



WalNUT Nutrient Platform

Maria Avramidi : mariaavramidi@mail.ntua.gr

Webinar on the WalNUT Platform

17th of December

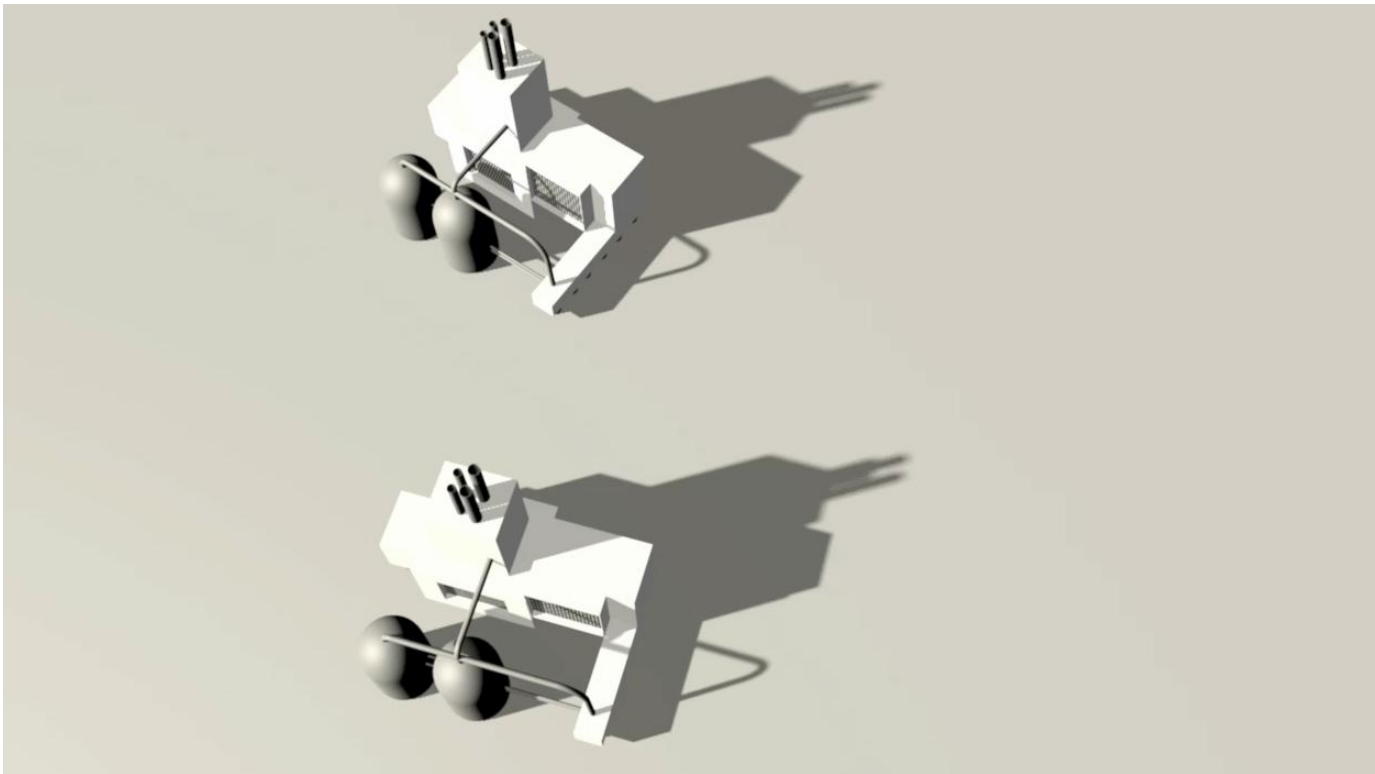


This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101000752.



What is Industrial Symbiosis ? (1/2)

Industrial symbiosis (being on of the main applications of the circular economy (CE)) is a collaborative approach where companies mutually share resources, by-products and know-how, to achieve economic benefits, reduce environmental impact and promote sustainability.



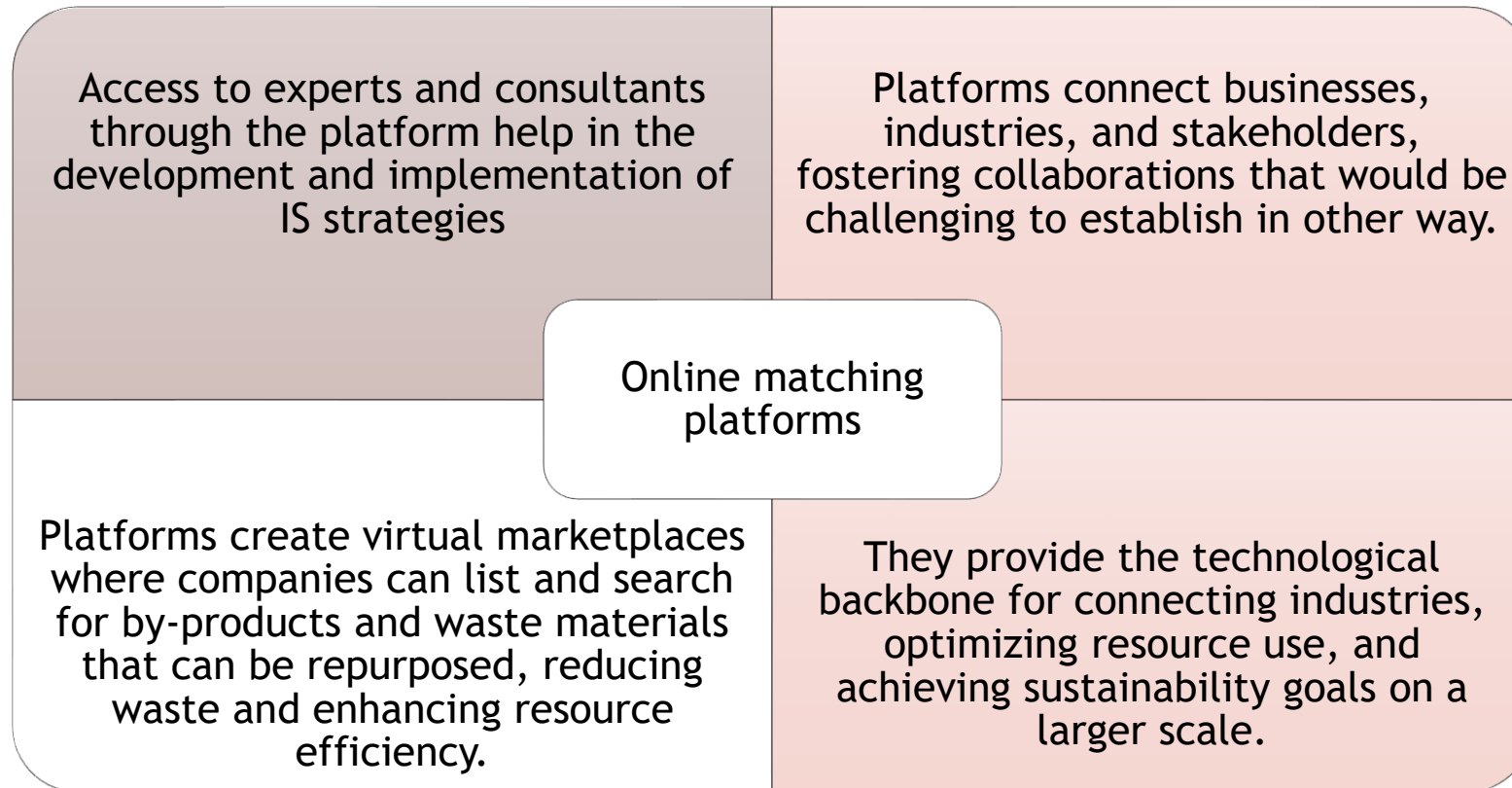
Key Principles

- **Resource Sharing** - materials, energy, water, logistics
- **Collaboration** - between businesses and stakeholders
- **Value Creation** - economic, environmental, and social benefits
- **Innovation** - through redesign of processes and networks

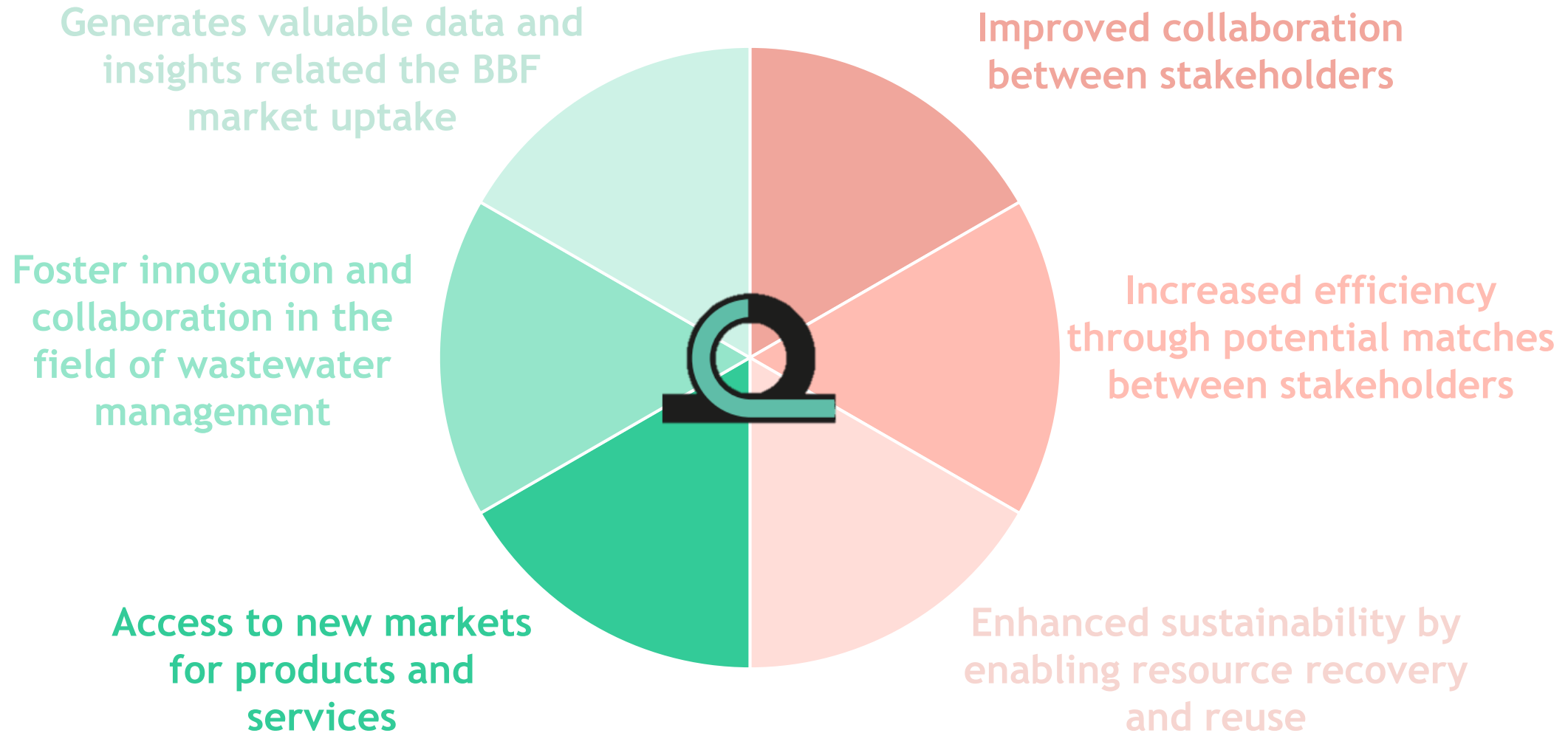
How online platforms help to achieve IS ?



Online platforms play a crucial role in promoting and facilitating IS by providing a digital infrastructure that supports the efficient exchange of resources, information, and expertise.



The scope of the Walnut Platform





Walnut Platform

The Walnut platform it's a catalyst for CHANGE

The platform enables the creation of a network among different stakeholders, active in the domain of Nutrient Recovery.

Interested in wastewater management

Technology providers

Wastewater aggregators

End users of Biobased fertilizers

Consultants



Walnut Platform helps ...



Farmers → to find suppliers of BBFs

WWTPs → to find new market for recovered materials

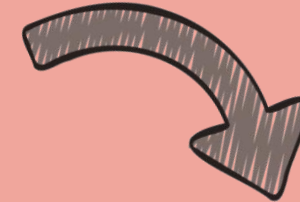
WW producers (owner and aggregator) → to find easily WWTP to collaborate or to start the treatment of their WW

Fertilizers companies → to find cheaper and more sustainable raw materials

All the users → to find a consultant

WW producers and WWTPs → to find technology providers

Technology providers → to find new customers




**WALNUT
PLATFORM**



Core components of the platform



User Registration

Information you will be asked to provide during registration:

1. Create Username & password
2. Company details
3. Address
4. NACE code

Connection details

Username* Password* Confirm Password* Email*

Company Details

Company Name Company Telephone

Company E-mail Company LinkedIn

Address ?

Please insert the address that corresponds to the facilities of your Company:

Type Your address to start searching



Industrial Activity ?

NACE Code: Select one

Choose role



- Waste Water Producer
 1. You don't apply NR technologies
 2. You apply NR technologies
 3. Both
- End User
 1. Farmer
 2. Agricultural association
 3. Bio-based fertilizer producer
- Waste Water Aggregator
- Technology Provider
- Consultant

USER ROLE

Please select how you intend to use the WNP. You can have a single or a multiple WNP role.

☐ Do you want a consultant?

 ☐ Waste Water Producer ?	 ☐ End User ?	 ☐ Waste Water Aggregator ?
 ☐ Technology Provider ?		 ☐ Do you want to be a consultant? ?

Input parameters



- Wastewater stream info
- Composition, nutrients, chemicals, impurities etc.
- Recovered products
- Technologies
- Sectors on which consultation can be given

The screenshot displays the WALNUT web application interface. On the left is a sidebar menu with options: Dashboard, My Role, Waste Water Producer (selected), Add WW Stream, My WW Streams, Suggested Matches, Transactions, Search, Statistics/Metrics, Messages (10), My Notes, Announcements, FAQ, WNP Portal, and WALNUT Project. The main content area is titled 'Composition (Nutrients)' and features a table for inputting nutrient data. The table has three columns: Parameters, Values, and Units. The parameters listed are Nitrate-Nitrogen (NO_3^-), Total Nitrogen, Ammonium (NH_4^+), Phosphate Phosphorus (PO_4^{3-}), Total Phosphorus, Sulphate (SO_4^{2-}), Potassium (K^+), Calcium (Ca^{2+}), Magnesium (Mg^{2+}), Sodium (Na^+), Carbonate (CO_3^{2-}), Bicarbonate (HCO_3^-), and Chloride (Cl^-). Each parameter has a corresponding input field and a unit of 'mg/l'. Below the table, there is a 'Short Desc' section with a text area for additional information and a 'Other (Please Specify)' field.

Parameters	Values	Units
Nitrate-Nitrogen (NO_3^-)		mg/l
Total Nitrogen		mg/l
Ammonium (NH_4^+)		mg/l
Phosphate Phosphorus (PO_4^{3-})		mg/l
Total Phosphorus		mg/l
Sulphate (SO_4^{2-})		mg/l
Potassium (K^+)		mg/l
Calcium (Ca^{2+})		mg/l
Magnesium (Mg^{2+})		mg/l
Sodium (Na^+)		mg/l
Carbonate (CO_3^{2-})		mg/l
Bicarbonate (HCO_3^-)		mg/l
Chloride (Cl^-)		mg/l

Short Desc

Other (Please Specify)



Matching criteria/results

The matching algorithm is based on 3 variables

1) Distance between users

- The closer the distance between relevant users the higher the matching score on this variable

2) Nutrients and Water

- The more components you match with a supplier/provider the higher the matching score of this variable

3) Quantity

- The closer the quantity provided/requested from parties the higher the matching score for this variable



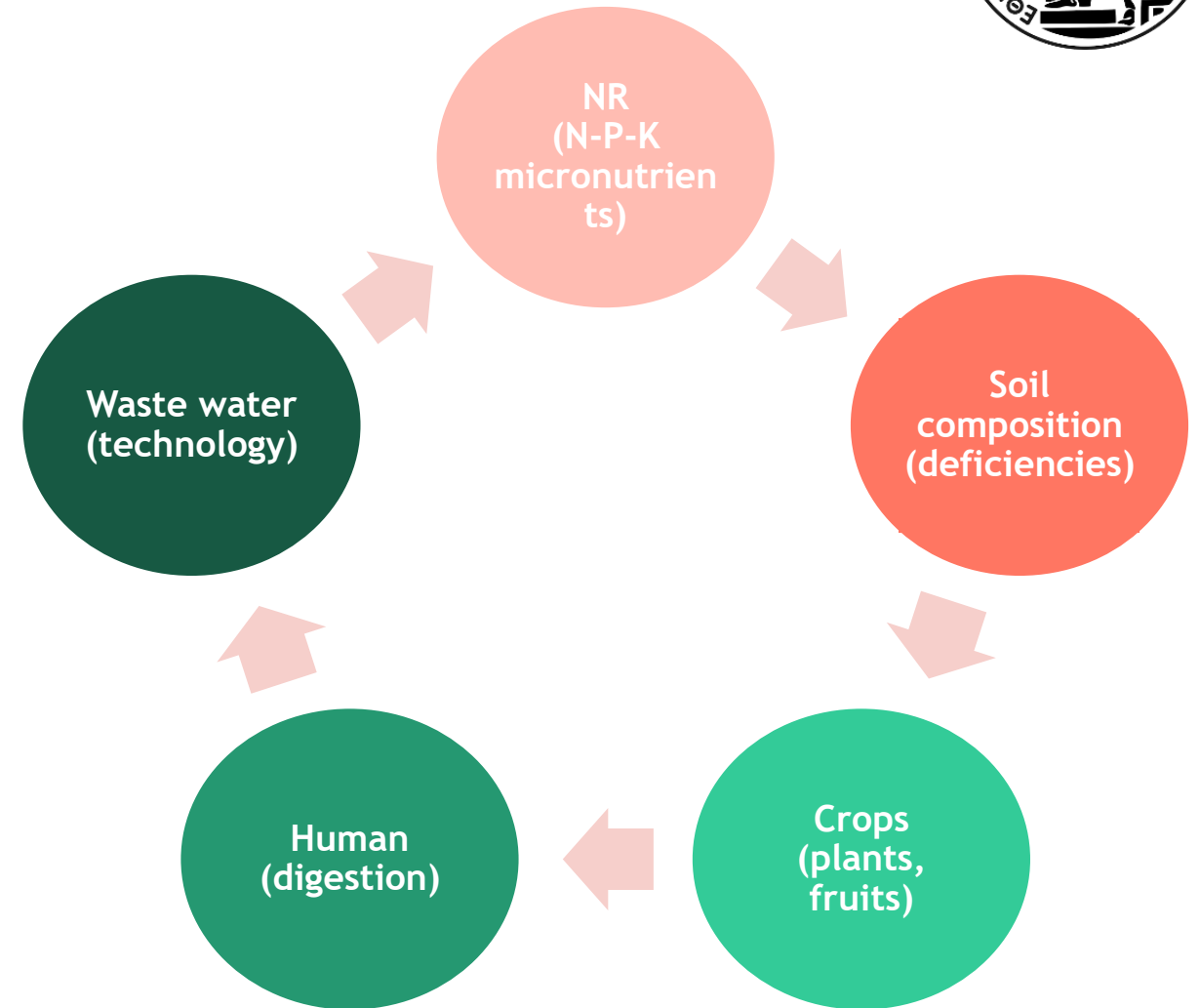
Portal of the platform

Portal – Goal



Access general information about:

1. **Project** (Executive summaries of deliverables, general information about the BBF and its policy relation)
2. **Platform** (All the relative information about the platform/manual, tutorial)
3. **News** (Relevant news to BBF)
4. **Events**



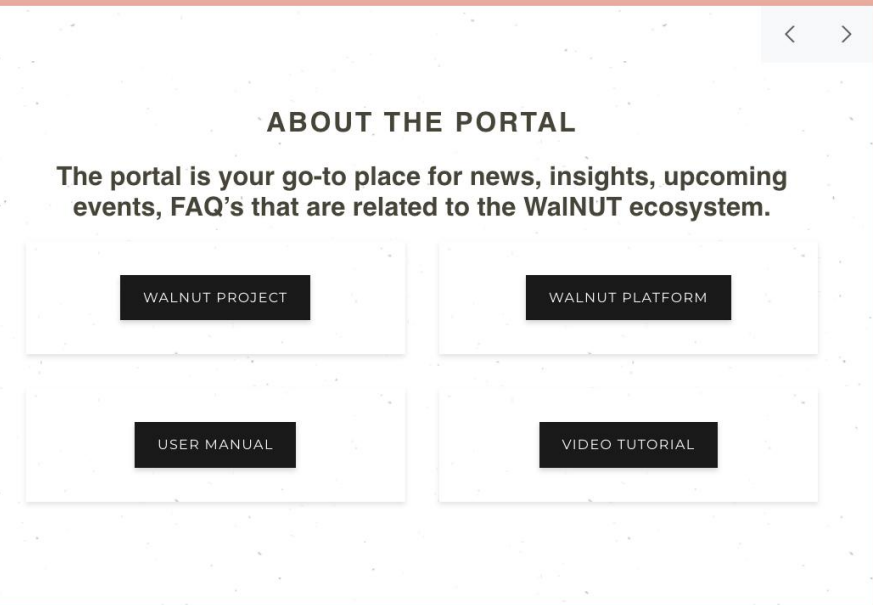
Portal – Content



[Home](#) [Knowledge Bank](#) [Project Results](#) [Useful Links](#) [Contact](#) [Logout](#)

What will the portal include:

1. Home
2. Knowledge bank
3. Project results
4. Useful links
5. Register
6. Contact us



Other information



USER MANUAL: <https://walnutplatform.eu/portal/images/D16-Platform-user-guide-v1.0.pdf>

VIDEO TUTORIAL: <https://www.youtube.com/watch?v=1e3HBrikaz8>

[Home](#) [Knowledge Bank](#) [Project Results](#) [Useful Links](#) [Contact](#) [Logout](#)

Knowledge bank

The Urban Waste Water Treatment Directive Dissemination

The Urban Waste Water Treatment Directive Dissemination Platform is a map of of EU- 27 Urban WW streams.

[read more](#)

The European Pollutant Release and Transfer Register

The European Pollutant Release and Transfer Register (E-PRTR) provides access to annually reported..

[read more](#)

The Netherlands Nutrient Platform

This platform is an interdisciplinary network of Dutch organizations that believe in a pragmatic approach..

[read more](#)

The Integrated Nutrient Management Action Plan

The European Commission plans to set up an Integrated Nutrient Management Action Plan.

[read more](#)

The Finnish Industrial WW guide

The predecessor of the attempt to better systemise the bio-based input streams, is the industrial WW guide..

[read more](#)

The Industrial Reporting Database

The European Environment Agency (EEA) in collaboration with the European Environmental Information..

[read more](#)

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Project Results

Nutrient flow analysis and transfer model

D1.1 - Nutrient flow analysis and transfer model (summary)

[read more](#)

Nutrient imbalance analysis

D1.2 - Nutrient imbalance analysis (summary)

[read more](#)

Report on HRAS/CS & adsorption/ion-exchange process

D2.4 - Report on HRAS/CS & adsorption/ion-exchange process

[read more](#)

Report on ABC-BioPhosphate: multi-functional biofertiliser and adsorbent

D2.5 - Report on ABC-BioPhosphate: multi-functional biofertiliser and adsorbent

[read more](#)

Report on design, construction and operation of the Pilot plant 2

D3.3 - Report on design, construction and operation of the Pilot plant 2 (summary)

[read more](#)

Design, construction, installation and operation of the Pilot plant 3

D3.4: Design, construction, installation and operation of the Pilot plant 3

[read more](#)

Want to make a difference in
wastewater management?



Are you interested in
cutting-edge
solutions for
wastewater
management?

Do you want to
expand your
market?



Do you want to use
sustainable products?





WALNUT PLATFORM





Thank you • Gracias • Grazie • Merci
Obrigado • Ευχαριστώ • Tak • Kösz • Bedankt

Maria Kyriazi: kyriazimaria@mail.ntua.gr

Maria Avramidi : mariaavramidi@mail.ntua.gr



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