



Rijkswaterstaat
Ministry of Infrastructure
and Water Management

DATA COLLECTION ON ACCIDENTS IN INLAND NAVIGATION




Examples of practical experience in the Netherlands

Timco van Brummelen
12 OCTOBER 2020

RWS INFORMATIE

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Why we register shipping accident data

Laws: Reporting of accidents and safety issues to the competent authority is mandatory (and requires registration)

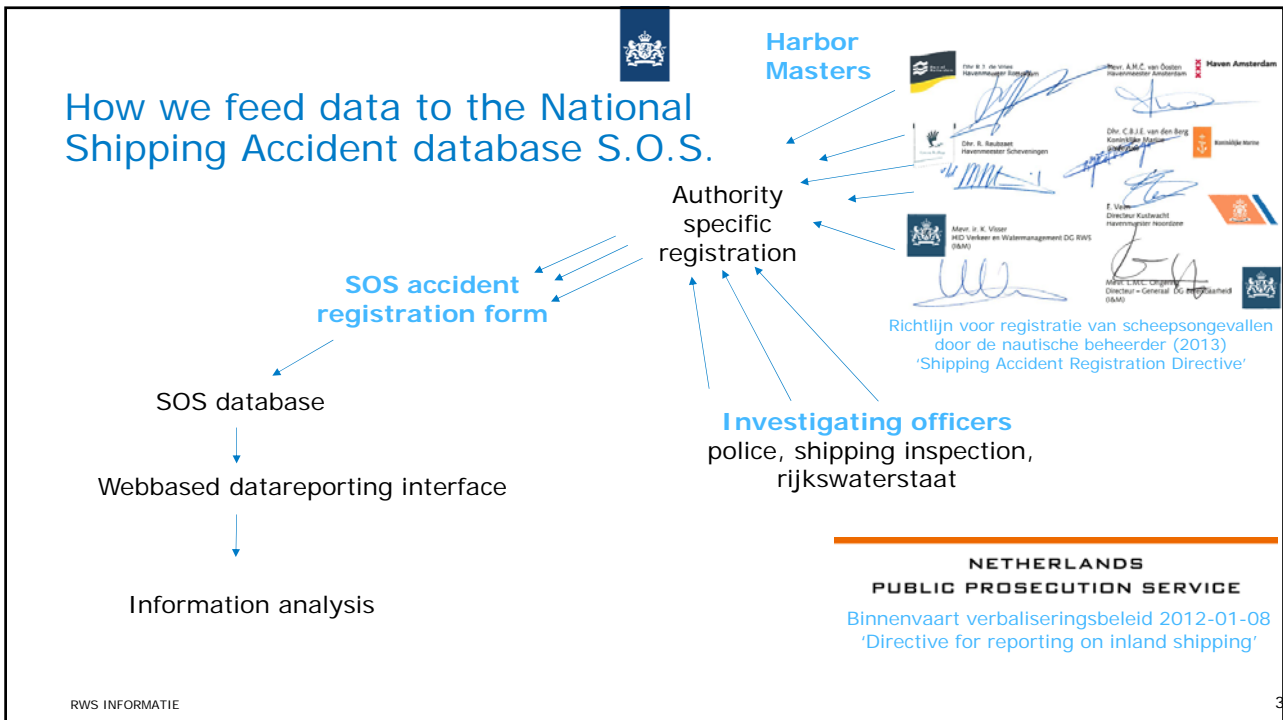
Reliable data on shipping safety at sea, in harbours and inland waterways is needed as a basis for risk based

- safety policy
- management of shipping activities
- inspection

RWS GEGEVENS

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Webbased data reporting tools

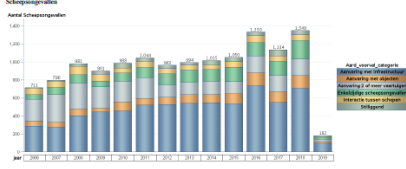
- Dedicated reports
- Query tools
- Training





Rapportage scheepsongevallen Binnenwateren.

Ad 1. Totalen Binnenwateren.




Significante scheepsongevallen

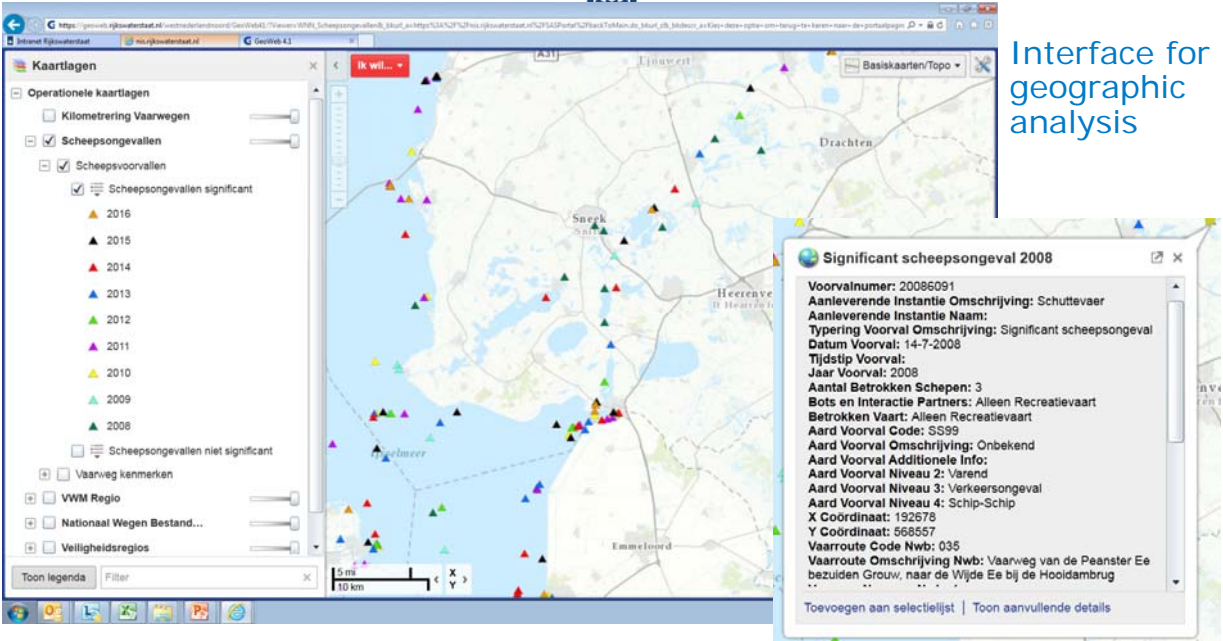
Aard_voerval_categorie	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Aanvraag met interactie	35	42	31	40	60	76	62	61	54	56	49	39	65
Aanvraag met objecten	5	1	5	3	19	6	15	10	16	14	31	23	10
Aanvraag 2 of meer vaartuigen	59	15	17	23	16	42	25	14	22	32	11	33	16
Echoluclidige scheepsongevallen	14	17	17	25	21	32	36	20	27	40	33	33	39
Interactie tussen schepen	9	9	7	1	2	2	1	1	3	2	2	1	1
Totaal	124	149	115	114	167	158	138	140	139	159	164	161	176

Significante scheepsongevallen 2018

Aard_voerval_categorie	2018
Aanvraag met interactie	6
Aanvraag met objecten	3
Aanvraag 2 of meer vaartuigen	5
Echoluclidige scheepsongevallen	4
Interactie tussen schepen	4
Totaal	26

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Interface for geographic analysis

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Strength and weakness of accident data

- + Overview of different types of accidents and locations
- + High coverage of serious accidents
- + Usefull for risk analysis and monitoring
- + Indication of causes
- Detailed investigation of individual accidents is needed to identify causes (only a few)
- Data can be missing on accidents
- Data can be incomplete or inaccurate
- Degree of registration of accidents by a data supplier may vary over time

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Example quantifying risk Ship to Bridge Collission



Completely blocking traffic
rail, road or shipping

for more than 7 days

7 (1,33%)

more than 1 day

5 (0,95%)

more than 2 hour

30 (5,68%)

less than 2 hours

71 (13,45%)

less than 1 hour

108 (20,45%)

no blocking

307 (58,14%)

528 (100%)

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Example monitoring risk: Collision of professional inland shipping and recreational craft

Highest risk

Serious or fatal injury

Risk reduction measures:

- Spatial separation ('biking lane')
- Risk education
- Promote safe sailing habits
- Law enforcement program

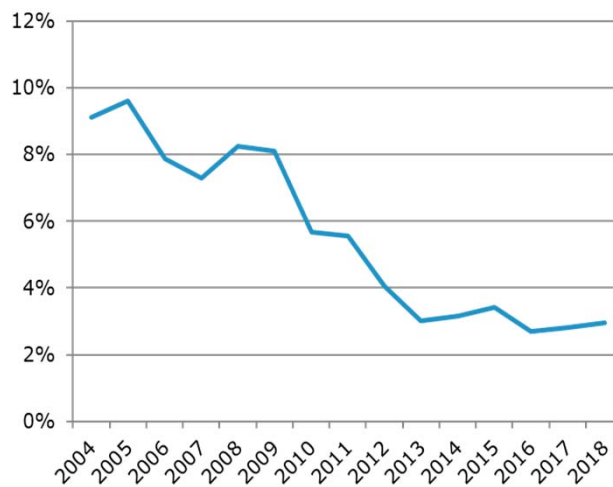


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Collision of professional inland shipping and recreational craft (% of total registered shipping accidents)



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Motivation for sharing is related to the benefit

For participants of a Community of Practice on Shipping Accidents

- Share and discuss accident investigations
- Program and execute trend and risk analysis
- Pool of experts used for expert judgement and quality control
- Develop new tools
 - Risk analysis
 - Human factor analysis

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Perspective for international data sharing

SOS contains Belgium and Netherlands accident data for the Western Scheldt

Mutual interest and international treaty

Verdrag tussen het Koninkrijk der Nederlanden en het Vlaams Gewest inzake het gemeenschappelijk nautisch beheer in het Scheidegebied, Middelburg, 21-12-2005



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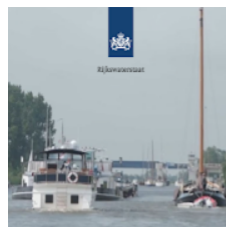


B-NL cooperation Western Scheldt

- Accident data
- Risk analysis → priority
- Analysis of risk reduction measures
- Improve risk reduction measures
- Risk based policy

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Vaar Melder | de Vaarmelder van Rijkswaterstaat

Rijksoverheid Reizen en lokaal

★★★★★ 13

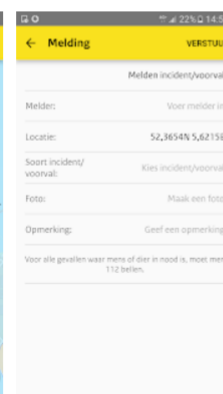
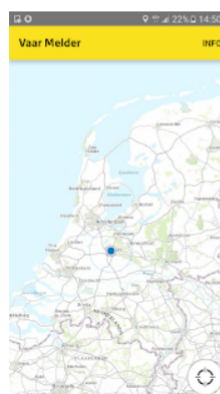
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Toevoegen aan verlanglijstje

Installeren

Report unsafe situations and defects

prevent accidents from happening



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In Summary

NL has an extensive shipping accident database SOS

Sharing of data is stimulated by mutual benefits:

A suite of webbased reporting tools

Data is available for risk based

- safety policy
- management of shipping activities
- inspection

Experience with use of data for monitoring and risk assessment

Belgium and the Netherlands share data on the Western Scheldt

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Contact

Database and risk analysis

Rijkswaterstaat - timco.van.brummelen@rws.nl

Shipping inspection

Human Environment and Transport Inspection - dirk.peters@ILenT.nl

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