



# NoAW project

*Innovative approaches to turn agricultural waste into ecological and economic assets*

Horizon 2020 project : **2016-2020**

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The project leading to this application has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 688338.

# What is NoAW about ?



Driven by a « **zero-waste** » society requirement, NoAW (No Agricultural Waste) is about **developing a circular economy approach** applicable to agricultural wastes on a territorial and seasonal basis



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# What are the main objectives ?



NoAW aims to pave the way for **a sustainable agro-waste bio-refinery concept** by shifting from an a-posteriori environmental assessment to **an early eco-design approach**.



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# What NoAW will offer ?



NoAW targets to unlock the potential of agro-waste to be converted into a portfolio of eco-efficient products: **bio-energy, bio-fertilizers, bio-packaging** and **bio-molecules**, in symbiosis with urban waste conversion.



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# Concept of NoAW:



The concept of the NoAW consists in involving all agriculture chain actors at the territory level in order to:

- **Develop innovative eco-design and assessment tools of circular agro-waste management** strategies and address related gap of dialogue, knowledge and data;
- **Improve agro-waste resources use efficiency** by upgrading the most widespread mature technology and by eco-designing **innovative bio-processes and products**;
- Ensure and accelerate the **development of new business concepts and stakeholders** platform for **cross-chain valorisation of agro-waste** on a territorial and seasonal basis.



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# Major challenges:



NoAW will take up in a coherent manner, the five following major challenges for **ensuring sustainable agro-wastes uses**:

**1.** Inappropriate materials and knowledge flows management resulting in unbalanced nutrients distributions, contaminants accumulation and agro-waste conversion issues;

✓ NoAW solution: **territorial “cyclifiers”** i.e. stakeholders and materials streams connectors

**2.** Lack of adequate and early prediction of environmental and economic consequences of agro-waste management strategy and clear guidance to end-users;

✓ NoAW solution: **eco-design approach and multi-criteria decision tools**



# Major challenges:



3. Weaknesses of existing technologies for converting agro-wastes into biogas and bio-fertilizer;



NoAW solution: **innovative eco-efficient AD technologies**

4. Bottlenecks for innovative building blocks, molecules and materials issued from agro-waste;



NoAW solution: **breakthrough technology** on agro-waste conversion and bio-refinery concept

5. Lack of integration of agro-waste business in a circular economy concept;



NoAW solution: a cross sectorial vision to bridge the gap between agro-waste science and business opportunity in order to **promote agro-waste industrial ecology concept**

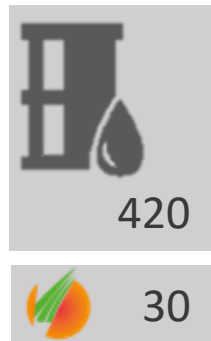
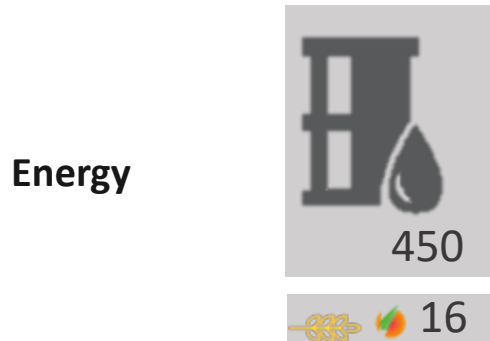


## Now the situation

## NoAW's ambitions



MTOE: million tons oil equivalent

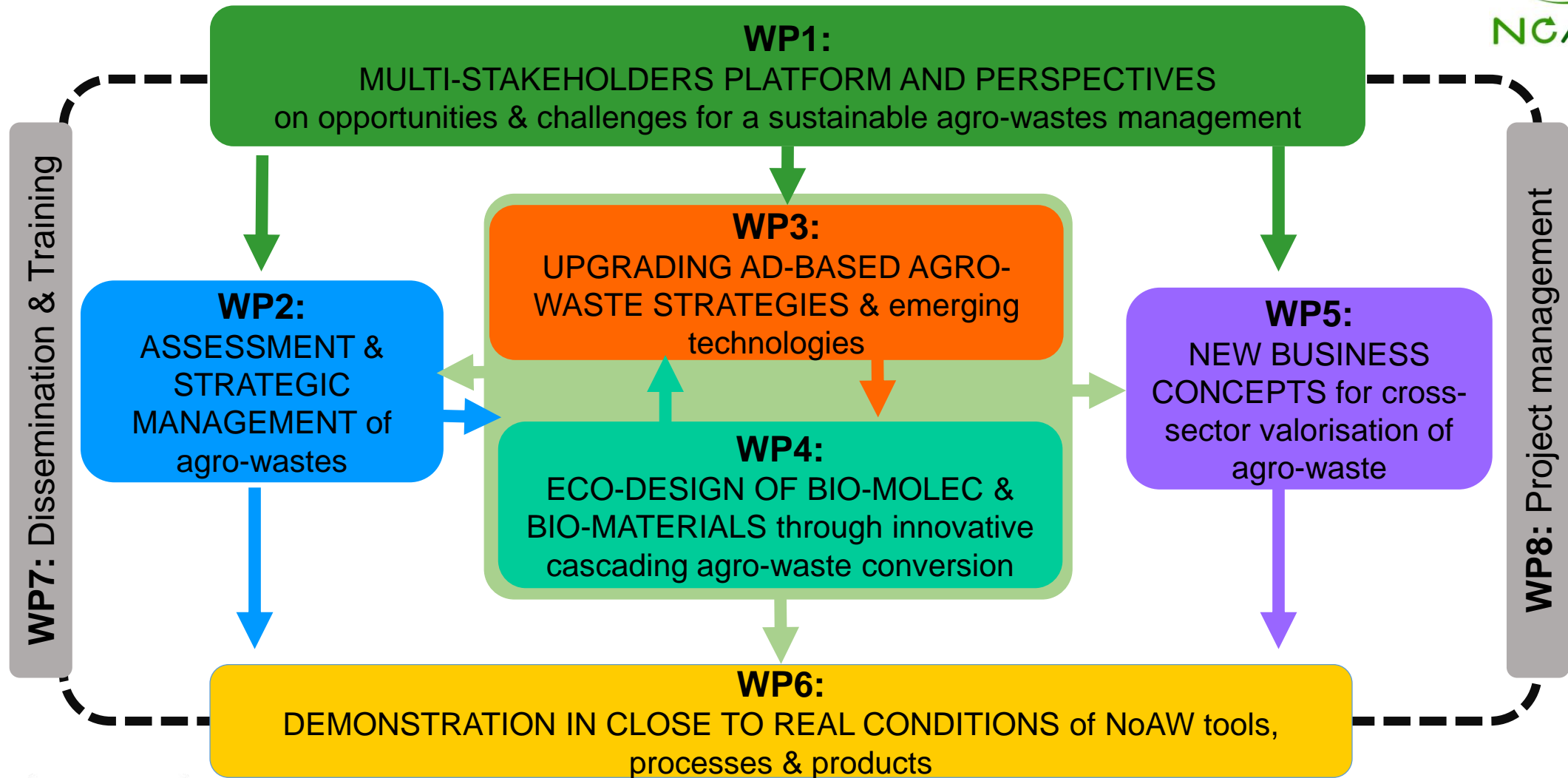


✓ **NoAW aims to substitute** non renewable oil and noble food resources With agricultural waste that will be converted into energy, fertilizer, plastics and chemicals.





# Structure of NoAW:



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# List of Beneficiaries



SP (Sweden)

DTU (Denmark)

AAU (Denmark)

DLO (Netherlands)

FRAUNHOFER (Germany)

INRA – Coordinator (France)

UM (France)

UNIROMA (Italy)

UNIBO (Italy)

CBHU (Hungary)

IAUS (Serbia)

NTUA (Greece)

ITRI (Taiwan)

SEE (Hong Kong)

SYSU (China)

IAPPST (China)



BioVantage Danemark

AGRIPORT (Netherlands)

ECOZETP (Germany)

IBBK (Germany)

VERMI (Germany)

SCHIESSL (Germany)

SOFIES (Switzerland)

IFV (France)

GRAPSUD (France)

APESA (France)

IT (France)

INNOVEN (Italy)

GCIA (Italy)

IBET (Portugal)

VA (Serbia)

TIANAN (China)

## NoAW partners:

✓ **16 academics**

✓ **16 privates or associations**

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Thank you for your attention

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