No Agro-Waste: Innovative approaches to turn agricultural waste into ecological and economic assets

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NoAW – a *H2020* project

Exploitation of untapped potentials of agro-wastes

To develop a sustainable consumption culture, a shift from linear to circular economy has to be undertaken. This means keeping and converting resources to yield their maximum value. At present, 50 % of the fresh matter of harvested crops in Europe is considered as agricultural waste. This represents an energy loss of about 89 million tons oil equivalent. The future economy needs to find ways to optimize the use of this precious resource.

Innovative solutions for agro-waste processing

NoAW aims to find innovative solutions for converting over 75 % of agricultural by-products such as straw, manure, vine stalks and wine residues into valuable assets like bio-energy, bio-fertilizers and bio-plastics. These products contribute to saving precious fossil resources, reduce or eliminate waste accumulation of non-biodegradable plastics, and reduce the negative impact of inappropriate agro-waste management.

Value beyond anaerobic digestion

To achieve these aims, current anaerobic digestion (AD) technologies / processes have to be improved. AD represents a widespread technology being held back by several technological limitations and weaknesses such as low conversion yields, low economic value and feedstock supply issues. NoAW's goal is to implement pathways to sustainably process agro-wastes and to investigate a range of eco-efficient conversion routes for all side- and end-products of current AD processes. This biorefinery-concept will enable the production of a diverse portfolio of high added-value molecules, building blocks and materials which consume fewer resources and reduce pollution. By-products and assets from certified organic farming will especially be considered in NoAW.

Close cooperation between project partners and stakeholders

The NoAW project puts particular emphasis on a close linkage between practitioners, industrial and economic actors via a Knowledge Exchange Stakeholder Platform. By means of a multi-criteria evaluation tool we enable the assessment of stakeholder requirements and preferences and the environmental impact of new processes and products starting from the design phase.

Large agro-waste potentials in the EU and China

The collaboration with the Chinese project partners and an Asian mirror platform expands the project reach beyond the European Union. In the words of Prof. Nathalie Gontard, NoAW-coordinator from INRA: "EU and China are the biggest food producers in the world; because preserving our environment is a primary worldwide target as carbon or plastic waste are borderless, it is a crucial common goal to address the challenges of the circular economy and ensure that China and Europe are progressing side by side towards sustainable agricultural production systems."

In order to foster the collaboration and knowledge exchange between the European and Chinese stakeholders, a NoAW stakeholder event will be organized in China in October 2018.





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Note to editors:

- 1. NoAW is the acronym for "No Agro-Waste: Innovative approaches to turn agricultural waste into ecological and economic assets". It is a European Horizon 2020 research and development project, running from 2016 to 2020, coordinated by INRA (France). The consortium involves 32 partners from universities, public research organizations and other institutions from a dozen countries, including participants form China, Taiwan and Hong Kong.
- Further information on NoAW project: http://noaw2020.eu
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