions' League, definition of 100ee-regions on European level
- http://www.100-res-communities.eu/







Kompetenznetzwerk dezentrale Energietechnologien e.V.

## Go 100% Renewable Energy

This international campaign builds on initiatives that already take place on national, regional and local level and gives this initiatives a common identity on a global level

Goals:

- Expand the coalition of the willing
- Strengthen platforms for exchanging knowledge
- Inform and win over key decision-makers
- Inspire and involve the people

-> Establish a global network of 100% RE regions and cities

ASIA

www.go100re.net

100%

**RENEWABLES** 

Founding Partner Organizations























## Thank you for listening



**Further information:** 

www.100-ee.de

www.ide-kassel.de

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