

COMET Centre (K1)

BE2020_2.0	
BIOENERGY 2020+	
Main location	Graz (Styria)
Other locations	Vienna (Vienna), Wieselburg (Lower Austria)
Research programme	<ul style="list-style-type: none"> - 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 algae biorefineries - CFD 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 SNG, 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; energy management systems	
History of establishment	BE2020 is 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 2000). Since the successful joint application for a COMET K1 Centre in 2008 BE2020 operates continuously as K1 Centre.
Selected company partners (max. 10)	Selected scientific partners (max. 5) <ol style="list-style-type: none"> 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
<ol style="list-style-type: none"> 1. Austroflamm GmbH 2. AVL List GmbH 3. Bertsch Energy GmbH & Co KG 4. EVN AG 5. KWB – Kraft und Wärme aus Biomasse GmbH 6. Mondi AG 7. ORTNER GmbH 8. R(o)hkraft Ing. Karl Pfiel GmbH 9. voestalpine Stahl Donawitz GmbH 10. Wien Energie GmbH 	Selected international partners ¹ (max. 5) <ol style="list-style-type: none"> 1. Air Liquide Forschung und Entwicklung GmbH (Germany) 3. LAMTEC Meß- und Regeltechnik für Feuerungen GmbH & CoKG (Germany) 3. Technische Universität Luleå (Sweden) 4. Technologie- und Förderzentrum Nachwachsende Rohstoffe Straubing (TFZ) (Germany) 5. Vyncke NV (Belgium)
Duration of the COMET Centre	April 2015 – March 2023 (8 years)
Staff employed at the Centre	72 FTE (thereof 56 scientists)
Total costs	1 st Funding period: EUR 20,4 Mio (4 years) 2 nd Funding period: EUR 20,4 Mio (4 years)
Management of the Centre	DI Dr. Walter Haslinger, BIOENERGY 2020+ GmbH, CEO Ing. Mag. Dr. Roman Schmid, BIOENERGY 2020+ GmbH, CEO
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¹ Partners with headquarters outside Austria