Responsibility & Performance

Stora Enso
Transport and Distribution

SETD Continent and UK
Organization
SETD Continent and UK – Zeebrugge office
Market Distribution Benelux and France

Supply Chain – Ex Finland
Supply Chain – Ex Sweden (Baseport)

Ports
Antwerp
Zeebrugge
Terminals

Customers

Market Distribution Manager
- Daniel Bauwens
Logistical Reporting & Administration
- Nele Merlevede
Logistic Analyst
- Sjaak Holtrust (30%)

Logistical Coordination & Transportation Claims Handling
- Dona Poels
Claims Handling Assistants
- Daniela Kern and Petra De Gryse

Port Coordination
- Sven-Åke Johansson

Product Care
- Kris Dhondt

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

T&D Business Coordination
Contracting ports and inland Terminal services / distribution services.
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

Material flow

IDENTIFICATION

Information flow
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!
Benefits of unit level identification

- 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 SECU 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
Identification in paper supply chain: Today

- Mill
- Mill warehouse
- Port of loading
- Port of discharge
- LDC
- Customer

wrapping → Mill

unsapping → Mill warehouse

loading → Port of loading

discharge → Port of discharge

LDC → Customer

Temp. bar code

Belt bar code

Label + bar codes

End markings, stickers...

BBC?

Unit RFID
Identification in paper supply chain: Next step (2 years??)
Identification in paper supply chain: Future (over 5 years??)