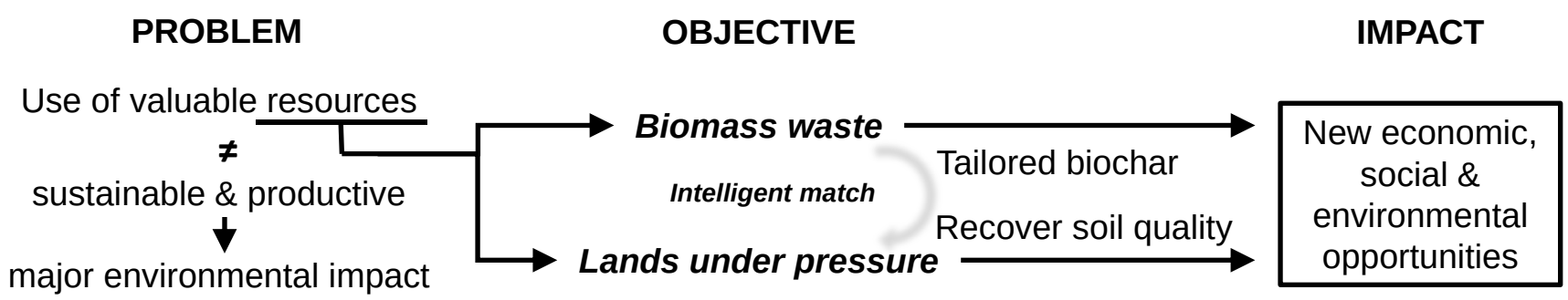
IMPACT: Intelligent Match restoring land under Pressure by Applying Carbon-rich resources Processed into Tailored biochar



CHALLENGE

The NWE regions are among the highest resource consumers in the European Union. Both secondary biomass feedstocks and low quality soils are valuable resources that are currently not used in the most sustainable and productive way. Moreover, their use has a major environmental impact.

OBJECTIVE

The general objective of the project is to **optimise the (re)use** of two types of natural resources: (1) **biomass** with low or no economic value that is currently considered waste (e.g. manure, digestates, harvest/pruning residues, biomass derived from nature/rural management) and (2) **land** that is currently under pressure (ranging from highly intensified agricultural fields to polluted soils that are set aside). The project brings both resources together by **converting biomass waste flows into a stable and valuable biochar product that is able to recover soil quality**. An intelligent match between biomass waste and lands under pressure enables biochar to create economic, environmental and social opportunities for both natural resources.

NEED FOR TRANSNATIONAL COOPERATION

The NWE region is characterized by high levels of heterogeneity. To develop innovative **solutions tailored to region-specific demands** (different biomass, soils, problems, environments), a broad range of applications should be included in the project. Territorial cooperation provides the opportunity to compare **different inputs for biochar production** and **different conditions for biochar application**, which is essential to demonstrate successful matches between both natural resources.

PARTNERS

The main partners, forming the foundation of the consortium, are the Centre for Environmental Sciences (Hasselt University, Belgium), University of Edinburgh (Scotland), Forschungszentrum Jülich (Germany), and the Luxembourg Institute of Science and Technology (Luxembourg). As a range of partners throughout the entire value chain is required, additional sub-partners involved in (i) producing biomass waste, (ii) biochar production, (iii) biochar application, (iv) land owners, ... are welcome to come on board.

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