

## COMET CENTRE (K1)

### BEST – BIOENERGY AND SUSTAINABLE TECHNOLOGIES GMBH

K1 PROGRAMME: BE2020\_2.0 – BEST – BIOENERGY AND SUSTAINABLE TECHNOLOGIES GMBH

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**Logo:**



**Main location:**

Graz (Styria)

**Other locations:**

Vienna (Vienna), Wieselburg (Lower Austria)

**Thematic area:**

Energy & environment

**Thematic focuses:**

- Thermochemical Conversion (combustion, gasification, pyrolysis) of biomass, residues and waste in fixed bed and in fluidized bed systems plus subsequent synthesis processes
- Anaerobic digestion and algal biorefineries
- CFD and 1D modelling and simulation of thermochemical and biotechnological processes and plants
- Planning and optimization of smart electric and of micro grids
- Automatization and control (incl. superordinate control and energy management) of thermal processes, plants and systems

**Planned realisation and outcomes:**

Marketable fixed bed gasification systems, incl. valorization of by-products (biochar); fuel flexible (biomass, sewage sludge, waste) dual fluidized bed steam gasification; synthesis processes for the production of biofuels and chemicals from biomass and waste; algae based biorefineries; simulation tools for the virtual biomass conversion plant; bioreducers for the blast furnace; technology neutral planning and optimization tools for smart grids and for microgrids; technology neutral energy management systems

**History of establishment:**

Since autumn 2019 the former BIOENERGY 2020+ operates as **BEST – Bioenergy and Sustainable Technologies GmbH**. BIOENERGY 2020+ was a merger of the preceding *Kplus* centre of competence, Austrian Bioenergy Centre (ABC) founded in 2003, and the *Knet* network of competence ReNet (founded in

## COMET-FACTSHEET

2000). Since the successful joint application for a **COMET K1 Centre** in 2008 **BEST** operated continuously as **K1 Centre**.

### **Selected company partners** (max. 10):

1. AGRANA Stärke GmbH
2. Andritz AG
3. Bertsch Energy GmbH & Co KG
4. EVN AG
5. KWB – Kraft und Wärme aus Biomasse GmbH
6. Mondi AG
7. R(o)hkraft Ing. Karl Pfiel GmbH
8. SMS group Process Technologies GmbH
9. voestalpine Stahl Donawitz GmbH
10. Wien Energie GmbH

### **Selected scientific partners** (max. 5):

1. Vienna University of Technology
2. Graz University of Technology
3. University of Natural Resources and Life Sciences, Vienna
4. University of Applied Sciences Wiener Neustadt
5. Luleå University of Technology (Sweden)

### **Selected international<sup>1</sup> partners** (max. 5):

1. H&R OWS Chemie GmbH & Co. KG (Germany)
2. NewHeat SA (France)
3. RWE Power AG (Germany)
4. Steinbeis Energie GmbH (Germany)
5. Technologie- und Förderzentrum Nachwachsende Rohstoffe Straubing (TFZ) (Germany)

### **Duration:**

01.04.2015 – 31.03.2023 (8 years)

### **Staff employed at the Centre:**

72 FTE, thereof 55 scientists

### **Management:**

- DI Dr. Walter Haslinger, Adj.Prof., CEO
- Ing. Mag. Dr. Roman Schmid, CEO

### **Contact:**

BEST – Bioenergy and Sustainable Technologies GmbH

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<sup>1</sup> Partners with headquarters outside Austria

## COMET-FACTSHEET

Status 30.07.2021

The COMET Centre is funded within COMET – Competence Centers for Excellent Technologies – by BMK, BMDW as well as the co-financing federal provinces Styria, Vienna, Lower Austria. The COMET programme is managed by FFG. [www.ffg.at/comet](http://www.ffg.at/comet)