

INTRODUCTION TO THE JOHANNES LINNEBORN PRIZE AND THE 2017 WINNER LAUDATION

Wim P.M. van Swaaij
Chairman of the Nomination Committee

The Johannes Linneborn Prize was established in 1994 on behalf of the European Commission by Dr. Wolfgang Palz to honor an European individual for an exceptional life-time contribution to the field of sustainable energy from biomass. In exceptional cases the award can be granted to a non-European. It is not a reward for scientific excellence only but also technical and managerial merits 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.

From a long list of excellent candidates the Prize Committee selected as winner of the Linneborn Prize 2017:

Professor David Chiaramonti
President of RE-CORD

*University of Florence, Industrial Engineering
Department, Florence, Italy*

The prize is awarded to him for his consisted excellence for over 22 years in research and management of implementation of renewable energy, with a strong focus on biomass for energy and products. He shows remarkable results in the wide area of R&D of thermochemical and biological/biochemical conversion processes of biomass and in the production and implementation of biofuels at pilot and demo scale.

He provided inspiring and effective leadership in large national and international co-operation projects and programs in these areas.

David Chiaramonti (1965) studied at the Faculty of Mechanical Engineering at the University of Florence in Italy where he obtained his master degree (1991) on a thesis: "Advanced European Propulsion Space Systems: A.T.E. a new generation engine" (in collaboration with ESA). His PhD in Energetics was obtained in 1996 in the Energetics Dept. "Sergio Stecco", also at the University of Florence on a thesis: "Air pollution simulation models from energy conversion plants". During and after his PhD years he followed a number of courses and participated in workshops at several other institutes in Europe (Belgium, the Netherlands, Sweden, Spain, etc.) broadening his knowledge on science and technology of renewable energies (PV, wind, biomass) thus providing a solid base for his wide interest in renewables and their applications. In the period 1995-2000 David took special interest and gained professional experience in Quality Assurance Systems (ISO9000, QS9000, etc.) as a consultant of PRIMAQ S.r.L. on quality systems and in 2002 he received his CEPAS qualification as External Auditor for ISO 14000 Norms.

In the period 1994-2002 he worked as senior scientist and project manager at ETA S.r.L. In this function he coordinated and managed a wide range of national and international projects supported by the European

Commission (DG's I, VI, XII, XIII, JRC-Ispra) and the Asian Development Bank. These activities included a wide spectrum of study schemes for renewable energies and local resources at small and large scale. Moreover techno-economic assessment of renewable energies, thermochemical conversion processes, environmental analysis, green agro-industrial process design, innovative desalination technologies, rehabilitation of contaminated land, rescuing lands from desertification and many more were treated.

These activities were often rounded off by dissemination of the gained insights via the organization of (inter)national conferences and workshops in which Prof. Chiaramonti played an essential role.

From 2002 to present David worked at the University of Florence previously on Renewable Energy Systems and more recently (2013) as contract (full) professor of "Biomass Energy Conversion Technology".

David Chiaramonti is truly a remarkable scientist and expert, specialized in Bioenergy/biofuels, bio-products and bio-economy.

A strong point of David is that his knowledge and network is embedded in a very broad expertise in renewable energy, integration of different sources and applications like in desalination systems. As a scientist most of his original work is in the area of biofuels (liquid, gaseous and solid) and their implementation and applications.

Important subjects and key words in his more recent work reflecting both fundamentals and applications are: lignocellulosic bioethanol, micro algae, vegetable oil, micro gas turbines, biorefineries, pyrolysis oil, emulsified biofuels, etc.

David works are reflected in more than 180 scientific contributions such as journal articles, special journal issues, chapters in books, authoritative reviews, eight patents and applications and an impressive number of technical reports. Because of his broad knowledge and excellent reports he is/was editorial board member of several journals like: *International Journal of Oil, Gas and Coal Technology, Applied Energy, Biomass Conversion and Biorefinery, Biofuels*. He was a highly appreciated reviewer for at least 14 other journals and editor of at least 5 special journal issues on subjects like: Algae for Biofuels, Lignocellulosic Ethanol, Alcohol Fuels, Biomass Conversion and Biorefineries.

David Chiaramonti was very often asked for invited lecture in a large number of conferences where next to original R&D he presented authoritative reviews.

David Chiaramonti's expertise and leadership was often sought by governments and governmental and industrial bodies, national and international.

A few examples of a long list are:

- Chairman of SC9, CTI (Thermo-technical Italian Committee on "Energy Sources: Renewable, Conventional, Secondary").

- Chairman of the Research Advisory Council of the German Biomass Research Center (DBFZ).

- National expert (nominated by ENAC) in the Int. Civil Aviation Organization: committee on Aviation Environmental Protection, the Alternative Fuel Task Force.

- Country representative in the International Energy Agency. IEA-bioenergy, Task 39 (commercializing first and second generation biofuels) and Task 34 Biomass Pyrolysis.

- Member of EU Biofuel Technology Platform WG4, sustainability, etc.

Prof. Chiamonti was coordinator of 16 R&D and dissemination projects and EC tenders and participated in 29 more.

He was active as a well appreciated advisor/expert for programs on energy, biofuels, etc. for among others sciences foundations/ministries of Switzerland, Austria, UK, Canada, and of course Italy and its regions.

Prof. Chiamonti is a very active and successful supervisor for PhD and other degrees, an well appreciated teacher at the University of Florence but also at other universities like Venice and Rome where he introduced new master courses on biomass, energy and environmental and management of sustainable development. He lectured on those subjects for many organizations.

There is a long list of (international) conferences where David Chiamonti acted as general chairman or as member of scientific, technical and or organizing committees, session organizer or workshop leader including several of the series of our "European Biomass Conference and Exhibition". These contributions played an important role in the dissemination of the results of R&D and implementation of biomass energy and products and the evaluation of the environmental and socio-economic impacts of energy policies.

Professor David Chiamonti,

The Linneborn committee selected you as the winner of the prestigious European Linneborn Prize 2017 because of :

- Your activities in R&D of biomass at the University in Florence and as President and Managing Director of RE-CORD, your previous activities in CREAR.
- All your many works on implementation and project realization on biomass for energy and products in international context.
- All your intellectual and leadership contributions to our international and national organizations.

We hope that you will continue your activities in the biomass field with the same vigor and quality, moderated with your personal typically Italian charm for many more years. We are certain that the whole biomass community in Europe and worldwide will join the Linneborn committee in their warmest congratulation.