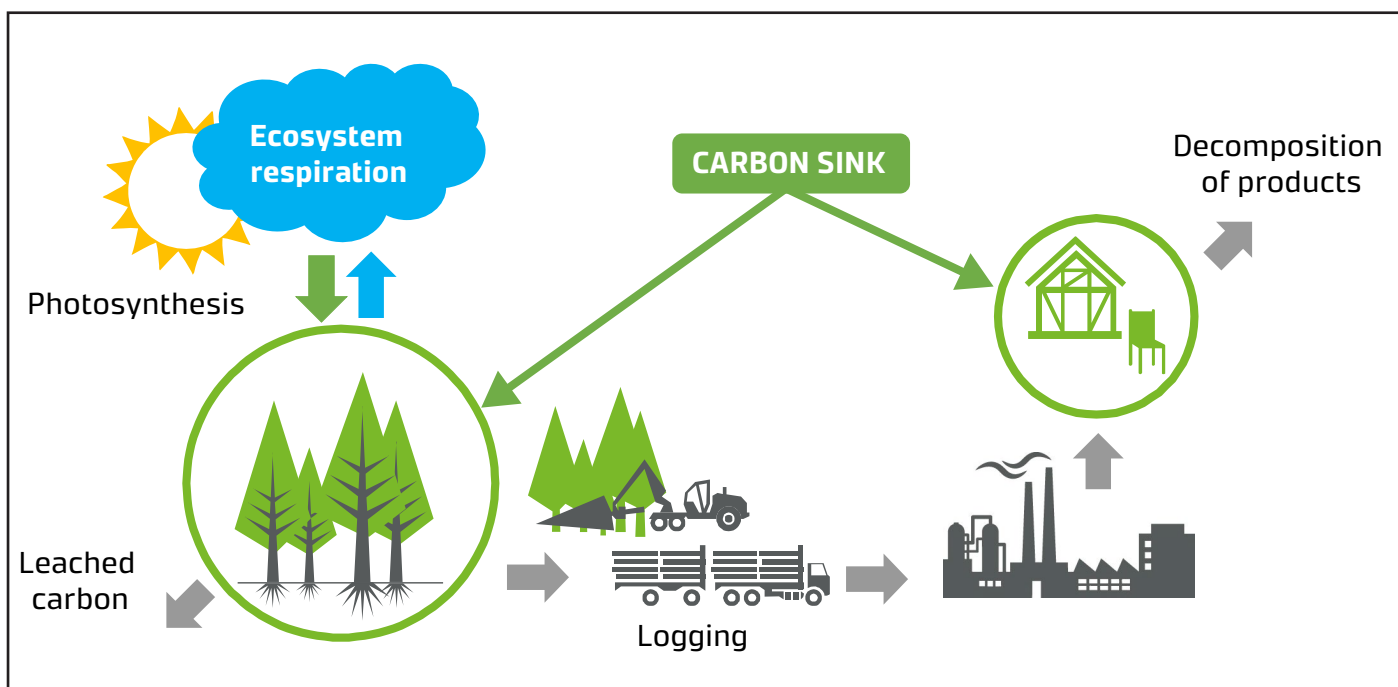


Carbon balance calculations as a tool for sustainable land use management and planning

Pressure to increase carbon sinks together with emission reduction has increased due to the urgency of combating climate change. So called climate neutrality goals require science-based knowledge and calculations on the impact of different measures on ecosystem carbon reservoirs and greenhouse gas exchange. One key tool is carbon and greenhouse gas balance calculations, for which Luke offers a variety of solutions. The results from Luke's calculations can be used to support decision-making when designing forest management measures or land use planning at multiple scales. At the same time, care must be taken to ensure economically viable forestry, conservation of forest biodiversity and minimize the risks of forest damage.

Examples of solutions Luke can offer:

- Information on existing carbon stocks and GHG balance to support the customer's forest or land use strategy work.
- Carbon balance calculations for carbon neutrality targets of municipalities, regions, or private sector organizations.
- Changes in tree biomass and soil carbon stocks under different forest management scenarios
- Carbon impact of zoning, infrastructure construction projects and other land use changes.
- Carbon and GHG impacts of afforestation and restoration projects



Why Luke?

Luke can provide the most up-to-date calculation models and the expertise to utilize them on a case-by-case basis. Luke is responsible for greenhouse gas accounting at the national level. Luke has extensive data sets and knowhow on land use monitoring and forest inventories. The National Forest Inventory (NFI) of Finland dates back to the 1920s. Luke has experience from working with both public as well as private sector organizations.

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