

# **Abstract**

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## **Pipe-flow modelling of container terminal logistics processes: a case study in Alexandria**

Potentially powerful pipe-flow models of container terminal logistics processes have been neglected to date. Despite phenomenal recent growth in container traffic in Egypt, modelling of terminals handling this traffic has remained rare. A case application in Alexandria, Egypt collated empirical container and information flows using interviews and company records to develop a dynamic operational perspective. Using this data, operational level model simulation of the entire logistical processes of both import and export flows was undertaken. Following successful validation of a base simulation model, scenario testing has empowered the case company to pro-actively design and test the impact of operational changes on the entire logistics process. Keywords: container terminals logistics processes modelling simulation scenario testing