THEMATIC SESSION: TS12

Title: **Demand forecasting for smart and sustainable city supply in the digital era**

Conference associated Topic: Smart and durable City Logistics

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Abstract: Demand forecasting is one of the key elements of a resilient and flexible supply chain system. Moreover, since most consumers are in urban zones, with the congestion and lifestyle constraints related to evolving urban developments, it is important to take into account the city logistics components when forecasting demand. On another hand, data is not always available or presented in a standard way, but the digitalization of freight transport and the new collaborative data systems imply new statistical, processing and modelling challenges can be identified. For that reason, the generalization, unification and systematization of data production methods to estimate urban logistics demand seems a priority. The session will focus on the following subjects, although other ideas in the field are welcomed:
- **Freight trip demand generation models**
- **Freight commodity demand generation models**
- **Big data and urban goods transport forecasting**
- **Collaborative data production in city logistics**
- **Interaction between demand models and vehicle routing optimization**
- **Demand segmentation and classification methods**
- **Choice models for shippers and/or receivers**
- **Time series modelling**
- **Relations between demand modelling and logistics sustainability**

Keywords: *City Logistics, Demand Forecasting, Freight Trip Generation, Freight Commodity Generation, Discrete Choice, Vehicle Routing Demand*