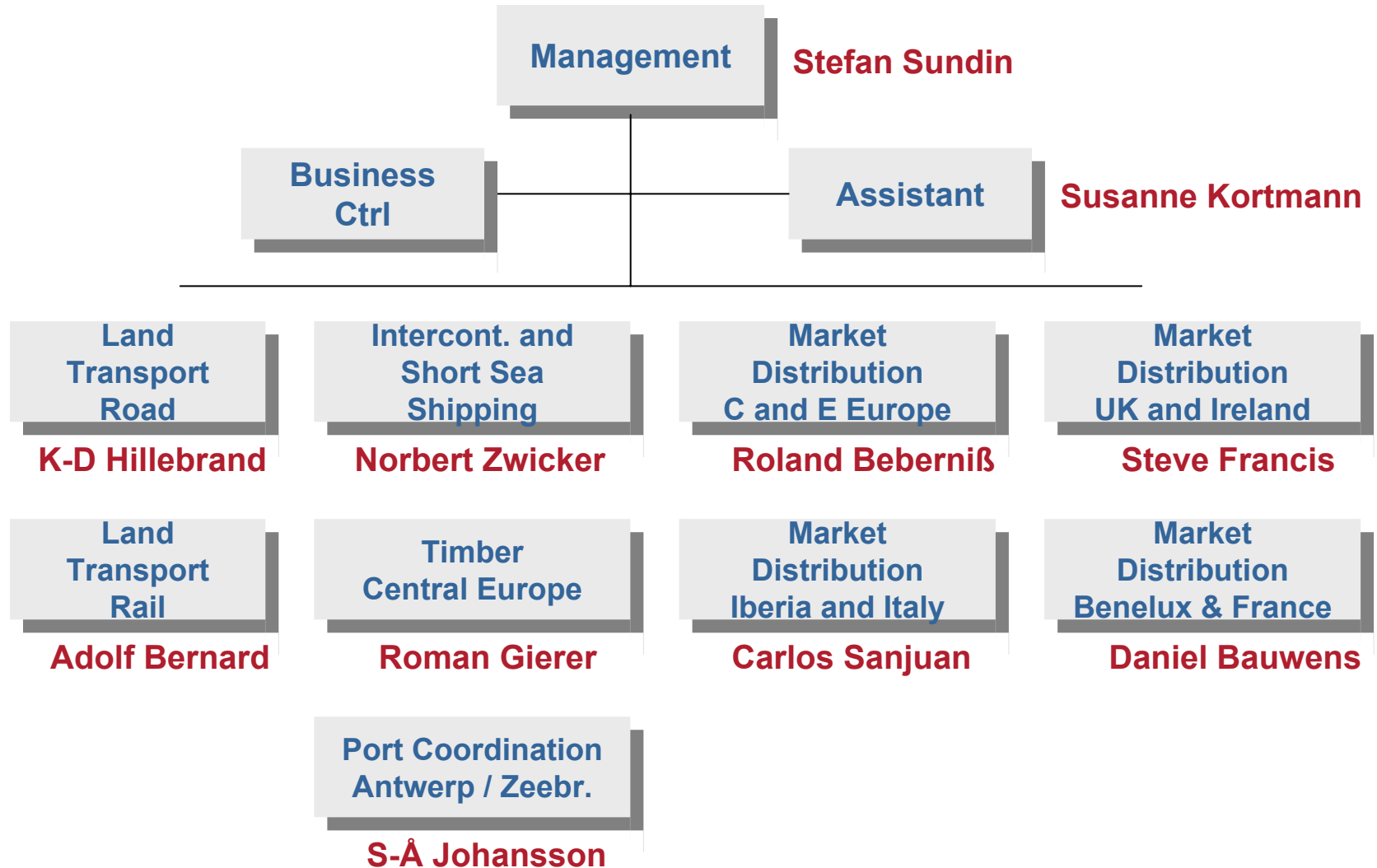


Responsibility & Performance

Stora Enso
Transport and Distribution

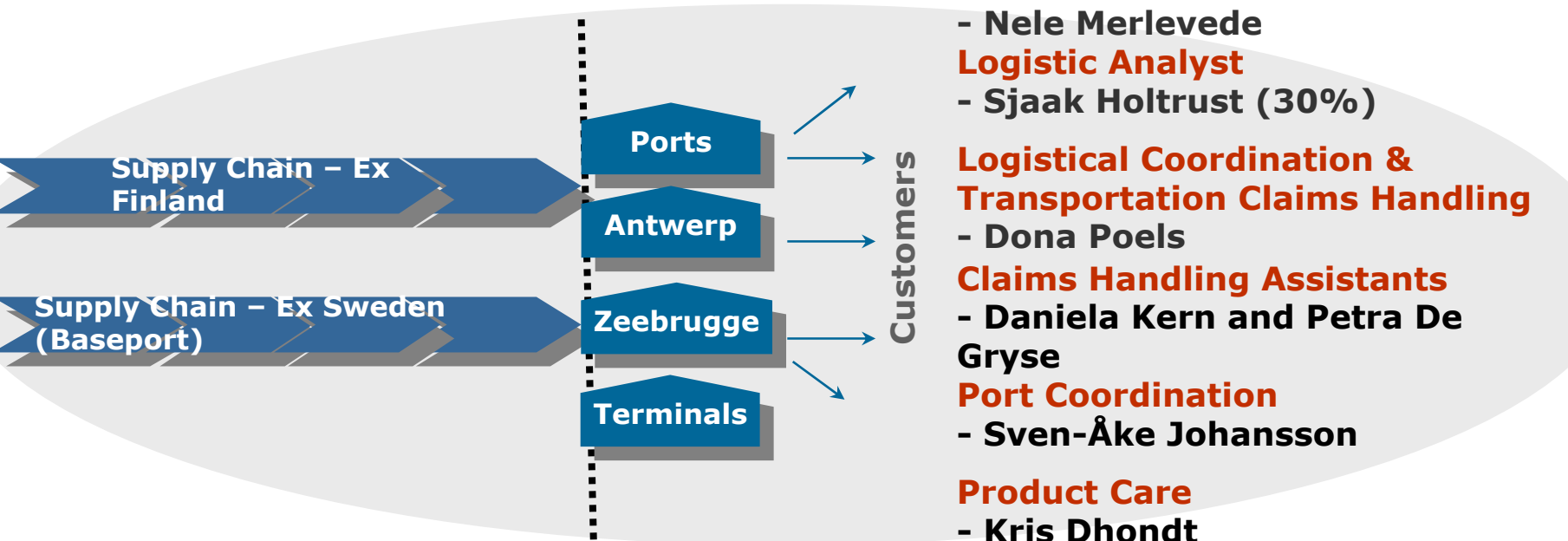
SETD Continent and UK
Organization

SETD Continent and UK Area Organization



SETD Continent and UK – Zeebrugge office

Market Distribution Benelux and France



T&D Business Coordination

Contracting ports and inland Terminal services / distribution services.

Mill and Sales Support

- Optimal distribution set-ups
- Customer service concepts
- Stock checks and inventories
- Claims Administration
- General logistical support

Performance measurement

- Damage reporting
- Delivery performance
- Quality follow up
- IT related matters

Responsibility & Performance

StoraEnso Transport and Distribution

Sven-Ake Johansson
11th April 2005

Zeebrugge 2004

Total Volume	1.905.000 Tonnes
• Transit	600.000 Tonnes
• Local	264.000 Tonnes
• Overseas	801.000 Tonnes
• Pulp	240.000 Tonnes



Overseas

- **N° of containers stuffed** **16.000 containers**
- **Stuffed** **726.000 Tonnes**
- **Breakbulk: n° of ships stuffed** **23 vessels**
- **Breakbulk: stuffed** **75.000 Tonnes**



Intermediate storage 1-3 weeks in Zeebrugge



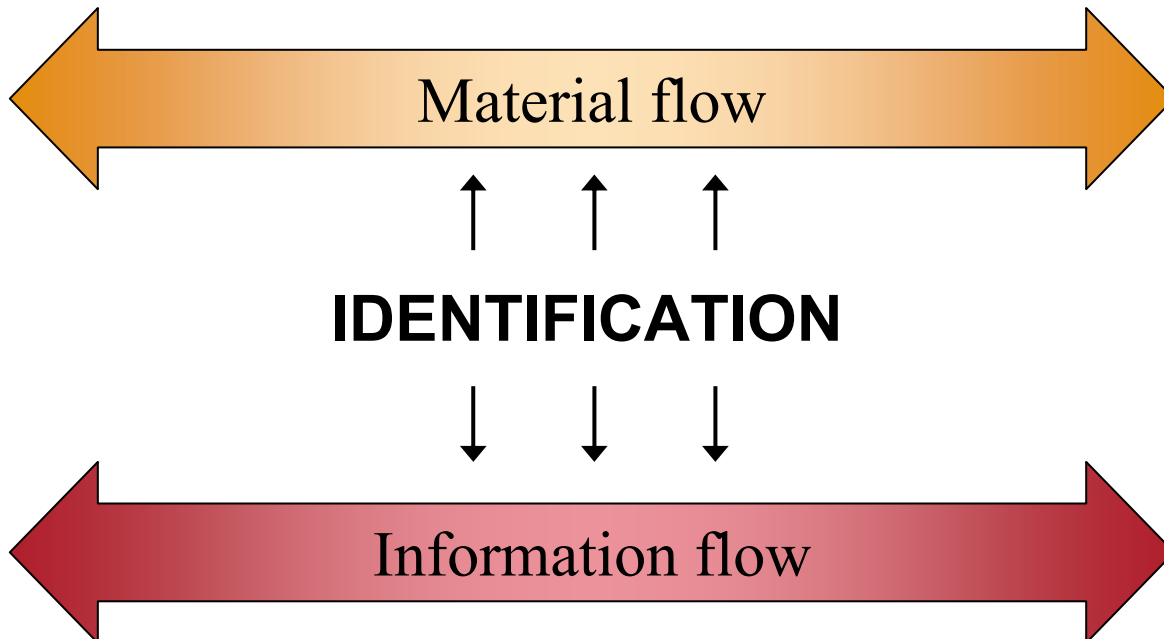
Responsibility & Performance

Unit identification

Jaakko Tuomainen/ Sven-Ake Johansson
Gothenburg 11th April 2005

Identification, what it is?

- Interface or connection between material and information flows
- All information is typically not in the identifier, but it is queried from a data system – identifier is the key for this query



Why unit level identification?

- Unit level identification = every item is identified separately
 - Compare to: order level / batch level identification
- Better supply chain visibility
 - Real-time unit level information
 - Status and location information of all reels and pallets
- New supply systems will change transport planning, e.g. NETSS
 - Orders are transported in SECU:s in smaller batches
 - Orders are combined in local distribution centres (LDC)
 - Unit level identification is a must issue!

- Better customer service and quality
 - Less errors in supply chain (handling, shipping)
- Economical benefits
 - Savings in lower tallying costs and faster process
 - Lower inventory levels
 - Faster delivery time
- Better supply chain visibility enables new customer service solutions
 - E.g. pipeline planning / vendor managed inventory

Technologies of automatic identification (paper reel ID)

- RFID = Radio Frequency IDentification
 - HOT topic in supply chain management
 - Technology is still under development: read range not enough for paper reels, lack of standardisation, relatively high costs
- Bar code
 - Proven and robust technology, equipment widely available
 - Enables reel and pallet identification in efficient way
- Bar code is currently the best option for paper reel identification
 - RFID may enter after some 2-5 years
- Also human readable identifier needed: labels will exist

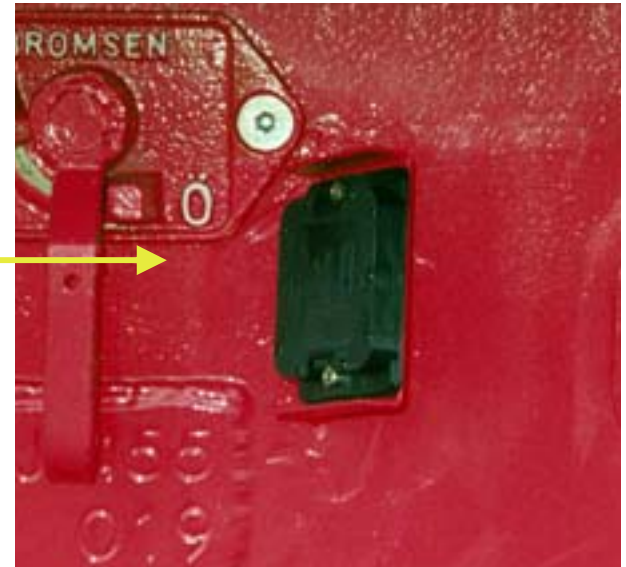
Identification of reels: belt bar code

- Printed directly on the reel wrapping paper
- Reel can be identified from every direction (vs. label)
- Has been used in Sweden almost 10 years
- Implemented in all Stora Enso Finnish mills by June 2005
- Belt bar code is read every time when the reel is handled



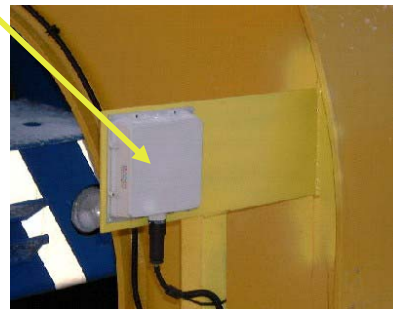
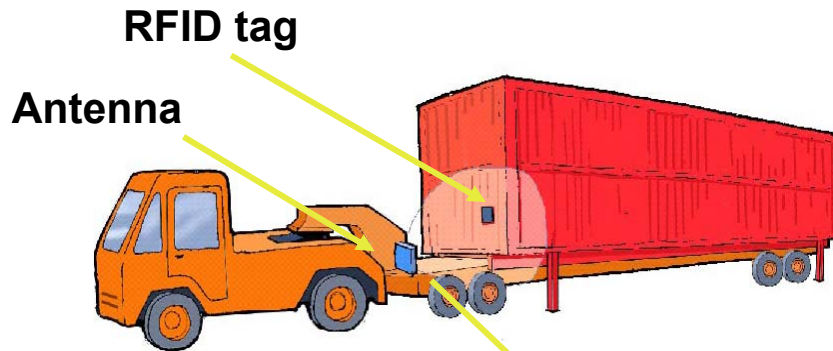
Identification of SECUs: RFID

- SECUs are identified with the help of RFID technology
 - Active tags on microwave frequency
- Every SECUs is equipped with two RFID transponders (tags)
 - One transponder on each head of the container



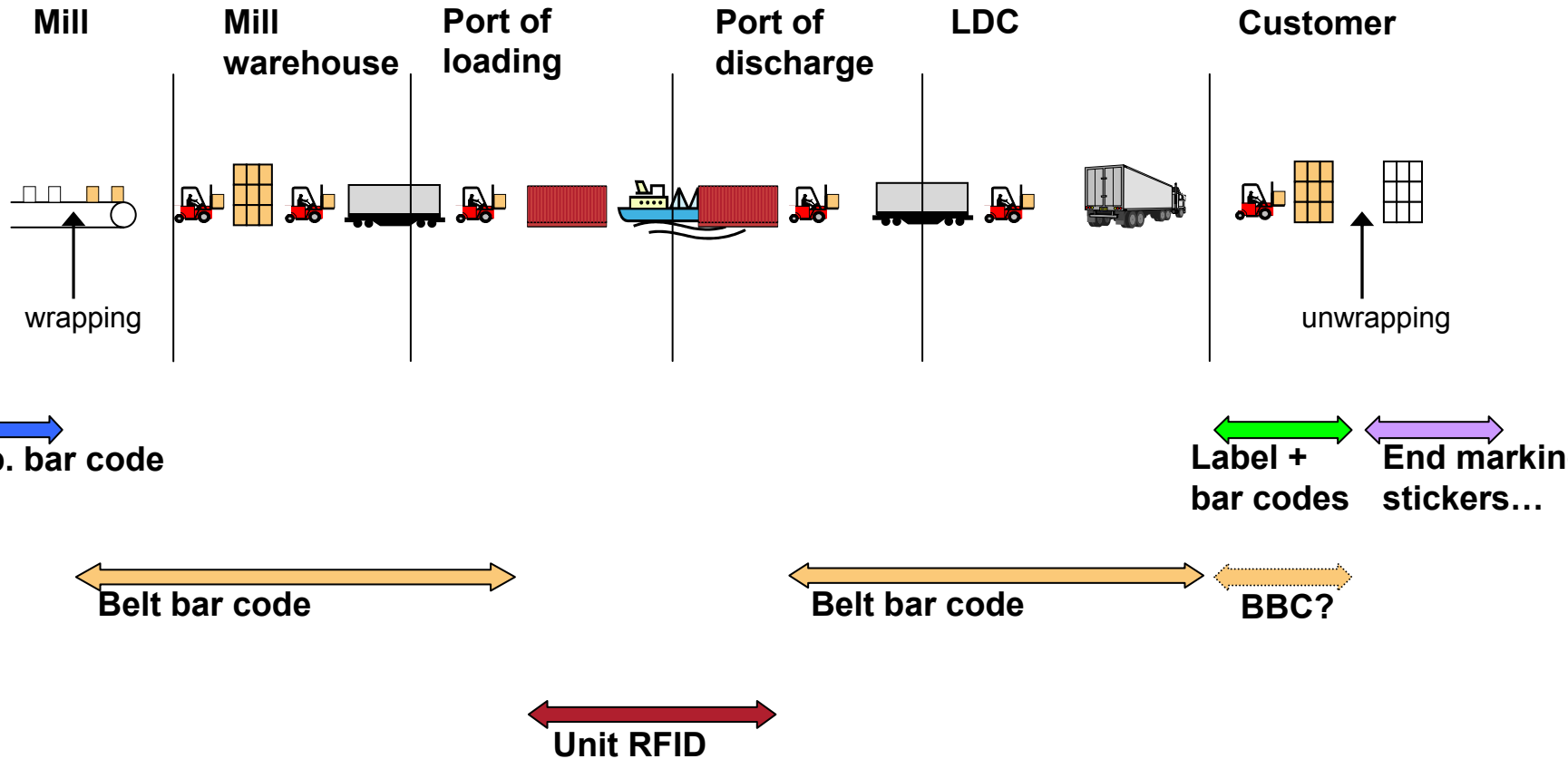
SECU identification

- SECU is identified every time when it is moved
 - Readers are installed in tug masters
 - Read range about 3 meters

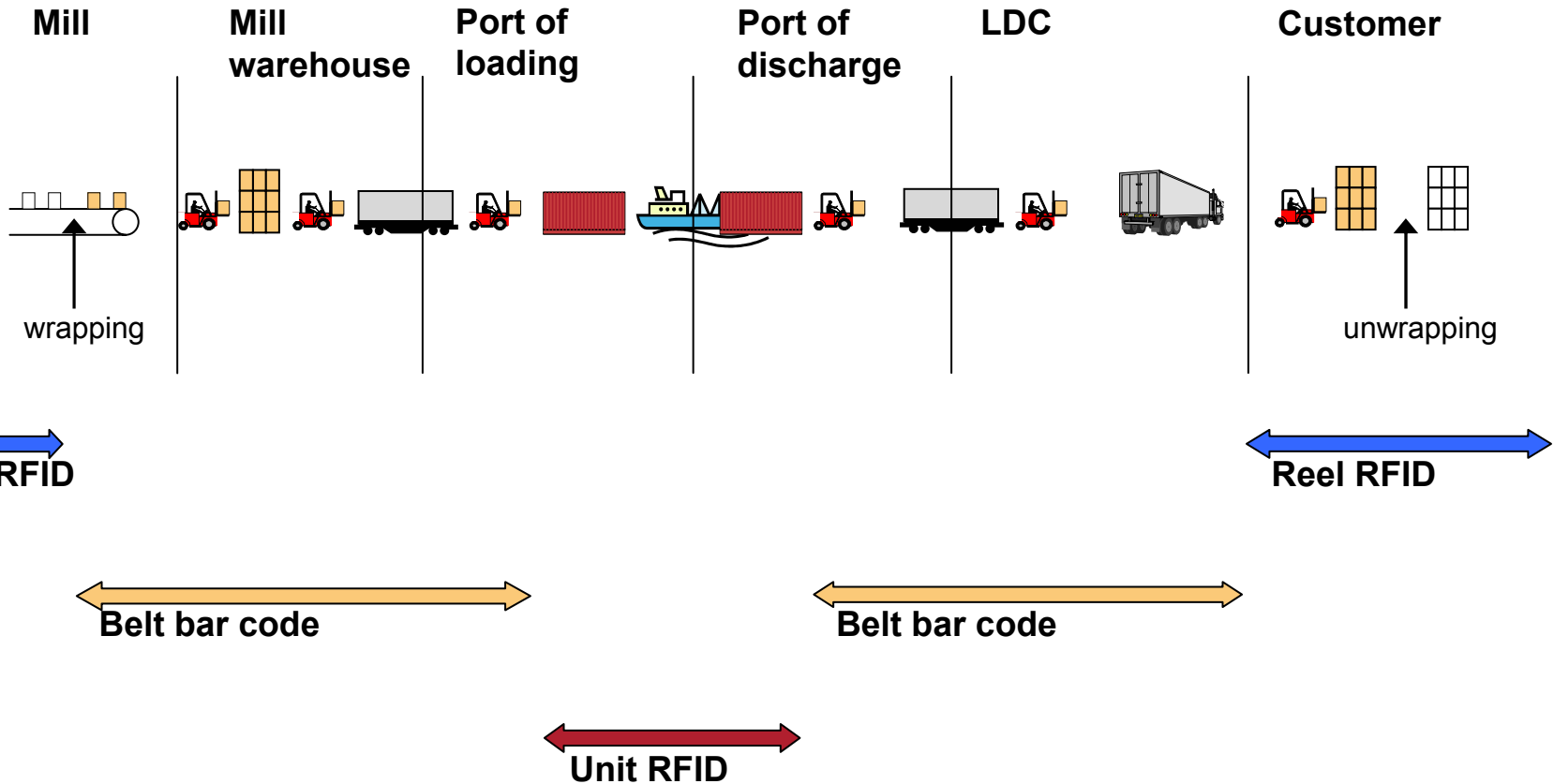


Antenna

Identification in paper supply chain: Today



Identification in paper supply chain: Next step (2 years??)



Identification in paper supply chain: Future (over 5 years??)

