



# Frameworks for a Cargo Centric Approach

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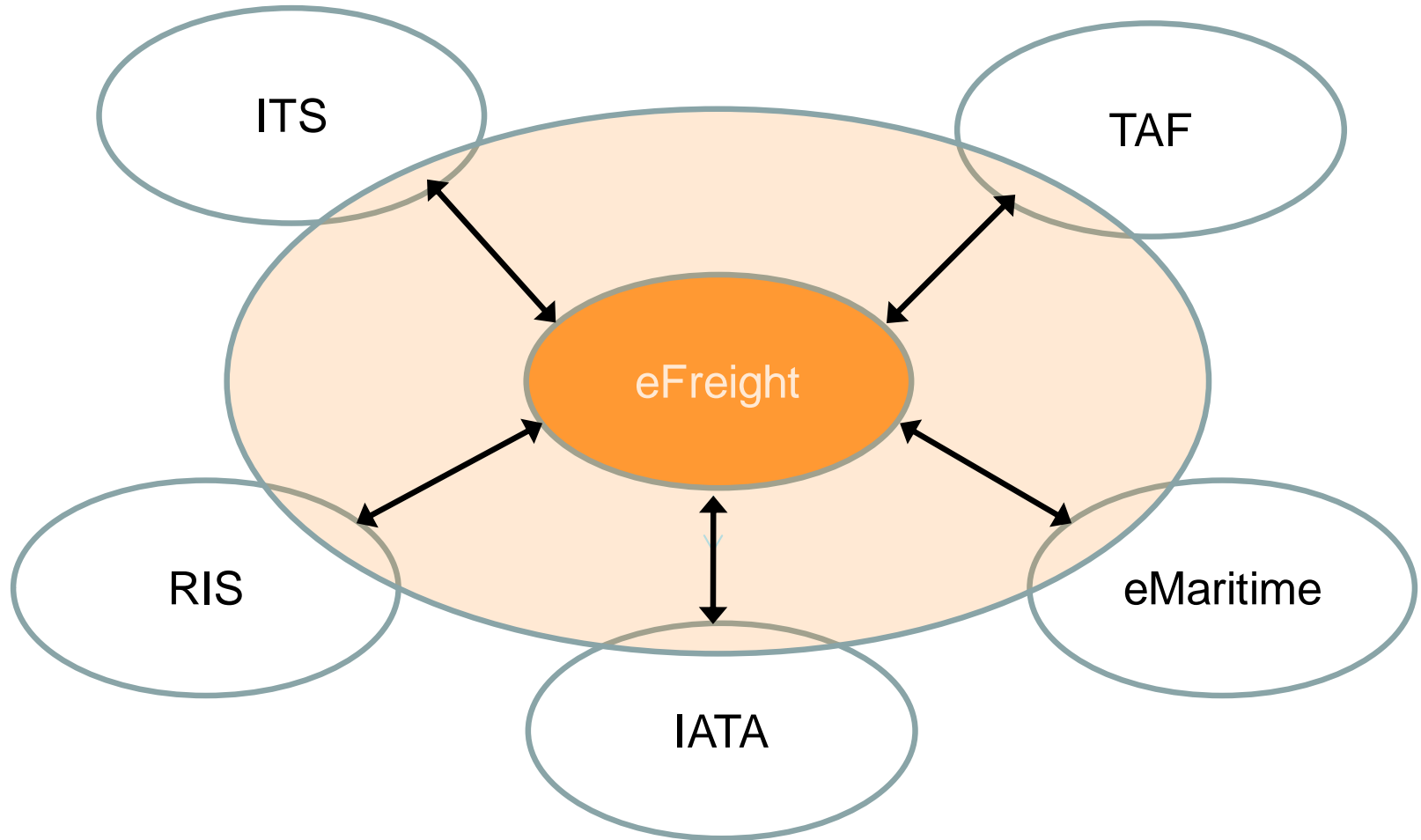
## The basis for the work presented here

- SINTEF has been working with a “systems framework architecture”, or framework, the last 9-10 years => ARKTRANS
- ARKTRANS has been used in several transport related projects, MarNIS, Freightwise, SMARTFREIGHT
- What is a “framework”?
  - Describing the need for exchange of information in the transport sector by means of overall processes, functions and information elements
  - Using an overall depicting of the sector – Reference Model – and a small set of generic roles



## Intermodality – why is it so hard?

- Each form of transportation has for a long period of time created its own way of handling freight – accompanied with its own set of regulations and standards
- The more traditional way of thinking has been to establish interfaces to other modes of transport
- Terminal management has been treated as something else than a transport service
- Much of the specification/development work has given open standards such as each business relationship must set up a specific way of exchanging information





## Requirements to a framework

- It should be 100% multi modal and freight oriented
  - Supporting the idea of *eFreight*
- It must not interfere with the internal business processes of the companies that bases the information exchange on it
- It must be applicable also when the covered issues cannot be multi modal anymore
- It must be consistent with technical architectures, like CVIS
- It should take into account the good results from many years of standardisation
  - UN/CEFACT
  - UBL
- Being cargo centric?
  
- **Is it possible?**

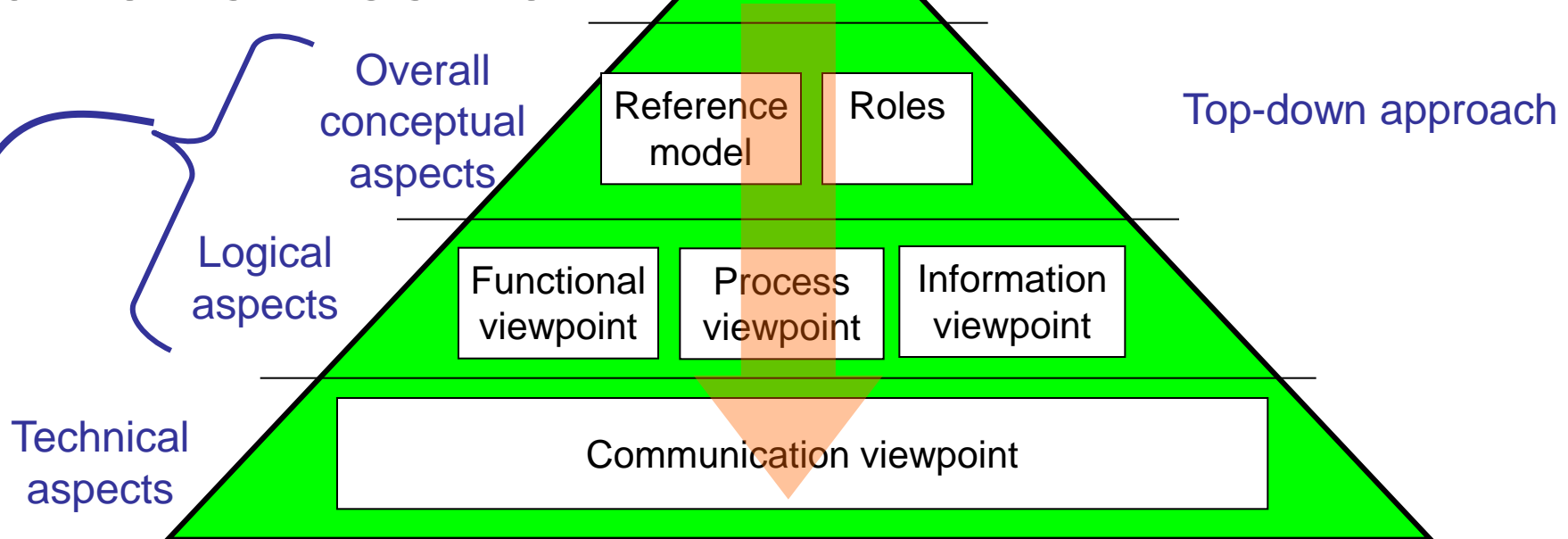


## SMARTFREIGHT and Freightwise

- SMARTFREIGHT, Collaborative project, FP7, DG-INFISO (ICT)
  - The focus is urban freight transport
  - Freight vehicles with and without cargo
  - “Individual” traffic control
  - Building on the CVIS infrastructure and the application framework provided by CVIS
  - Practical test site in Trondheim, Norway
- Freightwise, Intergrated project, FP6, DG-TREN
  - The focus is freight transport
  - The needed exchange of information between a transport services buyer and possible transport services suppliers
  - Several practical software implementations and business cases



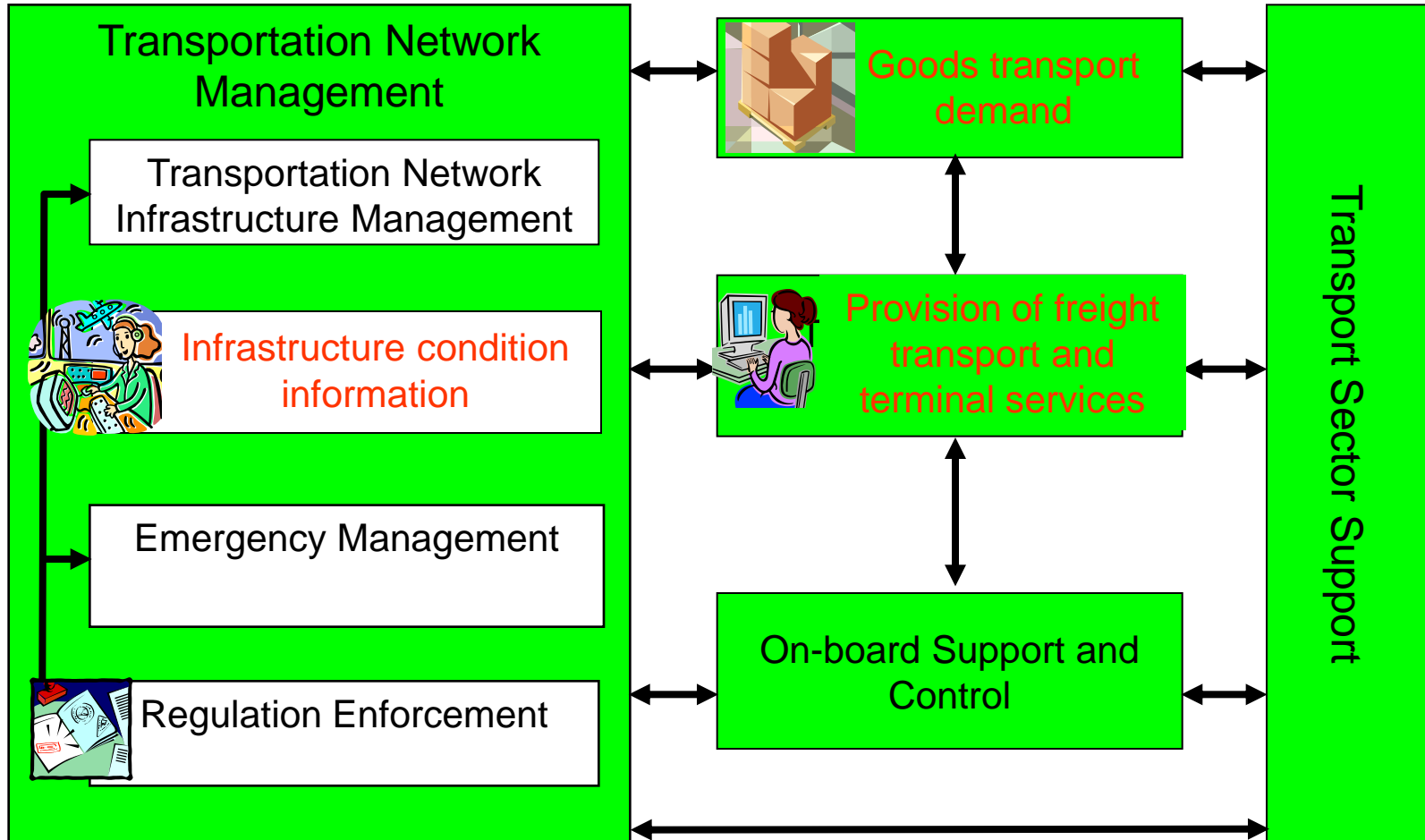
# Framework content



- For each domain of the Reference Model
  - Roles with responsibilities (one role belongs to just one domain)
- For each domain/Role
  - Functions that contributes to the fulfilment of the responsibilities
- The roles interact to fulfil responsibilities
  - Processes involving different domains/roles and information exchange
- The information elements are exchanged



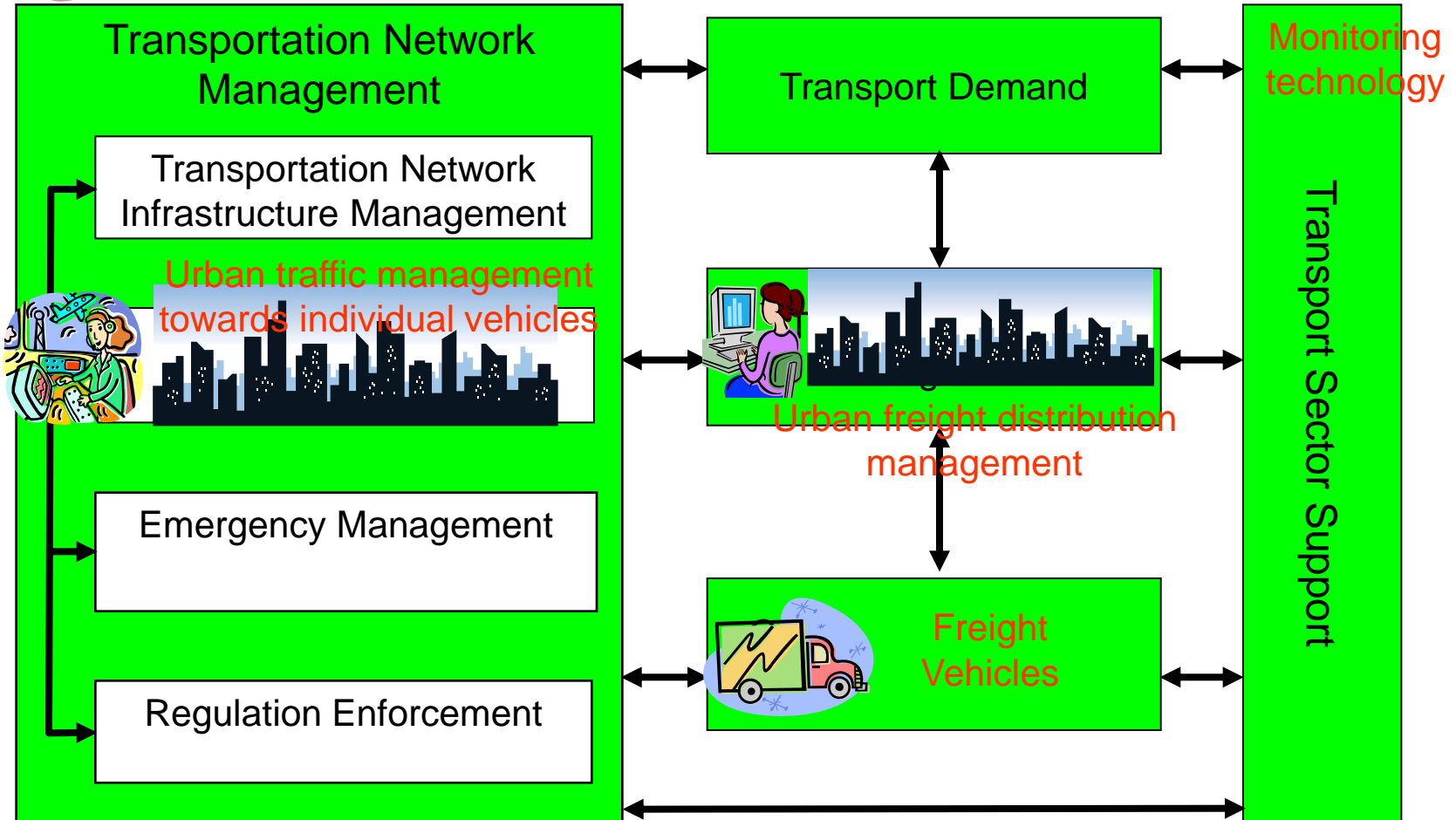
# FREIGHTWISE Reference Model

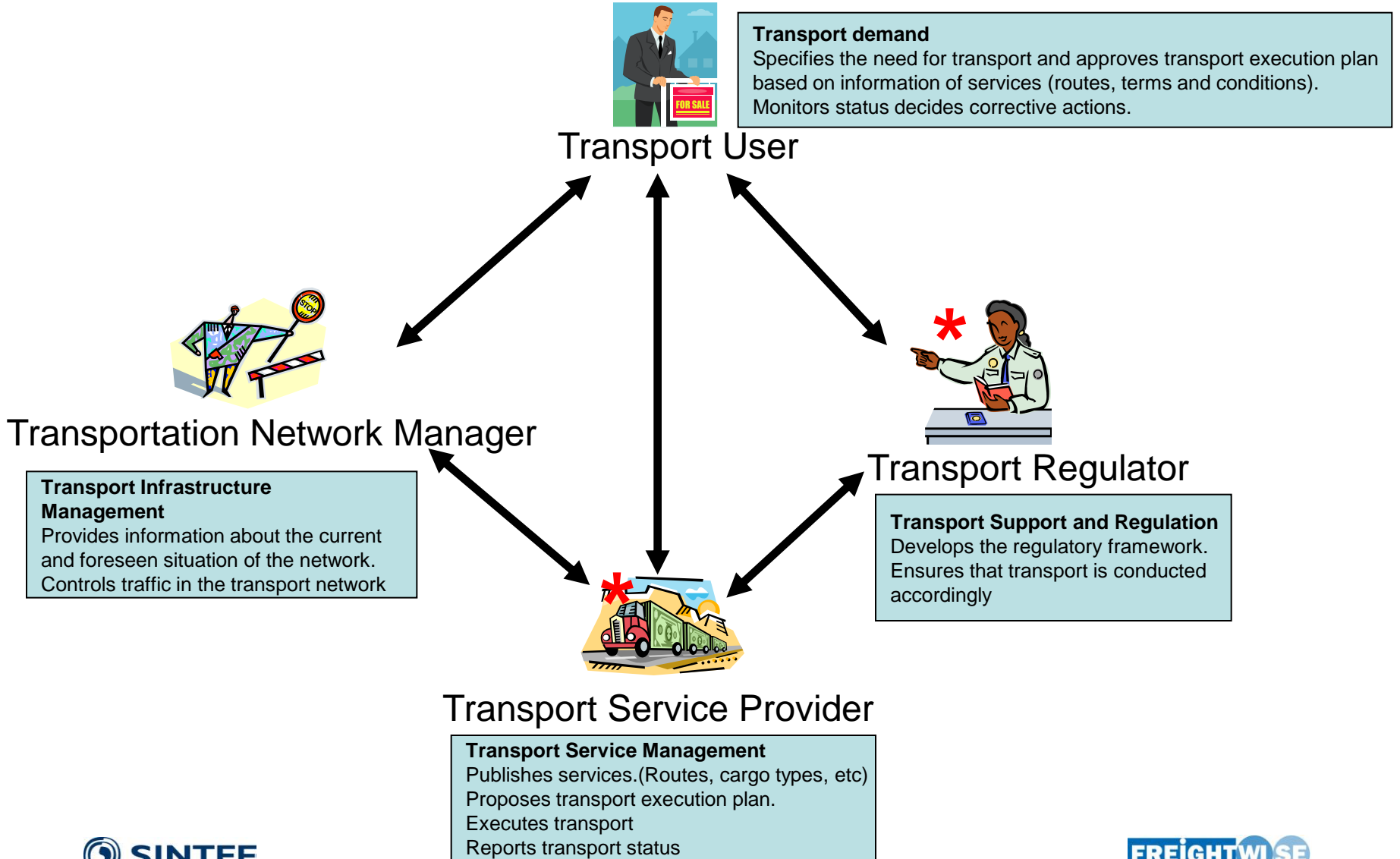




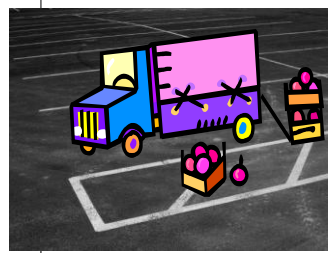
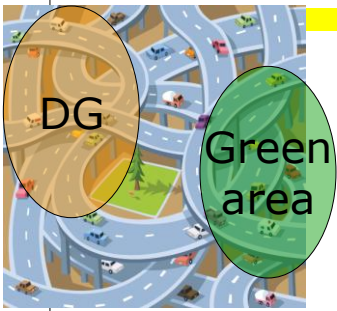
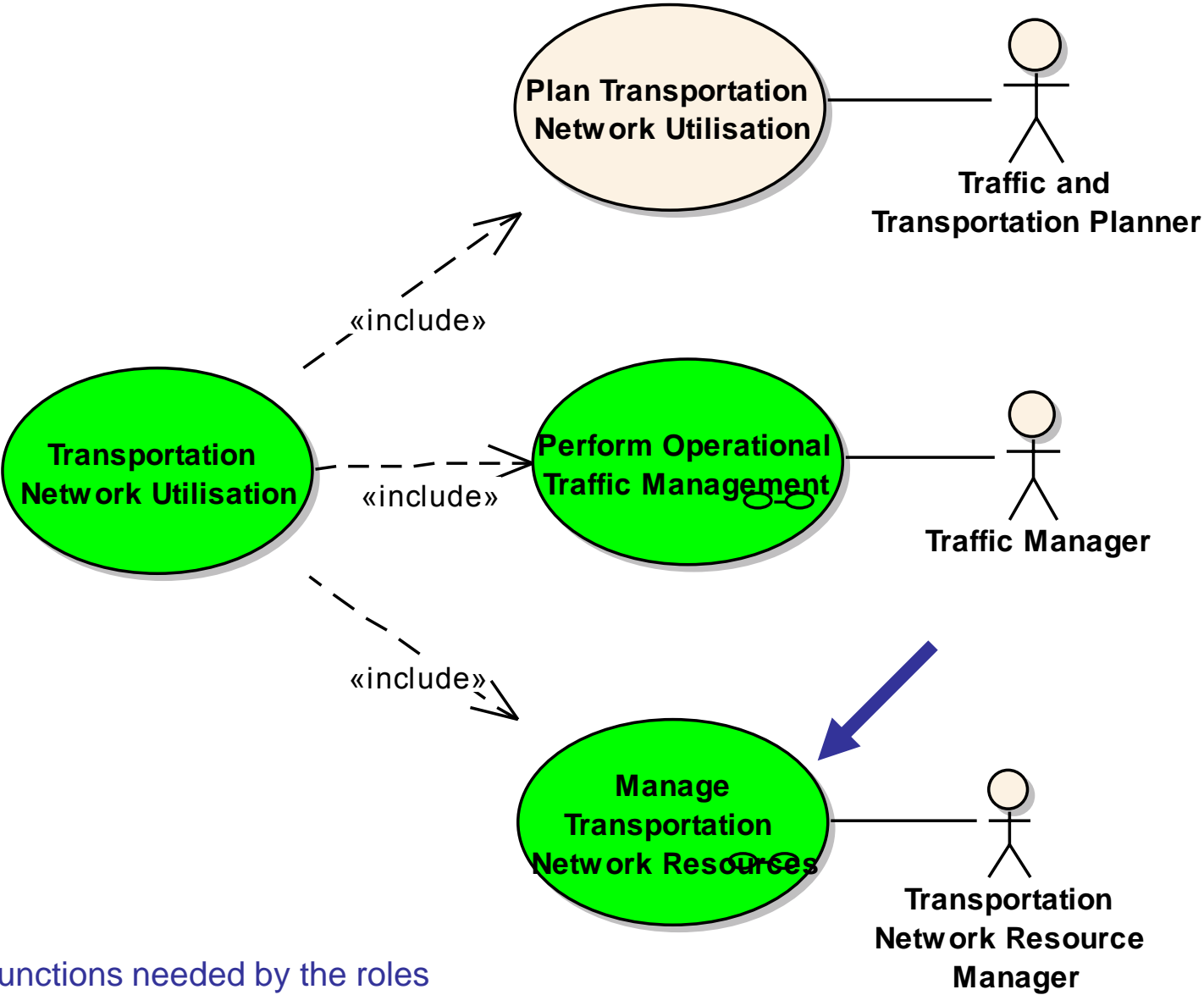


# smartfreight Reference Model





# Functional view



Functions needed by the roles



## Conclusions

- A common, cargo centric, framework for freight is feasible
- Handling multi modality is feasible
- Handling modal specialities are feasible within the multi modal framework
  
- Much work is already done during several activities and projects
  
- A task force for a common freight framework is established and will work until April 2010 to further deepen the cooperation and common understanding



## More information?

- [www.arktrans.no](http://www.arktrans.no)
- [www.smartfreight.info](http://www.smartfreight.info)
- [www.freightwise.info](http://www.freightwise.info)
- [hans.westerheim@sintef.no](mailto:hans.westerheim@sintef.no)