



DUTCH
SAFETY BOARD

Work and Results of the Dutch Safety Board

Lex van Delden

21 October 2022

Subjects

- Introduction
- History & establishment of Dutch Safety Board
- Structure of the Dutch Safety Board
- International and national legal frameworks
- Investigative powers
- Protection of investigation information
- Investigation process
- Pitfalls

Introduction

Lex van Delden

- Psychology, BSc (Leiden University, Leiden)
- Cognitive Psychology / Cognitive Neuroscience, Mphil (Leiden University, Leiden)
- Human Movement Sciences, PhD (VU University, Amsterdam)
- Lecturer Neurorehabilitation (Instituut Applied Neurosciences, Haarlem)
- Researcher Contextual Factors in Health Behavior (Leyden Academy, Leiden)
- Research and Development Adviser (Dutch Safety Board, The Hague)



History of accident investigation boards in the Netherlands

Raad voor de
Scheepvaart
Maritime Court of the
Netherlands

1909



History of accident investigation boards in the Netherlands

Raad voor de
Scheepvaart
Maritime Court of the
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1909



Commissie
Binnenvaartrampen
Inland Shipping
Accidents Committee

1931



Raad voor de
Luchtvaart
Civil Aviation Board

1937



Spoorwegongevallen
Raad
Railway Accidents
Investigation Board

1956



Raad voor de
Verkeersveiligheid
Road Safety Board

1977



History of accident investigation boards in the Netherlands



Raad voor de
Transportveiligheid
Transport Safety Board

1999



Crash of El Al cargo flight 1862,
Amsterdam, 4 October 1992



Catastrophic fireworks explosion,
Enschede, 13 May 2000



Volendam café fire 31 December 2000

Establishment of DSB – 7 February 2005



De minister van Binnenlandse Zaken en Koninkrijksrelaties en de minister van Verkeer en Waterstaat hebben het genoegen u uit te nodigen voor de

installatie van de Onderzoeksraad voor veiligheid

De bijeenkomst vindt plaats op maandag 7 februari 2005, aanvang 17.00 uur in de Nieuwe Kerk, Spui 175 te Den Haag.

I.v.m. de aanwezigheid van Hare Majesteit de Koningin wordt u verzocht uiterlijk om 16.15 uur aanwezig te zijn.

Formeel/tenue de ville

Antwoord a.u.b. vóór 24 januari a.s. via bijgevoegde antwoordkaart. U ontvangt daarna een toegangsbewijs met nadere informatie. Hebt u vragen, neemt u dan contact op met mevrouw M. van Gils, tel 070 – 4266418.

Independent governmental
organisation

Learn from occurrences

No guilt and liability

Recap History

1

Unwanted occurrences

2

Individual transport safety boards

3

Combined in a single transport safety board

4

There's more than transport safety

5

Establishment of the Dutch Safety Board

DSB Structure, board members and associate board members



Stavros Zouridis

Board member



Erica Bakkum

Board member



Ad Rutten

Associate member of the
Board



Pieter Bindt

Associate member of the
Board



Colette Alma-Zeestraten

Associate member of the
Board



Marianne Bloos

Associate member of the
Board



Maria Henneman

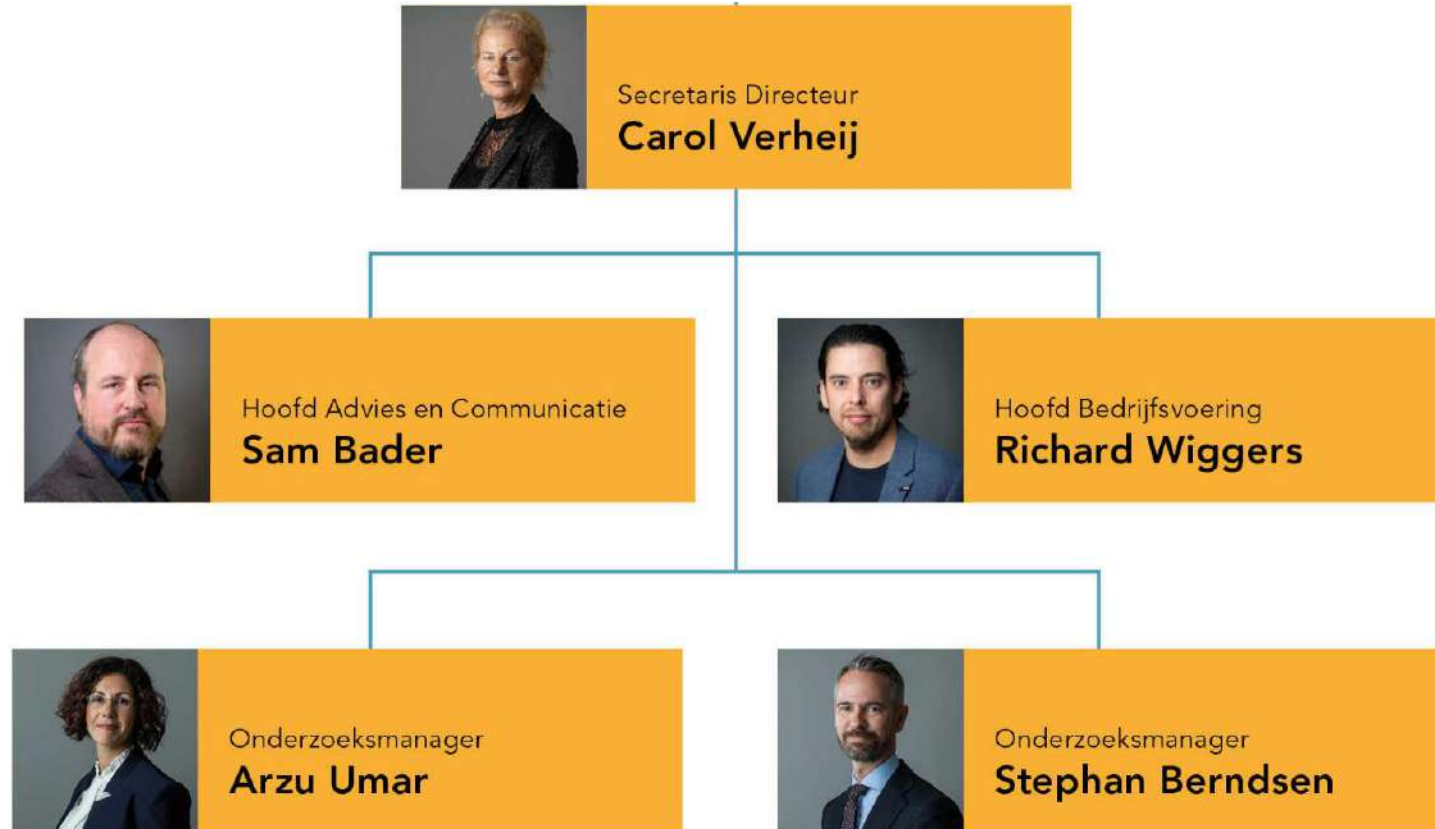
Associate member of the
Board



Hans Vermaak

Associate member of the
Board

DSB Structure, office



DSB Structure, departments



Mission and Values

Mission

The improvement of safety in the Netherlands

Value

Independent

Value

Transparent

Value

Professional

Recap Structure

1

Board members (2) and associate Board Members (6)

2

Office: Secretary Director and managers (4)

3

Office: >70 staff (majority: investigators)

4

Over 15 sectors and domains

5

Mission: safety improvement

6

Values: Independent, Transparent, Professional

International legal framework



Aviation



Shipping



Rail



Chemical industry



Defence

National legal framework

Rijkswet Onderzoeksraad voor veiligheid Kingdom Act Dutch Safety Board

Rijksbesluit Ovv
Royal Decree DSB

Informatiestatuut Ovv
Information Regulation DSB

Besluit Ovv
Decree DSB

Regeling Ovv
Order DSB

Bestuursreglement Ovv
Administrative Regulations DSB

Overall legal framework

Dictates what investigations are compulsory and authorised

Safeguards for independency

Investigative powers

Protection of investigation information

No investigation into guilt or liability

Coordination with Public Prosecutor, Inspectorates and Defence

Kingdom Act DSB – legal task

Art. 3
Kingdom
Act

TASK Individual or categories of occurrences

Investigation into (probable) causes and context

Investigation into the extent of consequences

GOAL Preventing similar occurrences

Limiting consequences

MEANS Reports

Recommendations (if necessary)

Investigative powers – Kingdom Act DSB

Art.
30

Have situation “frozen” by competent authority.

Art.
31

Objects to be rendered available for the Board.

Art.
36

Access to any location, including the living area on a ship.

Art.
37

Demand information.

Art.
38

Demand inspection of relevant data and documents and make copies of it.

Art.
39

Investigate objects, to inspect them and to take samples of them

Is cooperation mandatory?

Can somebody refuse to cooperate or provide information?

Art.
40

Everyone is obliged to cooperate with an investigator, except those who, by virtue of their office, profession or legal regulations, are obliged to observe confidentiality

How do you force somebody to cooperate?

Non-cooperation is punishable on the basis of art. 184 of the Dutch Criminal Code

Protection of sensitive investigation information

Art.
57

Sensitive information is not to be included in an investigation report.

Art.
59

Final reports are public, all underlying investigation information is not.

Art.
61

No conclusions on (presumption of) guilt or liability.

Art.
69

- Final report can not be used as evidence.
- Protection of data recordings.
- Investigator ≠ witness or expert in judicial proceedings.

Art.
70

No reporting of criminal offences encountered during the investigation.

Art.
72

Confidentiality obligation for those participating in the investigation.

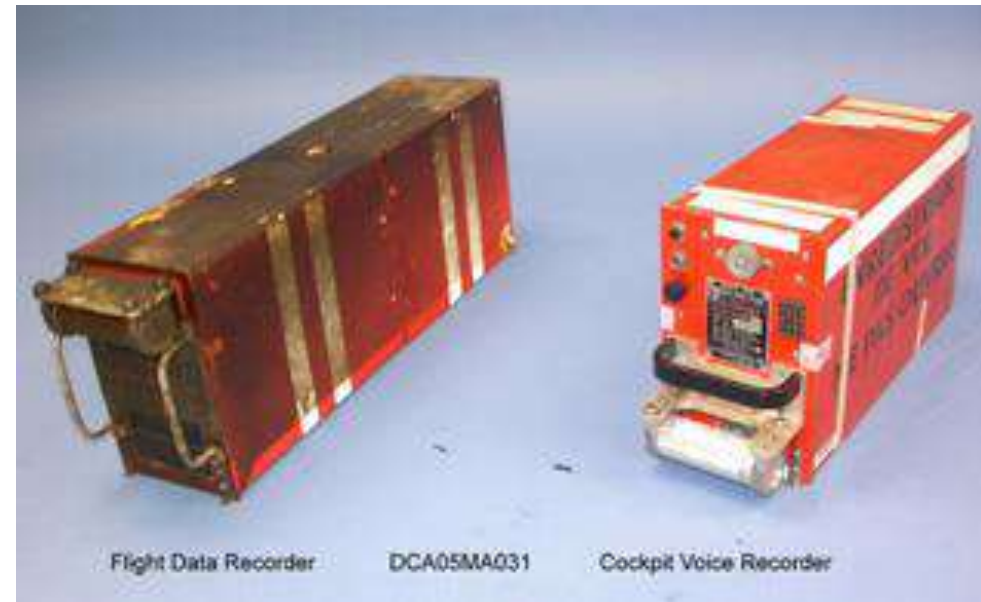
Data recorders

- Not allowed as evidence in judicial proceedings
- Can not be demanded for inspection
- Can not be seized

UNLESS

Criminal investigation into:

- Hostage-taking
- Murder
- Manslaughter
- Terrorism



Recap Legal matters

1

Obligated and authorised investigations

2

Safeguards for independency

3

Empowers the investigators

4

Protects witnesses and other people involved

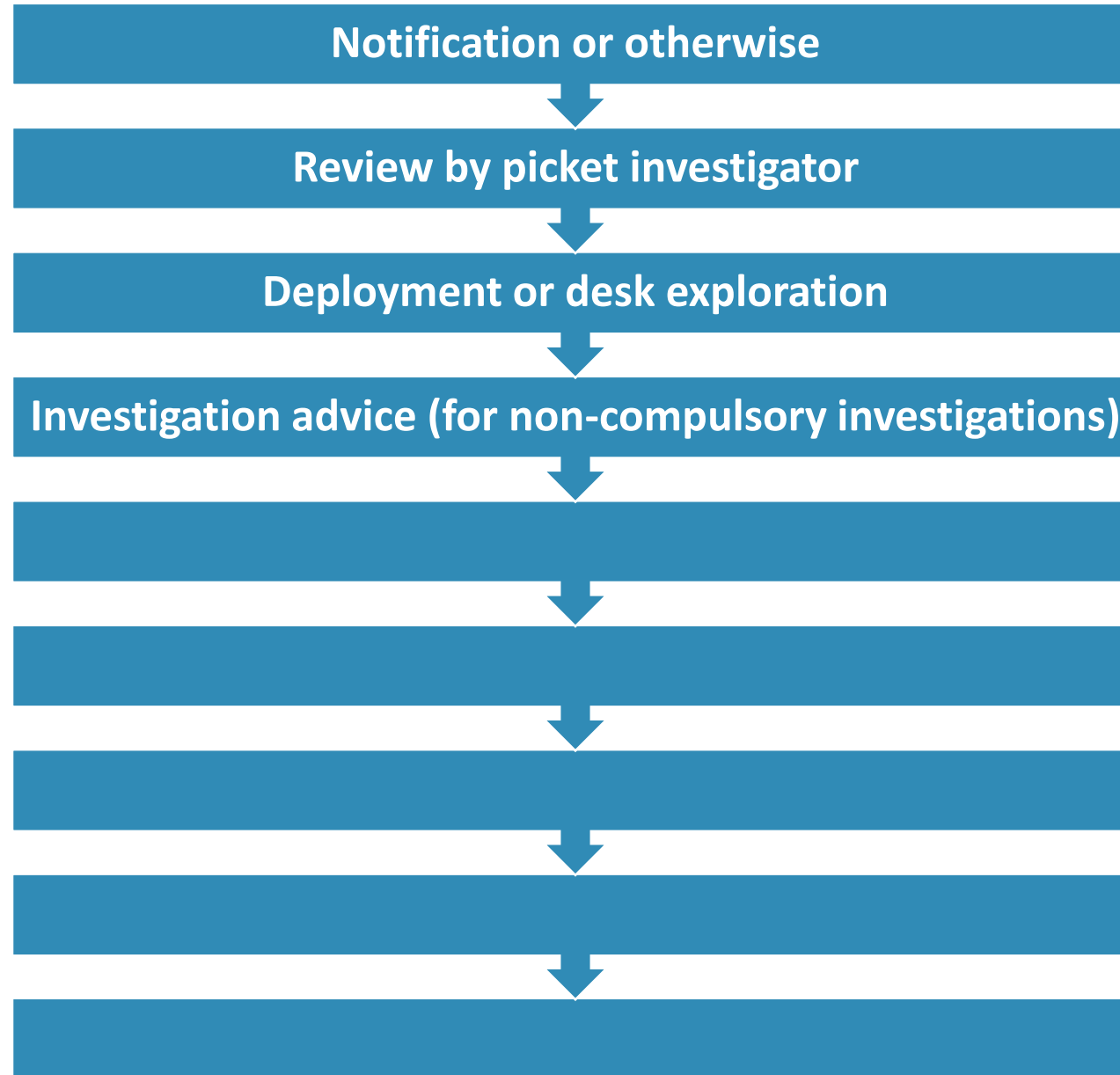
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No guilt and liability

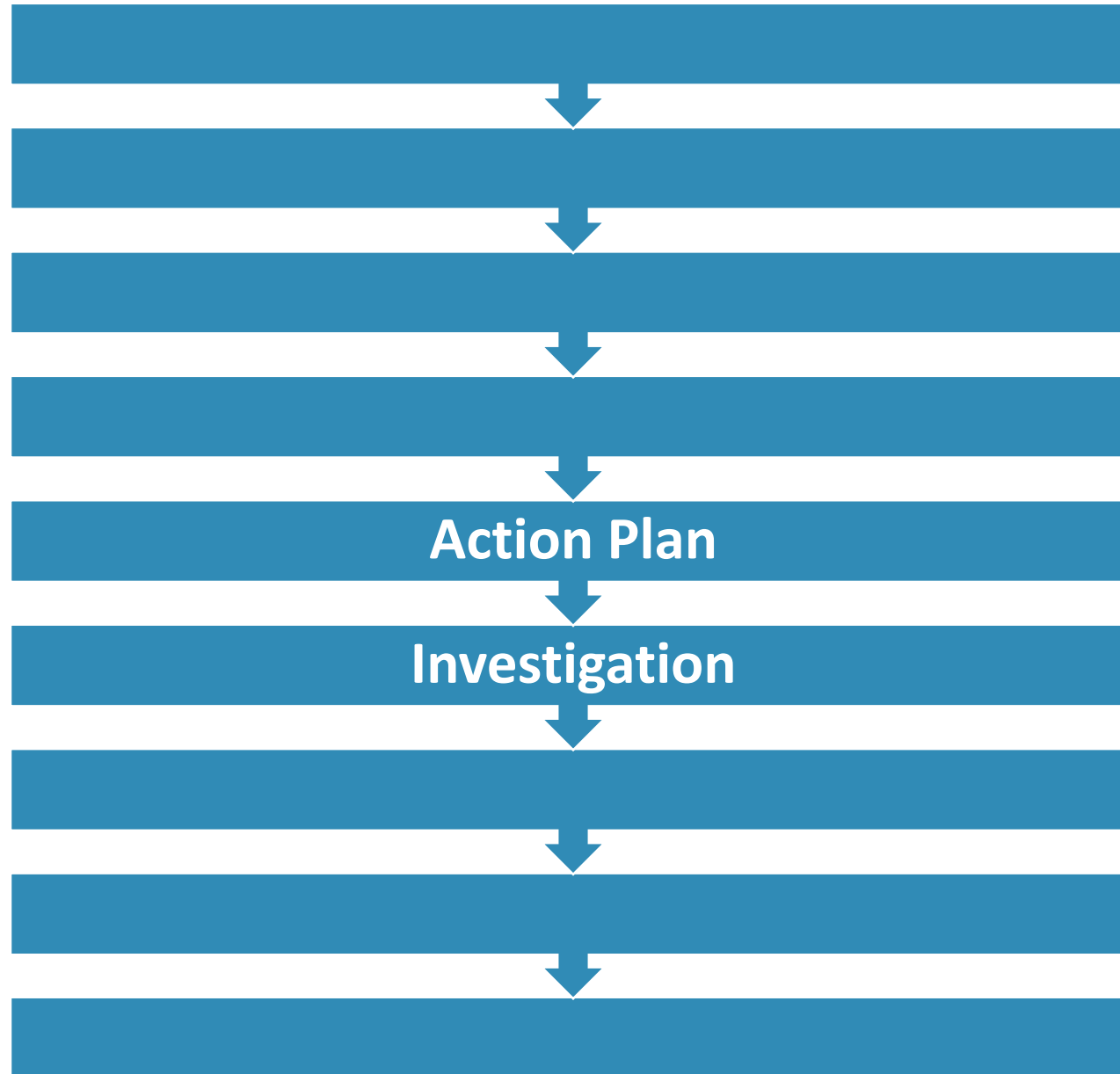
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Helps promote learning

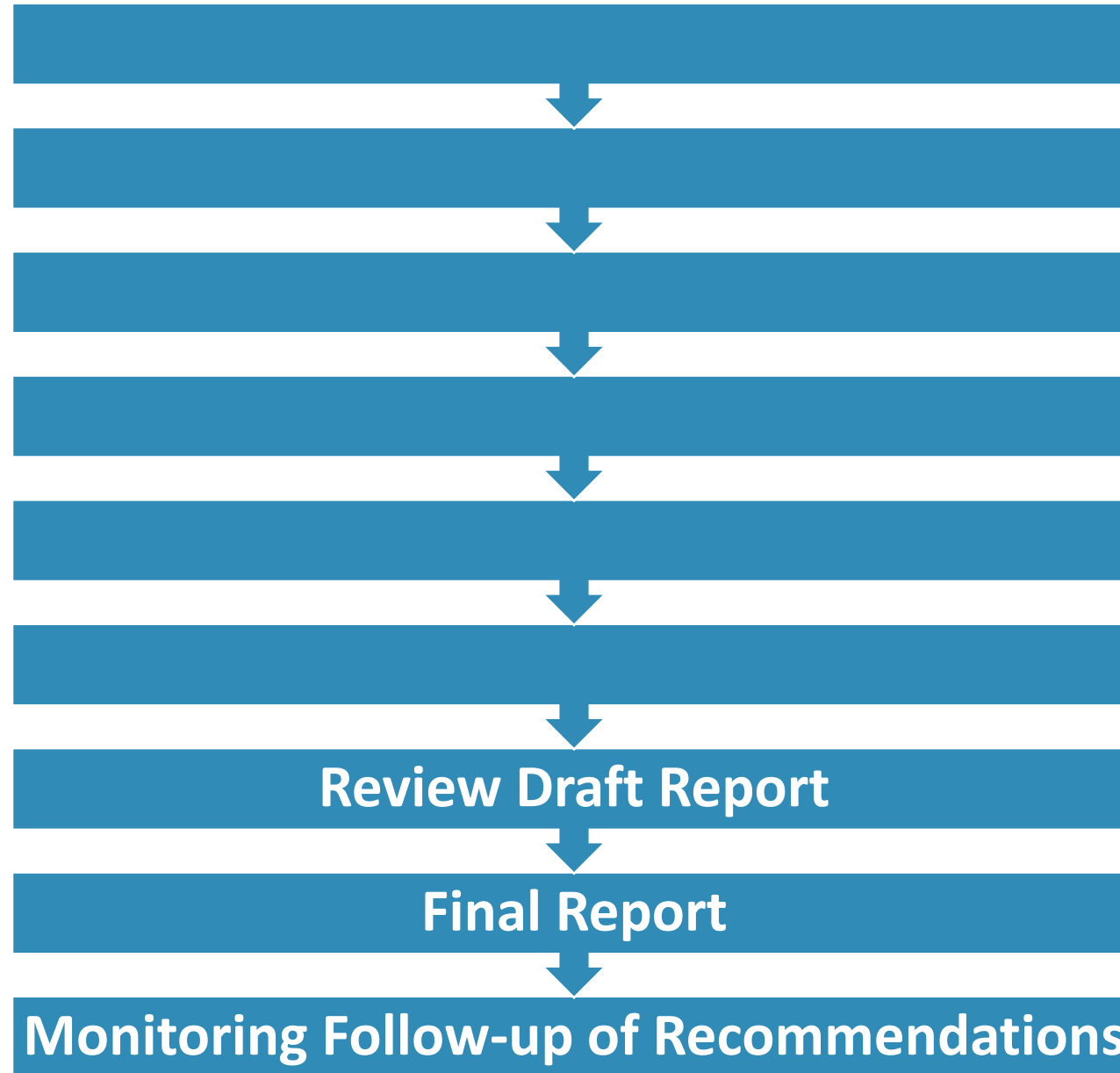
Investigation proces



Investigation proces



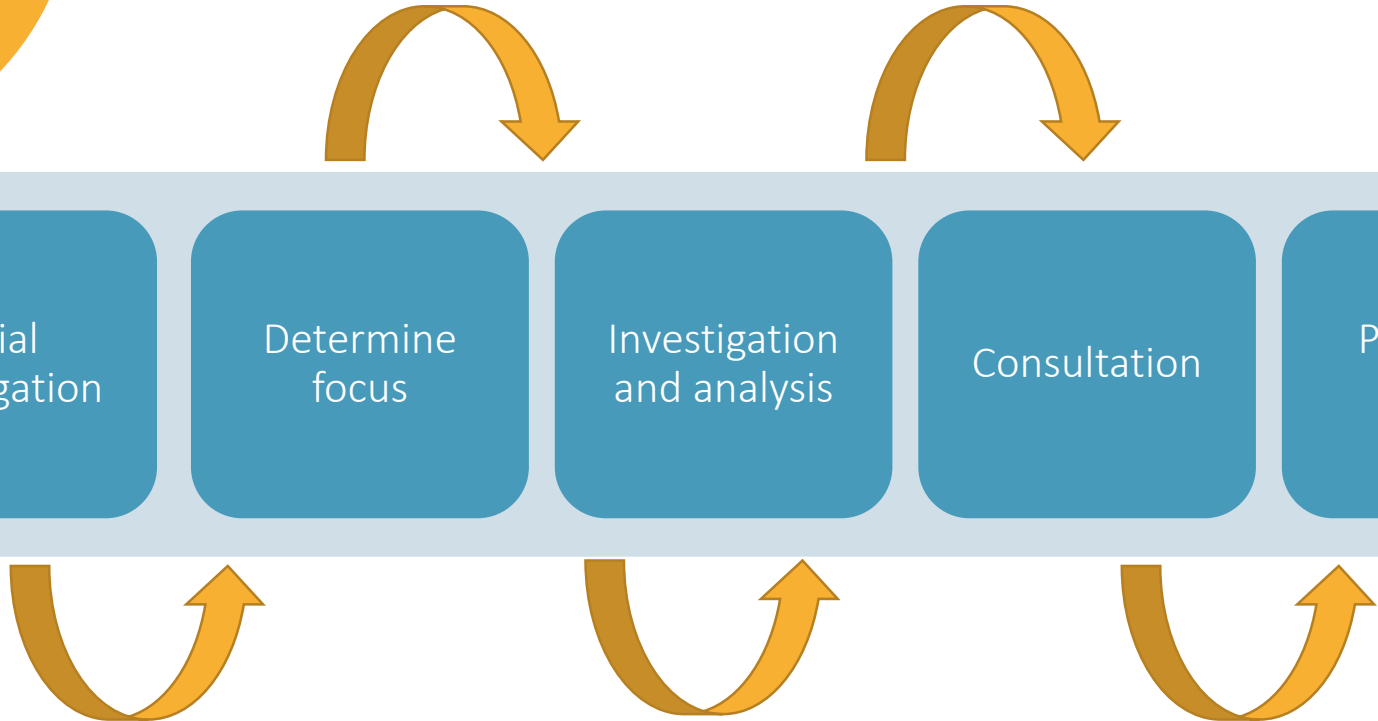
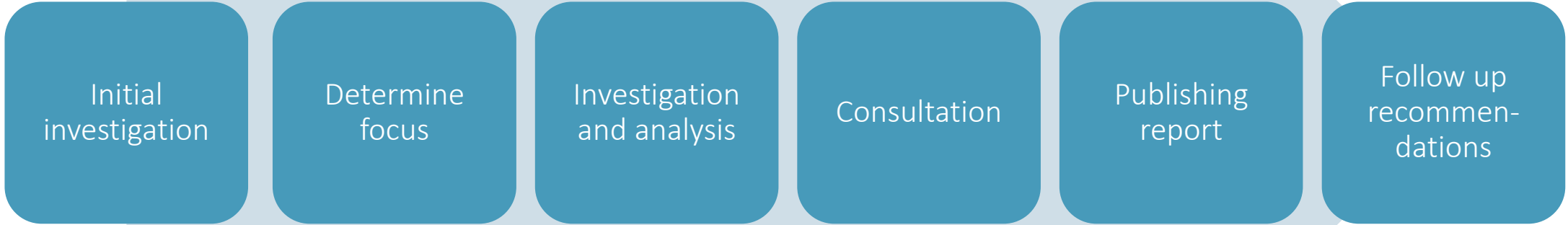
Investigation proces



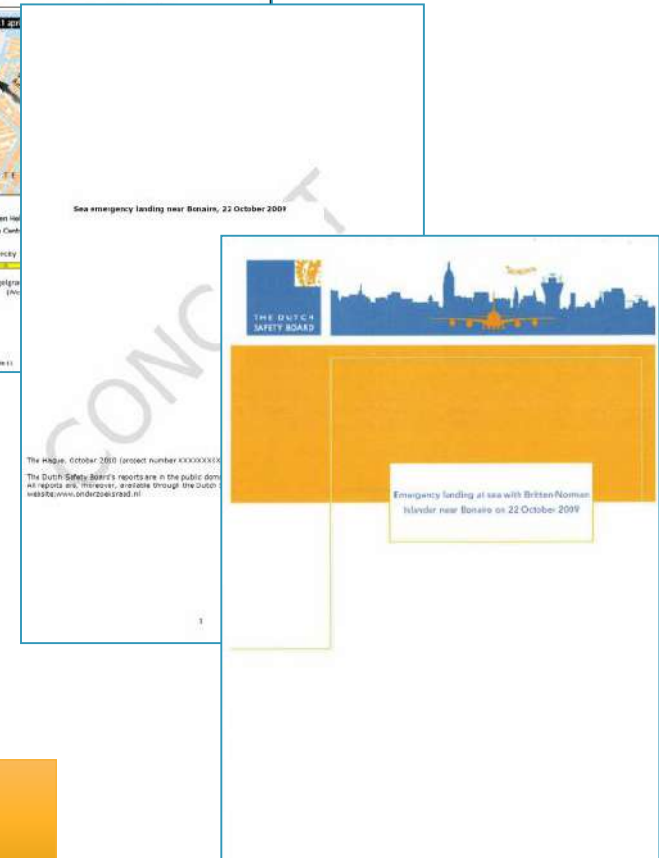


Investigation process

Checks and balances



Investigation process



Type investigation and report

Limited investigation → Aviation/Shipping Quarterly Report




Quarterly Aviation Report
April - June 2022

Investigations
Within the Aviation sector, the Dutch Safety Board is required by law to investigate occurrences involving aircraft on or above Dutch territory. In addition, the Board has a statutory duty to investigate occurrences involving Dutch aircraft over open sea. The investigations are conducted in accordance with the Safety Board Kingdom Act and Regulation (EU) no. 1925/2018 of the European Parliament and of the Council of 20 October 2018 on the investigation and prevention of accidents and incidents in civil aviation. If a description of the events is sufficient to learn lessons, the Board does not conduct any further investigation.

The Board's activities are mainly aimed at preventing occurrences in the future or limiting their consequences. If any structural safety shortcomings are revealed, the Board may formulate recommendations. The Board's investigations explicitly exclude any capability or liability aspects.

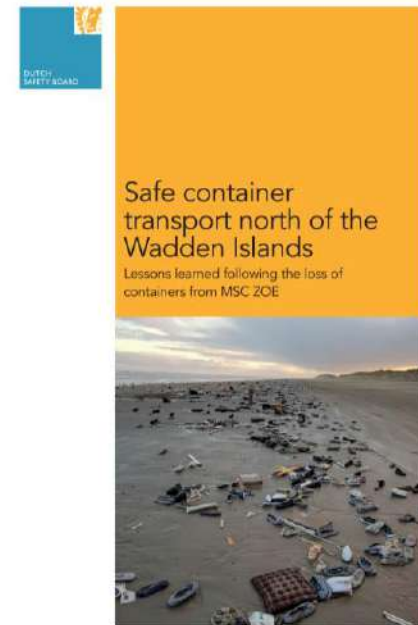
In order to learn from accidents and serious incidents, it is crucial to be able to gather investigation information completely and in good time. The Dutch Safety Board is available 24 hours a day to receive notifications of occurrences. Once a notification has been submitted, the Safety Board decides whether investigators should be dispatched to the location to gather information. It is of vital importance that accidents and serious incidents be reported without delay. To ensure that information is obtained as completely as possible and in good time, accidents and serious incidents must be reported to the Dutch Safety Board. This obligation applies to the captain, the aircraft operator and the air traffic control service involved. On an airfield, the airport operations manager is subject to the same obligation.

This quarterly report describes two completed investigations into occurrences involving commercial aircraft. In both cases, the captain was of the opinion that the incident in question was not serious, and as a consequence did not report the incident to the Dutch Safety Board immediately. The cockpit voice recorder recordings which may have contained information essential for the investigation, were not secured. Having access to such information as quickly and as completely as possible contributes to conducting a thorough investigation, and as a consequence helps improve aviation safety. The Dutch Safety Board is and remains alert to the failures by the affected parties to report occurrences.


Jansen Dijkstra
Chairman Dutch Safety Board



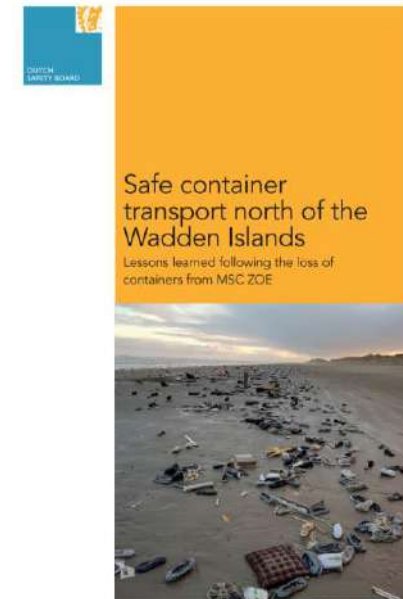
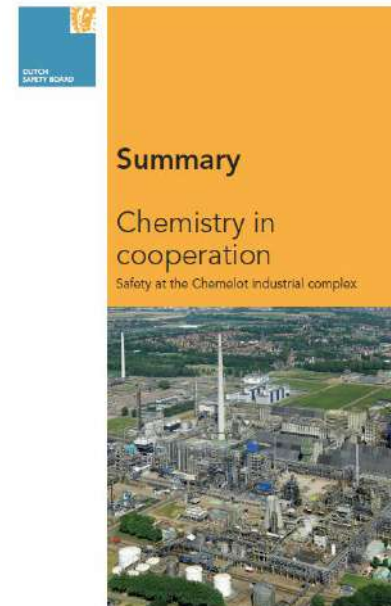
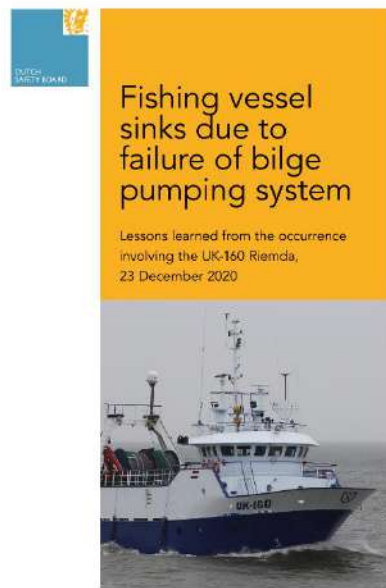
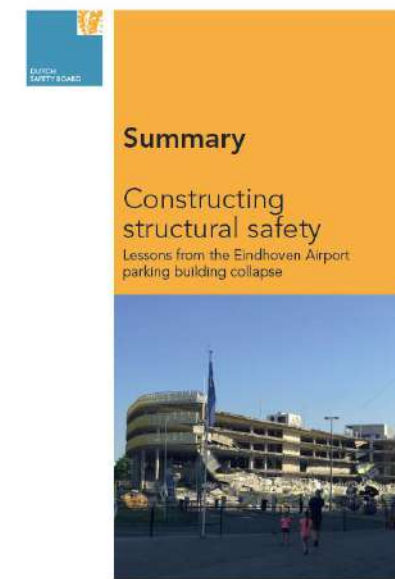
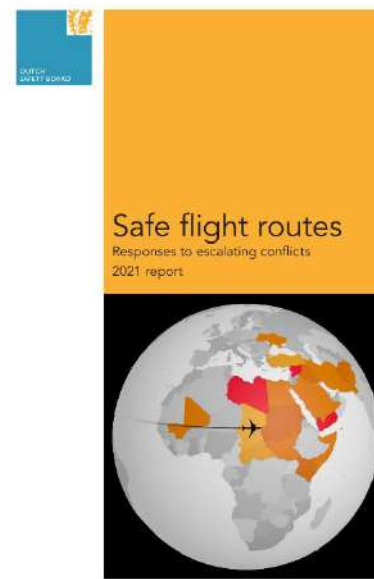
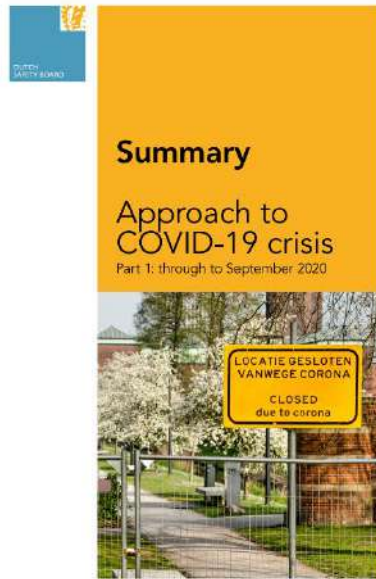
Full Investigation → Full report

Safe container transport north of the Wadden Islands
Lessons learned following the loss of containers from MSC ZOE



Recent publications



Recap Investigation process

1

From incident/accident to monitoring of follow-up of recommendations

2

Immediate start of data gathering

3

Investigation advice for non-compulsory investigations

4

Elaborate plan and thorough investigation

5

Checks and balances during the process

6

Publication and monitoring of follow-up recommendations

Pitfalls

Social media

Taking part in public debate

Policy & Politics

Investigation beyond occurrences

Expertise

Specialists ↔ Generalists

Biases

Guilt, liability, and frame of reference

Social media

Taking part in public debate (suspicion and insinuation)



Prof. John Stoop

Pitfalls

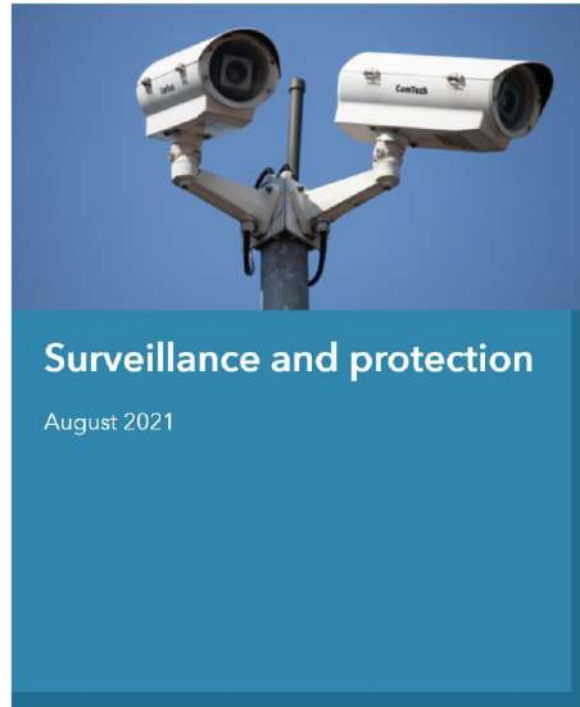
Policy & Politics

Investigation beyond occurrences (unfamiliar domains)



Prof. John Stoop

Under Investigation



Expertise

Specialists ↔ Generalists (credibility and trustworthiness)



Biases

Guilt, liability, and frame of reference

Examples of Confirmation Bias



Not seeking out
objective facts



Interpreting information to
support your existing belief



Only remembering details
that uphold your belief



Ignoring information that
challenges your belief



Recap Pitfalls

- 1 Social media and public debate can lead to suspicion and insinuation
- 2 Investigation in unfamiliar domains can damage independence and trustworthiness
- 3 Insufficient expertise can damage credibility and trustworthiness
- 4 Biases can lead to a focus on guilt and liability, and prevent learning

Questions, remarks, etc.



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