EUROPEAN GREEN DIGITAL COALITION

Supported by the European Commission and Parliament at the EU Council's request, the EGDC unites companies to use digital solutions for reducing emissions across key sectors.

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NEUROPUBLIC

gaiasense, NEUROPUBLIC's precision agriculture platform allows for data driven farming. Without this solution, farmers follow traditional practices which often involve suboptimal use of fertilisers, plant protective products and water. This also leads to higher spend in fertilisers, and numerous environmental consequences to the surrounding area such as leaching and volatilisation of nitrous oxides due overapplication of fertilisers.

This case study is an ex-post assessment carried out in Crete, Greece for olive cultivation. Data has been collected in 2022 and 2024 for 9-month cultivation cycles on the same land..

Organisational contribution: Neuropublic worked to innovate, develop, and deploy the solution. This aligns with A-level classification as defined by ITU-T L.1480 (contribution of the integrated solution or the innovation of the solution).

Quantified impacts:

9 months	-1.7 to -2.5 tCO2e	-0.56 kgCO2e/kg
Assessment period	***Net carbon impact range***	***Net carbon impact per kg product***

Other identified impacts: Reduction in fertiliser use leads to significant **cost savings** for the farmer. However, NEUROPUBLIC is exploring measures to ensure that cost savings are re-invested in ways that **further reduce emissions** rather than increase them.

Reduced fertiliser use can also deliver the following benefits:

- Reduced run-off improves local water quality and reduces eutrophication that cause algal blooms and kills aquatic life.
- Nutrient pollution can disrupt the natural flora communities favouring the fast-growing species, creating consequences for both flora and fauna.
- Improved soil health, decreased acidification and salinisation as well as increase organic matter retention. Which relates to healthier ecosystems.

Website | **Contact Neuropublic**

Relevant links: Contact the EGDC | Methodology | Calculator