



No more shipment tracking in Excel sheets
How to achieve shipment visibility via container tracking and/or sensor-enabled cargo monitoring

Welcome



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Content

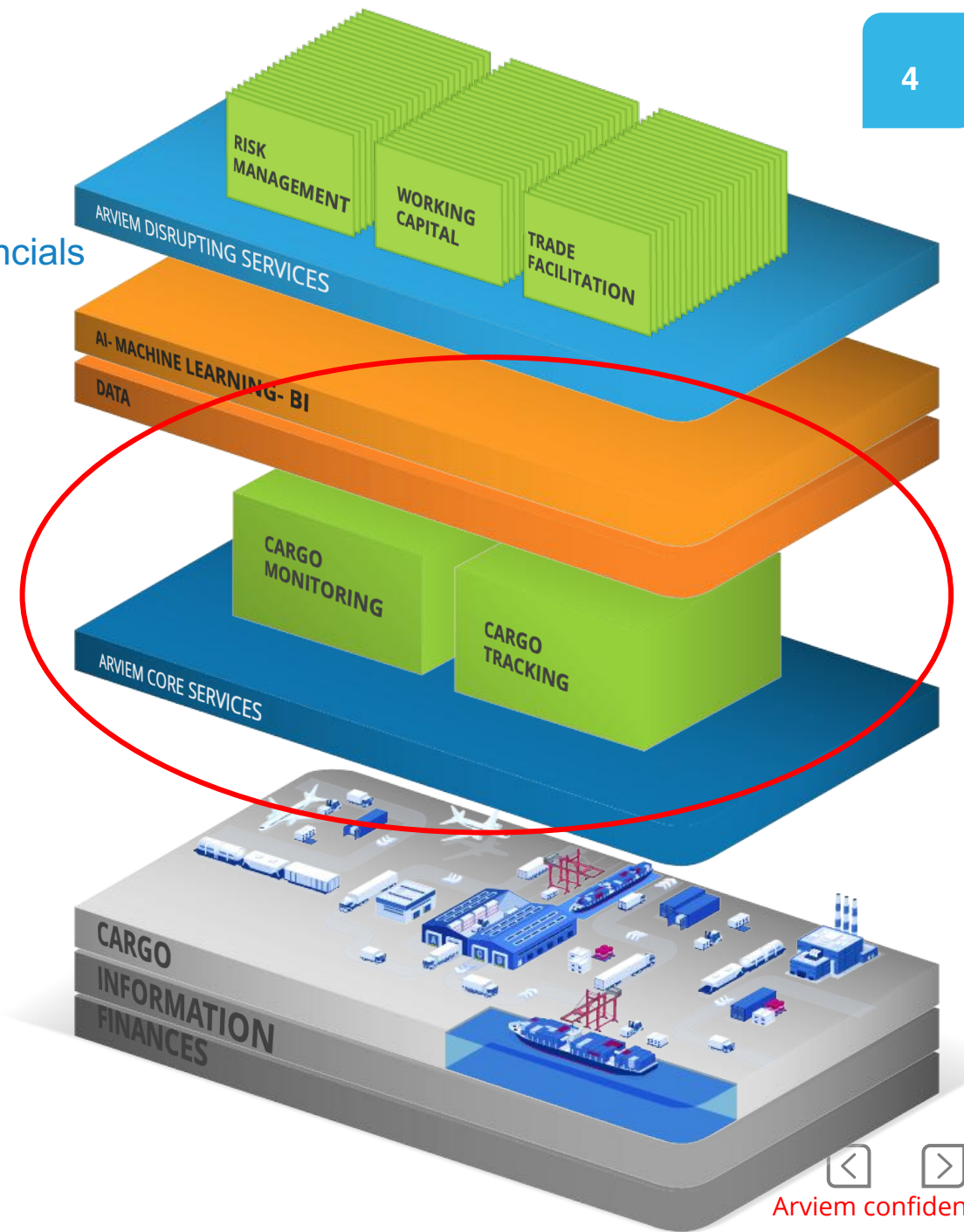
- ✓ **Section 1**
The various levels of shipment visibility you can achieve
- ✓ **Section 2**
How to choose the best fitting visibility solution for your needs: Shipment tracking and/or sensor enabled cargo monitoring
- ✓ **Section 3**
How to leverage the data collected through visibility solutions to cut costs, eliminate inefficiencies, and build leaner supply chains



Arviem's Service Suites

Arviem offers an integrated suite of fully managed services providing visibility in the global supply chain around cargo, information and financials

- ✓ Arviem's key competence lies in monitoring cargo globally in real-time enabling efficient supply chains
- ✓ By monitoring cargo, Arviem collects a large volume of unique, independent and reliable data
- ✓ Based on the collected data pool, Arviem develops services to optimize various aspects of the supply chain:
 - Risk management
 - Working capital / inventory management
 - Trade facilitation



The various levels of shipment visibility

Visibility level 0: “Ship and Pray!”

No visibility at all

- ✓ Information on shipment status available upon request
- ✓ Typical for organizations with small shipping volumes
- ✓ Products shipped are of lower value and non-business critical
- ✓ Primary information source is the freight forwarder/ carrier
- ✓ Non-Scalable, does not support supply chain digitalization



Visibility level 1: “I think, I know what’s happening, but...”

Very low level of visibility achieved through manual effort

- ✓ Primary tool for visibility is an Excel sheet
- ✓ Information on shipment milestones consolidated through manual effort
- ✓ Typical for organizations with low level of supply chain digitalization
- ✓ Information accessed through ‘chasing shipments’ on carrier websites, calls and emails
- ✓ Data accuracy and timeliness is questionable
- ✓ High admin effort, reactive communication



Visibility level 2: “I know where it is, but not HOW it is...”

Visibility into the movement and location of shipments

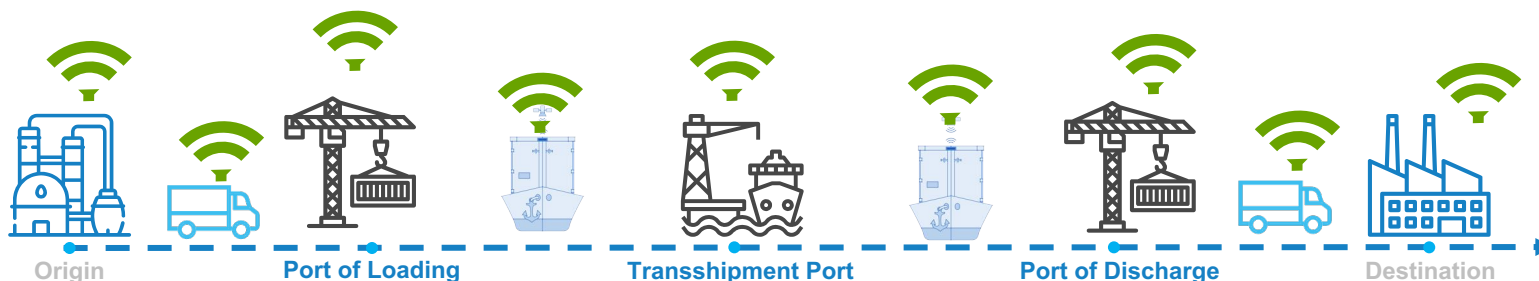
- ✓ Primary tool for shipment milestones is a freight visibility platform or through API in transport management systems
- ✓ Typical for enterprises, organizations with digitalized supply chains
- ✓ Data based purely on carrier data, based on milestones
- ✓ No access to real-time data
- ✓ No access to cargo condition/security information



Visibility level 3: “I know all the time what is happening...”

Real-time visibility into the movement & condition of intermodal shipments

- ✓ Primary tool for all shipment data is a monitoring platform or an API
- ✓ Real-time data generated via sensor devices, transferred to online platforms
- ✓ Typical for enterprises, organizations with digitalized supply chains
- ✓ Beneficial for mission critical, high-value, sensitive or theft targeted goods or on complicated shipping routes
- ✓ Real-time data on location, condition and security
- ✓ Real-time alerts in case of disruptions



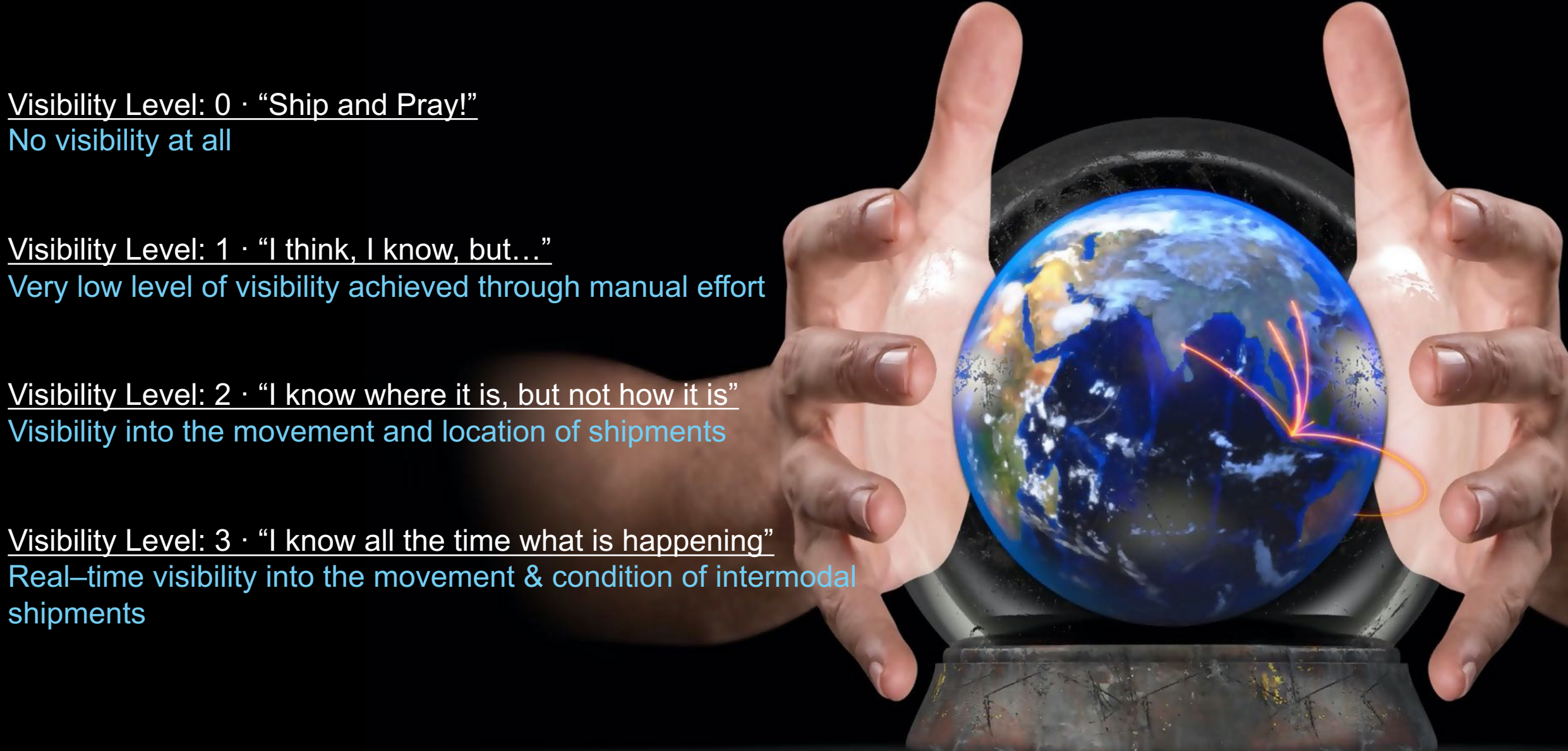
The various levels of shipment visibility

Visibility Level: 0 · “Ship and Pray!”
No visibility at all

Visibility Level: 1 · “I think, I know, but...”
Very low level of visibility achieved through manual effort

Visibility Level: 2 · “I know where it is, but not how it is”
Visibility into the movement and location of shipments

Visibility Level: 3 · “I know all the time what is happening”
Real-time visibility into the movement & condition of intermodal shipments



How to choose the best fitting visibility solution for your needs: Shipment tracking and/or sensor enabled cargo monitoring

How to choose the best fitting visibility solution for your needs?

- ✓ Identify the challenge and write it down
Targets, KPIs & Value
- ✓ Evaluate the different entry points and potential solutions
Solution & Target Audience
- ✓ Checklist for monitoring
Make an assessment to get clarity

Start with an assessment

Identify the challenges and write it down

Targets, KPIs & Value & Expected Benefits

Targets f.e.

- visualization of the entire supply chain
- reduction of transport costs
- optimization of the outbound order process

KPIs f.e.

- regularly reporting of agreed milestones
- reporting of the carbon footprint of past and current shipments, door 2 door
- Reduction of FTEs for manual tracking

Value f.e.

- reduction of administrative effort for manually transport monitoring
- optimization of routes through uncover inefficient route segments (bottleneck)
- reduce claims and manually quality control

Evaluate Potential Solutions

Visibility Level 2



Cargo Tracking

Visibility Level 3



Cargo Condition Monitoring

Basic Rationale	Integrate all forwarder data in one system	Use IoT to closely control important cargo
When will my shipment arrive?	Arviem dynamic ETA	Arviem dynamic ETA
How is my cargo?	No information	Precise sensor measurement
Alerts and notifications	In real-time	In real-time
Delay/ETA change	●	●
Unexpected transshipment	●	●
Geozone entry/exit	🗺️	●
Unfavorable cargo conditions	●	●
Door opening	●	●
Motion	●	●
Control and Analytics		
Manage data via online dashboard	●	●
Integrate data via API	●	●
Filterable shipment list	●	●
Interactive shipment map	●	●
Performance Reports		●

Visibility Level 2



Cargo Tracking

Visibility Level 3



Cargo Condition Monitoring

Basic Rationale	Integrate all forwarder data in one system	Use IoT to closely control important cargo
Geo Zones	🗺️	●
Carbon Footprint Report	🗺️	●
Tracked object	Based on Big Data	Based on Big Data & IoT sensors
Intermodal dry container	🗺️	●
Intermodal reefer container	🗺️	●
Air freight	●	●
Full-truck loads	●	●
Less-than-truck load (pallets)	●	●
Parcel	●	●
Cargo Condition Monitoring	No data	Continuous data stream
Temperature	●	●
Shock	●	●
Humidity	●	●
Intrusion/ Security	●	●



How do you know when you need to consider cargo monitoring beyond tracking?

Checklist for considering monitoring (full or partial shipment volumes):

Make an assessment to get clarity



Cargo type:

- High value
- Perishable
- Sensitive
- Mission critical

Shipping mode:

- Intermodal
- Airfreight
- Rail

Internal challenges:

- Rejections from customers
- Quality issues (shock, humidity, temperature)
- Theft
- Tempering
- High level of safety stock
- High cost of working capital
- Need for more proactive, less reactive processes

Route:

- Performance (predictable vs. unpredictable)
- Route with recurring issues (quality, security)
- New route to be implemented

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Questions?



How to leverage the data collected through visibility solutions to cut costs, eliminate inefficiencies, and build leaner supply chains

To achieve long term success, we help you all along the way

- ✓ Workshop with all relevant stakeholders to develop financial business case
- ✓ Assessment of the status quo
- ✓ Joint effort to identify improvement areas and needed solution
- ✓ Hands-on support during service implementation
- ✓ Status meetings to review the progress of the implementation
- ✓ Joint efforts to identify further optimization areas (risk, finance)



A cereal manufacturer reduces costs and optimizes the supply chain

Project focus: Demurrage, security and quality



Cereals from South America, 10 000 Dry Containers

TOTAL SAVINGS:

553 147 USD

Transportation, Demurrage & Detention

213 000 USD

Logistic-cost reduction of 2%
Demurrage/Detention: 50%

Inventory

205 397 USD

4% lower inventory

Tracking & Tracing

10 750 USD

Cost reduction

Security

60 000 USD

Reduction of thefts

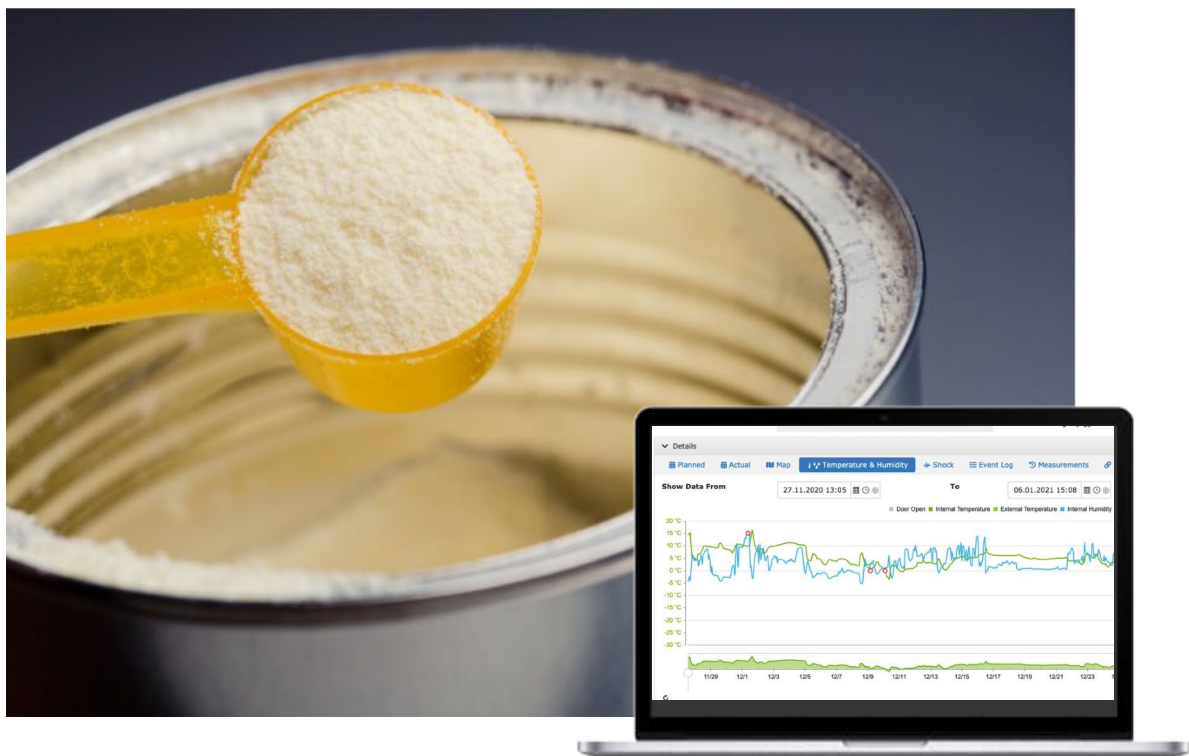
Quality

44 000 USD

Elimination of shocks

Infant formula producer safeguards product quality and prevents food fraud in-transit with a 'hybrid' visibility solution

Project focus: Holistic visibility, quality, traceability



Benefits:

- Product quality preserved during transit (mold and caking prevented)
- Cargo security increased, ensuring product authenticity
- Security and quality risk hotspots identified
- Desiccant and reefer container use adjusted based on data
- Demurrage costs reduced based on real-time notifications

17 000

Containers of milk powder

6-12 weeks

Shipment duration

+35/-20°C

Temperature range

20-90%

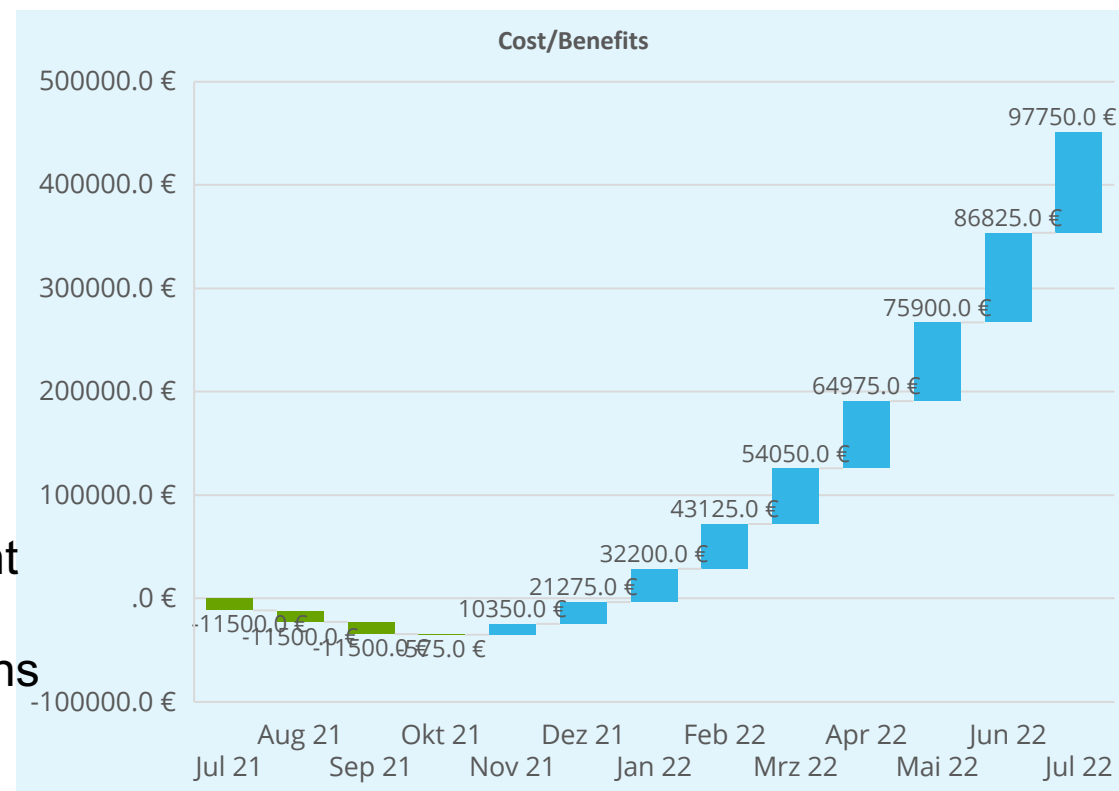
Humidity range

Spare parts manufacturer optimizes the usage time critical logistics services for urgent shipments by air and reduces costs

Project focus: Airfreight visibility, cost optimisation

TOTAL ANNUAL SAVINGS: 450 000 EUR

- ✓ Real-time visibility as an enabler for logistics optimization
- ✓ Visibility eliminates the need for time-critical logistics
- ✓ Notifications, and transparency transforms urgent shipments into normal shipments
- ✓ Logistics cost reduction from 1000,-€ to 50,-€ per shipment
- ✓ Historical data helps to optimize processes and adjust plans



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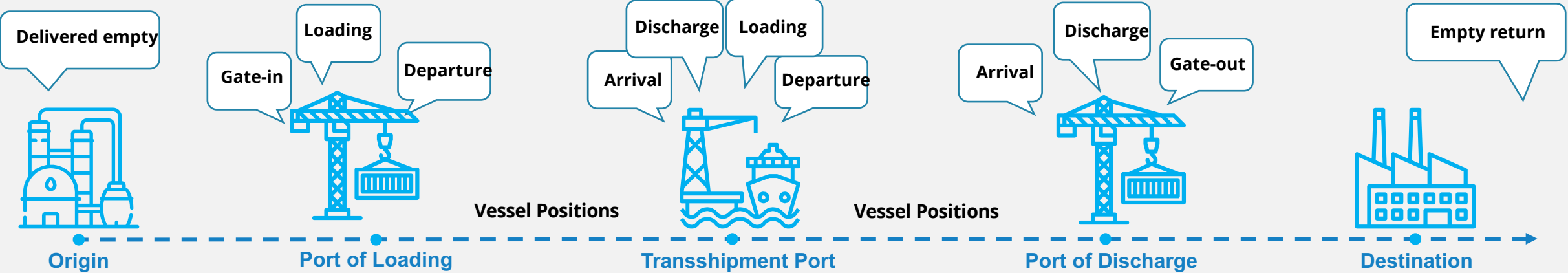
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Container tracking: All your containers on one dashboard

An easy-to-use tracking platform for all your shipments, consolidating data from the majority of ocean carriers

Events tracked



Arviem visibility.

Linking physical cargo to digital platforms through data and IoT sensor technology



Real-time cargo monitoring, providing global in-transit data



Cargo location tracking

Position confirmation allowing dynamic ETA projections, and risk mitigation



Cargo Condition Monitoring

Alerts enabling timely intervention and corrective actions



Supply Chain Diagnostics

Revealing the hidden bottlenecks so they can be challenged and continuously improved



Cargo security monitoring

Actionable intrusion & security alerts enable timely interception, and aid recovery