Mathematical implications of the four-stage transport planning model

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Abstract

From a strategic or operational perspective, from a large conurbation to a small city, from urban transport to interurban transport, from a mesoscopic to a macroscopic vision and even to a microscopic vision, the four-stage model is present, in whole or in part, in transport planning.

Starting from a Study Area, a strategic transport network, knowledge of land use in the study area, the socio-economic characteristics of the population, the quantification and qualification of the public transport services available, and additional information related to the type of study to be carried out, it is possible to undertake transport planning using the four-stage model mentioned above.

This model is structured, as its name indicates, in four stages. Trip Generation, Trip Distribution, Mode Split, and Traffic Assignment (according to modes) to the network.

References

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