

AT045



Intermodal Freight Transport

Transportation Research Board (TRB) of the National Academies
Newsletter: Issue 1 – January 2019

COMMENTS FROM THE COMMITTEE CHAIR



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Greetings Intermodal Freight fans!!

Well, this is my final issue as your Chair of the AT045 Committee. There is so much to say ... This summer I was able to take a trip with various colleagues to see the Panama Canal. Quite an experience! We spoke with operations staff and learned the challenges faced by marine operations, rail operations, trucking, scooters, bicycles, and of course, canal operations. Intermodal challenges are alive and well and our work to find solutions is needed now more than ever. Our committee is even looking to co-sponsor (with AV040) the members of the Air Cargo Subcommittee, AV040(1). Air freight's voice should be represented/integrated and will be. You'll find in this issue several stories focused on enabling the transportation profession. Standards, training and education are fundamental to making a sustainable difference in efficient freight movements. These articles are on the right track! (pun intended?) Beginning in April you will have a new Chair – the talented Ms. Jolene Hayes. Just as I did, she will also need your help to make a difference. So when she calls – answer! Thank you all for supporting me as your Chair and allowing me to serve you. We learned a lot, we saw a lot of REAL operational intermodal activities and we continued the effort to find solutions to the challenges facing us today and those that loom ahead of us for tomorrow. Stay active – full steam ahead!

2019 TRB Annual Meeting: AT045 Sponsored Activities

Annual Meeting

Intermodal Freight Transport Committee

Monday, January 14, 2018

7:30 p.m. – 10:00 p.m.

Marriott Marquis Union Station (M3)

Sponsored sessions:

- **Lectern Session 1208**
 Current Intermodal Freight Systems Research
 Monday 10:15 AM- 12:00 PM
 Convention Center, 144A
- **Lectern Session 1282**
 Freight Systems and Marine Transportation Work in Progress— Hybrid Session
 Monday 1:30 PM- 3:15 PM
 Convention Center, 150A
- **Lectern Session 1356**
 The Future of Intermodal Freight Education
 Monday 3:45 PM- 5:30 PM
 Convention Center, 144A
- **Freight and Marine Caucus (sponsored by BNSF)**
 Tuesday 5:30 PM- 7:00 PM
 Convention Center, Ballroom South Pre-Function A



TEACHING A ROADMAP TOWARDS SYNCHROMODAL TRANSPORT



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Synchromodal planning concerns the planning the seamless switching between different modes like road transport, railway transport and barge transport with the usage of real-time data". Real-time switching refers to changing the containing routing over the network in real-time. The application of synchromodality is therefore not only focused on the optimization of logistic chains, but also on reducing

service delays, such as traffic jams, water rise and CO2 emission. Traceability and visibility of nodes in the logistic chain enable the identification of the what- and whereabouts in the logistic supply chain in case of problems. In order to accomplish a reliable and secure logistic supply network, reliable trade data should be present. This is data that is owned and exchanged between business and government organizations acting in the network, enabling communication with each other electronically. Unfortunately, all efforts made to realize the traceability and visibility still lead to closed communications in which actors made certain agreements on how the information is to be shared. Next to this, synchromodality is only possible when multiple actors are involved, when high volumes require transportation and arguably only within so called hinterland connections.

In scientific research synchromodal modelling approaches show better performances. Still the daily practice of a planner's perspective shows that it is hard to make the change.



To learn to evaluate the daily practice of synchromodality a survey among logistics service providers is carried out. With 90 students, 6 teachers, 3 logistics bachelor studies, and the Fontys & Rotterdam Universities of Applied Sciences, we started with playing the game Synchronomania to experience the operational issues of planning synchromodal transport. The next step is that the students are taught a maturity model of synchromodality. The synchromodal maturity model consists of 5 levels: ad-hoc intermodal transport, repeatable: structural intermodal transport, synchromodal transport, Integrated: synchromodal transport, and extended synchromodal transport. On a chart-card the levels of experiences are identified in each interview with a company. The students share their works with each other to obtain feedback on the work by supervisors and other students. Finally, based on the maturity findings the students can provide suggestions for improvement. In this way the student actively learns from theory to practice synchromodality and companies are open to receive their advices. The results of this research will be presented at the Annual Meeting TRB 2019

a,b.

^a Alons-Hoen, K.M.R., Somers, G.D.L., van Duin, J.H.R., (2019). Maturity model applied to a case study in Northwestern Europe. Annual Meeting Transportation Research Board, Washington DC.

^b Van Duin, J.H.R., Warffemius, P., Verschoor, P., de Leeuw, A., Alons-Hoen, K.M.R., (2019). Synchromodal transport: from theory to practice. Case study Port of Rotterdam: Identifying the success/fail factors. Annual Meeting Transportation Research Board, Washington DC.