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**Future in rural area**

**A Lower Austrian Consulting Institution**



FIELDS Meeting, Vienna 2020-01-27



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# Overview



**Introduction**

**Fields of activity**

**Training programmes**



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# *A Lower Austria Consulting Institution*



## **Foundation**

1985 by an initiative of Lower Austrian Councillor responsible for agricultural and environmental affairs

## **Objective target**

Support people during successful realisation of their ideas

## **Achievements**

Consulting of about 60 % of all rural biomass district heating projects





# Field of activity

- ✓ individual, independent consulting - project support
- ✓ feasibility - studies
- ✓ realisation and economic concepts/plans
- ✓ foundation consulting
- ✓ projectmanagement and controlling
- ✓ coaching
- ✓ informative meetings and lectures
- ✓ conferences, workshops and courses
- ✓ agency of experts
- ✓ coordination in the field of research and development



[www.evaluationworld.net](http://www.evaluationworld.net)



[www.coaching-bruxelles.be](http://www.coaching-bruxelles.be)





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## *Field of activity*



# BIO - ENERGY

energy – service on the basis of biomass

- ✓ **heat supply, energy-contracting**
- ✓ **combined heat and power generation**
- ✓ **common solutions**
- ✓ **qualitymanagement**  
(QM for heat plants)





## RENEWABLE RESSOURCES

and biogenous energy sources



- ✓ traditional and innovative ways of utilisation
- ✓ link between research and practice
- ✓ platform for industry and agriculture





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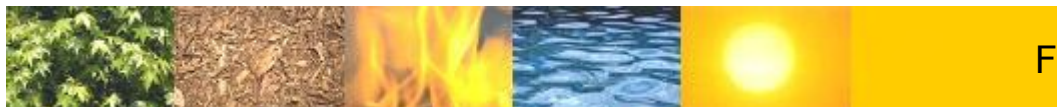
# Field of activity



## PROJECT DEVELOPMENT

odds in rural areas

- ✓ agricultural marketing
- ✓ regional development
- ✓ research cooperation and know-how transfer



FI



## Heat from biomass (6 standard modules)

- ... basics 1 (project development)
- ... basics 2 (project realisation)
- ... operator training (operation of biomass district heating plants)
- ... biomass logistics
- ... technology 1 (heat production and distribution)
- ... technology 2 (heat transfer station, -metering and secondary system)

## Heat from biomass (special topics)

- ... fire prevention
- ... operator workshop (importance of the secondary system to reduce heat losses)
- ... wood pyrolysis
- ...







## Vegetable oil

... Workshops

... Conferences

## Preservation of ancient cultural heritage:

**Kellergassenführer** ... 6 Module training programm guides for  
cellar alleys

**Kräuterkunde** ... 7 Module training programm guides for herbs

**Stadelakademie** ... 4 Module training programm for sheds

**Mühlenakademie** ... 6 Module training programm for mills





## **Title: project development**

## **Training content**

This seminar will take all the necessary steps which are required from the idea to the realization decision of a biomass heating plant.

- ...financing
- ...economics
- ...subsidy programmes
- ...legal entity
- ...project schedule
- ...practice report





## Title: project realisation

## Training content

The aim of the seminar is to illustrate to future operators and bioenergy officials (board members, chairman, managing director, accountant) of a district heating company the necessary basics for the management of the district heating company. The operation of a bioenergy district heating plant requires the care of a proper businessmen. In order to meet the manifold requirements, special knowledge is required, which will be taught in this seminar.

...Own contribution

...Biomass logistics

...Balance sheet, accounting

...Financing and subsidies

...Heat consumer support

...Benchmarks

...QM Heizwerke (Quality management for biomass heating plants)





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# **Biomass Operator training**



## **Title: Operation of biomass district heating plants Training content**

The aim of the seminar is to illustrate to the officials (board members, chairman, managing director, accountant) of a district heating company the necessary basis for the management of the district heating company. The operation of a district heating plant requires the care of a proper businessmen. In order to meet the manifold requirements, special knowledge is required, which will be taught in this seminar.

- ...Heat supply
- ...Reading a balance sheet
- ...Controlling
- ...Liability the functionaries
- ...Business insurance
- ...Optimisation district heating network





## **Title: Biomass logistics**

### **Training content**

As operator of a bioenergy plant, it is inevitable to know the relationships and effects of biomass fuel on the technical and economic factors of the heating operation. In this seminar, from the point of view of the heating company and the procurement of raw materials, the essential connections and possibilities of optimising the influencing factors are presented.

- ...Basics for bioenergy
- ...Process chains of wood chip production
- ...Energetic assessment of forest wood
- ...Delivery conditions, logistics
- ...Quality assurance
- ...Raw material availability, biomass market





## Title: Heat production and distribution

### Training content

For operators, the optimal function and technical operation of the heating plant is a key position for sustainable operation. This essentially involves questions of technical operation as well as individual economic factors. On this seminar day the primary system boiler, plant and heat distribution will be considered.

- ...Fire safety regulations Bioenergy plant
- ...Boiler plant
- ...Water treatment heating network
- ...Standard hydraulic circuits
- ...Hydraulic solutions in practice





## Title: Heat transfer station, -metering and secondary system

### Training content

For operators there is great interest in finding efficient solutions in the heat transfer area and in the secondary heating system. This optimizes the operation of the district heating system and provides the customer with the added benefit of lower heat and electricity energy consumption. Higher customer satisfaction and lower operating costs speak for themselves.

...Customer heating system, potential for improvement

...Hydraulic solutions, heat customers, heat transfer

...Heat meter systems

...Heat distribution systems in large-volume residential construction





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# ***Biomass Fire prevention***



## **Training content**

- ...Experience report on a fire event and the experiences of the operator from it
- ...Fire protection during the planning and construction phase of a biomass heating plant
- ...How can the board (operator) properly prevent fire?
- ...Fire protection during operation of the system
- ...Excursion to a biomass district heating plant to see the training content in practice



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# ***Biomass Operator workshop***



**Title: importance of the secondary system to reduce heat losses**

## **Training content**

- ...Motivation to reduce return temperature
  - ...District heating proof secondary heating systems and optimisation
  - ...Heating liquid (water) quality and treatment
  - ...Optimisation of secondary heating systems + practical exercise
  - ...District heating transfer station
  - ...Low temperature systems and certification of transfer stations
- practice



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# ***Biomass Wood pyrolysis CHP***



**Title: Congress about wood pyrolysis CHP technology**

## **Training content**

- ...feed in tariffs
- ...technology overview
- ...presentation of available plants and operator experiences
- ...position of Lower Austrian government
- ...technical and economical feasibility



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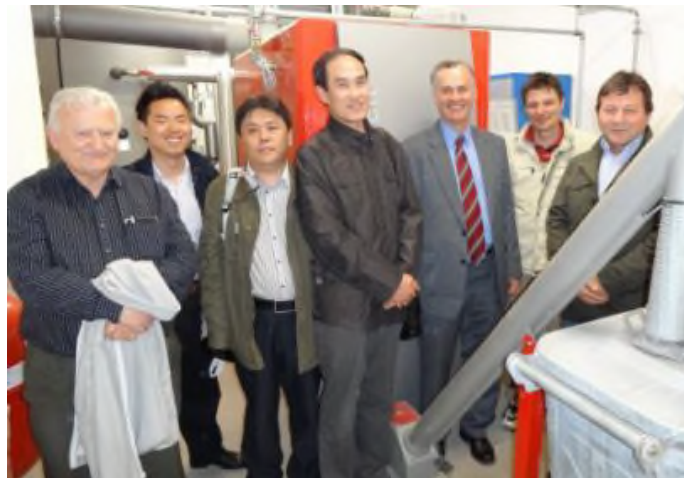
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# Know How exchange



## Excursions, trainings

- ...Moldova
- ...Finland
- ...Canada
- ...China
- ...Greece
- ...Poland
- ...





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# Management



## Management of Bioenergie NÖ



- ...since 2003
- ...a „roof cooperative for rural farmer cooperatives“
- ...ready to use legal entity
- ...existing experienced infrastructure
- ...cost allocation to multiple project groups
- ...benchmark system to compare plants
  
- ...65 plants
- ...400 members (farmers, timber owners)
- ...900 heat consumers in rural area of Lower Austria
- ...2.4 million l/a Calculated substitution of fuel oil
- ...7500 t/a calculated reduction of CO2 emissions





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# Management



## Management of Bio-Wärme-Verband NÖ

...Lower Austrian Biomass heat Association

64 Members with 155 biomass heating plants

110 MW Biomass boiler output

80% of agricultural cooperatives in Lower Austria



**BIO-WÄRME-VERBAND  
NIEDERÖSTERREICH**

## Management of Bundesverband Pflanzenöl Austria

...Austrian Vegetable Oil Association

Interests of farmers, institutions and companies involved in the production, processing and marketing of vegetable oils and products





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***Thank you for your attention!  
For further information please ask  
or contact us!***

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