The project aims to determine the nature of the organization of metallurgical production at the end of the Bronze Age and in the early Iron Age (1000-750 BC) in today's Poland.

Its implementation is an attempt to answer the research questions posed:

I. Is it possible to isolate characteristic zones or production centers on the basis of archaeological sources that are associated with metallurgical production? Was metallurgical activity local, or is it possible to separate specialized craft centers?

II. Was the area of the Kaczawskie Foothills relatively accessible in order to get the copper ore which was possible used as a raw material base in prehistory? Does the study of small mining shafts ("pings") with indeterminate chronology, occurring in large numbers in this area, allow to obtain historical materials specifying the age of these objects?

III. Will the analysis of stable lead isotopes, which will be carried out for selected metal objects discovered in the Kaczawskie Foothills and for the ore from local outcrops, determine the source of the raw material used for their production? Separation of the places of occurrence of objects related to the casting workshop (casting moulds, tuyeres, raw material, semi-finished products, defective objects in the casting, casting waste) will enable linking these finds with the settlement network. The database in the GIS (Geographic Information System) system with marked areas of intensive metallurgical activity will allow to observe and interpret the relationship between the settlement network and production sites.

To determine the origin of the raw material used in the Kaczawskie Foothills, it will be used to carry out archaeometallurgical specialist analysis. Samples of ore and selected metal artefacts from hoards and cemeteries located in the vicinity of Jawor and Legnica will be investigated, ie a short distance from outcrops of copper deposits located in the Złotoryjskie Foothills (part of the Kaczawskie Foothills). Analysis of stable lead isotopes will be carried out using specialized test equipment. Thanks to the field research in the area of vast mining fields, which are the remains of mining and exploration activities in the region of Leszczyna and Prusice, Złotoryjski district, it will be possible to develop materials obtained from the surface, as well as to analysis the content of the shafts *("Pingen").* Interpretation of the results will allow to determine the periods in which the objects were used. Research objectives will be achieved by means of interpretation of the prepared database, analysis of information obtained as a result of field work, analysis of the results of specialist isotope research, as well as analysiss of the distribution of metal objects and tools used to produce them. The entirety of activities undertaken during the implementation of the project will for the first time comprehensively define the nature of metallurgical production in the late Bronze Age and the early Iron Age in the Polish lands, related both to obtaining the raw material, as well as subsequent processing in foundry studios. The planned analysis of permanent isotopes of lead monuments from the late Bronze Age, planned for the Polish territory, will enable to find out where the raw material used for the production of objects from the immediate vicinity of copper deposits in the Kaczawskie Foothills originated