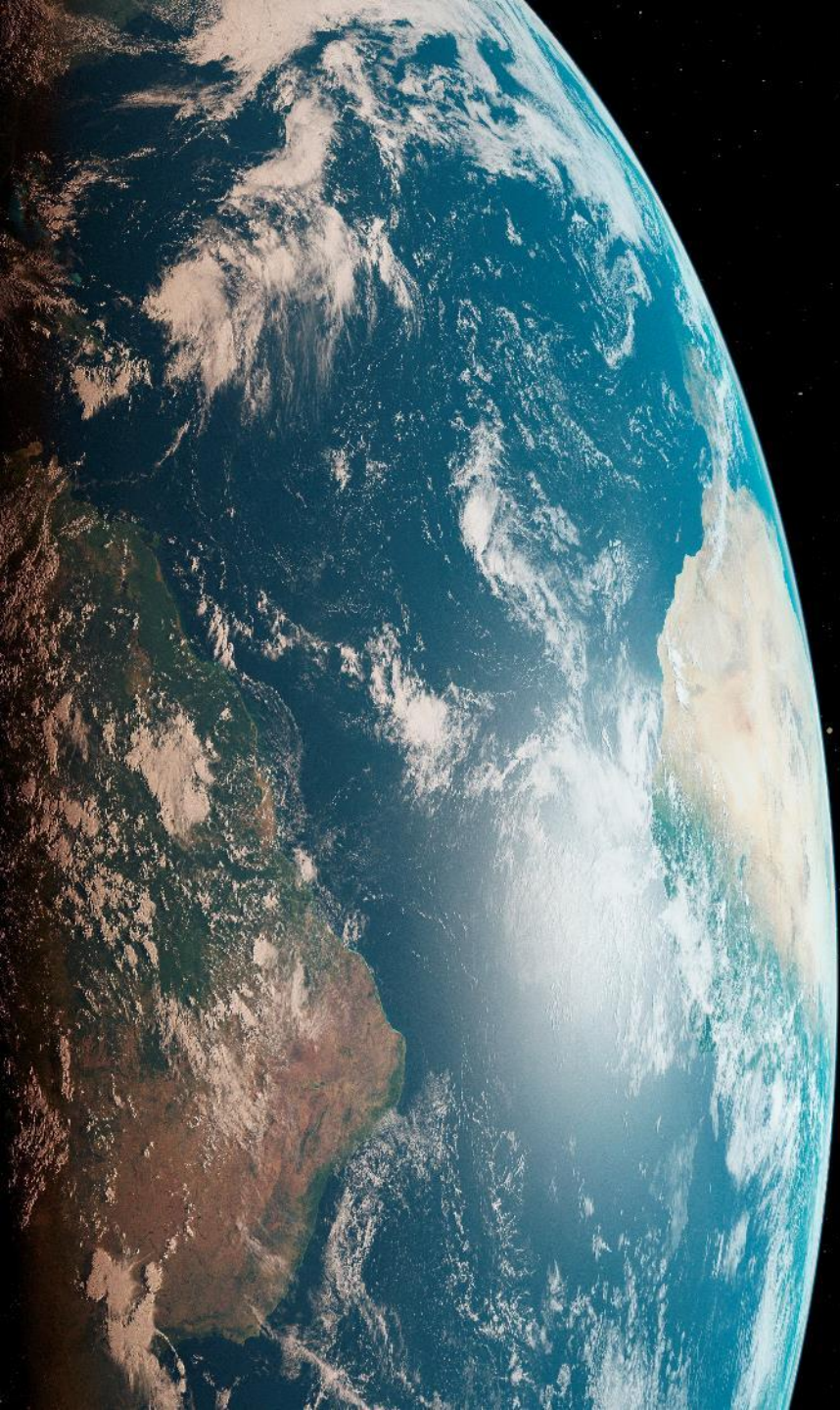




**BUREAU
VERITAS**

SHAPING A WORLD OF TRUST

A GLOBAL LEADER IN TESTING,
INSPECTION AND CERTIFICATION

ECTA September 2026

BUREAU VERITAS AT A GLANCE

WE ARE BUREAU VERITAS



OUR MISSION

**Shaping a World of Trust by
ensuring a responsible
progress**

OUR VISION

**To be the preferred partner for
our customers' excellence
and sustainability**

OUR STRATEGY FRAMEWORK



KEY FIGURES

ALMOST 200 YEARS OF HISTORY



82'000
employees



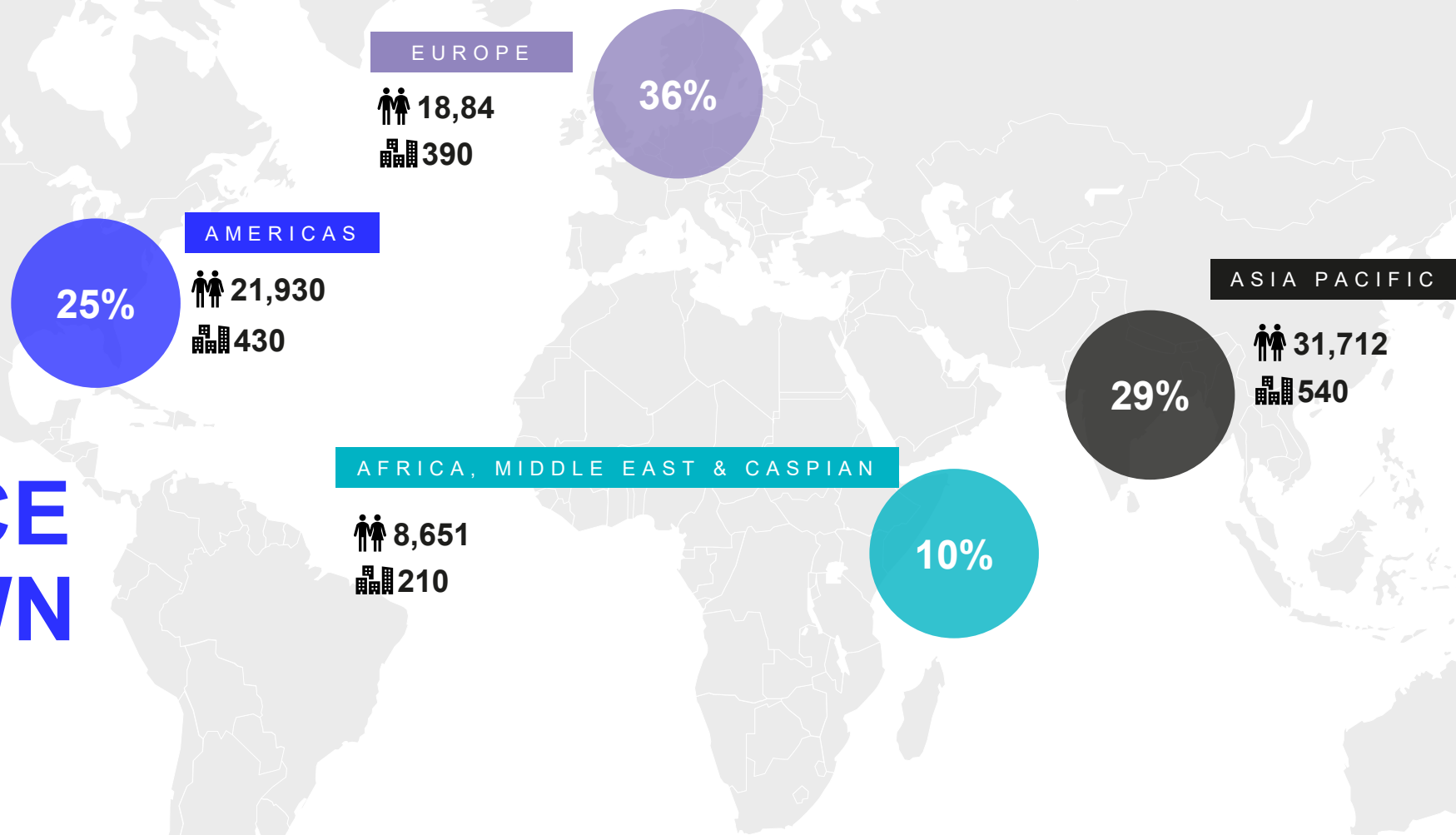
400,000+
clients



~1500
**offices &
laboratories**

IN 140 COUNTRIES

REVENUE & WORKFORCE BREAKDOWN



KEY FIGURES FOR DENMARK



240
employees*



4,000+
clients



3
offices

IN FREDERICIA,
ESBJERG & COPENHAGEN

KEY FIGURES FOR DENMARK



BUREAU VERITAS SOLUTIONS DENMARK A/S

ADVISEMENT
TRAINING AND NETWORK
SOFTWARE
HARDWARE (DANGEROUS GOODS LABELS, PACKAGING,
PUBLICATIONS)



BUREAU VERITAS DENMARK A/S

ACCREDITED SERVICES:
CERTIFICATION
VALIDATION
VERIFICATION

KEY FIGURES FOR BV SOL DENMARK A/S



DG services

DANGEROUS GOODS ADVICE

DGSA

24/7 ERG NUMBER

DG PACKING (AIR/SEA/ROAD)

TRAINING (ADR/RID/IMDG/IATA/ICAO/CFR49)

DG SOFTWARE (DGDOC.NET)

HARDWARE (DANGEROUS GOODS LABELS, PACKAGING,
PUBLICATIONS)



Chemical services

CLASSIFICATION

TESTS

MSDS

DG SOFTWARE (CHESS.NET)

REACH/CLP

LEGISLATION/APPROVALS

JAN HOLMBACH HENRIKSEN

- Trained as a Machinist (79-83)
- 16 years in the Danish Armed Forces (83-99) with the military rank of Sergeant Major
 - Involved in an accident (explosion) in 1986
 - Trained in DG relevant areas (DGSA/Driver instructor, Firefighter instructor, First aid instructor, Mobile Crane instructor, Forklift instructor/Recovery assistance instructor) etc.
 - Got responsibility for developing and implementation of DG regulation (87-99)
 - Represented the armed forces in the government.
 - Developed all Military regulation for transportation in “peace time”
 - Developed, and managed, a military School responsible for training Danish Army, Navy and Air force worldwide

JAN HOLMBACH HENRIKSEN

- 20 years as Manager in Bureau Veritas (Trotters A/S 99-07, then Bureau Veritas A/S 07-19)
 - Sales manager
 - Development manager
 - Director
 - Trained Lead Auditor ISO 9001 and AS 9101 (IAQG)
 - Trained SQAS assessor
- 1,5 year as Safety and quality manager in Contiga A/S (Heidelberg materials) (19-21)
- Since 2021 DGSA responsible for all contracts outside Denmark, and IATA training (CBTA approved in DK)



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CASE STUDY - SEA -

CASE STUDY 1

Mærsk Line container fires

- Mærsk Line (and others) have had several container fires related to charcoal
 - Caroline Mærsk (2015) (charcoal under deck)
 - Rhine Maersk (2018) (charcoal in 5 containers)
- In 2018 they had a fire in a container, originating from Sri Lanka (Colombo). The fire was handled by the crew.
- Bureau Veritas Sri Lanka conducted a fire survey, resulting in a report with 5 different scenarios, but no conclusion.
- Mærsk Line HQ requested Bureau Veritas Solution, to read and comment the “conclusion” of the report.

CASE STUDY 1

- The conclusion by Bureau Veritas Solution was, that based on the findings (facts), no primary reason to the fire could be concluded.
- Mærsk Line HQ requested Bureau Veritas solution to make a new investigation, this time based on Dangerous goods knowledge.

Facts

- Char coal was classified belonging to 4.2.
- Class 4.2 self igniting laboratory test was done at 50 degree Celsius (temp for coal) according to Manual of test and criteria.
- During the visit a thermometer was placed in a container, in the harbour, and after 6 hours the temperature was measured to be 70 degree Celsius

CASE STUDY 1

Conclusion

- If classified as "non dangerous" based on the self ignition temperature in the laboratory, the product might self ignite during transport, when temperature goes above 50 degrees.

Result

1. Try to change the classification of charcoal in IMO
2. Build up a procedure to "quality" check producers, and set up requirements for wanning and packing, to ensure lowest possible temperature in the container during transport (including harbour handling)



CASE STUDY 1

Result (.. Continued)

- Producers (and shippers) of coal
 - Coal from softwood
 - Coal from hardwood
 - Charcoal briquettes (coconut)
 - Active coal (coconut)
- The producers was quality checked by Bureau veritas solution, and a certificate was given, for 2 years and only for the type of coal checked.
- A "Vanning certificate" was implemented.
- This procedure is still in force and are used on shipments from Australia, Thailand, Sri Lanka, Indonesia and Namibia amongst others.

CASE STUDY 1

Postscript

- New requirements for Coal transport by Sea is under development, but in general "non classified" charcoal is no longer accepted by the lines until new requirements are implemented.
- "Stuffing" containers (filling them) with coal must be monitored by a external body (before, during and after), and certified (vanning certificate)



CASE STUDY 1

Postscript (.. Continued)

- The testing of 4.2 for self ignition has been updated in IMO since the incident and no longer referring to 50 degree for Coal (text differ from ADR).
- And classification has been added a note so any product that might self ignite, but does not fulfil 4.2 requirements, must be classified as 4.1.





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CASE STUDY - ROAD -

CASE STUDY 2

Danish Postal service

- Back in the early 2000s, a postal worker dropped a package while sorting in a sorting facility in Copenhagen..
- The package broke open, and a white powder became visible.
- The postal worker detected a strong odor and felt slightly unwell.
- Work was stopped, and the employee was escorted outside to fresh air.
- The DGSA was contacted by phone for advice.

CASE STUDY 2

...At the same time somewhere else...

Several examples of post packages (letters/packages) containing a white subject had been seen worldwide, especially in the State.

The packages had been proven containing Anthrax.

CASE STUDY 2

Facts about Anthrax

- Anthrax is a bacterium (*Bacillus Anthracis*) that originates in animals but can be transmitted to humans.
- The bacterium can result in:
 - skin contact: wounds,
 - inhalation: lung infection
 - ingestion: gastrointestinal infections.
- The bacterium had not been found in Danish animals since 1988.

Note

- There is a Vaccination for Anthrax, but the vaccine was not in Denmark in the 20s.

CASE STUDY 2

First contact to DGSA

- The DGSA on 24/7 ERG, received the call, and gave the following instructions:
 - Call 911
 - Isolate the person (in an office)
 - Evacuate the building of personnel
 - Await instructions from the authorities.
 - No one from the building is permitted to leave the workplace.
- And the DGSA left the office and drove to the sorting facility, carrying the usual PPE.

CASE STUDY 2

At the Sorting Facility

- Meanwhile, 911 had sounded the alarm, resulting in:
 - Complete isolation of the area by police/The Home guard
 - All available ambulances in the area were dispatched to the scene.
 - The State Serum Institute (SSI) were on site in full gear (in the building where they took samples).
 - All employees were taken in for observation in nearby hospitals..

Note

- When the DGSA arrived, he was directed to an office in the building, but when entering the building, he was directed directly to an ambulance by 2 SSI persons and send to observation for 2 days in a hospital.
- DGSA (2) was sent to the Facility.

CASE STUDY 2

...End of the day..

- The white powder was analyzed, and it was concluded that it was a harmless product used in the goldsmithing trade.

Note

- Until today, there has been no registered Anthrax attacks in Denmark

CASE STUDY 2

Postscript

- The SSI prepared general information about anthrax and guidance on actions to take in the event of exposure.
- All internal procedures at the Danish Post was updated in cooperation with the DGSA.
- All workers in these facilities, had their ADR 1.3 training upgraded, with focus on safety procedures (based on SSI recommendations)
- All mail sorting facilities had a chemical cabinet installed for suspicious packages.

CASE STUDY 2

...And...

- Bureau Veritas solution internal procedures for physical contact with chemicals, was updated and all DGSA's was trained in these.



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CASE STUDY - RAIL -

CASE STUDY 3

- RAIL -

Fredericia Rail Shunting Yard

- Fredericia has the biggest Rail Shunting Yard in Denmark.
- The Rail Shunting Yard was originally placed in the outer edge of Fredericia, but over time, Residential areas have sprung up and now surround the railway area.
- Fredericia is the main rail point between North, East and South Denmark.
- Railway wagons are shunted and often placed in a holding position for up to 72 hours before continuing their journey.

CASE STUDY 3

- RAIL -

Chlorine incident

- 4 * 20,000-litre rail tank cars were shunted and placed in a holding position for 24 hours.
- Based on the safety approvals in place at the time, they were positioned two tracks away from the through-track in the middle of the area.
- in the middle of the night, a rail worker noticed a smell from one of the rail tanks and observed a liquid dripping from the bottom vent.
- He instantly called the control tower, and they alarmed internal Rail safety, and the DGSA.

CASE STUDY 3

- RAIL -

DGSA action

- Internal Rail safety and the DGSA agreed upon the following actions:
 - Call 911.
 - Instantly move the rail tank to another track 5 min from the station (wind away from the city centre).
 - Cordon off the contaminated area using personnel wearing appropriate PPE.
 - Call the owner of the rail tank, for him to take action on the leaking content.
 - Wait for the rescue team and local environmental authorities and follow their guidance/instructions.

CASE STUDY 3

- RAIL -

...End of the day..

- The leaking Went was Sealed by the owner, following his own safety procedures.
- The contaminated area (below 5 litre) was cleaned by the local fire brigade.
- No further action needed.

..BUT..

CASE STUDY 3

- RAIL -

Postscript

- During evaluation of the incident, The Danish Emergency Management Agency raised doubt about the incident/accident procedures and if they were updated to fit the city's structure today.
 - New calculations on the risk in the event of 20.000 litre chlorine escape, was required.
 - Local environmental authorities required 2D calculations, and when plans were accepted, the requested the states approval....
 -who requested a 3D calculation.
 - A ban was imposed on the shunting of railway tank cars containing chemicals—specifically chlorine—while the case was being processed.

CASE STUDY 3

- RAIL -

Postscript (..continued)

- Knowing that the only way of handling Tanks were in Fredericia, was an exemption granted for a shorter period.
- This exemption was prolonged for 5-6 times, as the approval time took almost 2 years.
- In the Middel of the case processing, a new chapter in RID had to be taken into consideration... Chapter 1.10.
- After approval, new procedures had to be made for shunting and holding over night, taking the approval and chapter 1.10 into consideration.
- All relevant personnel had to have updated training, and chapter 1.10 training.



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CASE STUDY - AIR -

CASE STUDY 4

IATA 24/7 ERG number

- 1:30 am the 24/7 ERG number for Air transport, was activated (phone call)
- The caller (an airline) came with the following facts:
 - During transport, a very strong smell of strawberries arose.
 - The passengers and crew felt unwell, some even threw up.
 - According to NOTOC only one package was declared as DG.

Question:

Could this package develop a strong strawberry scent?

CASE STUDY 4

DGSA action

- Based on the information from the airline, the documentation for the actual shipment was checked:
 - Product was declared correct on the MSDS (UN 1133 adhesive).
 - MSDS for the product was checked, and Point 9 (Physical and chemical properties) described the product as having a characteristic menthol odor.

DGSA Conclusion

Based on the data given by the shipper, it was concluded that the DG product could not be the source of the smell.

CASE STUDY 4

Facts

- IATA (ICAO) has some products classified as Dangerous goods, which is not DG during transport by other modus:
 - UN 3334 Aviation regulated Liquids N.O.S
 - UN 3335 Aviation regulated Solids N.O.S
- Class 9 miscellaneous hazardous material designation used primarily for air transport. It covers liquids that are not explicitly listed under other specific UN numbers but possess properties—such as **strong Odors, irritants**, or anesthetic effects—**that could bother flight crew during a spill.**

CASE STUDY 4

Postscript

- The airline chose to make a controlled emergency landing in a nearby airport (Frankfurt)
- All passengers was removed from the aircraft.
- All luggage in the luggage compartment, was checked and the source to the smell was found.....
- A suitcase containing a broken bottle containing Strawberry essence (concentrated taste/smell)
- The Suitcase belonged to a passenger in the aircraft (personal luggage)

...And...

- According IATA you are only allowed to carry DG if allowed in chapter 2.3 (passer dangerous goods)

CASE STUDY 4

Postscript (.. Continued)

- The passenger was requested to cover all costs, as she accepted the Passenger requirements according IATA 2.3 when entering the aircraft (Proactive action).

QUESTIONS ?



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