The reconstruction of life habits of the extinct species is of primary significance in the studies of evolutionary change. Climatic conditions, diet, mobility patterns, population dynamic or cause of extinction are in the centre of interest. Although some insight into animals' behaviour may be gained from the studies of the extant relatives (if exist), chemical, bio-chemical and isotopic techniques applied to the fossil remains provide a more direct insight into the "extinct world". Dental tissues have long been used as a source of information, which is primarily due to relatively high durability of the enamel and its highest resistance to diagenesis. Another important feature of the enamel is that it mineralizes sequentially over prolonged amount of time and may provide several years of continuous record from a single tooth. *In situ* methods of trace element (TE) and isotopic measurements such as laser ablation (MC) ICPMS allow to recover compositional variations even with sub-monthly resolution. We will utilise this feature to determine mobility pattern and home-range size of a woolly mammoth (Mammuthus primigenius) during the late Pleistocene. Woolly mammoth, one of the most famous victims of the climate change, is a perfect object for our study. Firstly, mammoth played a very important role in shaping the terrestrial habitat and its remains are very common in the late Pleistocene (50-20 thousand year ago) in Europe. Secondly, it is believed to have roamed over significant ranges and the changes of the residential regions are recorded within dental tissues, capable of providing more than 10 year of continuous record of animal's life. Commonly, isotopic composition of Sr in dental enamel is compared to the Sr isotopic composition in the environment in order to decipher regions where mammoths roamed. In this study, for the first time, we will apply Li isotopes to mobility study. This idea was triggered by our earlier work which documents excellent correlation between seasonally changing $^{87}Sr/^{86}Sr$ ratios and Li concentration in mammoths' molar teeth. Lithium except for being a very important micro nutrient, is composed of two isotopes which are strongly fractionated in the environment. Hence, it is highly probable that $^{87}Sr/^{86}Sr$ will be accompanied by changes in $^{7}Li/^{6}Li$ ratios providing additional clue on the animals' residential regions. We will combine Sr, Li and O isotopes with trace element measurements in order to determine mobility patterns and determine the most probable mobility paths of woolly mammoth in central Europe. Additionally, using DNA tests we will verify whether the mobility patterns were sex dependent as observed for the extant elephants. Except for testing new tools for the behavioural investigation of the extinct species, we will determine woolly mammoth habits in the period preceding the last glacial maximum, after which it started to perish.