Railway transport infrastructure in the context of contemporary challenges. Study on the example of the Pomeranian Voivodeship.

**Keywords**: infrastructure, rail transport, sustainable transport development, Pomeranian Voivodeship,

## Summary

Transport infrastructure is the basis for the functioning of each mode of transport. Its condition determines many factors affecting the quality of services provided and thus the competitiveness of a given mode of transport. Due to the long service life of the infrastructure, the directions of changes in transport are often adapted to the existing infrastructure. New challenges, however, may require changes in the infrastructure to be competitive in the changing transport market.

The thesis reviews contemporary challenges, social processes and political conditions aimed at zero-emission transport, which must be faced by rail transport. It has been analyzed how the railway transport infrastructure influences the implementation of modern transport postulates, and the directions of development of the railway transport infrastructure have been indicated. After a theoretical review of the general conditions under which the rail transport infrastructure functions today, an analysis of its condition and the resulting consequences for the Pomeranian Voivodeship was made. A survey was carried out among users of rail transport in the Pomeranian Voivodeship, as well as expert studies among employees of various rail industries: infrastructure, passenger transport and freight transport.

The analysis of the research results allowed for the assessment of investment plans and became the basis for the author's vision of the development of railway transport infrastructure in the Pomeranian Voivodeship.

The key infrastructure investments in the railway transport of the Pomeranian Voivodeship were indicated, from the point of view of cargo and passenger transport, and possible sources of financing for these investments were outlined.