

## INTRODUCTION OF THE JOHANNES LINNEBORN PRIZE AND THE 2012 WINNER LAUDATION

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The Johannes Linneborn Prize was established in 1994 on behalf of the European Commission by Dr. Wolfgang Palz to honor a European individual for an exceptional life-time contribution to the field of sustainable energy from biomass. It is not a reward for scientific excellence only but also technical and managerial merit are appreciated. This prestigious award was connected to the name of Johannes Linneborn, a German biomass pioneer and businessman and the manufacturer of more than 500,000 Imbert small-scale wood gasifiers used to fuel cars, when fossil liquid fuels were scarce. His ideal was a world in which mankind lives in harmony with nature with optimal exploiting of biomass for energy and materials. On the picture you see Mr. Linneborn together with the young Dr. Palz.

From a long list of excellent candidates the Prize Committee selected as winner of the Linneborn Prize 2012:

*Professor Hermann Hofbauer  
Head of the Institute of Chemical Engineering  
Vienna University of Technology*

The prize is awarded to him for his outstanding contribution and leadership for over 30 years in developing and in market introduction of several important technologies for energy carrier production and sustainable energy generation from biomass by thermochemical methods. Especially his work on producing syngas from biomass by dual zone circulating fluid bed gasification attracted worldwide attention and admiration.

Its implementation for combined cycle energy generation in Güssing was an important step in reaching a share of almost 100% renewable energy in this South East Austrian town, provided hundreds of new jobs, flourishing businesses attracted scientists and business people from all over the world and even enhanced tourism.

An exceptional man created this remarkable success in a difficult area: Hermann Hofbauer. After his studies Mechanical Engineering and subsequently Computer Engineering at the Vienna University of Technology he obtained his PhD on "Experimental Investigations of a Circulating Fluidized Bed with a Draft Tube". He acquired a solid experience in process development as head of a research group on combustion and fluid bed technology, head of Research and Testing Laboratory of the Austrian Tile Stove Association (later he became president of this association) and head of the Christian Doppler Laboratory "Fluid bed systems".

Over the years he gained an excellent reputation as a scientist and a research leader and received several rewards. He (co-) authored over 400 papers, books and book chapters on fluidized bed design and technology, fuel and energy technology, biomass and waste conversion technologies (combustion, gasification pyrolysis, biogas) and future green technologies:

hydrogen, SNG, FT synthesis, CO<sub>2</sub> capture, fuel cells, etc. He also obtained 10 important patents mainly on fluidized bed applications.

He conducted and managed high quality research ranging from the fundamentals to the difficult area of process development. For the latter he arranged from his university professorship position, exceptional fruitful collaborations with industrial partners.

Important and successful industrial application of his work were: 3 fast internal circulation biomass waste combustion plants (10-20 MWth), improvement of 6 staged fluidized bed combustors 30-80 MWth and of course the dual-fluid gasifier; the fluidized bed steam gasifier of the Güssing type of which 4 industrial plants are in operation in Austria and Germany. This latter development attracted a lot of interest, because it is base unit for several syngas application processes: BIOSNG, BIOFT, alcohols etc.

Bringing these processes from research via pilot tests to an industrial application is clearly the ambition of Professor Hermann Hofbauer. Next to all this he also paid a lot of attention to educating young people, had leading positions in management of education and general administration at the University of Technology in Vienna.

Professor Hofbauer has been and still is active in many international networks and advisory committees, chairman of scientific boards, in the different IEA-groups as member or Austrian delegate and in the executive committee. He is also key-researcher at the competence center "Bioenergy 2020" Gasification.

Hermann Hofbauer is often invited at international congresses on biomass and appreciated as an authoritative speaker, a friendly and wise colleague and an effective promoter of biomass energy.

Hermann Hofbauer has brought new hope to the field that from biomass and waste biofuels can be effectively produced by lifting biomass gasification development over the "valley of death" were so many previous attempts failed. His excellently equipped laboratories at the University of Technology of Vienna and his access to the successful demo plants combined with his enthusiasm create further hope for the future.

Professor Hermann Hofbauer, the Committee of the Linneborn Prize, and we are sure the whole biomass community is convinced that you really deserve this prestigious award. Carry on your excellent work in the future and enjoy our hearty congratulations!