



**EUROPEAN GREEN
DIGITAL COALITION**

The European Green Digital Coalition

ITU – Assessing the Enabling Effect of
ICTs for Climate Action and Biodiversity

20 May 2026



Funded by
the European Union



GeSI

GLOBAL
ENABLING
SUSTAINABILITY
INITIATIVE

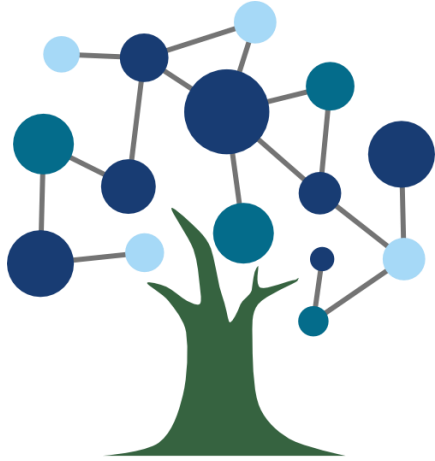


Agenda



- Introduction to European Green Digital Coalition (EGDC)
- Overview of the Net Carbon Impact Assessment Methodology for ICT Solutions
- How the EGDC calculates avoided emissions
- Phase 2: The EGDC Moves to Action
- Case study Examples

The European Green Digital Coalition (EGDC)



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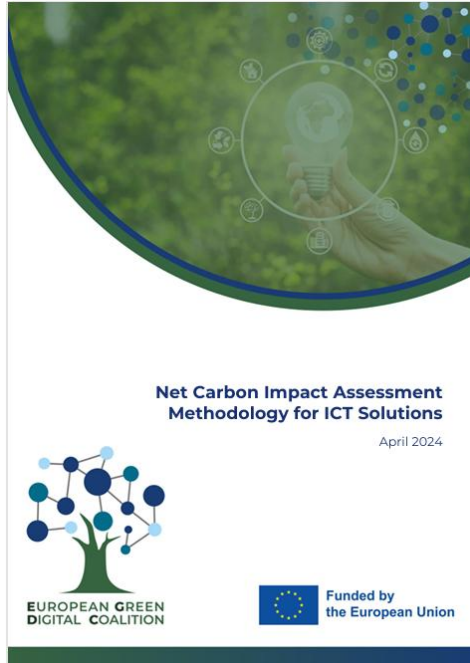
Mission

The EGDC aims to harness the enabling emission-reducing potential of digital solutions to all other sectors.

What is the EGDC?

- Launched in 2021 by a group of companies, supported by the European Commission and the European Parliament, in response to the signing of the declaration to support the Green and Digital Transformation of the EU.
- Working to drive the development and deployment of green digital solutions with a net positive impact

The Net Carbon Impact Assessment Methodology for ICT Solutions



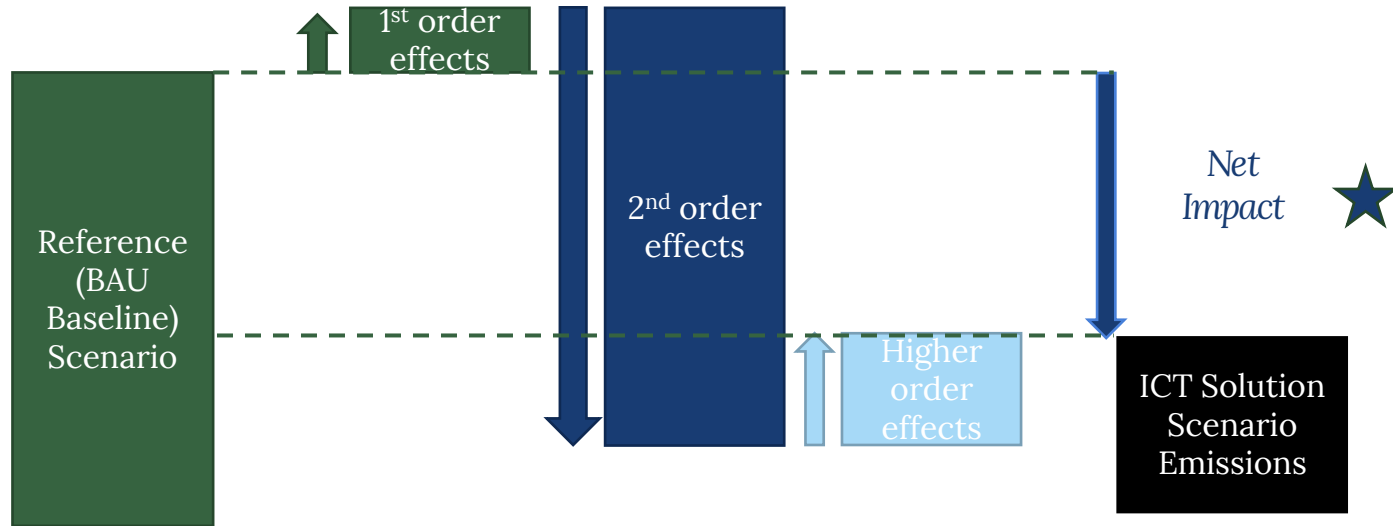
In Phase 1 output

Developed a standardised, science-based methodology to calculate the net carbon impact of ICT solutions.

Key elements of the methodology

- Step-by-step approach to assess 1st order effects, 2nd order effects, and higher order effects
- Designed for non-technical audience
- Aligned with international standards (e.g. ITU-T L.1480, WBCSD).

How the EGDC calculates avoided emissions



$$\text{Net carbon impact} = \text{Second order effects} - (\text{first order effects} + \text{higher order effects})$$



Phase 2: The EGDC Moves to Action

Phase 2 aims to foster a wide adoption and use of the EGDC methodology and guidelines by all relevant stakeholders including those involved in deployment of ICT solutions and public and private financial actors involved in supporting deployment with sustainable financing.

Delivery focus:

Case studies



- Publicly available repository of 50 case studies

Methodology



- Updated version of the net carbon impact methodology

Examples of published case studies:

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🌟 Spotlight on EGDC case studies | [Tata Consultancy Services](#): Digital Platform for NextGen Agriculture

[Tata Consultancy Services](#)' (TCS) Digital Platform for NextGen Agriculture (DNA) supports rice farmers in adopting Carbon-Smart Crop Protocols (CSCP) through a mobile application that records field operations and integrates weather, satellite and soil data. The platform guides climate-smart practices such as water-saving irrigation, precision fertiliser use and organic soil treatments.

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🌟 Spotlight on EGDC case studies | The AI Digital Platform for SWRO by [SAWACO - Water Desalination](#)

Created by [SAWACO - Water Desalination](#), this project features an AI-driven digital optimisation tool deployed at SAWACO's CFRO + BWRO seawater desalination facility in Jeddah, Saudi Arabia. The system evaluates operational data and suggests adjustments to settings like pump pressure, brine flow, and recirculation rates, aiming to lower electricity use and keep plant performance steady. The case study applies the EGDC Net Carbon Methodology to quantify the climate impact of the solution and presents transparent assumptions, data inputs and calculation steps.

🔗 Access the case study materials & see the impact of the solution in reducing emission:

📄 Methodology report: <https://lnkd.in/dbYKJznt>
📊 Impact calculator: <https://lnkd.in/dVeqsK5J>

This post is part of EGDC's ongoing series spotlighting case studies developed during the Deployment Phase, showing how digital solutions can deliver measurable climate impact across sectors.

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Net carbon impact of Apartment Heat Optimisation Solution – Stockholmskem, City of Stockholm



The solution

- AI-based control system that uses indoor and outdoor temperature data to reduce district heating energy consumption.

Data

- Ex-post assessment based on data collected from 21,678 apartments (Stockholmskem, Stockholm) in 2021 and 2024.

Results

- -276 to -545 tCO₂e
- -0.3 kgCO₂e/m²

Beyond carbon impact

- **Economic benefits** - cost savings reinvested into additional energy efficiency initiatives.

Net Carbon Impact of CropScope Precision Fertiliser Solution – NEC



NEC

The solution

- Precision fertiliser platform using VRF maps to optimise input use while maintaining yields.

Data

- 3x ex-post assessments in Japan covering corn, winter wheat, and spring wheat across their crop cycles.

Results (Spring Wheat)

- -2,953 to -4,613 kgCO₂e
- -0.12 kgCO₂e/kg of product

Beyond carbon impact

- **Biodiversity impacts** - improved water quality, healthier ecosystems, better soil health, and reduced input costs for farmers



Thank you

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