

# Regional biomass action plans – development and successful implementation

**Christine Öhlinger**  
**O.Ö. Energiesparverband**

Landstraße 45, 4020 Linz

T: 0043-732-7720-14861

[christine.oehlinger@esv.or.at](mailto:christine.oehlinger@esv.or.at), [www.esv.or.at](http://www.esv.or.at)



# The Region of Upper Austria – Oberösterreich

Capital:	Linz
Population:	1.38 mio
Area:	12.000 km <sup>2</sup>
Gross inland cons.:	305 PJ; > 30 % RES
Economic activities:	industry, service sector, tourism 25% of the Austrian industrial exports



## O.Ö. Energiesparverband

- Regional energy agency (founded in 1991)
- mostly funded by the regional government
- promotes energy efficiency and renewable energy
- provides services to private households, public bodies & businesses
- energy advice (15,000 sessions/a)
- building rating (> 65,000 buildings rated since 1993)
- OEC - business network



# Background Biomass Action Plans

## European level:

- Directive on the promotion of the use of energy from renewable sources (Proposal, COM(2008)19 final)
- Communication "Biomass Action Plan" (COM(2005)628 final)
- aim: European policy framework & targets
- targeting at: Member States, (National) Governments

## National level:

- National Biomass Action Plans
- aim: implementing the EU Directive, national climate targets
- targeting at: regional authorities and/or citizens and stakeholders

## Regional level:

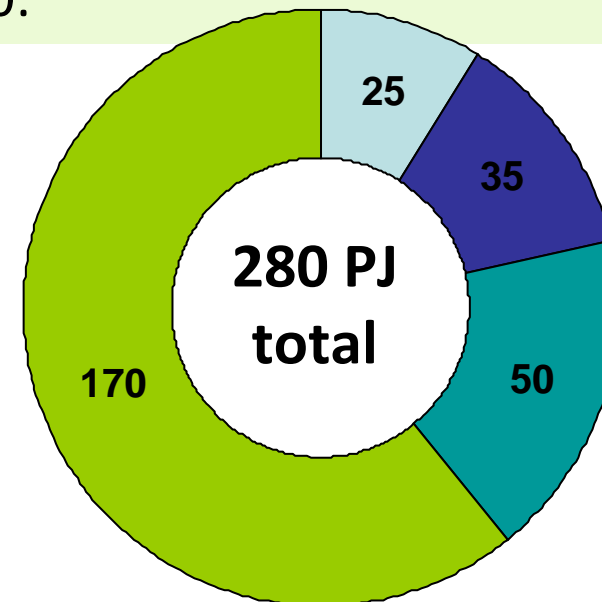
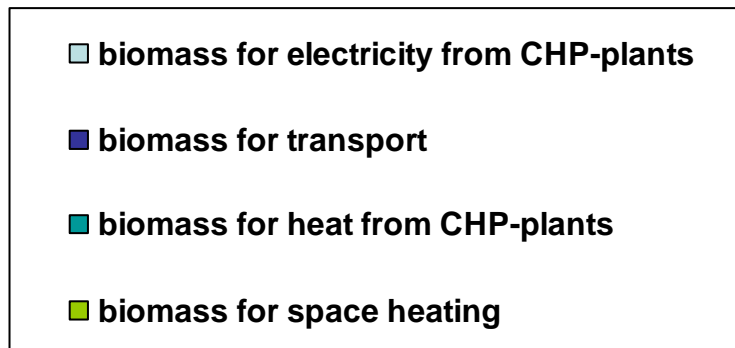
- Regional Biomass Action Plans
- aim: climate targets, regional added value (jobs)
- targeting at: citizens, stakeholders



# Implementation of the EU “RES-Directive” in Austria

## National targets:

- 34 % share of renewable energy sources (2020); 23.3 % (2005)
- RES potential: 497 PJ / 43 % of the total primary energy (1,100 PJ, 2005)
- aim to increase the use of biomass from 170 PJ (2007) to 280 PJ (2020)
- targets and potentials for biomass by 2020:



Source: Österreichischer Biomasseverband

Directive on the promotion of the use of energy from renewable sources



# Energy Action Plan of Upper Austria

## 1994 - 1999

- 30 % renewable energy (hydro, wood biomass, solar)
- energy consumption in new housing reduced by 30 %
- 15,000 jobs

## 2000 - 2010

- double biomass & solar: wood biomass 13 % (2007)
- 1 % energy saving/year
- 1.5 % energy savings in the public sector/year

## 2010 - 2030 (Energy Future 2030)

- 100 % space heating & electricity from renewable energy
- reduction of heat demand by 39 %
- minus 65 % CO<sub>2</sub> emissions



# Why REGIONAL Biomass Action Plans?

- > biomass projects happen on regional level
- > regional policy is close to citizens
- > stakeholders (opponents and promoters) know each other

## Benefits of Regional Biomass Action Plans

- > environmental benefits
- > boosting local/regional economy
- > regional jobs / new income opportunity for rural areas (farmers)
- > local identity, widely supported by citizens



# How to develop a regional action plan? (1)

## Step 1: "Getting a first picture" - Initial data collection

Collect information on policies, funding schemes and market data

- > national/regional policy targets and action plans
- > funding programmes
- > data/statistics on the market development
- > "lighthouse projects"

## Success factors:

- > getting a good overview of the present situation
- > getting a first understanding on the market barriers and opportunities
- > finding best practice examples



## How to develop a regional action plan? (2)

### Step 2: “Who is who in biomass?” – Develop a list of stakeholders

-> Find out who the important actors and stakeholders, e.g.

- private and public organisations
- companies active in planning, marketing and implementing plants
- companies active in fuel production, distribution, marketing & sales
- regional policy makers, politicians, relevant administrative bodies
- energy agencies, energy advisers, consultancies, project engineers
- organisations of farmers and foresters, environmental NGOs
- technical and daily press
- other

### Success factors:

- > identifying active stakeholders and establishing contacts
- > getting an understanding who could be the opponents



# How to develop a regional action plan? (3)

## Step 3: “Create regional dynamics”

-> Try to actively involve regional stakeholders in a network that will create regional dynamics for biomass and take an active role in developing the Regional Biomass Action Plans.

### Success factors:

- > finding the right approach to address & involve stakeholders and keep them interested, link to other policy processes
- > holding a successful kick-off event (one of the crucial points)
- > successfully dealing with controversy, different opinions & opposition
- > successfully using media cooperation as a support to the process



# How to develop a regional action plan? (4)

## Step 4: “Data details” - baseline, potentials, measures, targets

- > Develop the data basis for realistic targets & actions plans.
  - current biomass use, biomass potentials in the region
  - most interesting market development options
  - possible policy measures & initiatives (within the scope of action)
  - cost and benefits of an increased biomass use in the region
  - possible quantitative targets to be reached by a specific date

### Success factors:

- > finding a good balance in establishing meaningful data and avoid spending too much time and money on data collection
- > making best use of existing programmes and initiatives
- > deciding about the right focus of action



# How to develop a regional action plan? (5)

## Step 5: “The Regional Biomass Action Plan”

Develop the text of the action plan which could include the following:

- energy, climate & environment and agricultural policies
- current biomass use
- costs and benefits
- measures and time-table
- plan for implementation and monitoring
- main user and stakeholder groups
- most important barriers
- quantitative targets

### Success factors:

- > concentrate on the most promising sectors
- > formulate ambitious but realistic targets
- > put the focus on a well balanced mix of measures
- > draft the document with a view of its possible adoption



# List of possible measures & instruments

## Information, training and awareness raising

- energy advice and auditing for different target groups
- training programmes
- campaigns
- pilot projects & best practice case studies

## Legal & administrative measures

- energy efficiency standards for heating systems
- obligatory use of RES for subsidised buildings
- obligatory energy concepts for new buildings and retrofiting

## Financial measures

- third party financing, new/enlarged funding schemes

-> only measures that fall within the scope of action of your region

# How to develop a regional action plan? (6)

## Step 6: “Adoption & Implementation”

- > Make an effort to get the Biomass Action Plan - or some of its measures - adopted and follow implementation
  - support the adoption of the regional biomass action plan
  - support the implementation & monitoring
  - inform about success

### Success factors:

- > try to make the regional biomass action plan a part of an on-going policy process, also by linking to national renewable targets
- > foresee clear responsibilities for implementation
- > plan an ambitious but realistic time-table



**Example:**

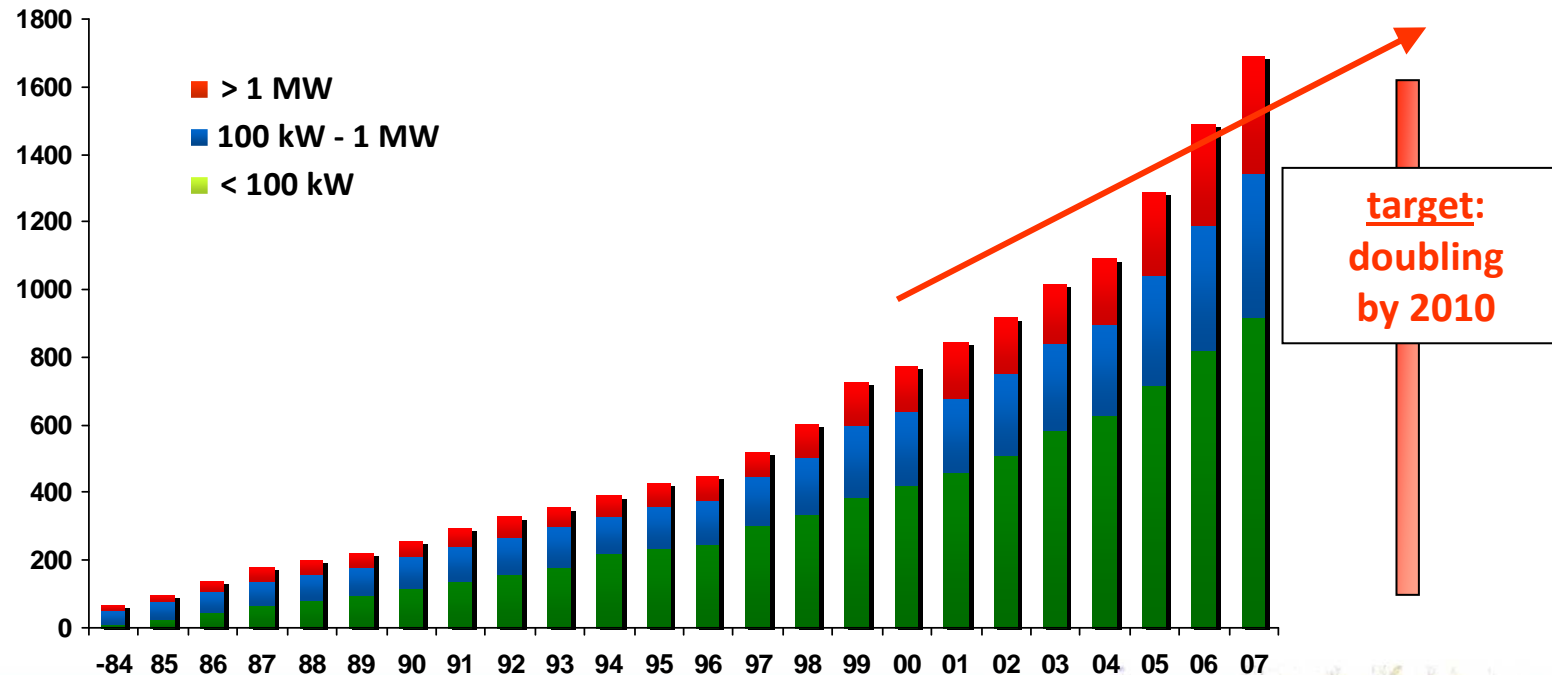
## **Regional Biomass Action Plan of Upper Austria**



# Biomass heating in Upper Austria

- covers 41 % of the heating demand
- 13 % of the total gross energy consumption
- > 30,000 biomass heating installations
- 250 biomass district heating plants

capacity in MW



# Process Energy Future 2030

- Initiative of the regional government & the regional parliament
- Study and analysis of the renewable energy potential
- Dialogue platform
- Development of 4 scenarios

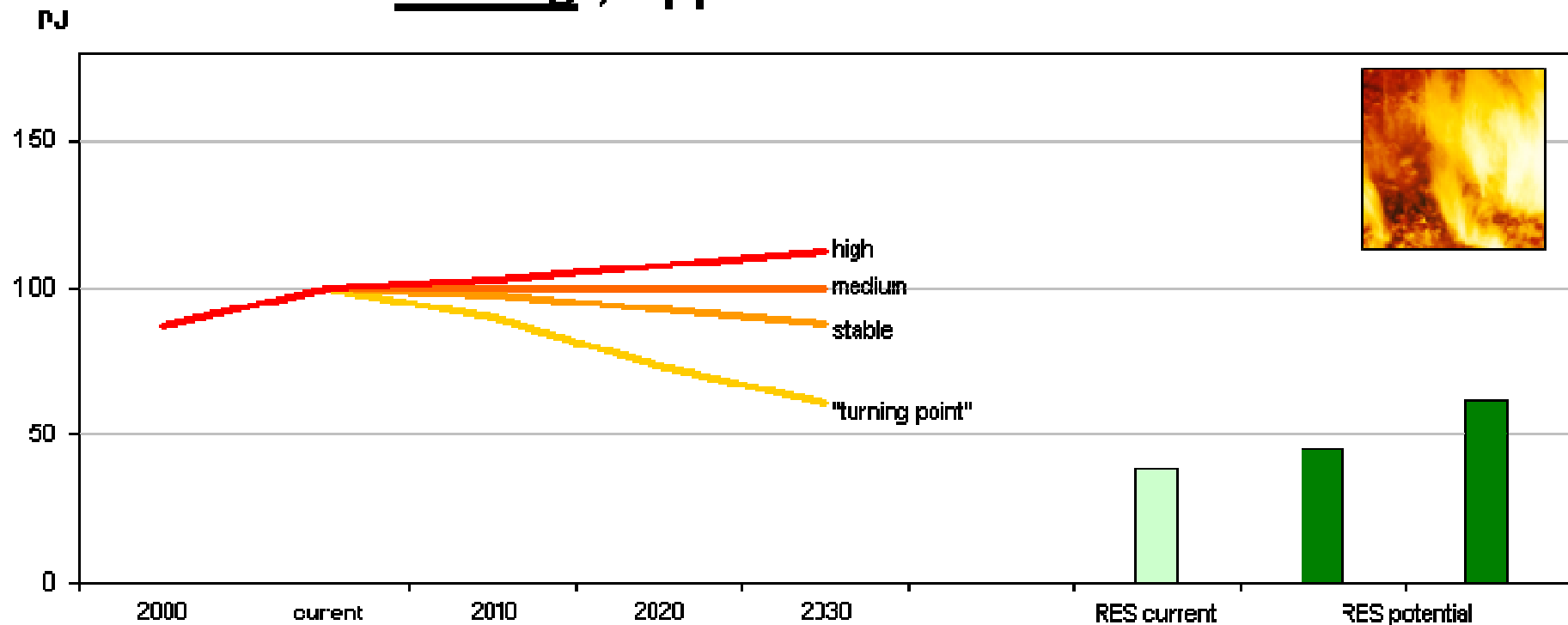
2 main issues

potential renewables

potential energy efficiency



# Development of consumption, scenarios and potentials Heating\*, Upper Austria 2000 - 2030



-> to meet our objective of 100 % renewable space heating in 2030, heat demand has to be decreased by 39 %

\*final energy, Source: TU Wien, LEB OÖ



# Energy Future 2030

- The regional parliament adopted the „turning point“ objectives
- **Objectives for the Energy Future 2030:**
  - 100 % renewables for space heating
  - 39 % less heat demand
  - 100 % electricity from renewable energy sources
  - 41 % less fossil transport fuels
  - minus 65 % CO<sub>2</sub>
- List of measures developed, to be decided by the Regional Government



# Potentials – renewable energy sources 2030

RES-e:	<b>Biomass (electricity)</b>	<b>484 GWh</b>	<b>→</b>	<b>1,370 GWh</b>
	Biogas	50 GWh	→	600 GWh
	Hydro power	11,700 GWh	→	12,200 GWh
	PV	5 GWh	→	150 GWh

Heat:	<b>Biomass (heat)</b>	<b>23 PJ</b>	<b>→</b>	<b>40 PJ</b>
	Heat pumps	1 PJ	→	2 - 3 PJ
	Solar thermal	1 PJ	→	4 PJ
	<b>Total „green heat“ (incl. district heating)</b>	<b>38 PJ</b>	<b>→</b>	<b>62 PJ</b>

Source: TU Wien



# Upper Austria's sustainable energy strategy

## 3 Pillars



"stick"

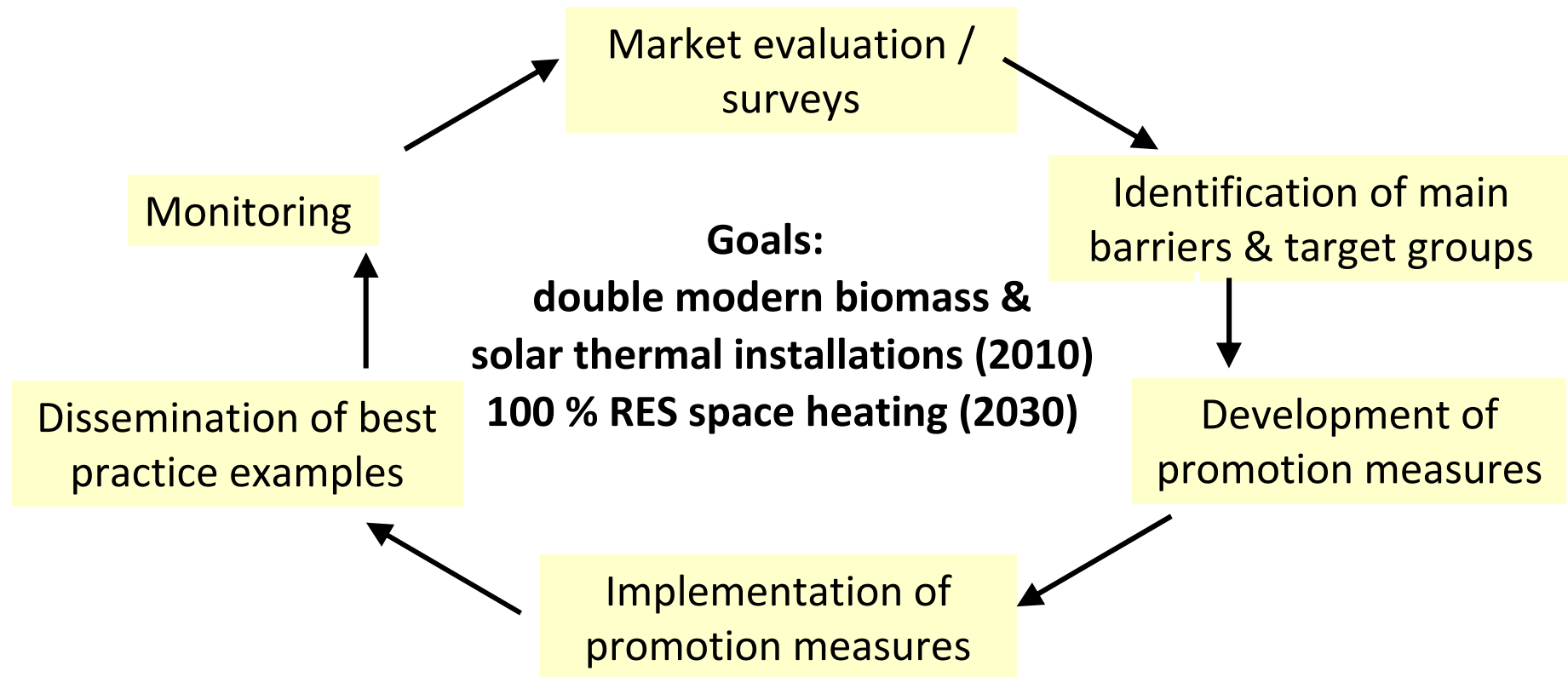


"carrot"



"tambourine"

# Systematic approach to market promotion



# Regional Pellets Campaign 2008

- 500 billboards
- radio and TV programmes
- pellets competition “Present pellets in a creative way”  
1159 schools addressed, 73 competition entries  
300 participants at the award event
- training seminars pellets & biomass
- complementary advertising by OEC partner companies



# Examples of publications

## “Heizen mit Pellets”

- 8 pages, 10,000 copies
- cooperation with pellets partners of the campaign



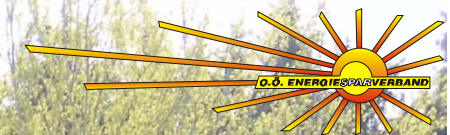
## “School competition”

- Highlighting the winners of the “Pellets Award 08”



## “Biomass for larger buildings”

- 32 pages, second edition
- technical information on biomass heating (wood chips / pellets) for larger buildings



# Training & knowledge transfer – Examples training seminars

- Large pellet heating systems (1 per year)
- Biomass for municipalities (1 per year)
- Innovative biomass heating for housing associations (1 per year)
- Energy advisers (households & commercial sectors) (3-4 per year)
- Modernising social housing (2 per year)
- Future home owners (2 per year)
- Renewables & energy efficiency for municipal staff (2 per year)



# Ökoenergie-Cluster Upper Austria

- network of renewable energy & energy efficiency companies
- presently 148 partners, since 2000
- main business fields:
  - biomass heating
  - solar heating
  - energy efficient buildings
- booming business:
  - investment in new buildings & production facilities (07/08) 100 mio €
  - > 500 new staff

- Turnover: 1,570 million Euro
- Employees: ~ 4,000
- Export share: > 50 %



[www.oec.at](http://www.oec.at)



# Benefits of RES for the region of Upper Austria

- less imports 2 billion €/a
- jobs in a growing market sector 25,000 / Austria
- new professions > 500 in education
- technological innovation > 110 R&D projects
- export opportunities > 50% export rate
- turn-over RE installations 790 mio €/a (265 mio € biomass)
- investment RE installations 115 mio €/a (2007)

## Renewable heating accounts for:

- > 40 mio Euro/a investment in new biomass heating installations
- reduces energy bill for imported fossil fuels by > 500 mio Euro/a
- employs more than 5,000 people



# The end of the oil – era?

