

Carbon sink or methane source local to global scale assesment of lentic waters' role in the climate system (DEEP-C)

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- Objective: Understanding and modeling the role of lentic water in the C cycle and climate system
- Budget : 1,5M€
- 8 Laboratories, 40 people
- National inventories, global assessments

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Key facts



Start of Data Collection (National):

- 50 lakes for carbon (C) stocks: synthesis of existing radiogenic and carbon data
- 50 new sediment cores for carbon stocks: sediment coring completed, lab analysis in progress
- 4 new pilot sites for monitoring of C fate in lentic waters : monthly field measurements (GHG & limnology)
- Methodological Developments:
 - 1-day training on fieldwork techniques for GHG measurements
 - Development of sediment proxies for (1) characterizing organic matter using VNIRS (Visible-Near-Infrared Spectroscopy) and geochemical analyses, and (2) reconstructing oxygen conditions based on biological remains
- Workshops:
 - 1 workshop in Chambery to prospect on integrating model and paleo data to investigate Holocene C trends

THE BUILD BALL TOWN

• 1 planned in 2025 (Canada) to initiate Northern Hemisphere (N-H) synthesis of lake carbon data

Recruitments (2024):

- 1 PhD student, 1 postdoctoral fellow (PDF), 1 research engineer (IE), and 1 master's intern (M2)
- Publications and Communications:
 - 1 publication: Jenny et al., RIO (2024)
 - 3 scientific communications presented at symposiums