ADC-A11

Supply chain innovation on AWS: Handling Brexit-related complexity at scale

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Manfreight

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1

THE QUESTION

AGENDA

AGENDA

1 THE QUESTION

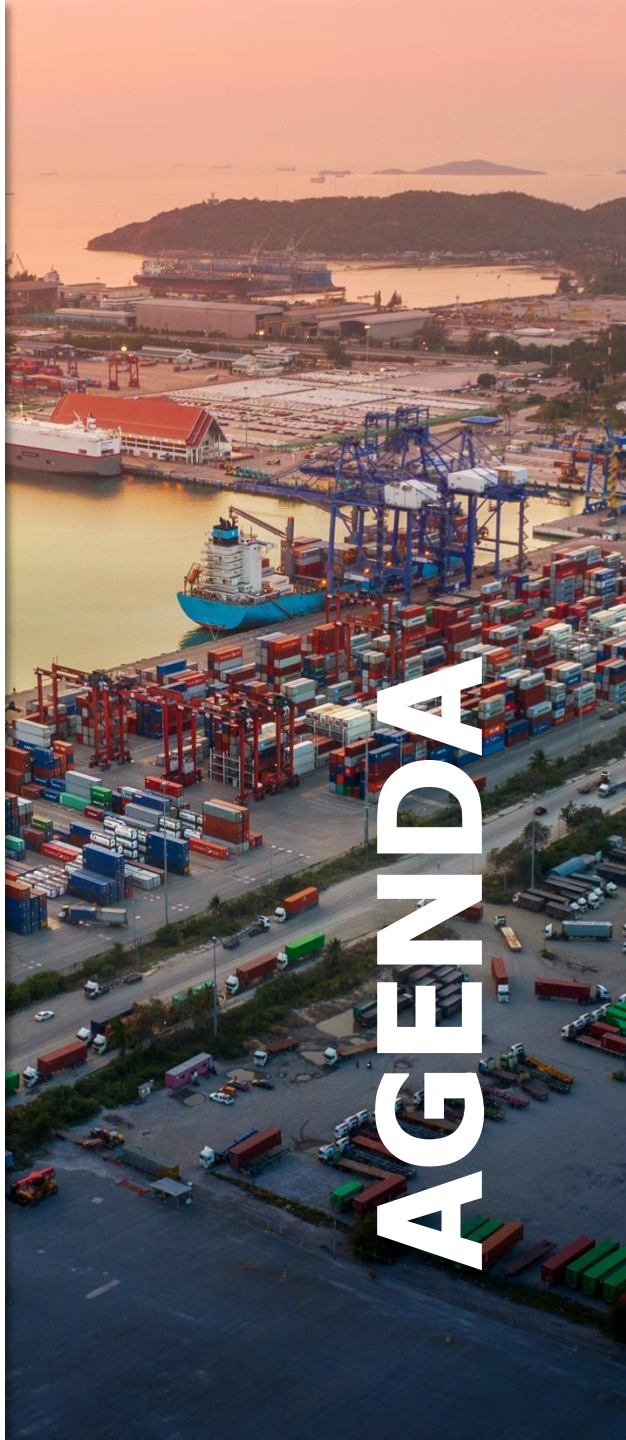
2 THE PROBLEM

AGENDA

1 THE QUESTION

2 THE PROBLEM

3 THE SOLUTION



1

THE QUESTION

2

THE PROBLEM

3

THE SOLUTION

4

AWS

1

THE QUESTION

2

THE PROBLEM

3

THE SOLUTION

4

AWS

What is Innovation?

“Innovation is answering the questions the future is asking”

1 The Problem

The Story

Manfreig
SCANIA
UIG 6542

Stena Line
STENA SUPERFAST VIII

The imp
January
Monday
Tuesday
4
5
11
12
18
19
25
26

DAERA

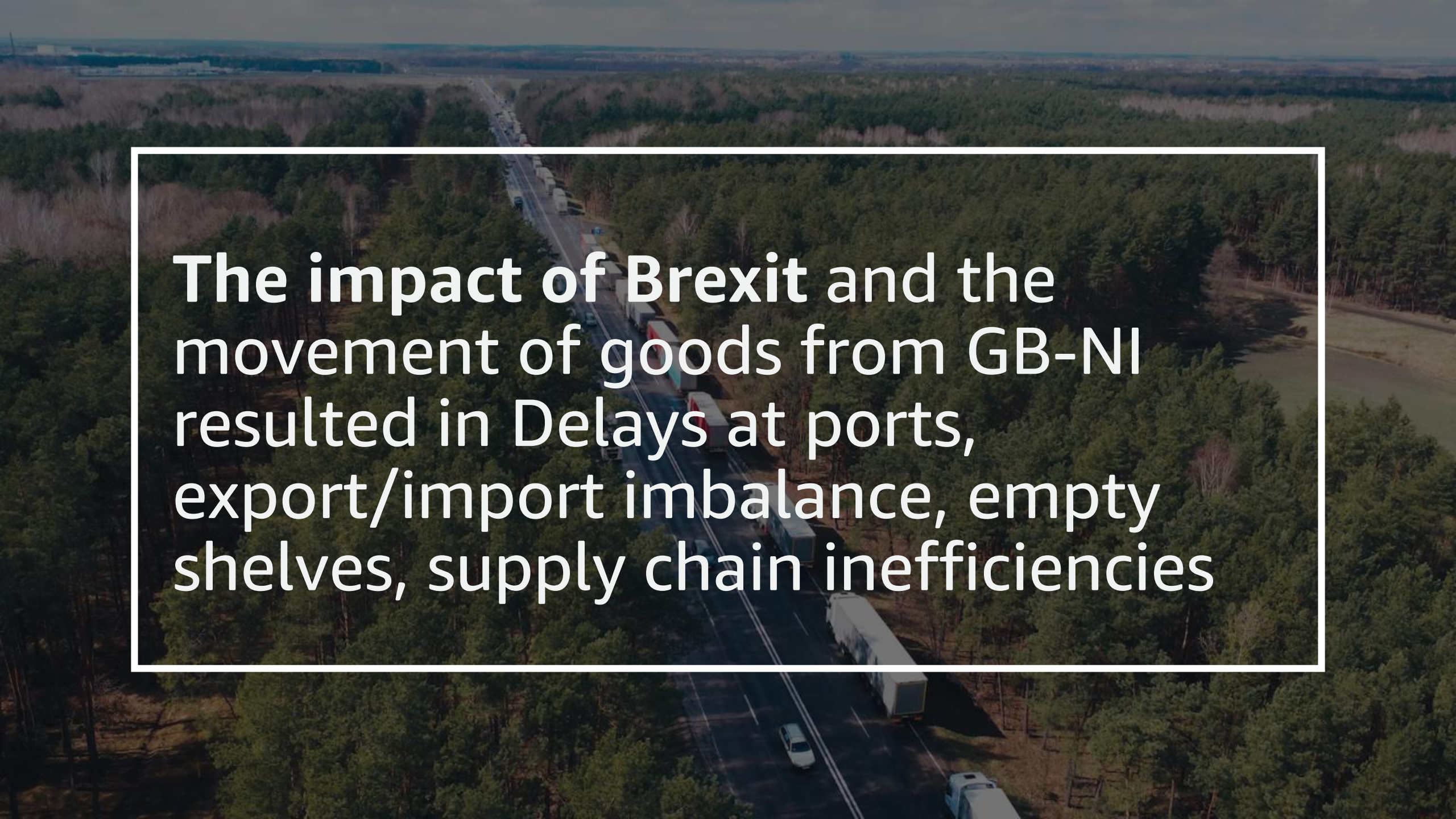
The First Truck

The First Boat

The First Day

1 JANUARY

The First Stopped


The impact of Brexit and the movement of goods from GB-NI resulted in Delays at ports, export/import imbalance, empty shelves, supply chain inefficiencies

We started with the end in mind.

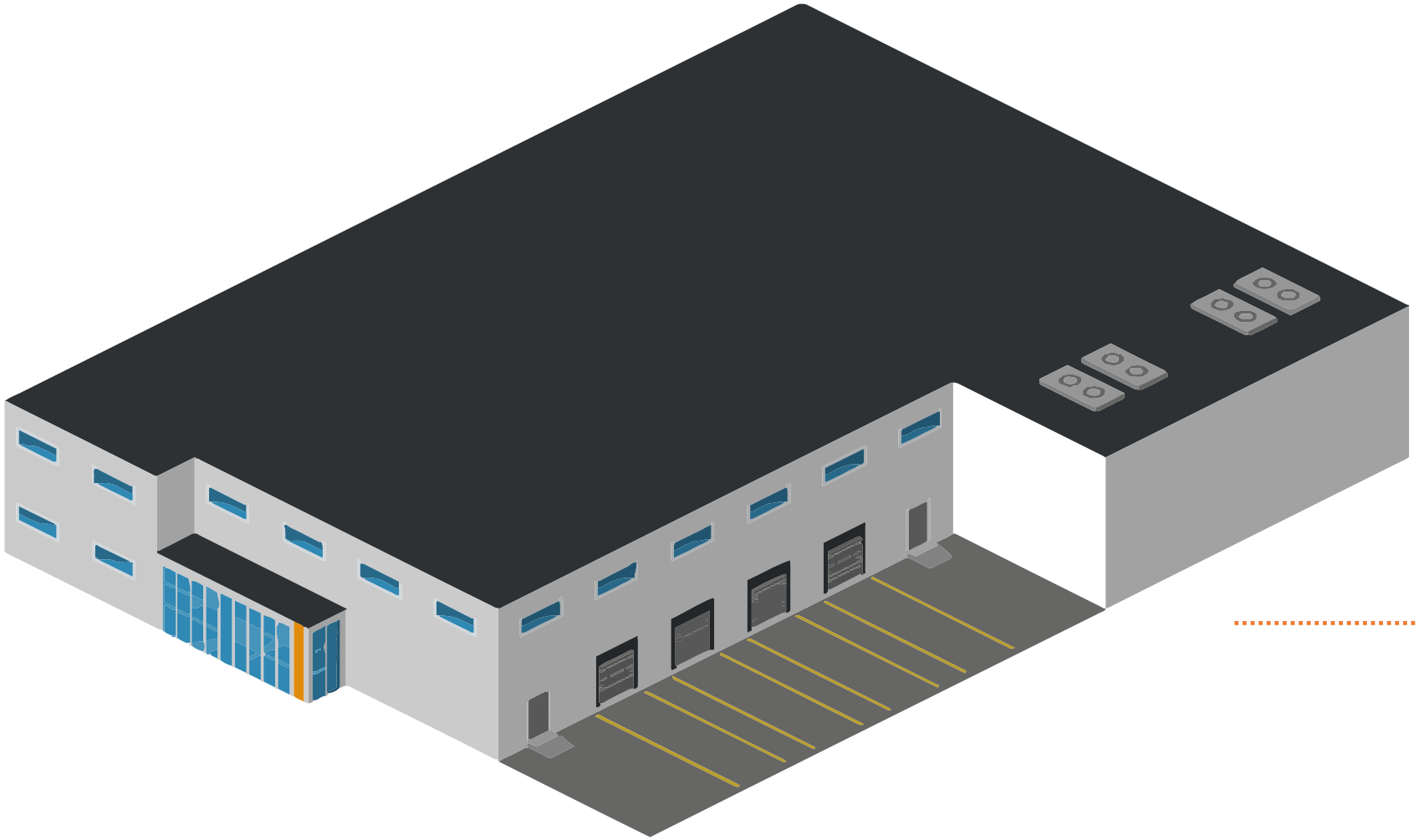
What does success look like?

Working Backwards

THE AWS METHOD

Our Turn-Key Customs Solution

COMPLETE SUPPLY CHAIN VISIBILITY THROUGH INNOVATION & DIGITISATION



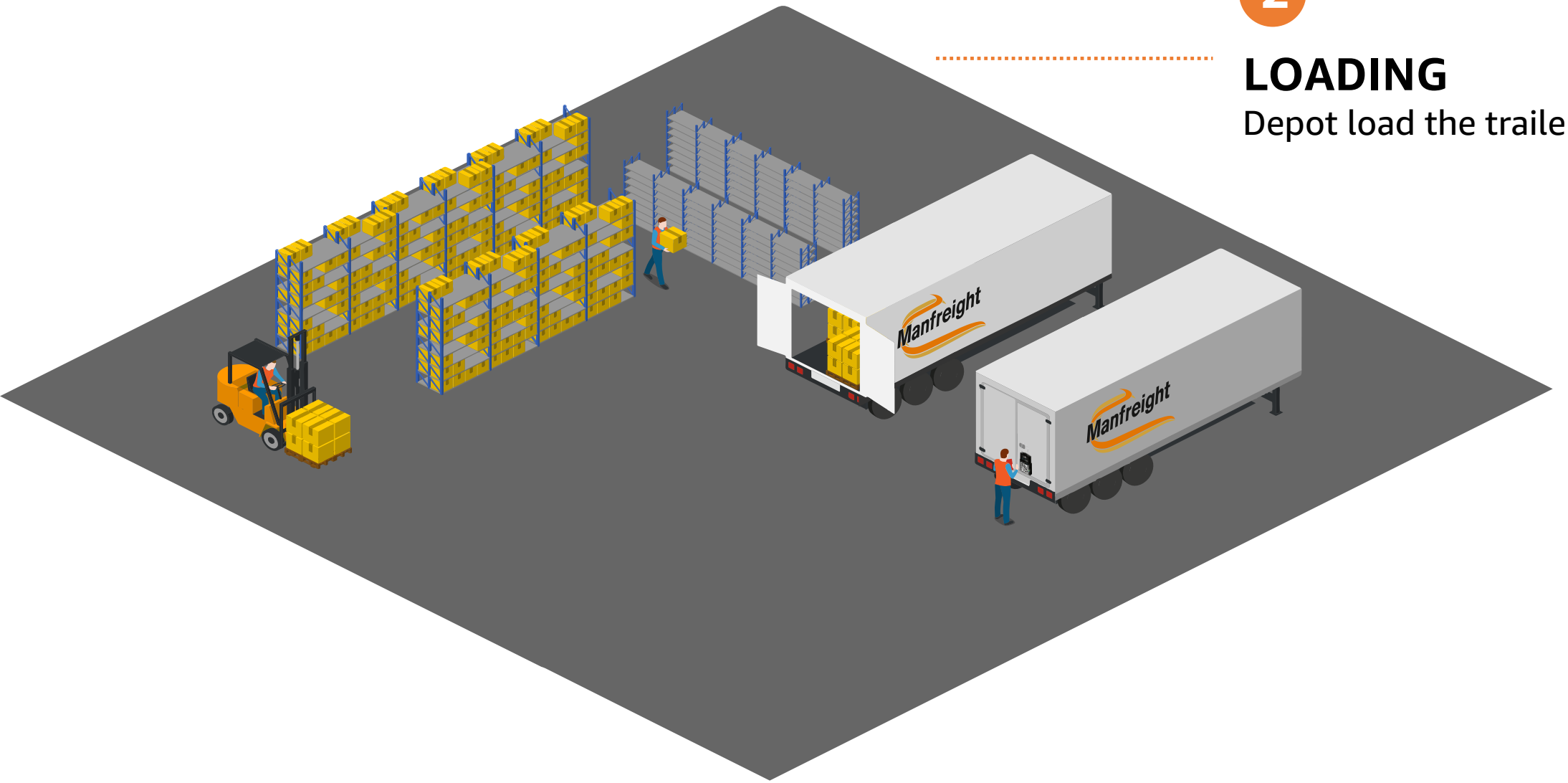
1

ARRIVAL AT DEPOT

Manfreight arrive at
Customer Collection Point

Our Turn-Key Customs Solution

COMPLETE SUPPLY CHAIN VISIBILITY THROUGH INNOVATION & DIGITISATION



2

LOADING

Depot load the trailer

3

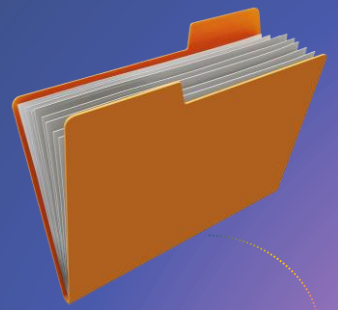
SMART SEAL

The Smart Seal is applied by authorised Depot staff

Our Turn-Key Customs Solution

COMPLETE SUPPLY CHAIN VISIBILITY THROUGH INNOVATION & DIGITISATION

Customs Documentation



Completed Declarations

defra
Department for Environment Food and Rural Affairs

Border Force

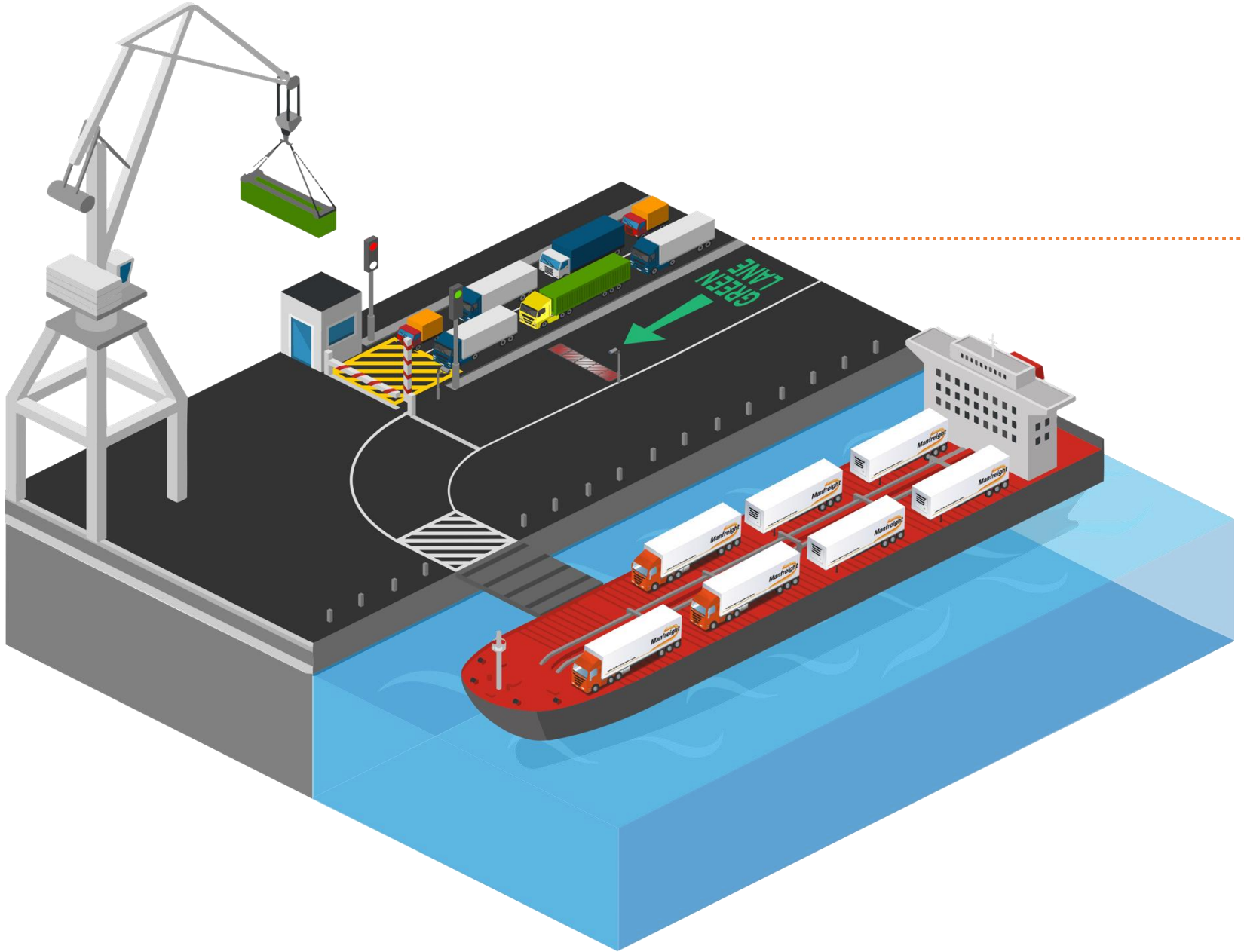
Manfreight

HM Revenue & Customs

Department of Agriculture, Environment and Rural Affairs
www.daera-ni.gov.uk

Our Turn-Key Customs Solution

COMPLETE SUPPLY CHAIN VISIBILITY THROUGH INNOVATION & DIGITISATION



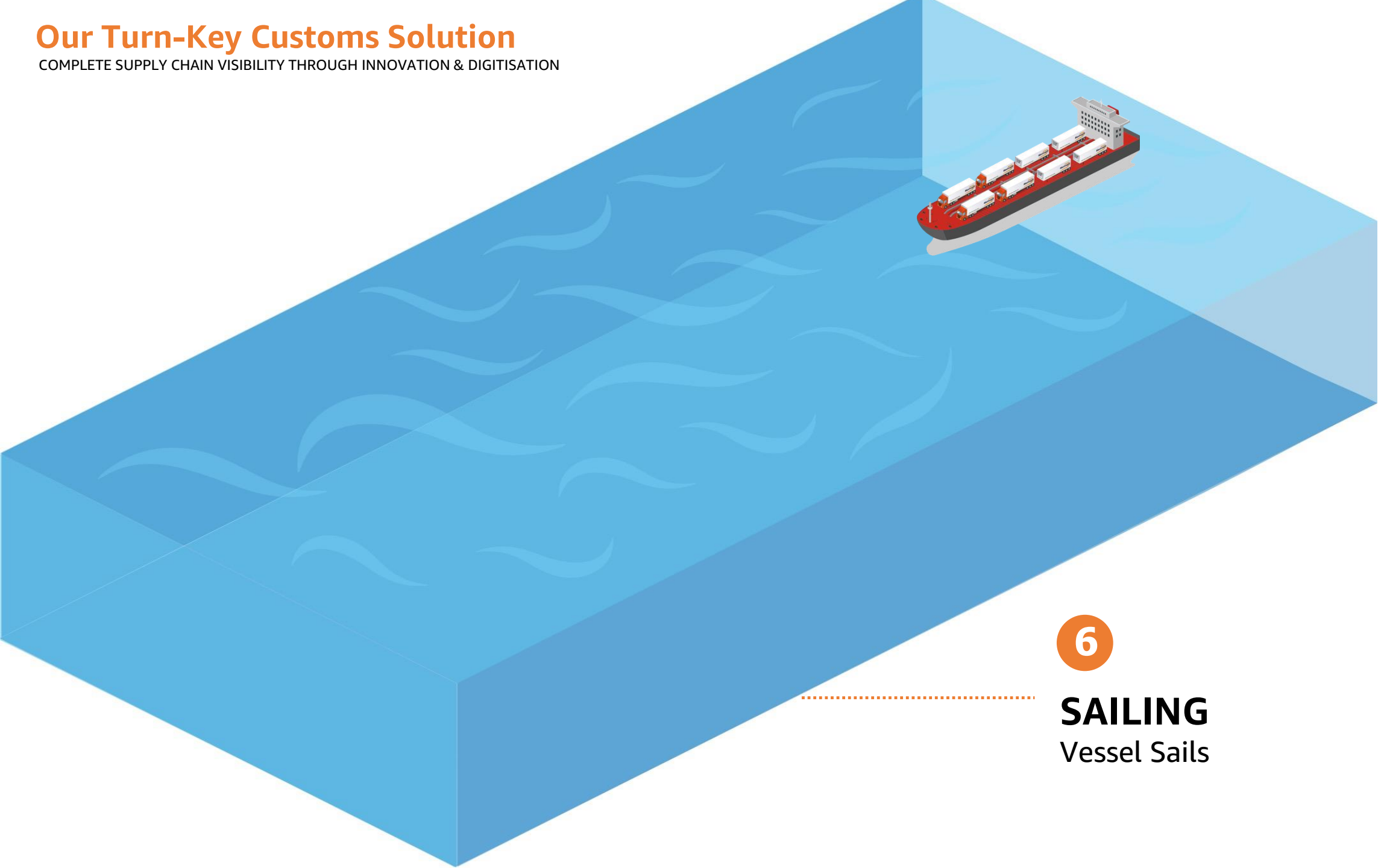
5

PORT OF EXIT

Manfreight is pre-cleared to enter the vessel via green lane reducing delays and maximizing efficiency for supplier

Our Turn-Key Customs Solution

COMPLETE SUPPLY CHAIN VISIBILITY THROUGH INNOVATION & DIGITISATION



6

SAILING

Vessel Sails

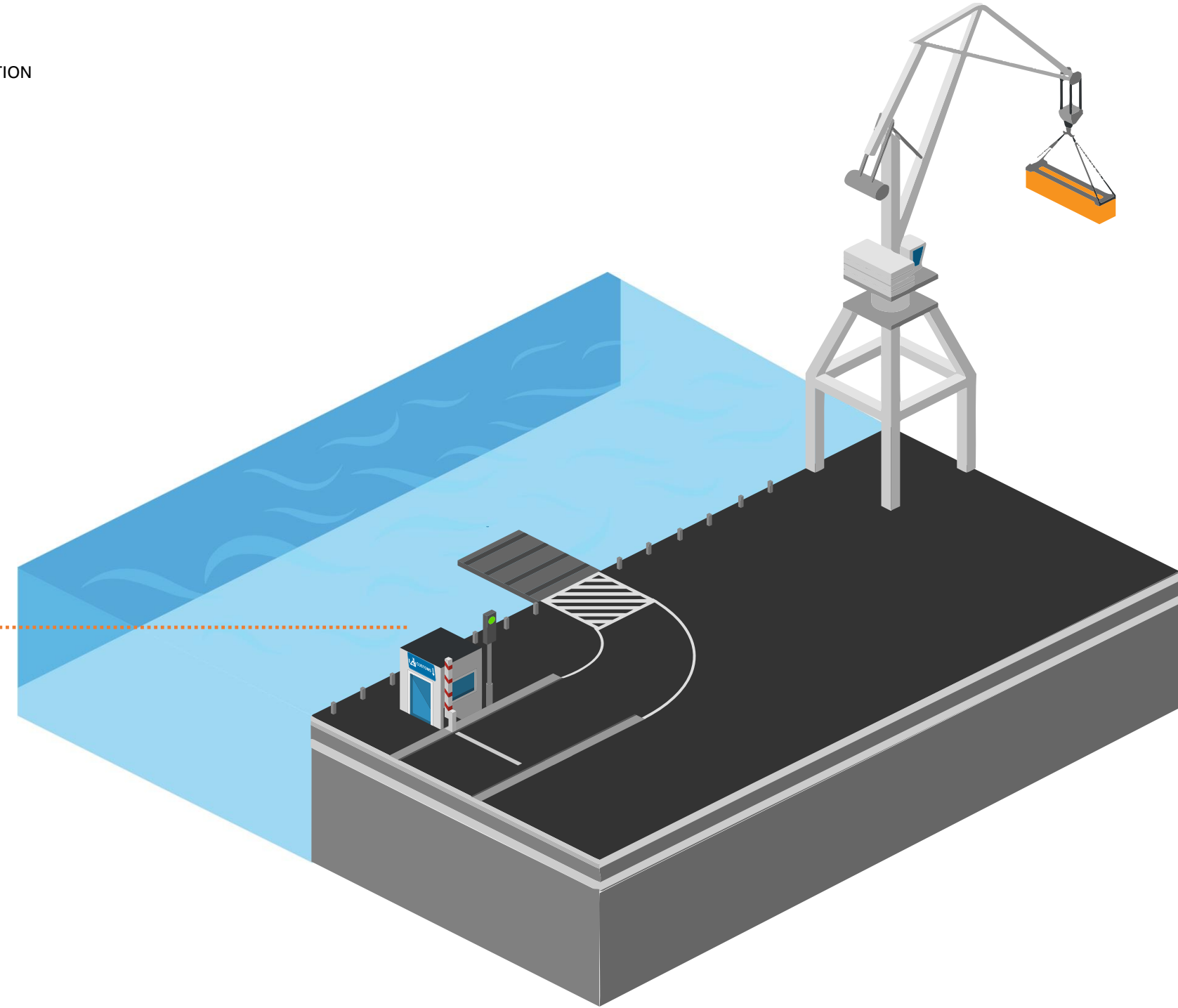
Our Turn-Key Customs Solution

COMPLETE SUPPLY CHAIN VISIBILITY THROUGH INNOVATION & DIGITISATION

7

PORT OF ENTRY

Port Authorities are pre-notified during transit and Manfreight leave the port without need for check as the load is trusted



Our Turn-Key Customs Solution

COMPLETE SUPPLY CHAIN VISIBILITY THROUGH INNOVATION & DIGITISATION

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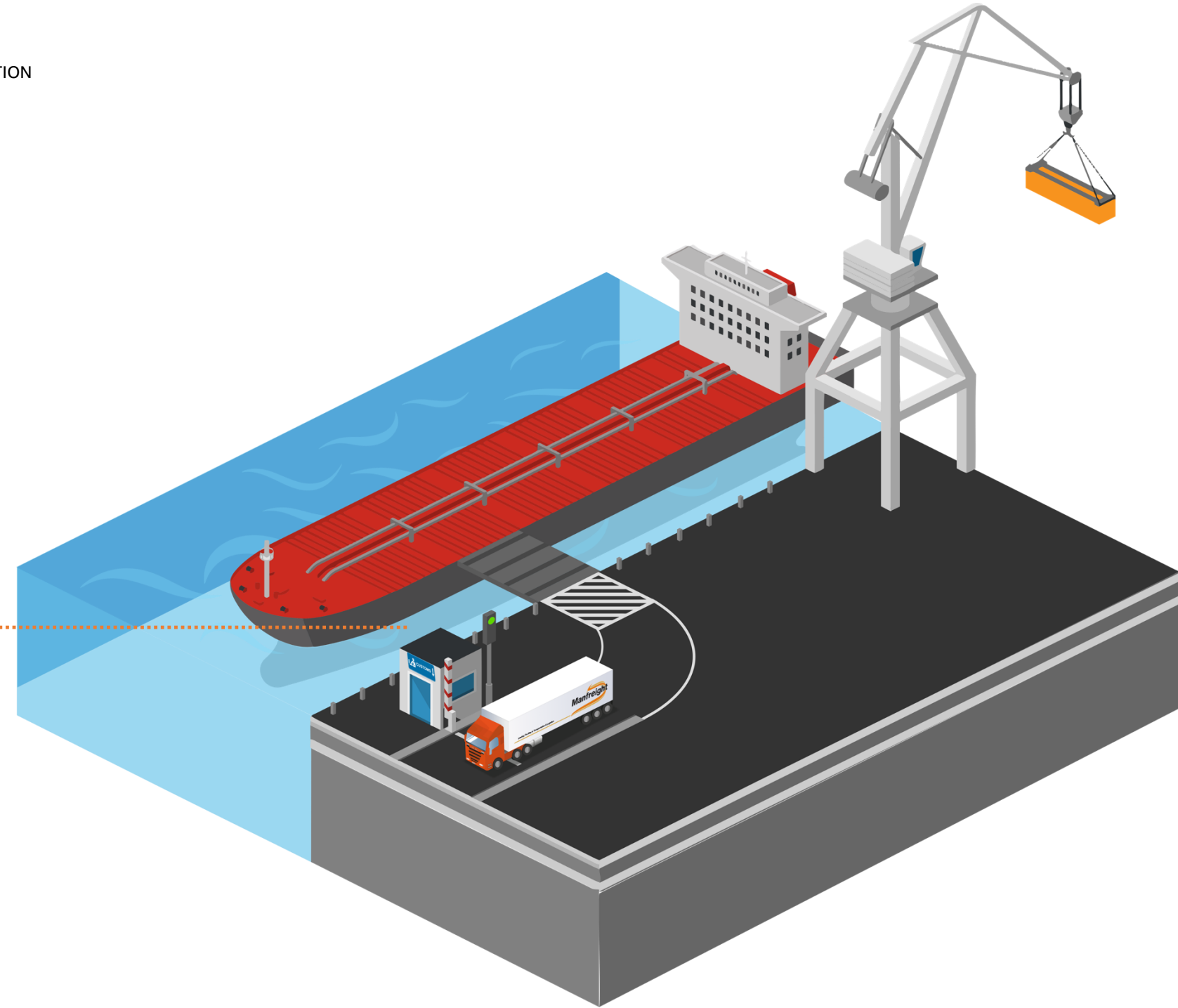


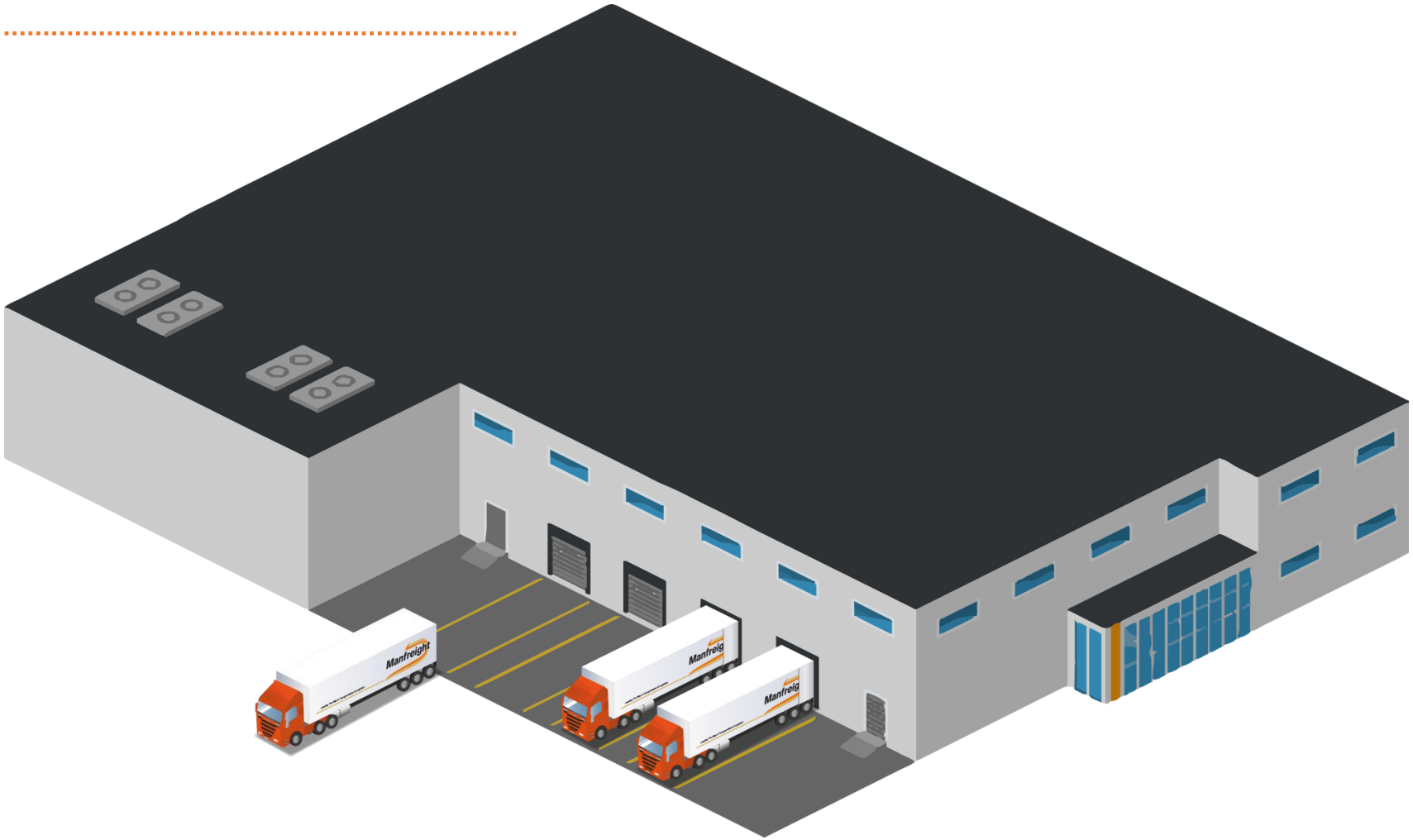
Our Turn-Key Customs Solution

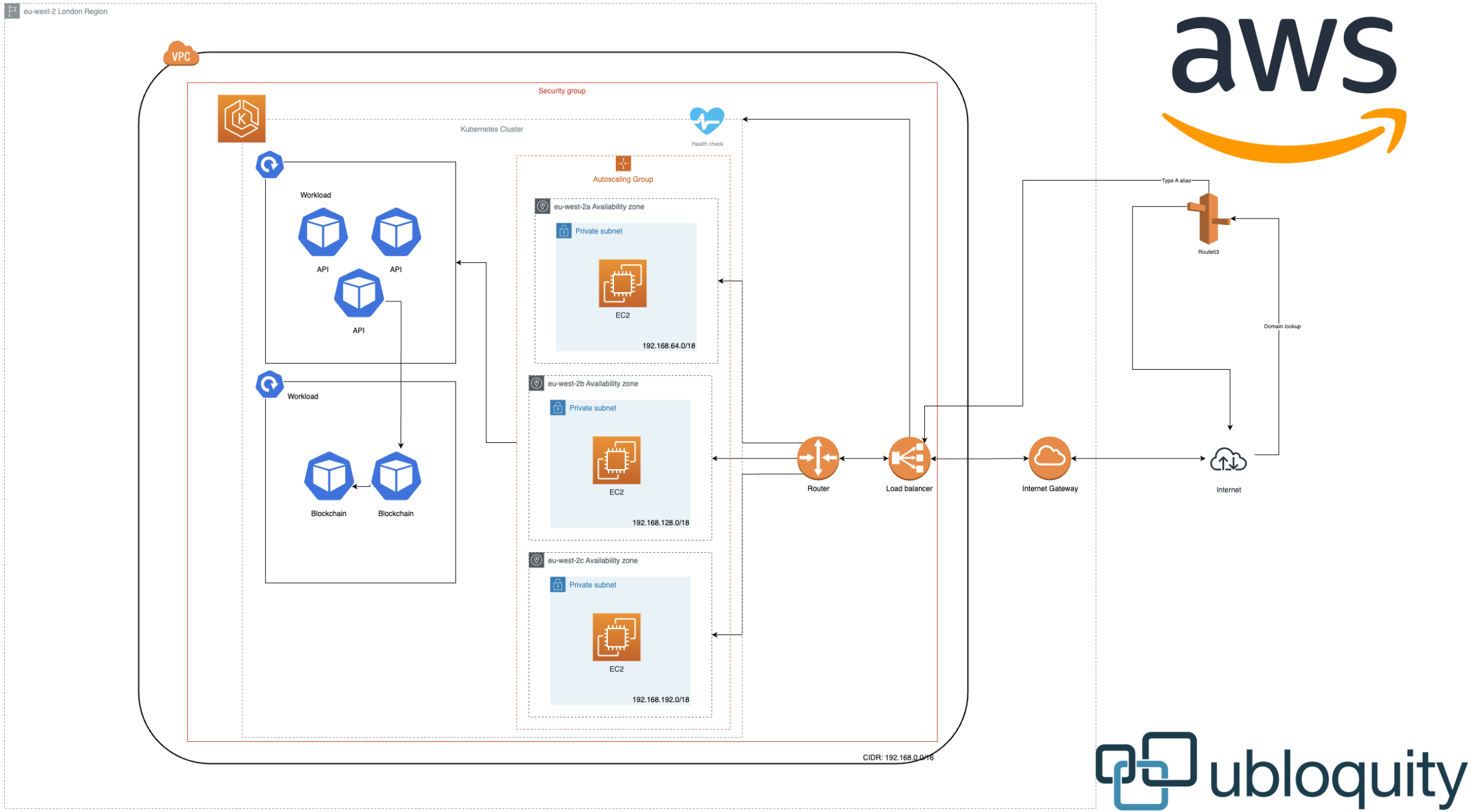
COMPLETE SUPPLY CHAIN VISIBILITY THROUGH INNOVATION & DIGITISATION

8

DELIVERY

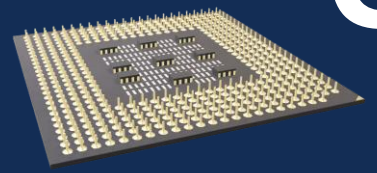
Load is delivered and journey is marked as completed on Secure Freight Platform and all events recorded on the Blockchain




eu-west-2 London Region
VPC
Security group
Kubernetes Cluster
Heatlh check
Autoscaling Group
Workload
API
API
API
Workload
Blockchain
Blockchain
eu-west-2a Availability zone
Private subnet
EC2
192.168.64.0/18
eu-west-2b Availability zone
Private subnet
EC2
192.168.128.0/18
eu-west-2c Availability zone
Private subnet
EC2
192.168.192.0/18
CIDR: 192.168.0.0/16
Router
Load balancer
Internet Gateway
Internet
Type A alias
Route53
Domain lookup

Culture of Innovation

MANFREIGHT | TECHNOLOGY



Digitising the supply chain

We are dedicated to digitising the supply-chain. We want to work with like-minded partners who share our vision for a connected future.

Cloud Technology

At Manfreight, we offer real-time access to critical intelligence & operations information through cloud services - enabling new levels of responsiveness & flexibility.

Blockchain Integration

Through our partnership with digital provenance experts, ubloquity, we are harnessing blockchain to create transparency in the supply chain.

Intelligent Storage and Distribution

Data is one of the most valuable resources when running a successful business. Our intelligent storage solutions are already transforming the supply chain.

Size & Scale

WHERE WE ARE TODAY

Turnover

21|22 £43M 22|23 £55.5M

£65M TURNOVER 23|24

Manfreight turnover more than £65 m per year.

Size & Scale

WHERE WE ARE TODAY

Size & Scale

WHERE WE ARE TODAY

People

500+ STAFF

Manfreight has grown to have over 500 staff across the UK & Ireland.

430+ IN HOUSE DRIVERS

80+ OFFICE STAFF

The Manfreight Driving Team are all direct employees & trained in house.

Fleet

780+ VEHICLES

Manfreight own and operate more than 780 state-of-the-art vehicles.

280+ TRUCKS

500+ TRAILERS

Size & Scale

WHERE WE ARE TODAY

Shipping

50K MOVEMENTS

Manfreight are the largest shipper on the Irish Sea through our shipping partner, Stena Line.

Size & Scale

WHERE WE ARE TODAY

Investment

£22M INVESTMENT

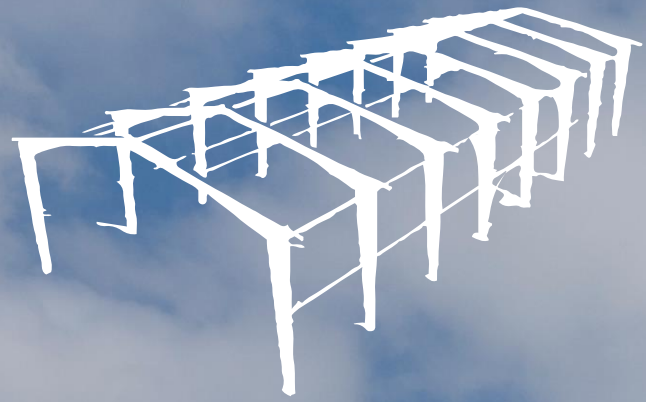
This year, Manfreight have invested £22m to service the customer base as well as launch Project Ark.

Size & Scale

WHERE WE ARE TODAY

INTELLIGENT STORAGE & DISTRIBUTION

Project Ark



Manfreight
Manfreight
Manfreight

aws
ubloquity
Manfreight
DRIVE
OR BE
DRIVEN