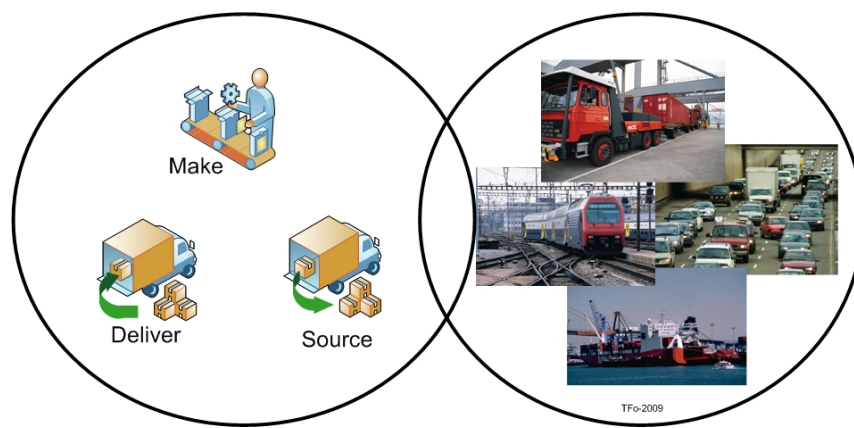


The intersection of the supply chain and transport domains

ITS World Congress 2009
TS098

Trond Foss

How to merge two different domains?



Supply Chain domain

Transport domain

Main objectives of the paper

- To describe the intersection of the two domains to have a better understanding of the different terms and models used
- To achieve a common view on the upper level of the system architecture in both domains focusing on the main roles and responsibilities
- To be part of the deliveries from the R&D project INTRANS supported by the Research Council of Norway



Methodology applied

- What are the models available and suitable within the Supply Chain Management domain?
 - Should be
 - Technology independent
 - Internationally applied
 - Stable and continuously maintained
 - Based on international or de facto standards
- What are the models available and suitable within the Transport domain?
 - Should be
 - Technology independent
 - Multimodal
 - Cover transport of goods
 - Stable and continuously maintained
 - Based on international or de facto standards
- How can these models be compared and linked/connected together?
- How can this linking or connecting build a bridge between the two domains?

Available models



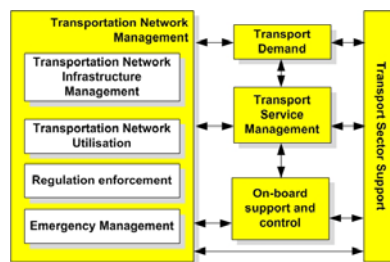
SCOR - Supply Chain Operations Reference Model

www.supply-chain.org/



Norwegian multimodal framework for intelligent transport systems

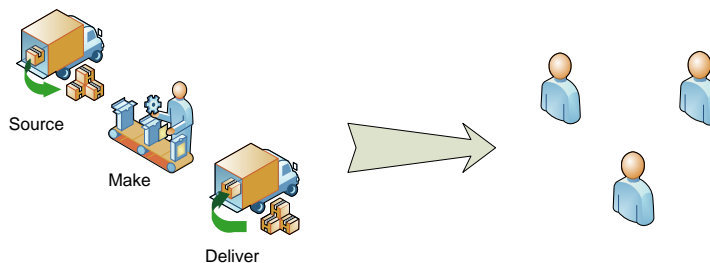
www.arktrans.no



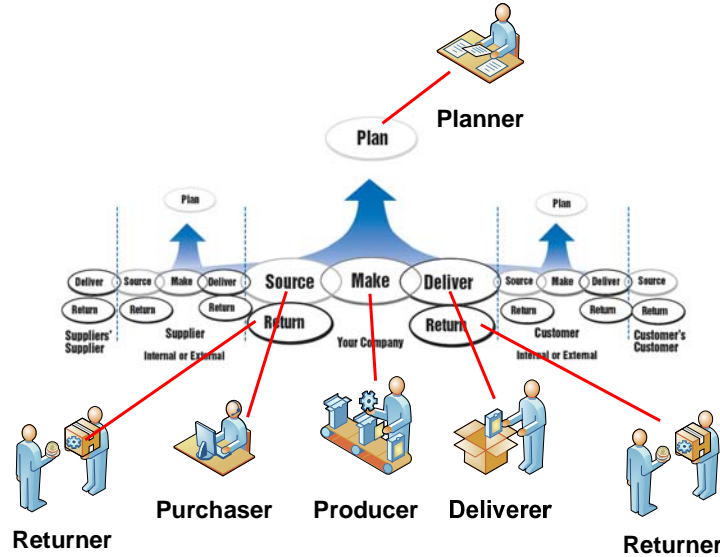
How can these models be compared?

- SCOR is a process-oriented model
- ARKTRANS is both a roles and responsibilities model, a functional model and an information model
- Solution: Transform SCOR on level 1 and 2 to a roles and responsibilities model

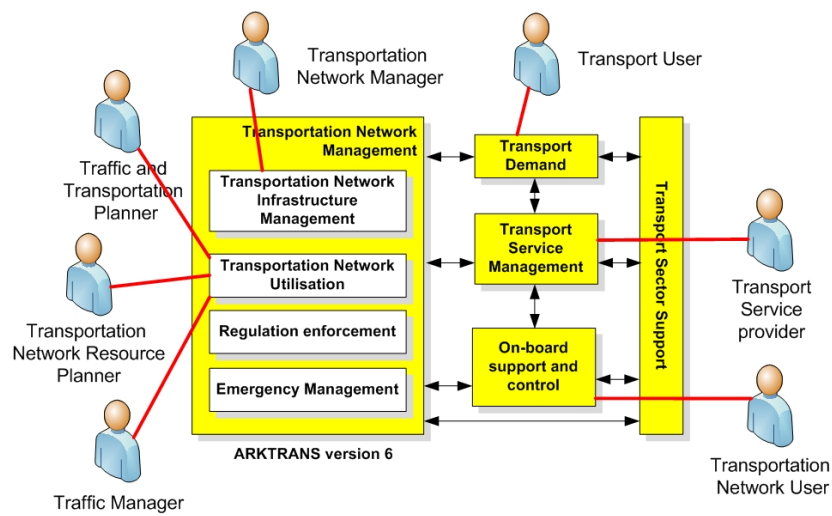
From a process-oriented model to a roles and responsibilities model



Transforming from processes to roles





Roles in the ARKTRANS framework

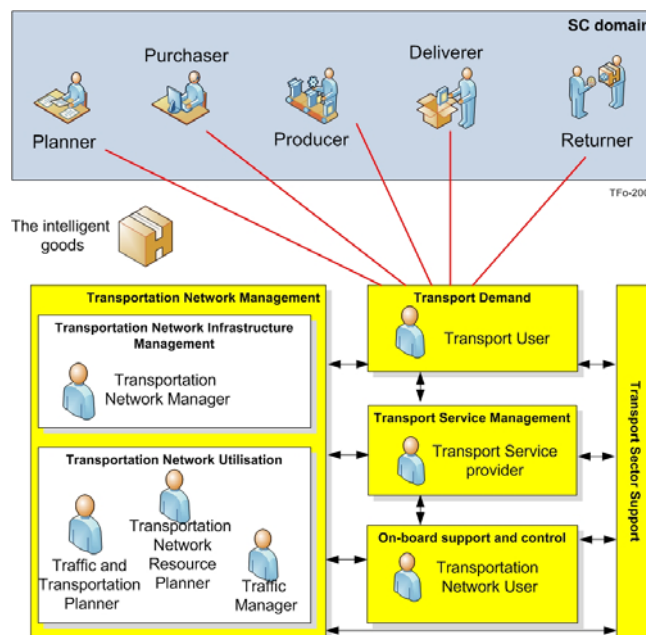


Mapping the SCOR and ARKTRANS roles

Example:

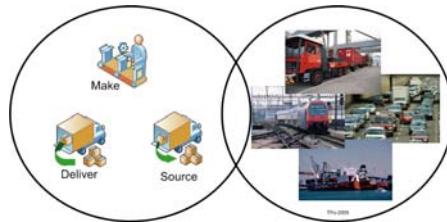
Supply Chain (SC)		Transport systems	
Role	Transport related SC responsibilities	Matching ARKTRANS responsibilities	Role
 Deliverer	<ul style="list-style-type: none"> Implement the delivery transport plans Determine delivery date, consolidate orders and build loads Route shipments and select transport service providers (carriers) and rate shipments Pack product, load product and generate shipping documents Ship product Receive and verify product by customer 	<ul style="list-style-type: none"> Defining the transport demands and requirements including the object, e.g. the cargo item, to be transported Transport planning and re-planning (finding the best transport alternative, i.e. the best transport services) Transport follow up, e.g. track and trace an object in the transport system 	 Transport User

Intersection between SC domain and transport domain



Thank you for your attention!

Questions?



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