ZETES & AXACON

SUPPLY CHAIN
EXPERIENCE DAY 2020

Er du forberedt på **automatisering** af dit lager?

Af

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Adm. Direktør og medejer af

AXACON A/S

axacon

Start rigtigt

Forbliv agil

Træf jeres valg baseret på erfaring
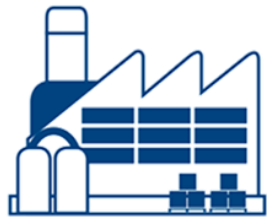
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www.axacon.dk/viden

Tak for jeres opmærksomhed!

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ENABLING THE COLLABORATIVE SUPPLY CHAIN

VISIBILITY AND TRACEABILITY CHALLENGES

Visibility & Traceability

Right ID?
Parent-child?

Right goods?
Right carrier?

Right carrier?
Right vehicle?

Right stop?
Right time?
Complete order?

Right products?
Right shelf?
Right info?
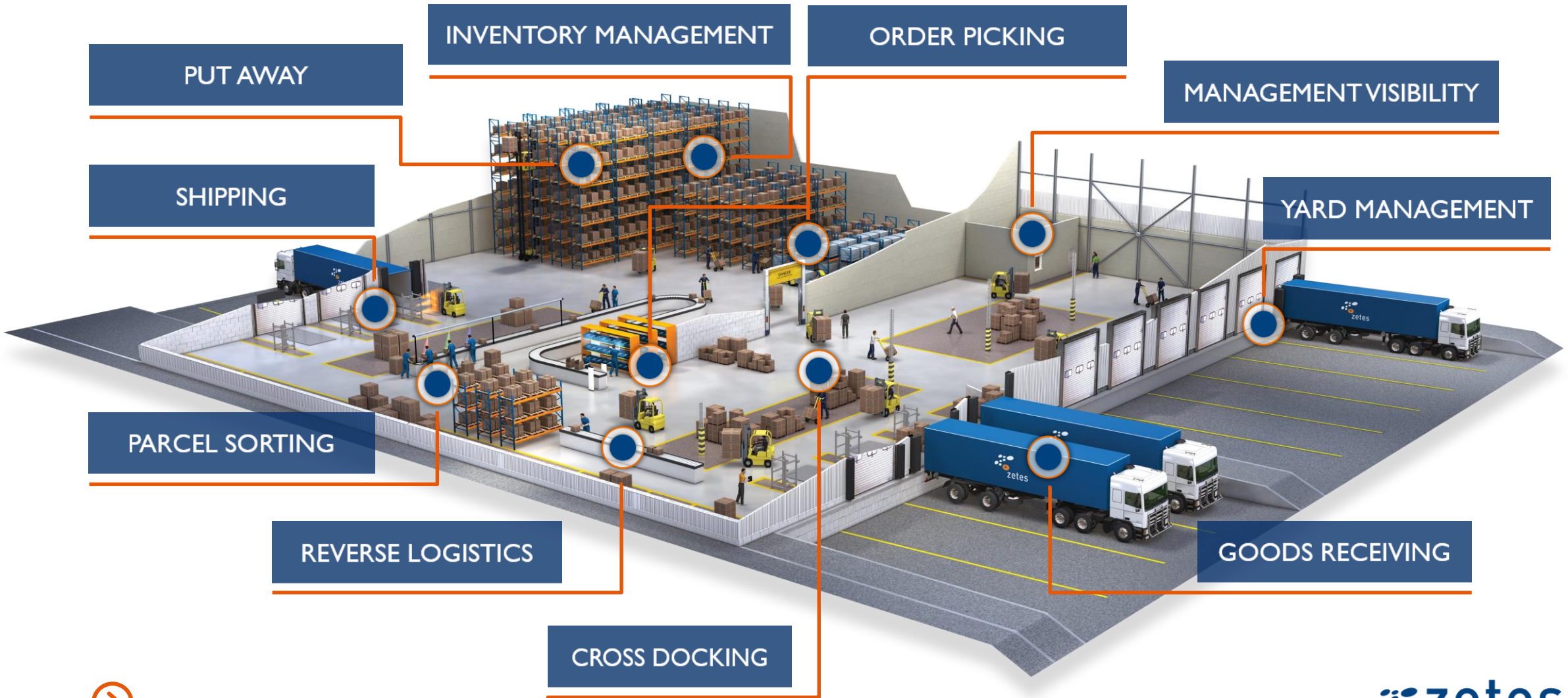
Right service?
Right quality?

Removing IT complexity

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ZETES FOR THE AGILE

WAREHOUSE

New technologies that will drastically change supply chain management

Boost productivity, maximise visibility and gain control

INVENTORY MANAGEMENT

ORDER PICKING

PUT AWAY

MANAGEMENT VISIBILITY

SHIPPING

YARD MANAGEMENT

PARCEL SORTING

REVERSE LOGISTICS

GOODS RECEIVING

CROSS DOCKING

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Enabling technologies

Multi-Modal

FLT

RFID Gates

Vision

- Circa 10% of warehouse operating costs
- Automate goods in to reduce dock congestion and receipt-to-stock dwell time
- Identify discrepancies and shortages quickly
- Manage and verify serialised items
- Capture evidence of condition to minimise supplier disputes
- Re-label goods quickly and efficiently

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Enabling technologies

Multi-Modal

HHTs

Scanners

FLT

- Circa 15% of warehouse operating costs
- Achieve efficient and accurate task instruction
- Accurately verify put-away location
- See inventory in real-time
- Achieve efficient retrieval
- Shorten receipt-to-stock cycles

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Enabling technologies

Voice

Multi-Modal

PLT

Scanners

ZetesMedea Multi-modal Voice

ZetesMedea Voice Picking

ZetesMedea Pick-to-light

ZetesMedea Put-to-light

- Circa 60% of warehouse operating costs

- Optimise pick instructions to match specific tasks in different warehouse zones

- Achieve maximum pick accuracy to facilitate same-day shipping and minimise returns

- Manage serialised product deactivation/reactivation

- Reduce training for fast ramp-up of temporary and seasonal workers

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Enabling technologies
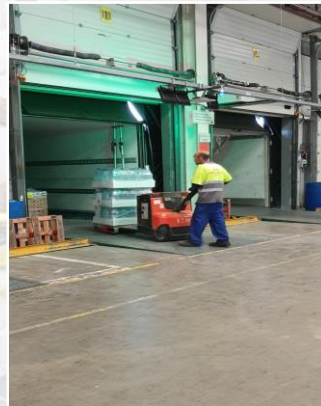
Vision

RFID

FLT

Multi-Modal

ZetesMedea Shipping Verification

ZetesMedea Loading Verification

- Circa 15% of warehouse operating costs
- Eradicate shipping errors
- Achieve faster, more efficient loading
- Ensure right pallet, right truck
- Enable optimum load sequencing – route and weight
- Optimise use of space to minimise empty miles

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Enabling technologies

Projection

Conveyors

Scanners

ZetesMedea Visual Sort Assist

- Rapidly sort parcels to adhere to delivery schedules
- Deliver the right parcel to the right truck
- Reduce worker fatigue
- Ramp-up temporary workers fast and productively
- Reduce processing errors

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Enabling technologies

Multi-Modal

RFID

Serialisation
Aggregation

Vision

- Maintain accurate stock levels
- Reduce safety buffer stock
- Reduce errors
- Achieve regulatory compliance for serialised product traceability
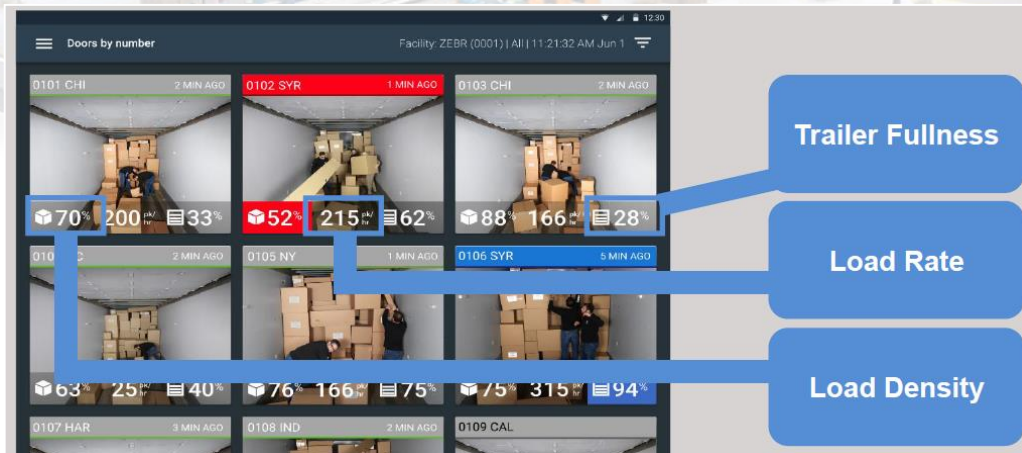- Minimise operational disruption

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Enabling technologies

Volumetrics

Vision

Locationing

- Pre-authorise and route inbound/outbound shipments for rapid receipt and turnaround
- Increase yard flow and capacity
- Optimise truck fill rates
- Reduce waiting and dwell times
- Achieve efficient goods and asset tracking
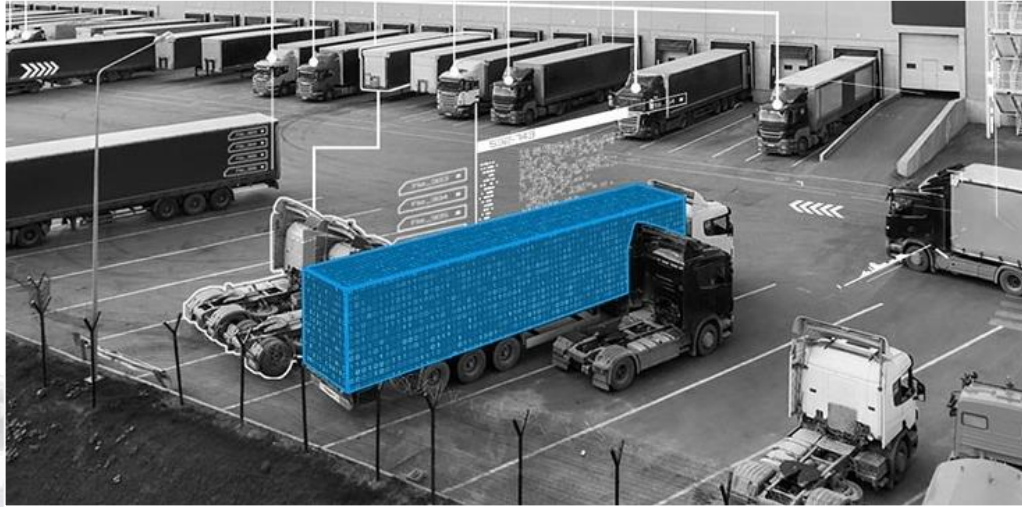
Trailer Fullness

Load Rate

Load Density

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Intelligent, agile process execution for today and tomorrow

transportation

agility | visibility | traceability

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chronos
PROOF OF DELIVERY

How last mile delivery optimization can boost your logistics and supply chain business

INCREASED INDUSTRY PRESSURE

Cost Control

- Avoid loading/delivery errors
  - Deliver right, first time
- Visibility on
  - Returnable Assets
  - Vehicles
- Optimisation of
  - Planning & admin
  - Drivers and resources
- Make better decisions and reduce risks
- Manage unplanned pick-up and deliveries

Efficiency

Risk & Compliance

- Trace every
  - Item / Action
- Proof-of-delivery
- Provide visual proof
- Proof of condition
- Meet SLA's
- Health & Safety regulations
- Sustainability
- Visibility

Traceability

Customer Expectations

- Same day, next day…
- Estimated time of arrival
- Flexibility
- Delivery status/history
- Return items
- Added value services
- Status visibility
- Charge on delivery
- Communicate ETA's and incidents to customers instantly

Service

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End-to-end delivery efficiency and visibility

Extends systems to the operational field

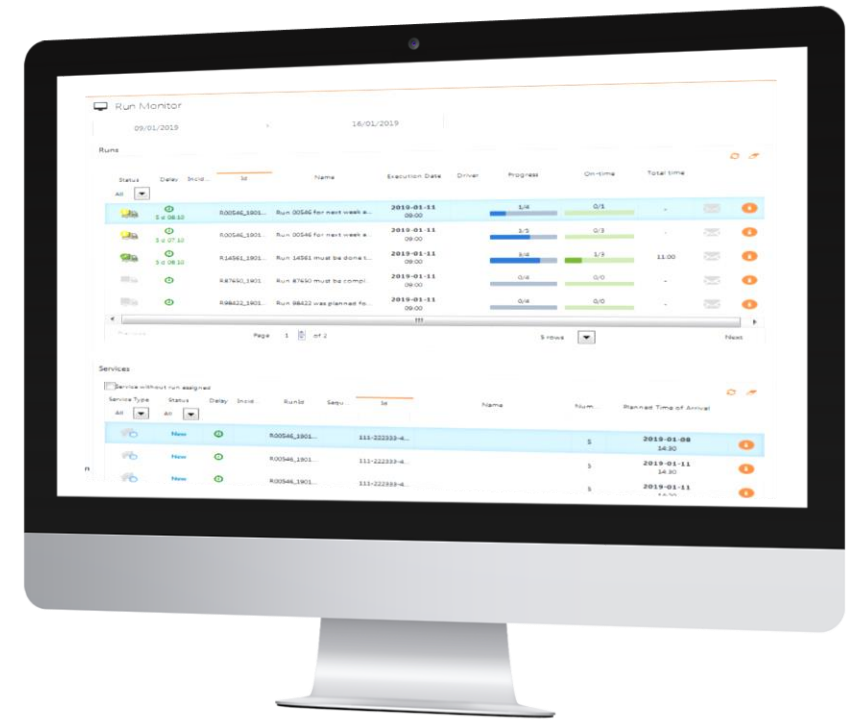Using mobile devices, drivers are guided through every step of process execution

All events are registered during pick-up and delivery process

Data is communicated in real-time

Track & Trace and reporting modules provide alerts and insights for customers and management

zetes
chronos
PROOF OF DELIVERY

A New Generation Proof of Delivery Mobility Solution

Management / Back-Office

- Easy driver, vehicle and asset set-up
- Simplify sub-contractor onboarding
- Track returnable assets
- Dynamically assign services to a run
- Job data and incident management visibility

Reporting & control

zetes zeus SUPPLY CHAIN VISIBILITY

Enroute Management

- Dynamically update services, incidents and transfers enroute
- Optimise runs with GPS guided turn-by-turn navigation
- Real-time job status and driver location visibility
- Monitor actual vs planned run status visibility

Handheld Terminals | Tablet | GPS

Direct Store Delivery / Van Sales / Bulk Delivery

- Capture sales in the field through powerful product cataloguing
- Enable promotions, stock replenishment, store merchandising
- Manage stock throughout the delivery and collection process

Handheld Terminals | Tablet | Mobile Printing | RFID | Biometrics | GPS | Mobile Payment

Loading / Unloading

- Fast, accurate loading verification for efficient run sequencing
- Optimise loading sequencing and space utilisation

Vision | Volumetrics | FLT | Gates | Handheld Terminals

Compliance

- Meet regulatory requirements for track and trace
- Monitor condition or temperature of sensitive goods
- Maintain duty of care for drivers and vehicles

zetes olympus DATA COLLABORATION PLATFORM | IoT | Serialisation | ATEX

Parcel Sorting

- Rapidly sort parcels to maximise delivery schedules
- Easily ramp-up labour during seasonal peaks
- Reduce worker fatigue and processing errors

Scanners | Projection
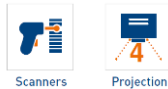
Delivery / Collection

- Intuitive step-by-step delivery process guidance and KPI adherence
- Proactively update customers on status
- Capture time-stamped job data, consignee identity
- Enable mobile payment and invoice printing

Handheld Terminals | Tablet | Mobile Printing | Scanners | RFID | Biometrics | GPS | Mobile Payment
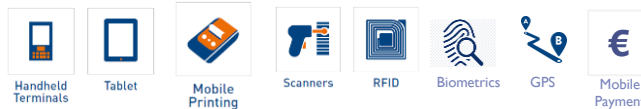
Unattended Delivery

- Securely deliver/collect from non-attended locations with time-stamped proof of presence for undisputable evidence

Handheld Terminals | Tablet | Smart Locker | In Vehicle

ADDITIONAL SERVICES

Geolocation
Geolocation of addresses

Route Sequencing
Optimize runs

ETA Calculation

Geofencing
Definition of geofencing Zones
Alert Generation

Alert Engine
Alerts to Management, Driver and Customer
E-mail, SMS, Notifications, CRM integration

e-CMR

Reporting

Digital representation of the supply chain, constructed in a virtual environment that allows for ongoing examination, validation, and projection of future states.

DANFOSS **GLOBAL SERVICES**

2020-03-05 Supply Chain Experience Day 2020

ENGINEERING
TOMORROW

Danfoss

Central European Distribution Center

Build year 2001 / 18.000 m²

- ➤ Open 260 days/year - 24 hours a day
- ➤ Approximately 250 employees
  - • 70 white collar

Site area

- ➤ Site area 120.000 m²

Building

- ➤ Warehouse 16.700 m²
  - • Narrow Aisle Storage (5.200 m² – 14.000 locations)
  - • MiniLoad (2.600 m² – 70.000/103.000 locations)
  - • Technical installations & maintenance (900 m²)
  - • Pick- and pack area (2.400 m²)
  - • In- and outbound terminal (5.600 m²)

- ➤ Administration building (1.200 m²)
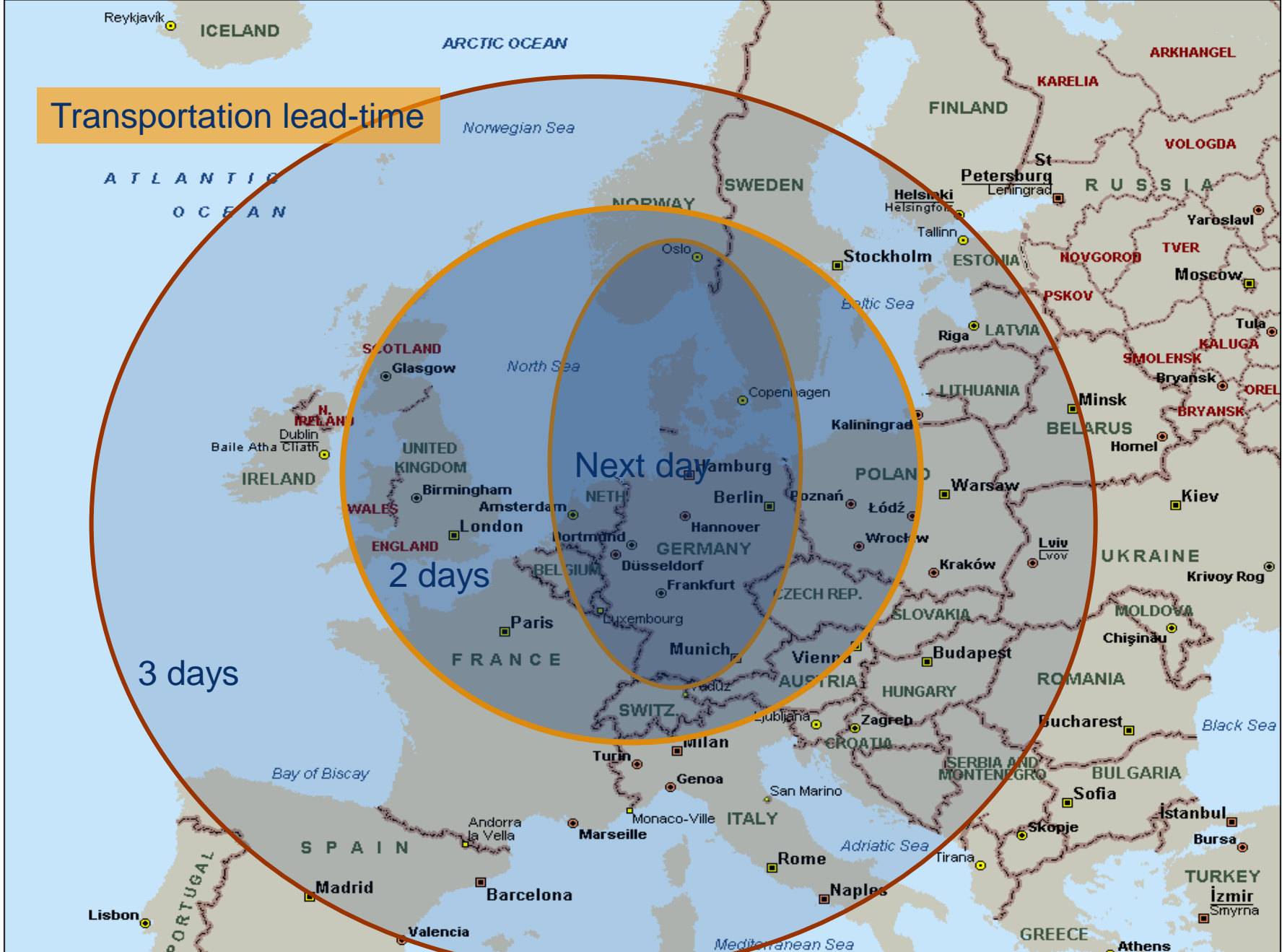
ENGINEERING **TOMORROW**

Danfoss

DAILY VOLUME HANDLED VIA CDC

Daily outbound volume
3.000 deliveries ~ 7.500 order lines
1.500 pallets and 3.500 cartons
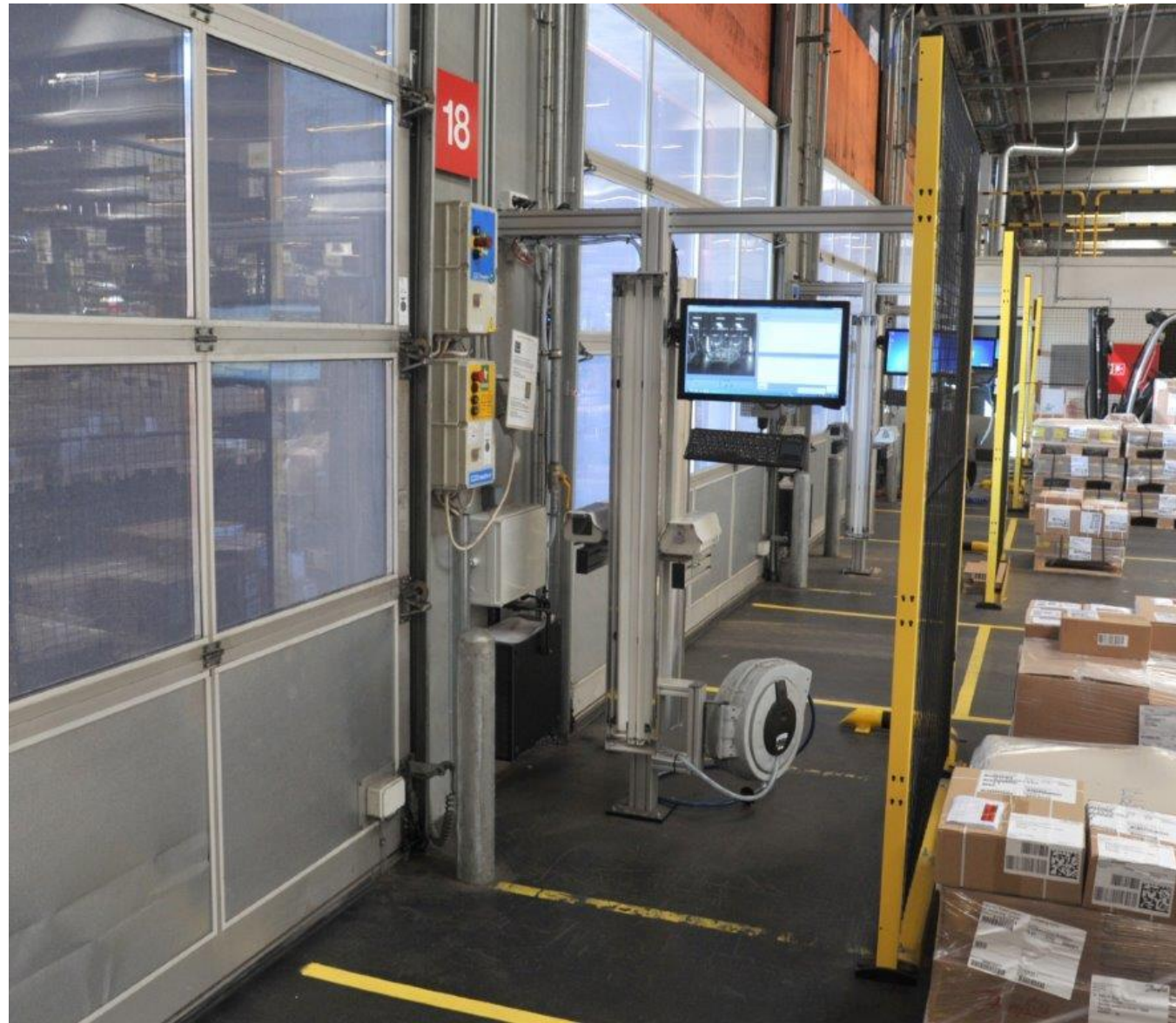350 shipments ~ 190 tons
60-70 trucks/containers

ENGINEERING **TOMORROW**

Danfoss

Transportation lead-time

Next day

2 days

3 days

Classified as Business

ENGINEERING **TOMORROW**

Choose the right solution.

- Options
  - Scanner solution
  - RFID Solution
  - Camera Solution

- Danfoss choose Zetes ImageID Solution with Cameras
  - Low implementation cost
  - Standard solution
    - Pictures
    - Easy to find error's
  - Easy to implement to other Danfoss sites.

Classified as Business

ENGINEERING **TOMORROW**

Classified as Business

ENGINEERING **TOMORROW**

Danfoss

ENGINEERING **TOMORROW**

Savings and benefits

Before	ImageID implemented

• 500 loading errors per year
• Customer Complaints
    • 5-6 people involved
    • Slow process
• Truck driver need signing many documents
• Manuel arciving of shipping documents
	• 0 loading errors by using ImageID
	• Picture of loaded Goods
	• Posible to traces
	• Customer Complaints
	    • 1 person handling
	    • Fast and easy
	• Digital signatur by Truck Driver
	• Less print/paper
	• Digital arciving of shipping documents
	• Picture of loaded goods
	• ROI 1 year

ENGINEERING **TOMORROW**

Danfoss

Done by Deer - AXACON

Vigtigt for Done by Deer's succesfulde implementering

- Vi lavede en grundig analyse af hvad vi forventer af WMS

- Vi undersøgte hvordan vi kunne effektiviserer vores tidlige rutiner for at få maksimalt ud af de muligheder der er i WMS

- Vi brugte meget tid på integrationen, den er en meget vigtig for de effektiviseringer vi har opnået.

- Klar definition af de tilpasninger der skulle til for at vi kunne få maksimalt ud af WMS

- TEST under udviklingen af de rettelser som vi ønskede i WMS

- Grundig oplæring af personalet

- Godt forberedt før opstart.

- Realistiske forventninger til WMS systemet, fra opstart til fuld drift.

- Vær forberedt på at alt ikke er 100% ved opstart, vær forberedt på rettelser efterfølgende.

- Løbende fokus på udvikling for at få maksimalt ud af de muligheder der er i WMS.

R.O.I

Den beregnede ROI blev budgetteret til at være under 2 år. – Dette budget holder!

Efterfølgende er der planlagt nye optimeringer hvor der er kortere ROI.

Målsætninger at få lageromsætningshastigheden op til 3-4 for at reducerer kapitalbindingen.

WMS har gjort det muligt for Done by Deer at implementere toldlager hvilket der vil give virksomheden endnu større effektiviseringer og besparelser.

WMS har gjort det muligt for Done by Deer at effektiviserer leveringstider med op til 10 dage, fra planlagt modtagelse af varer til ordre er færdig behandlet.

FREJA

We offer **BEST-IN-CLASS** personal freight forwarding and logistics solutions **ACROSS THE WORLD**

CASE BESKRIVELSER

FREJA

| KOMPLEKSITETS REDUKTION | BESLUTNINGS MODELLER | MATEMATISK MODELLERING | KONSOLIDERING FORSENDELSER |

Færre aktører er rigide. Mange aktører er fleksible.

Hvad giver størst afkast?

Beslutningsmodeller giver overblik og fakta baseret handlinger.

Vil beslutningsstøtte resultere i bedre afkast?

Matematisk modellering regner optimum af kombinations-muligheder, som mennesket ikke kan overskue.

Vil matematisk modellering resultere i bedre afkast?

Konsolidering gaver både miljø og afkastet, såfremt den rette S&OP taktik understøtter en skematisk leverance.

Vil konsolideringer resultere i bedre afkast?

DIGITALE LØSNINGER

MyFREJA er vores BI kundeplatform, hvor kundens data er bearbejdet i let forståelige visuelle effekter

MyFREJA er cloud baseret og afbilledes via Microsoft Power BI

MyFREJA muliggør analytisk gennemsigtighed indenfor:

- Dashboard med transport statistik og KPIs
- **Month/Month analysis**
- **Year/Year analysis**
- **Cost of transport**
- **Supplier – Cost to serve**
- **Customer – Cost to serve**
- **Heat Map – Country level**
- Heat Map – Zip code level
- Pin points – Suppliers
- Pin points – Customers
- Volumen overblik I enhederne: Units, LDM, M3, Tons
- Shared files
- Fordeling af forsendelser på hverdage
- Histogram af forsendelses størrelse / frekvens
- Cost analysis