

SUMMARY

The exchange of goods is the driving force for trade and regional development. The dynamic planning of port areas is a support to their development and an aid to the anticipation of different scenarios, thus minimising the risk of losing markets.

Projects for port terminals in urban areas suffer from the problem of not having sufficient space available for their development, obliging them to plan their areas allowing for different alternatives for expansion according to their surrounding circumstances.

The development of simple formulas and models assists in the realisation of a dynamic planning, assisting in the decision-making process and thus its rapid adaptation to variations in demand and in the light of unexpected situations.

An empirical formula, which relates yard movements and equipment and which in addition reflects the operating characteristics of the container terminal, is developed in this paper. This formula is similar to other formulas but contains new elements.

The concepts used and the formula developed provide a powerful tool kit and enable the creation of a dynamic model for container terminal planning. The new formula for storage capacity of a container terminal does not contradict the traditional formulas but, on the contrary, complements them. It can also show how changes in some variables impacts on the productivity of a terminal.