DESCRIPTION FOR THE GENERAL PUBLIC
Trajectories, causes and effects of land cover and land use changes in Central Europe (TRACE)

Substantial land cover and land use change (LCLUC) occurred in Central Europe after the Autumn of Nations in 1989, and the expansion of the European Union (EU) in 2004 and 2007. Currently, there are only a few studies in regional scale which have been summarised in detail LCLUC changes in this region, but still, we need more, in particular, spatial datasets and models which will contain detail information about trajectories of land cover and land use change, evaluation of its drivers, and assessment of its environmental effects over last fifty years. The first aim of this project is **to apply recent advances in remote sensing for wall-to-wall mapping of land cover and land use change trajectories using optical and radar imagery and advantage of data-dense time series across Central Europe over last fifty years.** We will focus on four countries from Central Europe (Czechia, Hungary, Poland, and Slovakia) which joined the EU in 2004. The second aim is **to better understand the causes of land cover and land use change across Central Europe**. Similar case studies provide substantial evidence for significant effects of land cover and land use change on biodiversity and carbon pools and fluxes. Also, use of remote sensing allows us to make complex assessments of land cover and land use change across Central Europe. Finally, the third aim is **to assess the effects of land cover and land use change on biodiversity and carbon pools and fluxes across Central Europe.**