"18 persons lost their lives in maritime accidents involving ships registered in EU Member States in 2021, up from 15 in 2020."

"Crew members accounted for 95% of maritime accident fatalities in the EU in 2021."

This article presents the latest statistical data on maritime accident fatalities involving ships registered in the European Union (EU), by region where the accident occurred, by ship type and by role of person killed. In addition, data on the number of persons killed in accidents involving ships registered in countries outside the EU but occurring in EU territorial waters are provided. The data are based on maritime accidents and incidents reported by the accident investigation bodies of the EU Member States, Iceland and Norway to the European Maritime Safety Agency (EMSA).

The number of persons killed in accidents with EU-registered ships slightly increased in 2021

Eighteen persons were killed in maritime accidents involving EU-registered ships in 2021 (see Figure 1). During the period 2017-2021, the number of persons who lost their lives in maritime accidents involving EU-registered ships fluctuated year-on-year. It increased by one-third from 2017 to 2018, from 20 to 32 fatalities, and reached a peak in 2019 when 39 fatalities were registered. A sharp fall, by two-thirds, followed in 2020. This may be explained by the COVID-19 pandemic and the slowdown of maritime activities. In 2021, the number of fatalities slightly increased to 18. On average over the period 2017-2021, there were 24.8 fatalities per year in such accidents.

In addition, Figure 1 provides the number of persons who lost their lives in EU territorial seas in accidents involving ships registered outside the EU. From 2017 to 2018, the number of such deaths fell from 11 in 2017 to 8 in 2018. However, the number increased both in 2019 and 2020, to 9 and 15 persons killed respectively. In 2021, the number of fatalities registered dropped to six.
Persons killed in maritime accidents, by region of ship registration, 2017-2021

(1) Accidents involving ships registered in the EU, independent of where the accident occurred.
(2) Only accidents in EU territorial seas.
Source: Eurostat (online data code: tran_sf_marv), based on data from the European Maritime Safety Agency

In 2021, 14 of the 18 fatalities in accidents involving EU-registered vessels were recorded in seas outside the EU.

The data in Figure 2 on people killed in maritime accidents cover accidents involving EU-registered ships in all parts of the world, both those occurring in the territorial seas of the EU Member States and those outside EU seas.

In 2021, five persons were killed in the Atlantic Ocean accounting for 27.8 % of the total death toll from such accidents. Four people were killed in the Baltic Sea and three in the North Sea, representing 22.2 % and 16.7 % respectively. One fatality was registered both in the Mediterranean Sea and in the English Channel, representing 5.6 % each. No fatality was recorded in the Black Sea. The remaining four fatalities were caused by accidents involving EU-registered ships in other regions of the world, corresponding to a share of 22.2 %.
In 2021, 12 persons were killed in accidents involving cargo ships

The number of accidents leading to loss of lives is relatively small among EU-registered ships. As a result, small changes in the number of persons killed in accidents with different types of vessels can lead to substantial changes in the shares of fatalities by ship type. In 2021, 12 persons lost their lives in accidents involving EU-registered cargo ships, corresponding to two-thirds (66.7%) of the total (Figure 3). This was lower than in 2019 and 2018 where 15 fatalities were registered, but more than in 2020 when 11 persons lost their lives. In contrast, only 2 fatalities were registered in accidents involving service ships in 2021, while 15 persons were killed in this category in 2019.

The number of persons killed in accidents involving fishing vessels fell from 13 in 2018 to 3 in 2021. In 2017,
accidents involving fishing vessels accounted for half of the persons killed, with 10 deaths registered. In 2021, 1 person was killed in an accident involving an inland waterway vessel for the first time over the last five years. In the remaining two ship categories, passenger ships and recreational crafts, there were not more than 6 persons killed combined in each of the five last years. The highest number was reported in 2018, when there were 4 persons killed in accidents with passenger ships.

Persons killed in maritime accidents involving EU-registered ships, by type of ship, 2017-2021
(number)

In 2021, 17 crew members were killed in accidents with EU-registered ships

In 2021, 17 crew members were killed in accidents with EU-registered ships. In the period 2017-2021, 3 passengers lost their lives in maritime accidents involving EU-registered ships, all in 2018 (Figure 4).

In 2021, 17 crew members were killed in accidents with EU-registered ships

The number of crew members killed in accidents increased from 19 in 2017, to 29 in 2018 and 36 in 2019. This represented shares in the total death toll in the range 91% to 95%. In 2020, the number of crew members losing their lives in maritime accidents dropped to 15, accounting for 100% of the persons killed that year, before slightly increasing to 17 in 2021.

In the category ‘other persons’, which covers service personnel, dock workers, pilots, inspectors, etc., 5 five persons accidentally lost their lives over the period 2017-2021. 3 persons in this category were killed in 2019 and 1 person died both in 2017 and 2021, while no fatalities were registered in 2018 and 2020.
The Atlantic Ocean claimed 5 lives in accidents with EU-registered ships in 2021

Table 1 provides an overview on the persons killed in maritime accidents involving EU-registered ships in different seas. From 2017 to 2021, more than 8 persons on average were killed each year in such accidents in the Atlantic Ocean, increasing from 3 deaths in 2017, to 10 deaths in 2018 and 21 deaths in 2019, before dropping to 3 deaths in 2020. In 2021, 5 persons lost their lives in the Atlantic Ocean, accounting for 27.8 % of the total number of deaths. In 2021, the number of deaths in the Baltic Sea increased to 4 after having dropped from 2 fatalities in 2017 to 1 fatality in each of the next three consecutive years.

In the period 2017-2021, 21 persons died in accidents involving EU-registered ships in the Mediterranean Sea, dropping constantly from 7 deaths in 2017 to 1 death in 2021. In the North Sea, after recording only 1 death in 2017, 5 and 4 persons were killed in 2018 and 2019 respectively, while no death occurred in 2020. In 2021, 3 deaths were recorded. In the Black Sea, there was 1 fatality during this period, in 2018. In the busy English Channel, there were three persons killed in such accidents during this period, 2 in 2017 and 1 in 2021.

The second largest share of persons killed in accidents involving EU-registered ships was registered in seas located in the rest of the world, outside European waters, with an average of seven persons dying each year over the period 2017 to 2021. A peak was reached with 9 persons killed in 2018 and 2019 in such accidents.
Table 1: Persons killed in maritime accidents involving EU-registered ships, by sea, 2017-2021 (number)

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
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<th>2021</th>
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<td>4</td>
<td>0</td>
<td>3</td>
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<td>0</td>
<td>1</td>
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<td>10</td>
<td>21</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Black Sea</td>
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<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mediterranean Sea</td>
<td>7</td>
<td>6</td>
<td>4</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Rest of the world</td>
<td>5</td>
<td>9</td>
<td>9</td>
<td>8</td>
<td>4</td>
</tr>
</tbody>
</table>

Source: Eurostat (online data code: tran_sf_marv), based on data from the European Maritime Safety Agency

Source data for tables and graphs

- Download Excel file

Data sources

The data on maritime transport accidents are collected by the national independent investigative bodies in the EU Member States, Iceland and Norway. These data are reported to the European Maritime Safety Agency (EMSA) through the centralised database European Marine Casualty Information Platform (EMCIP). The same concepts and definitions are applied by all reporting countries. The accidents investigated cover marine incidents and casualties that:

- involve ships registered in the country;
- occur within country's territorial seas and internal waters;
- involve other substantial interests of the country.¹

The maritime accident data are provided to Eurostat by EMSA under an Administrative Agreement between the two bodies, signed on 29 March 2017, concerning their technical cooperation in the field of maritime transport accident statistics. EMSA is responsible for the entire process of data collection and management. It should be noted that the data may be adjusted when final reports on all marine casualties and incidents have been provided to EMSA by the national independent accident investigation bodies.

The data on maritime accidents disseminated by Eurostat are available from reference year 2011 onwards. The measurement unit is the number of persons that lost their lives in maritime accidents or have sustained serious or minor injuries. Data in Eurostat's free dissemination database are available on an annual basis.

The statistics are grouped according where the vessels are registered (‘EU-registered’ or ‘Registered in other country’), type of vessel (cargo ship, passenger ship, fishing vessel, service ship or other vessel), the category of person affected (crew, passenger or other person) and the ocean region in which the accident occurred. Only data related to moving vessels are included. Regarding fishing vessels, only vessels over 15 meters long are included.

¹For the definition of such substantial interests, please refer to Article 4.11 of the International Maritime Organization's Resolution A.849(20) Code for the Investigation of Marine Casualties.
Geographical coverage
Data are provided to the European Maritime Safety Agency (EMSA) by the accident investigation bodies of the EU Member States, Norway and Iceland, as foreseen by Directive 2009/18/EC on the investigation of accidents in maritime transport (also known as the ‘Accident Investigation Directive’ or 'AI Directive'). All accidents are recorded by the responsible national authorities.

Detailed country data are confidential and, consequently, not disseminated. Information related to the country of registration of the ship or the coastal state is grouped under either: ‘EU Member States’, 'Non-EU countries', or 'Unknown' (if relevant).

Marine accidents are categorised according to the ocean region where they occurred, not to the country that reported the accident. The ‘Rest of the world’ category is used when the accident did not occur in the territorial seas of one of the EU Member States, but involved a vessel registered in an EU Member State.

EU aggregates
The European Union is composed of 27 Member States: Belgium, Bulgaria, Czechia, Denmark, Germany, Estonia, Ireland, Greece, Spain, France, Croatia, Italy, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, Malta, the Netherlands, Austria, Poland, Portugal, Romania, Slovenia, Slovakia, Finland and Sweden.

Czechia, Luxembourg, Hungary, Austria and Slovakia are landlocked countries without ocean or sea coasts.

EU territorial seas
The EU territorial seas are made up of the territorial seas and internal waters of the EU Member States. The United Nations Convention on the Law of the Sea (UNCLOS) defines the ‘territorial sea’ of a country as the area within which the sovereignty of a coastal State extends, beyond its land territory and internal waters. It is a belt of coastal water extending at most 12 nautical miles (22.2 km) from the baseline (usually the mean low-water mark) of a coastal state.

The EMSA data on maritime accidents and fatalities group accidents that occur in EU territorial seas according to the ocean regions in which these territorial waters lie: Baltic Sea, North Sea, English Channel, Atlantic Ocean, Black Sea, Mediterranean Sea. In this context, accidents occurring in international waters or in the territorial waters of non-EU countries are not included in these regions of EU territorial waters, but are categorised as 'Rest of the world'.

Marine casualty
The datasets disseminated by Eurostat contain data on persons who lost their lives and persons that sustained injuries in maritime accidents.

A marine casualty is defined as an event (or sequence of events) in connection with the operations of a ship, resulting in any of the following:

- death or serious injury of a person;
- loss of a person from a ship;
- loss, presumed loss or abandonment of a ship;
- material damage to a ship;
- stranding or disabling of a ship, or involvement of a ship in a collision;
- material damage to marine infrastructure external to a ship that could seriously endanger the safety of the ship, another ship or an individual; or
- severe damage to the environment, or the potential for severe damage to the environment due to the damage of a ship.

However, a marine casualty does not include a deliberate act or omission with the intention of affecting the safety of a ship, an individual or the environment.

Ship types
- **Cargo ship**: a commercial ship designed for the carriage of various types of cargo, goods or products and up to a maximum of 12 passengers.

- **Fishing vessel**: a vessel equipped or used commercially for catching fish or other living resources at sea.

- **Passenger ship**: a ship designed to transport more than 12 passengers.

- **Service ship**: a ship designed for special services, like a tugboat or a dredger.

- **Other ships**: such vessels are only considered when involved in an accident or other incident that includes a ship covered by the *Accident Investigation Directive (Directive 2009/18/EC)* or when the incidence occurs in a maritime area such as a maritime port. Such ships may be:
  - **Inland waterway vessel**: a vessel intended solely or mainly for navigation on inland waterways.
  - **Recreational craft**: a boat of any type, regardless of the means of propulsion, intended for sports or leisure purposes.
  - **Navy ship**: a ship operating under the navy or other military organisation.
  - **Unknown ship type**: occurrence for which it was not possible to identify the vessel type.

Only data related to moving vessels (and over 15 meters for fishing vessels) are provided to Eurostat. Accidents related to inland waterway vessels are excluded from the Eurostat tables when the accident took place on an inland waterway.

**Context**

Shipping is of strategic importance to the EU's economy: every year, 2 billion tonnes of cargo are loaded and unloaded at EU ports, while 1 billion tonnes of oil transits through EU ports and EU territorial seas. Each year, more than 400 million passengers embark and disembark at European ports. Overall, maritime industries are an important source of employment and income for the European economy. This is why the EU is constantly developing and intensifying its maritime safety policy.

The European Union and its Member States are at the forefront of improving maritime safety legislation and promoting high-quality standards. The aim is to eliminate substandard shipping, increase the protection of passengers and crews, reduce the risk of environmental pollution, and ensure that operators who follow good practices are not put at a commercial disadvantage compared with those prepared to take shortcuts with vessel safety.

The EU has put in place an extensive legislative framework for safety, environmental protection and quality shipping. The EU's action in the field of maritime safety and protection of the environment enhances international legal conventions such as the *International Convention for the Safety of Life at Sea (SOLAS)* and the *International Convention for the Prevention of Pollution from Ships (MARPOL)*, which are both overseen by the *International Maritime Organization (IMO)*.

Amongst its other important tasks, EMSA collects safety data and shares it with the Commission, as arranged in the *Administrative Arrangement between Eurostat and EMSA*.

International law requires that countries affected by an accident at sea investigate the causes and propose ways of preventing recurrences in the future. The idea underpinning *Directive 2009/18/EC* governing the investigation of accidents in the maritime transport sector is to improve maritime safety by providing clear EU guidelines for the harmonisation of technical investigations and lessons learnt after accidents at sea, without determining or assigning any civil or criminal liability.
Other articles

- Transport statistics introduced
- Maritime freight and vessels statistics
- Maritime passenger statistics
- Maritime transport of goods - quarterly data
- Maritime transport statistics - short sea shipping of goods
- Air safety statistics in the EU
- Rail accident fatalities in the EU
- Road safety statistics in the EU

Publications

- European Maritime Safety Agency (EMSA): Annual overview of marine casualties and incidents 2020

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- Transport statistics

Methodology

- Maritime transport safety (ESMS metadata file — tran_sf_mar)
Legislation

- Summary of EU legislation - Maritime safety: European Maritime Safety Agency

External links

- European Maritime Safety Agency (EMSA)
  - Accident investigation
- European Commission – DG Mobility and Transport (MOVE)
  - Maritime transport
  - The essentials of EU maritime transport (video)
  - EU actions on maritime safety and environment protection
  - European Union legislation on maritime safety
- European Commission – DG Maritime Affairs and Fisheries (MARE)
  - Maritime affairs and fisheries
- International Maritime Organization (IMO)
  - Maritime safety