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The impact of cover crop roots in soil carbon input across a European gradient

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WHY COVER CROPS?

- ▶ Cover crops have been identified a key component for achieving both soil health and carbon sequestration in EU Soil Mission goals.
- ▶ Currently they are cultivated on about 10% of the arable land area in Europe with large differences across regions, presenting ample opportunities for expansion.
- ▶ Increasing the mass and depth of cover crop roots could be a pioneering option for breeding for carbon inputs.
- ▶ Establishing an effective management for increasing below ground carbon inputs requires information on root quantities, location, and longevity as well as information on the impacts on following crops.
- ▶ Currently there is scant data on cover crop root carbon inputs across Europe and even less data on how inputs such as rhizodeposition and turnover contribute to increasing soil organic carbon stocks.

