JOINT STATEMENT ON COOPERATION BETWEEN ITALY AND CUBA ON AGRICULTURAL ENGINEERING Technical Committee Meeting Santa Clara University February 2015

Dr Luigi Pari from CRA ING met a delegation of Department of Agricultural Engineering of University of Santa Clara in order to "evaluate the possibility of development agro-energetic chain in Cuba both for the aspects related to agricultural mechanization and logistic then to the biomass energetic plants for first transformation of harvested products".

Dr. Luigi Pari presented the results obtained by Suscace Project in Italy focusing on the technology developed for improving the logistic of biomass crops.

The Italian Ministry of Agriculture in fact requested to CRA to develop a research project, named SUSCACE acronymic of "Scientific Support to the Agricultural Conversion to Energy Crops", that required a deep evaluation and analysis of the problematic related to the conversion of sugar factories due to the National decision to close half of them. The analysis pointed out the possibility to convert the factory to power plants and the fields before cropped to sugar beet to energy crops.

Thus a deep definition of the technical, agronomical and economical aspects had to be carried out in order to evaluate the best species, the best agronomic practices and the best combinations of logistics chain even developing new prototypes, in order to permit the conversion in respect of the farmers income and social and environmental issue.

CRA, National Research Council in Agriculture, have both the deal to carry out high level scientific research and to transfer the obtained knowledge to the stockholders.

It was requested to CRA ING to coordinate the project due to the high number of EU research projects in the sector that already permitted to develop innovations in agro energy logistic.

All the scientific innovations produced in the Suscace Project were published in national and international publications, presented in both Conferences, Workshops, Seminars and training courses, in order to spray out as much as possible the results obtained. A web site were created (http://ing.entecra/biomasse) in which the partners had the possibility to shows the great amount of scientific publications produced in the framework of the

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Prot. N: 0017028 del 16/03/2015



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Project both in IF international review that in national reviews and books that can be download from the web site.

The Dean of the Department of Agricultural Engineering of Santa Clara University, Prof Omar Gonzalez Cueto was impressed of the huge amount of data available on the web site and about the prototypes developed to solve the different problems of introduction of new crops, also available in movie in the web site.

Due to the fact that also in Cuba a similar situations happened and 50% of the sugar factories were closed, the Italian knowledge gained in the Suscace Project is of great interest. For that reason the publications free downloadable from the web site will be utilize in the Santa Clara University in order to train students and other accompanying measure should be developed in future.

Due to the particular needs of Cuba agriculture, the knowledge of Susacce project will be of great importance for food security and environmental protection. The meeting was considered highly successful due to the huge amount of data presented, which made possible to start a detailed discussion on Suscace data utilization for future cooperation. Several possible joint activities have been identified and both parties have agreed to follow up the discussion on such activities in the near future in order to define a detailed roadmap to be presented to funders. One's may be the Italian Ministry of Agriculture interested in the utilization of the knowledge developed in project funded.

The two parties have identified a number of synergies may be activated to avoid duplication of efforts and costs and to maximize the results. It is important therefore to organize mutual visits of the experts in the research centers appearing to be at present leading entities in agricultural engineering area, either in Italy or in Cuba.

The parties agree that the knowledge management, including education and training, is currently an issue and is of fundamental importance to support exchanges of knowledge.

In this frame a program will be developed that will include:

- Experts technical visit of the research Labs and join research activities
- Exchange of doctoral and post-doctoral fellows between universities for research programs and training internships at selected industry and R&D entities. Sources of funds will have to be identified.
- The institution of an International Italian-Cuba Master in Agro Energy Sciences with lessons online

List of Delegation Participants

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