

Oleochemistry in Europe, a challenge of regional competitiveness from demonstration to industrial production

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The annual global production of oils and fats in 2011 amounted to 178.4 million tons, with a consumption shared between food, feed and industrial uses in the ratio 74:5:21. Industrial uses today equally split between energy and oleochemicals. Customer and user expectations are evolving in a sector driven by competitiveness, rising energy and input costs. Sustainability is also definitely a big driver of growth. Clearly, consumer product companies want to be more sustainable and environment-friendly and there is an opportunity to satisfy those interests and to enlarge the use of oleochemicals in this area. The challenge for oleochemical suppliers is therefore to deliver innovative, sustainable products that are also cost-effective.

To that effect, important innovation efforts are being put into place at the European level, notably with the implementation of IEED P.I.V.E.R.T. "Picardie Innovations Végétales, Enseignement & Recherches Technologiques". P.I.V.E.R.T. is an institute of excellence in plant chemistry with a budget of about 247 million euros over 10 years. Mainly located in Compiègne (Picardie, France), it will be a center for research, innovation, experimentation and training in plant chemistry based on oleaginous biomass. It will bring together for at least 10 years, over 150 researchers, engineers and teachers working in different laboratories and on industrial pilot units.

P.I.V.E.R.T. will help to ensure the transfer of innovations from the laboratory to pre-industrial stage and will be the first European center to convert oleaginous biomass (rape, sunflower,...), i.e. the whole plant, for the production of renewable chemicals for multiple applications: food, health, cosmetics, building materials, etc..

At French and European scale, for industrial chemist partners of IEED P.I.V.E.R.T., renewable raw materials represent an average 8% of their purchases. This rate should rise to around 20% by 2020, and the future business then released through plant chemistry should represent more than €7 billion, of which about €500 million directly linked to the implementation of IEED P.I.V.E.R.T.