A NEW PLATFORM TO OPTIMISE NUTRIENT MANAGEMENT IN THE EU: LAUNCH OF THE NUTRIBUDGET PROJECT

Brussels, 14th of September 2022,

Launched on the 1st of September 2022, the NUTRIBUDGET project will develop a prototype of an integrated nutrient management platform that contributes to optimise nutrient use across different agricultural production systems and regions in the EU with the aim to reduce pollution and nutrients losses.

Nutrients such as nitrogen (N) and phosphorus (P) play an essential role in agriculture. To meet the demands of a growing population, agriculture intensified over the past decades, with a 68% rise in food production in Europe since the 1960s. This rise was facilitated by an increase in machinery and nutrient use, which has however led to substantial negative impacts on human health, biodiversity, water, air, and soil quality and contributed to climate change.

It has been documented that achieving an optimal nutrient management in the EU agriculture is crucial for the sustainability of the sector. Currently, two thirds of the excessive N and P levels in waters originate from fertilisers in agriculture as well as half of the emissions of nitrogen pollutants, contributing to environmental pollution and global warming[1]. On the other hand, the industrial production of chemical fertilisers is energy intensive and increases EU's dependency on natural gas, while phosphorus rock is on the list of critical raw materials. The environmental costs of nutrient pollution in the EU have been estimated to range between 70-320 billion EUR annually[2]; highlighting the importance of the European Commission's Green Deal's objectives to reduce nutrient losses by 50% and fertilizer use by 20% by 2030[3].

How can this be achieved without compromising food production? NUTRIBUDGET will help agriculture to intensify sustainably in order to meet the demands of optimising yields without compromising environmental integrity or public health.

NUTRIBUDGET will contribute to systemically optimise nutrient flows and budgets across different agricultural production systems and regions in the EU to limit and reduce pollution due to the excessive use of nutrients and nutrient losses in the environment.

To achieve this, NUTRIBUDGET will work to develop and implement a prototype of an integrated nutrient management platform, called **Nutriplatform**, in various regions across Europe, as a decision-support tool (DST) for farmers, advisors, European policy makers and regional authorities.

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[1] European Commission, "Call for evidence: Nutrients – action plan for better management", Ref. Ares (2022)2306028 - 29/03/2022.

[2] The European Nitrogen Assessment Sources, Effects and Policy perspectives, Cambridge University Press, 2011.

[3] European Commission, EU Action Plan: 'Towards Zero Pollution for Air, Water and Soil', Brussels, 12.5.2021

The Nutriplatform will be based on knowledge from existing and new field-tested agronomic mitigation measures linked to advanced models, data standards and indicators. NUTRIBUDGET will also manage 5 pilot regions (4 nutrient hotspots and 1 nutrient deficient area) in 4 different climate zones across the EU. The models will operate at different scales with specific validated technological or nature-based mitigation measures within a financially viable transition route towards the desired nutrient status, as described in the Zero Pollution Action Plan and the Farm to Fork Strategy.

NUTRIBUDGET will consider all stakeholders in the process, placing emphasis on co-creation with the help of a consortium of 17 partners distributed throughout 9 EU countries and Switzerland.

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The consortium:

1. **UNIVERSITEIT GENT (UGent) (Project's coordinator),** GENT 9000, Belgium,

and the following other beneficiaries:

2. **YARA INTERNATIONAL ASA (Yara)**, Oslo 0277, Norway,
3. **LUONNONVARAKESKUS (LUKE)**, HELSINKI 00790, Finland,
4. **ARVALIS INSTITUT DU VEGETAL (ARVALIS)**, PARIS 75116, France,
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