

## LINNEBORN PRIZE

## INTRODUCTION

**Giuliano Grassi**  
**European Biomass Industry Association (EUBIA)**

Ladies and gentlemen! After one intense week of activity we arrive now at the traditional attribution of the Johannes Linneborn Prize for outstanding merit achievement in the sector of bioenergy.

The Linneborn Prize was established for the first time on the occasion of the Vienna European Biomass Conference in 94, where I had the privilege to get it.

Who was Johannes Linneborn? We had the chance to be in contact for long time. He died nearly ten years ago, at the age of 90. He was a pioneer, a great promoter of bioenergy, with particular competence in thermochemical conversion: carbonisation, combustion,

pyrolysis, gasification. What was interesting for me in this long time of contact, that he transmitted to us the enthusiasm, this big effort to promote an important future activity. Linneborn was involved in many areas during his long working life, almost 70 years, in agriculture, energy, environment, transport and nutrition. His believing credo was based on the necessity to integrate all human activity in the natural cycle of life in harmony with the ecosystem inherited from our predecessor. This time the price winner is Professor Anthonie Adrianus Cornelis Maria Beenackers, Professor at the University of Groningen.

## LAUDATIO

**Ralph Overend**  
**NREL**

It is my good fortune to do the laudatio for Professor Beenackers. As you all know, when a field develops there is an invisible college. You never really know how many people are in that college, but if you think hard enough you can pick out those persons that other people refer to, go to for advise, who set the style and the standards of the field: Ton Beenackers.

Have you ever noticed how people who have very large stature, in both senses, have very diminutive names? Ton Beenackers has really set a very high standard in education, in research and in commercialisation and the development of this field. He has worked in the area of development world-wide, and he has also worked on building of Europe.

He was born in 1943, one of the darkest years in European history in the last century, and I think, like many people in his group, that drove him to make that wider contribution that

did more than just a national outlook, did more than just a discipline outlook. And in the citation it is noted that Prof. Beenackers studied chemical engineering in Eindhoven, before joining Twente University. But he did serve two years at Ahmadu Bello University in Nigeria where he led the Faculty of Chemical Engineering, and later he moved to Groningen University where he is Professor today. His publication record is well over 250 articles relating to many fields, but lots of bioenergy, and he has been continuously active in bioenergy R&D since the early 80s. In fact, my first encounter with Ton was at the Brighton meeting in 1980, with this absolutely astonishing person with this tremendous grasp on what was going on world-wide, and I had a discussion about: When did you have good gasification? Well, he was right: "if the flare on the roof is burning blue, you have got it!" Thank you Ton!

In fact, he has pioneered the development and scale of novel biomass gasification concepts, including a novel low tar down craft gasifier and he is also working now in the production of liquid fuels with synthesis gas including methanol, gasoline, diesel and he publishes very widely in the leading engineering journals of the day. He has developed scale-up rules for novel slurry reactors, which I think we are going to see implemented in the next decade. He also has a long term commitment to the technological improvement of agriculture, agrification, and he also has looked at novel processes for the chemical modification of starches and cellulose to produce high value added products which are one of the keys to success of our field. He has four patents and he is working on the commercial development for artificial blood-thickeners based on starch. He played a major role and continues to play a major role

in defining, directing and monitoring energy for biomass R&D both on the European and the national level, and he has done the surveillance since the early eighties especially with the European Commission.

We acknowledge through the award his continuous involvement in all European biomass energy conferences, including this First World Conference, where he has been as technical programme chairman, discussion moderator, workshop leader, scientific referee, and critical reviewer particularly on the state of the art.

Last night, he made, was I think is a memorable quote. He stated in the context of the dinner of the organisers of this meeting: "It is not possible to give a professor direction, but it truly is possible for a professor to give us direction in the development of this field". Thank you Ton!