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UNIVERSITY OF APPLIED SCIENCES UPPER AUSTRIA

TRANSPORTLOGISTICS & MOBILITY

# TRIUMPH II – Trimodal Transshipment Point Hinterland Harbor II

**The aim of the project TRIUMPH is to develop a concept of an intelligent multimodal communication hub which is capable of connecting all involved parties in the multimodal transport chain by using new standards of electronic data interchange (EDI-standards) and realtime traffic data (ITS). Due to the reduction of complexity by standardization and the elimination of inefficiencies a higher information value is achieved which builds the basis for further transshipment and storage process optimization.**

The concept of an intelligent communication hub should made the whole transport chain is digitally visible by using automated EDI-standard based data-access routines and supported by an intelligent clearing service for authorized members.
Due to the reduction of complexity through standardization and the elimination of inefficiencies, a higher information value is achieved, which results in savings of communication and transaction costs, reduced lead times of business processes, prevention of media breaks and erroneous data entries. Furthermore TRIUMPH II contributes to the shift of freight toward ship and train by supporting modal decisions by a standardized communication process.

Access privileges will be automatically efficiently generated in the background, whereas data access will only be dynamically provided to necessary, transport relevant data – e.g. actual positioning data of inbound trucks – without administrative efforts. Furthermore transport infrastructure related data from Intelligent Transport Systems (ITS) – like planned and spontaneous traffic incidents – are provided. Additionally the communication hub not only serves the purpose of regulated data-forwarding, but providing intelligent mechanisms, in order to implement processes of proactive event monitoring at the involved parties.

Due to the consortium structure and especially the membership of GS1 Austria and it's "Global Standards Management Process (GSMP)", which is a global platform for designing and developing GS1 EDI-standard based solutions of efficiency enhancements within the value chain.

Austria has the chance to become a nucleus of new or enhanced EDI-standards promoting multimodal transport. The present issue sets out a new, in Austria fairly low studied, highly innovative research field, which is capable to receive international attention. The planned proof-of-concept provides a feasibility check of the communication concept. Furthermore the development of a suitable business case will prepare the necessary further steps to the realization of a follow-up project.

Furthermore the methods of estimated times of arrival (ETA) developed in the forerunner project TRIUMPH will be enhanced in terms of reliability. For this reason the actual manual selection of geofences will be automated to achieve an adaptive and self-optimizing system. Combinatorial optimization methods will be integrated, to react on changes within the traffic volumes without further interventions. Moreover the quality of prediction (precision) will be improved, since advanced (statistical) methods will be used, to extract (hidden) regularities. Effects on processes (e.g. transshipment and container parking) within the container terminal will be examined to achieve an efficiency boost for intermodal transport chains.

The project had the financial support from the Austrian research promotion authorities (FFG), took 36 months and was successfully completed in October 2016.

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