

## **PROJECT INFORMATION**

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**Project title:** Calculation of climate changes impacts indicators for tree species distribution

**Project ID:** 54

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## **PROJECT DESCRIPTION**

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The CLIPC consortium brings together key institutions in Europe with the superordinate objective to develop and to make available datasets on climate observations and climate modelling, and on impact analysis.

CLIPC will provide an internet platform to access climate information of direct relevance to a wide variety of users, from scientists to policy makers and private sector decision makers. Information will include data from satellite and in-situ observations, climate models and reanalyses, transformed data products to enable impacts assessments and climate change impact indicators.

The platform will complement existing GMES/Copernicus pre-operational components, but will focus on datasets which provide information on climate variability on decadal to centennial time scales from observed and projected climate change impacts in Europe. The climate change impacts refer to different themes: urban, water and rural. An impact indicator of the rural theme is a method developed by Falk & Hempelmann 2013.

This method allows us to investigate the distribution change of tree species due to climate change. The overall method is to relate species occurrence data to an ensemble of climate model data and to transfer this relation to climate projections. A species distribution model will be applied, driven by an ensemble of regional climate model projections (EURO-CORDEX) in order to study the shift of the favourability distribution of tree species. This method is unique because it expresses the spread of data ensembles and shows how to deal with different outcomes in order to improve impact studies by showing the spread or bandwidth of the resulting maps.