



## PRESS RELEASE 22/2023

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### Railway safety indicators for 2022

(Paris, 28 November 2023) The International Union of Railways (UIC) has published its annual report on railway accidents.

#### Scope

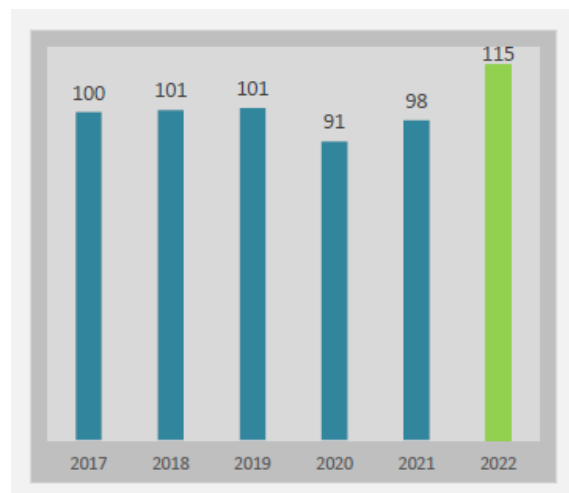
The UIC Safety Database has been recording all significant accidents <sup>1</sup> since 2006, and currently collects data from 34 members from Europe, Asia and the Middle East. One new infrastructure manager (IM) also joined the UIC Safety Database in 2023: LDZ (Latvia).

#### A significant increase in railway traffic in 2022

2020 and 2021 saw a considerable decrease in railway traffic due to the COVID-19 pandemic. In 2022, this trend was finally reversed, with railway traffic significantly increasing, even reaching its highest level in six years.

The diagram opposite shows the changes in railway traffic in million train-kms over the last six years.

The baseline of 100 is the year 2017.

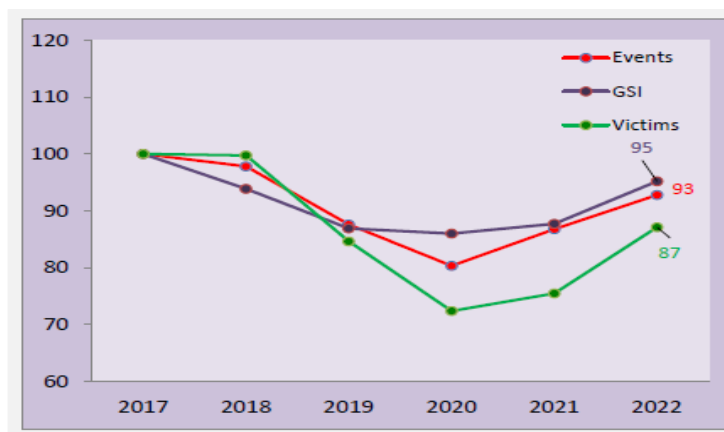


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<sup>1</sup> A significant accident: any accident involving at least one rail vehicle in motion, resulting in at least one person killed or seriously injured, or in significant damage to stock, track, other installations or the environment, or extensive disruptions to traffic. Accidents in workshops, warehouses and depots are excluded.

## A rise in the number of significant accidents in 2022

With a significant increase in railway traffic, the number of significant accidents, as well as the number of victims has also increased to a certain extent. The accident and victim figures are comparable to the pre-pandemic levels of 2019, but have generally remained lower than 2017 and 2018 levels.



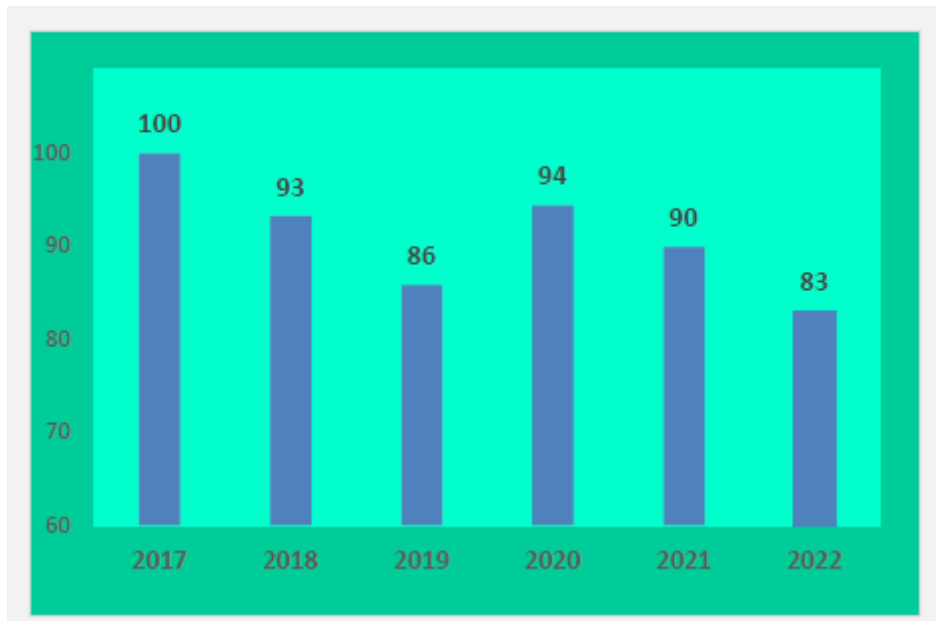
## The UIC Safety Index

The UIC Safety Index goes beyond merely providing statistics on accident rates, each accident is “moderated” according to cause, type, frequency and victim category. This makes it possible to gain a more detailed understanding of general safety levels, independent of fortunately rare high-impact events. This index also enables the rail system's intrinsic level of responsibility with regard to external stresses to be understood. Generally speaking, the lower the index, the better safety is understood.

The steady improvement of this indicator between 2016 and 2019 was clearly halted by the COVID-19 pandemic. In 2020, the indicator deteriorated, rising above the 2018 level. On the other hand, the index recorded improvement in 2021 but did not return to 2019 levels. This shows that railways systems are extremely resilient when it comes to safety. Nevertheless, in 2022, there was an indisputable sharp rise in the index, mainly due to the increase in accidents and number of victims, although it still remains below the 2017 index.

The diagram below shows the evolution of the GSI Safety Index, as well as the number of significant accidents and victims. The baseline of 100 is the year 2017.

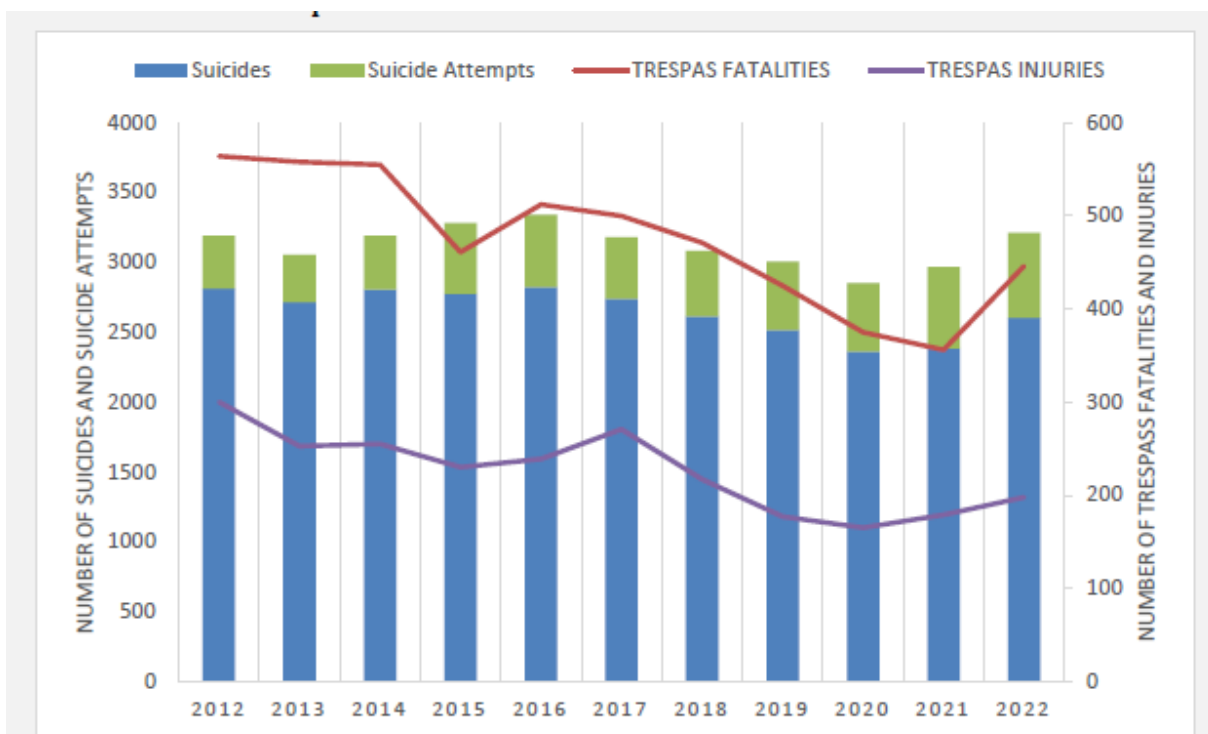
This UIC Safety Index, standardised in train-kilometres, is at its lowest level in six years (see graph below).



Suicides vs human trespassing at railway sites

This year, the UIC Security Report studied the correlation between proven suicides on railway infrastructure and human trespassing, which constitutes a significant accident.

This study gives an overview of suicide and trespassing variables on three levels: annually, over a 10-year period; monthly, in order to establish potential seasonal variations; and finally on a daily level, by



exploring the lighting conditions when the event occurred, e.g., day, night. The diagram below shows the variables over 10 years of suicides, suicide attempts, human trespassing, as well as deceased and seriously wounded trespass victims.

## Members of UIC's Safety Database in 2022

ADIF (Spain), BANE NOR SF (Norway), CFL (Luxembourg), CFR-SA (Romania), CIE (Ireland), DB AG (Germany), EUSKOTREN (Spain), FGC (Spain), FS RFI (Italy), FTIA (Finland), HŽ (Croatia), Network Rail (UK), Infrabel (Belgium), INFRAKOS (Kosovo), IP (Portugal), KRRI (South Korea), LDZ (Latvia), LTG (Lithuania), MÁV (Hungary), NRIC (Bulgaria), ÖBB (Austria), OSE (Greece), PKP (Poland), ProRail (Netherlands), RAI (Iran), SNCF Réseau (France), SAR (Saudi Arabia), SBB CFF FFS (Switzerland), SŽ (Slovenia), SŽ (Czech Republic), TCDD (Turkey), Trafikverket (Sweden), ŽSR (Slovakia).

NB: the above graphs (except the latter) are based on data provided by the 29 members present since at least 2017.

## Definitions

Train-km: unit of measurement representing the movement of a train over one kilometre. The total train-km is the basic measurement for rail traffic.

Significant accident: any accident involving at least one rail vehicle in motion, resulting in at least one person killed or seriously injured, or in significant damage to stock, track, other installations or the environment, or extensive disruptions to traffic. Accidents in workshops, warehouses and depots are excluded.

Victims: fatalities and serious injuries.

Person killed: any person killed immediately or dying within 30 days as a result of an injury accident, excluding suicides.

Person seriously injured: any person injured who was hospitalised for more than 24 hours as a result of an accident, excluding attempted suicides.

Indicators: absolute numbers divided by the total number of train-km.

## Access to the document

The UIC 2022 report on safety can be downloaded from: <http://safetydb.uic.org>

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## DEFINITIONS EN

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### **Victims: Fatalities and serious injuries**

**Fatality:** "Person killed" means any person killed immediately or dying within 30 days as a result of an injury accident, excluding suicides. (European Regulation N° 1192/2003 amending Regulation N° 91/2003)

**Serious injury:** "Person seriously injured" means any person injured who was hospitalised for more than 24 hours as a result of an accident, excluding attempted suicides. (European Regulation N° 1192/2003)

**Indicators:** "absolute numbers divided by the total number of train-km"

## DEFINITIONS DE

**Zugkilometer:** Maßeinheit für die Bewegung eines Zuges über eine Entfernung von einem Kilometer.

„Signifikanter Unfall“ ist jeder Unfall, an dem mindestens ein in Bewegung befindliches Schienenfahrzeug beteiligt ist und bei dem mindestens eine Person getötet oder schwer verletzt wird oder erheblicher Sachschaden an Fahrzeugen, Schienen, sonstigen Anlagen oder der Umwelt entstanden ist oder beträchtliche Betriebsstörungen aufgetreten sind, mit Ausnahme von Unfällen in Werkstätten, Lagern und Depots;

Todesopfer: Getötete oder Schwerverletzte

„Toter (Getöteter)“ ist jede Person, die entweder unmittelbar nach einem Unfall oder innerhalb von 30 Tagen an den Unfallfolgen stirbt, mit Ausnahme von Personen, die Selbstmord begangen haben;

„Schwerverletzter“ ist jede verletzte Person, die nach einem Unfall für mehr als 24 Stunden in ein Krankenhaus eingewiesen wurde, mit Ausnahme von Personen, die einen Suizidversuch unternommen haben.

Indikatoren: \_ \_ \_