Supported by a significant increase in awareness among people all over the world, sustainability has become a key priority in national and international politics. The European Commission is clear and calls for a climate-neutral Europe by 2050. A fast and further reduction of greenhouse gas (GHG) emissions is necessary to reach this goal. Being responsible for 24.6% of all European GHG emissions in 2018, the transport sector has a key contribution in decarbonising the European economy (EEA, 2021). With one fifth of all road freight journeys performed by empty vehicles in 2017, the efficiency of these operations is low and the environmental, economic and social cost high. Sticking to the "business as usual" approach will not be sufficient to cope sustainably with the growing transport demand. Especially when taking into account that the GHG emission of transportation has been increasing every year since 2014 (EEA, 2020).

New transport systems must emerge, according to which larger volumes of freight are carried jointly to their destination using the most efficient and sustainable (combination of) modes. In this context synchromodal transportation, or synchromodality, is a promising view on logistics. Synchromodality is a form of multimodal transportation, meaning multiple modalities are used to transport goods from origin to destination, where shippers book mode free and the logistics service provider (LSP) has the freedom to choose and switch modalities based on real-time information. Because the mode and route choice are delayed, and can even been changed, more efficient and sustainable options can be chosen due to better informed decisions (Tavasszy et al., 2018).