Towards Sustainable Sugar Industry in Europe

Final Report Summary - TOSSIE (Towards Sustainable Sugar Industry in Europe)

Sugar and its main by-products - beet pulp and molasses - being used for direct consumption and also in the food and drink industry and production of animal feed, are of strategic importance to human nutrition. Moving away from strict protection of the EU sugar market, the EC tends to reduce sugar price and admit sugar imports from least developed countries. To satisfy consumer needs in a sustainable manner at changed market conditions, new ideas on production technology, engineering and management are needed for the restructuring of the sugar sector which is of major importance to the EU economy. TOSSIE was a joint effort of a consortium composed of eight European partners. Among them are four higher educational institutions and four industrial companies. During the period May 2006 to May 2008, TOSSIE partners have created a forum of information exchange and discussion aimed at evaluating the chances for sustainable development of EU sugar sector and identifying its needs for future research in problem areas covered by the relevant European Technology Platforms.
After concluding its preparatory stage marked by two partner meetings held 19 - 20 June 2006 in Plock, Poland and 26 - 27 October 2006 in Koennern, Germany, TOSSIE entered its decisive stage of planning and organising dissemination events. The basic idea was to invite professionals working in various segments of the EU sugar sector to take part in the discussions held in the framework of three thematic workshops.

The first TOSSIE workshop, held 25 - 26 January 2007 in Ferrara, Italy was a real team work by all the project partners who contributed through presentations, short communications, session or roundtable chairing, or taking part in the discussions.

The second TOSSIE workshop - 'Engineering and management tools for process integration and plant optimisation in sugar industry'
The attendance was 35 persons coming from 11 countries. Represented were eight EU Members States (Austria, Czech Republic, Denmark, Germany, Italy, Poland, Slovenia, United Kingdom), two EU candidates (Croatia and Turkey) and one non-EU country (Serbia). The workshop agenda reflected two ideas:
- By implementing, at the sugar-factory level, modern engineering and management methods and tools based on the research results accumulated in recent years. Improvements can be achieved in the safety and competitiveness, and reduction of the environmental impact of sugar sector.
- New research initiatives concerned with engineering and management issues are possible under the Seventh Framework Programme of the EU and especially in cooperation with relevant European Technology Platforms.

The third TOSSIE dissemination workshop 'Value chain improvement in sugar industry' was organised by Graz University of Technology on 29 - 30 November 2007 in Seggau, Austria. The attendance was 60 persons coming from 15 countries. Represented were twelve EU Members States (Austria, Bulgaria, Denmark, France, Germany, Greece, Hungary, Italy, Poland, Slovenia, Sweden, the Netherlands), one EU candidate (Croatia) and two non -EU countries (Brazil and Serbia). The workshop participants discussed the value chains linked to the sugar sector and possible chances for optimising these value chains in the light of on-going and future developments in the sugar market as well as in agriculture, food industry, energy markets and markets for materials from renewable resources. Sustainable development of the sugar sector and along the value chains was an additional topic of this workshop. As the sugar industry is an important link between agriculture and society the current trend towards the utilisation of renewable resources for the provision of energy and materials will offer interesting chances for this sector. A possible contribution of the sugar sector to a more sustainable general industrial structure in Europe was also discussed. As a non-conventional part of the event, a brainstorming session took place focusing on the identification of research and development needs of the European sugar sector.

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