



Renewable Energy Consortium for Research and Demonstration Consorzio per la Ricerca e la Dimostrazione sulle Energie Rinnovabili

DESCRIPTION OF LEGAL ENTITY

The Renewable Energy Consortium for research and Demonstration (RE-CORD), funded in 2010 under the initiative of CREAR/Department of Industrial Engineering of the University of Florence, carries out scientific and technological research in the field of Renewable Energies and specifically Bioenergy. RE-CORD is a non-profit independent research body, merging competences and resources in the field of basic and applied research, engineering, and sustainable land planning and development. Members of RE-CORD are the University of Florence (through the Interdepartmental Research Center for Alternative Energy and Renewable - CREAR, and the Azienda Agricola Montepaldi Srl), GalStart SrL srl, Spike Renewables srl and ETA-Florence. RE-CORD and its members participated to a large number of R&D and Demonstration projects in the field of biomass, bioenergy, biofuels and bioproducts, and a large number of scientific works have been published on journals and or sent at conferences and workshops.

RE-CORD and CREAR members participated to International Networks in Bioenergy (as IEA Task 39-Liquid Biofuels), provided consultancies to the EU Commission, national Ministries, Regions and local actors in carrying out assessment studies or evaluating/monitoring proposals/projects.

RE-CORD provides the research background and expertise of the University of Florence, and assures a proper implementation of the research work, higher flexibility and faster response to solicitations for new research topics and identifies opportunities derived from research results.

RE-CORD owns and operate a state-of-the-art analytical laboratory fully devoted to biomass, biofuels and bioliquids characterization. The laboratory, which carries out also contract research and analyses for third party, has a broad range analytical capability, mostly for thermochemical process development. Along with the laboratory, another prominent asset is the Experimental Area, a 500 m2 facility where several pilot and demo installations are installed and operated, such as various pyrolysis and gasification plants, bioliquid and biofuel production and downstream processing systems, bioenergy generation unit (micro gas turbines and engines).

The group benefits from the diverse and high-skilled backgrounds of its employees, which includes Energy/Mechanical/Environmental Engineers, Chemists, Biotechnologists, Physicists, Agronomists, the vast majority holding a Doctoral Degree.

INNOVATION

RE-CORD is a private-public nonprofit Research & Development organization founded in 2010 that groups together its members resources (know-how, networks, plants, laboratory and other facilities) in a single body able to catch opportunities quickly and efficiently in the field of renewable energies, biomass, bioenergy and bioeconomy. RE-CORD represents an excellence in research and





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demonstration, a place where from the experience, passion and dynamism of people innovative ideas are created, developed then brought to reality: new knowledges, new technologies, new products, new practices and new value chains thus take shape. These objectives are achieved through research carried out in the context of funded projects (i.e. from the European Union, national ministries, regulatory authorities & Co.) or of self-financed research, both in an international environment and in close contact with local actors. RE-CORD targets advancements in the renewable energy, bioenergy, bioeconomy and sustainable development sectors, in a circular economy scheme and, thanks to its technical and scientific network, connecting Italy to Europe and the rest of the world. In addition RE-CORD's mission stimulates local competencies, giving highly skilled young graduates opportunities in their home country and abroad, supporting local administrations and domestic companies, so as to reduce emigration of talents.

MISSION

Our mission is to contribute to the development of the strategic sectors of biomass, bioenergy and bioeconomy, carrying out research for the development of new technologies, new products, new value chains. To achieve this progress we deal with many different topics, from biomass production, to the most suitable production techniques, up to biomass exploitation for energy and bioproducts production, passing through biomass conversion using different kind of procedures such as thermochemical conversion or biological processes. Special attention is always paid to developing processes and complete value chains in a circular economy/ perspective: this means being able to integrate in the best way these new chains in the actual environment, minimizing the residues of existing activities and providing them with new business opportunities. With its activity RE-CORD enhances know-how in these fields promoting a multidisciplinary approach, thanks to its highly specialized team covering most related areas, thanks to its members activities and specific competences, and thanks to its relevant network including national and international industries as well as other research centres. Consequently RE-CORD represents an excellence point in its field and a reference for many actors: it provides an experimental platform (laboratory, demo plants and competencies) to develop industrial research in a scientific and technological environment, offering support and qualified services to administrations and policy makers at EU, National and Regional level, promoting socio-economic Regional development and networking with National and International stakeholders and programs. In addition RE-CORD's mission is also training and dissemination. First of all RE-CORD deals with the training of young researchers and professionals through many internship programs, several degree and Ph.D. theses, the IMES Master and other international training projects. Furthermore RE-CORD gives these highly specialized young professionals the opportunity to put in practice their expertise in their geographical area supporting





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administrations and domestic companies, avoiding talent emigration and boosting socio-economic local development.

Firma e timbro