

# BIOENERGY VILLAGE & BIOENERGY REGION SUPPORT PROGRAMME IN GERMANY



Dr. Hermann Hansen  
28. November 2018  
Bruxelles

With support from

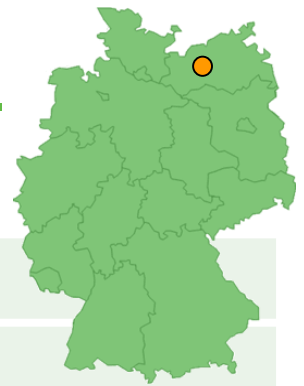


by decision of the  
German Bundestag

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(Fachagentur Nachwachsende Rohstoffe e.V., FNR)
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# Fachagentur Nachwachsende Rohstoffe e. V.

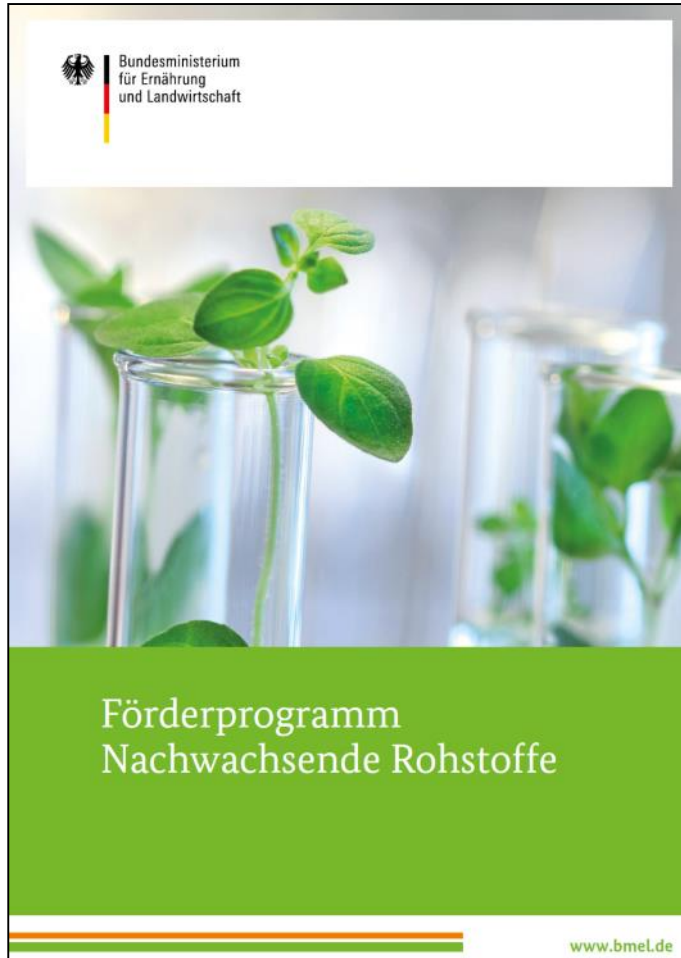


## Facts

Foundation:	October 1993
Main office:	18276 Gülzow-Prüzen
Support:	Federal Ministry of Food and Agriculture (BMEL) and State of Mecklenburg- Western Pomerania
Employees:	94
Legal status:	Registered association with 71 members (7 voting members)
Tasks:	<ul style="list-style-type: none"><li>• Promotion of research, development and demonstration (project management)</li><li>• Information &amp; advice</li><li>• Public relations</li><li>• International and EU activities</li></ul>
Target groups:	Industry, SME, public and private research institutes, universities, government agencies

currant state: 05.11.2018

# Funding Program Renewable Resources



- Budget of the Federal Ministry of Food and Agriculture  
**2018: 66 Mio. €**
- Energy and Climate Fund (Special Fund of the Federal Government)  
**2018: 23,1 Mio. €**

<http://www.fnr.de/projektfoerderung/>

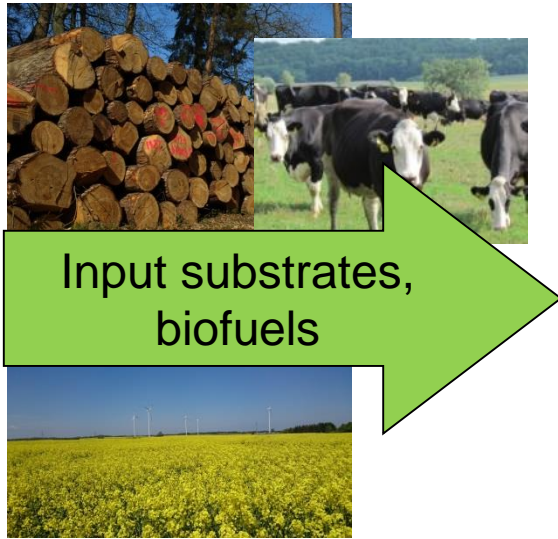
# Funding Program Renewable Resources

The program serves the following purposes:

- sustainable production and supply of renewable resources,
- efficient and environmentally friendly use of resources,
- avoidance of greenhouse gases, their binding and the conservation of natural resources (biodiversity),
- sustainable production of industrial and consumer goods as well as of biofuels and bioenergy,
- recycling and cascade use of biomass,
- development of new technologies and integrated concepts along value chain, eg. in context of biorefinery concepts,

# Funding Programme Renewable Resources Research & Development regarding Bioenergy

Strategic approach: Research and development along the production and processing chain



e.g.: wood, straw, residues, beets, grass

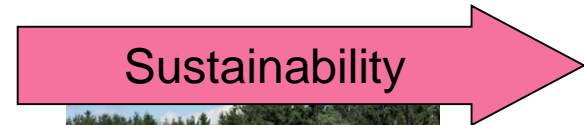


e.g.: Biofuels management, fermentation, process control, CHP unit, low emissions combustion



Utilization

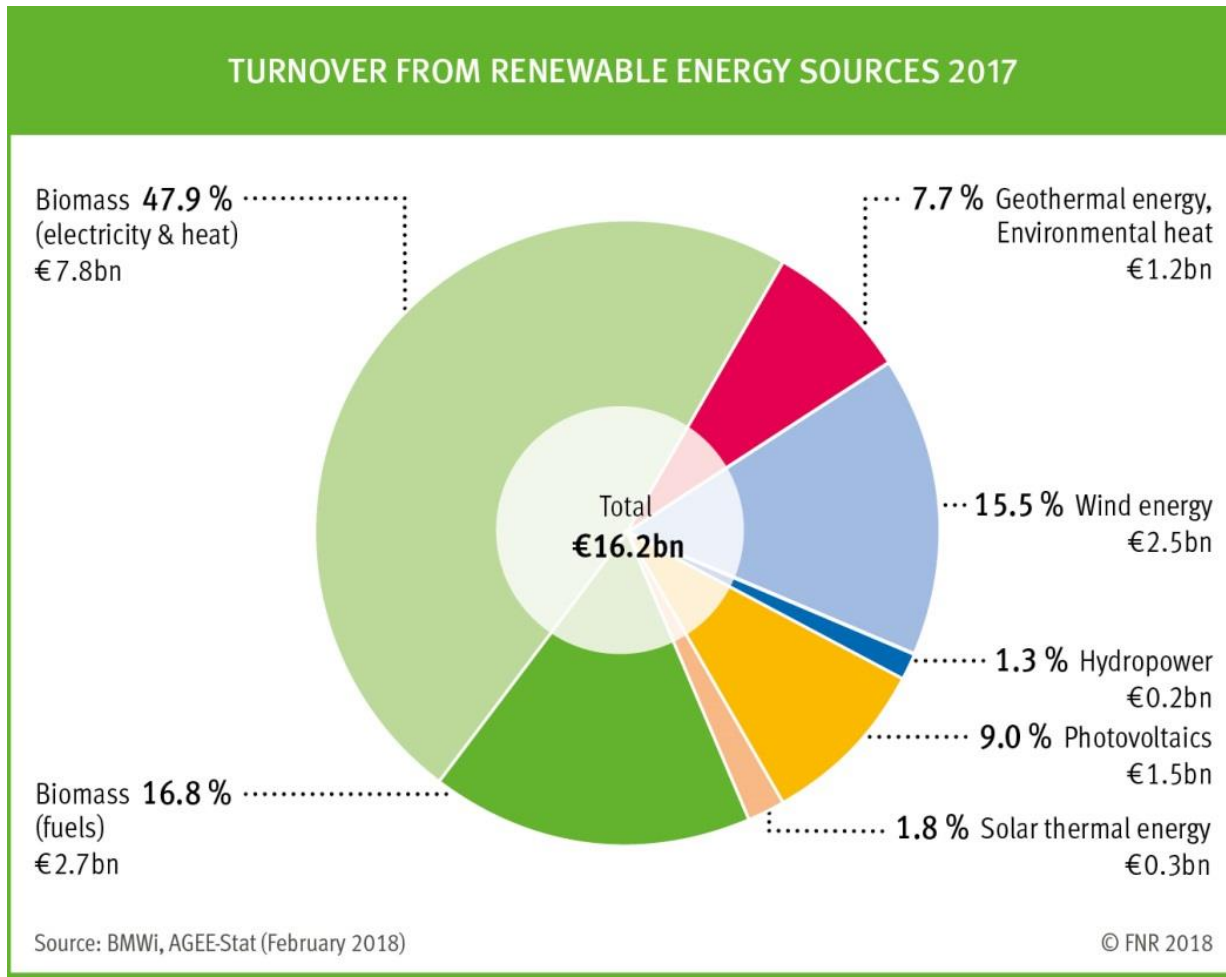
e.g.: electricity, heat, biofuels



e.g.: reduction of methane emissions, digestate and ashes usage

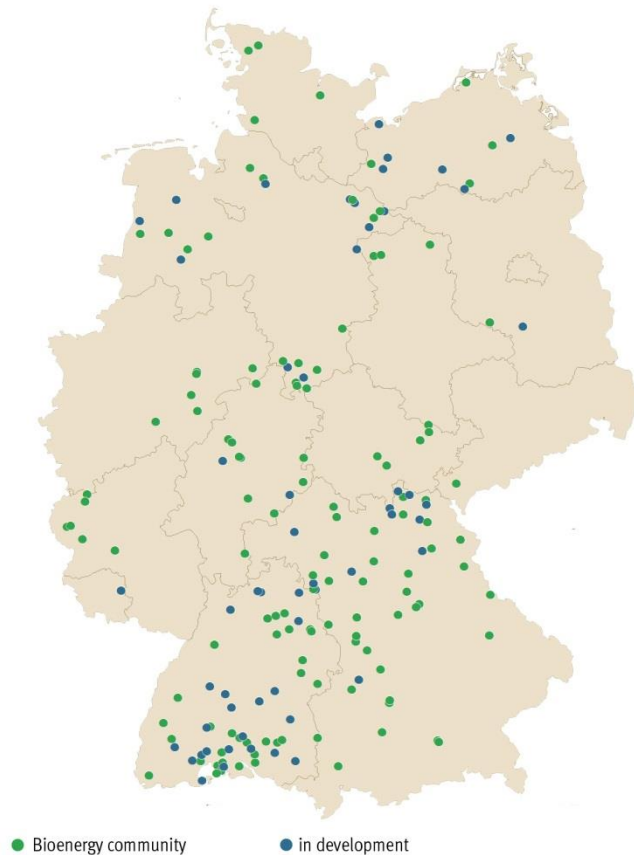
EFFICIENCY

# Bioenergy in Germany



# Bioenergy villages in Germany

## Bioenergy communities in Germany 2017

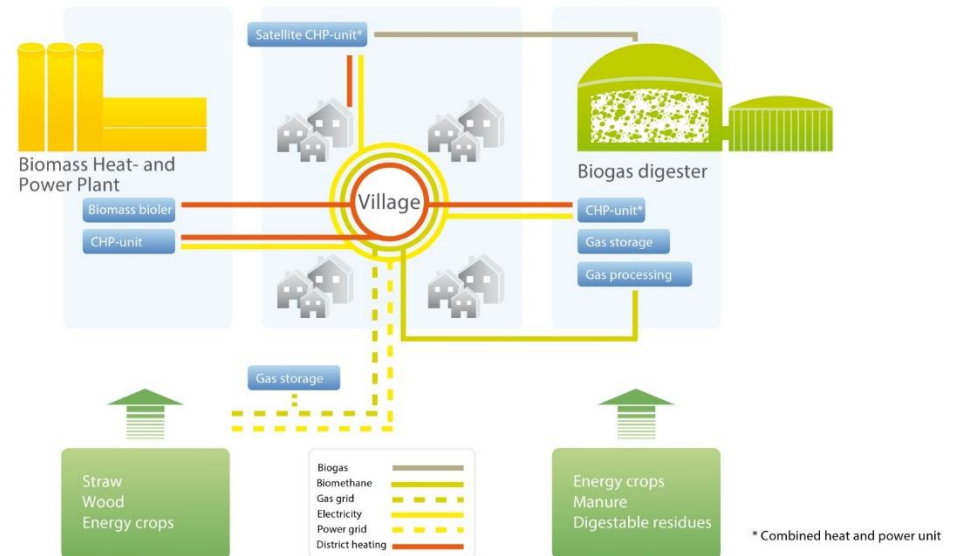


Source: GeoBasis-DE /BKG 2013

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FNR database:

- 147 bioenergy villages
- 44 bioenergy villages in development





# Challenge Bioenergy Villages by German Federal Ministry of Agriculture

## **Objectives of the challenge / competition**

The Challenge "Bioenergy Villages" aims at honoring successful approaches to the production and use of bioenergy in villages and cities. It shall publicize the energy, agricultural and forestry commitment, the social commitment as well as the touristic function of bioenergy communes.

With its public perception and the presentation of municipalities with role models, the challenge focuses attention on bioenergy from renewable raw materials, on climate-friendly energy supply, on sustainable municipal development and on integrated social processes.

# Challenge Bioenergy Villages by German Federal Ministry of Agriculture

**And the Winner is ...**

## **Challenge Bioenergy Village 2010**

Effelter (Bavaria)

Feldheim (Brandenburg)

Jühnde-Barlissen (Lower Saxony)

## **Challenge Bioenergy Village 2012**

- Schlöben (Thuringia)

- Oberrospe (Hesse)

- Grossbardorf (Bavaria)

## **Challenge**

### **Bioenergy Commune 2014**

- Bechstedt (Thuringia)

- Lathen-city center and Lathen-Wahn (Lower Saxony)

- Untermaßholderbach (Baden-Württemberg)

## **Challenge**

### **Bioenergy Commune 2016**

- Willebadessen (North Rhine-Westphalia)

- Neustrelitz (Mecklenburg-Western Pomerania)

- Ascha (Bavaria)

# Challenge Bioenergy Villages by German Federal Ministry of Agriculture

Communes have to apply to the challenge (Online-application with data on commune and energy use, description of biomass and bioenergy facilities and their efficiency, description of energy networks and participation, public relation e.g.)

A Jury evaluates the applications and nominates the winners.

The winner villages and cities are equal winners of the Challenge.

Winners receive a prize money of € 10,000 to spent on the further development in the commune.

# Challenge Bioenergy Regions by German Federal Ministry of Agriculture

<b>February 2008:</b>	<b>Press conference to announce the “Challenge Bioenergy Regions” by German Federal Ministry of Agriculture</b>
<b>June 2008:</b>	Submission of short applications ("informal application") on 4-5 pages
<b>September 2008:</b>	Announcement Winner Level 1 and Information for Level 2 <ul style="list-style-type: none"> <li>• 50 regions are funded in 1st stage,</li> <li>• 25 regions are funded in the 2nd stage</li> </ul>
<b>December 2008</b>	Submission of Regional Development Concept "Bioenergy Region" (maximum 30 pages)
<b>February 2009</b>	Jury meeting on selection of 25 winning regions Public announcement of the 25 winners (BMELV press release)
<b>March 2009</b>	Awarding ceremony of the 25 winners and information on the preparation of the formal applications for funding (up to € 400.000 per region), until April 17, 2009 preparation of the formal applications for funding by the regions
<b>June 2009</b>	Dispatch of the grant notification and start of the funding
<b>Mai 2012</b>	End of the first funding phase
<b>August 2012</b>	Start of second funding phase (Twin-Regions, up to € 330.00 per region)
<b>July 2015</b>	End of second funding phase

# Challenge Bioenergy Regions



First funding phase  
June 2009 – Mai 2012  
25 Regions  
(Funding: 100% of approved costs)

Second funding phase  
August 2012 - October 2015  
21 Regions  
(Funding: 80%/65%/50%)

# Challenge Bioenergy Regions Funding

## **Funding of 25 / 21 Bioenergy Regions**

June 2009 – Mai 2012 / August 2012 - October 2015

- Regional network management
- Network activities, events, workshops
- data collection
- Information exchange within the region and beyond
- Regional Energy Concepts
- Studies on biomass resource potentials
- Improving the efficiency of bio-material flows
- Feasibility studies
- Public relation
  
- No Funding for investments  
(Therefore are other programmes, funding schemes available)

# Challenge Bioenergy Regions Accompanying Research

## Accompanying technical-economic research to the Challenge Bioenergy Regions

March 2013 - March 2016

- Technical bioenergy potential in bioenergy regions
- bioenergy development
- Analysis of material flows of bioenergy production
- Efficiency of material flows
- The "heat change" in the bioenergy regions
- Use of alternative raw materials for bioenergy
- Use woody material from landscape care for bioenergy

DBFZ Deutsches Biomasseforschungszentrum



# Challenge Bioenergy Regions Accompanying Research

## Accompanying non-technical scientific research to the Challenge Bioenergy Regions

October 2008 – March 2013 / March 2016

- Analysis of funding approach
- Development of regional networks
- Conflicts and social acceptance
- Knowledge transfer, knowledge management
- Network types and network continuity
- Analysis of success factors
- Regional Added value

Nova-Institut, SPRINT, IÖW





# Bioenergy Villages & Regions Benefits

## Bioenergy - benefits from the perspective of the citizens:

- Savings through lower heat price
- Stable energy price / independence from volatile fossil fuels
- Free basement rooms (if petroleum heating boiler and tanks are removed)
- Increased value of land and buildings
- Chance of monetary participation in renewable energy facilities and heating grid
- Strengthened community sense
- Active contribution to climate protection



# Bioenergy Villages & Regions

## Benefits

### **Bioenergy - benefits from the point of view of the municipality:**

- Increase of regional added value
- Income from business taxes
- New jobs
- Opportunities for settlement of commercial enterprises (green heat, renewable energy)
- Increase local purchasing power through lower spending
- Improvement of infrastructure (village renewal, heating grid, high speed internet, etc.)
- Increase influx of population (counteracting demographic change)
- Increase reputation of village, stimulate tourism
- animating club life, improving community life

# Bioenergy Villages & Regions

## Actors, Processes, Networks

### Recommendations for network managers:

- > open the network
- > make the network productive
- > create confidence
- > avoid lock-in effects in groups
- > keep the mixture of opening and closing effects
- > ensure long-term stability and success

**Important for stability and success of social networks:  
balance between opening and closing effect!**



BIOENERGIEDÖRFER 2014  
KONGRESS • 20.-21. MÄRZ 2014 • BERLIN



Landesrat Brandenburg  
Ministerium für  
Landwirtschaft, Ernährung  
und ländliche Räume



# Bioenergy Villages & Regions

## Actors, Processes, Networks

### **Aspects to be considered for a sustainable development in a bioenergy village:**

- Use a mix of intelligent and efficient bioenergy solutions in combination with other renewable energy
- Sustainable land use with many crops and varied biomass production (crop rotation, biodiversity and new crops)
- Prefer use of residues and waste material (biomass from landscape care, straw, manure)
- Increase energy efficiency of buildings and heating systems, use LEDs
- Encourage political and financial participation of local actors (citizens, farmers, foresters, communes, etc.)
- Create jobs, education and training, employment and life perspectives for adolescent generations

# Conclusions

From the point of view of accompanying research, full potential of the funding approach will be realized if, in addition to bioenergy, also other renewable energies are integrated.

Besides further expansion and more efficient use of bioenergy, model projects like Challenge Bioenergy Regions and its accompanying research

- offer innovative approaches to central questions of energy transition,
- foster social acceptance, citizen participation and urban-rural cooperation,
- stimulate expansion of grids for renewable energy, energy efficiency and energy storage.

# Contact



Source: FNR/Dr.Peters

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Bioenergie



Bioenergiedörfer



Wettbewerb



Biokraftstoffe



Biogas



Forst



Pflanzen



Bau-Natour



Baustoffe



Bioschmierstoffe



Biowerkstoffe



Das nachwachsende Büro



Anbieter / Produkte



Basisdaten



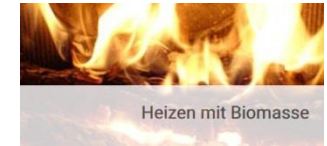
Mediathek



Beschaffung



Forst



Heizen mit Biomasse