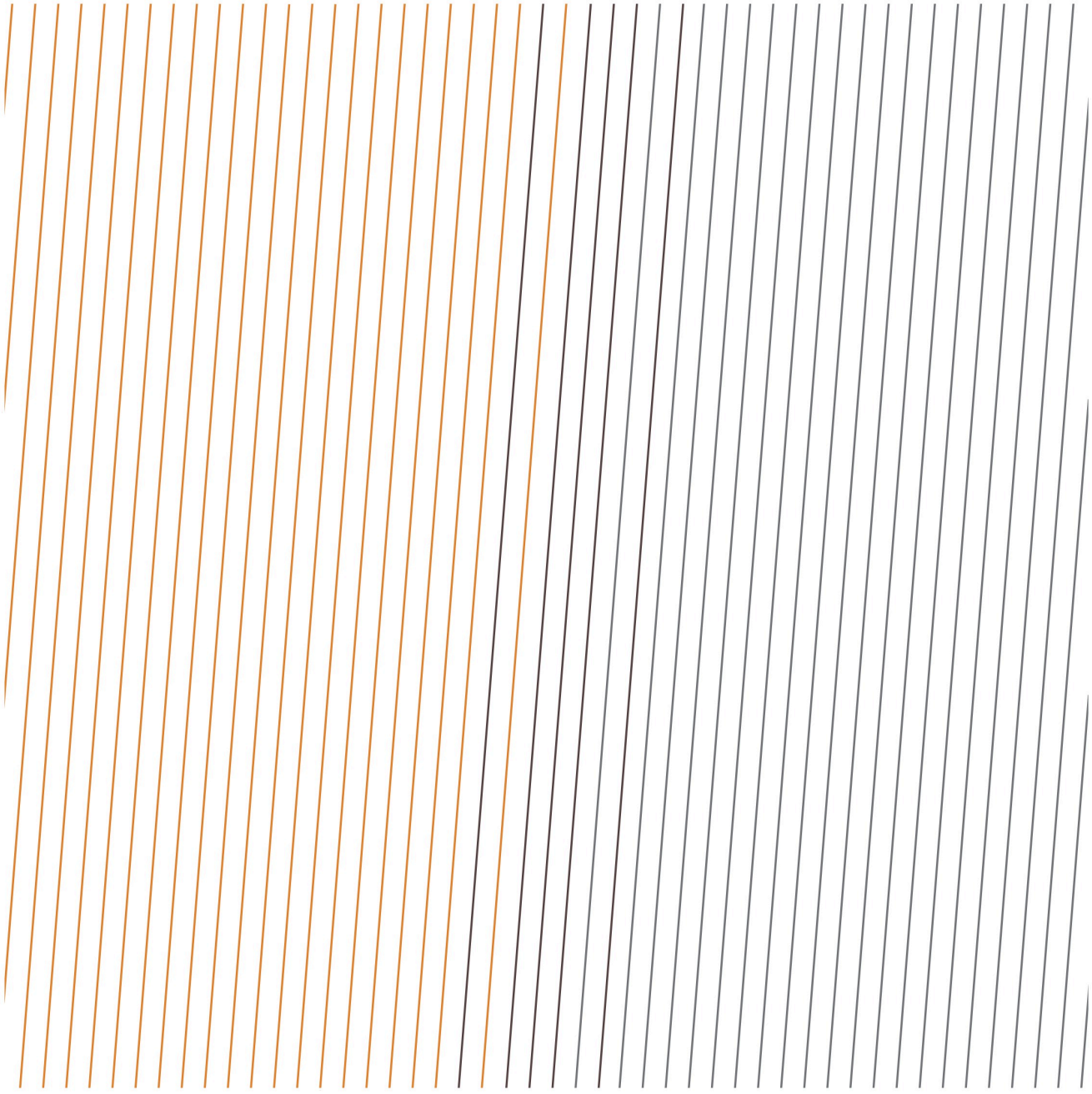
International Association of Oil & Gas Producers

REPORT
2024s

JUNE
2025

DATA SERIES

IOGP Safety performance indicators - 2024 data



Acknowledgements

IOGP would like to thank those companies that have participated in the data collection programme. This Report was produced by the Safety Committee.

Feedback

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2024s

JUNE
2025

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IOGP Safety performance indicators - 2024 data

Revision history

VERSION	DATE	AMENDMENTS
1.00	June 2025	First release

Table of contents

Contributing companies

The safety statistics were derived from data provided by the following companies:

2022

ADDAX Petroleum Limited
ADNOC
Aker BP
Assala Energy
Bapco Energies
Beach Energy
BP
BW Energy
Capricorn Energy
CCED
Cenovus
CEPSA EP
Chevron
CNOOC
ConocoPhillips
Crescent Petroleum
Dana Gas
ENI
Equinor ASA
ExxonMobil
Genel Energy
Gulf Keystone
Harbour Energy
INPEX Corporation
KMG
Kosmos Energy
MOL
Neptune Energy
North Oil Company
OMV
Oxy
Pan American Energy
Petrobras
Petronas Carigali
PGNiG
Pluspetrol
Prime Energy
PTTEP
Repsol
Shell Companies
SOCAR
Sonangol
Spirit Energy
Suncor
TotalEnergies
Trident Energy
Tullow Oil
Vår Energy
Wintershall Dea
Woodside
YPF SA

2023

ADDAX Petroleum Limited
ADNOC
Aker BP
Azule
Bapco Energies
Basrah Gas Company
Beach Energy
BP
BW Energy
Capricorn Energy
CCED
Cenovus
CEPSA EP
Chevron
CNOOC
ConocoPhillips
Crescent Petroleum
Dana Gas
Dolphin Energy
ENI
Equinor ASA
ExxonMobil
Genel Energy
Gulf Keystone
Harbour Energy
Hess Corporation
INPEX Corporation
KMG
Kosmos Energy
Kuwait Oil Company
MOL
Neptune Energy
North Oil Company
OMV
ONGC
Orlen
Oxy
Pan American Energy
Petrobras
Petronas Carigali
Pluspetrol
Prime Energy
PTTEP
QatarEnergy
QatarEnergy LNG
Repsol
Shell Companies
SOCAR
Sonangol
Spirit Energy
Suncor
TotalEnergies
Trident Energy
Tullow Oil
Vår Energy
Wintershall Dea
Woodside
YPF SA

2024

ADDAX Petroleum Limited
ADNOC
Aker BP
Apache
Assala Energy
Azule
Bapco Energies
Basrah Gas Company
Beach Energy
BP
Capricorn Energy
CCED
Cenovus
Chevron
CNOOC
ConocoPhillips
Crescent Petroleum
Dana Gas
Dolphin Energy
ENI
Equinor ASA
ExxonMobil
Gulf Keystone
Harbour Energy
Hess Corporation
INPEX Corporation
Kosmos Energy
Kuwait Oil Company
MOL
North Oil Company
OMV
ONGC
Orlen
Oxy
Pan American Energy
PEMEX
Perenco
Pertamina
Petrobras
Pluspetrol
Prime Energy
Prio
PTTEP
QatarEnergy
QatarEnergy LNG
Repsol
Shell Companies
SOCAR
Sonangol
Spirit Energy
TotalEnergies
Trident Energy
Tullow Oil
Vår Energy
Woodside
YPF SA

Introduction

The International Association of Oil and Gas Producers (IOGP) has been collecting safety incident data from its Member Companies globally since 1985. The data collected are entered into the IOGP safety database, which is the largest database of safety performance in the upstream industry.

The principal purpose of the data collection and analysis is to record the global safety performance of the contributing IOGP Member Companies on an annual basis. The submission of data is voluntary and is not mandated by IOGP Membership. The annual reports provide trend analysis, benchmarking, and the identification of areas and activities on which efforts should be focused to bring about the greatest improvements in performance.

The IOGP incident reporting system covers worldwide upstream operations, both onshore and offshore, and includes incidents involving both Member Companies and their contractor employees.

The key indicators presented are:

- number of fatalities
- fatal accident rate
- fatal incident rate
- total recordable injury rate
- lost time injury rate
- number of lost work day cases
- number of lost work days
- number of restricted duty cases
- restricted duty days
- number of medical treatment cases

The analysis presents contributing IOGP Members' global results for these indicators, which are then analysed by region, function, and company. A code is used to preserve the anonymity of the reporting company, which will typically report its own data as well as that of its associated contractors (see Appendix C).

In 2010, data collection was initiated to capture 'causal factors' associated with fatal incidents and high potential events. These data are presented in section 2.11 of this Report. Wherever practicable, results are presented graphically.

The data underlying the charts are presented in Appendix B. The causal factors and chart data are available in editable format to logged in IOGP Members.

Narrative descriptions for the fatal incidents and high potential events selected for their learning value that were reported by participating IOGP Member Companies can be found at https://data.iogp.org/Safety/FatalIncidents and https://data.iogp.org/Safety/HighPotentialEvents respectively.

Scope of reporting and data validation

The data requested from participating IOGP Member Companies are published in an annual User Guide, which contains definitions and the scope of the safety data submission. This document is also available from the IOGP publications library at https://www.iogp.org/bookstore/.

The safety data submission process is used for the collection of data relating to safety performance, process safety performance, and motor vehicle crashes. The IOGP safety database has built-in data validation requirements and each company data submission is validated by the IOGP Secretariat and the work group (Safety Committee, Subcommittee, or Expert Group) responsible for the data set in accordance with the IOGP data collection and reporting procedure. Any communication with reporting companies is conducted by the IOGP

Secretariat and any data validated by an IOGP work group is blind coded to preserve the anonymity of the reporting companies.

A self-assessment questionnaire is included within the data submission process to determine the alignment between the requested data and the company submissions. The information provided in this questionnaire is also used in the validation process. Data that appear to be incorrect and that cannot be confirmed by the submitting company as correct may be excluded from the data set at the discretion of the Secretariat.

Notable changes to the data request include:

- The number of permanent impairment injuries and narratives were added in 2023 and results were first published in 2024 (Report 2023f, *Safety performance indicators – Fatality and permanent impairment injuries (FPI) – 2022-2023 data*).
- The fatal incident activity category "Excavation, trenching, ground disturbance" was added in 2019.
- The incident cause category of "Dropped objects" was added in 2018. The categories "Caught in, under or between" and "Struck by" were modified to exclude dropped objects.
- The incident cause category of "Aviation Accident" was introduced in 2016. Aviation accidents were previously included in the "Other" incident category.

The scope of data included within this Report is detailed in Appendix A.

Data series

Other IOGP Data Reports published annually include:

- Fatality and permenent impairment injury data.
- Aviation safety data.
- Environmental performance indicators.
- Health performance indicators.
- Motor vehicle crash data.
- Process safety event data.

Additionally a Fatality and Permanent Impairment report was published in 2025 for 2022 and 2023 data.

These are available from the IOGP website http://www.iogp.org/bookstore.

Environmental performance indicators, Process safety events, Motor vehicle crash data, Health performance indicators, and the Safety performance indicators published in this Report are also available in electronic format in IOGP's data website at https://data.iogp.org/.

1. Summary of 2024 results

This section summarizes the safety performance of contributing IOGP Member Companies for 2024.

The key performance indicators (KPI) used to benchmark safety performance in this section are:

- number of fatalities
- fatal accident rate (FAR)
- total recordable injury rate (TRIR)
- lost time injury rate (LTIR)

Third party fatalities are not included in this analysis.

Definitions

Fatal accident rate (FAR):

The number of company/contractor fatalities per 100 million hours worked.

Total recordable injury rate (TRIR):

The number of recordable injuries (fatalities + lost work day cases + restricted work day cases + medical treatment cases (MTC)) per million hours worked. Note when MTC are not reported by a company for a country the associated fatalities, lost work day cases and restricted work day cases are excluded from TRIR calculations.

Lost time injury rate (LTIR):

The number of lost time injuries (fatalities + lost work day cases) per million hours worked.

1.1 General

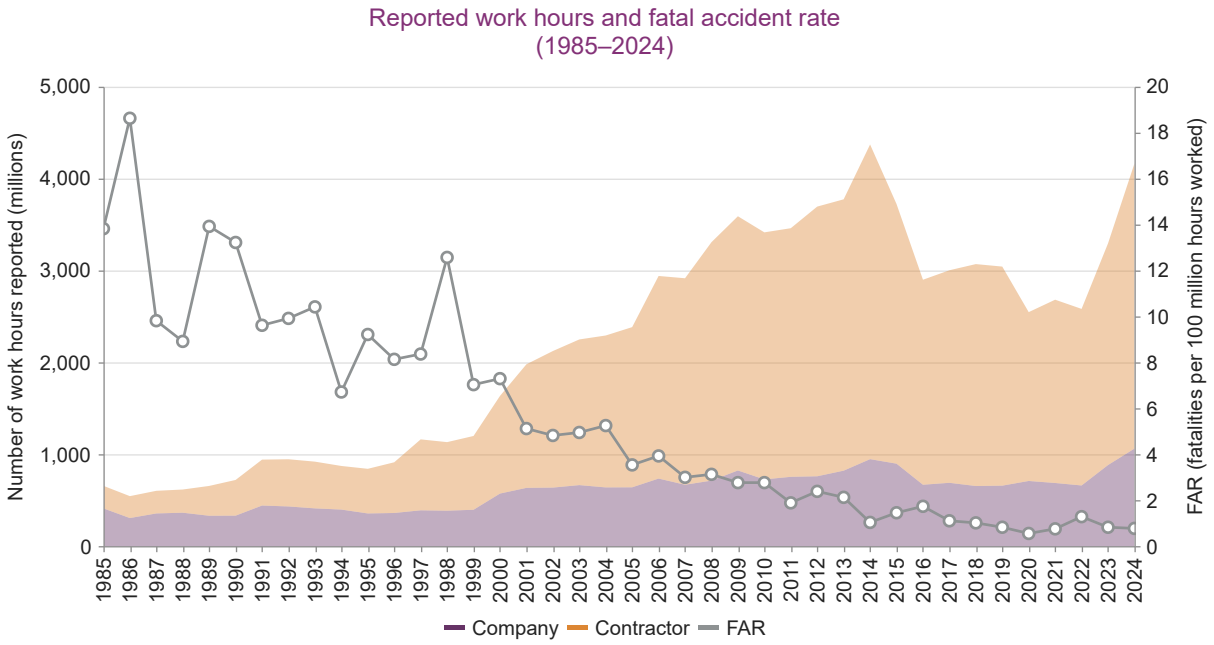
The safety performance of contributing IOGP Member Companies in 2024 is based on the analysis of 4,159 million work hours of data.

Submissions were made by 56 of the 72 operating company IOGP Members.

The data reported cover operations in 87 countries.

The resulting fatal accident rate (FAR) was 0.77, 6% lower than last year's figure (0.82).

Figure 1



1.2 Fatalities

Against the background of a 26% increase in work hours reported, the number of fatalities has increased from 27 in 2023 to 32 in 2024. The 32 fatalities occurred in 21 separate incidents. The resulting fatal accident rate (FAR) was 0.77, 6% lower than last year's figure (0.82). The company and contractor FAR were 0.57 and 0.84 respectively. Onshore and offshore FAR were 0.56 and 1.31 respectively.

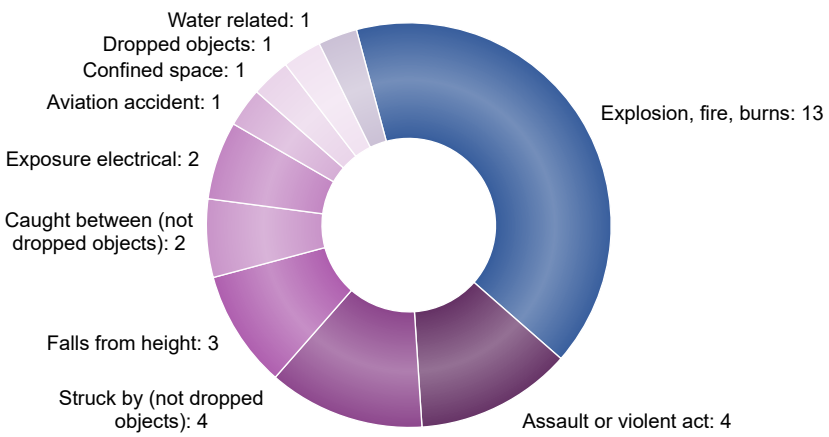
Each reported fatal incident is allocated a work activity and cause. With regard to the cause, 41% of the fatalities reported in 2024 were the result of incidents categorized as 'Explosion, fire or burns' (13 fatalities in 5 separate incidents).

Fatalities categorized as 'Struck by (not dropped object)' accounted for 13% of the fatalities, with 4 fatalities in 4 separate incidents.

Fatalities categorized as 'Assault or violent act' also accounted for 13% of the fatalities, with 4 fatalities in 1 incident.

Figure 2

Number of fatalities by cause (2024)



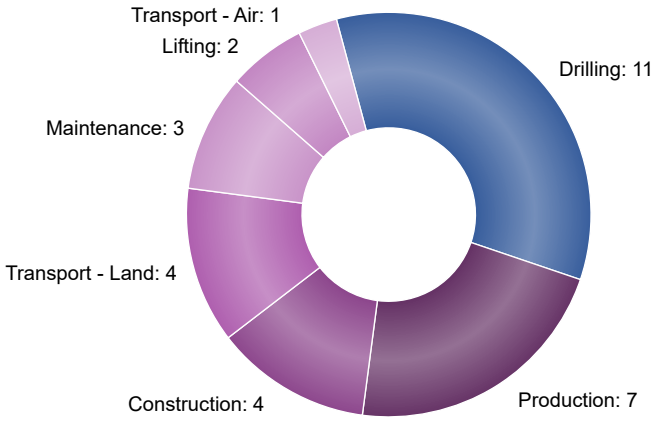
With regard to the activity, 34% of the fatalities reported in 2024 were the result of incidents categorized as 'Drilling, workover, well operations' (11 fatalities in 6 separate incidents).

Fatalities categorized as 'Production operations' accounted for 22% of the fatalities, with 7 fatalities in 4 separate incidents.

4 fatalities were reported in 4 separate incidents that were in the 'Transport - Land' activity, and 4 fatalities were reported in a single 'Construction, commissioning, decommissioning' incident in the 'Assault or violent act' cause category.

Figure 3

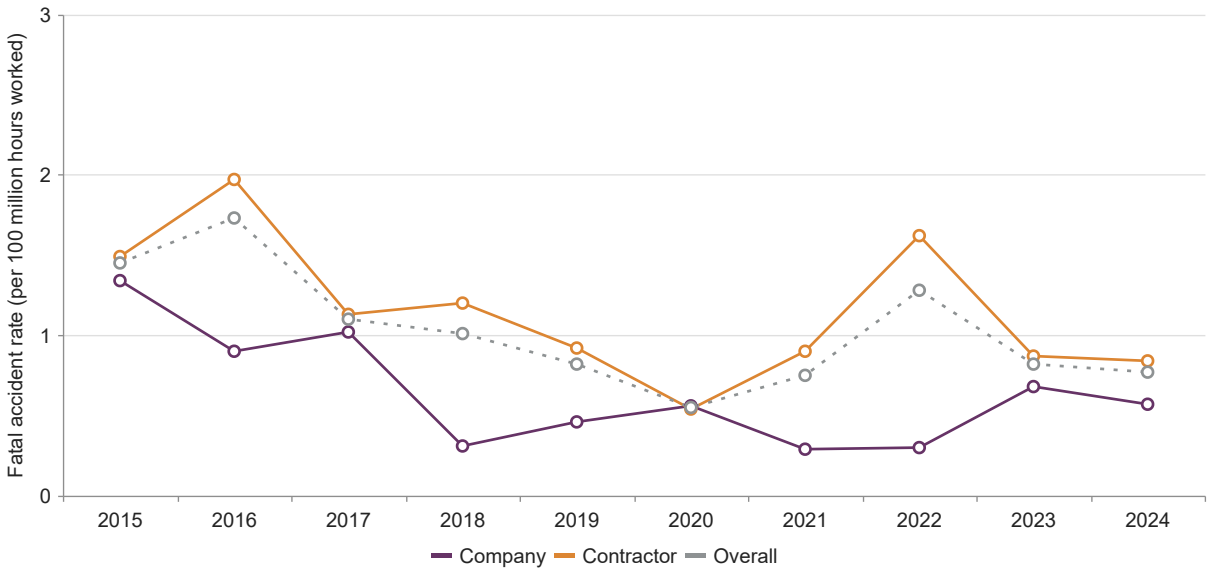
Number of fatalities by activity (2024)



The FAR for 2024 was 0.77, 6% lower than the 2023 rate (0.82). The company-only FAR for 2024 was 0.57, 16% lower than the rate for 2023 (0.68). The contractor-only FAR was 0.84, 3% lower than the rate for 2023 (0.87).

Figure 4

Fatal accident rate by company & contractor (2015–2024)

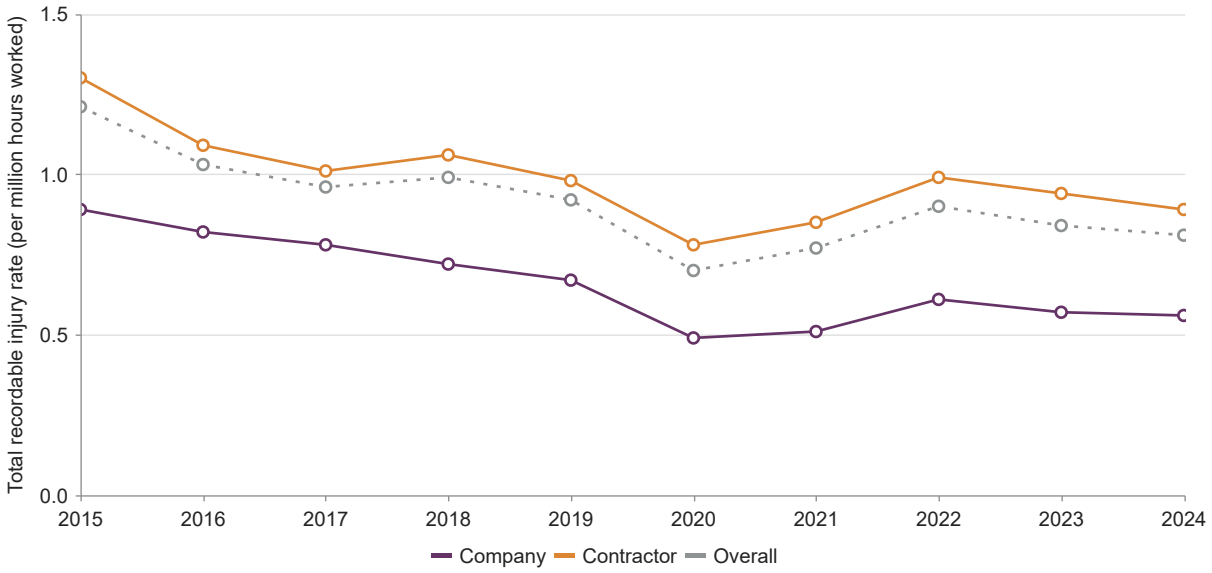


1.3 Total recordable injuries

The overall total recordable injury rate (TRIR) (fatalities, lost work day cases, restricted work day cases, and medical treatment cases) was 0.81, 4% lower than in 2023 (0.84).

Figure 5:

Total recordable injury rate by company & contractor (2015–2024)



1.4 Lost time injuries

The overall lost time injury rate (LTIR) (fatalities and lost work day cases) was 0.24, unchanged compared with 2023.

Figure 6:

The participating IOGP Member Companies reported 946 lost work day cases (LWDC) (injuries resulting in at least one day off work):

- 726 incidents were contractor related.
- 220 incidents were company related.

Participating companies reported 31,188 days of work lost through injuries.

Figure 7 shows the percentage of LWDC by cause.

- 206 cases, 22% of the total, were categorized as 'Slips and trips (at same height)': 2023 results showed 175 cases, accounting for 23% of the total.
- 'Caught in, under or between (excl. dropped objects)' accounted for 189 cases, 20% of the total (145 cases, 19% of the total in 2023).
- 'Struck by (not dropped object)' accounted for 148 cases, 16% of the total (126 cases, 17% of the total in 2023).

Figure 7:

Percentage of lost work day cases by cause (2024)

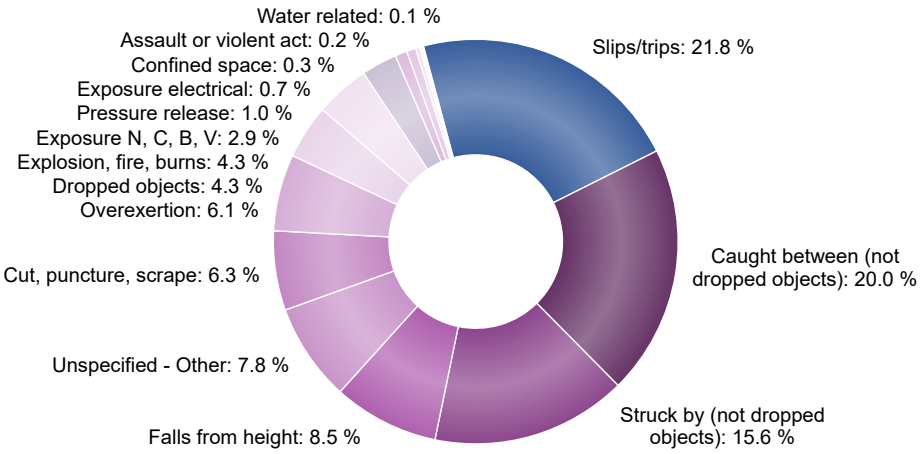
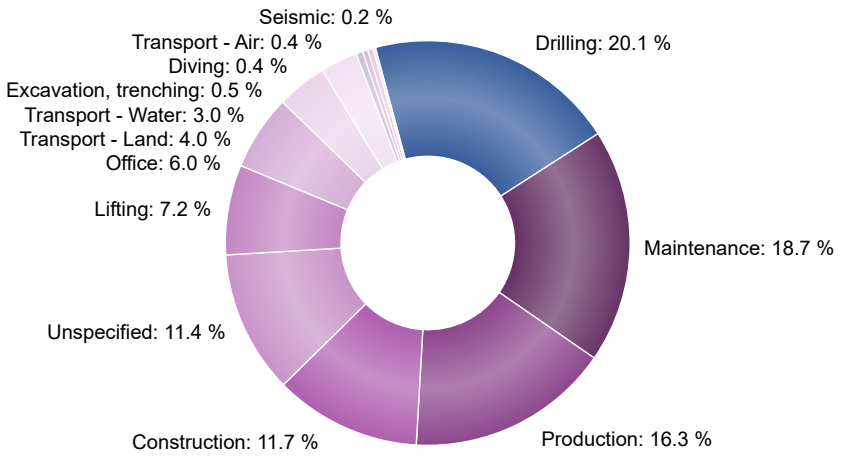


Figure 8 shows the percentage of LWDC by activity.

- 190 cases, 20% of the total, were categorized as 'Drilling, workover, well operations': 2023 results showed 133 cases, accounting for 18% of the total.
- 'Maintenance, inspection, testing' accounted for 177 cases, 19% of the total (154 cases, 21% of the total in 2023).
- 'Production operations' accounted for 154 cases, 16% of the total (124 cases, 17% of the total in 2023).

Figure 8:

Percentage of lost work day cases by activity (2024)



See Appendix B - Section 1 for data tables.

2. 2024 results

In this section, the primary indicators used to measure contributing IOGP Member Companies' safety performance are:

- number and nature of fatalities
- total recordable injury rate
- fatal accident rate
- fatal incident rate
- lost time injury rate

Third party incidents are not included in this Report.

2.1 Fatalities

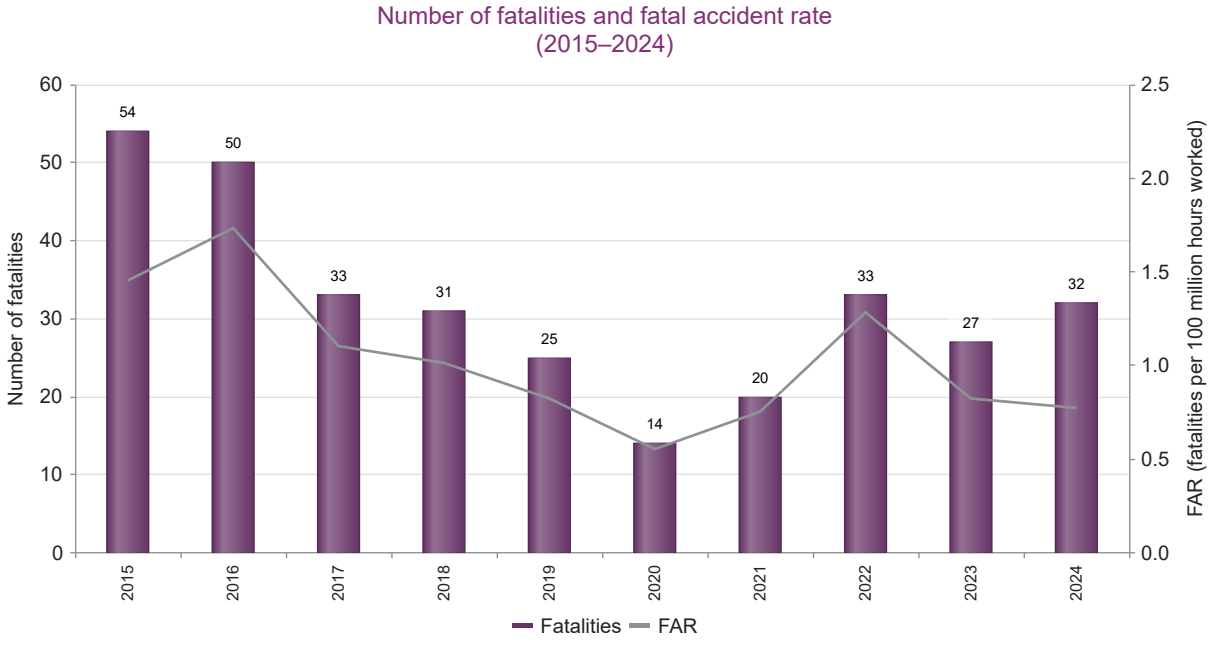
Table 1: Number of fatalities (2023 and 2024)

Company/contractor	2023			2024		
	Onshore	Offshore	Overall	Onshore	Offshore	Overall
Company	4	2	6	4	2	6
Contractor	18	3	21	13	13	26
OVERALL	22	5	27	17	15	32

32 company and contractor fatalities were reported in 2024. This is 5 more than were reported in 2023 and 1 fewer than in 2022.

The 32 fatalities occurred in 21 separate incidents.

Figure 9:



2.2 Fatal accident rate

In 2024 there were 6 company fatalities (6 in 2023) as a result of 6 separate incidents.

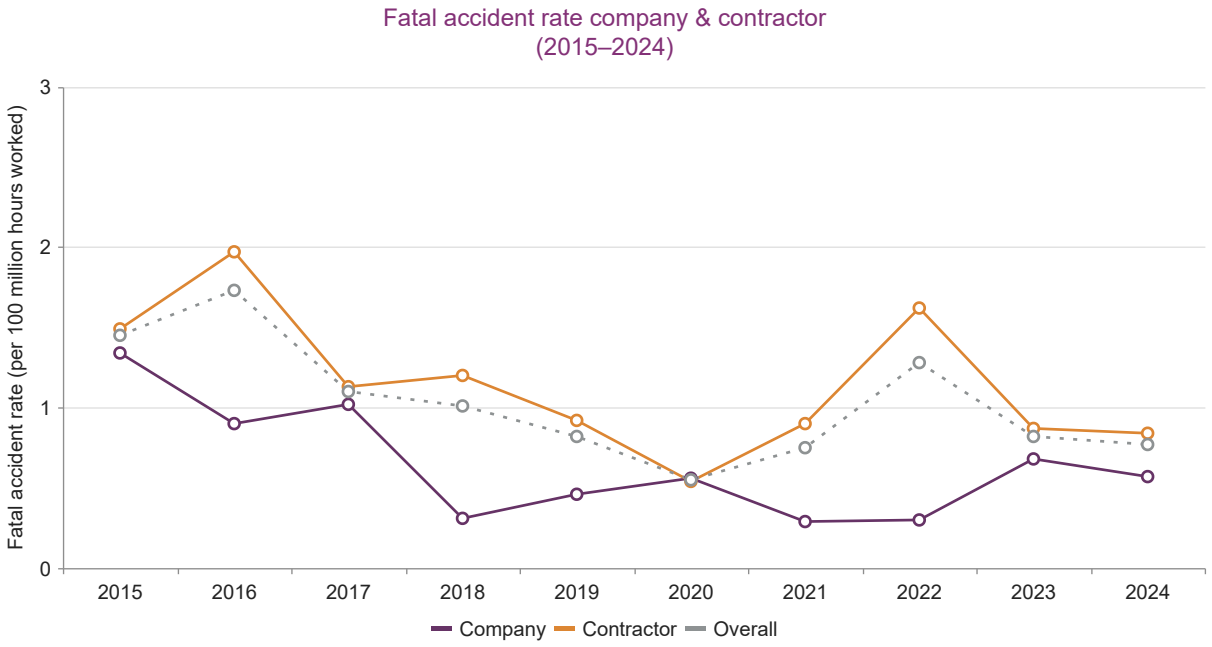
In 2024 there were 26 contractor fatalities (21 in 2023) as a result of 15 separate incidents.

Table 2: Fatal accident rate (2023 & 2024)

	Fatal accident rate (FAR)		Relative to 2023 FAR
	2023	2024	
OVERALL	0.82	0.77	6% lower
Company	0.68	0.57	16% lower
Contractor	0.87	0.84	3% lower
Onshore	0.90	0.56	38% lower
Offshore	0.59	1.31	122% higher

All hours in the database were used for calculations of fatal accident rate (FAR).

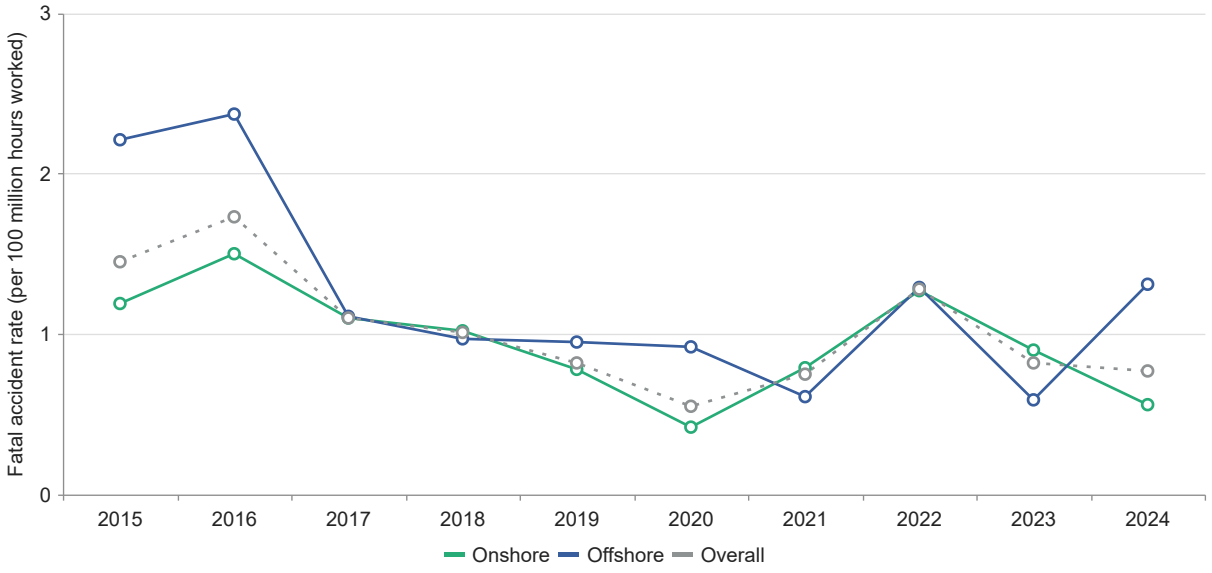
Figure 10:



The difference between the onshore and offshore FAR displays a large variation over the 10-year period shown in Figure 11. Neither is consistently lower. This is generally attributable to single "transportation", "fire and explosion", or "assault/violent act" incidents involving high numbers of fatalities.

Figure 11:

Fatal accident rate onshore & offshore
(2015–2024)



2.3 Fatal incident rate

The fatal incident rate (FIR) is a measure of the rate at which fatal incidents occur, in contrast to the fatal accident rate (FAR) which measures the rate of fatalities. Accordingly, for company and contractor fatalities, the FIR will be less than or equal to the FAR. Comparison of FAR and FIR gives an indication of the magnitude of the incidents in terms of lives lost.

Overall, the FIR decreased by 4% compared with last year (21 fatal incidents in 2024, 17 fatal incidents in 2023).

All hours in the database were used for calculations of FIR.

Table 3: Fatal incident rate (2023 & 2024)

	Fatal incident rate (FIR)		Relative to 2023 FIR
	2023	2024	
OVERALL	0.52	0.50	4% lower
Company	0.45	0.57	27% higher
Contractor	0.54	0.48	11% lower
Onshore	0.53	0.47	11% lower
Offshore	0.47	0.61	30% higher

Figure 12:

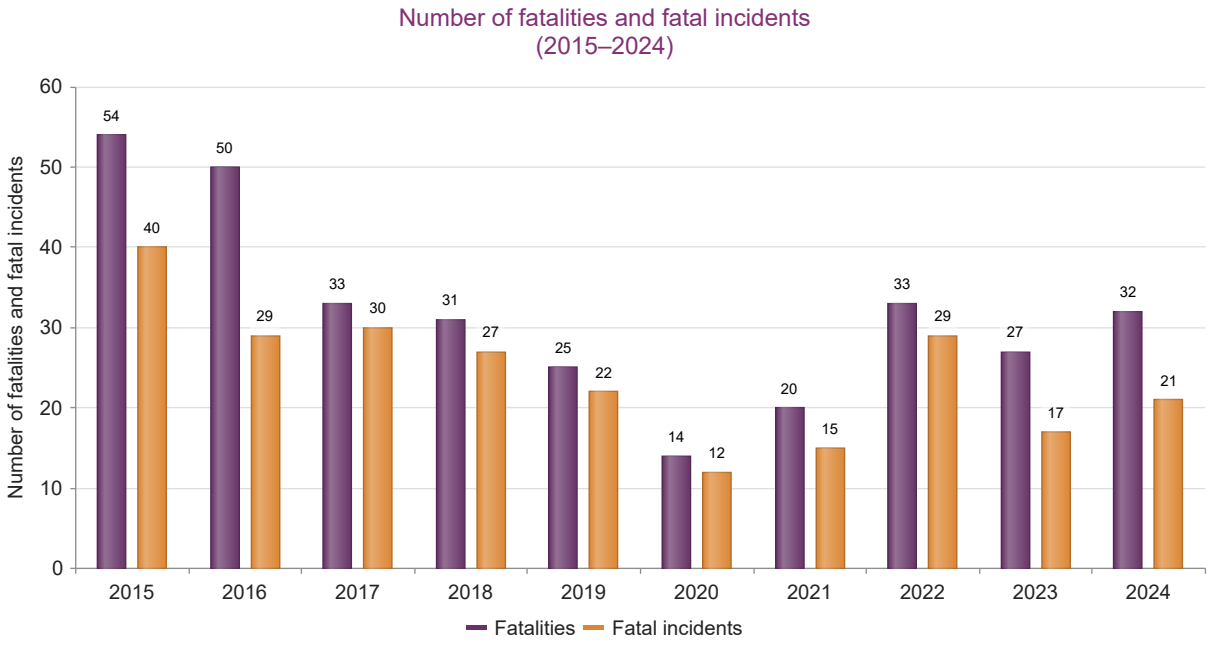


Figure 13:

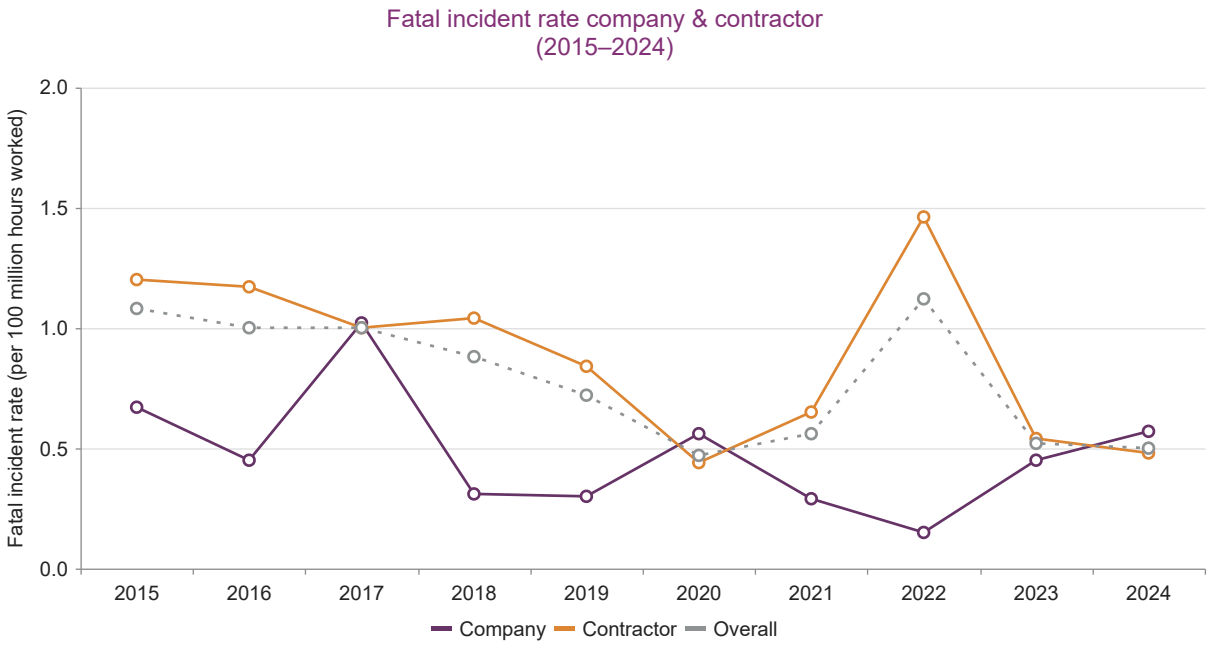
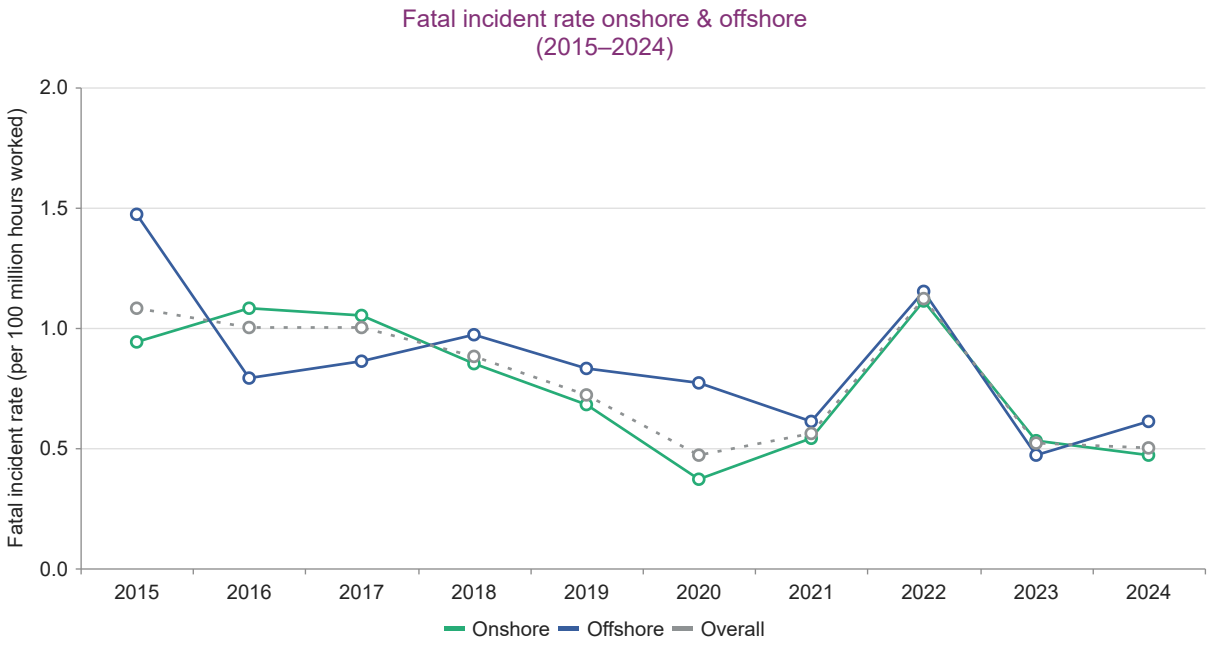


Figure 14:



2.4 Fatalities by incident cause and activity

17 of the 21 fatal incidents involved one fatality. 4 incidents involved 2 or more fatalities.

Table 4: Fatalities by cause and activity (2024)

Activity	Cause																
	Assault or violent act	Aviation accident	Caught in, under or between (excl. dropped objects)	Confined space	Cut, puncture, scrape	Dropped objects	Explosions or burns	Exposure electrical	Exposure noise, chemical, biological, vibration	Falls from height	Overexertion, strain	Pressure release	Slips and trips (at same height)	Struck by (not dropped object)	Water related, drowning	Other	OVERALL
Construction, commissioning, decommissioning	4																4
Diving (incl. decompression), subsea, ROV																	
Drilling, workover, well operations			1			1	7			1				1			11
Excavation, trenching, ground disturbance																	
Lifting, crane, rigging, deck operations								1						1			2
Maintenance, inspection, testing								1		2							3
Office, warehouse, accommodation, catering																	
Production operations				1			6										7
Seismic/survey operations																	
Transport - Air		1															1
Transport - Land			1											2	1		4
Transport - Water, incl. marine activity																	
Unspecified - other																	
OVERALL	4	1	2	1		1	13	2		3				4	1		32

Figure 15:

Number of fatalities by cause (2024)

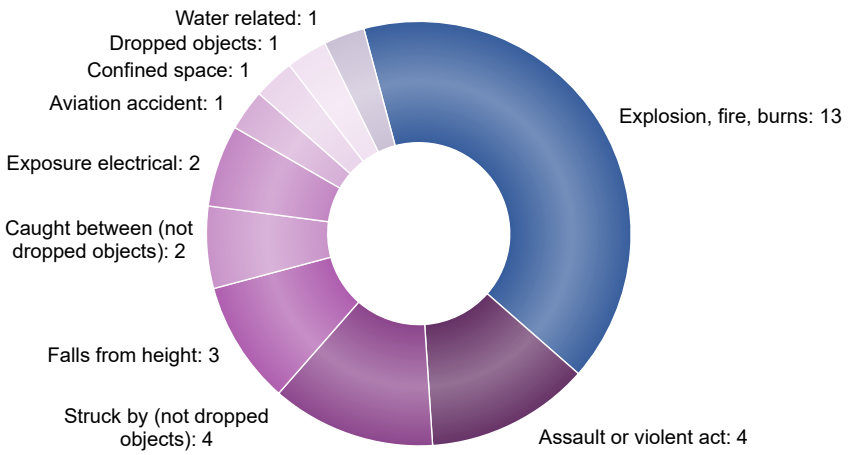


Figure 16:

Number of fatalities by activity (2024)

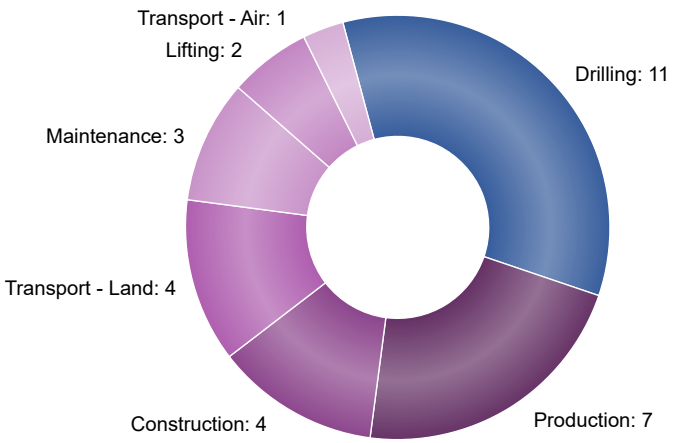


Table 5: Fatalities by cause (2020 - 2024)

Cause	Number of fatalities				
	2020	2021	2022	2023	2024
Assault or violent act	0	6	1	8	4
Aviation accident	0	0	1	0	1
Caught in, under or between (excl. dropped objects)	1	6	6	4	2
Confined space	0	0	0	0	1
Cut, puncture, scrape	0	0	0	0	0
Dropped objects	1	0	6	1	1
Explosion, fire or burns	3	0	4	5	13
Exposure electrical	2	1	0	1	2
Exposure noise, chemical, biological, vibration, extreme temperature	0	0	1	2	0
Falls from height	0	4	3	1	3
Overexertion, strain	0	0	0	0	0
Pressure release	0	0	4	1	0
Slips and trips (at same height)	0	0	0	0	0
Struck by (not dropped object)	3	2	6	2	4
Water related, drowning	4	1	1	2	1
Unspecified - Other	0	0	0	0	0
OVERALL	14	20	33	27	32

Figure 17:

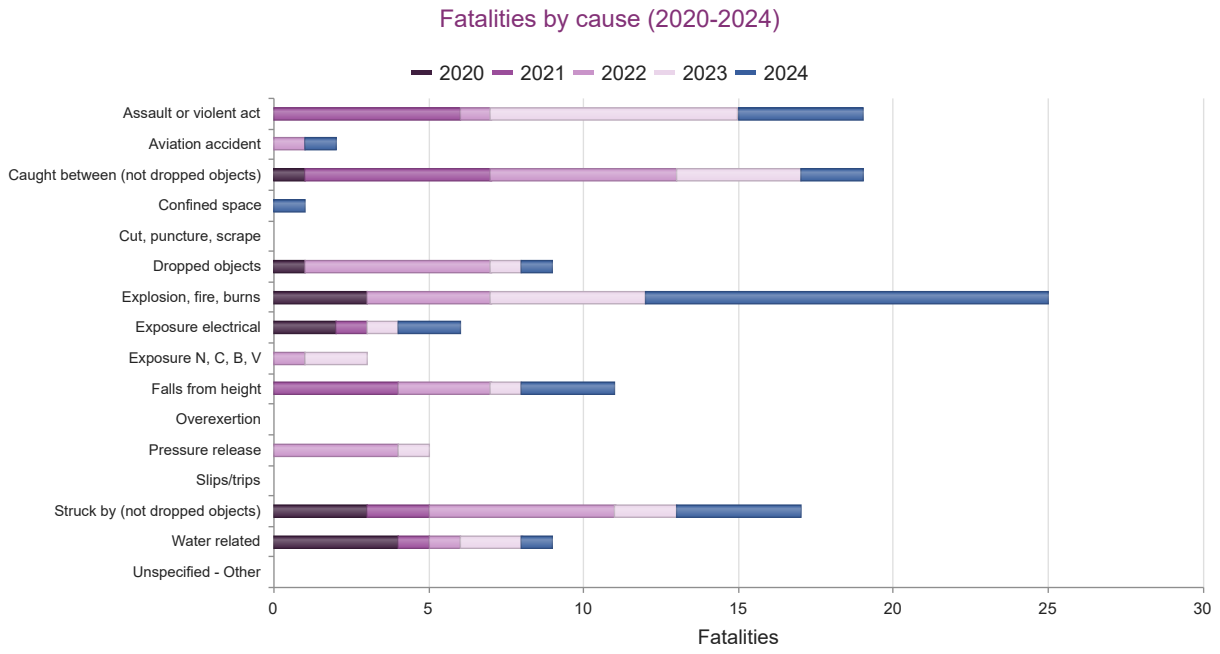
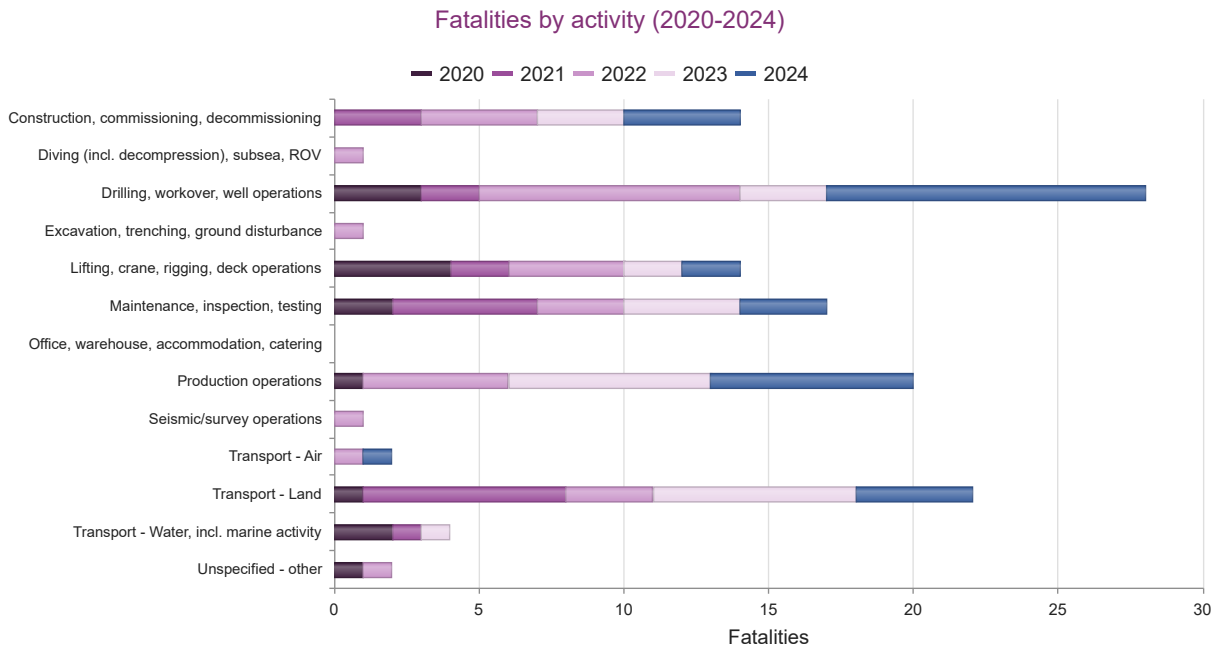


Table 6: Fatalities by activity (2020 - 2024)

Activity	Number of fatalities				
	2020	2021	2022	2023	2024
Construction, commissioning, decommissioning	0	3	4	3	4
Diving (incl. decompression), subsea, ROV	0	0	1	0	0
Drilling, workover, well operations	3	2	9	3	11
Excavation, trenching, ground disturbance	0	0	1	0	0
Lifting, crane, rigging, deck operations	4	2	4	2	2
Maintenance, inspection, testing	2	5	3	4	3
Office, warehouse, accommodation, catering	0	0	0	0	0
Production operations	1	0	5	7	7
Seismic/survey operations	0	0	1	0	0
Transport - Air	0	0	1	0	1
Transport - Land	1	7	3	7	4
Transport - Water, incl. marine activity	2	1	0	1	0
Unspecified - other	1	0	1	0	0
OVERALL	14	20	33	27	32

Figure 18:



2.5 Total recordable injury rate

Submissions without information on medical treatment cases (MTC) were filtered out, leaving a dataset of 3,795 million hours, 91% of the database. There were 3,071 reported recordable injuries (fatalities + LWDC + RWDC + MTC where MTC are reported), which equates to an average of 59 recordable injuries every week of the year or more than 8 injuries every day of the year. See Appendix A – Database dimensions.

An overall decrease in total recordable injury rate (TRIR) of 4% is seen in 2024.

Table 7: Total recordable injury rate (2023 & 2024)

	Total recordable injury rate (TRIR)		Relative to 2023 TRIR
	2023	2024	
OVERALL	0.84	0.81	4% lower
Company	0.57	0.56	2% lower
Contractor	0.94	0.89	5% lower
Onshore	0.75	0.73	3% lower
Offshore	1.11	1.04	6% lower

Figure 19:

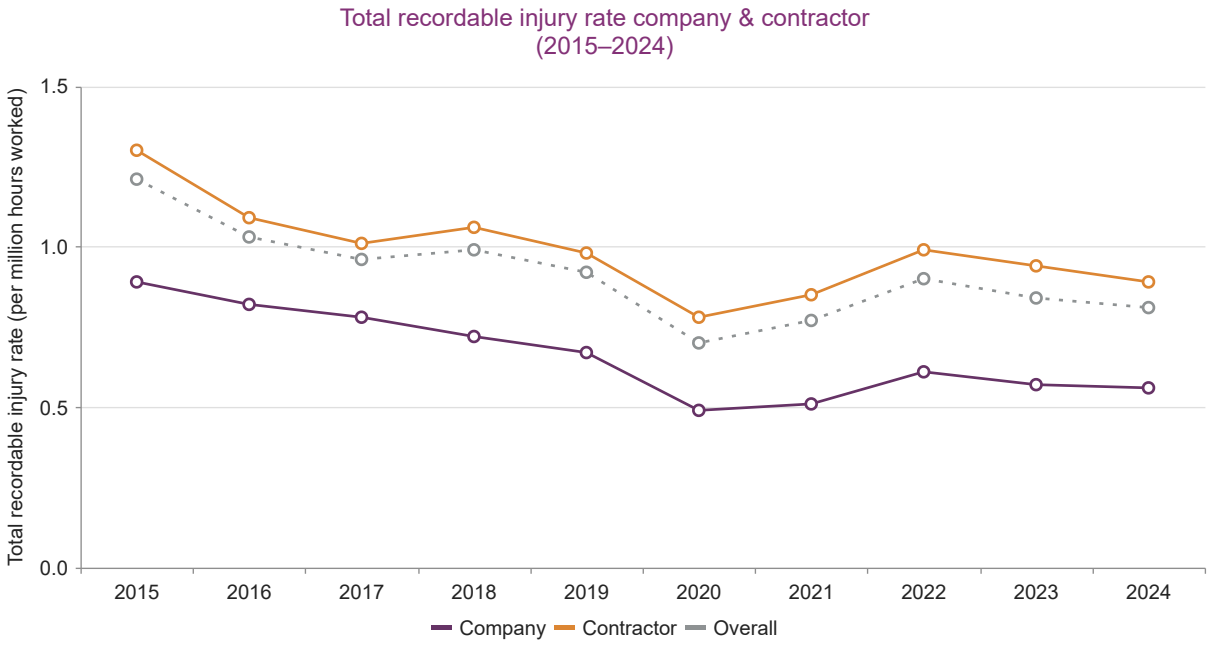
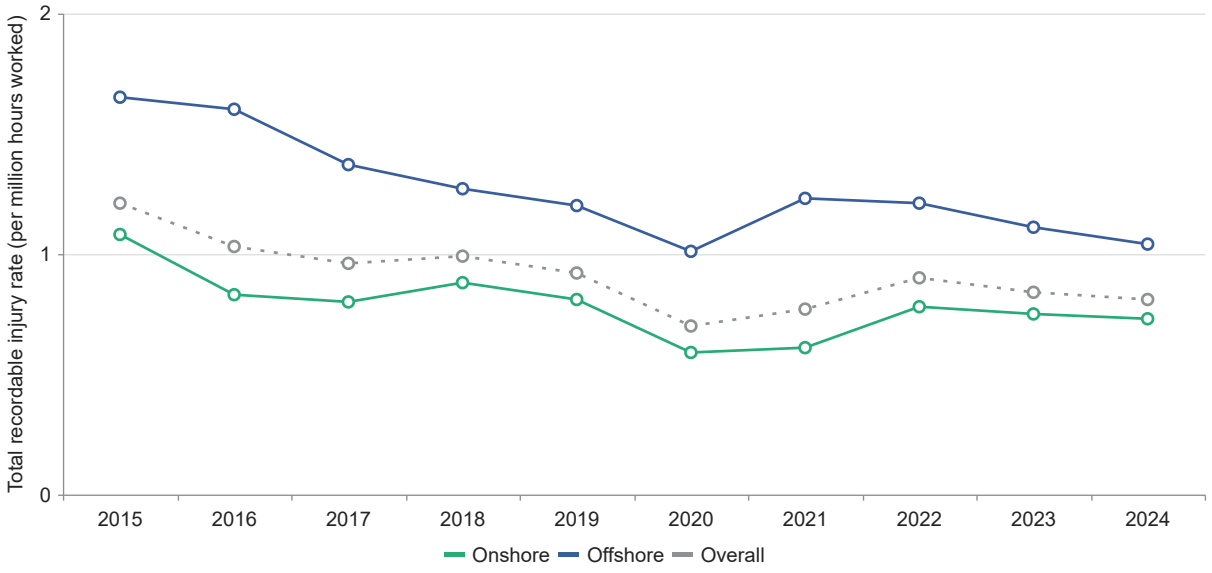


Figure 20:

Total recordable injury rate onshore & offshore
(2015–2024)



2.6 Lost time injury rate

There were 946 reported lost work day cases resulting in at least one day off work, which equates to an average of 18 injuries resulting in at least one day off work every week of the year or 3 injuries every day of the year.

For calculations of lost time injury rate (LTIR), all hours in the database were used. See 2.8 Severity of lost work day cases for further information on lost work day case severity.

Table 8: Lost time injury rate (2023 & 2024)

	Lost time injury rate (LTIR)		Relative to 2023 LTIR
	2023	2024	
OVERALL	0.24	0.24	No change
Company	0.22	0.21	5% lower
Contractor	0.24	0.24	No change
Onshore	0.19	0.18	5% lower
Offshore	0.38	0.39	3% higher

Figure 21:

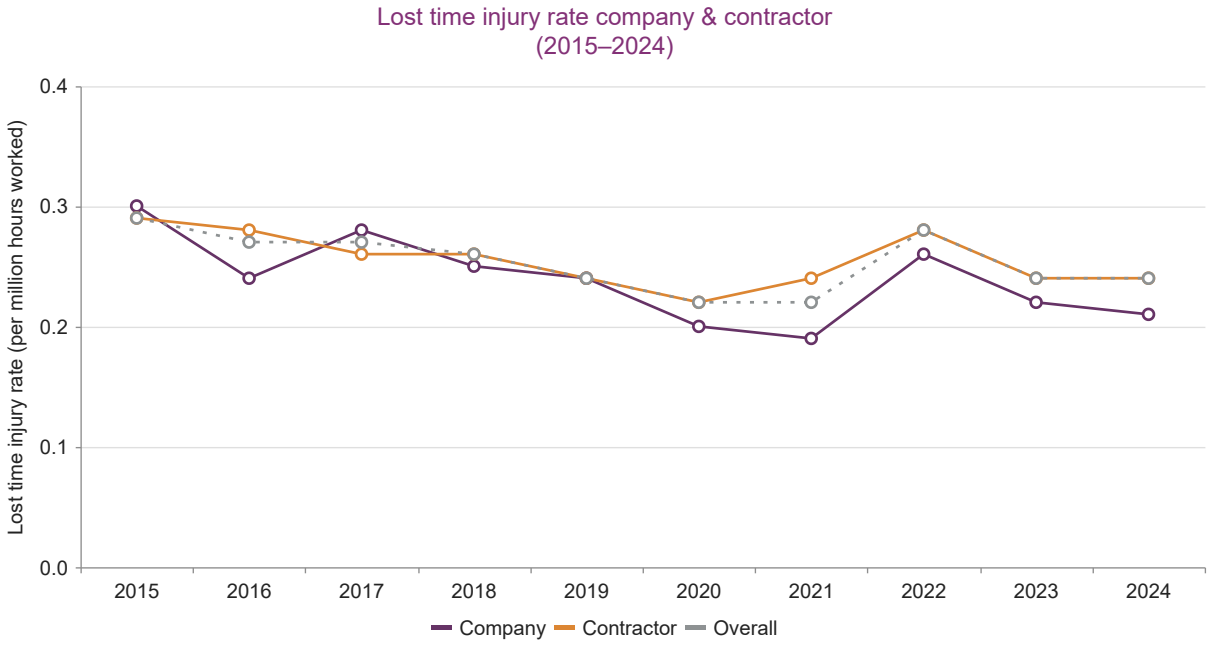
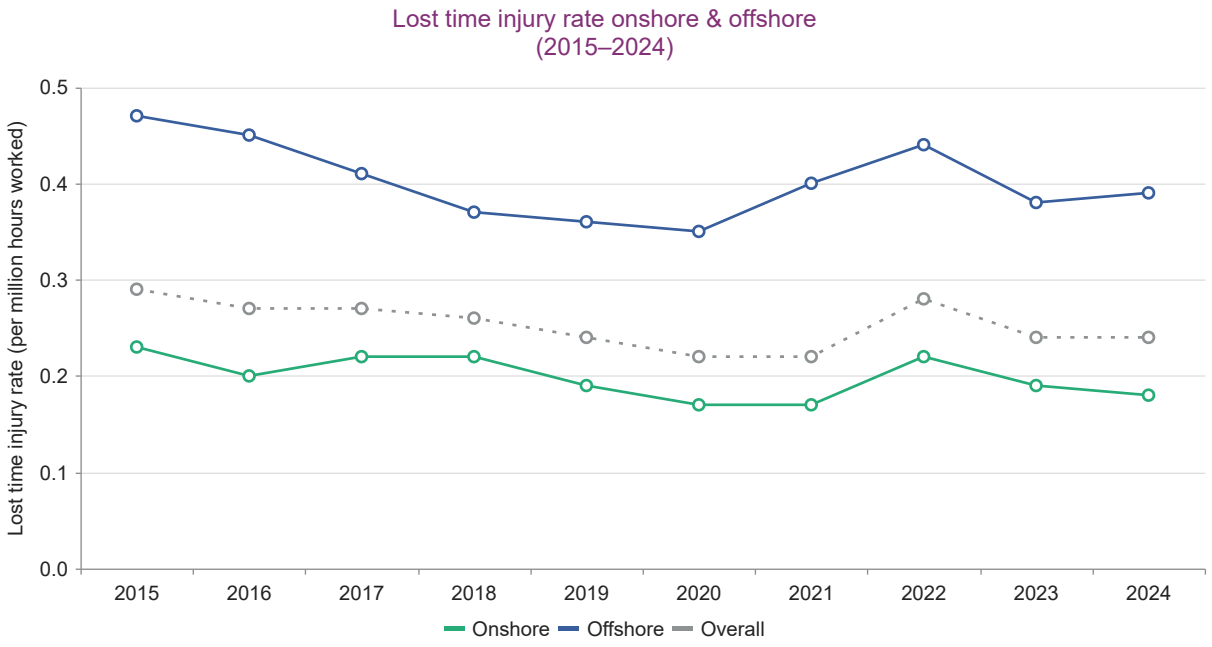


Figure 22:


Lost time injury rate onshore & offshore
(2015–2024)
Lost time injury rate (per million hours worked)
0.5
0.4
0.3
0.2
0.1
0.0
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
Onshore
Offshore
Overall

2.7 Lost work day case causes and activities

Table 9: Lost work day cases by cause (2024)

Cause	Number	% of total
Assault or violent act	2	0.2
Caught in, under or between (excl. dropped objects)	189	20.0
Confined space	3	0.3
Cut, puncture, scrape	60	6.3
Dropped objects	41	4.3
Explosion, fire or burns	41	4.3
Exposure electrical	7	0.7
Exposure noise, chemical, biological, vibration, extreme temperature	27	2.9
Falls from height	80	8.5
Overexertion, strain	58	6.1
Pressure release	9	1.0
Slips and trips (at same height)	206	21.8
Struck by (not dropped object)	148	15.6
Water related, drowning	1	0.1
Unspecified - Other	74	7.8
OVERALL	946	

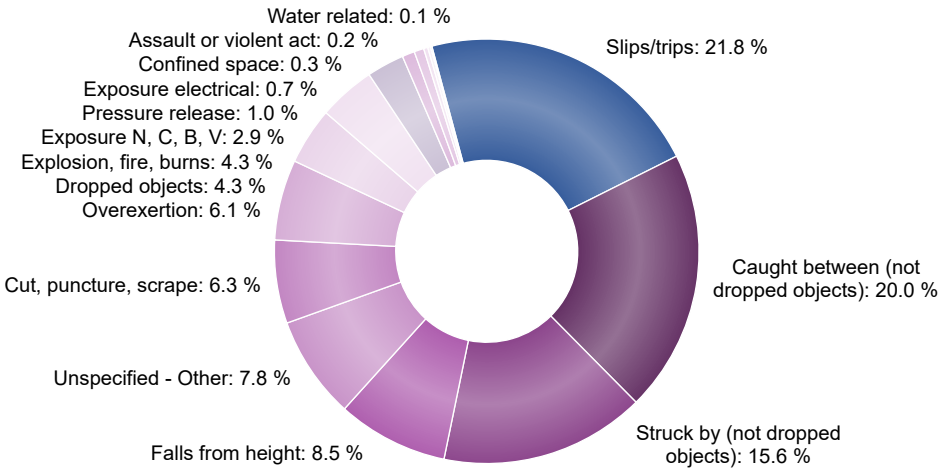
Of the 946 reported lost work day cases (LWDC) resulting in at least one day off work, 726 incidents (77%) were contractor-related and 220 (23%) were company-related (563 and 187 respectively for 2023).

The cause was provided for all LWDC reported, although 8% of the cases were categorized as 'Other'.

Figure 23 shows the percentage of LWDCs within each of the reporting categories for 2024.

Figure 23:

Percentage of lost work day cases by cause (2024)



- Slips and trips (at same height) accounted for 206 cases, 21.8% of LWDCs where the cause was given. 2023 results showed 175 cases accounting for 23.3%.
- Caught in, under or between (excl. dropped objects) accounted for 189 cases, 20.0% of the total. 2023 results showed 145 cases accounting for 19.3%.
- Struck by (not dropped object) accounted for 148 cases, 15.6% of the total. 2023 results showed 126 cases accounting for 16.8%.

Results were very similar to previous years.

Table 10: Lost work day cases by cause - company & contractor (2024)

Cause	Company	Contractor
Assault or violent act	0	2
Caught in, under or between (excl. dropped objects)	45	144
Confined space	1	2
Cut, puncture, scrape	7	53
Dropped objects	6	35
Explosion, fire or burns	7	34
Exposure electrical	4	3
Exposure noise, chemical, biological, vibration, extreme temperature	8	19
Falls from height	21	59
Overexertion, strain	22	36
Pressure release	0	9
Slips and trips (at same height)	47	159
Struck by (not dropped object)	33	115
Water related, drowning	0	1
Unspecified - Other	19	55
OVERALL	220	726

Figure 24:

Percentage of lost work day cases by cause - company (2024)

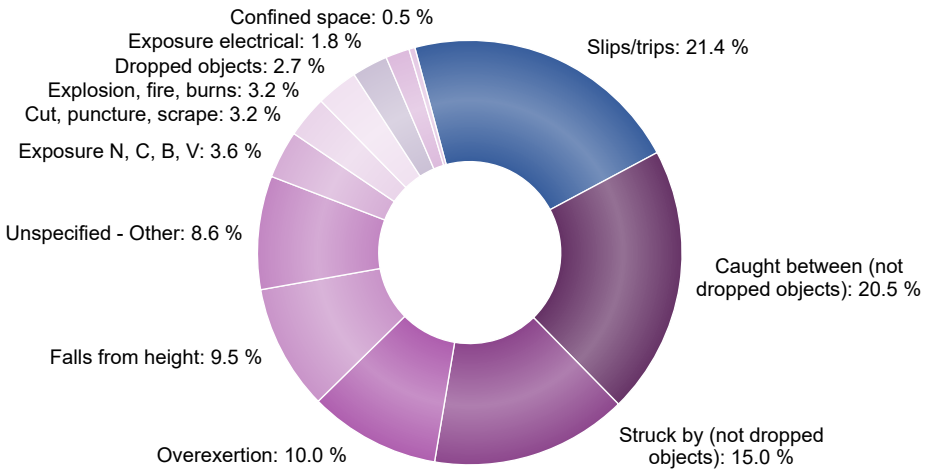


Figure 25:

Percentage of lost work day cases by cause - contractor (2024)

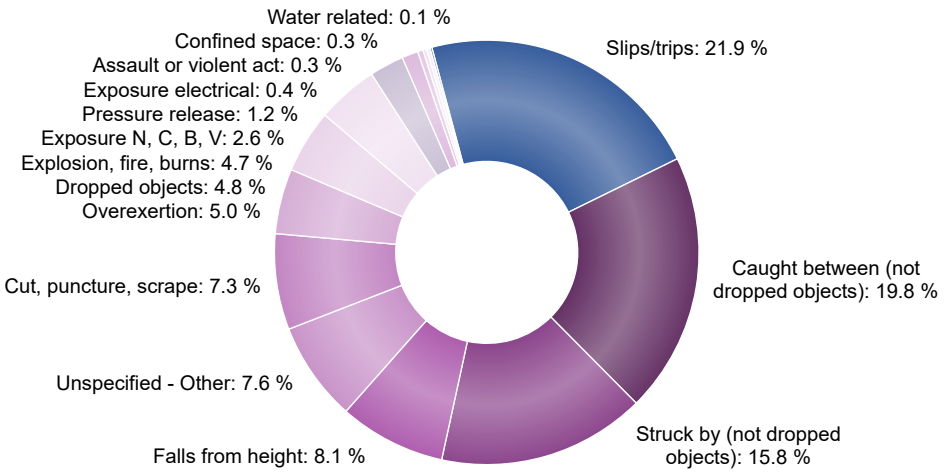


Table 11: Lost work day cases by cause - onshore & offshore (2024)

Cause	Onshore	Offshore
Assault or violent act	2	0
Caught in, under or between (excl. dropped objects)	89	100
Confined space	2	1
Cut, puncture, scrape	30	30
Dropped objects	25	16
Explosion, fire or burns	20	21
Exposure electrical	6	1
Exposure noise, chemical, biological, vibration, extreme temperature	18	9
Falls from height	51	29
Overexertion, strain	22	36
Pressure release	5	4
Slips and trips (at same height)	130	76
Struck by (not dropped object)	85	63
Water related, drowning	1	0
Unspecified - Other	27	47
OVERALL	513	433

Of the 946 reported LWDC resulting in at least one day off work, 513 incidents (54%) were related to onshore activity and 433 (46%) were related to offshore activity (429 and 321 respectively for 2023).

Figure 26:

Percentage of lost work day cases by cause - onshore (2024)

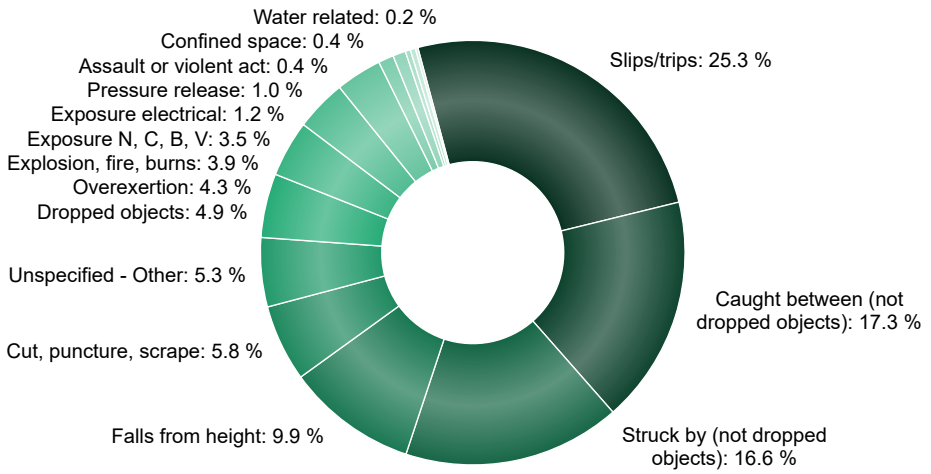
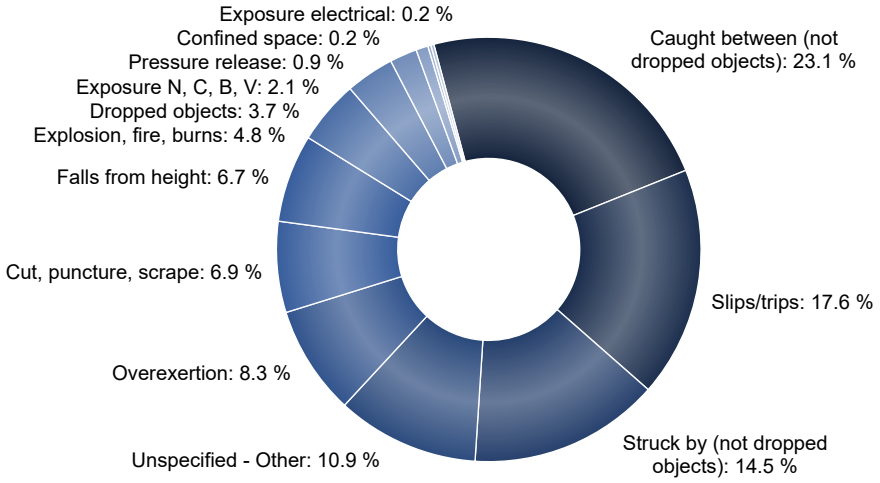


Figure 27:

Percentage of lost work day cases by cause - offshore (2024)



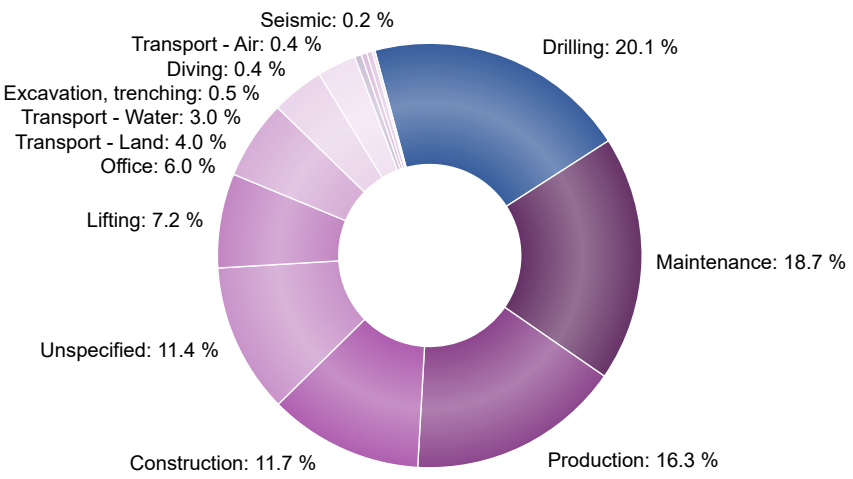
Lost work day case (LWDC) activities were reported for all of the 946 LWDC reported, although 11% of the cases were categorized as 'Unspecified - Other'.

Table 12: Lost work day cases by activity (2024)

Activity	Number	% of total
Construction, commissioning, decommissioning	111	11.7
Diving (incl. decompression), subsea, ROV	4	0.4
Drilling, workover, well operations	190	20.1
Excavation, trenching, ground disturbance	5	0.5
Lifting, crane, rigging, deck operations	68	7.2
Maintenance, inspection, testing	177	18.7
Office, warehouse, accommodation, catering	57	6.0
Production operations	154	16.3
Seismic/survey operations	2	0.2
Transport - Air	4	0.4
Transport - Land	38	4.0
Transport - Water, incl. marine activity	28	3.0
Unspecified - other	108	11.4
OVERALL	946	

Figure 28:

Percentage of lost work day cases by activity (2024)



Note that Excavation, trenching, ground disturbance was added as an activity in 2019.

Table 13: Lost work day cases by activity - company & contractor (2024)

Activity	Company	Contractor
Construction, commissioning, decommissioning	10	101
Diving (incl. decompression), subsea, ROV	0	4
Drilling, workover, well operations	31	159
Excavation, trenching, ground disturbance	0	5
Lifting, crane, rigging, deck operations	9	59
Maintenance, inspection, testing	46	131
Office, warehouse, accommodation, catering	14	43
Production operations	58	96
Seismic/survey operations	1	1
Transport - Air	1	3
Transport - Land	10	28
Transport - Water, incl. marine activity	5	23
Unspecified - other	35	73
OVERALL	220	726

Figure 29:

Percentage of lost work day cases by activity - company (2024)

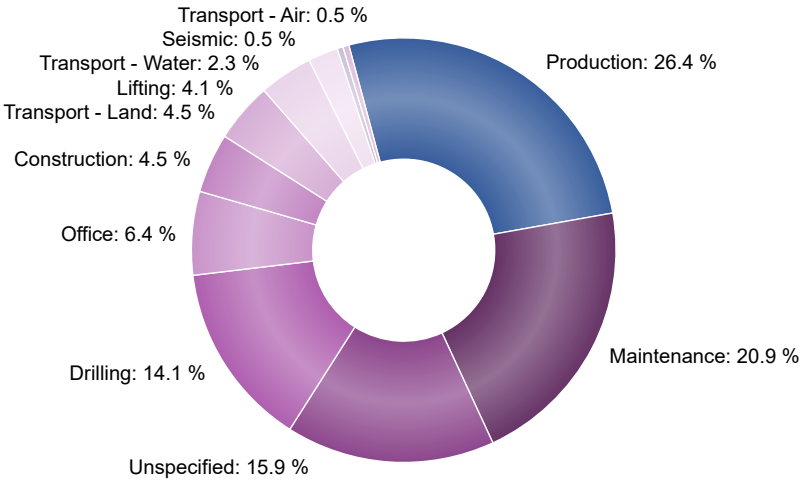


Figure 30:

Percentage of lost work day cases by activity - contractor (2024)

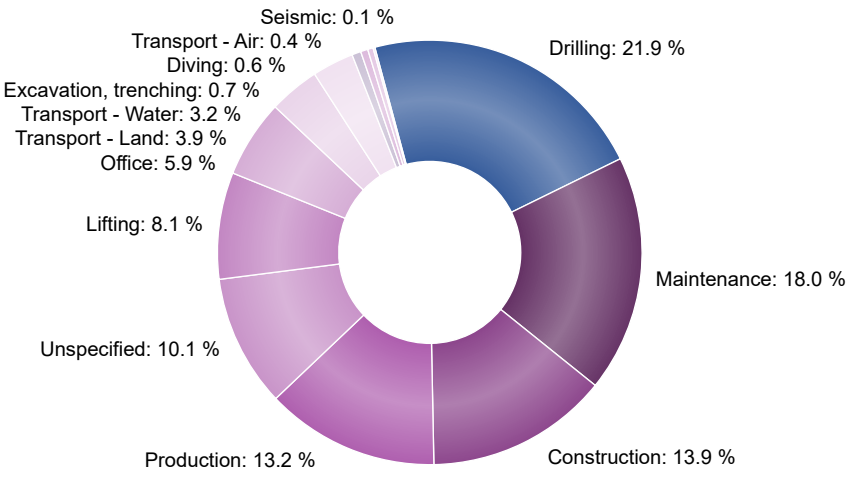


Table 14: Lost work day cases by activity - onshore & offshore (2024)

Activity	Onshore	Offshore
Construction, commissioning, decommissioning	95	16
Diving (incl. decompression), subsea, ROV	1	3
Drilling, workover, well operations	117	73
Excavation, trenching, ground disturbance	5	0
Lifting, crane, rigging, deck operations	19	49
Maintenance, inspection, testing	80	97
Office, warehouse, accommodation, catering	29	28
Production operations	86	68
Seismic/survey operations	0	2
Transport - Air	4	0
Transport - Land	35	3
Transport - Water, incl. marine activity	6	22
Unspecified - other	36	72
OVERALL	513	433

Figure 31:

Percentage of lost work day cases by activity - onshore (2024)

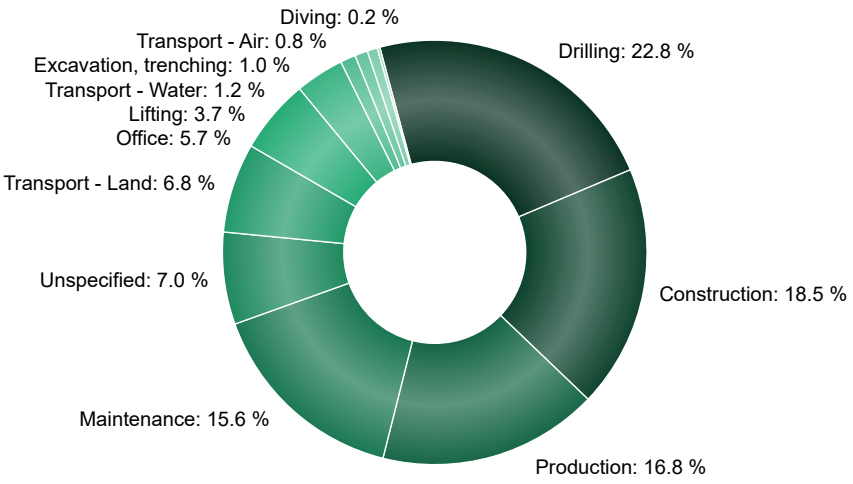
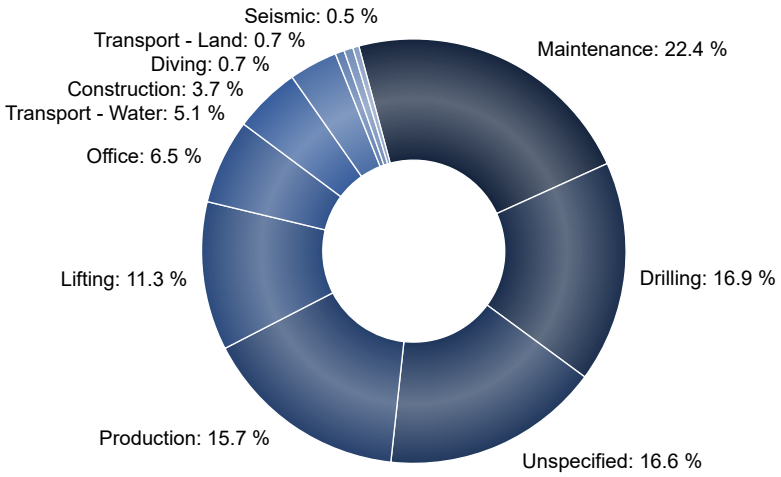


Figure 32:

Percentage of lost work day cases by activity - offshore (2024)



2.8 Severity of LWDC

For calculations of lost work day case (LWDC) severity:

- Submissions without information on days off work were filtered out, leaving a database of 3,507 million hours, 84% of the total database.
- In 2023, this database was 2,912 million hours, 88% of the total database.

IOGP Member Companies reported a total of 31,188 days lost (LWDC days) through injuries.

- The number of days lost was reported for 688 of the 946 lost work day cases reported.
- The offshore LWDC severity is 11% lower than onshore.
- The LWDC severity for contractors is 13% lower than for company employees.

Table 15: Severity of lost work day cases (2024 compared with 2019-2023)

	Severity of LWDC (average days lost per LWDC)			2024 relative to 2019-2023	2024 relative to 2023
	2019-2023	2023	2024		
OVERALL	47.5	50.0	45.3	5% lower	9% lower
Company	43.9	42.9	50.3	15% higher	17% higher
Contractor	48.6	52.5	43.6	10% lower	17% lower
Onshore	47.7	46.2	47.5	0.4% lower	3% higher
Offshore	47.2	56.1	42.3	10% lower	25% lower

Figure 33:

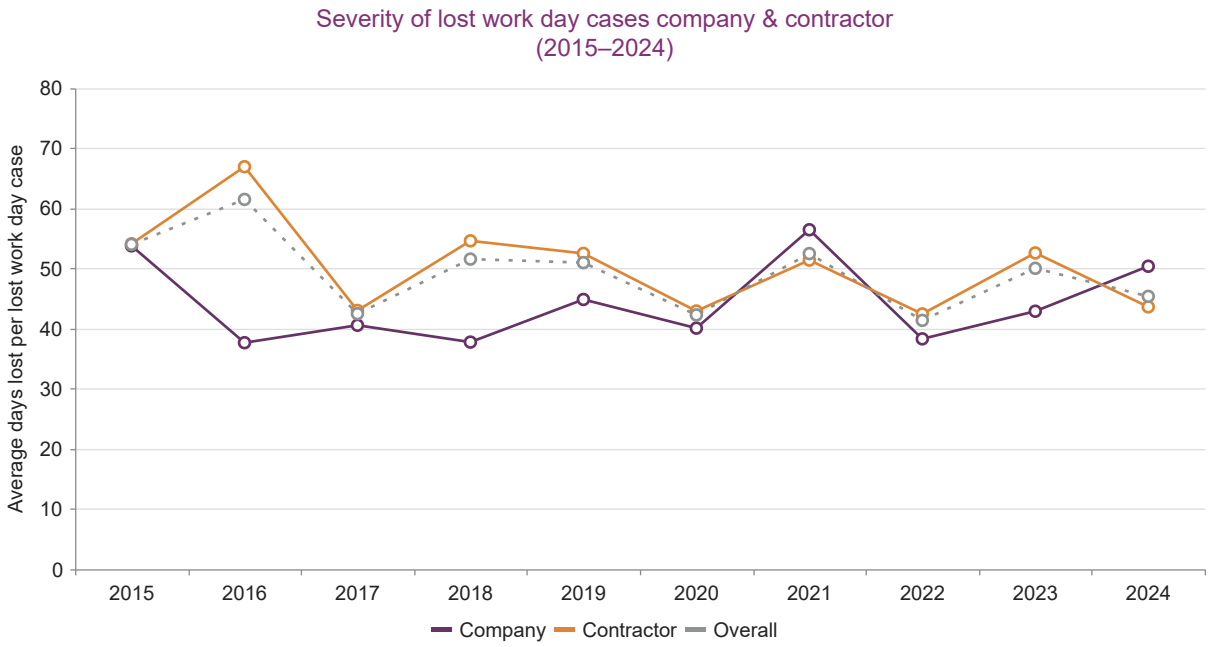
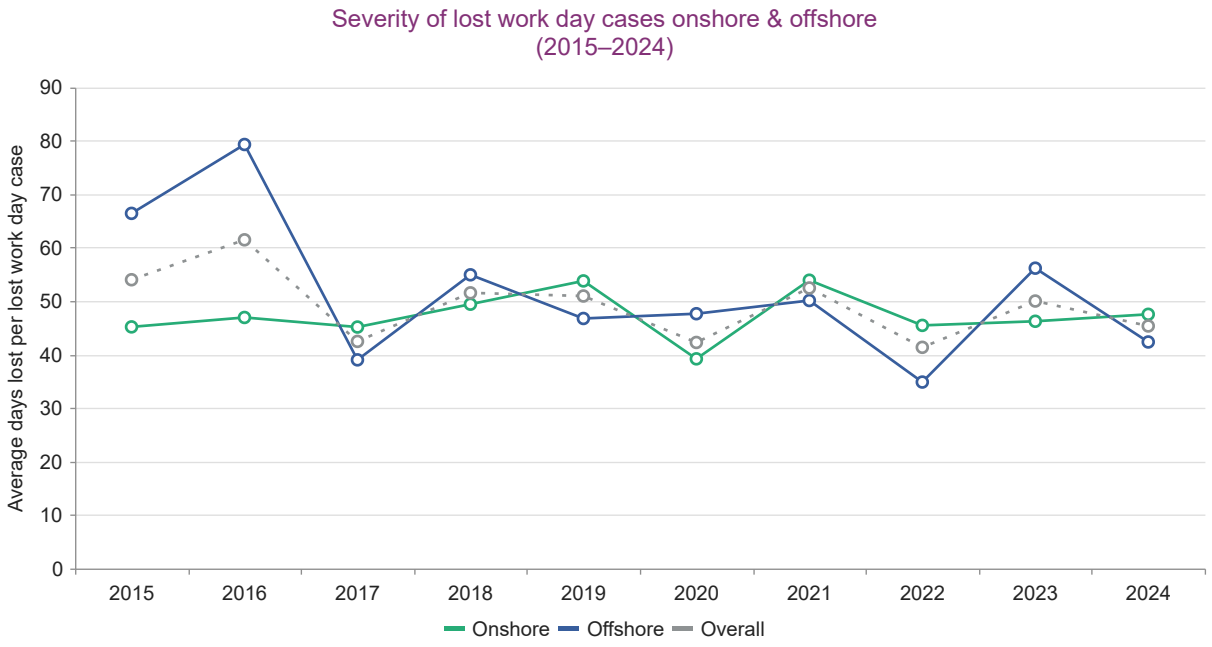
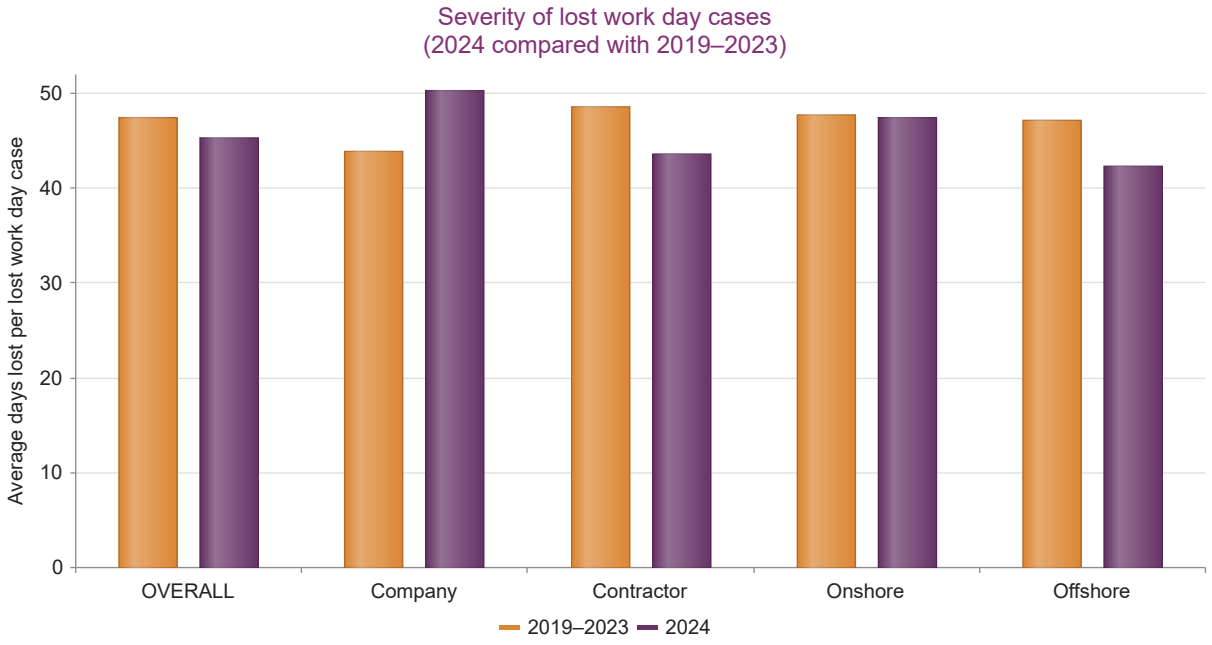


Figure 34:



The figure below shows the average number of days lost per LWDC in 2024 compared with the average for the previous five-year period. A 5% decrease is shown in overall LWDC severity when compared with the previous five-year period.

Figure 35:



2.9 Severity of RWDC

For calculations of restricted work day case (RWDC) severity:

- Submissions without information on days assigned to restricted activities were filtered out, leaving a database of 3,085 million hours (74% of the total database), and 628 restricted work day cases.
- In 2023, this database was 2,521 million hours, 77% of the total database.

In total, 21,072 days were restricted (RWDC days) as a result of restricted work day cases, in the sense that normal duties could not be performed.

See Appendix A and Appendix C.

Table 16: Severity of RWDC (2024 compared with 2019-2023)

	Severity of RWDC (average days restricted per RWDC)			2024 relative to 2019-2023	2024 relative to 2023
	2019-2023	2023	2024		
OVERALL	25.7	24.5	33.6	31% higher	37% higher
Company	29.9	23.0	30.0	0.3% higher	30% higher
Contractor	25.0	24.7	34.2	37% higher	38% higher
Onshore	26.7	25.3	33.1	24% higher	31% higher
Offshore	24.1	22.9	34.7	44% higher	52% higher

Figure 36:

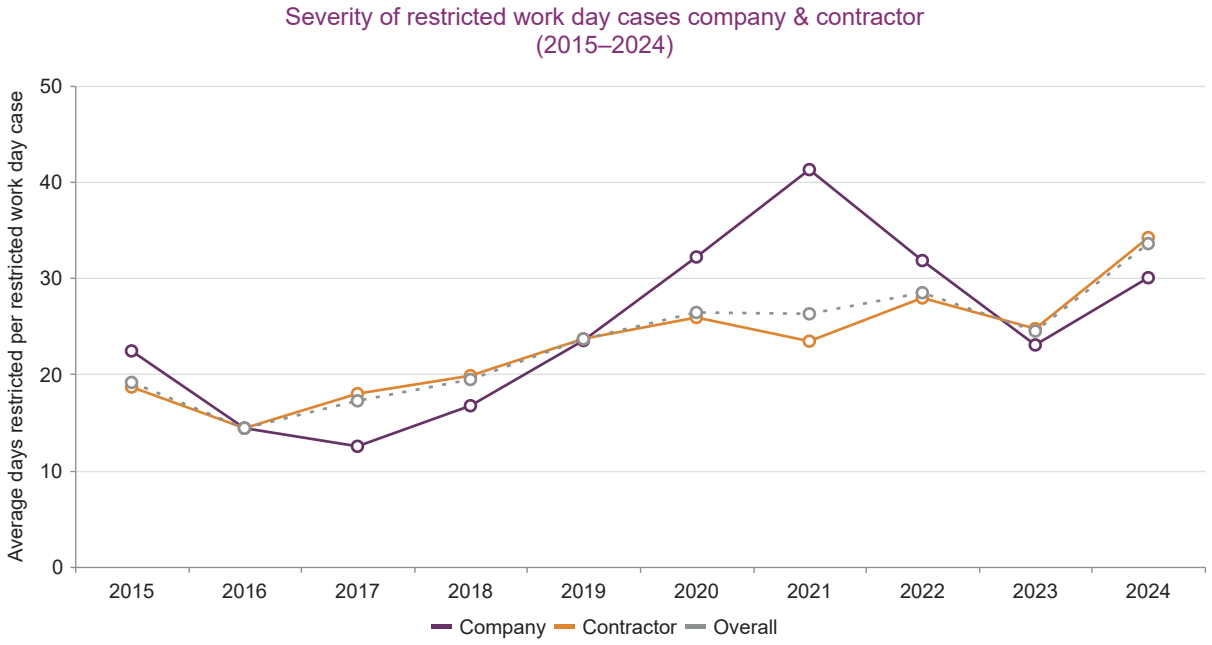
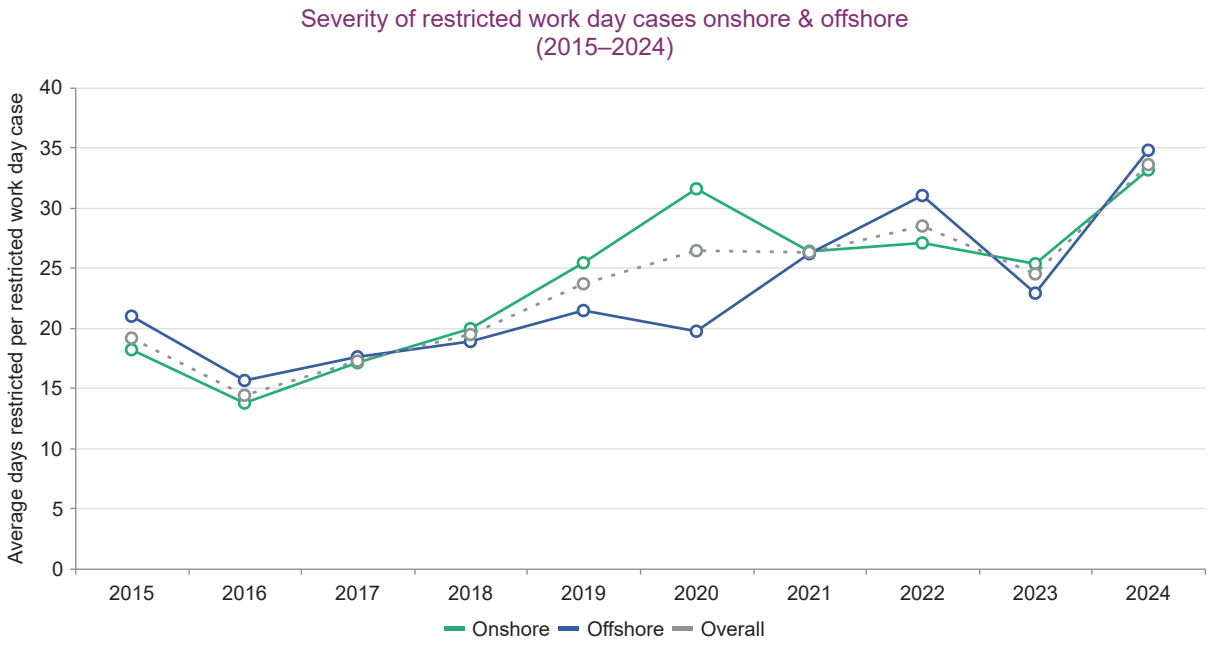
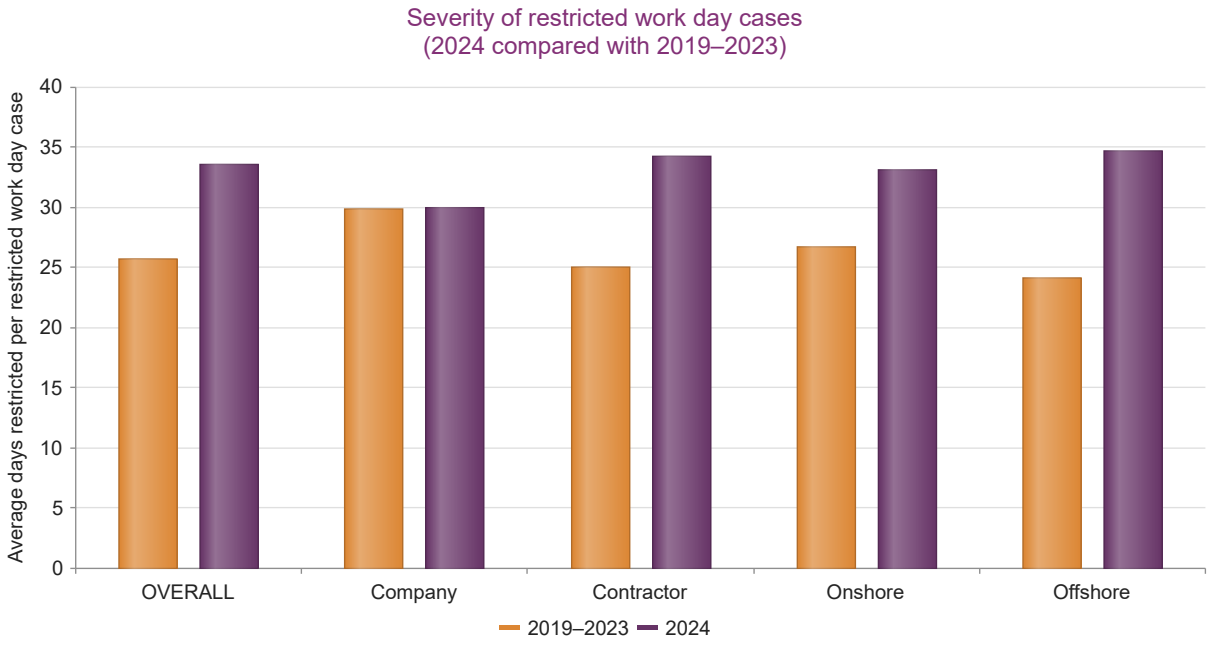


Figure 37:



The figure below shows the average number of days restricted per RWDC in 2024 compared with the average for the previous five-year period. The overall average shows an increase of 31% compared with the average for the previous five-year period.

Figure 38:



2.10 Incident triangles

In this section, the relative numbers of types of occupational injury are shown in the form of 'incident triangles'. The ratios have been corrected to account for the absence, in some data submissions, of medical treatment cases.

Table 17: Ratio of lost time injuries and recordable injuries to fatalities (2015-2024)

Year	Ratio of lost time injuries to fatalities	Ratio of total recordable injuries to fatalities
2024	31:1	96:1
2023	29:1	103:1
2022	22:1	69:1
2021	30:1	101:1
2020	40:1	122:1
2019	29:1	110:1
2018	26:1	98:1
2017	24:1	85:1
2016	16:1	60:1
2015	20:1	74:1

Definitions

Lost time injuries (LTI):

Lost work day cases and fatalities.

Total recordable injuries (TRI):

Fatalities, lost work day cases, restricted work day cases, and medical treatment cases where medical treatment cases are reported for the data set.

Ratio of lost time injuries to fatalities:

The number of lost time injuries divided by the total number of fatalities (lost time injuries/fatalities).

Ratio of total recordable injuries to fatalities:

The number of recordable injuries divided by the total number of fatalities (recordable injuries/fatalities).

Figure 39:

Incident triangles (2024)

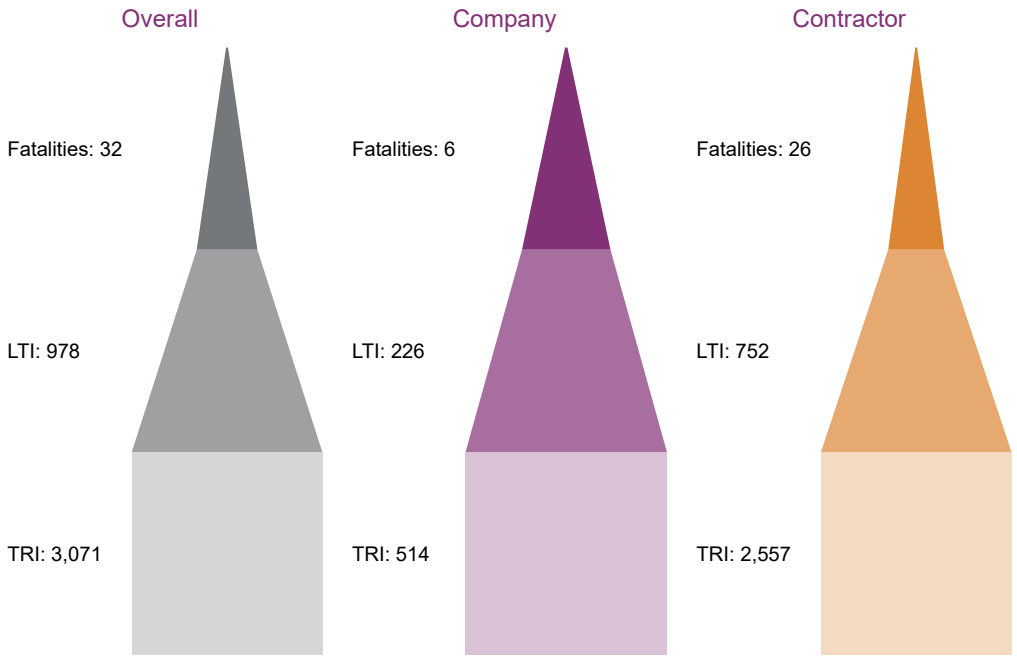
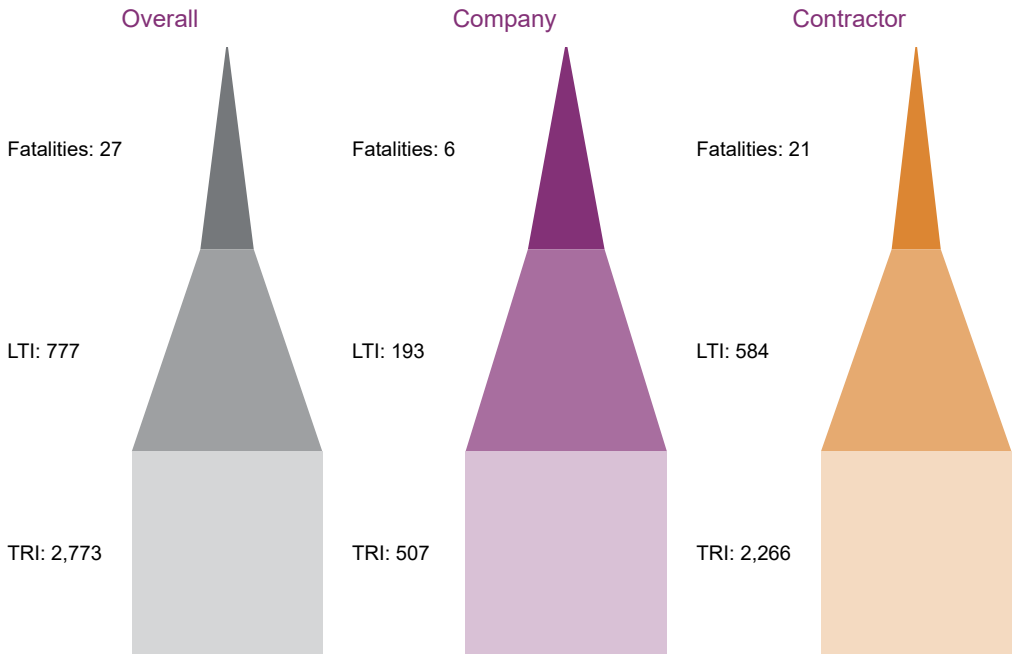


Figure 40:

Incident triangles (2023)



The varying ratio of fatalities to lost time injuries to recordable injuries for 2023-2024 challenges the traditional notion of recordable injuries and lost time injuries overall as a precursor to fatalities, as shown in the incident triangles.

Table 18: Ratio of fatalities to lost time injuries by cause (2024)

Cause	LTIs (fatalities + LWDCs)	Fatalities	Ratio (LTI:Fatality)
Assault or violent act	6	4	2:1
Water related, drowning	2	1	2:1
Explosion, fire or burns	54	13	4:1
Confined space	4	1	4:1
Exposure electrical	9	2	5:1
Falls from height	83	3	28:1
Struck by (not dropped object)	152	4	38:1
Dropped objects	42	1	42:1
Caught in, under or between (excl. dropped objects)	191	2	96:1
Slips and trips (at same height)	206	0	n/a
Unspecified - Other	74	0	n/a
Cut, puncture, scrape	60	0	n/a
Overexertion, strain	58	0	n/a
Exposure noise, chemical, biological, vibration, extreme temperature	27	0	n/a
Pressure release	9	0	n/a

Table 19: Ratio of fatalities to lost time injuries by activity (2024)

Activity	LTIs (fatalities + LWDCs)	Fatalities	Ratio (LTI:Fatality)
Transport - Air	5	1	5:1
Transport - Land	42	4	11:1
Drilling, workover, well operations	201	11	18:1
Production operations	161	7	23:1
Construction, commissioning, decommissioning	115	4	29:1
Lifting, crane, rigging, deck operations	70	2	35:1
Maintenance, inspection, testing	180	3	60:1
Unspecified - other	108	0	n/a
Office, warehouse, accommodation, catering	57	0	n/a
Transport - Water, incl. marine activity	28	0	n/a
Excavation, trenching, ground disturbance	5	0	n/a
Diving (incl. decompression), subsea, ROV	4	0	n/a
Seismic/survey operations	2	0	n/a

2.11 Causal factors

The allocation of 'causal factors' to fatal incidents and high potential events was requested as part of the data submission. IOGP first began recording causal factors in 2010. Users now have 14 years worth of data on this topic to use for comparisons.

To standardize the response, an IOGP glossary and list of causal factors was provided to Member Companies as part of the IOGP user guide. The causal factors list is divided into two sections:

- People (Acts) classifications usually involve either the actions of a person or actions which were required but not carried out or were incorrectly performed. There are four major categories of actions, with an additional level of detail under each of the major categories.
- Process (Conditions) classifications usually involve some type of physical hazard or organizational aspect out of the control of the individual. There are five major classification categories, with an additional level of detail under each of the major categories.

Definitions

High potential event

An event which could have, under slightly different circumstances, realistically resulted in a fatal incident.

2.12 Fatal incident causal factors

Causal factors are divided into two separate groups, People (Acts) and Process (Conditions), see Report 2024su *Safety data reporting user guide – 2024 data* and Glossary for details.

- 17 of the 21 fatal incidents reported were assigned causal factors (10 of 17 in 2023).
- 46 causal factors were assigned for the 17 fatal incidents (23 in 2023).
- Between 1 and 12 causal factors were assigned per incident (between 1 and 5 in 2023).

Table 20: Causal factors assigned to fatal incidents (2023 & 2024)

Causal factor group	2023	2024
PEOPLE (ACTS)	11	22
PROCESS (CONDITIONS)	12	24

The causal factors assigned to fatal incidents are shown in Table 21. The highlighted content indicates the top ten causal factors assigned to fatal incidents in 2024 compared with the previous 9 years. 3 of the causal factors were in the top ten for the 10 years shown, and for each of the 10 years for which data were reported.

Additional information on the fatal incidents reported by region can be found at https://data.iogp.org/Safety/FatalIncidents. The information provided includes a narrative description of the incident, the corrective actions and recommendations, and the causal factors assigned by the reporting company.

Table 21: Causal factors assigned to fatal incidents (2015 - 2024)

Causal factor	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total
PEOPLE (ACTS) : Following Procedures : Improper position (in the line of fire)	6	11	7	13	7	2	3	17	4	5	75
PROCESS (CONDITIONS) : Organizational : Inadequate hazard identification or risk assessment	11	10	10	15	9	1	5	6	3	3	73
PROCESS (CONDITIONS) : Organizational : Inadequate supervision	9	9	12	17	7	4	5	5	1	4	73
PEOPLE (ACTS) : Inattention/Lack of Awareness : Improper decision making or lack of judgment	10	13	9	14	9	2	6	4	0	4	71
PROCESS (CONDITIONS) : Organizational : Inadequate training/competence	11	6	4	11	3	3	3	4	2	1	48
PROCESS (CONDITIONS) : Organizational : Inadequate work standards/procedures	8	4	4	3	3	3	7	3	0	4	39
PEOPLE (ACTS) : Following Procedures : Deviation unintentional (by individual or group)	9	2	6	5	5	2	2	4	1	1	37
PEOPLE (ACTS) : Use of Protective Methods : Failure to warn of hazard	5	5	5	4	4	0	2	3	1	2	31
PROCESS (CONDITIONS) : Protective Systems : Inadequate/defective guards or protective barriers	4	2	8	4	4	0	3	4	0	1	30
PROCESS (CONDITIONS) : Organizational : Inadequate communication	6	3	1	5	3	3	2	5	0	1	29
PROCESS (CONDITIONS) : Tools, Equipment, Materials and Products : Inadequate design/specification/management of change	7	1	2	3	1	1	1	6	1	2	25
PROCESS (CONDITIONS) : Tools, Equipment, Materials and Products : Inadequate maintenance/inspection/testing	3	4	2	6	0	1	1	4	1	2	24
PEOPLE (ACTS) : Use of Tools, Equipment, Materials and Products : Improper use/position of tools/equipment/materials/products	4	3	4	4	1	1	2	1	0	3	23
PEOPLE (ACTS) : Inattention/Lack of Awareness : Lack of attention/distracted by other concerns/stress	4	6	4	1	4	1	0	2	0	1	23
PROCESS (CONDITIONS) : Tools, Equipment, Materials and Products : Inadequate/defective tools/equipment/materials/products	5	3	5	2	1	1	2	1	0	2	22
PEOPLE (ACTS) : Use of Tools, Equipment, Materials and Products : Servicing of energized equipment/inadequate energy isolation	3	2	3	2	2	2	1	5	1	1	22
PEOPLE (ACTS) : Following Procedures : Deviation intentional (by individual or group)	4	2	2	5	1	0	0	1	1	2	18
PEOPLE (ACTS) : Following Procedures : Improper lifting or loading	2	2	0	6	2	0	1	3	1	0	17
PEOPLE (ACTS) : Use of Protective Methods : Personal Protective Equipment not used or used improperly	6	1	2	1	2	0	2	1	1	0	16
PEOPLE (ACTS) : Use of Protective Methods : Equipment or materials not secured	3	2	1	4	2	0	2	1	0	0	15
PEOPLE (ACTS) : Following Procedures : Work or motion at improper speed	3	2	4	1	1	0	1	2	1	0	15
PROCESS (CONDITIONS) : Organizational : Poor leadership/organizational culture	2	0	6	3	0	1	1	0	0	1	14
PROCESS (CONDITIONS) : Protective Systems : Inadequate/defective warning systems/safety devices	4	2	1	2	1	0	1	1	1	1	14
PEOPLE (ACTS) : Use of Protective Methods : Inadequate use of safety systems	2	1	1	4	1	1	0	0	0	1	11
PROCESS (CONDITIONS) : Work Place Hazards : Congestion, clutter or restricted motion	3	1	1	2	0	0	1	3	0	0	11
PROCESS (CONDITIONS) : Work Place Hazards : Inadequate surfaces, floors, walkways or roads	4	3	0	0	0	1	0	0	1	0	9
PROCESS (CONDITIONS) : Organizational : Failure to report/learn from events	0	2	0	2	3	0	1	0	1	0	9
PEOPLE (ACTS) : Inattention/Lack of Awareness : Fatigue	2	1	2	0	1	0	1	1	0	1	9
PROCESS (CONDITIONS) : Protective Systems : Inadequate/defective Personal Protective Equipment	5	0	1	0	2	0	1	0	0	0	9
PROCESS (CONDITIONS) : Work Place Hazards : Hazardous atmosphere (explosive/toxic/asphyxiant)	1	1	1	0	0	0	0	1	1	2	7
PEOPLE (ACTS) : Use of Protective Methods : Disabled or removed guards, warning systems or safety devices	0	1	0	2	0	0	1	0	0	1	5
PROCESS (CONDITIONS) : Protective Systems : Inadequate security provisions or systems	3	0	1	1	0	0	0	0	0	0	5
PROCESS (CONDITIONS) : Work Place Hazards : Storms or acts of nature	1	1	1	1	0	0	0	0	0	0	4
PEOPLE (ACTS) : Following Procedures : Overexertion or improper position/posture for task	0	1	1	1	0	0	0	0	0	0	3
PEOPLE (ACTS) : Inattention/Lack of Awareness : Acts of violence	0	0	2	0	0	0	1	0	0	0	3
PEOPLE (ACTS) : Inattention/Lack of Awareness : Use of drugs or alcohol	0	0	1	0	0	0	1	0	0	0	2

Causal factors are listed in order of frequency for 2024. The top 10 causal factors assigned to fatal incidents for each year are highlighted.
2024: 6 causal factors were equal 7th with 2 assigned incidents (12 factors are highlighted)
2023: 14 causal factors were equal 4th with 1 assigned incident (17 factors are highlighted)
2022: 5 causal factors were equal 7th with 4 assigned incidents (11 factors are highlighted)
2021: 7 causal factors were equal 8th with 2 assigned incidents (14 factors are highlighted)
2020: 9 causal factors were equal 9th with 1 assigned incident (17 factors are highlighted)
2019: 4 causal factors were equal 9th with 3 assigned incidents (12 factors are highlighted)
2017: 5 causal factors were equal 10th with 4 assigned incidents (14 factors are highlighted)
2016: 4 causal factors were equal 10th with 3 assigned incidents (13 factors are highlighted)

2.13 High potential event causal factors

High potential events are defined as 'an event which could have, under slightly different circumstances, realistically resulted in a fatal incident'. Participating companies are invited to submit a small number of high potential event reports and to select those with the greatest learning value. The data reported here therefore do not represent the total number of events for the participating companies, so care should be taken in interpreting the data presented in this section.

- 156 of the 159 high potential events reported were assigned causal factors (127 of 131 in 2023).
- 602 causal factors were assigned for the 156 high potential events (398 in 2023).
- Between 1 and 12 causal factors were assigned per event (between 1 and 13 in 2023).

Table 22: Causal factors assigned to high potential events (2023 & 2024)

Causal factor group	2023	2024
PEOPLE (ACTS)	148	236
PROCESS (CONDITIONS)	250	366

The causal factors assigned to high potential events are shown in Table 23. The highlighted content indicates the top ten causal factors assigned to high potential events in 2024 compared with the previous 9 years. 4 of the causal factors were in the top ten for the 10 years shown.

Additional information on the high potential events reported by region can be found at https://data.iogp.org/Safety/HighPotentialEvents. The information provided includes a narrative description of the incident, the corrective actions and recommendations, and the causal factors assigned by the reporting company.

Table 23: Causal factors assigned to high potential events (2015 - 2024)

Causal factor	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total
PROCESS (CONDITIONS) : Organizational : Inadequate hazard identification or risk assessment	66	116	54	48	60	29	35	43	44	72	567
PROCESS (CONDITIONS) : Organizational : Inadequate work standards/procedures	40	80	49	36	38	26	31	37	41	61	439
PROCESS (CONDITIONS) : Tools, Equipment, Materials and Products : Inadequate design/specification/management of change	30	68	40	33	24	14	38	24	26	29	326
PEOPLE (ACTS) : Inattention/Lack of Awareness : Improper decision making or lack of judgment	33	81	36	29	38	14	20	17	25	16	309
PROCESS (CONDITIONS) : Tools, Equipment, Materials and Products : Inadequate maintenance/inspection/testing	37	54	28	27	23	25	31	22	23	34	304
PROCESS (CONDITIONS) : Organizational : Inadequate training/competence	33	47	30	33	29	23	18	14	29	30	286
PROCESS (CONDITIONS) : Organizational : Inadequate supervision	25	44	26	28	29	16	17	21	16	34	256
PEOPLE (ACTS) : Use of Tools, Equipment, Materials and Products : Improper use/position of tools/equipment/materials/products	21	58	23	20	22	18	19	15	10	29	235
PROCESS (CONDITIONS) : Tools, Equipment, Materials and Products : Inadequate/defective tools/equipment/materials/products	19	57	21	20	29	15	23	11	16	19	230
PEOPLE (ACTS) : Following Procedures : Deviation unintentional (by individual or group)	25	58	18	16	21	15	11	14	23	23	224
PROCESS (CONDITIONS) : Organizational : Inadequate communication	21	39	22	15	30	18	15	17	17	23	217
PEOPLE (ACTS) : Following Procedures : Improper position (in the line of fire)	12	35	8	14	10	7	6	6	15	80	193
PROCESS (CONDITIONS) : Protective Systems : Inadequate/defective guards or protective barriers	18	51	14	16	22	10	12	9	6	23	181
PEOPLE (ACTS) : Use of Protective Methods : Equipment or materials not secured	14	62	13	10	13	11	5	11	12	10	161
PEOPLE (ACTS) : Inattention/Lack of Awareness : Lack of attention/distracted by other concerns/stress	8	48	21	16	8	7	9	9	10	7	143
PEOPLE (ACTS) : Use of Protective Methods : Failure to warn of hazard	9	40	11	12	7	10	12	11	9	16	137
PEOPLE (ACTS) : Following Procedures : Improper lifting or loading	6	34	3	5	9	8	11	8	8	17	109
PROCESS (CONDITIONS) : Protective Systems : Inadequate/defective warning systems/safety devices	15	17	7	10	13	7	7	6	10	7	99
PEOPLE (ACTS) : Following Procedures : Deviation intentional (by individual or group)	14	24	9	4	12	2	7	2	8	12	94
PEOPLE (ACTS) : Use of Protective Methods : Inadequate use of safety systems	10	19	7	15	6	8	5	10	5	6	91
PROCESS (CONDITIONS) : Organizational : Poor leadership/organizational culture	13	15	14	13	5	3	3	4	3	12	85
PEOPLE (ACTS) : Use of Tools, Equipment, Materials and Products : Servicing of energized equipment/inadequate energy isolation	9	19	6	10	7	5	5	6	7	8	82
PROCESS (CONDITIONS) : Organizational : Failure to report/learn from events	7	13	4	5	6	4	5	3	7	4	58
PEOPLE (ACTS) : Use of Protective Methods : Personal Protective Equipment not used or used improperly	11	9	3	4	5	2	4	3	5	3	49
PROCESS (CONDITIONS) : Work Place Hazards : Storms or acts of nature	2	17	1	3	1	2	7	2	7	5	47
PROCESS (CONDITIONS) : Work Place Hazards : Hazardous atmosphere (explosive/toxic/asphyxiant)	5	17	1	6	4	3	1	2	4	4	47
PROCESS (CONDITIONS) : Work Place Hazards : Inadequate surfaces, floors, walkways or roads	2	15	4	3	0	0	6	1	0	5	36
PEOPLE (ACTS) : Use of Protective Methods : Disabled or removed guards, warning systems or safety devices	1	9	1	1	5	1	5	3	5	2	33
PROCESS (CONDITIONS) : Work Place Hazards : Congestion, clutter or restricted motion	2	11	5	4	3	1	1	2	0	3	32
PEOPLE (ACTS) : Inattention/Lack of Awareness : Fatigue	2	5	2	3	3	1	4	2	3	2	27
PEOPLE (ACTS) : Following Procedures : Work or motion at improper speed	2	4	3	1	1	2	2	2	3	4	24
PROCESS (CONDITIONS) : Protective Systems : Inadequate security provisions or systems	4	4	1	4	0	2	1	4	0	0	20
PROCESS (CONDITIONS) : Protective Systems : Inadequate/defective Personal Protective Equipment	3	2	3	1	3	0	1	1	1	1	16
PEOPLE (ACTS) : Following Procedures : Overexertion or improper position/posture for task	1	1	2	2	1	2	2	1	0	1	13
PEOPLE (ACTS) : Inattention/Lack of Awareness : Acts of violence	2	2	0	0	0	0	0	0	0	0	4
PEOPLE (ACTS) : Inattention/Lack of Awareness : Use of drugs or alcohol	0	1	0	0	0	0	0	0	0	0	1

Causal factors are listed in order of frequency for 2024. The top 10 causal factors assigned to high potential events for each year are highlighted.
2024: 3 causal factors were equal 9th with 23 assigned events (11 factors are highlighted)
2020: 2 causal factors were equal 10th with 14 assigned events (11 factors are highlighted)
2019: 2 causal factors were equal 10th with 22 assigned events (11 factors are highlighted)
2018: 3 causal factors were equal 10th with 16 assigned events (12 factors are highlighted)
2017: 2 causal factors were equal 10th with 21 assigned events (11 factors are highlighted)

2.14 Life-Saving Rules

In 2010, IOGP released IOGP Report 459 - *Life-Saving Rules*, intended for use by the oil and gas industry to mitigate risk and reduce fatalities. Each IOGP Life-Saving Rule consisted of a simple icon and descriptive text, providing clear, simple, and consistent communication about risks in the workplace.

These Rules were developed by using the fatal incident and high potential event data from the 1991 to 2010 Safety Performance Indicators Reports to identify the events and activities that are the highest risk and therefore provide clear instructions on how to avoid them.

In 2018, IOGP re-examined the applicability of the 2010 Rules against the most recent fatality data. With the 2018 revision of Report 459, IOGP launched a simplified set of Life-Saving Rules (Figure 41) to provide workers in the industry with the actions they can take to protect themselves and their colleagues from fatalities. With a reduced number of rules (9 reduced from 18), but still covering a similar scope, IOGP aims to improve the level of industry-wide adoption across the global oil and gas industry.

Figure 41: Life-Saving Rules (from IOGP Report 459)

In 2021, IOGP released IOGP Report 459-1 - *Life-Saving Rules – Start Work Checks*, a set of standardized and simplified checklists of safeguards that workers complete at the job location immediately before work commences. The Start Work Checks are supplemental to the Life-Saving Rules (Report 459).

Assessment of the applicability of the IOGP Life-Saving Rules to fatal incident descriptions for 2024 data has shown that at least 86% of the fatal incidents reported are covered by the IOGP Life-Saving Rules and may have been prevented by the adoption of this system.

Incidents where there was no applicable rule have been excluded from figure 42.

Figure 42:

Percentage of Life-Saving Rules allocated to fatal incidents where a rule was allocated (2024)

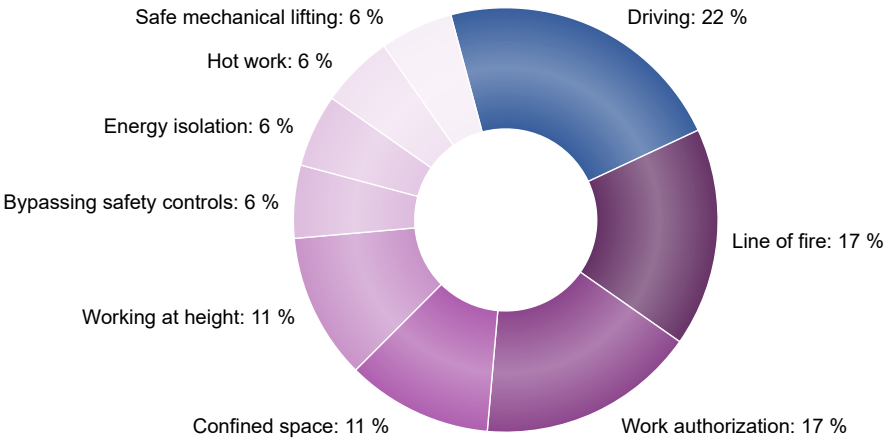
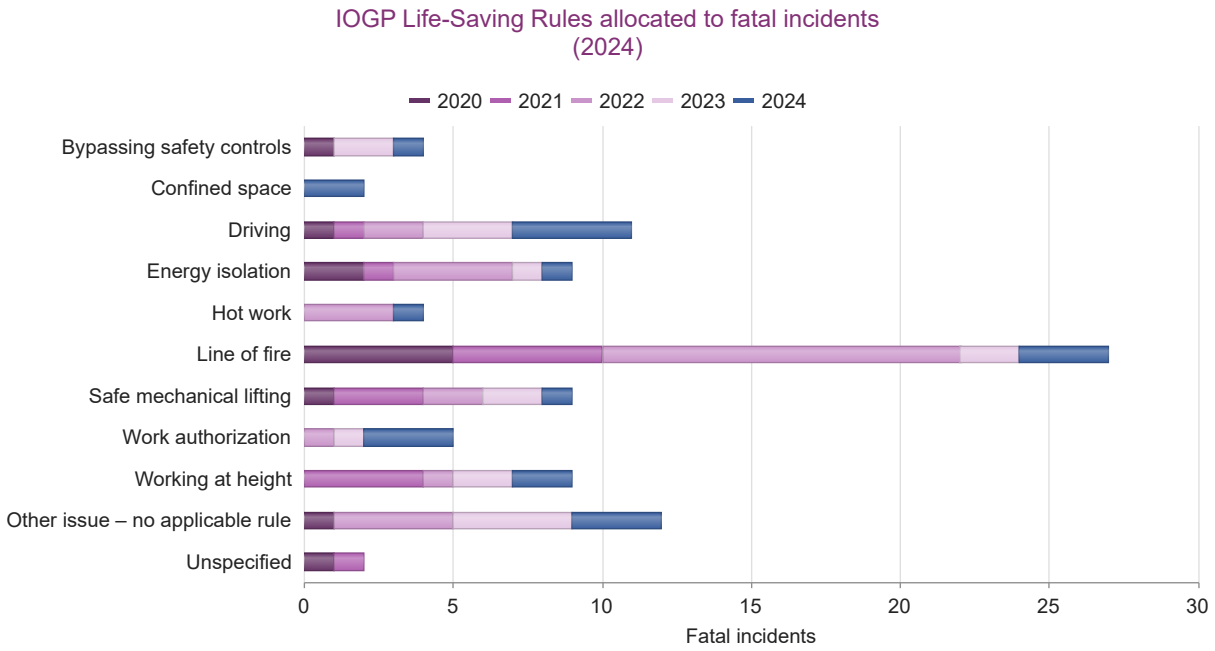


Table 24: IOGP Life-Saving Rules allocated to fatal incidents (2024)

Life-Saving Rule	Fatal incidents				
	2020	2021	2022	2023	2024
Bypassing safety controls	1	0	0	2	1
Confined space	0	0	0	0	2
Driving	1	1	2	3	4
Energy isolation	2	1	4	1	1
Hot work	0	0	3	0	1
Line of fire	5	5	12	2	3
Safe mechanical lifting	1	3	2	2	1
Work authorization	0	0	1	1	3
Working at height	0	4	1	2	2
Other issue – no applicable rule	1	0	4	4	3
Unspecified	1	1	0	0	0

Figure 43:


IOGP Life-Saving Rules allocated to fatal incidents (2024)
2020
2021
2022
2023
2024
Bypassing safety controls
Confined space
Driving
Energy isolation
Hot work
Line of fire
Safe mechanical lifting
Work authorization
Working at height
Other issue – no applicable rule
Unspecified
0
5
10
15
20
25
30
Fatal incidents

Assessment of the applicability of the IOGP Life-Saving Rules to lost work day cases (LWDC) for 2024 data has shown that at least 45% of the LWDC reported are covered by the IOGP Life-Saving Rules and may have been prevented by the adoption of this system.

Incidents where there was no applicable rule have been excluded from figure 44.

Figure 44:

Percentage of Life-Saving Rules allocated to lost work day cases where a rule was allocated (2024)

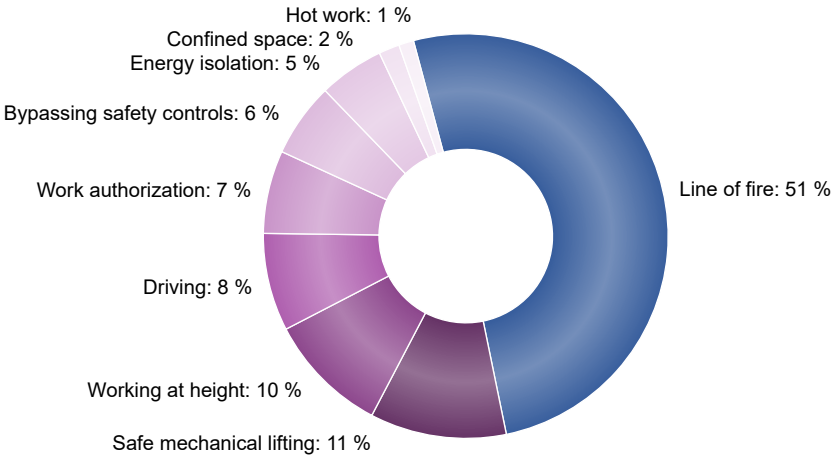
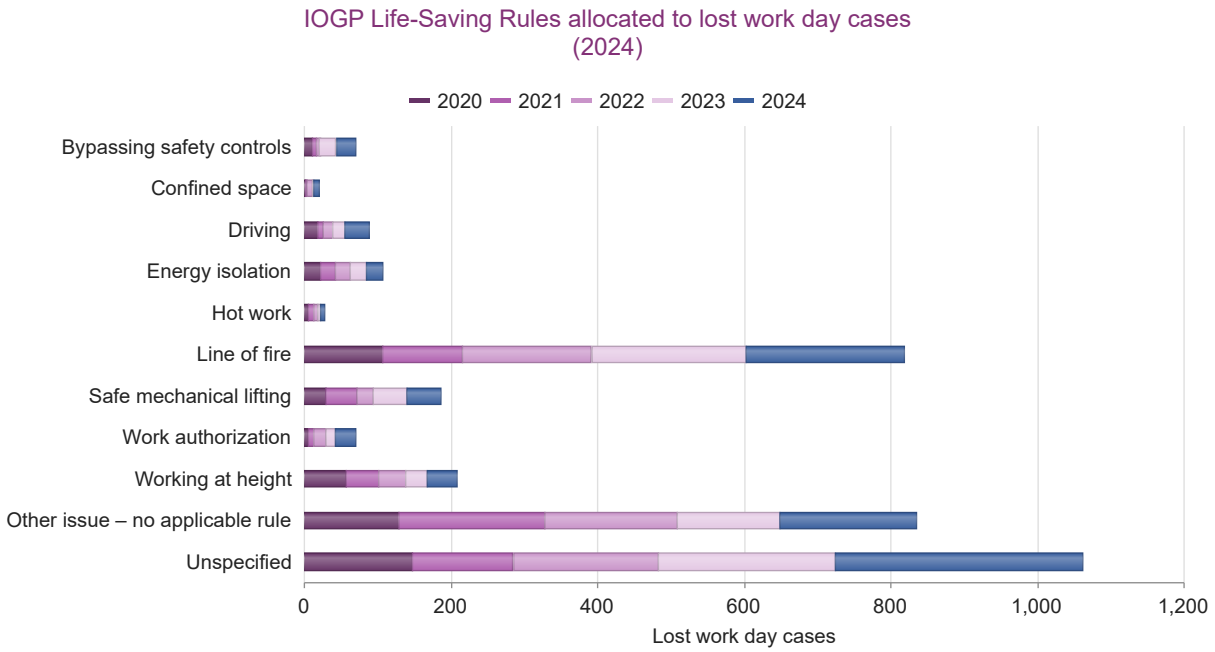


Table 25: IOGP Life-Saving Rules allocated to Lost work day cases (2024)

Life-Saving Rule	Lost work day cases				
	2020	2021	2022	2023	2024
Bypassing safety controls	11	5	5	23	25
Confined space	2	2	7	2	7
Driving	19	7	13	16	33
Energy isolation	22	20	20	22	22
Hot work	6	7	6	4	5
Line of fire	107	109	176	210	215
Safe mechanical lifting	29	42	23	47	46
Work authorization	5	7	17	13	28
Working at height	57	44	37	30	41
Other issue – no applicable rule	129	200	180	140	186
Unspecified	148	137	198	241	338

Figure 45:



See Appendix B - Section 2 for data tables.

3. Results by region

In this section, the safety performance of the contributing IOGP Member Companies is presented for regions and individual countries within those regions.

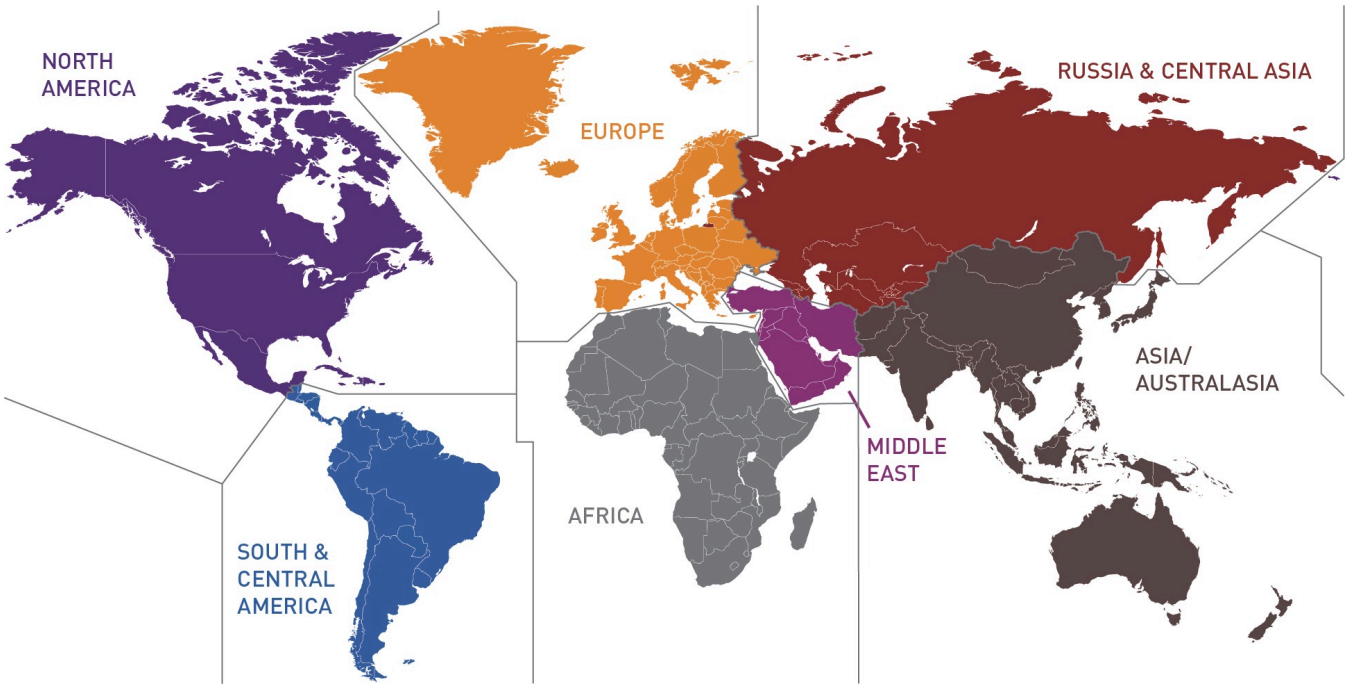
Indicators used to measure contributing IOGP Member Companies' safety performance are:

- number of fatalities
- fatal accident rate (FAR)
- total recordable injury rate (TRIR)
- lost time injury rate (LTIR)
- FAR, TRIR, and LTIR five-year rolling averages
- severity of lost work day cases (LWDC)
- individual country performance
- incident triangles by region
- fatalities by incident category and activity

Third party fatalities are not included in this analysis.

Maps showing the division of countries into regions, and the work hours and number of participating companies by country, are provided in Appendix D.

Countries and companies that are subject to international sanctions (Russia and Iran) are not featured in this Report for 2022-2024 data.



Definitions

Fatal accident rate (FAR):

The number of company/contractor fatalities per 100 million hours worked.

Fatal incidents per 100 million work hours (FIR):

The number of incidents that result in one or more fatalities per 100 million hours worked.

Total recordable injury rate (TRIR)

The number of recordable injuries (fatalities + lost work day cases + restricted work day cases + medical treatment cases (MTC)) per million hours worked. Note when MTC are not reported by a company for a country the associated fatalities, lost work day cases and restricted work day cases are excluded from TRIR calculations.

Lost time injury rate (LTIR)

The number of lost time injuries (fatalities + lost work day cases) per million hours worked.

Five-year rolling average

The five-year rolling average is calculated by summing the total number of incidents for the five previous years and dividing by the sum of the work hours for these years. The number series involved in the calculation is frame shifted along by one each year, e.g., 2024 will be calculated from 2020-2024 data. For example, the five-year rolling average FAR for 2024 is calculated by:

$$\frac{\text{(Number of fatalities in 2020+2021+2022+2023+2024)}}{\text{(Total work hours in 2020+2021+2022+2023+2024) / 100,000,000}}$$

Lost work day case (LWDC)

An incident resulting in at least one day off work. Fatal incidents are not included.

LWDC Severity

The average number of days lost (where reported) for each lost work day case.

3.1 Fatalities

Table 26 shows the number of atalities, fatal incidents, and fatal accident rate in each of the seven regions into which the data are partitioned.

Table 26: Fatalities, fatal incidents, and fatal accident rate by region (2023 - 2024)

Region	Fatalities		Fatal accident rate (FAR)		Fatal incidents	
	2023	2024	2023	2024	2023	2024
Africa	5	8	1.29	1.67	4	3
Asia/Australasia	11	3	1.94	0.34	5	2
Europe	0	1	0.00	0.43	0	1
Middle East	4	9	0.40	0.77	3	6
North America	3	7	0.78	0.93	3	5
Russia & Central Asia	4	2	1.29	0.88	2	2
South & Central America	0	2	0.00	0.48	0	2
OVERALL	27	32	0.82	0.77	17	21

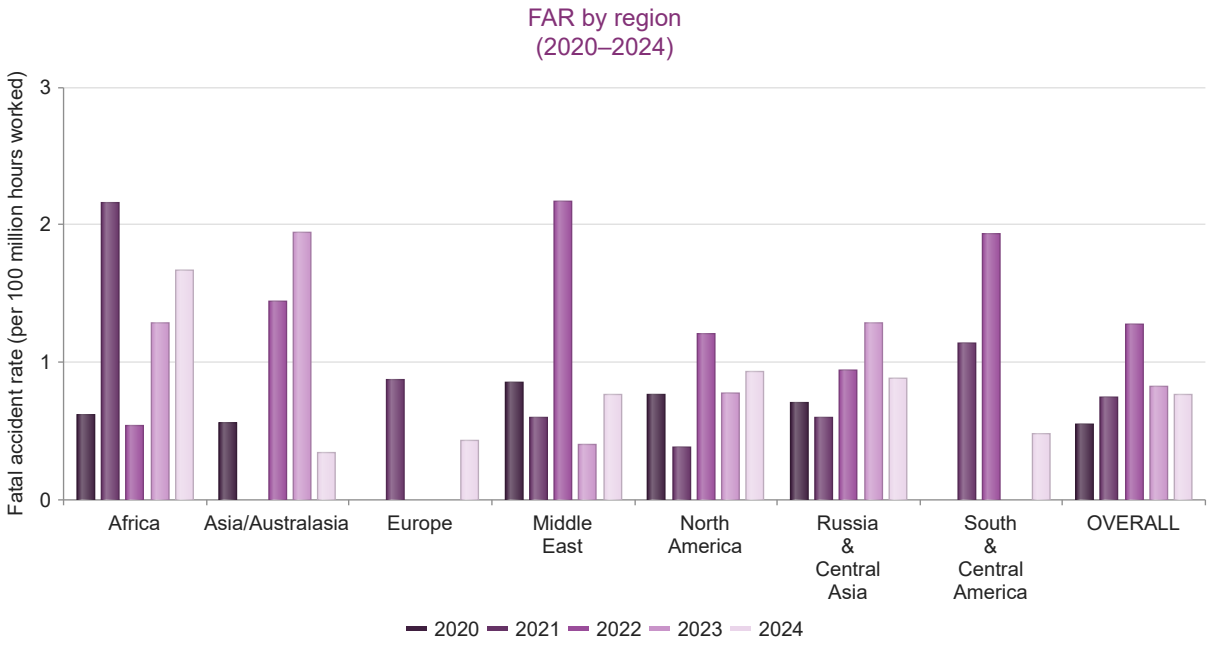
3.2 Fatal accident rate

Further fatal accident rate (FAR) analysis is presented in Section 3.5, where five-year rolling averages of FAR are presented for each of the regions.

Table 27: Fatal accident rate by region (2020 - 2024)

Region	Fatal accident rate (FAR)				
	2020	2021	2022	2023	2024
Africa	0.62	2.16	0.54	1.29	1.67
Asia/Australasia	0.56	0.00	1.44	1.94	0.34
Europe	0.00	0.87	0.00	0.00	0.43
Middle East	0.85	0.60	2.17	0.40	0.77
North America	0.77	0.38	1.21	0.78	0.93
Russia & Central Asia	0.71	0.60	0.94	1.29	0.88
South & Central America	0.00	1.14	1.93	0.00	0.48
OVERALL	0.55	0.75	1.28	0.82	0.77

Figure 46:



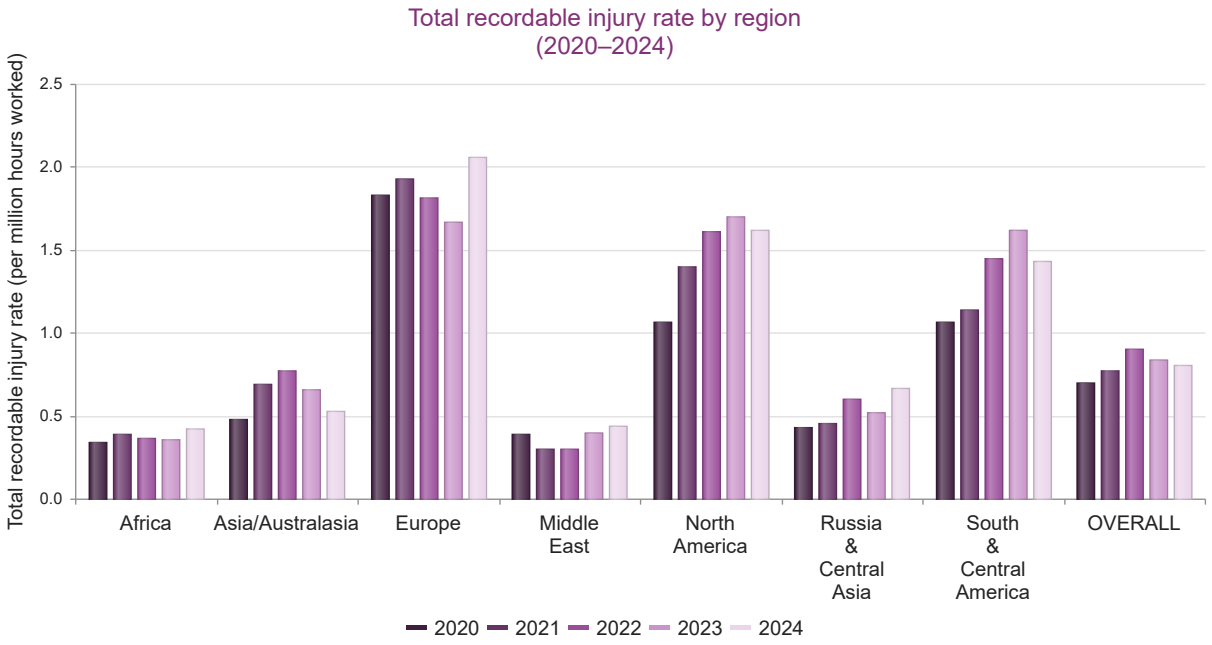
3.3 Total recordable injury rate

Submissions without information on medical treatment cases were filtered out, leaving a database of 3,794 million hours (91% of the database). See Appendix A – Database dimensions.

Table 28: Total recordable injury rate by region (2020 - 2024)

Region	Total recordable injury rate (TRIR)				
	2020	2021	2022	2023	2024
Africa	0.34	0.39	0.37	0.36	0.42
Asia/Australasia	0.48	0.69	0.77	0.66	0.53
Europe	1.83	1.93	1.82	1.67	2.06
Middle East	0.39	0.30	0.30	0.40	0.44
North America	1.07	1.40	1.61	1.70	1.62
Russia & Central Asia	0.43	0.46	0.60	0.52	0.67
South & Central America	1.07	1.14	1.45	1.62	1.43
OVERALL	0.70	0.77	0.90	0.84	0.81

Figure 47:



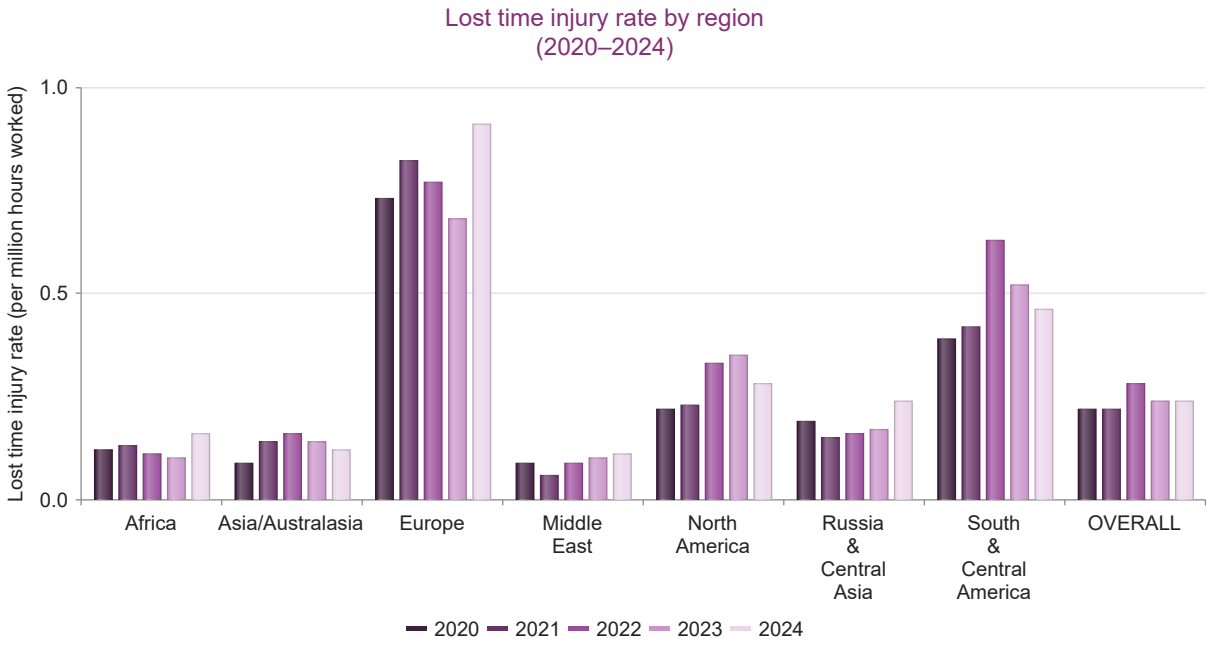
3.4 Lost time injury rate

Further analysis of the lost time injuries is presented in Section 3.5, where five-year rolling averages of lost time injury rate (LTIR) are presented for each of the regions.

Table 29: Lost time injury rate by region (2020 - 2024)

Region	Lost time injury rate (LTIR)				
	2020	2021	2022	2023	2024
Africa	0.12	0.13	0.11	0.10	0.16
Asia/Australasia	0.09	0.14	0.16	0.14	0.12
Europe	0.73	0.82	0.77	0.68	0.91
Middle East	0.09	0.06	0.09	0.10	0.11
North America	0.22	0.23	0.33	0.35	0.28
Russia & Central Asia	0.19	0.15	0.16	0.17	0.24
South & Central America	0.39	0.42	0.63	0.52	0.46
OVERALL	0.22	0.22	0.28	0.24	0.24

Figure 48:



3.5 FAR, TRIR, and LTIR five-year rolling averages

In order to smooth out variability in the annual values for the regional FAR, TRIR, and LTIR, five-year rolling averages are computed, which should provide a more reliable indicator of performance trends.

The figures show FAR, TRIR, and LTIR 5-year rolling averages for each of the regions and includes the 'overall' curve.

Figure 49:

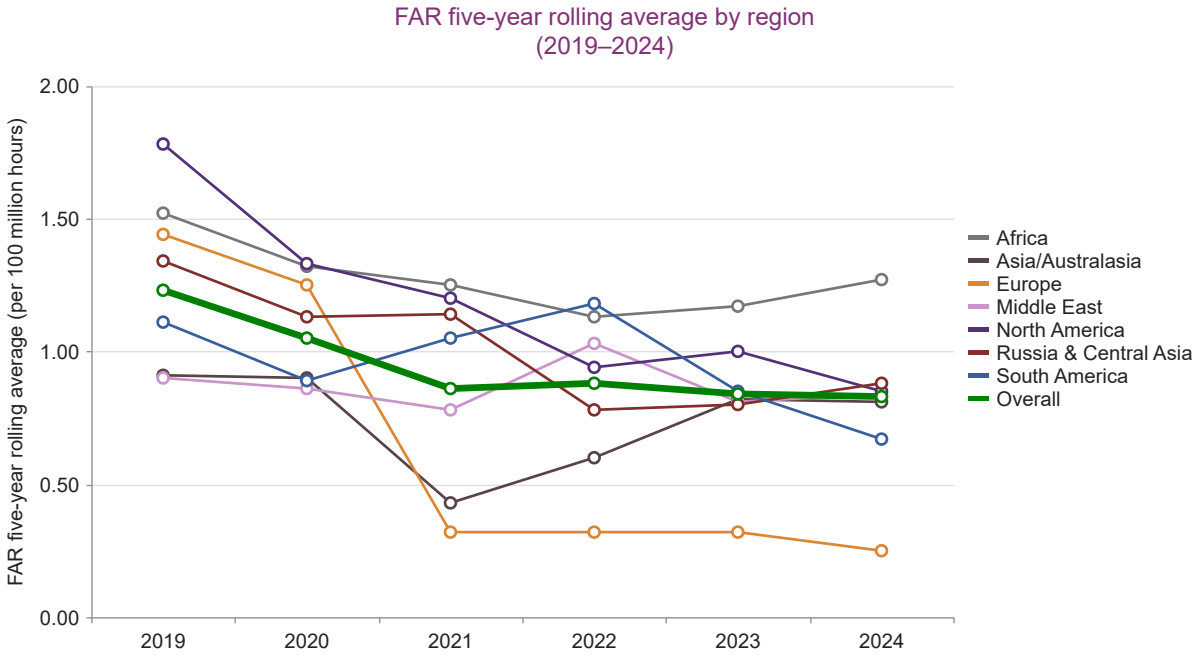


Figure 50:

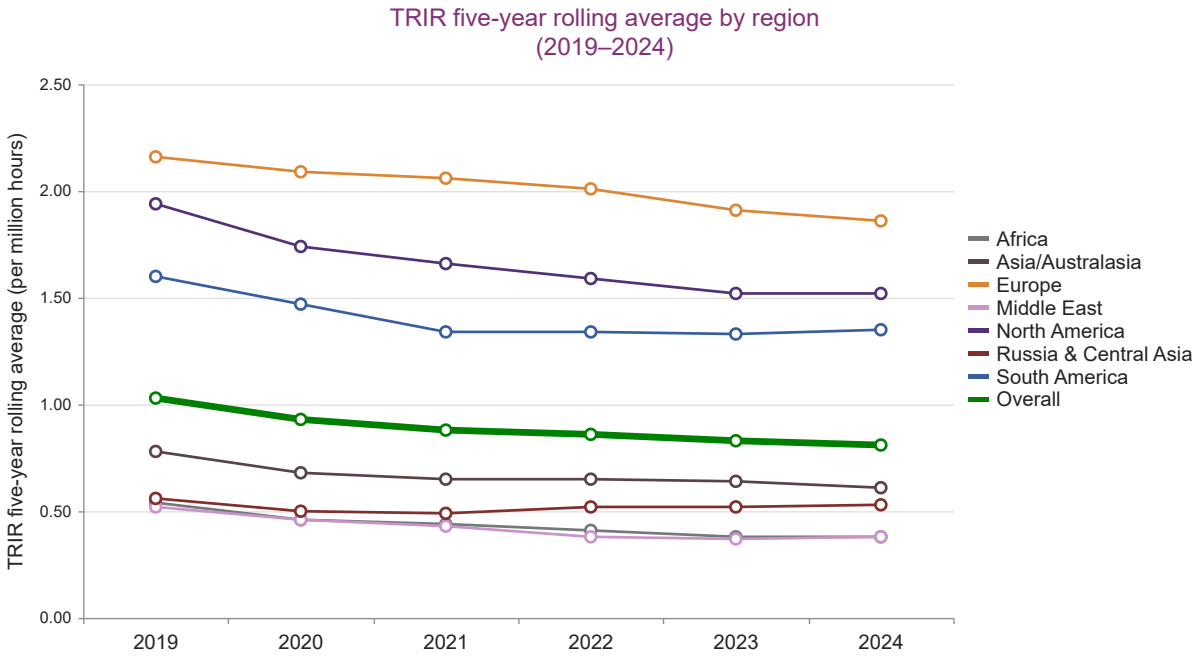
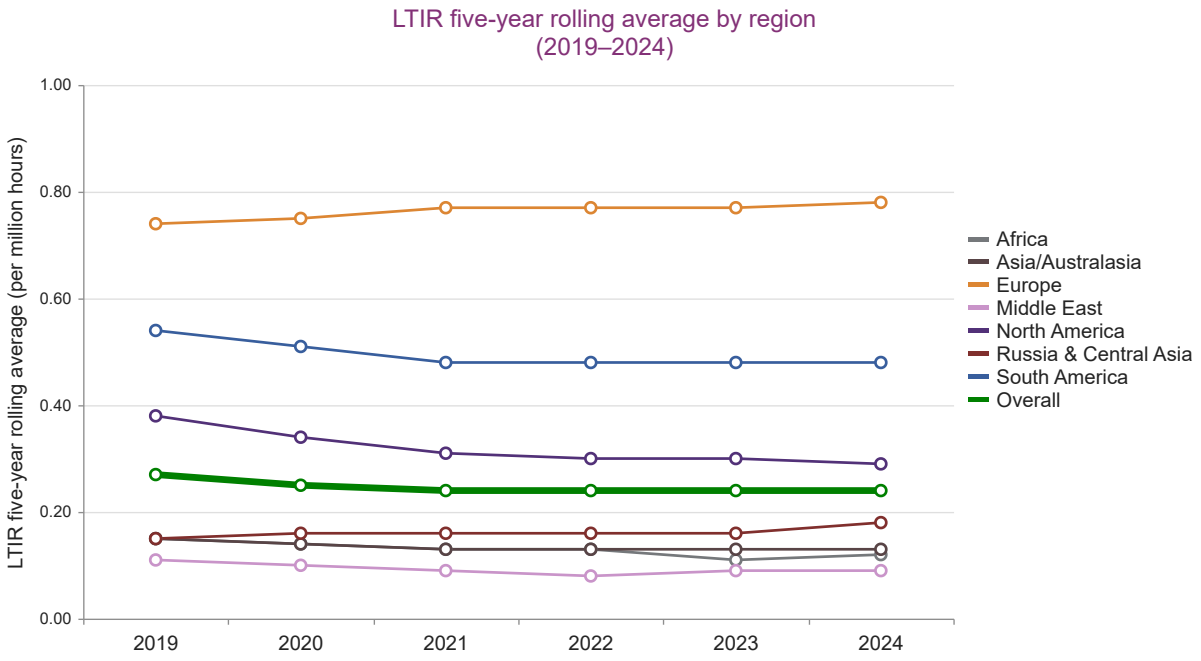


Figure 51:


LTIR five-year rolling average by region
(2019–2024)
LTIR five-year rolling average (per million hours)
1.00
0.80
0.60
0.40
0.20
0.00
2019
2020
2021
2022
2023
2024
Africa
Asia/Australasia
Europe
Middle East
North America
Russia & Central Asia
South America
Overall

3.6 Severity of LWDC

The number of days lost was reported for 73% of lost work day cases (LWDC).

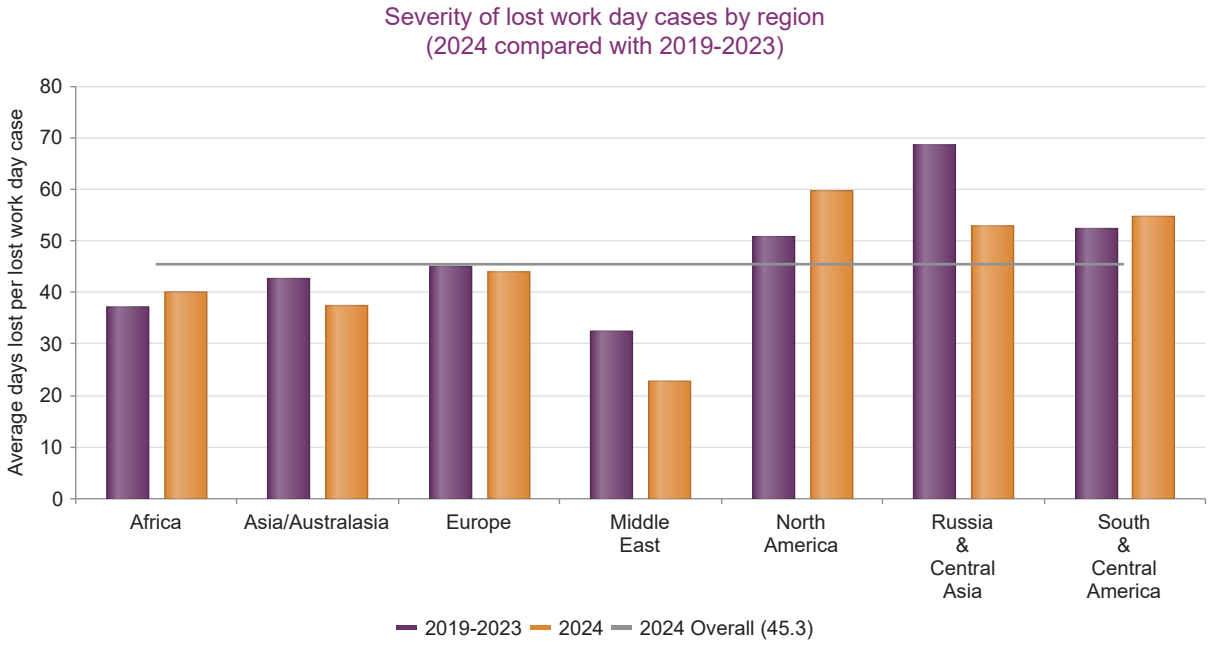
The severity of LWDCs is the highest in the North America region (60 days lost per LWDC in 2024). This is an 18% increase compared with the average for the previous five-year period.

Data table 4 in Appendix A provides further information on the proportion of the database that can be used for LWDC severity. 98% of the data submitted for the Middle East and 96% of the data submitted for Asia/Australasia were usable for this metric, in comparison with only 53% of equivalent data for North America, and 59% for Europe. At least 78% of the data submitted for all other regions were usable for this metric.

Table 30: Severity of lost work day cases by region (2024 compared with 2019-2023)

Region	Severity of LWDC (average days lost per LWDC)			2024 relative to 2019-2023	2024 relative to 2023
	2019-2023	2023	2024		
Africa	37.3	43.8	40.1	7% higher	8% lower
Asia/Australasia	42.7	40.3	37.4	12% lower	7% lower
Europe	45.1	50.0	43.9	3% lower	12% lower
Middle East	32.5	25.0	22.9	30% lower	8% lower
North America	50.7	57.5	59.7	18% higher	4% higher
Russia & Central Asia	68.5	70.3	52.8	23% lower	25% lower
South & Central America	52.4	58.4	54.6	4% higher	6% lower
OVERALL	47.5	50.0	45.3	5% lower	9% lower

Figure 52:



3.7 Individual country performance

The safety performance reported by participating IOGP Member Companies in individual countries is presented in terms of the lost time injury rate of companies jointly with contractors. To preserve the anonymity of companies, performance is only published for those countries for which at least 2 companies have reported statistics. Countries with less than 50,000 reported work hours are excluded, since results for such small populations of hours would be unrepresentative. Overall averages and regional averages include data from all countries regardless of work hours or number of contributing companies.

25 of the 87 countries for which data have been reported are excluded by these constraints.

TRIR calculations exclude data where medical treatment cases are not reported. The chart of relative TRIR performance therefore compares the 2024 performance with that of 2023 and 2022 for all of the 62 countries.

The majority of countries in Africa, Asia/Australasia, the Middle East, and South & Central America achieved a TRIR equal to or lower than the overall average TRIR (0.81). The majority of countries in Europe and North America show a TRIR higher than the global average. The majority of countries in Russia & Central Asia show a TRIR equal to the global average.

The chart of relative LTIR performance for the 62 countries compares the 2024 performance with that of 2023 and 2022.

The majority of countries in Africa, Asia/Australasia, the Middle East, North America, and South & Central America achieved a LTIR equal to or lower than the overall average LTIR (0.24). The majority of countries in Europe show a LTIR higher than the global average. The majority of countries in Russia & Central Asia show a LTIR equal to the global average.

For comparison, the 5-year rolling average FAR is shown for each of the regions. There appears to be little if any correlation between these values and the regional average LTIR and TRIR values.

Figure 53:

TRIR by region and country (2022-2024)

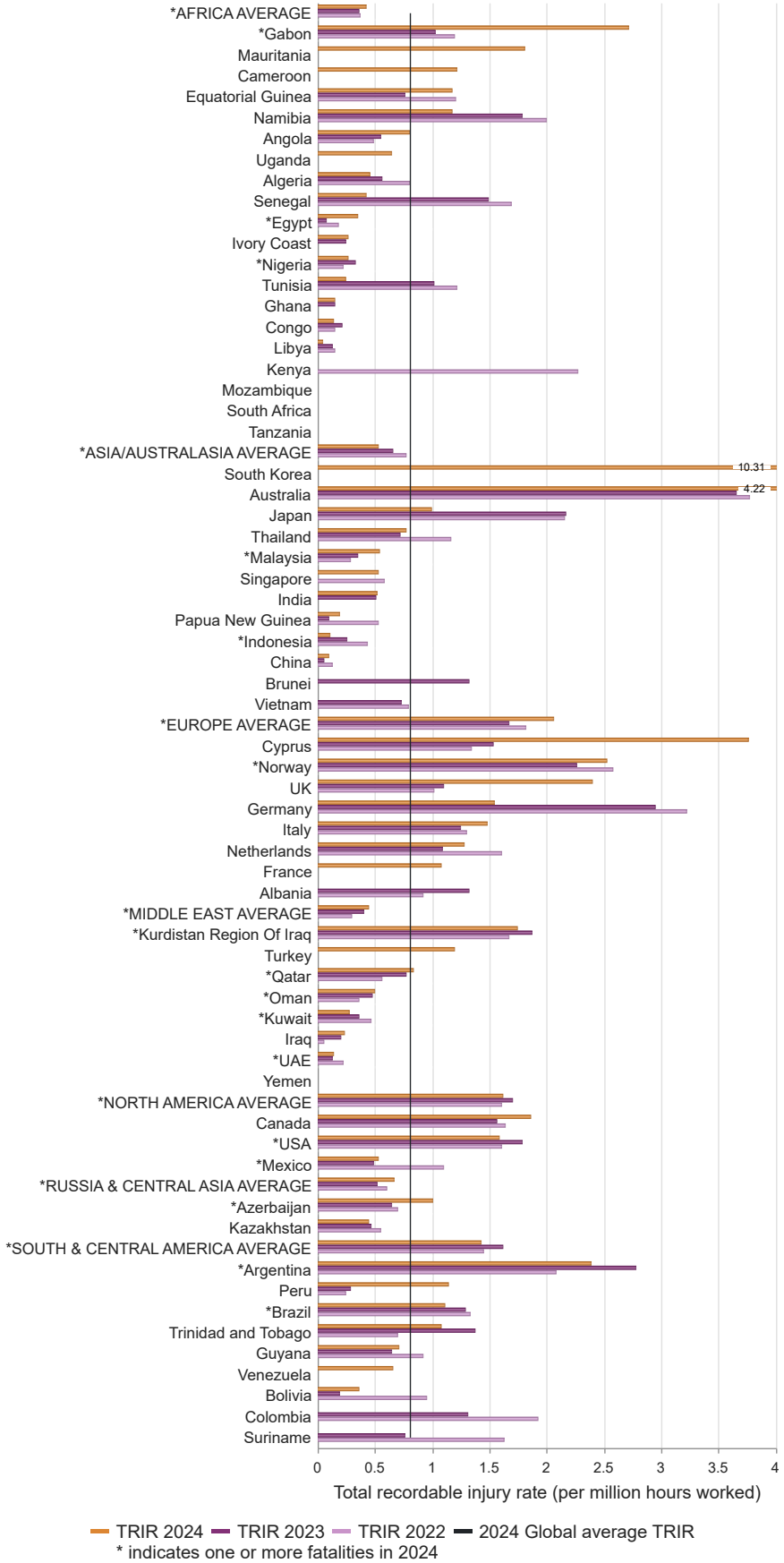
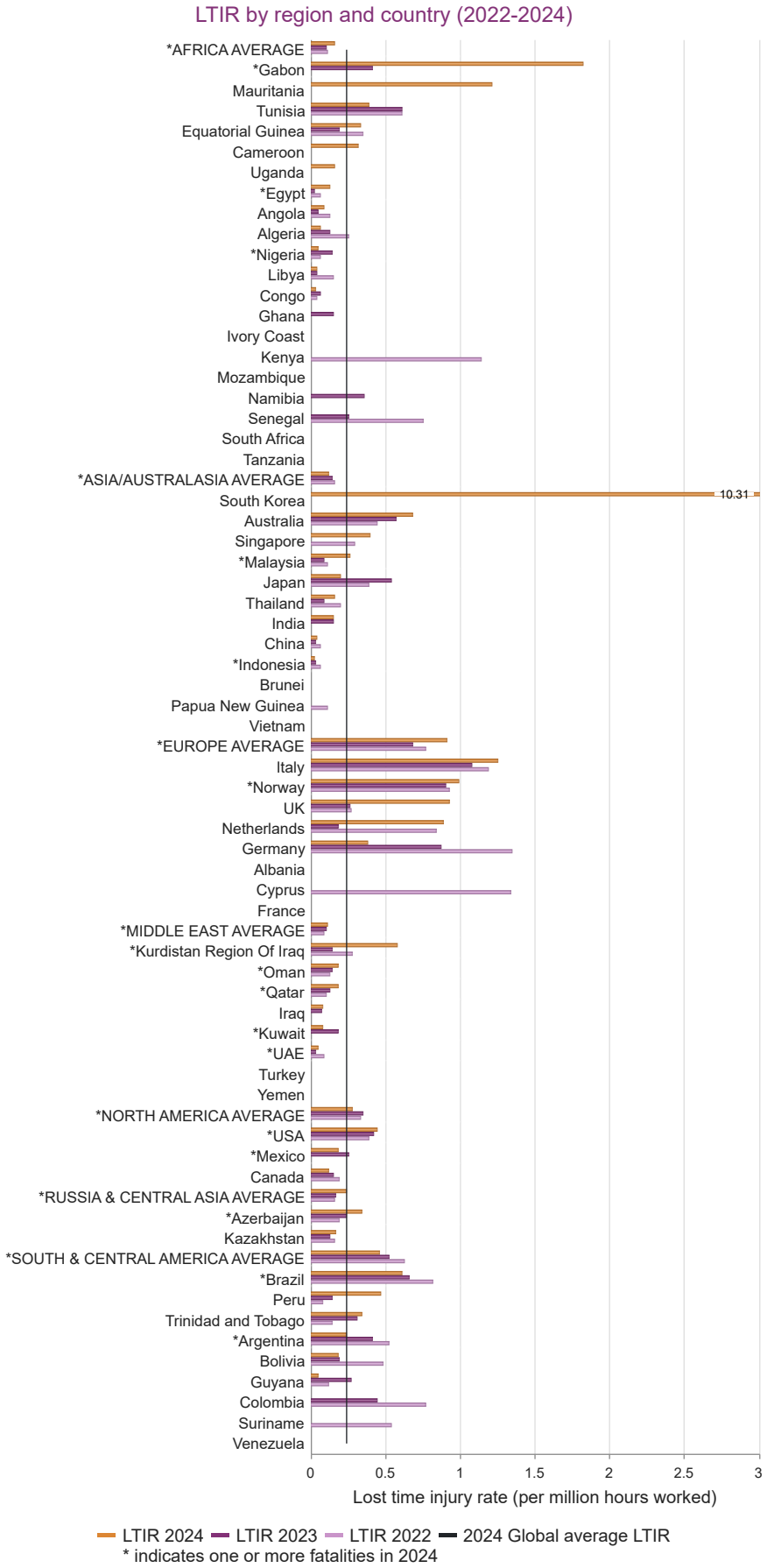


Figure 54:


LTIR by region and country (2022-2024)
*AFRICA AVERAGE
*Gabon
Mauritania
Tunisia
Equatorial Guinea
Cameroon
Uganda
*Egypt
Angola
Algeria
*Nigeria
Libya
Congo
Ghana
Ivory Coast
Kenya
Mozambique
Namibia
Senegal
South Africa
Tanzania
*ASIA/AUSTRALASIA AVERAGE
South Korea
10.31
Australia
Singapore
*Malaysia
Japan
Thailand
India
China
*Indonesia
Brunei
Papua New Guinea
Vietnam
*EUROPE AVERAGE
Italy
*Norway
UK
Netherlands
Germany
Albania
Cyprus
France
*MIDDLE EAST AVERAGE
*Kurdistan Region Of Iraq
*Oman
*Qatar
Iraq
*Kuwait
*UAE
Turkey
Yemen
*NORTH AMERICA AVERAGE
*USA
*Mexico
Canada
*RUSSIA & CENTRAL ASIA AVERAGE
*Azerbaijan
Kazakhstan
*SOUTH & CENTRAL AMERICA AVERAGE
*Brazil
Peru
Trinidad and Tobago
*Argentina
Bolivia
Guyana
Colombia
Suriname
Venezuela
0
0.5
1
1.5
2
2.5
3
Lost time injury rate (per million hours worked)
LTIR 2024
LTIR 2023
LTIR 2022
2024 Global average LTIR
* indicates one or more fatalities in 2024

3.8 Incident triangles by region

In this section, the relative numbers of types of occupational injury are shown in the form of 'incident triangles'. The ratios have been corrected to account for the absence, in some data submissions, of medical treatment cases.

Definitions

Lost time injuries (LTI):

Lost work day cases and fatalities.

Total recordable injuries (TRI):

Fatalities, lost work day cases, restricted work day cases, and medical treatment cases where medical treatment cases are reported for the data set.

Ratio of LTI to fatalities:

The number of LTI divided by the total number of fatalities (LTI/fatalities).

Ratio of TRI to fatalities:

The number of TRI divided by the total number of fatalities (Lost time injury rate/fatalities). Note: data are excluded from TRI where medical treatment cases are not reported.

Table 31: Ratio of LTI and TRI to fatalities - Africa (2021-2024)

Year	Ratio of LTI to fatalities	Ratio of TRI to fatalities
2024	9:1	95:1
2023	8:1	28:1
2022	21:1	69:1
2021	6:1	18:1

Figure 55:

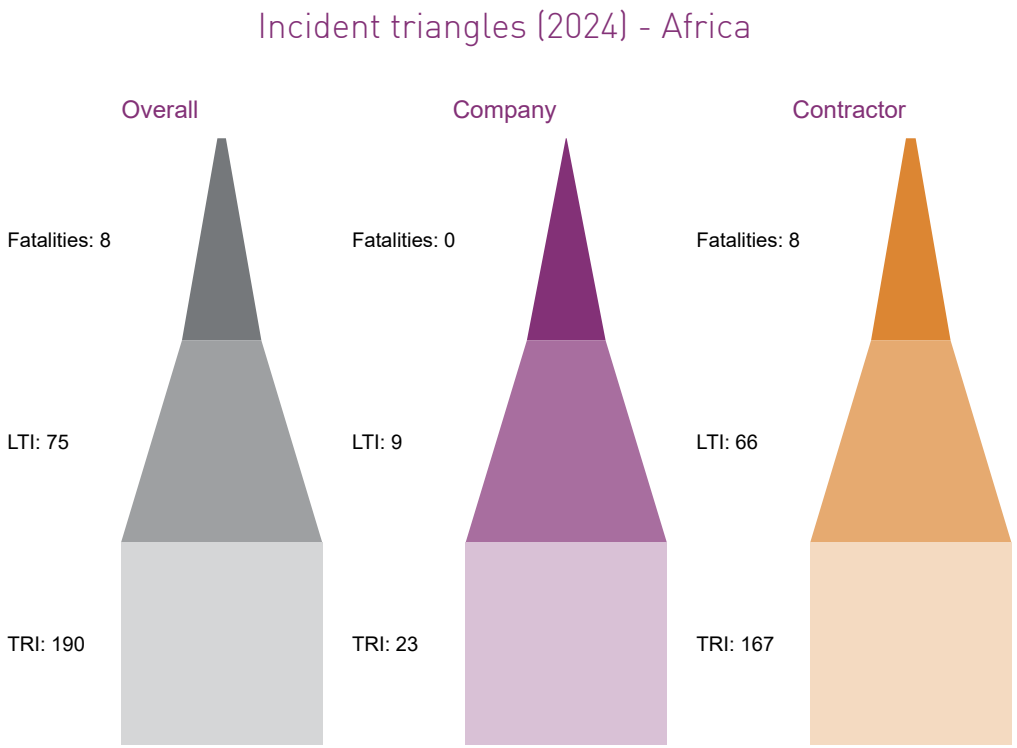


Table 32: Ratio of LTI and TRI to fatalities - Asia/Australasia (2021-2024)

Year	Ratio of LTI to fatalities	Ratio of TRI injuries to fatalities
2024	34:1	154:1
2023	7:1	34:1
2022	11:1	54:1
2021	N/A	N/A

Figure 56:

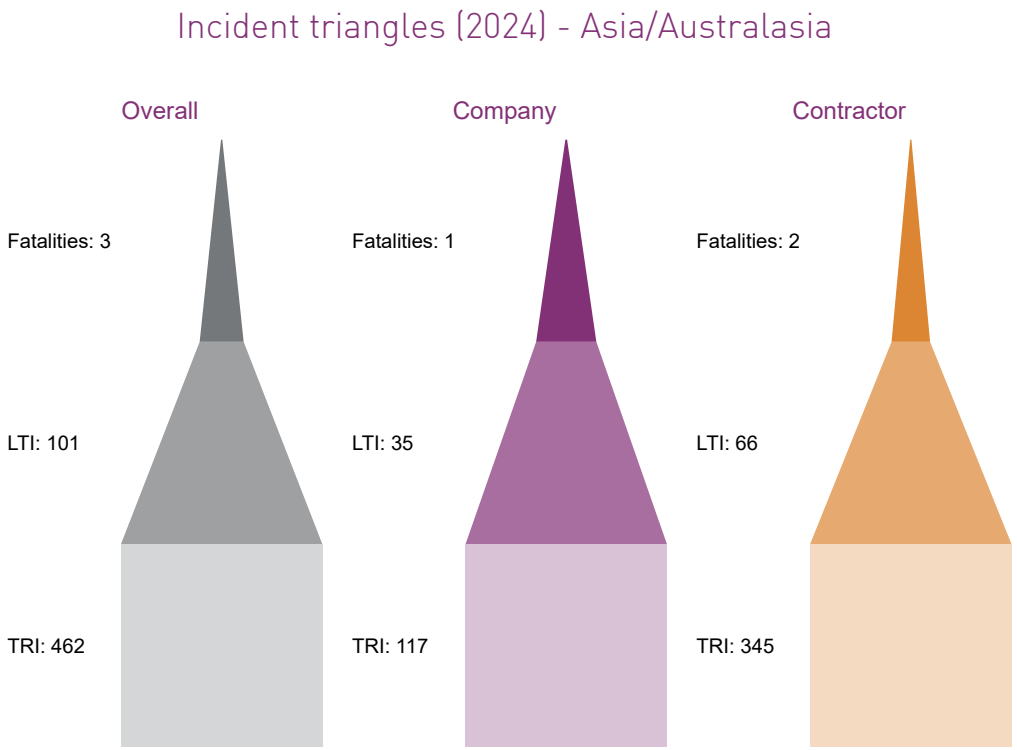


Table 33: Ratio of LTI and TRI to fatalities - Europe (2021-2024)

Year	Ratio of LTI to fatalities	Ratio of TRI injuries to fatalities
2024	210:1	466:1
2023	N/A	N/A
2022	N/A	N/A
2021	95:1	224:1

Figure 57:

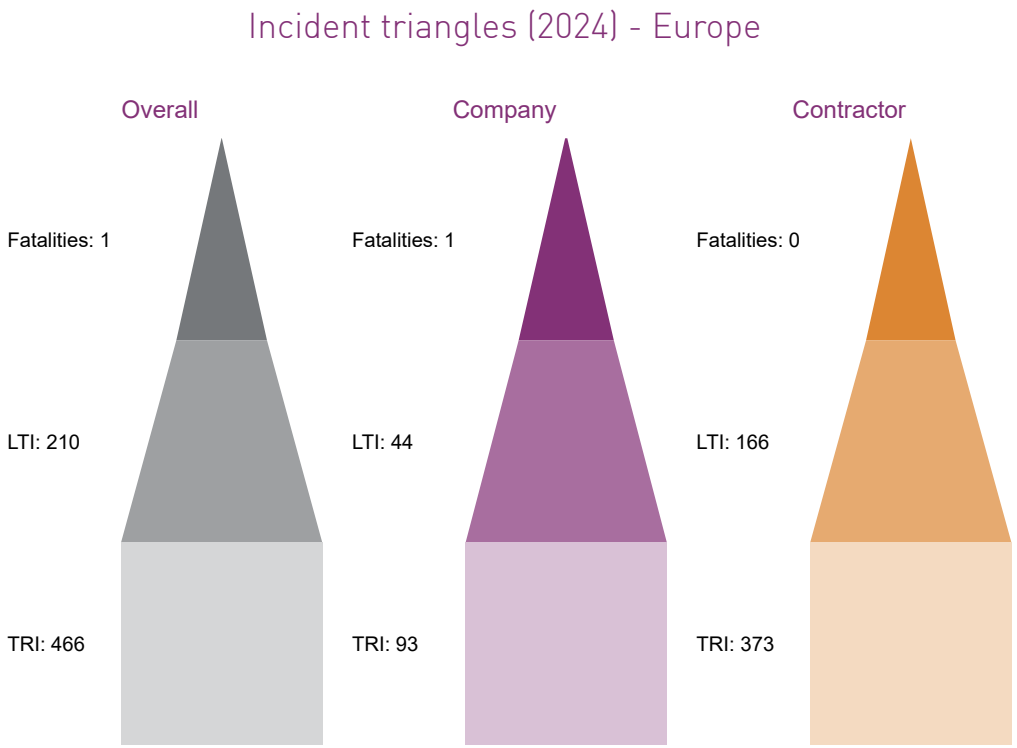


Table 34: Ratio of LTI and TRI to fatalities - Middle East (2021-2024)

Year	Ratio of LTI to fatalities	Ratio of TRI to fatalities
2024	15:1	57:1
2023	25:1	102:1
2022	4:1	14:1
2021	10:1	50:1

Figure 58:

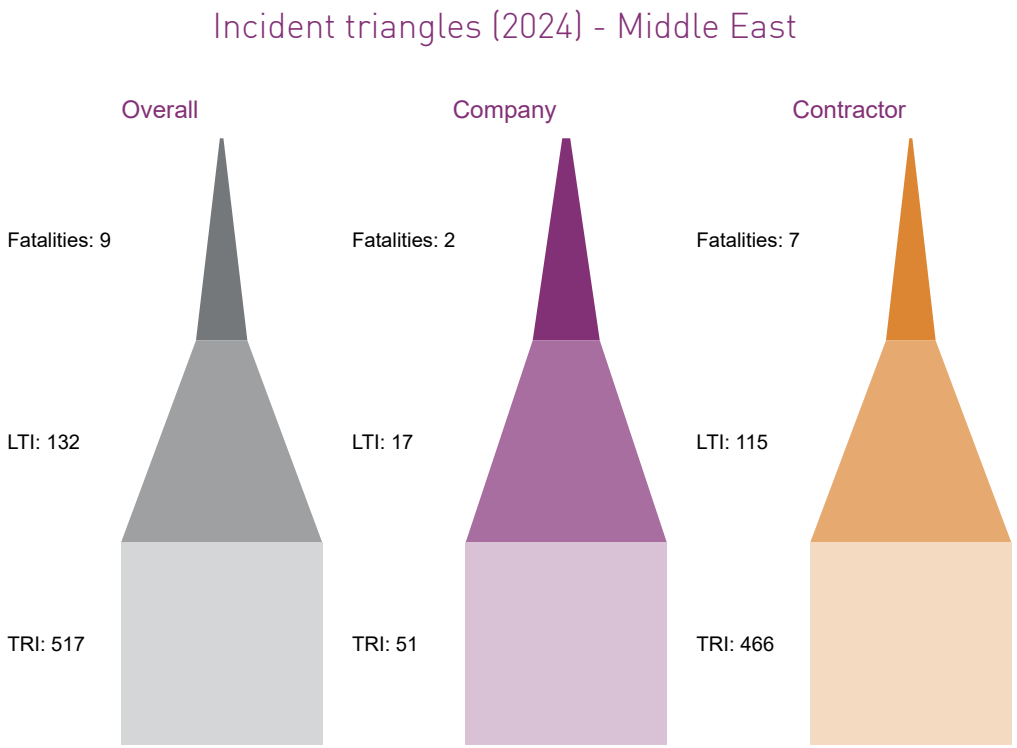


Table 35: Ratio of LTI and TRI to fatalities - North America (2021-2024)

Year	Ratio of LTI to fatalities	Ratio of TRI to fatalities
2024	31:1	232:1
2023	45:1	218:1
2022	28:1	133:1
2021	61:1	366:1

Figure 59:

Incident triangles (2024) - North America

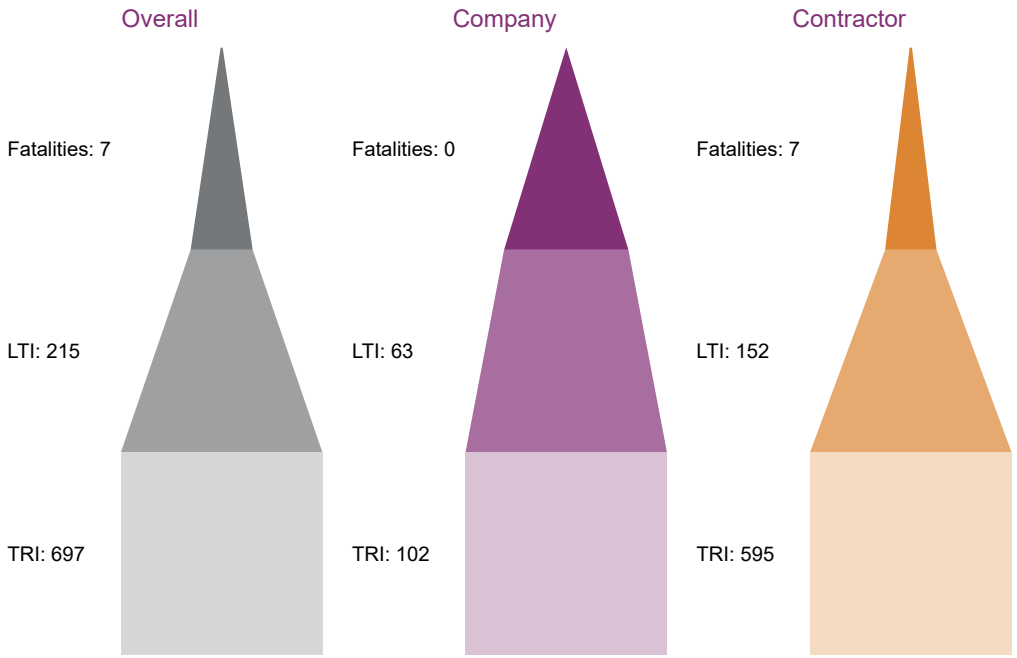
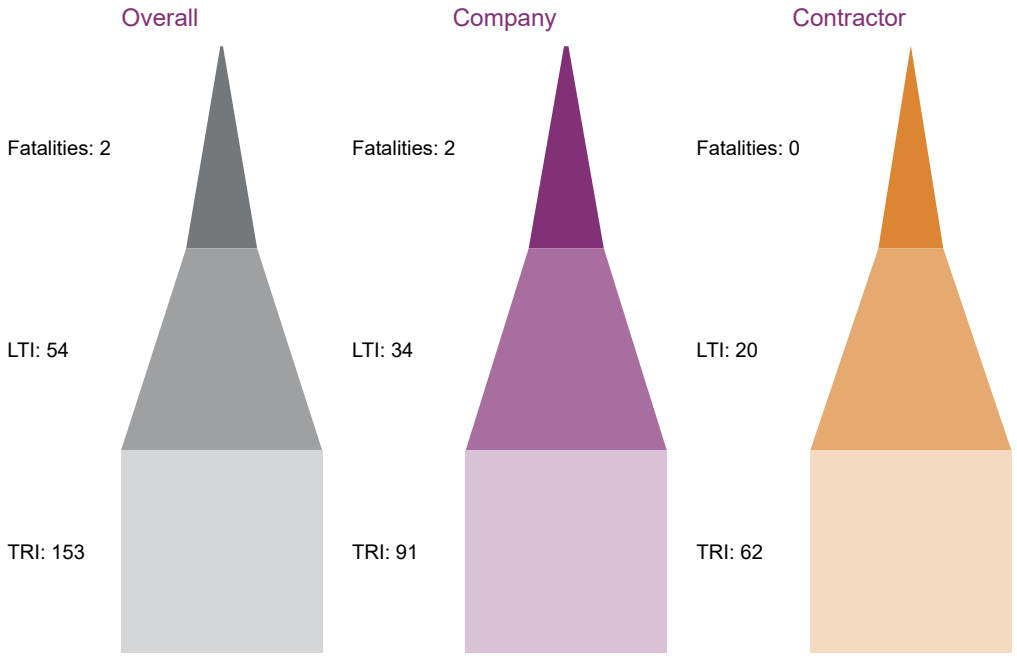


Table 36: Ratio of LTI and TRI to fatalities - Russia & Central Asia (2021-2024)

Year	Ratio of LTI to fatalities	Ratio of TRI to fatalities
2024	27:1	77:1
2023	14:1	40:1
2022	17:1	55:1
2021	25:1	66:1

Figure 60:

Incident triangles (2024) - Russia & Central Asia

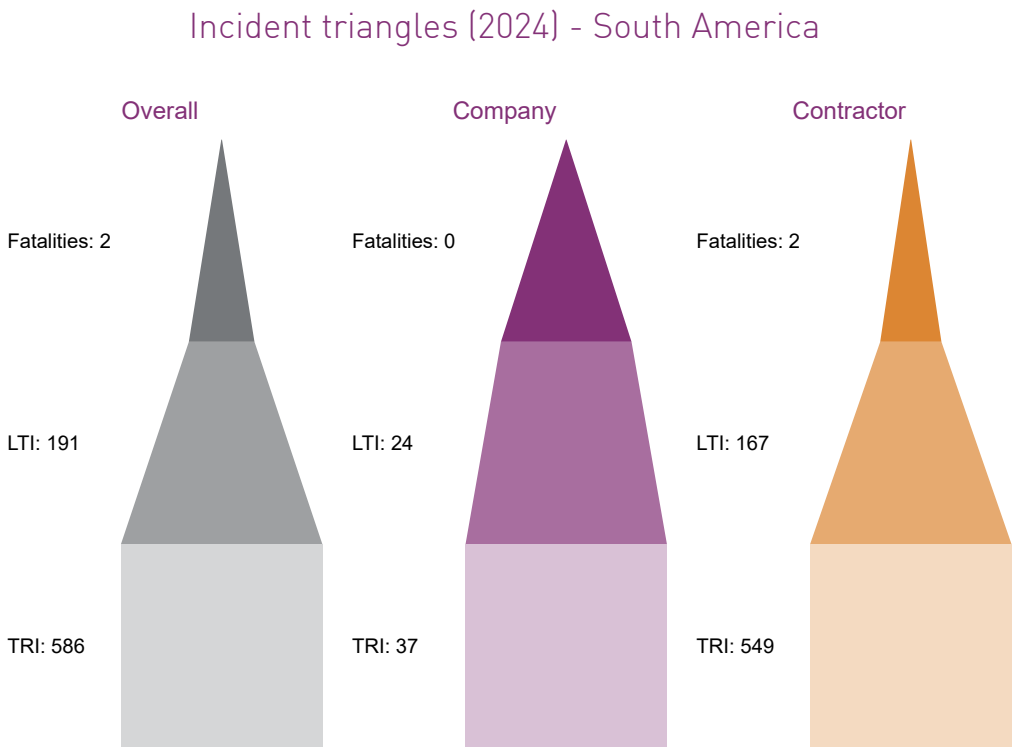


Note: data are only included in TRI where medical treatment cases are reported.

Table 37: Ratio of LTI and TRI to fatalities - South America (2021-2024)

Year	Ratio of LTI to fatalities	Ratio of TRI to fatalities
2024	96:1	293:1
2023	N/A	N/A
2022	33:1	75:1
2021	37:1	100:1

Figure 61:



See Appendix B - Section 3 for data tables.

4. Results by function

In this section, safety performance within different functions performed in the E&P industry is presented for 2024. Functions are defined as 'exploration', 'drilling', 'production', 'construction', and 'unspecified'.

See the Glossary of Terms for definitions.

The percentage of the total work hours reported under each function has been detailed below. See Appendix B for further data.

Table 38: Percentage of total work hours reported under each function (2020-2024)

Function	Percentage of total work hours				
	2020	2021	2022	2023	2024
Exploration	1.4	1.4	1.1	1.3	1.3
Drilling	12.1	12.3	12.7	15.0	17.2
Production	43.8	49.5	49.1	45.6	44.4
Construction	21.2	20.9	17.9	18.4	19.3
Unspecified	21.4	15.9	19.2	19.7	17.7

Table 38A: Total work hours reported (2020-2024)

Function	Work hours (thousands)				
	2020	2021	2022	2023	2024
OVERALL	2,544,201	2,679,026	2,579,000	3,291,382	4,158,877

Definitions

Fatal accident rate (FAR):

The number of company/contractor fatalities per 100 million hours worked.

Fatal incidents per 100 million work hours (FIR):

The number of incidents that result in one or more fatalities per 100 million hours worked.

Total recordable injury rate (TRIR)

The number of recordable injuries (fatalities + lost work day cases + restricted work day cases + medical treatment cases (MTC)) per million hours worked. Note when MTC are not reported by a company for a country the associated fatalities, lost work day cases and restricted work day cases are excluded from TRIR calculations.

Lost time injury rate (LTIR)

The number of lost time injuries (fatalities + lost work day cases) per million hours worked.

Five-year rolling average

The five-year rolling average is calculated by summing the total number of incidents for the five previous years and dividing by the sum of the work hours for these years. The number series involved in the calculation is frame shifted along by one each year, e.g., 2024 will be calculated from 2020-2024 data. For example, the five-year rolling average FAR for 2024 is calculated by:

$$\frac{\text{(Number of fatalities in 2020+2021+2022+2023+2024)}}{\text{(Total work hours in 2020+2021+2022+2023+2024) / 100,000,000}}$$

Lost work day case (LWDC)

An incident resulting in at least one day off work. Fatal incidents are not included.

LWDC Severity

The average number of days lost (where reported) for each lost work day case.

4.1 Fatalities

The distribution of company and contractor fatal incidents and fatalities between the functions is shown for the years 2020-2024.

Table 39: Fatalities and fatal incidents by function (2020-2024)

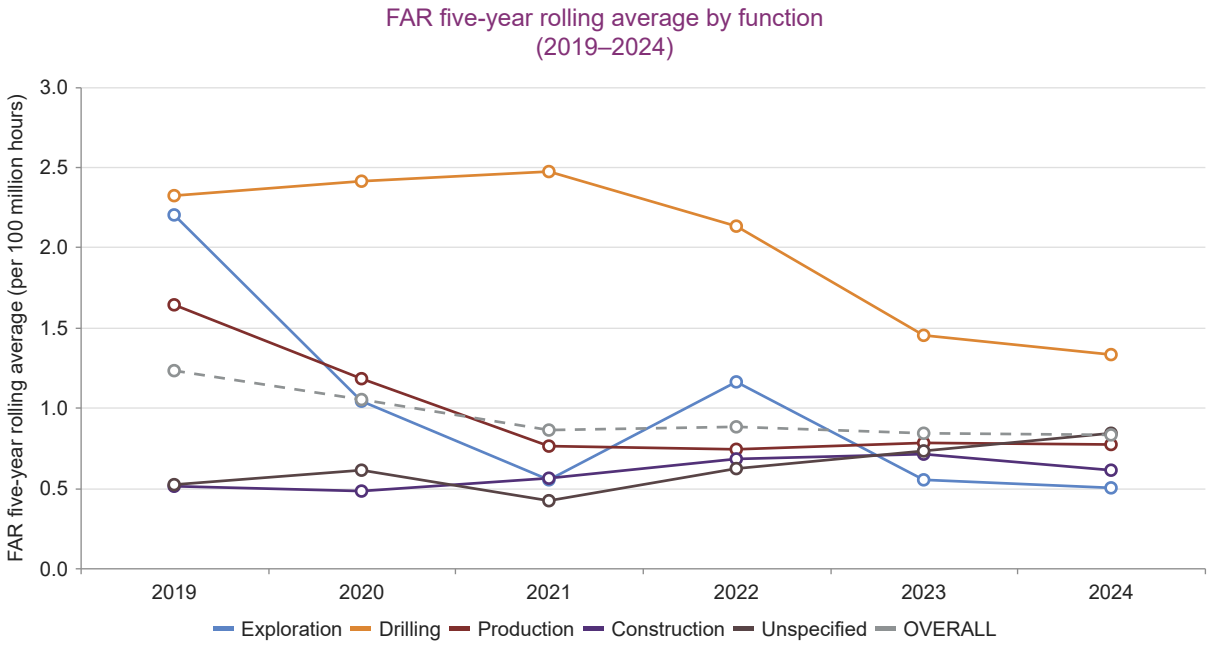
Function	Fatal incidents					Fatalities				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
Exploration	0	0	1	0	0	0	0	1	0	0
Drilling	5	7	7	2	6	6	7	8	2	6
Production	3	5	11	10	13	4	5	13	13	19
Construction	1	3	4	2	1	1	8	4	4	1
Unspecified	3	0	6	3	1	3	0	7	8	6
OVERALL	12	15	29	17	21	14	20	33	27	32

Note: in 2024 one fatality categorized as drilling activity was reported in the unspecified work function.

4.2 FAR, TRIR, and LTIR five-year rolling averages

In order to smooth out variability in the annual values for TRIR, FAR, and LTIR by function, five-year rolling averages are computed which should provide a more reliable indicator of performance trends.

Figure 62:



For calculations of TRIR, submissions without information on medical treatment cases were removed, leaving a database of 3,794 million hours, almost 91% of the database in 2024. See Appendix A for more details.

Figure 63:

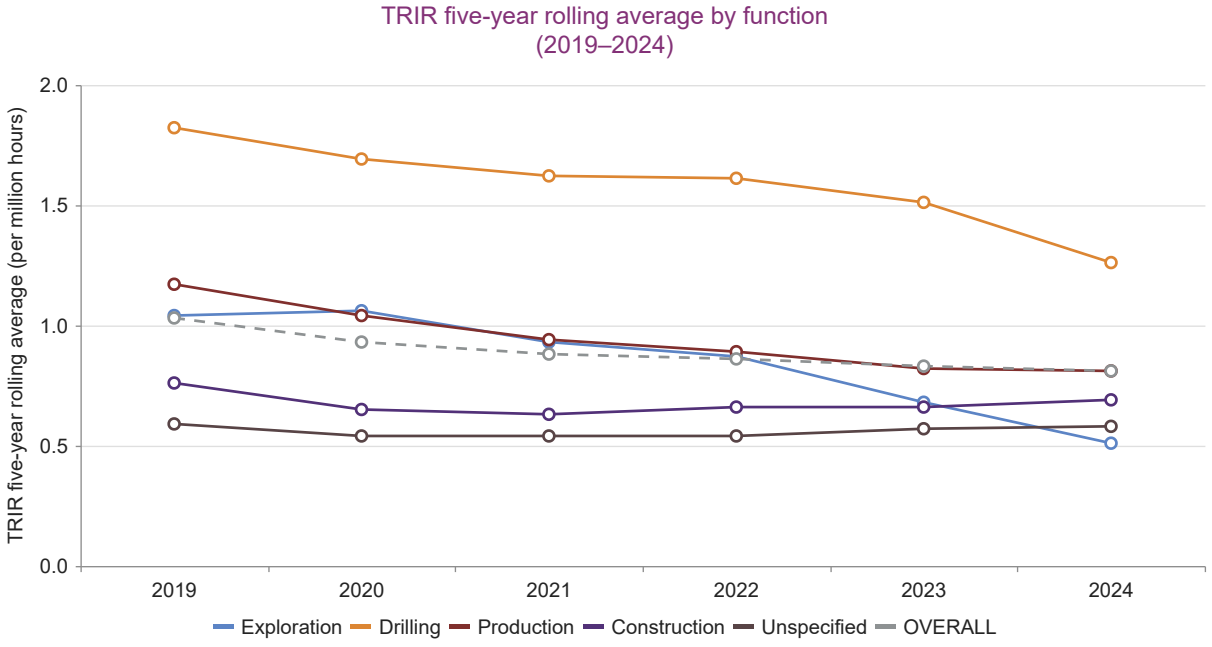
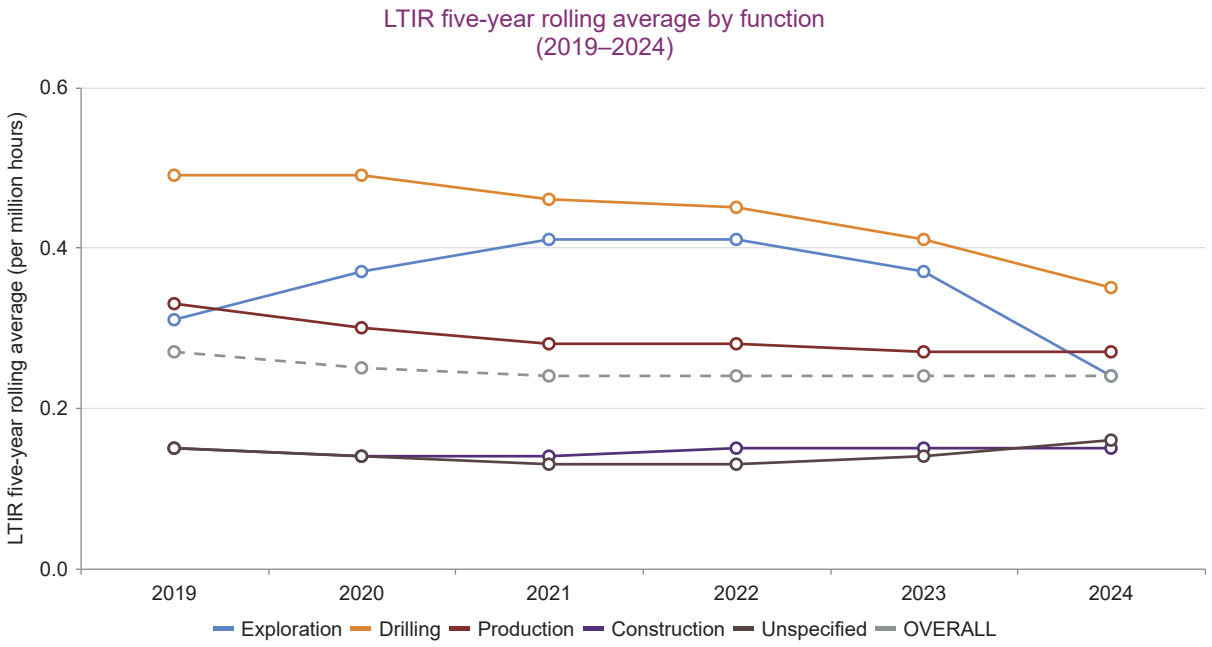


Figure 64:


LTIR five-year rolling average by function
(2019–2024)
LTIR five-year rolling average (per million hours)
0.6
0.4
0.2
0.0
2019
2020
2021
2022
2023
2024
Exploration
Drilling
Production
Construction
Unspecified
OVERALL

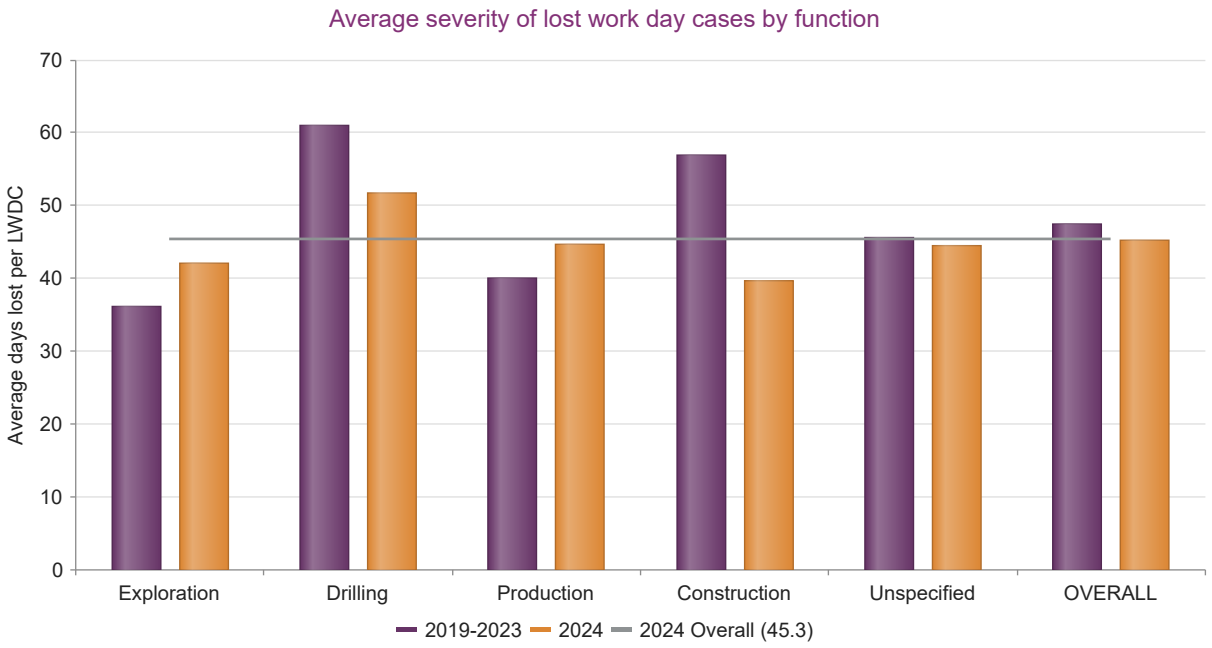
4.3 Severity of LWDC

The overall average number of days lost per lost work day case (LWDC) is 45.3 in 2024 (50.0 in 2023).

Offshore, the LWDC severity is 42.3 days lost per LWDC compared with 47.5 days for onshore activities (56.1 and 46.2 respectively for 2023).

See Section 2.8 for additional information and Section 3.6 for LWDC severity by region.

Figure 65:



4.4 Exploration performance

Total recordable injury rate – exploration

Figures 66 and 67 show the total recordable injury rate (TRIR) for companies and contractors for exploration related activities in different regions of the world. The 2024 result is compared with average TRIR results in the previous five-year period.

33 million work hours (58% of reported exploration work hours) were used in this analysis, of which company activities represent 37% and contractor activities represent 63%. This represents a decrease of 10 million work hours compared with 2023 (43 million work hours in 2023: 38% company, 62% contractor).

In 2024, the overall TRIR values for companies and contractors engaged in exploration activities are 0.17 and 0.68 respectively; the overall average TRIR for exploration activities is 0.49.

Note: reported exploration work hours are higher than in previous years, but because of a reduction in the reporting of medical treatment cases, the hours in this TRIR analysis have reduced in 2024.

Further information on exploration TRIR by region is available in Appendix B - Table B35.

Definitions

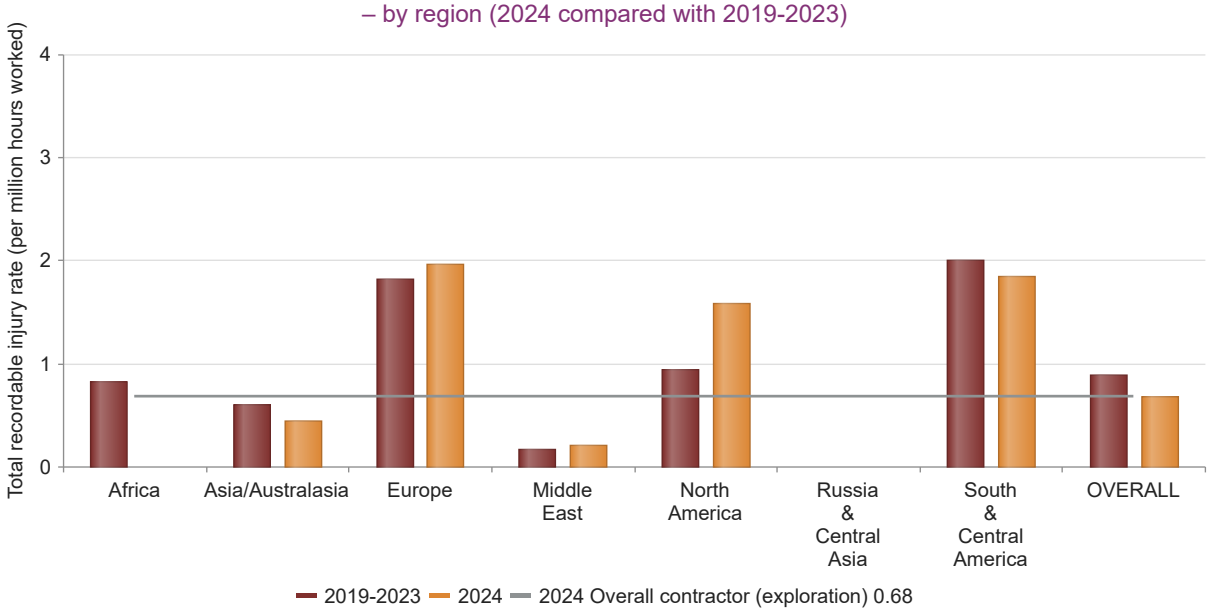
Exploration

Geophysical, seismographic, and geological operations, including their administrative and engineering aspects, construction, maintenance, materials supply and transportation of personnel and equipment (excluding drilling).

Figure 66:

Figure 67:

Contractor total recordable injury rate for exploration activities – by region (2024 compared with 2019-2023)



Lost time injury rate – exploration

Figures 68 and 69 show the lost time injury rate (LTIR) for companies and contractors for exploration related activities in different regions of the world. The 2024 result is compared with average LTIR results in the previous five-year period.

56 million work hours (100% of reported exploration work hours) were used in this analysis, of which company activities represent 26% and contractor activities represent 74% (38% company, 62% contractor in 2023). This represents an increase of 13 million work hours compared with 2023.

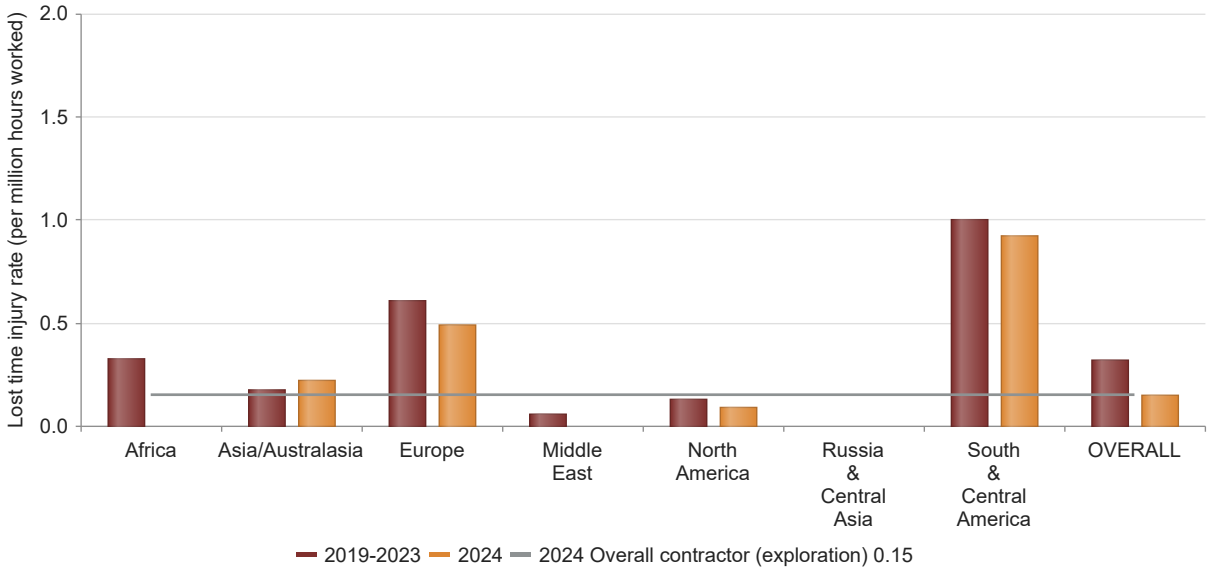
In 2024, the overall LTIR values for companies and contractors engaged in exploration activities are 0.07 and 0.15 respectively; the overall average LTIR for exploration activities is 0.13.

Further information on exploration LTIR by region is available in Appendix B - Table B36.

Figure 68:

Figure 69:

Contractor lost time injury rate for exploration activities – by region (2024 compared with 2019-2023)



4.5 Drilling performance

Total recordable injury rate – drilling

Figures 70 and 71 show the total recordable injury rate (TRIR) for companies and contractors for drilling related activities in different regions of the world. The 2024 result is compared with average TRIR results in the previous five-year period.

664 million work hours (93% of reported drilling work hours) were used in this analysis, of which company activities represent 18% and contractor activities represent 82%. This represents an increase of 170 million work hours compared with 2023 (494 million work hours in 2023: 14% company, 86% contractor).

In 2024, the overall TRIR values for companies and contractors engaged in drilling activities are 0.31 and 1.04 respectively; the overall average TRIR for drilling activities is 0.91.

Further information on drilling TRIR by region is available in Appendix B - Table B.37.

Definitions

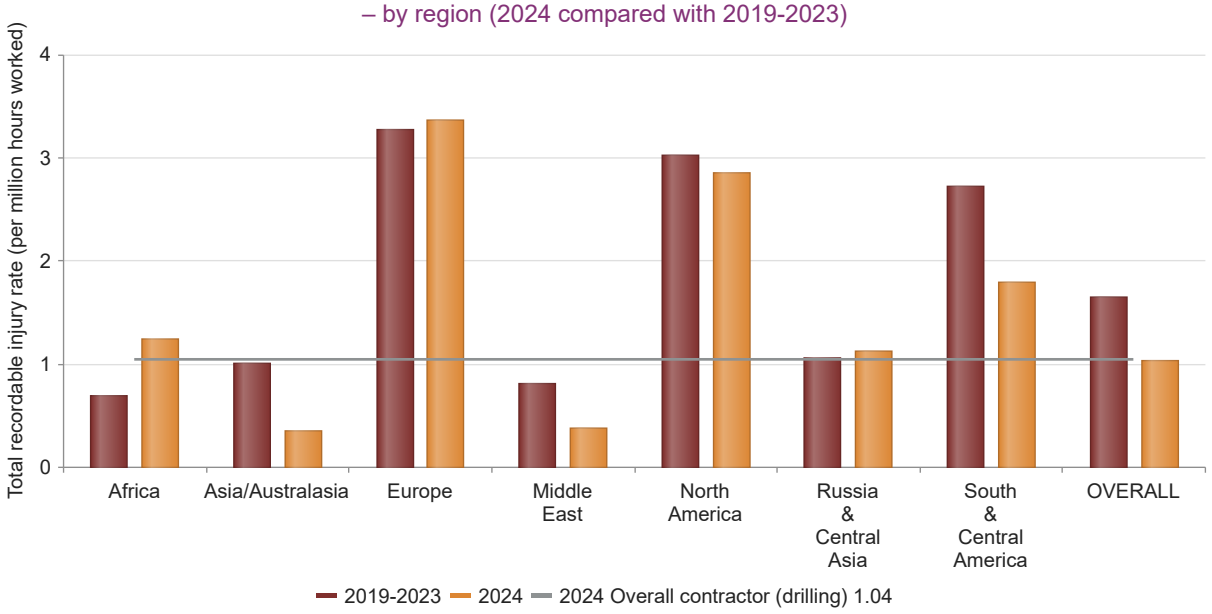
Drilling

All exploration, appraisal and production drilling, and workover as well as their administrative, engineering, construction, materials supply and transportation aspects. It includes site preparation, rigging up and down, and restoration of the drilling site upon work completion. Drilling includes all exploration, appraisal and production drilling.

Figure 70:

Figure 71:

Contractor total recordable injury rate for drilling activities – by region (2024 compared with 2019-2023)



Lost time injury rate – drilling

Figures 72 and 73 show the lost time injury rate (LTIR) for companies and contractors for drilling related activities in different regions of the world. The 2024 result is compared with average LTIR results in the previous five-year period.

715 million work hours (100% of reported drilling work hours) were used in this analysis, of which company activities represent 21% and contractor activities represent 79% (14% company, 86% contractor in 2023). This represents an increase of 221 million work hours compared with 2023.

In 2024, the overall LTIR values for companies and contractors engaged in drilling activities are 0.17 and 0.29 respectively; the overall average LTIR for drilling activities is 0.27.

Further information on drilling LTIR by region is available in Appendix B - Table B.38.

Figure 72:

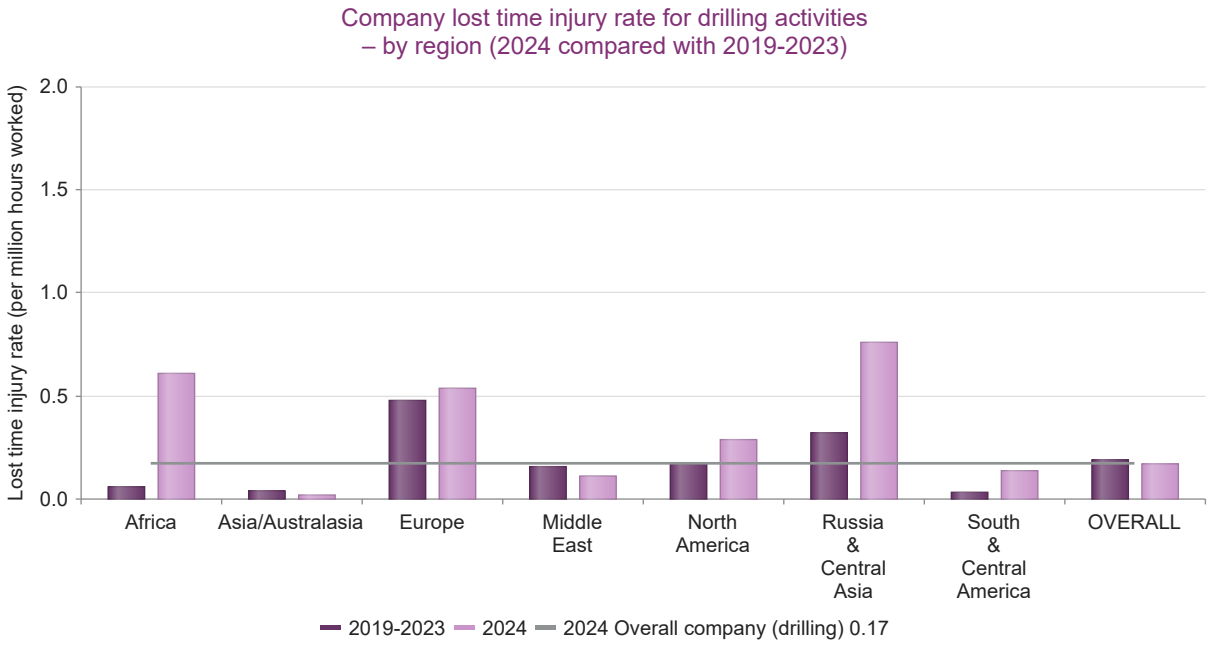
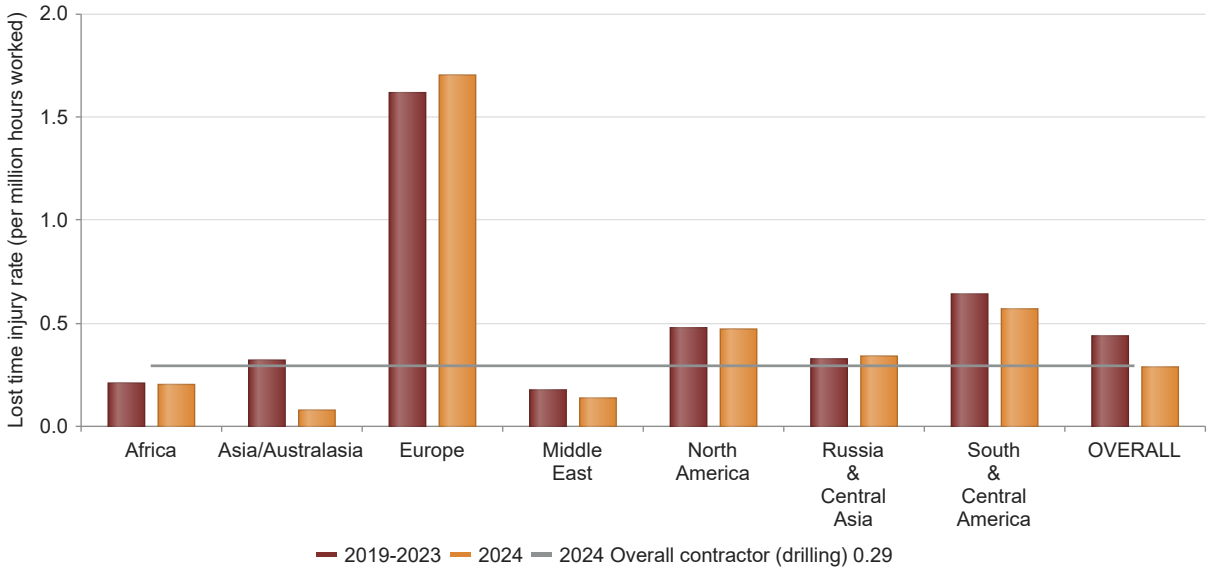


Figure 73:

Contractor lost time injury rate for drilling activities
– by region (2024 compared with 2019-2023)



4.6 Production performance

Total recordable injury rate – production

Figures 74 and 75 show the total recordable injury rate (TRIR) for companies and contractors for production related activities, in different regions of the world. The 2024 result is compared with average TRIR results in the previous five-year period.

1,712 million work hours (93% of reported production work hours) were used in this analysis, of which company activities represent 28% and contractor activities represent 72%. This represents an increase of 212 million work hours compared with 2023 (1,500 million work hours in 2023: 30% company, 70% contractor).

In 2024, the overall TRIR values for companies and contractors engaged in production activities are 0.74 and 0.89 respectively; the overall average TRIR for production activities is 0.85.

Further information on production TRIR by region is available in Appendix B - Table B39.

Definitions

Production

Petroleum and natural gas producing operations, including their administrative and engineering aspects, minor construction, repairs, maintenance and servicing, materials supply, and transportation of personnel and equipment. It covers all mainstream production operations including wireline. It does not cover production drilling and workover. See Appendix E - Glossary for details.

Figure 74:

Figure 75:


Contractor total recordable injury rate for production activities
– by region (2024 compared with 2019-2023)
Total recordable injury rate (per million hours worked)
0
1
2
3
4
Africa
Asia/Australasia
Europe
Middle East
North America
Russia & Central Asia
South & Central America
OVERALL
2019-2023
2024
2024 Overall contractor (production) 0.89

Lost time injury rate – production

Figures 76 and 77 show the lost time injury rate (LTIR) for companies and contractors for production related activities, in different regions of the world. The 2024 result is compared with average LTIR results in the previous five-year period.

1,847 million work hours (100% of reported production work hours) were used in this analysis, of which company activities represent 30% and contractor activities represent 70% (30% company, 70% contractor in 2023). This represents an increase of 347 million work hours compared with 2023.

In 2024, the overall LTIR values for companies and contractors engaged in production activities are 0.25 and 0.27 respectively; the overall average LTIR for production activities is 0.26.

Further information on production LTIR by region is available in Appendix B - Table B40.

Figure 76:

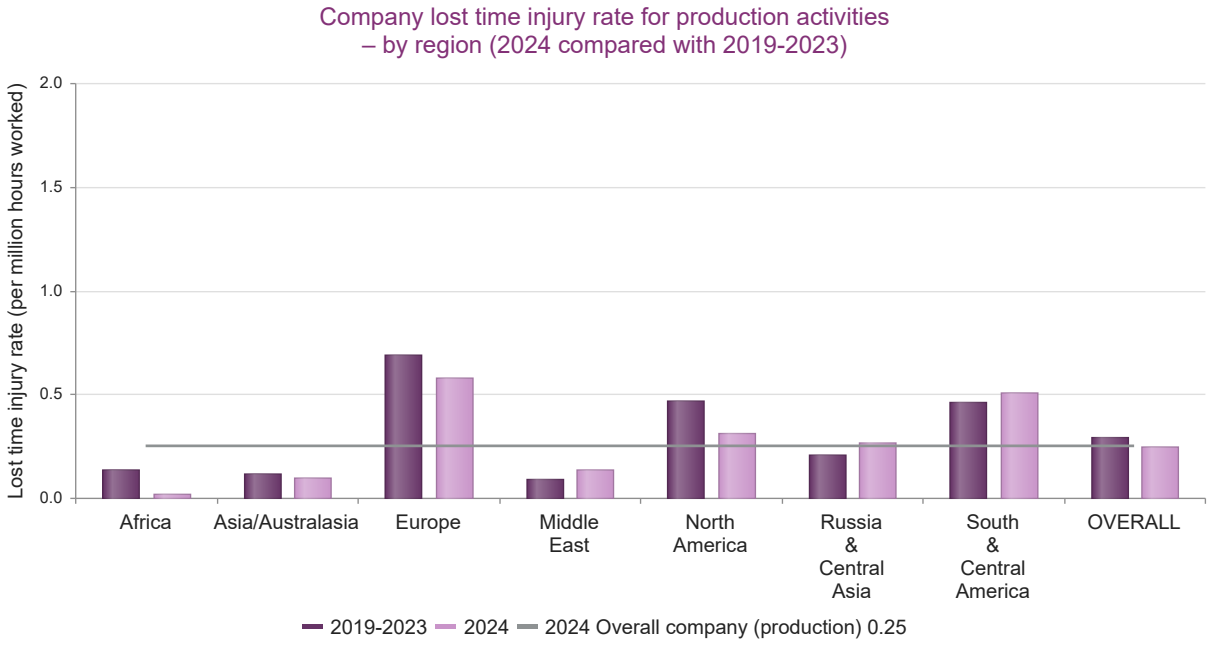
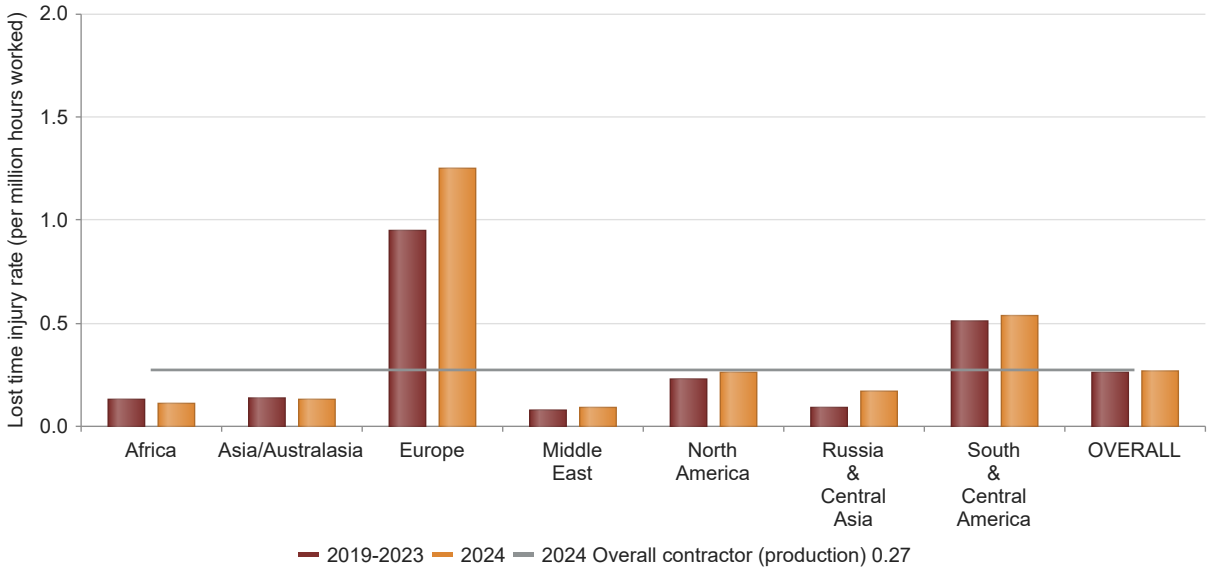


Figure 77:

Contractor lost time injury rate for production activities – by region (2024 compared with 2019-2023)



4.7 Construction performance

The company and contractor results for 2024 construction performance are presented below.

Construction activities are predominately conducted by contractors therefore the work hours reported for contractors are much greater than those reported for company employees. Refer to Appendix B for detailed information.

Total recordable injury rate – construction

Figures 78 and 79 show the total recordable injury rate (TRIR) for companies and contractors for construction related activities in different regions of the world. The 2024 result is compared with average TRIR results in the previous five-year period.

693 million work hours (86% of reported construction work hours) were used in this analysis, of which company activities represent 7% and contractor activities represent 93%. This represents an increase of 87 million work hours compared with 2023 (605 million work hours in 2023: 10% company, 90% contractor).

In 2024, the overall TRIR values for companies and contractors engaged in construction activities are 0.40 and 0.82 respectively; the overall average TRIR for construction activities is 0.79.

Further information on construction TRIR by region is available in Appendix B - Table B41.

Definitions

Construction

All major construction, fabrication activities and also disassembly, removal and disposal (decommissioning) at the end of the facility life. Includes construction of process plant, yard construction of structures, offshore installation, hook-up and commissioning, and removal of redundant process facilities.

Figure 78:

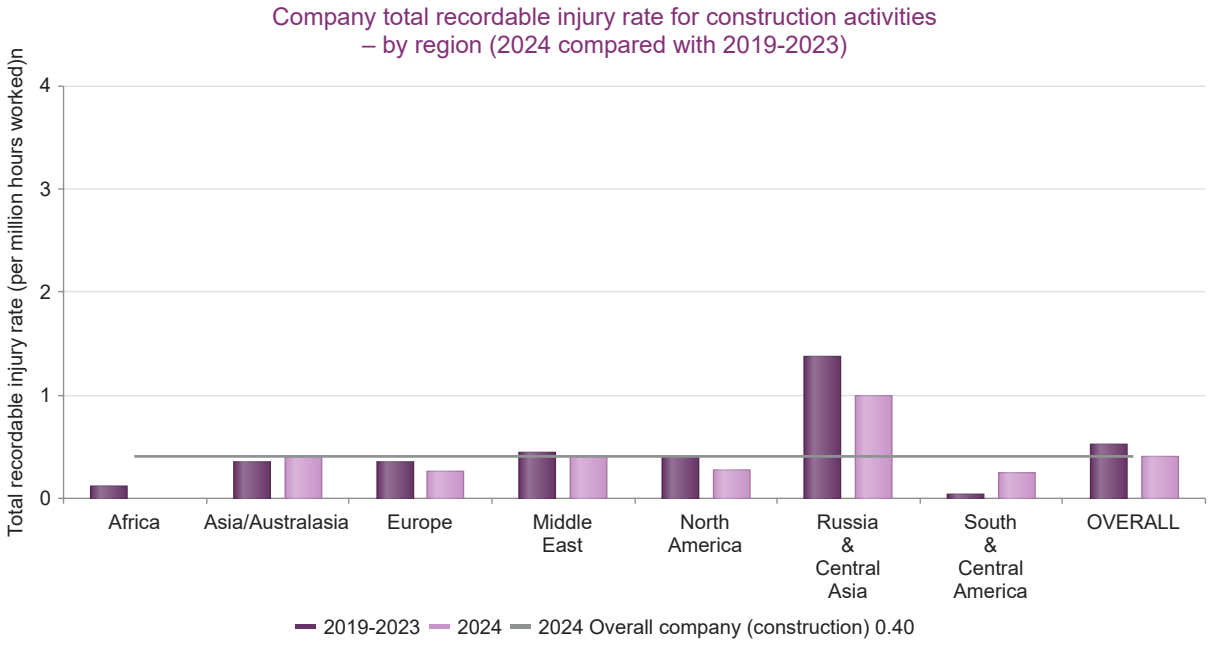


Figure 79:

Lost time injury rate – construction

Figures 80 and 81 show the lost time injury rate (LTIR) for companies and contractors for construction related activities in different regions of the world. The 2024 result is compared with average LTIR results in the previous five-year period.

805 million work hours (almost 100% of reported construction work hours) were used in this analysis, of which company activities represent 9% and contractor activities represent 91% (10% company, 90% contractor in 2023). This represents an increase of 199 million work hours compared with 2023.

In 2024, the overall LTIR values for companies and contractors engaged in construction activities are 0.22 and 0.16 respectively; the overall average LTIR for construction activities is 0.17.

Further information on construction LTIR by region is available in Appendix B - Table B42.

Figure 80:

Company lost time injury rate for construction activities – by region (2024 compared with 2019-2023)

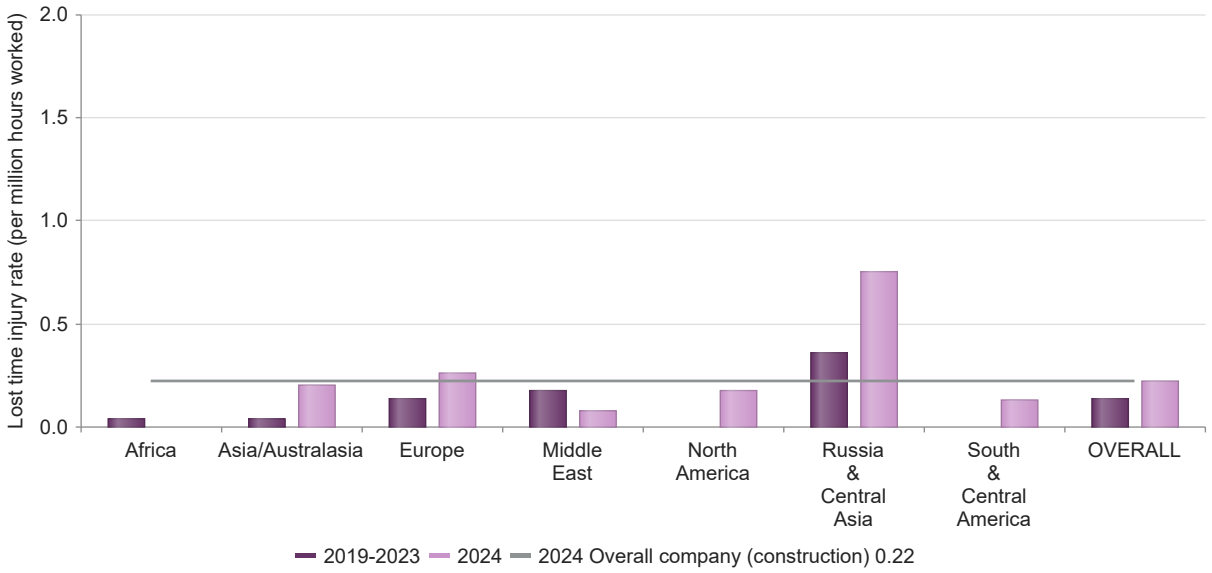
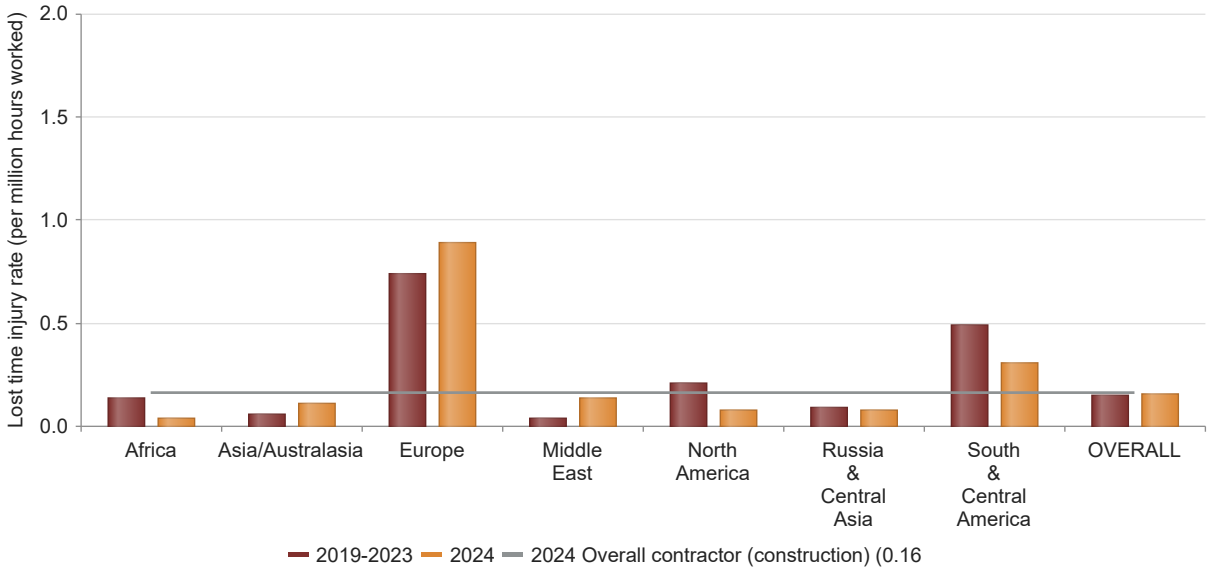


Figure 81:

Contractor lost time injury rate for construction activities – by region (2024 compared with 2019-2023)



4.8 Unspecified performance

Total recordable injury rate – unspecified

Figures 82 and 83 show the total recordable injury rate (TRIR) for companies and contractors for activities categorized as 'unspecified' in different regions of the world. The 2024 result is compared with average TRIR results in the previous five-year period.

694 million work hours (94% of reported unspecified work hours) were used in this analysis, of which company activities represent 38% and contractor activities represent 62%. This represents an increase of 44 million work hours compared with 2023 (650 million work hours in 2023: 43% company, 57% contractor).

In 2024, the overall TRIR values for companies and contractors engaged in activities where the work function was not specified are 0.38 and 0.80 respectively; the overall average TRIR for unspecified activities is 0.64.

Further information on unspecified TRIR by region is available in Appendix B - Table B43.

Definitions

Unspecified

Unspecified is used for the entry of data associated with office personnel whose work hours and incident data cannot be reasonably assigned to the administrative support of one of the function groupings of exploration, drilling, production, or construction. Corporate overhead support personnel, such as finance or human resources staff, may be examples where work hours cannot be specifically assigned to a particular function. All other data that are not separated out by function are reported as 'unspecified'.

Note: Data for companies that did not split their data submission by work function are included in the 'unspecified' function.

Figure 82:

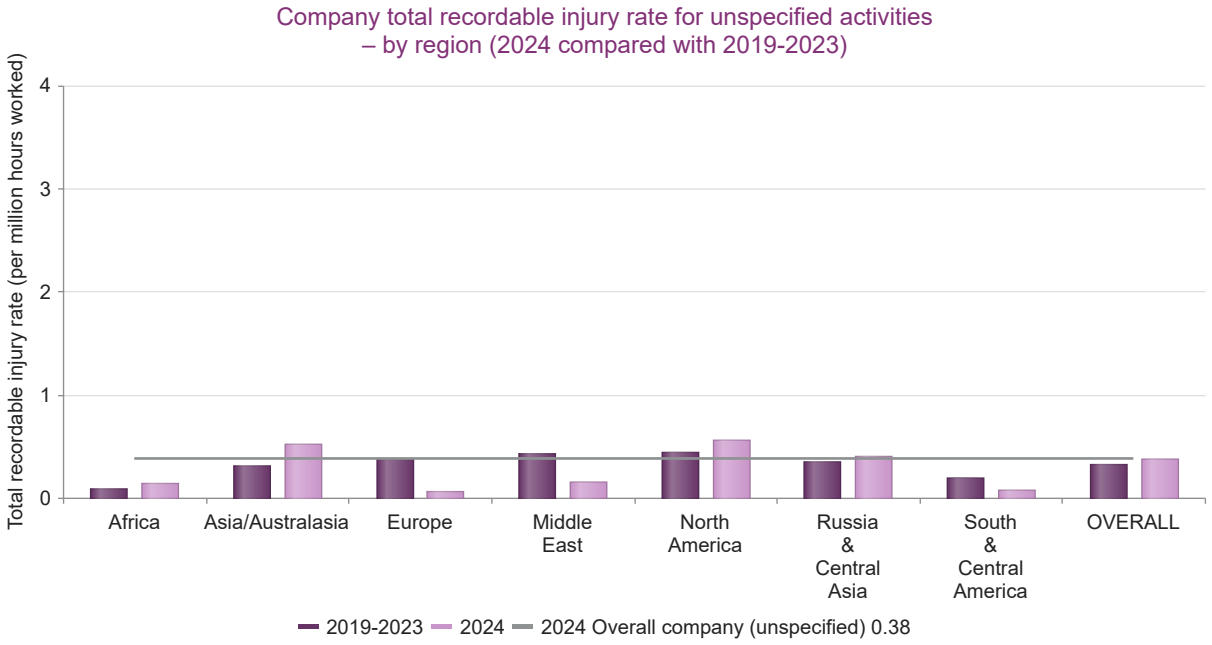


Figure 83:

Lost time injury rate – unspecified

Figures 84 and 85 show the lost time injury rate (LTIR) for companies and contractors for activities categorized as 'unspecified' in different regions of the world. The 2024 result is compared with average LTIR results in the previous five-year period.

737 million work hours (100% of reported unspecified work hours) were used in this analysis, of which company activities represent 37% and contractor activities represent 63% (43% company, 57% contractor in 2023). This represents an increase of 87 million work hours compared with 2023.

In 2024, the overall LTIR values for companies and contractors engaged in activities where the work function was not specified are 0.16 and 0.24 respectively; the overall average LTIR for unspecified activities is 0.21.

Reported under the 'unspecified' function in 2024 were:

- 0 company and 6 contractor fatalities
- 44 company and 107 contractor lost work day cases

Reported under the 'unspecified' function from 2019 to 2023 were:

- 3 company and 17 contractor fatalities
- 107 company and 253 contractor lost work day cases

Further information on unspecified LTIR by region is available in Appendix B - Table B44.

Figure 84:

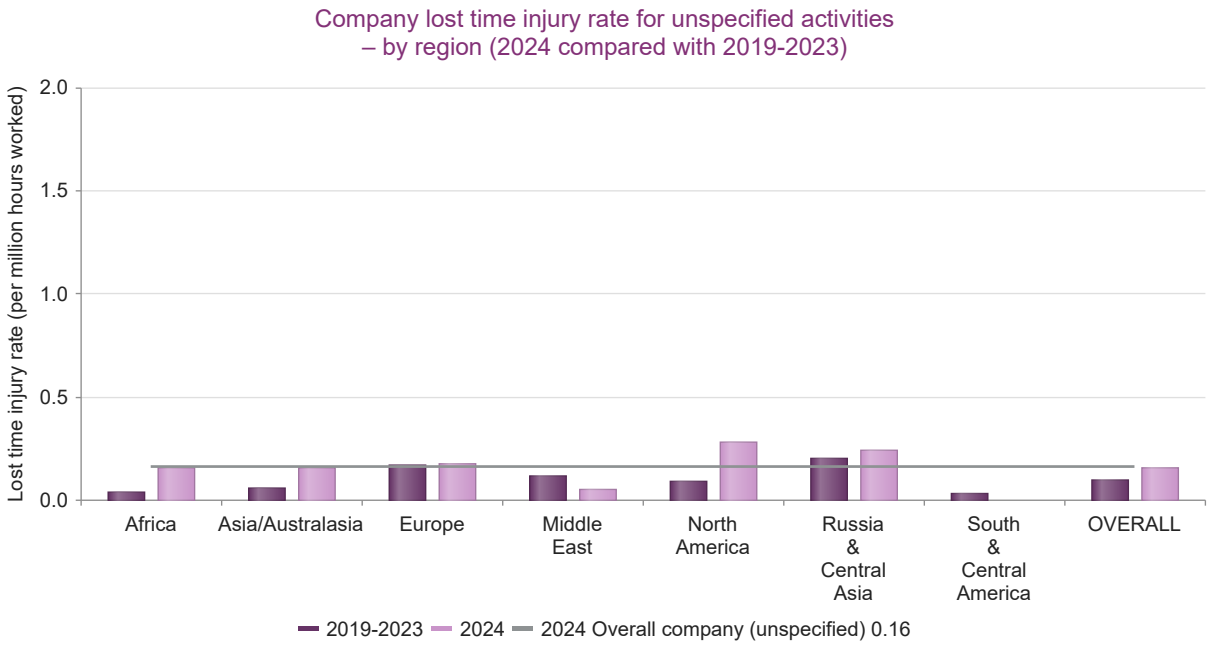
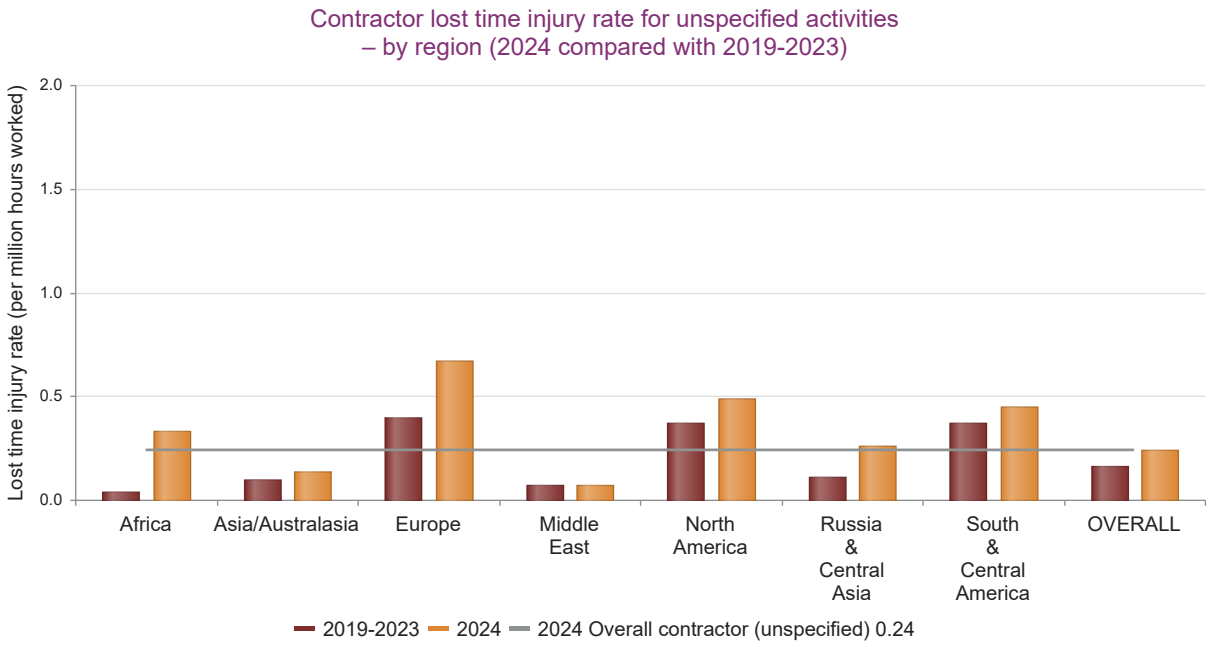


Figure 85:



See Appendix B - Section 4 for data tables.

5. Results by Company

5.1 Overall company results

This section compares the safety performance of individual companies with each other and with their performance in previous years.

For reasons of anonymity each of the companies that has contributed relevant data and is to be included in this analysis has been allocated a unique code letter (A to CCC). These codes change every year in line with LTIR performance. 3 companies were excluded from this analysis because they did not report contractor data. Results for 53 of the 56 participating companies are therefore shown in this section. In 2024, IOGP Member Companies reported 26 contractor and 6 company employee fatalities.

Definitions

Fatal accident rate (FAR)

The number of company/contractor fatalities per 100 million hours worked.

Total recordable injury rate (TRIR)

The number of recordable injuries (fatalities + lost work day cases + restricted work day cases + medical treatment cases) per million hours worked.

Lost time injury rate (LTIR)

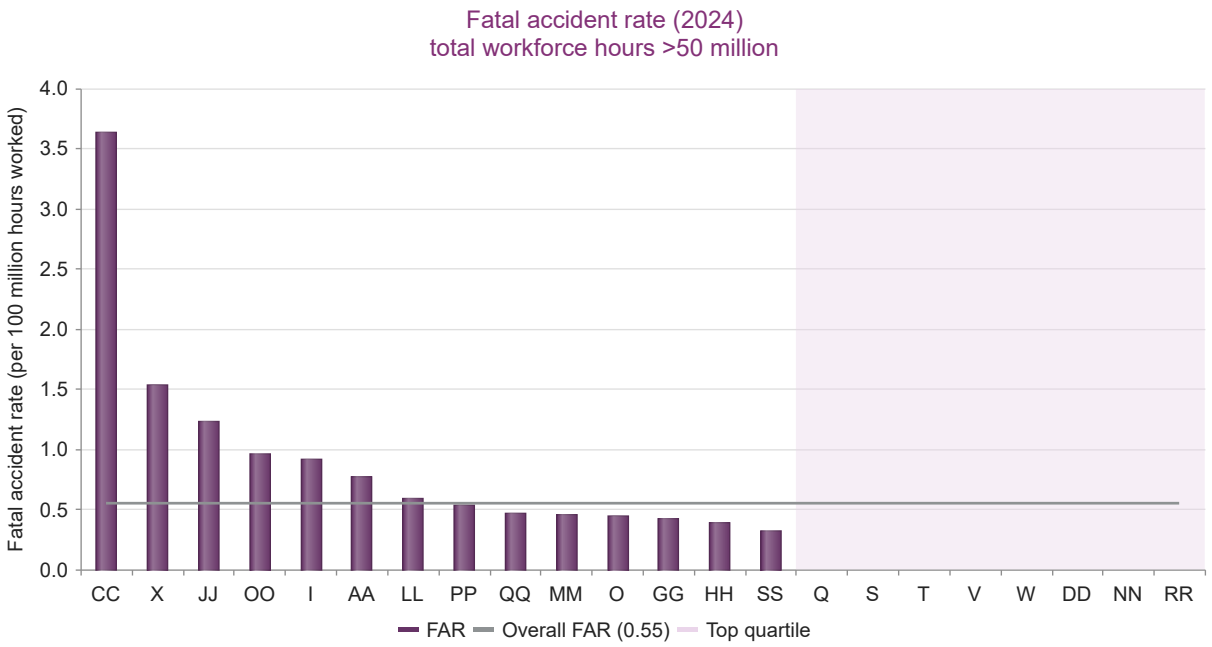
The number of lost time injuries (fatalities + lost work day cases) per million hours worked.

5.1.1 Fatal accident rate

In Figure 86, the fatal accident rate (FAR) is presented for those companies that, with their contractors, reported more than 50 million work hours. 22 companies met this criterion in 2024, compared with 19 companies in 2023. Companies are presented in rank order of company-with-contractor FAR. The analysis shows that:

- 15 of the 22 companies with their contractors had a lower FAR than the average for companies with contractors reporting more than 50 million work hours (0.55).
- 14 of the 22 companies suffered one or more fatalities.
- 8 of the 22 companies reported no fatalities.

Figure 86:



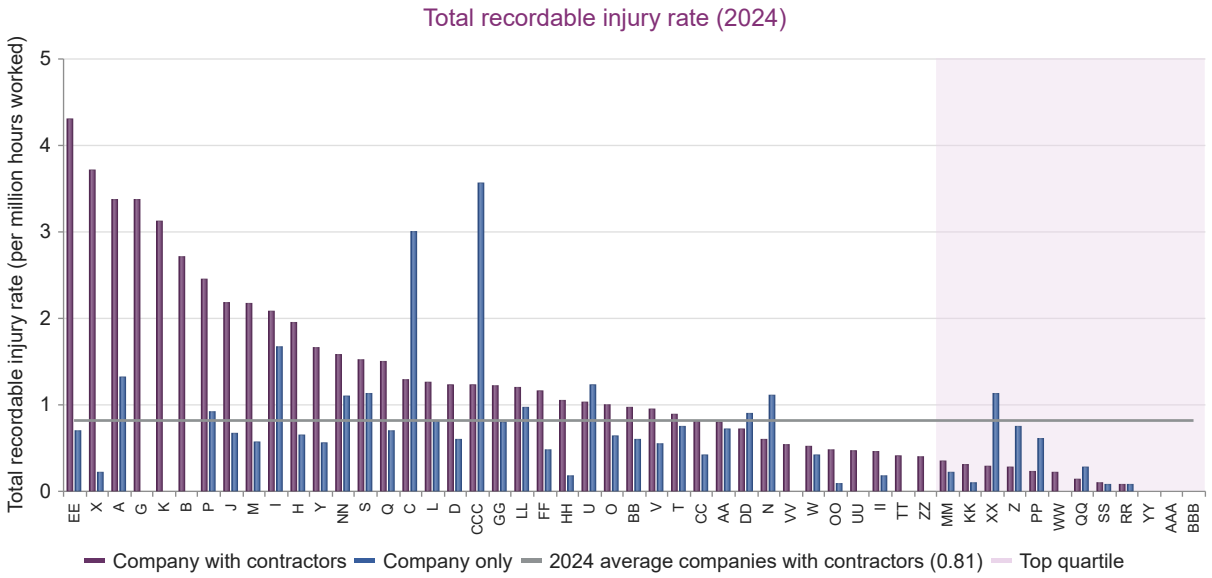
5.1.2 Total recordable injury rate

The total recordable injury rate (TRIR) for companies together with their contractors is presented below. Data are only included where medical treatment cases (MTC) are reported. 51 of the 53 companies that reported both company and contractor data qualified for inclusion in this section. Details of results are tabulated in Appendix B.

In 9 instances, contractors achieved a lower TRIR than the companies they were employed by.

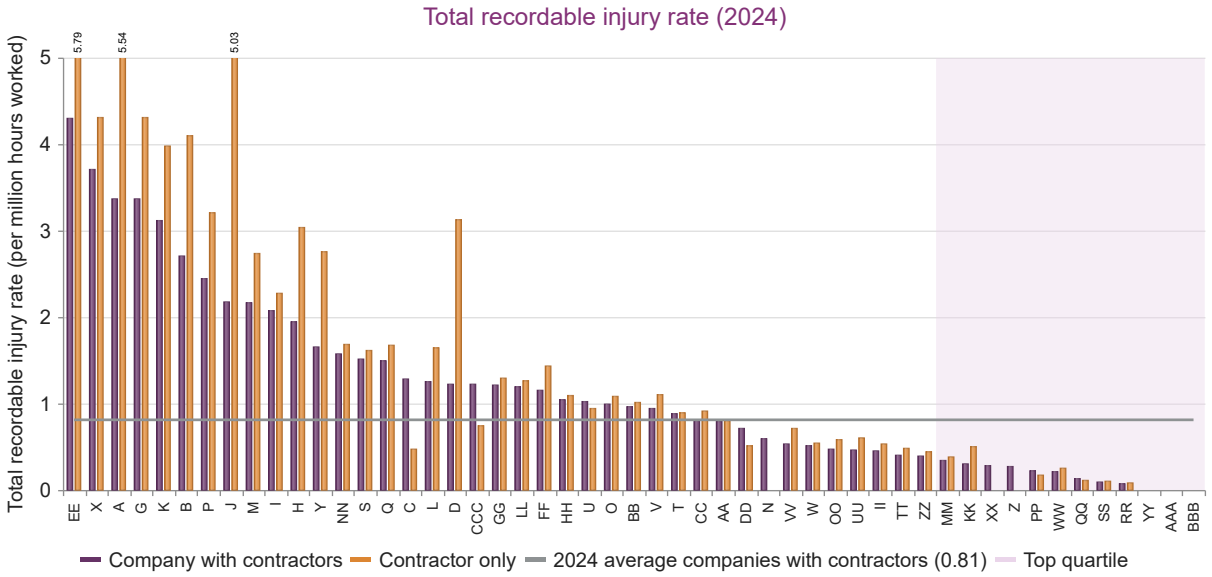
Figure 87 shows the TRIR for companies alone, plotted alongside the TRIR for company and contractors jointly, in rank order of the company-with-contractor TRIR.

Figure 87:



In Figure 88, the TRIR for contractors alone is plotted alongside the TRIR for company and contractors jointly, in rank order of the company-with-contractor TRIR.

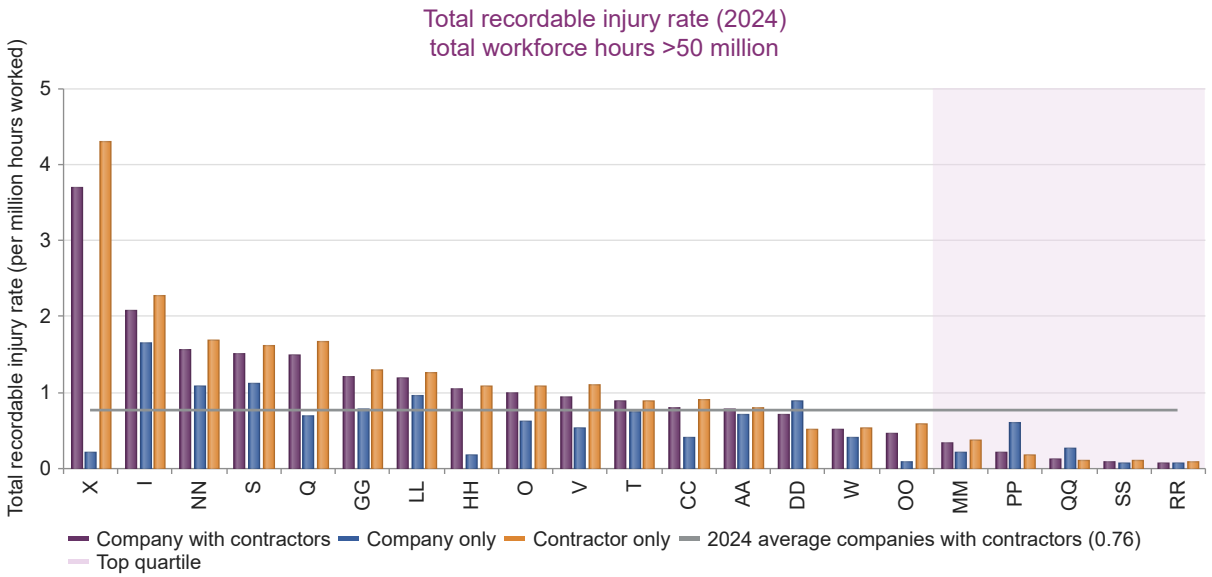
Figure 88:



In figure 89, the TRIR is presented for those companies that, with their contractors, reported more than 50 million work hours, in rank order of the company-with-contractor TRIR. 21 companies met this criterion in 2024, compared with 19 in 2023.

8 of the 21 companies with their contractors had a lower TRIR than the overall average for companies with their contractors reporting more than 50 million work hours (0.76).

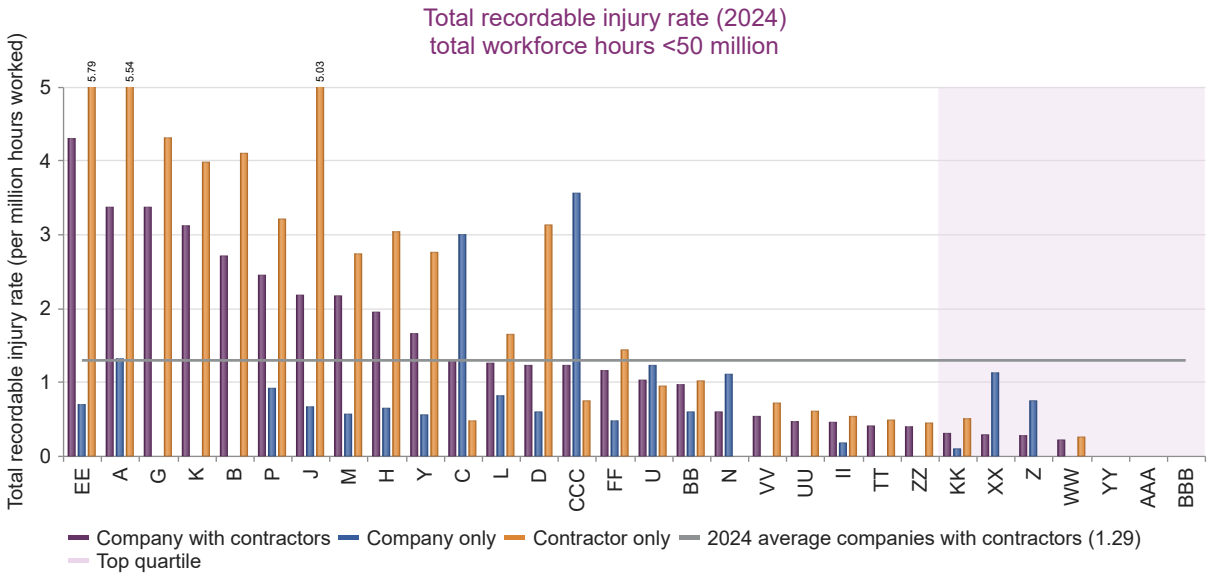
Figure 89:



The remaining 30 companies which, with their contractors, reported less than 50 million work hours are presented below, in rank order of the company-with-contractor TRIR.

20 of the 30 companies with their contractors had a lower TRIR than the overall average for smaller companies with contractors (1.29).

Figure 90:



5.1.3 Lost time injury rate

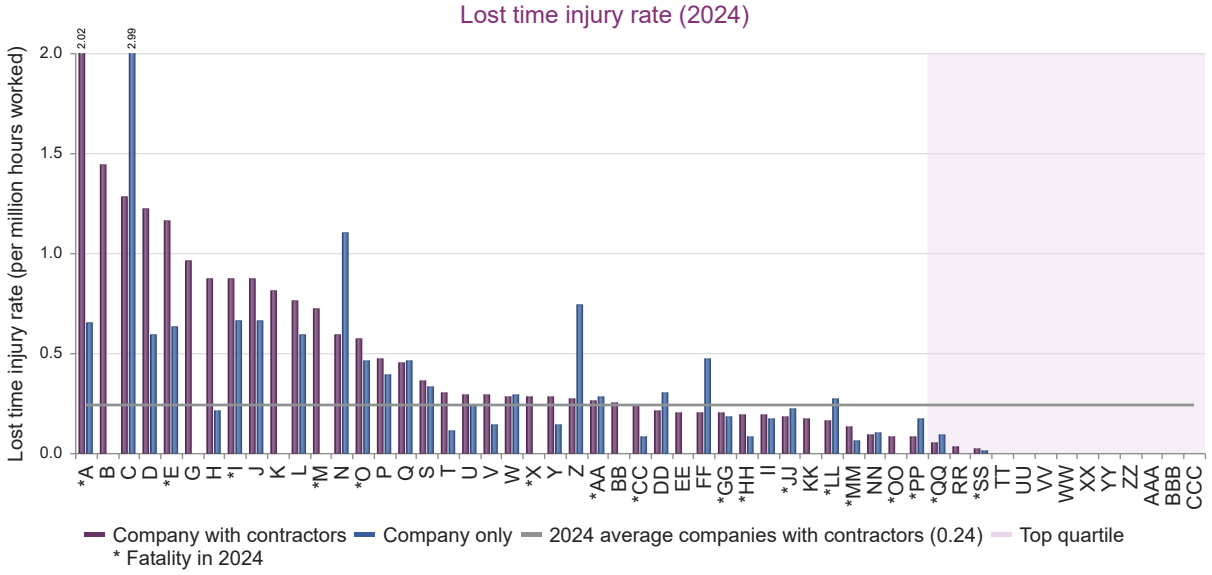
The lost time injury rate (LTIR) for companies together with their contractors is presented below. The incidence of a fatality in either company or contractor operations is indicated (*).

53 of the 56 participating companies (A to CCC) contributed both company and contractor data, although not always for every country in which operations were conducted. Data for all 53 companies that submitted both company and contractor data are therefore included in this section. Detailed results are tabulated in Appendix B. The analysis shows that:

- 48 of the 53 companies with their contractors delivered a LTIR of less than 1.
- 17 of the companies presented below suffered one or more fatality.
- In 13 instances, contractors achieved a lower LTIR than the companies they were employed by.
- 10 companies reported an LTIR of zero for company and contractors combined.

Figure 91 shows the lost time injury rate (LTIR) for companies alone, plotted alongside the LTIR for company and contractors jointly, in rank order of the company-with-contractor LTIR.

Figure 91:



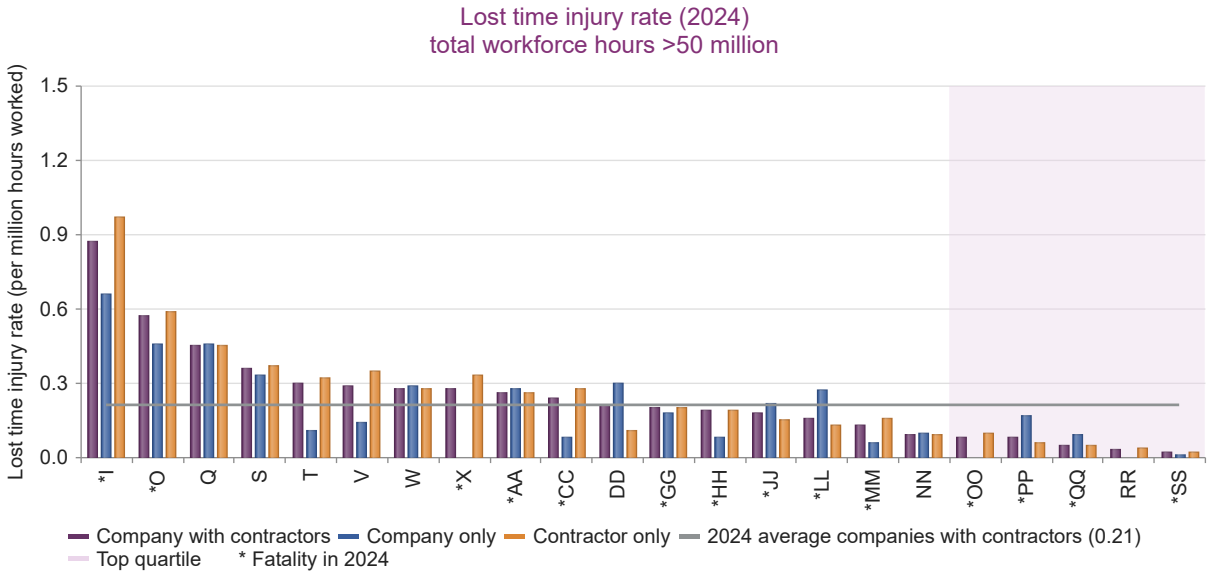
In Figure 92, the LTIR for contractors alone is plotted alongside the LTIR for company and contractors jointly, in rank order of the company-with-contractor LTIR.

Figure 92:

In Figure 93, the LTIR is presented for those companies that, with their contractors, reported more than 50 million work hours, in rank order of the company-with-contractor LTIR. 22 companies met this criterion in 2024, compared with 19 in 2023. The analysis shows that:

- 11 of the 22 companies with their contractors had a lower LTIR than the overall average for companies with their contractors reporting more than 50 million work hours (0.21).
- 14 of the 22 companies suffered one or more fatalities.

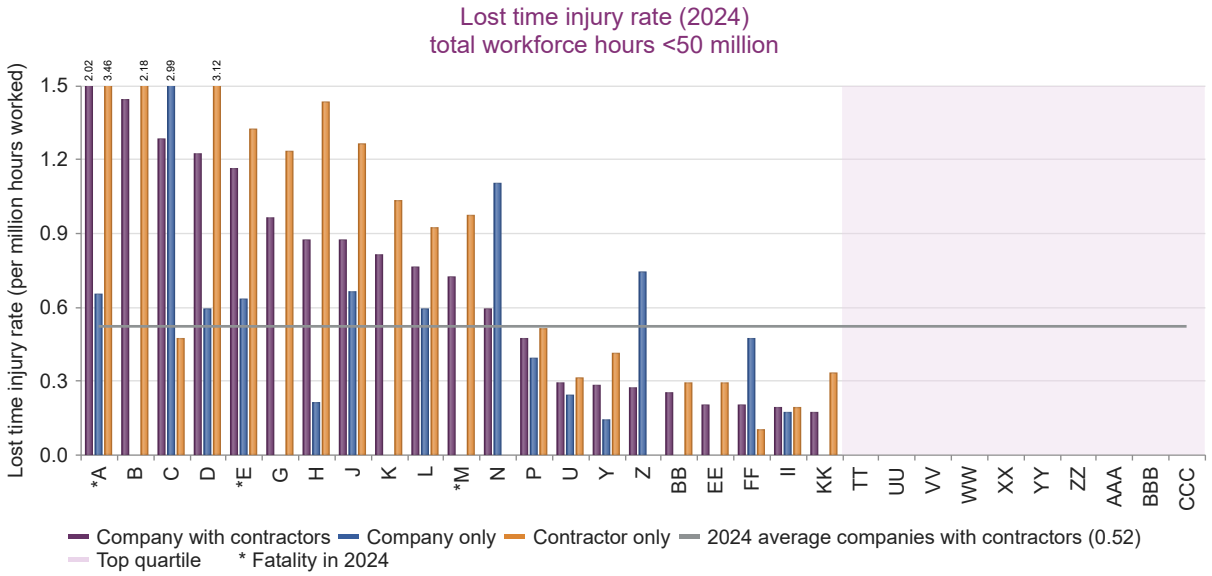
Figure 93:



The remaining 31 companies which, with their contractors, reported less than 50 million work hours are presented in Figure 90, in rank order of the company-with-contractor LTIR.

- 19 of the 31 companies with their contractors had a lower LTIR than the overall average for smaller companies with contractors (0.52).
- 3 of the 31 smaller companies presented below suffered one or more fatalities.

Figure 94:


Lost time injury rate (2024)
total workforce hours <50 million
Lost time injury rate (per million hours worked)
1.5
1.2
0.9
0.6
0.3
0.0
2.02
3.46
2.18
2.99
3.12
*A
B
C
D
*E
G
H
J
K
L
*M
N
P
U
Y
Z
BB
EE
FF
II
KK
TT
UU
VV
WW
XX
YY
ZZ
AAA
BBB
CCC
Company with contractors
Company only
Contractor only
2024 average companies with contractors (0.52)
Top quartile
* Fatality in 2024

5.2 Company results by function

Results of companies, together with their contractors, have been analysed by function to allow more in-depth benchmarking between companies. The TRIR indicator has been selected, and the ranked results are shown in the following charts. Only companies that provided data by function are included, and then only those companies that reported more than 100,000 hours worked. Results against smaller numbers of hours would not have statistical significance. The company code letters are the same as used elsewhere in this section.

Exploration was the only function where the top quartile company with contractors shows a TRIR of zero.

TRIR results by function can be found in Appendix B - Table 46.

Figure 95:

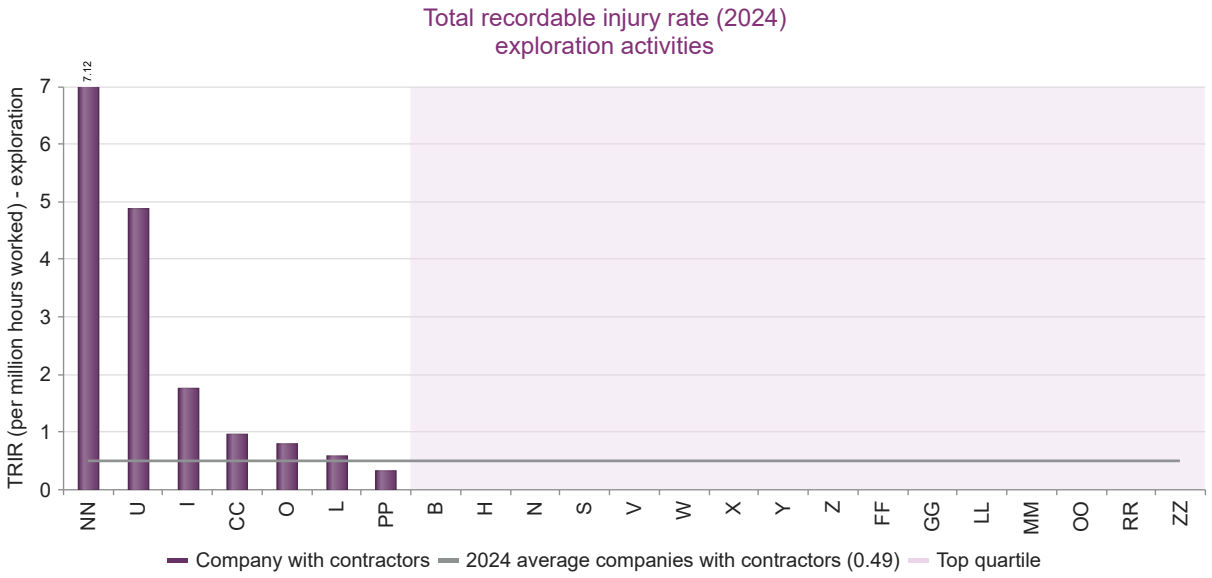


Figure 96:

Figure 97:

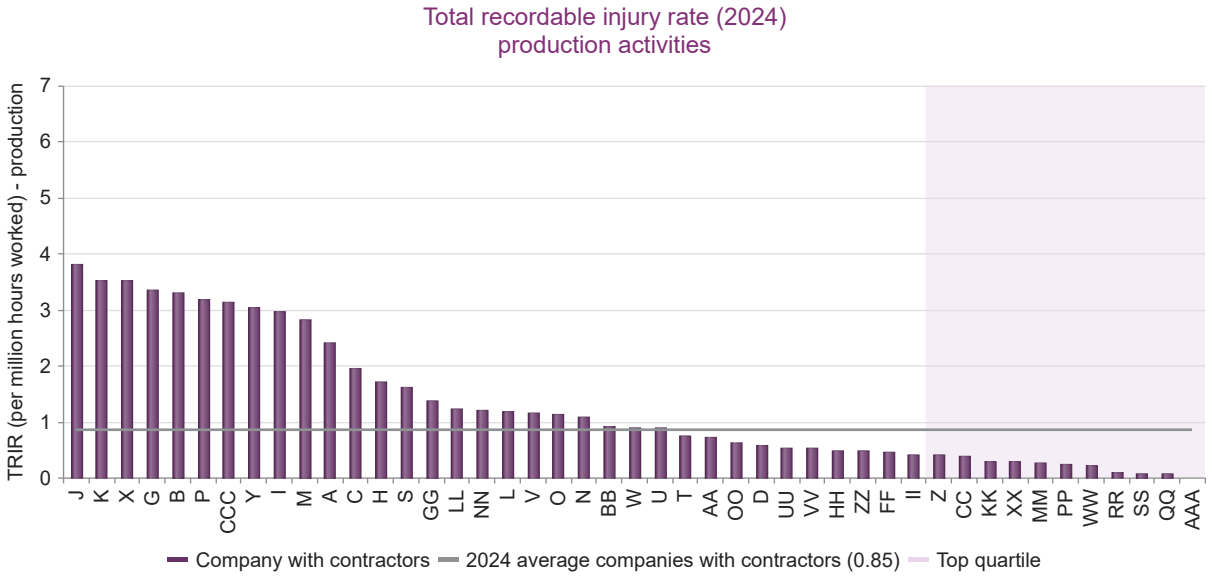


Figure 98:

See Appendix B - Section 5 for data tables.

Appendix A - Database dimensions

Figure A1:

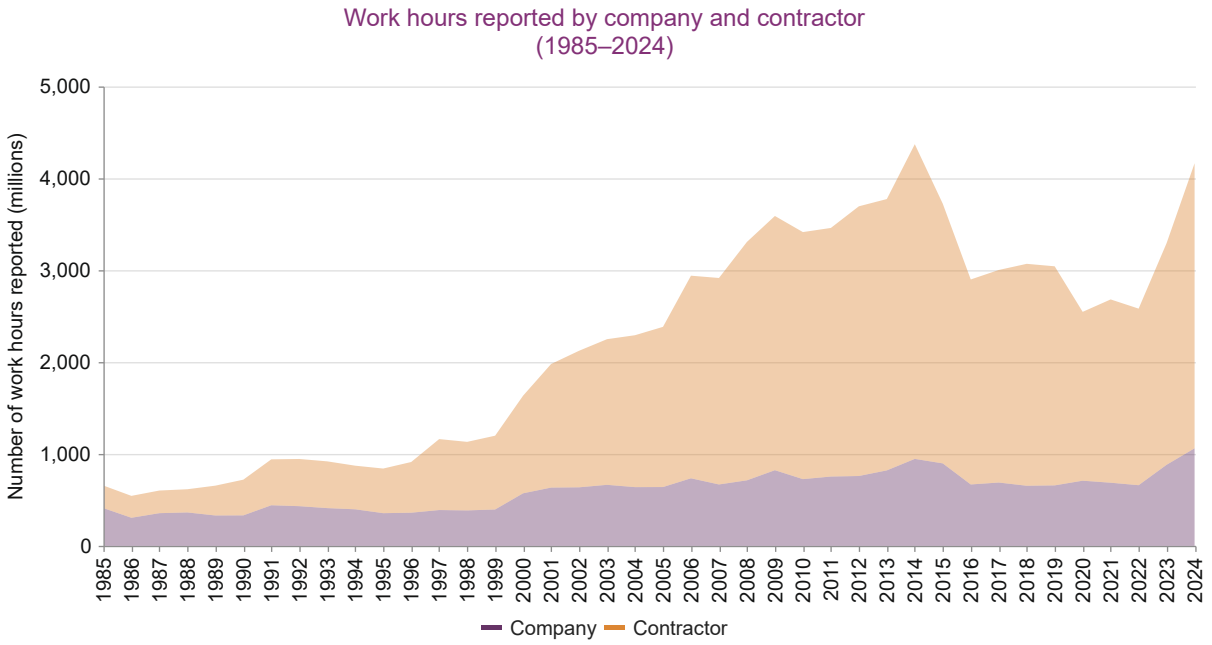


Table A.1: Work hours reported by data type and operations (2024)

Type	Work hours reported (thousands)		
	Onshore	Offshore	Overall
Company	823,387	237,339	1,060,726
Contractor	2,186,343	911,807	3,098,151
OVERALL	3,009,731	1,149,146	4,158,877

The database for the year 2024 covers 4,158,877,000 work hours reported in the upstream sector of the oil and gas industry. The database is 26% bigger than it was in 2023.

- 72% of the hours reported were associated with onshore activities, 28% with offshore activities.
- 87 countries are represented in the database, 5 fewer than in the 2023 database. Countries are listed in the 'Countries' section.
- 56 companies contributed data, of which 53 companies contributed contractor statistics, though not in every case for each country of operation.
- Of the 56 companies, 50 had contributed data in 2023 which accounted for 95% of the database in 2023 and 82% of the database in 2024. 42 of the companies submitting 2024 data had also provided data in 2022.
- 15 of the companies contributed 77% of the hours. 5 companies covered 37% of the hours, and the largest contributor accounted for 10%.
- 26% of the reported work hours were related to company personnel and 74% were related to contractors.

In 2024, 2 companies did not report contractor data.
A summary of the key elements of the database is shown in the table at the end of this section.

Figure A2:

Percentage of work hours reported by region (2024)

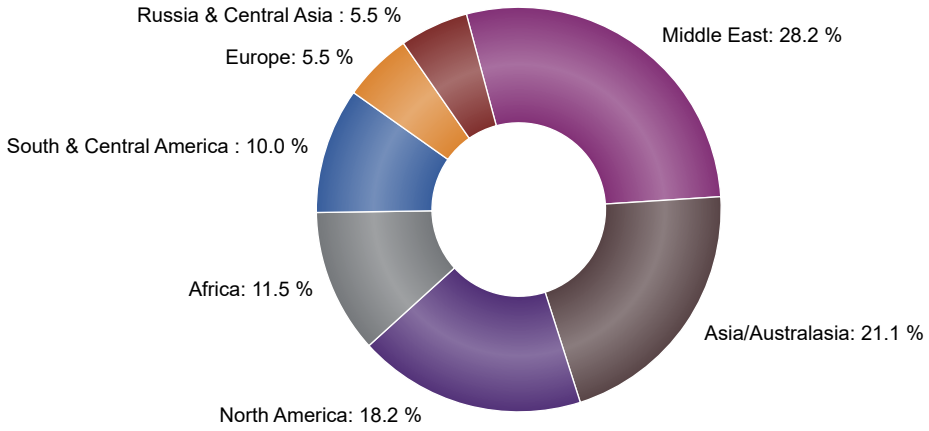
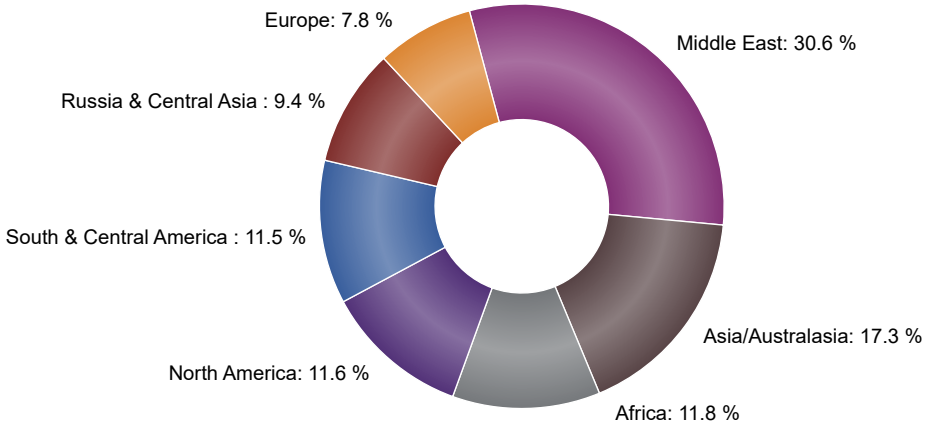


Figure A3:

Percentage of work hours reported by region (2023)



'Unspecified (as a work function)' is used for the entry of data associated with office personnel whose work hours and incident data cannot be reasonably assigned to the administrative support of one of the function groupings of exploration, drilling, production or construction. Corporate overhead support function personnel such as finance or human resources staff may be examples where work hours cannot be specifically assigned to a particular function. All other data that are not separated out by function are reported as 'unspecified'.

Figure A4:

Percentage of work hours reported by work function (2024)

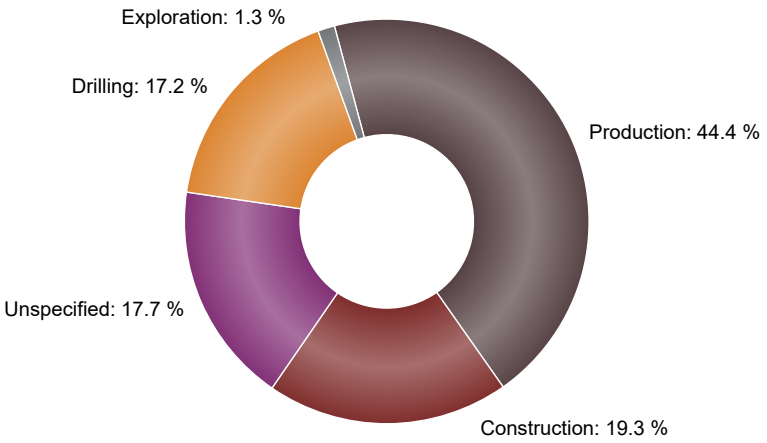
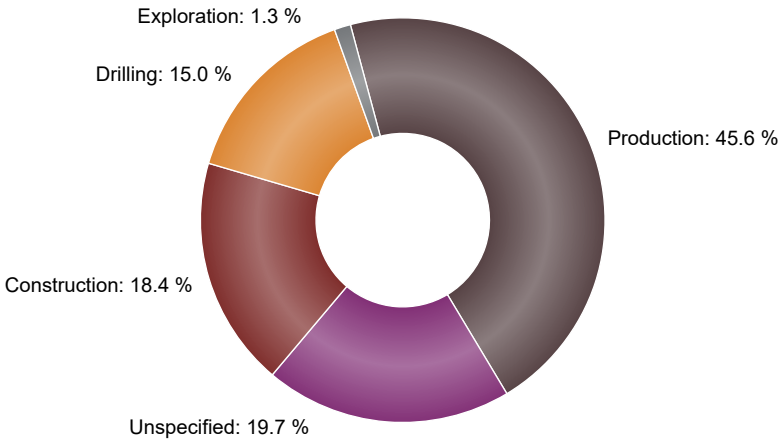


Figure A5:

Percentage of work hours reported by work function (2023)



Proportion of database used in analysis

For calculations of fatal accident rate (FAR, fatal incidents per 100 million work hours), and lost time injury rate (LTIR):

- All hours in the database were used.

For calculations of TRIR:

- Submissions without information on medical treatment cases were filtered out, leaving a database of 3,795 million hours, 91% of the database.
- In 2023, the TRIR database was 3,291 million hours, 100% of the total database.

For calculations of lost work day case severity:

- Submissions without information on days off work were filtered out, leaving a database of 3,507 million hours, 84% of the total database.
- In 2023, this database was 2,912 million hours, 88% of the total database.

For calculations of restricted work day case severity:

- Submissions without information on days assigned to restricted activities were filtered out, leaving a database of 3,085 million hours (74% of the total database), and 628 restricted work day cases.
- In 2023, this database was 2,521 million hours, 77% of the total database.

More detailed information is shown in the data tables below.

Table A.2: Percentage of reported work hours included in analyses by region 2024

Region	Percentage of reported work hours included in analysis		
	TRIR	LWDC severity	RWDC severity
Africa	95%	78%	64%
Asia/Australasia	100%	96%	96%
Europe	98%	59%	53%
Middle East	100%	98%	82%
North America	57%	53%	35%
Russia & Central Asia	100%	93%	93%
South & Central America	98%	94%	92%

Table A.3: Percentage of reported work hours included in analyses by function 2024

Function	Percentage of reported work hours included in analysis		
	TRIR	LWDC severity	RWDC severity
Exploration	58%	59%	34%
Drilling	93%	91%	80%
Production	93%	80%	70%
Construction	86%	82%	71%
Unspecified	94%	92%	85%

Table A.4: Percentage of reported RWDC included in RWDC severity calculations 2024

Category	Percentage of reported RWDC included in RWDC severity calculations
Overall	83%
Company	82%
Contractor	83%
Onshore	89%
Offshore	71%

See Appendix B - Database dimensions for data tables.

Appendix B - Data tables

Table B.1: Summary of 2024 data by region

Region	Data type	Operations	Hours worked (thousands)	Fatalities	LWDCs (number)	RWDCs (number)	MTCs (number)	FAR	TRIR	LTIR
Africa	Company	Onshore	72,361	0	5	0	8	0.00	0.13	0.07
Africa	Company	Offshore	15,387	0	4	7	3	0.00	0.99	0.26
Africa	Contractor	Onshore	321,060	2	38	20	76	0.62	0.39	0.12
Africa	Contractor	Offshore	69,721	6	20	13	23	8.61	0.74	0.37
Africa	SUBTOTAL	SUBTOTAL	478,530	8	67	40	110	1.67	0.42	0.16
Asia/Australasia	Company	Onshore	218,906	1	23	34	21	0.46	0.36	0.11
Asia/Australasia	Company	Offshore	92,920	0	11	13	14	0.00	0.41	0.12
Asia/Australasia	Contractor	Onshore	275,236	0	29	71	85	0.00	0.67	0.11
Asia/Australasia	Contractor	Offshore	290,309	2	35	56	67	0.69	0.55	0.13
Asia/Australasia	SUBTOTAL	SUBTOTAL	877,373	3	98	174	187	0.34	0.53	0.12
Europe	Company	Onshore	72,422	0	17	2	8	0.00	0.37	0.23
Europe	Company	Offshore	22,120	1	26	10	31	4.52	3.08	1.22
Europe	Contractor	Onshore	58,872	0	56	16	40	0.00	1.90	0.95
Europe	Contractor	Offshore	76,983	0	110	58	95	0.00	3.48	1.43
Europe	SUBTOTAL	SUBTOTAL	230,398	1	209	86	174	0.43	2.06	0.91
Middle East	Company	Onshore	136,942	2	12	11	16	1.46	0.30	0.10
Middle East	Company	Offshore	23,670	0	3	3	4	0.00	0.42	0.13
Middle East	Contractor	Onshore	836,417	6	91	127	192	0.72	0.50	0.12
Middle East	Contractor	Offshore	173,794	1	17	23	9	0.58	0.29	0.10
Middle East	SUBTOTAL	SUBTOTAL	1,170,824	9	123	164	221	0.77	0.44	0.11
North America	Company	Onshore	178,127	0	39	21	40	0.00	1.02	0.22
North America	Company	Offshore	46,257	0	24	3	4	0.00	2.23	0.52
North America	Contractor	Onshore	388,224	4	108	150	265	1.03	1.68	0.29
North America	Contractor	Offshore	143,530	3	37	29	29	2.09	2.44	0.28
North America	SUBTOTAL	SUBTOTAL	756,140	7	208	203	338	0.93	1.62	0.28
Russia & Central Asia	Company	Onshore	86,936	1	23	5	46	1.15	0.86	0.28
Russia & Central Asia	Company	Offshore	18,262	1	9	0	6	5.48	0.88	0.55
Russia & Central Asia	Contractor	Onshore	112,574	0	18	5	26	0.00	0.44	0.16
Russia & Central Asia	Contractor	Offshore	10,416	0	2	5	6	0.00	1.25	0.19
Russia & Central Asia	SUBTOTAL	SUBTOTAL	228,189	2	52	15	84	0.88	0.67	0.24
South & Central America	Company	Onshore	57,690	0	2	4	3	0.00	0.16	0.03
South & Central America	Company	Offshore	18,721	0	22	0	6	0.00	1.54	1.18
South & Central America	Contractor	Onshore	193,958	1	52	49	226	0.52	1.72	0.27
South & Central America	Contractor	Offshore	147,052	1	113	21	92	0.68	1.53	0.78
South & Central America	SUBTOTAL	SUBTOTAL	417,421	2	189	74	327	0.48	1.43	0.46
TOTAL	Company	Onshore	823,387	4	121	77	142	0.49	0.45	0.15
TOTAL	Company	Offshore	237,339	2	99	36	68	0.84	0.96	0.43
TOTAL	Contractor	Onshore	2,186,343	13	392	438	910	0.59	0.83	0.19
TOTAL	Contractor	Offshore	911,807	13	334	205	321	1.43	1.06	0.38
GRAND TOTAL	TOTAL	TOTAL	4,158,877	32	946	756	1,441	0.77	0.81	0.24

Table B.2: Summary of 2024 data overall

Operations	Hours worked (thousands)	Fatalities	LWDCs (number)	RWDCs (number)	MTCs (number)	FAR	TRIR	LTIR
OVERALL	4,158,877	32	946	756	1,441	0.77	0.81	0.24
Company	1,060,726	6	220	113	210	0.57	0.56	0.21
Contractor	3,098,151	26	726	643	1,231	0.84	0.89	0.24
Onshore	3,009,731	17	513	515	1,052	0.56	0.73	0.18
Offshore	1,149,146	15	433	241	389	1.31	1.04	0.39

Table B.3: Summary of 2024 data by function

Function	Data type	Operations	Hours worked (thousands)	Fatalities	LWDCs (number)	RWDCs (number)	MTCs (number)	FAR	TRIR	LTIR
Exploration	Company	Onshore	13,169	0	0	1	0	0.00	0.10	0.00
Exploration	Company	Offshore	1,530	0	1	0	0	0.00	0.65	0.65
Exploration	Contractor	Onshore	33,215	0	2	1	3	0.00	0.32	0.06
Exploration	Contractor	Offshore	7,793	0	4	2	4	0.00	1.28	0.51
Exploration	SUBTOTAL	SUBTOTAL	55,709	0	7	4	7	0.00	0.49	0.13
Drilling	Company	Onshore	111,080	2	13	6	7	1.80	0.25	0.14
Drilling	Company	Offshore	38,691	0	11	6	2	0.00	0.58	0.28
Drilling	Contractor	Onshore	296,871	4	71	101	176	1.35	1.19	0.25
Drilling	Contractor	Offshore	267,881	0	91	65	63	0.00	0.87	0.34
Drilling	SUBTOTAL	SUBTOTAL	714,524	6	186	178	248	0.84	0.91	0.27
Production	Company	Onshore	379,934	2	67	41	105	0.53	0.64	0.18
Production	Company	Offshore	170,041	2	68	22	61	1.18	0.97	0.41
Production	Contractor	Onshore	887,699	9	147	128	355	1.01	0.76	0.18
Production	Contractor	Offshore	409,447	6	187	101	182	1.47	1.17	0.47
Production	SUBTOTAL	SUBTOTAL	1,847,122	19	469	292	703	1.03	0.85	0.26
Construction	Company	Onshore	65,771	0	8	4	3	0.00	0.24	0.12
Construction	Company	Offshore	7,553	0	8	0	2	0.00	1.32	1.06
Construction	Contractor	Onshore	554,880	0	90	114	234	0.00	0.80	0.16
Construction	Contractor	Offshore	176,408	1	27	22	49	0.57	0.98	0.16
Construction	SUBTOTAL	SUBTOTAL	804,614	1	133	140	288	0.12	0.79	0.17
Unspecified	Company	Onshore	253,430	0	33	25	27	0.00	0.32	0.13
Unspecified	Company	Offshore	19,522	0	11	8	3	0.00	1.21	0.56
Unspecified	Contractor	Onshore	413,677	0	82	94	142	0.00	0.76	0.20
Unspecified	Contractor	Offshore	50,276	6	25	15	23	11.93	1.22	0.62
Unspecified	SUBTOTAL	SUBTOTAL	736,907	6	151	142	195	0.81	0.64	0.21
TOTAL	Company	Onshore	823,387	4	121	77	142	0.49	0.45	0.15
TOTAL	Company	Offshore	237,339	2	99	36	68	0.84	0.96	0.43
TOTAL	Contractor	Onshore	2,186,343	13	392	438	910	0.59	0.83	0.19
TOTAL	Contractor	Offshore	911,807	13	334	205	321	1.43	1.06	0.38
GRAND TOTAL	TOTAL	TOTAL	4,158,877	32	946	756	1,441	0.77	0.81	0.24

The following data are presented in relation to the sections where they were used.

Section 2 Overall results

Table B.4: Fatal accident rate (2015-2024)

Year	Company	Contractor	Overall	Onshore	Offshore
2015	1.34	1.49	1.45	1.19	2.21
2016	0.90	1.97	1.73	1.50	2.37
2017	1.02	1.13	1.10	1.10	1.11
2018	0.31	1.20	1.01	1.02	0.97
2019	0.46	0.92	0.82	0.78	0.95
2020	0.56	0.54	0.55	0.42	0.92
2021	0.29	0.90	0.75	0.79	0.61
2022	0.30	1.62	1.28	1.27	1.29
2023	0.68	0.87	0.82	0.90	0.59
2024	0.57	0.84	0.77	0.56	1.31

Table B.5: Fatal incident rate (2015-2024)

Year	Company	Contractor	Overall	Onshore	Offshore
2015	0.67	1.20	1.08	0.94	1.47
2016	0.45	1.17	1.00	1.08	0.79
2017	1.02	1.00	1.00	1.05	0.86
2018	0.31	1.04	0.88	0.85	0.97
2019	0.30	0.84	0.72	0.68	0.83
2020	0.56	0.44	0.47	0.37	0.77
2021	0.29	0.65	0.56	0.54	0.61
2022	0.15	1.46	1.12	1.11	1.15
2023	0.45	0.54	0.52	0.53	0.47
2024	0.57	0.48	0.50	0.47	0.61

Table B.5A: Exposure hours used in the calculation of FAR and FIR

Year	Company	Contractor	Overall	Onshore	Offshore
2015	896,862	2,822,454	3,719,316	2,768,347	950,969
2016	667,335	2,228,286	2,895,621	2,134,946	760,675
2017	688,779	2,310,260	2,999,039	2,184,775	814,264
2018	653,764	2,412,586	3,066,350	2,244,676	821,674
2019	657,258	2,381,094	3,038,352	2,193,257	845,095
2020	708,712	1,835,489	2,544,201	1,891,036	653,165
2021	686,668	1,992,358	2,679,026	2,021,601	657,425
2022	659,717	1,919,283	2,579,000	1,883,492	695,508
2023	881,802	2,409,580	3,291,382	2,437,811	853,571
2024	1,060,726	3,098,151	4,158,877	3,009,731	1,149,146

Table B.6: Fatalities by cause (2024)

Cause	Company	Contractor	Overall	Onshore	Offshore	% of total
Assault or violent act	0	4	4	4	0	12.5
Aviation accident	1	0	1	0	1	3.1
Caught in, under or between (excl. dropped objects)	0	2	2	2	0	6.3
Confined space	0	1	1	0	1	3.1
Cut, puncture, scrape	0	0	0	0	0	
Dropped objects	1	0	1	1	0	3.1
Explosion, fire or burns	1	12	13	1	12	40.6
Exposure electrical	0	2	2	1	1	6.3
Exposure noise, chemical, biological, vibration, extreme temperature	0	0	0	0	0	
Falls from height	0	3	3	3	0	9.4
Overexertion, strain	0	0	0	0	0	
Pressure release	0	0	0	0	0	
Slips and trips (at same height)	0	0	0	0	0	
Struck by (not dropped object)	2	2	4	4	0	12.5
Water related, drowning	1	0	1	1	0	3.1
Unspecified - Other	0	0	0	0	0	
OVERALL	6	26	32	17	15	

Table B.7: Fatalities by activity (2024)

Cause	Company	Contractor	Overall	Onshore	Offshore	% of total
Construction, commissioning, decommissioning	0	4	4	4	0	12.5
Diving (incl. decompression), subsea, ROV	0	0	0	0	0	
Drilling, workover, well operations	2	9	11	4	7	34.4
Excavation, trenching, ground disturbance	0	0	0	0	0	
Lifting, crane, rigging, deck operations	1	1	2	2	0	6.3
Maintenance, inspection, testing	0	3	3	2	1	9.4
Office, warehouse, accommodation, catering	0	0	0	0	0	
Production operations	0	7	7	1	6	21.9
Seismic/survey operations	0	0	0	0	0	
Transport - Air	1	0	1	0	1	3.1
Transport - Land	2	2	4	4	0	12.5
Transport - Water, incl. marine activity	0	0	0	0	0	
Unspecified - other	0	0	0	0	0	
OVERALL	6	26	32	17	15	

Table B.8: Total recordable injury rate (2015-2024)

Year	Company	Contractor	OVERALL	Onshore	Offshore
2015	0.89	1.30	1.21	1.08	1.65
2016	0.82	1.09	1.03	0.83	1.60
2017	0.78	1.01	0.96	0.80	1.37
2018	0.72	1.06	0.99	0.88	1.27
2019	0.67	0.98	0.92	0.81	1.20
2020	0.49	0.78	0.70	0.59	1.01
2021	0.51	0.85	0.77	0.61	1.23
2022	0.61	0.99	0.90	0.78	1.21
2023	0.57	0.94	0.84	0.75	1.11
2024	0.56	0.89	0.81	0.73	1.04

Table B.8A: Exposure hours used in the calculation of TRIR

Year	Company	Contractor	OVERALL	Onshore	Offshore
2015	726,781	2,589,756	3,316,537	2,566,023	750,514
2016	662,818	2,227,323	2,890,141	2,129,739	760,402
2017	639,720	2,283,689	2,923,409	2,112,668	810,741
2018	653,764	2,412,480	3,066,244	2,244,676	821,568
2019	616,171	2,375,066	2,991,237	2,146,142	845,095
2020	649,265	1,792,191	2,441,456	1,791,850	649,606
2021	639,681	1,992,358	2,632,039	1,974,614	657,425
2022	615,716	1,919,004	2,534,720	1,839,491	695,229
2023	881,802	2,409,580	3,291,382	2,437,811	853,571
2024	919,061	2,875,614	3,794,675	2,808,139	986,536

Table B.9: Lost time injury rate (2015-2024)

Year	Company	Contractor	OVERALL	Onshore	Offshore
2015	0.30	0.29	0.29	0.23	0.47
2016	0.24	0.28	0.27	0.20	0.45
2017	0.28	0.26	0.27	0.22	0.41
2018	0.25	0.26	0.26	0.22	0.37
2019	0.24	0.24	0.24	0.19	0.36
2020	0.20	0.22	0.22	0.17	0.35
2021	0.19	0.24	0.22	0.17	0.40
2022	0.26	0.28	0.28	0.22	0.44
2023	0.22	0.24	0.24	0.19	0.38
2024	0.21	0.24	0.24	0.18	0.39

Table B.9A: Exposure hours used in the calculation of LTIR

Year	Company	Contractor	OVERALL	Onshore	Offshore
2015	896,862	2,822,454	3,719,316	2,768,347	950,969
2016	667,335	2,228,286	2,895,621	2,134,946	760,675
2017	688,779	2,310,260	2,999,039	2,184,775	814,264
2018	653,764	2,412,586	3,066,350	2,244,676	821,674
2019	657,258	2,381,094	3,038,352	2,193,257	845,095
2020	708,712	1,835,489	2,544,201	1,891,036	653,165
2021	686,668	1,992,358	2,679,026	2,021,601	657,425
2022	659,717	1,919,283	2,579,000	1,883,492	695,508
2023	881,802	2,409,580	3,291,382	2,437,811	853,571
2024	1,060,726	3,098,151	4,158,877	3,009,731	1,149,146

Table B.10: Lost work day cases by cause (2024)

Cause	Company	Contractor	OVERALL	Onshore	Offshore	% of total
Assault or violent act	0	2	2	2	0	0.2
Caught in, under or between (excl. dropped objects)	45	144	189	89	100	20.0
Confined space	1	2	3	2	1	0.3
Cut, puncture, scrape	7	53	60	30	30	6.3
Dropped objects	6	35	41	25	16	4.3
Explosion, fire or burns	7	34	41	20	21	4.3
Exposure electrical	4	3	7	6	1	0.7
Exposure noise, chemical, biological, vibration, extreme temperature	8	19	27	18	9	2.9
Falls from height	21	59	80	51	29	8.5
Overexertion, strain	22	36	58	22	36	6.1
Pressure release	0	9	9	5	4	1.0
Slips and trips (at same height)	47	159	206	130	76	21.8
Struck by (not dropped object)	33	115	148	85	63	15.6
Water related, drowning	0	1	1	1	0	0.1
Unspecified - Other	19	55	74	27	47	7.8
OVERALL	220	726	946	513	433	

Note: dropped objects was introduced as a LWDC cause in 2019.

Table B.11: Lost work day cases by activity (2024)

Activity	Company	Contractor	OVERALL	Onshore	Offshore	% of total
Construction, commissioning, decommissioning	10	101	111	95	16	11.7
Diving (incl. decompression), subsea, ROV	0	4	4	1	3	0.4
Drilling, workover, well operations	31	159	190	117	73	20.1
Excavation, trenching, ground disturbance	0	5	5	5	0	0.5
Lifting, crane, rigging, deck operations	9	59	68	19	49	7.2
Maintenance, inspection, testing	46	131	177	80	97	18.7
Office, warehouse, accommodation, catering	14	43	57	29	28	6.0
Production operations	58	96	154	86	68	16.3
Seismic/survey operations	1	1	2	0	2	0.2
Transport - Air	1	3	4	4	0	0.4
Transport - Land	10	28	38	35	3	4.0
Transport - Water, incl. marine activity	5	23	28	6	22	3.0
Unspecified - other	35	73	108	36	72	11.4
OVERALL	220	726	946	513	433	

Table B.12: Lost work day case severity (2015-2024)

Year	Average number of days lost per LWDC				
	Company	Contractor	OVERALL	Onshore	Offshore
2015	53.7	54.1	54.0	45.2	66.4
2016	37.6	66.9	61.4	46.9	79.2
2017	40.5	43.0	42.5	45.1	39.0
2018	37.7	54.6	51.5	49.4	54.9
2019	44.8	52.5	50.9	53.8	46.7
2020	40.1	42.9	42.3	39.2	47.6
2021	56.4	51.4	52.4	53.9	50.1
2022	38.3	42.4	41.3	45.4	34.9
2023	42.9	52.5	50.0	46.2	56.1
2024	50.3	43.6	45.3	47.5	42.3

Table B.13: Restricted work day case severity (2015-2024)

Year	Average number of days restricted per RWDC				
	Company	Contractor	OVERALL	Onshore	Offshore
2015	22.4	18.7	19.1	18.2	21.0
2016	14.4	14.4	14.4	13.8	15.6
2017	12.5	18.0	17.2	17.1	17.6
2018	16.7	19.8	19.4	19.9	18.9
2019	23.5	23.7	23.7	25.4	21.4
2020	32.2	25.9	26.4	31.5	19.7
2021	41.2	23.4	26.3	26.3	26.2
2022	31.8	27.9	28.5	27.0	31.0
2023	23.0	24.7	24.5	25.3	22.9
2024	30.0	34.2	33.6	33.1	34.7

Table B.14: IOGP Life-Saving Rules allocated to fatal incidents (2024)

Life-Saving Rule	Fatal incidents				
	2020	2021	2022	2023	2024
Bypassing safety controls	1	0	0	2	1
Confined space	0	0	0	0	2
Driving	1	1	2	3	4
Energy isolation	2	1	4	1	1
Hot work	0	0	3	0	1
Line of fire	5	5	12	2	3
Safe mechanical lifting	1	3	2	2	1
Work authorization	0	0	1	1	3
Working at height	0	4	1	2	2
Other issue – no applicable rule	1	0	4	4	3
Unspecified	1	1	0	0	0

Table B.15: IOGP Life-Saving Rules allocated to lost work day cases (2024)

Life-Saving Rule	Lost work day cases				
	2020	2021	2022	2023	2024
Bypassing safety controls	11	5	5	23	25
Confined space	2	2	7	2	7
Driving	19	7	13	16	33
Energy isolation	22	20	20	22	22
Hot work	6	7	6	4	5
Line of fire	107	109	176	210	215
Safe mechanical lifting	29	42	23	47	46
Work authorization	5	7	17	13	28
Working at height	57	44	37	30	41
Other issue – no applicable rule	129	200	180	140	186
Unspecified	148	137	198	241	338

Section 3 Results by region

Table B.16: Fatalities and fatal incidents by region (2020-2024)

Region	Fatalities					Fatal incidents				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
Africa	2	7	2	5	8	2	2	2	4	3
Asia/Australasia	3	0	7	11	3	2	0	7	5	2
Europe	0	2	0	0	1	0	2	0	0	1
Middle East	5	4	11	4	9	4	4	8	3	6
North America	2	1	4	3	7	2	1	4	3	5
Russia & Central Asia	2	2	3	4	2	2	2	2	2	2
South & Central America	0	4	6	0	2	0	4	6	0	2
OVERALL	14	20	33	27	32	12	15	29	17	21

Table B.17: Fatal accident rate by region (2020-2024)

Region	Fatal accident rate (FAR)				
	2020	2021	2022	2023	2024
Africa	0.62	2.16	0.54	1.29	1.67
Asia/Australasia	0.56	0.00	1.44	1.94	0.34
Europe	0.00	0.87	0.00	0.00	0.43
Middle East	0.85	0.60	2.17	0.40	0.77
North America	0.77	0.38	1.21	0.78	0.93
Russia & Central Asia	0.71	0.60	0.94	1.29	0.88
South & Central America	0.00	1.14	1.93	0.00	0.48
OVERALL	0.55	0.75	1.28	0.82	0.77

Table B.18: Total recordable injury rate by region (2020-2024)

Region	Total recordable injury rate (TRIR)				
	2020	2021	2022	2023	2024
Africa	0.34	0.39	0.37	0.36	0.42
Asia/Australasia	0.48	0.69	0.77	0.66	0.53
Europe	1.83	1.93	1.82	1.67	2.06
Middle East	0.39	0.30	0.30	0.40	0.44
North America	1.07	1.40	1.61	1.70	1.62
Russia & Central Asia	0.43	0.46	0.60	0.52	0.67
South & Central America	1.07	1.14	1.45	1.62	1.43
OVERALL	0.70	0.77	0.90	0.84	0.81

Table B.19: Lost time injury rate by region (2020-2024)

Region	Lost time injury rate (LTIR)				
	2020	2021	2022	2023	2024
Africa	0.12	0.13	0.11	0.10	0.16
Asia/Australasia	0.09	0.14	0.16	0.14	0.12
Europe	0.73	0.82	0.77	0.68	0.91
Middle East	0.09	0.06	0.09	0.10	0.11
North America	0.22	0.23	0.33	0.35	0.28
Russia & Central Asia	0.19	0.15	0.16	0.17	0.24
South & Central America	0.39	0.42	0.63	0.52	0.46
OVERALL	0.22	0.22	0.28	0.24	0.24

Table B.20: Work hours reported by region (2015-2024)

Region	Thousand work hours									
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Africa	543,205	444,534	489,592	537,130	480,700	322,739	323,847	371,510	388,712	478,530
Asia/Australasia	924,392	745,095	595,521	531,067	594,527	531,985	510,335	486,294	567,832	877,373
Europe	343,123	273,984	248,856	250,880	275,861	233,754	231,120	250,769	256,096	230,398
Middle East	653,049	607,678	754,753	756,946	675,784	591,323	670,571	507,003	1,008,695	1,170,824
North America	864,115	325,869	326,804	367,241	369,476	259,026	260,595	331,406	383,252	756,140
Russia & Central Asia	249,560	166,000	235,205	220,906	246,248	283,302	332,910	320,670	309,121	228,189
South & Central America	141,872	332,461	348,308	402,180	395,756	322,072	349,648	311,348	377,671	417,421
OVERALL	3,719,316	2,895,621	2,999,039	3,066,350	3,038,352	2,544,201	2,679,026	2,579,000	3,291,382	4,158,877

Table B.21: Fatal accident rate five-year rolling average by region (2015-2024)

Region	FAR five-year rolling average									
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Africa	2.29	2.50	2.19	1.43	1.52	1.32	1.25	1.13	1.17	1.27
Asia/Australasia	1.31	1.16	1.03	1.06	0.91	0.90	0.43	0.60	0.82	0.81
Europe	1.18	1.85	1.88	1.46	1.44	1.25	0.32	0.32	0.32	0.25
Middle East	1.17	1.01	0.74	0.86	0.90	0.86	0.78	1.03	0.81	0.84
North America	2.79	2.79	1.92	1.72	1.78	1.33	1.20	0.94	1.00	0.85
Russia & Central Asia	1.17	0.87	1.41	1.43	1.34	1.13	1.14	0.78	0.80	0.88
South & Central America	2.05	1.61	1.75	1.08	1.11	0.89	1.05	1.18	0.85	0.67
OVERALL	1.75	1.72	1.48	1.25	1.23	1.05	0.86	0.88	0.84	0.83

Table B.22: Total recordable injury rate five-year rolling average by region (2015-2024)

Region	TRIR five-year rolling average									
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Africa	1.04	0.92	0.79	0.67	0.54	0.46	0.44	0.41	0.38	0.38
Asia/Australasia	1.11	1.01	0.91	0.87	0.78	0.68	0.65	0.65	0.64	0.61
Europe	2.57	2.44	2.34	2.25	2.16	2.09	2.06	2.01	1.91	1.86
Middle East	0.86	0.80	0.70	0.60	0.52	0.46	0.43	0.38	0.37	0.38
North America	2.59	2.40	2.24	2.12	1.94	1.74	1.66	1.59	1.52	1.52
Russia & Central Asia	0.85	0.75	0.62	0.56	0.56	0.50	0.49	0.52	0.52	0.53
South & Central America	2.96	2.69	2.34	1.98	1.60	1.47	1.34	1.34	1.33	1.35
OVERALL	1.58	1.45	1.30	1.17	1.03	0.93	0.88	0.86	0.83	0.81

Table B.23: Lost time injury rate five-year rolling average by region (2015-2024)

Region	LTIR five-year rolling average									
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Africa	0.29	0.26	0.23	0.19	0.15	0.14	0.13	0.13	0.11	0.12
Asia/Australasia	0.19	0.17	0.15	0.16	0.15	0.14	0.13	0.13	0.13	0.13
Europe	0.90	0.84	0.81	0.74	0.74	0.75	0.77	0.77	0.77	0.78
Middle East	0.20	0.18	0.15	0.13	0.11	0.10	0.09	0.08	0.09	0.09
North America	0.57	0.55	0.46	0.40	0.38	0.34	0.31	0.30	0.30	0.29
Russia & Central Asia	0.26	0.23	0.20	0.17	0.15	0.16	0.16	0.16	0.16	0.18
South & Central America	0.73	0.73	0.71	0.63	0.54	0.51	0.48	0.48	0.48	0.48
OVERALL	0.40	0.38	0.33	0.29	0.27	0.25	0.24	0.24	0.24	0.24

Table B.24: Severity of lost work day cases by region (2020 - 2024)

Region	Average days lost per LWDC				
	2020	2021	2022	2023	2024
Africa	43.5	24.5	39.6	43.8	40.1
Asia/Australasia	31.7	59.4	40.8	40.3	37.4
Europe	37.1	35.9	38.3	50.0	43.9
Middle East	36.4	58.5	23.6	25.0	22.9
North America	48.6	29.5	58.9	57.5	59.7
Russia & Central Asia	69.9	79.3	54.8	70.3	52.8
South & Central America	42.9	64.9	37.8	58.4	54.6
OVERALL	42.3	52.4	41.3	50.0	45.3

Table B.25: Total recordable injury rate by country (2022-2024)

Note: data only included in TRIR calculations where medical treatment cases are reported.

Countries with less than 50,000 reported work hours or with fewer than 2 companies reporting in 2024 or the reporting year are excluded.

Iran and Russia are excluded.

Region	Country	Total recordable injury rate (TRIR)		
		2022	2023	2024
Africa	Gabon	1.19	1.03	2.72
Africa	Mauritania	0	0	1.81
Africa	Cameroon	no data	no data	1.22
Africa	Equatorial Guinea	1.21	0.76	1.17
Africa	Namibia	2	1.79	1.17
Africa	Angola	0.49	0.55	0.8
Africa	Uganda	0	0	0.64
Africa	Algeria	0.8	0.56	0.45
Africa	AFRICA AVERAGE	0.37	0.36	0.42
Africa	Senegal	1.69	1.49	0.42
Africa	Egypt	0.18	0.07	0.35
Africa	Ivory Coast	0	0.24	0.26
Africa	Nigeria	0.22	0.33	0.26
Africa	Tunisia	1.22	1.01	0.24
Africa	Ghana	0	0.15	0.15
Africa	Congo	0.15	0.21	0.14
Africa	Libya	0.15	0.13	0.04
Africa	Kenya	2.27	0	0
Africa	Mozambique	0	0	0
Africa	South Africa	no data	0	0
Africa	Tanzania	0	0	0
Asia/Australasia	South Korea	0	0	10.31
Asia/Australasia	Australia	3.77	3.66	4.22
Asia/Australasia	Japan	2.16	2.17	0.99
Asia/Australasia	Thailand	1.16	0.72	0.77
Asia/Australasia	Malaysia	0.29	0.35	0.54
Asia/Australasia	ASIA/AUSTRALASIA AVERAGE	0.77	0.66	0.53
Asia/Australasia	Singapore	0.58	0	0.53
Asia/Australasia	India	0	0.51	0.52
Asia/Australasia	Papua New Guinea	0.53	0.1	0.19
Asia/Australasia	Indonesia	0.43	0.25	0.11
Asia/Australasia	China	0.13	0.05	0.09
Asia/Australasia	Brunei	0	1.32	0
Asia/Australasia	Vietnam	0.79	0.73	0
Europe	Cyprus	1.34	1.53	3.76
Europe	Norway	2.58	2.26	2.53
Europe	UK	1.01	1.1	2.4
Europe	EUROPE AVERAGE	1.82	1.67	2.06
Europe	Germany	3.22	2.95	1.54
Europe	Italy	1.3	1.25	1.48
Europe	Netherlands	1.61	1.09	1.28
Europe	France	0	0	1.08
Europe	Albania	0.92	1.32	0
Middle East	Kurdistan Region Of Iraq	1.67	1.87	1.74
Middle East	Turkey	0	no data	1.19
Middle East	Qatar	0.56	0.77	0.84
Middle East	Oman	0.36	0.48	0.5
Middle East	MIDDLE EAST AVERAGE	0.3	0.4	0.44
Middle East	Kuwait	0.46	0.36	0.28
Middle East	Iraq	0.05	0.2	0.23
Middle East	UAE	0.22	0.13	0.14
Middle East	Yemen	0	0	0
North America	Canada	1.64	1.56	1.86
North America	NORTH AMERICA AVERAGE	1.61	1.7	1.62
North America	USA	1.61	1.79	1.58
North America	Mexico	1.1	0.49	0.53
Russia & Central Asia	Azerbaijan	0.7	0.64	1

Region	Country	Total recordable injury rate (TRIR)		
		2022	2023	2024
Russia & Central Asia	RUSSIA & CENTRAL ASIA AVERAGE	0.6	0.52	0.67
Russia & Central Asia	Kazakhstan	0.55	0.46	0.44
South & Central America	Argentina	2.08	2.78	2.39
South & Central America	SOUTH & CENTRAL AMERICA AVERAGE	1.45	1.62	1.43
South & Central America	Peru	0.24	0.29	1.14
South & Central America	Brazil	1.33	1.29	1.11
South & Central America	Trinidad and Tobago	0.7	1.37	1.08
South & Central America	Guyana	0.92	0.64	0.71
South & Central America	Venezuela	0	0	0.65
South & Central America	Bolivia	0.95	0.19	0.36
South & Central America	Colombia	1.92	1.31	0
South & Central America	Suriname	1.63	0.76	0

Table B.26: Lost time injury rate by country (2022-2024)

Note: Countries with less than 50,000 reported work hours or with fewer than 2 companies reporting in 2024 or the reporting year are excluded.

Iran and Russia are excluded.

Region	Country	Lost time injury rate (LTIR)		
		2022	2023	2024
Africa	Gabon	0	0.41	1.82
Africa	Mauritania	0	0	1.21
Africa	Tunisia	0.61	0.61	0.39
Africa	Equatorial Guinea	0.35	0.19	0.33
Africa	Cameroon	no data	no data	0.32
Africa	AFRICA AVERAGE	0.11	0.1	0.16
Africa	Uganda	0	0	0.16
Africa	Egypt	0.06	0.02	0.13
Africa	Angola	0.13	0.05	0.09
Africa	Algeria	0.25	0.13	0.06
Africa	Nigeria	0.06	0.14	0.05
Africa	Libya	0.15	0.04	0.04
Africa	Congo	0.04	0.06	0.03
Africa	Ghana	0	0.15	0
Africa	Ivory Coast	0	0	0
Africa	Kenya	1.14	0	0
Africa	Mozambique	0	0	0
Africa	Namibia	0	0.36	0
Africa	Senegal	0.75	0.25	0
Africa	South Africa	no data	0	0
Africa	Tanzania	0	0	0
Asia/Australasia	South Korea	0	0	10.31
Asia/Australasia	Australia	0.44	0.57	0.68
Asia/Australasia	Singapore	0.29	0	0.4
Asia/Australasia	Malaysia	0.11	0.09	0.26
Asia/Australasia	Japan	0.39	0.54	0.2
Asia/Australasia	Thailand	0.2	0.09	0.16
Asia/Australasia	India	0	0.15	0.15
Asia/Australasia	ASIA/AUSTRALASIA AVERAGE	0.16	0.14	0.12
Asia/Australasia	China	0.06	0.03	0.04
Asia/Australasia	Indonesia	0.06	0.03	0.02
Asia/Australasia	Brunei	0	0	0
Asia/Australasia	Papua New Guinea	0.11	0	0
Asia/Australasia	Vietnam	0	0	0
Europe	Italy	1.19	1.08	1.25
Europe	Norway	0.93	0.9	0.99
Europe	UK	0.27	0.26	0.93
Europe	EUROPE AVERAGE	0.77	0.68	0.91
Europe	Netherlands	0.84	0.18	0.89
Europe	Germany	1.35	0.87	0.38
Europe	Albania	0	0	0
Europe	Cyprus	1.34	0	0
Europe	France	0	0	0
Middle East	Kurdistan Region Of Iraq	0.28	0.14	0.58
Middle East	Oman	0.13	0.14	0.18
Middle East	Qatar	0.1	0.13	0.18
Middle East	MIDDLE EAST AVERAGE	0.09	0.1	0.11
Middle East	Iraq	0	0.07	0.08
Middle East	Kuwait	0	0.18	0.08
Middle East	UAE	0.09	0.03	0.05
Middle East	Turkey	0	no data	0
Middle East	Yemen	0	0	0
North America	USA	0.39	0.42	0.44
North America	NORTH AMERICA AVERAGE	0.33	0.35	0.28
North America	Mexico	0	0.25	0.18
North America	Canada	0.19	0.15	0.12
Russia & Central Asia	Azerbaijan	0.19	0.24	0.34
Russia & Central Asia	RUSSIA & CENTRAL ASIA AVERAGE	0.16	0.17	0.24
Russia & Central Asia	Kazakhstan	0.16	0.13	0.17

Region	Country	Lost time injury rate (LTIR)		
		2022	2023	2024
South & Central America	Brazil	0.82	0.66	0.61
South & Central America	Peru	0.08	0.14	0.47
South & Central America	SOUTH & CENTRAL AMERICA AVERAGE	0.63	0.52	0.46
South & Central America	Trinidad and Tobago	0.14	0.31	0.34
South & Central America	Argentina	0.52	0.41	0.24
South & Central America	Bolivia	0.48	0.19	0.18
South & Central America	Guyana	0.12	0.27	0.05
South & Central America	Colombia	0.77	0.44	0
South & Central America	Suriname	0.54	0	0
South & Central America	Venezuela	0	0	0

Section 4 Results by function

Table B.27: Fatalities and fatal incidents by function (2020-2024)

Function	Fatal incidents					Fatalities				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
Exploration	0	0	1	0	0	0	0	1	0	0
Drilling	5	7	7	2	6	6	7	8	2	6
Production	3	5	11	10	13	4	5	13	13	19
Construction	1	3	4	2	1	1	8	4	4	1
Unspecified	3	0	6	3	1	3	0	7	8	6
OVERALL	12	15	29	17	21	14	20	33	27	32

Table B.28: Exposure hours by function (2020-2024)

Function	Hours (thousands)				
	2020	2021	2022	2023	2024
Exploration	35,482	37,838	29,118	42,920	55,709
Drilling	308,914	328,583	326,310	493,511	714,524
Production	1,113,934	1,326,571	1,267,104	1,499,781	1,847,122
Construction	540,547	559,086	461,358	605,228	804,614
Unspecified	545,324	426,948	495,110	649,940	736,907
OVERALL	2,544,201	2,679,026	2,579,000	3,291,382	4,158,877

Table B.29: Fatal accident rate five-year rolling average by function (2019-2024)

Function	FAR five-year rolling average					
	2019	2020	2021	2022	2023	2024
Exploration	2.20	1.04	0.55	1.16	0.55	0.50
Drilling	2.32	2.41	2.47	2.13	1.45	1.33
Production	1.64	1.18	0.76	0.74	0.78	0.77
Construction	0.51	0.48	0.56	0.68	0.71	0.61
Unspecified	0.52	0.61	0.42	0.62	0.73	0.84
OVERALL	1.23	1.05	0.86	0.88	0.84	0.83

Table B.30: Fatal accident rate by function (2019-2024)

Function	Fatal accident rate (FAR)					
	2019	2020	2021	2022	2023	2024
Exploration	0.00	0.00	0.00	3.43	0.00	0.00
Drilling	1.00	1.94	2.13	2.45	0.41	0.84
Production	1.19	0.36	0.38	1.03	0.87	1.03
Construction	0.46	0.18	1.43	0.87	0.66	0.12
Unspecified	0.33	0.55	0.00	1.41	1.23	0.81
OVERALL	0.82	0.55	0.75	1.28	0.82	0.77

Table B.31: Total recordable injury rate five-year rolling average by function (2019-2024)

Function	TRIR five-year rolling average					
	2019	2020	2021	2022	2023	2024
Exploration	1.04	1.06	0.93	0.87	0.68	0.51
Drilling	1.82	1.69	1.62	1.61	1.51	1.26
Production	1.17	1.04	0.94	0.89	0.82	0.81
Construction	0.76	0.65	0.63	0.66	0.66	0.69
Unspecified	0.59	0.54	0.54	0.54	0.57	0.58
OVERALL	1.03	0.93	0.88	0.86	0.83	0.81

Table B.32: Total recordable injury rate by function (2019-2024)

Function	Total recordable injury rate (TRIR)					
	2019	2020	2021	2022	2023	2024
Exploration	1.29	0.87	0.48	0.27	0.47	0.49
Drilling	1.80	1.47	1.33	1.68	1.29	0.91
Production	0.92	0.72	0.79	0.84	0.82	0.85
Construction	0.67	0.49	0.59	0.81	0.75	0.79
Unspecified	0.57	0.42	0.50	0.64	0.66	0.64
OVERALL	0.92	0.70	0.77	0.90	0.84	0.81

Table B.33: Lost time injury rate five-year rolling average by function (2019-2024)

Function	LTIR five-year rolling average					
	2019	2020	2021	2022	2023	2024
Exploration	0.31	0.37	0.41	0.41	0.37	0.24
Drilling	0.49	0.49	0.46	0.45	0.41	0.35
Production	0.33	0.30	0.28	0.28	0.27	0.27
Construction	0.15	0.14	0.14	0.15	0.15	0.15
Unspecified	0.15	0.14	0.13	0.13	0.14	0.16
OVERALL	0.27	0.25	0.24	0.24	0.24	0.24

Table B.34: Lost time injury rate by function (2019-2024)

Function	Lost time injury rate (LTIR)					
	2019	2020	2021	2022	2023	2024
Exploration	0.66	0.42	0.37	0.14	0.21	0.13
Drilling	0.47	0.47	0.40	0.44	0.30	0.27
Production	0.27	0.24	0.25	0.32	0.27	0.26
Construction	0.13	0.12	0.15	0.18	0.15	0.17
Unspecified	0.12	0.12	0.08	0.17	0.18	0.21
OVERALL	0.24	0.22	0.22	0.28	0.24	0.24

Table B.35: Severity of lost work day cases by function (2019-2024)

Function	Average days lost per LWDC					
	2019	2020	2021	2022	2023	2024
Exploration	46.3	33.3	35.2	2.7	32.5	42.0
Drilling	58.4	53.4	70.6	55.0	66.8	51.8
Production	44.2	34.0	45.6	32.9	43.0	44.6
Construction	59.8	47.4	59.6	59.8	57.0	39.6
Unspecified	54.0	44.3	40.0	43.7	46.1	44.5
OVERALL	50.9	42.3	52.4	41.3	50.0	45.3

Table B.36: Exploration TRIR by region for companies and contractors (2024 & 2019-2023) and the number of related work hours for companies and contractors for 2024 only

Region	Exploration TRIR				Work hours (thousands)	
	Company		Contractor		2024	
	2019-2023	2024	2019-2023	2024	Company	Contractor
Africa	0.09	0.00	0.83	0.00	1,332	1,072
Asia/Australasia	0.08	0.00	0.60	0.45	1,892	4,448
Europe	1.14	0.00	1.82	1.96	1,602	2,041
Middle East	0.28	0.47	0.17	0.21	2,144	9,347
North America	0.23	0.00	0.94	1.59	694	1,256
Russia & Central Asia	0.00	0.68	0.00	0.00	1,467	139
South & Central America	0.09	0.00	2.00	1.84	2,917	2,171
OVERALL	0.49	0.17	0.89	0.68	12,051	20,475

Table B37: Exploration LTIR by region for companies and contractors (2024 & 2019-2023) and the number of related work hours for companies and contractors for 2024 only

Region	Exploration LTIR				Work hours (thousands)	
	Company		Contractor		2024	
	2019-2023	2024	2019-2023	2024	Company	Contractor
Africa	0.09	0.00	0.33	0.00	1,332	1,072
Asia/Australasia	0.00	0.00	0.18	0.22	1,892	4,448
Europe	1.11	0.00	0.61	0.49	1,602	2,041
Middle East	0.00	0.00	0.06	0.00	2,144	9,347
North America	0.00	0.00	0.13	0.09	3,343	21,789
Russia & Central Asia	0.00	0.68	0.00	0.00	1,467	139
South & Central America	0.09	0.00	1.00	0.92	2,917	2,171
OVERALL	0.41	0.07	0.32	0.15	14,700	41,008

Table B.38: Drilling TRIR by region for companies and contractors (2024 & 2019-2023) and the number of related work hours for companies and contractors for 2024 only

Region	Drilling TRIR				Work hours (thousands)	
	Company		Contractor		2024	
	2019-2023	2024	2019-2023	2024	Company	Contractor
Africa	0.17	1.63	0.70	1.24	4,913	50,612
Asia/Australasia	0.45	0.04	1.01	0.36	53,182	169,902
Europe	0.91	0.81	3.27	3.37	7,443	24,048
Middle East	0.36	0.29	0.81	0.38	38,045	166,983
North America	0.58	0.00	3.03	2.85	3,938	63,101
Russia & Central Asia	0.95	2.27	1.06	1.13	3,957	8,824
South & Central America	0.38	0.14	2.72	1.79	7,199	61,502
OVERALL	0.52	0.31	1.65	1.04	118,680	544,975

Table B.39: Drilling LTIR by region for companies and contractors (2024 & 2019-2023) and the number of related work hours for companies and contractors for 2024 only

Region	Drilling LTIR				Work hours (thousands)	
	Company		Contractor		2024	
	2019-2023	2024	2019-2023	2024	Company	Contractor
Africa	0.06	0.61	0.21	0.20	4,913	50,612
Asia/Australasia	0.04	0.02	0.32	0.08	53,182	169,902
Europe	0.48	0.54	1.62	1.70	7,443	24,048
Middle East	0.16	0.11	0.18	0.14	38,045	166,983
North America	0.17	0.29	0.48	0.47	35,030	82,878
Russia & Central Asia	0.32	0.76	0.33	0.34	3,957	8,824
South & Central America	0.03	0.14	0.64	0.57	7,199	61,502
OVERALL	0.19	0.17	0.44	0.29	149,772	564,752

Table B.40: Production TRIR by region for companies and contractors (2024 & 2019-2023) and the number of related work hours for companies and contractors for 2024 only

Region	Production TRIR				Work hours (thousands)	
	Company		Contractor		2024	
	2019-2023	2024	2019-2023	2024	Company	Contractor
Africa	0.32	0.25	0.45	0.37	44,623	193,077
Asia/Australasia	0.60	0.38	0.65	0.53	136,132	233,045
Europe	1.42	1.38	2.53	2.98	60,760	77,622
Middle East	0.33	0.39	0.30	0.27	71,466	330,263
North America	1.67	1.72	1.30	1.26	47,061	179,173
Russia & Central Asia	0.30	0.88	0.36	0.56	74,808	35,793
South & Central America	0.74	0.76	1.26	1.82	43,487	184,900
OVERALL	0.73	0.74	0.86	0.89	478,340	1,233,876

Table B.41: Production LTIR by region for companies and contractors (2024 & 2019-2023) and the number of related work hours for companies and contractors for 2024 only

Region	Production LTIR				Work hours (thousands)	
	Company		Contractor		2024	
	2019-2023	2024	2019-2023	2024	Company	Contractor
Africa	0.14	0.02	0.13	0.11	44,623	193,077
Asia/Australasia	0.12	0.10	0.14	0.13	136,132	233,045
Europe	0.69	0.58	0.95	1.25	60,760	77,622
Middle East	0.09	0.14	0.08	0.09	71,466	330,263
North America	0.47	0.31	0.23	0.26	118,696	242,443
Russia & Central Asia	0.21	0.27	0.09	0.17	74,808	35,793
South & Central America	0.46	0.51	0.51	0.54	43,487	184,900
OVERALL	0.29	0.25	0.26	0.27	549,975	1,297,146

Table B.42: Construction TRIR by region for companies and contractors (2024 & 2019-2023) and the number of related work hours for companies and contractors for 2024 only

Region	Construction TRIR				Work hours (thousands)	
	Company		Contractor		2024	
	2019-2023	2024	2019-2023	2024	Company	Contractor
Africa	0.12	0.00	0.36	0.31	4,893	48,532
Asia/Australasia	0.35	0.40	0.49	0.84	5,060	61,029
Europe	0.36	0.26	2.93	2.14	7,609	24,723
Middle East	0.44	0.41	0.27	0.72	12,340	362,910
North America	0.41	0.28	1.69	1.87	3,598	18,224
Russia & Central Asia	1.38	1.00	0.68	0.35	8,023	50,960
South & Central America	0.04	0.25	1.23	1.25	7,874	76,756
OVERALL	0.52	0.40	0.67	0.82	49,399	643,136

Table B.43: Construction LTIR by region for companies and contractors (2024 & 2019-2023) and the number of related work hours for companies and contractors for 2024 only

Region	Construction LTIR				Work hours (thousands)	
	Company		Contractor		2024	
	2019-2023	2024	2019-2023	2024	Company	Contractor
Africa	0.04	0.00	0.14	0.04	4,893	48,532
Asia/Australasia	0.04	0.20	0.06	0.11	5,060	61,029
Europe	0.14	0.26	0.74	0.89	7,609	24,723
Middle East	0.18	0.08	0.04	0.14	12,340	362,910
North America	0.00	0.18	0.21	0.08	27,524	106,377
Russia & Central Asia	0.36	0.75	0.09	0.08	8,023	50,960
South & Central America	0.00	0.13	0.49	0.31	7,874	76,756
OVERALL	0.14	0.22	0.15	0.16	73,325	731,289

Table B.44: Unspecified TRIR by region for companies and contractors (2024 & 2019-2023) and the number of related work hours for companies and contractors for 2024 only

Region	Unspecified TRIR				Work hours (thousands)	
	Company		Contractor		2024	
	2019-2023	2024	2019-2023	2024	Company	Contractor
Africa	0.09	0.14	0.24	0.22	27,638	76,440
Asia/Australasia	0.32	0.53	0.83	1.11	115,559	97,121
Europe	0.38	0.06	1.31	0.78	15,436	5,102
Middle East	0.43	0.16	0.30	0.34	36,385	140,310
North America	0.44	0.56	1.47	2.00	35,921	76,605
Russia & Central Asia	0.36	0.41	0.35	0.51	16,943	27,274
South & Central America	0.20	0.08	1.32	0.29	12,704	10,296
OVERALL	0.33	0.38	0.72	0.80	260,589	433,150

Table B.45: Unspecified LTIR by region for companies and contractors (2024 & 2019-2023) and the number of related work hours for companies and contractors for 2024 only

Region	Unspecified LTIR				Work hours (thousands)	
	Company		Contractor		2024	
	2019-2023	2024	2019-2023	2024	Company	Contractor
Africa	0.04	0.16	0.04	0.33	31,986	97,487
Asia/Australasia	0.06	0.16	0.10	0.14	115,559	97,121
Europe	0.17	0.18	0.40	0.67	17,127	7,420
Middle East	0.12	0.05	0.07	0.07	36,615	140,707
North America	0.09	0.28	0.37	0.49	39,789	78,265
Russia & Central Asia	0.20	0.24	0.11	0.26	16,943	27,274
South & Central America	0.03	0.00	0.37	0.45	14,930	15,678
OVERALL	0.10	0.16	0.16	0.24	272,952	463,954

Section 5 Results by company

Table B.46: FAR, TRIR, and LTIR results by company (2024)

Company code 2024	FAR	TRIR			LTIR		
	FAR total	TRIR total	Company only	Contractor only	LTIR total	Company only	Contractor only
Overall	0.77	0.81	0.56	0.89	0.24	0.21	0.24
A	33.62	3.36	1.31	5.54	2.02	0.65	3.46
B	0.00	2.7	0	4.09	1.44	0	2.18
C	0.00	1.28	2.99	0.47	1.28	2.99	0.47
D	0.00	1.22	0.59	3.12	1.22	0.59	3.12
E	15.08	no data	no data	no data	1.16	0.63	1.32
G	0.00	3.36	0	4.3	0.96	0	1.23
H	0.00	1.94	0.64	3.03	0.87	0.21	1.43
I	0.92	2.07	1.66	2.27	0.87	0.66	0.97
J	0.00	2.17	0.66	5.03	0.87	0.66	1.26
K	0.00	3.11	0	3.97	0.81	0	1.03
L	0.00	1.25	0.81	1.64	0.76	0.59	0.92
M	57.73	2.16	0.56	2.73	0.72	0	0.97
N	0.00	0.59	1.1	0	0.59	1.1	0
O	0.45	0.99	0.63	1.08	0.57	0.46	0.59
P	0.00	2.44	0.91	3.2	0.47	0.39	0.51
Q	0.00	1.49	0.69	1.67	0.45	0.46	0.45
S	0.00	1.51	1.12	1.61	0.36	0.33	0.37
T	0.00	0.88	0.74	0.89	0.3	0.11	0.32
U	0.00	1.02	1.22	0.94	0.29	0.24	0.31
V	0.00	0.94	0.54	1.1	0.29	0.14	0.35
W	0.00	0.51	0.41	0.54	0.28	0.29	0.28
X	1.54	3.7	0.21	4.3	0.28	0	0.33
Y	0.00	1.65	0.55	2.75	0.28	0.14	0.41
Z	0.00	0.27	0.74	0	0.27	0.74	0
AA	0.77	0.79	0.71	0.8	0.26	0.28	0.26
BB	0.00	0.96	0.59	1.01	0.25	0	0.29
CC	3.64	0.8	0.41	0.91	0.24	0.08	0.28
DD	0.00	0.71	0.89	0.51	0.21	0.3	0.11
EE	0.00	4.29	0.69	5.79	0.2	0	0.29
FF	0.00	1.15	0.47	1.43	0.2	0.47	0.1
GG	0.43	1.21	0.79	1.29	0.2	0.18	0.2
HH	0.39	1.04	0.17	1.09	0.19	0.08	0.19
II	0.00	0.45	0.17	0.53	0.19	0.17	0.19
JJ	1.23	no data	no data	no data	0.18	0.22	0.15
KK	0.00	0.3	0.09	0.5	0.17	0	0.33
LL	0.60	1.19	0.96	1.26	0.16	0.27	0.13
MM	0.46	0.34	0.21	0.38	0.13	0.06	0.16
NN	0.00	1.57	1.09	1.68	0.09	0.1	0.09
OO	0.97	0.47	0.08	0.58	0.08	0	0.1
PP	0.54	0.22	0.6	0.17	0.08	0.17	0.06
QQ	0.47	0.13	0.27	0.11	0.05	0.09	0.05
RR	0.00	0.07	0.07	0.08	0.03	0	0.04
SS	0.32	0.09	0.07	0.1	0.02	0.01	0.02
TT	0.00	0.4	0	0.48	0	0	0
UU	0.00	0.46	0	0.6	0	0	0
VV	0.00	0.53	0	0.71	0	0	0
WW	0.00	0.21	0	0.25	0	0	0
XX	0.00	0.28	1.12	0	0	0	0
YY	0.00	0	0	0	0	0	0
ZZ	0.00	0.39	0	0.44	0	0	0
AAA	0.00	0	0	0	0	0	0
BBB	0.00	0	0	0	0	0	0
CCC	0.00	1.22	3.55	0.74	0	0	0

Note: company codes are allocated according to company & contractor LTIR performance. In TRIR columns, "no data" indicates that a company did not report medical treatment cases.

Table B.47: TRIR by company and function (2024)

Company code	TRIR (2024)			
	Exploration	Drilling	Production	Construction
Overall	0.49	0.91	0.85	0.79
A	no data	8.29	2.42	0
B	0	3.8	3.3	5.7
C	no data	0	1.96	no data
D	no data	3.12	0.59	no data
E	no data	no data	no data	no data
G	no data	no data	3.36	no data
H	0	3.52	1.72	3.16
I	1.77	3.12	2.97	0.74
J	no data	no data	3.81	no data
K	no data	0	3.53	no data
L	0.59	1.81	1.18	1.08
M	no data	no data	2.83	1.81
N	0	0	1.09	0
O	0.8	0.96	1.14	0.69
P	no data	1.3	3.19	4.3
Q	no data	no data	no data	no data
S	0	2.41	1.62	0.68
T	no data	1.65	0.74	0.3
U	4.87	1.63	0.89	0
V	0	2.28	1.15	1
W	0	0.68	0.9	0.18
X	0	4.99	3.53	3.38
Y	0	2.79	3.03	0
Z	0	0	0.4	0
AA	no data	no data	0.72	no data
BB	no data	2.49	0.92	0.95
CC	0.96	2.1	0.39	2.25
DD	no data	no data	no data	no data
EE	no data	43.03	no data	no data
FF	0	2.47	0.46	5.33
GG	0	2.91	1.37	0.62
HH	no data	0.86	0.48	1.25
II	no data	0.84	0.41	0.22
JJ	no data	no data	no data	no data
KK	no data	no data	0.3	no data
LL	0	1.42	1.23	1.14
MM	0	0.88	0.26	0.3
NN	7.12	1.79	1.2	2.46
OO	0	1	0.63	0.14
PP	0.32	0.24	0.23	0.15
QQ	no data	0.3	0.07	0.01
RR	0	0.08	0.09	0.03
SS	no data	0.1	0.08	no data
TT	no data	no data	no data	no data
UU	no data	0	0.53	no data
VV	no data	no data	0.53	no data
WW	no data	no data	0.21	no data
XX	no data	no data	0.28	no data
YY	no data	0	no data	no data
ZZ	0	1.16	0.47	0
AAA	no data	no data	0	0
CCC	no data	no data	3.13	no data

Note: In TRIR columns, "no data" indicates that a company did not report medical treatment cases.

Table B.48: LTIR by company and function (2024)

Company code	LTIR (2024)			
	Exploration	Drilling	Production	Construction
Overall	0.13	0.27	0.26	0.17
A	no data	5.52	1.21	0
B	0	1.69	2.08	1.42
C	no data	0	1.96	no data
D	no data	3.12	0.59	no data
E	no data	no data	no data	no data
G	no data	no data	0.96	no data
H	0	2.64	0.49	0.63
I	0.88	1.21	1.23	0.35
J	no data	no data	1.52	no data
K	no data	0	0.92	no data
L	0	1.4	0.65	0.72
M	no data	no data	1.62	0.23
N	0	0	1.09	0
O	0.27	0.68	0.66	0.31
P	no data	0.43	0.91	0.54
Q	no data	no data	no data	no data
S	0	0.89	0.36	0
T	no data	0.43	0.28	0.3
U	1.62	0	0.25	0
V	0	0.76	0.32	0.36
W	0	0.45	0.45	0.07
X	0	0.59	0.15	0.39
Y	0	0.56	0.38	0
Z	0	0	0.4	0
AA	no data	no data	0.26	no data
BB	no data	0.62	0.15	0.41
CC	0.96	0.48	0.14	0.45
DD	no data	no data	no data	no data
EE	no data	2.05	no data	no data
FF	0	0	0.46	0
GG	0	0.69	0.24	0.09
HH	no data	0.12	0.1	0.22
II	no data	0.31	0.14	0.22
JJ	0.09	0.26	0.22	0.11
KK	no data	no data	0.17	no data
LL	0	0.14	0.2	0
MM	0	0.38	0.13	0.14
NN	0	0.19	0.08	0
OO	0	0.12	0.14	0
PP	0	0.08	0.12	0.04
QQ	no data	0.13	0.03	0
RR	0	0.05	0.05	0
SS	no data	0.01	0.02	no data
TT	no data	no data	no data	no data
UU	no data	0	0	no data
VV	no data	no data	0	no data
WW	no data	no data	0	no data
XX	no data	no data	0	no data
YY	no data	0	no data	no data
ZZ	0	0	0	0
AAA	no data	no data	0	0
CCC	no data	no data	0	no data

Note: In LTIR columns by function, "no data" indicates that a company did not break down data sets by that work function.

Database dimensions (Appendix A)

Table B.49: Total work hours reported (1985-2024)

Year	Work hours reported (thousands)			Participating companies
	Overall	Company	Contractor	
1985	655,650	410,409	245,241	22
1986	544,053	305,637	238,416	26
1987	602,480	355,578	246,902	30
1988	616,448	363,530	252,918	35
1989	655,945	330,970	324,975	33
1990	720,652	331,986	388,666	31
1991	940,538	441,141	499,397	36
1992	944,143	431,139	513,004	33
1993	919,176	410,474	508,702	35
1994	871,973	397,258	474,715	30
1995	840,811	355,695	485,186	30
1996	911,540	360,149	551,391	36
1997	1,161,335	389,442	771,893	40
1998	1,131,229	385,619	745,610	41
1999	1,197,460	395,141	802,319	40
2000	1,633,855	571,915	1,061,940	44
2001	1,976,646	633,039	1,343,607	41
2002	2,120,829	636,414	1,484,415	35
2003	2,247,026	663,894	1,583,132	36
2004	2,290,453	638,739	1,651,714	37
2005	2,380,670	639,292	1,741,378	39
2006	2,936,974	734,425	2,202,549	41
2007	2,912,801	667,986	2,244,815	38
2008	3,304,168	712,482	2,591,686	39
2009	3,585,842	822,240	2,763,602	43
2010	3,411,144	725,673	2,685,471	42
2011	3,456,078	753,100	2,702,978	45
2012	3,691,040	759,600	2,931,440	49
2013	3,770,546	820,856	2,949,690	50
2014	4,365,959	945,572	3,420,387	52
2015	3,719,316	896,862	2,822,454	49
2016	2,895,621	667,335	2,228,286	43
2017	2,999,039	688,779	2,310,260	45
2018	3,066,350	653,764	2,412,586	46
2019	3,038,352	657,258	2,381,094	48
2020	2,544,201	708,712	1,835,489	48
2021	2,679,026	686,668	1,992,358	50
2022	2,579,000	659,717	1,919,283	51
2023	3,291,382	881,802	2,409,580	58
2024	4,158,877	1,060,726	3,098,151	56

Table B.50: Exposure hours by region (2023 and 2024)

Region	Hours (thousands)	
	2023	2024
Africa	388,712	478,530
Asia/Australasia	567,832	877,373
Europe	256,096	230,398
Middle East	1,008,695	1,170,824
North America	383,252	756,140
Russia & Central Asia	309,121	228,189
South & Central America	377,671	417,421
OVERALL	3,291,382	4,158,877

Table B.51: Exposure hours by function (2023 and 2024)

Function	Hours (thousands)	
	2023	2024
Exploration	42,920	55,709
Drilling	493,511	714,524
Production	1,499,781	1,847,122
Construction	605,228	804,614
Unspecified	649,940	736,907
OVERALL	3,291,382	4,158,877

Appendix C - Contributing companies

Table C.1 shows the size of the database in thousands of work hours reported for each contributing company and whether reported data include information on contractor statistics, breakdown by function, restricted work day cases, days lost following lost work day, and restricted work day cases. All company submissions include data on numbers of fatalities and lost work day cases.

Table C.1: Contributing companies 2024

Company	Hours (thousands)	Contractor data	Data by function	RWDCs	LWDC days	RWDC days
ADDAX Petroleum Limited	1,637	yes	mostly	yes	yes	yes
ADNOC	427,653	yes	mostly	yes	yes	yes
Aker BP	10,316	yes	mostly	yes	mostly	yes
Apache	86,639	yes	mostly	yes	mostly	mostly
Assala Energy	4,899	yes	partly	yes	no	no
Azule	4,034	no	mostly	yes	yes	yes
Bapco Energies	22,630	yes	no	yes	yes	yes
Basrah Gas Company	23,003	yes	yes	yes	yes	yes
Beach Energy	1,686	yes	mostly	yes	yes	yes
BP	72,248	yes	yes	yes	no	no
Capricorn Energy	114	yes	yes	yes	yes	yes
CCED	2,974	yes	mostly	yes	yes	yes
Cenovus	54,752	yes	mostly	yes	yes	yes
Chevron	233,087	yes	mostly	yes	yes	yes
CNOOC	202,620	yes	mostly	yes	yes	yes
ConocoPhillips	130,118	yes	mostly	yes	no	no
Crescent Petroleum	6,928	yes	yes	yes	yes	yes
Dana Gas	3,738	yes	yes	yes	yes	mostly
Dolphin Energy	7,121	yes	yes	yes	yes	yes
ENI	215,758	yes	mostly	yes	yes	mostly
Equinor ASA	108,940	yes	mostly	yes	no	no
ExxonMobil	167,092	yes	mostly	yes	yes	yes
Gulf Keystone	1,667	yes	yes	yes	yes	yes
Harbour Energy	13,686	yes	mostly	yes	yes	yes
Hess Corporation	14,787	yes	mostly	yes	no	no
INPEX Corporation	14,508	yes	mostly	yes	yes	yes
Kosmos Energy	920	yes	partly	yes	yes	yes
Kuwait Oil Company	184,850	yes	mostly	yes	yes	no
MOL	11,318	yes	mostly	yes	yes	yes
North Oil Company	20,621	yes	mostly	yes	yes	yes
OMV	28,805	yes	mostly	yes	yes	yes
ONGC	109,157	yes	no	yes	yes	yes
Orlen	8,999	yes	yes	yes	yes	yes
Oxy	95,724	yes	no	yes	yes	yes
Pan American Energy	26,858	yes	mostly	yes	yes	yes
PEMEX	324,410	yes	mostly	no	partly	no
Perenco	39,792	yes	no	no	no	no
Pertamina	310,100	yes	yes	yes	yes	yes
Petrobras	220,685	yes	mostly	yes	yes	yes
Pluspetrol	24,061	yes	mostly	yes	yes	yes
Prime Energy	2,151	yes	yes	yes	yes	yes
Prio	3,137	yes	yes	yes	mostly	yes
PTTEP	54,996	yes	mostly	yes	yes	yes
QatarEnergy	78,810	yes	mostly	yes	yes	yes
QatarEnergy LNG	257,696	yes	mostly	mostly	mostly	partly
Repsol	16,649	yes	mostly	yes	yes	yes
Shell Companies	205,485	yes	mostly	yes	yes	yes
SOCAR	83,529	no	mostly	yes	yes	yes
Sonangol	1,112	no	yes	yes	yes	yes
Spirit Energy	2,301	yes	mostly	yes	yes	yes
TotalEnergies	103,203	yes	mostly	yes	yes	no

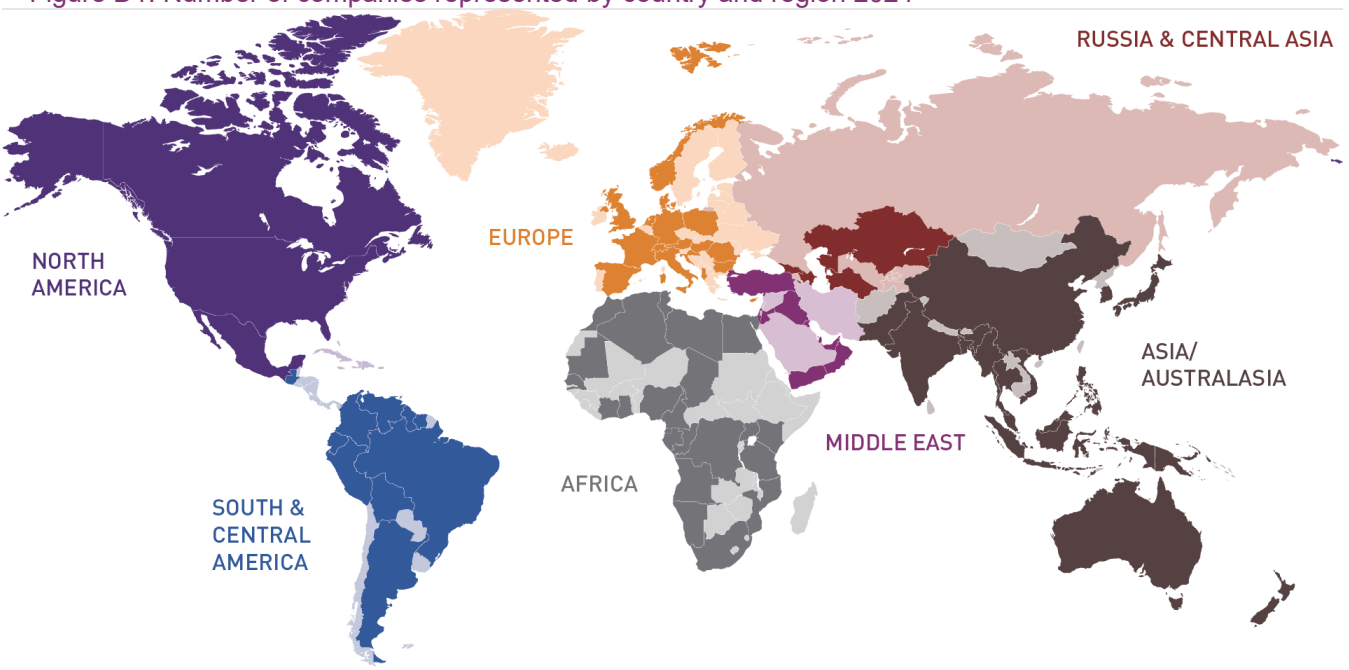
Company	Hours (thousands)	Contractor data	Data by function	RWDCs	LWDC days	RWDC days
Trident Energy	7,385	yes	mostly	yes	yes	yes
Tullow Oil	4,876	yes	yes	yes	yes	yes
Vår Energy	10,402	yes	yes	yes	yes	yes
Woodside	23,315	yes	mostly	yes	yes	mostly
YPF SA	64,887	yes	mostly	yes	yes	yes

Note: A data row is a single entry for a company for one country and location (one of company onshore, company offshore, contractor onshore, contractor offshore), e.g., A company, UK, company offshore.
Yes = reported for all data rows | mostly = reported for more than 50% of data rows | partly = reported for less than 50% of data rows | no = not reported at all.

Appendix D - Countries represented

The figures and table below show the breakdown of reported hours worked in regions and countries. Also shown is the number of companies reporting data in each country. They do not necessarily show all hours worked in the exploration and production sectors of the oil and gas industry in each country.

Figure D1: Number of companies represented by country and region 2024



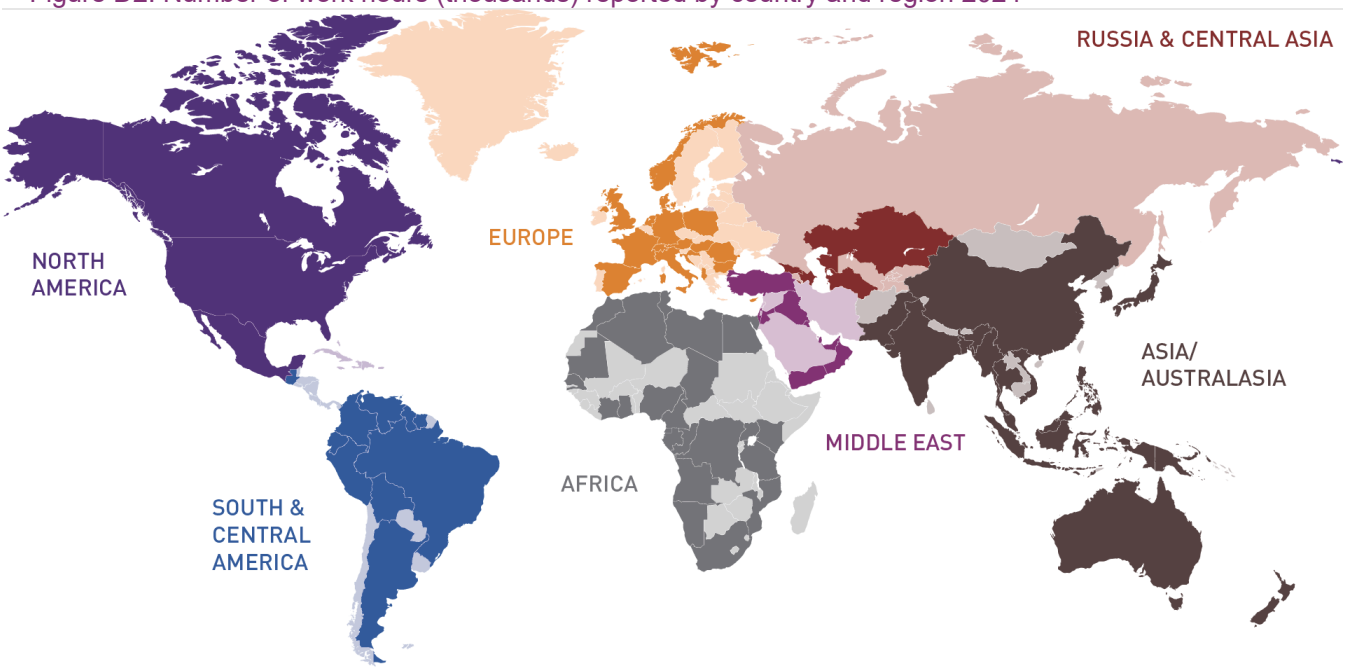
Number of participating companies

Country represented/Not represented

AFRICA		ASIA/ AUSTRALASIA		EUROPE		MIDDLE EAST		RUSSIA & CENTRAL ASIA	
Algeria	Angola	Australia	Bangladesh	Albania	Austria	Bahrain	Iraq	Azerbaijan	Georgia
4	6	10	1	2	1	1	6	5	1
Cameroon	Chad	Brunei	China	Bulgaria	Croatia	Israel	Jordan	Kazakhstan	Turkmenistan
2	1	2	10	1	1	1	1	5	1
Congo	DRC	India	Indonesia	Cyprus	Denmark	Kurdistan Region of Iraq	Kuwait		
3	1	4	9	4	1	2	3		
Egypt	Equatorial Guinea	Japan	Malaysia	France	Germany	Oman	Qatar	SOUTH & CENTRAL AMERICA	
10	4	2	9	5	2	6	8		
Gabon	Ghana	Myanmar	New Zealand	Hungary	Italy	Turkey	UAE	Argentina	Bolivia
5	3	1	1	1	4	2	11	11	6
Ivory Coast	Kenya	Pakistan	Papua New Guinea	Netherlands	Norway	Yemen		Brazil	Colombia
3	2	1	2	4	10	2		12	5
Libya	Mauritania	Philippines	Singapore	Poland	Romania			Ecuador	Guatemala
5	6	1	4	1	1			1	1
Morocco	Mozambique	South Korea	Thailand	Spain	Switzerland	NORTH AMERICA		Guyana	Peru
1	4	2	6	1	1			2	3
Namibia	Nigeria	Vietnam		UK		Canada	Mexico	Suriname	Trinidad and Tobago
3	7	3		17		10	10	2	5
São Tomé and Príncipe	Senegal					USA		Venezuela	
1	4					14		3	
South Africa	Tanzania								
2	2								
Tunisia	Uganda								
3	2								

Iran and Russia excluded

Figure D2: Number of work hours (thousands) reported by country and region 2024



Number of reported work hours (thousands)

Country represented/Not represented

AFRICA		ASIA/ AUSTRALASIA		EUROPE		MIDDLE EAST		RUSSIA & CENTRAL ASIA	
Algeria	33,021	Angola	56,572	Albania	402	Austria	1,264	Bahrain	22,630	Iraq	47,114	Azerbaijan	98,343	Georgia	1,952
Cameroon	6,175	Chad	2,935	Australia	55,926	Bangladesh	5,186	Bulgaria	4	Croatia	2,552	Israel	2,267	Jordan	2	Kazakhstan	125,043	Turkmenistan	2,851
Congo	38,199	DRC	4,112	Brunei	968	China	186,993	Cyprus	266	Denmark	6,750	Kurdistan Region of Iraq	8,596	Kuwait	201,806				
Egypt	121,522	Equatorial Guinea	5,988	India	148,768	Indonesia	335,926	France	2,244	Germany	2,604	Oman	59,550	Qatar	389,370	SOUTH & CENTRAL AMERICA			
Gabon	17,015	Ghana	6,697	Japan	5,071	Malaysia	38,688	Hungary	2,923	Italy	12,809	Turkey	1,468	UAE	437,030	Argentina	114,712	Bolivia	5,522
Ivory Coast	3,899	Kenya	480	Myanmar	5,605	New Zealand	1,059	Netherlands	10,125	Norway	100,042	Yemen	989			Brazil	245,166	Colombia	3,656
Libya	23,185	Mauritania	1,654	Pakistan	5,843	Papua New Guinea	21,504	Poland	8,999	Romania	21,504					Ecuador	1,273	Guatemala	1,626
Morocco	55	Mozambique	3,917	Philippines	2,151	Singapore	7,563	Spain	1,876	Switzerland	2	NORTH AMERICA				Guyana	19,721	Peru	14,978
Namibia	1,716	Nigeria	128,603	South Korea	97	Thailand	54,603	UK	56,030			Canada	92,114	Mexico	334,155	Suriname	502	Trinidad and Tobago	8,731
São Tomé and Príncipe	16	Senegal	4,708	Vietnam	1,418							USA	329,870			Venezuela	1,530		
South Africa	98	Tanzania	230																
Tunisia	5,149	Uganda	12,579																

Iran and Russia excluded

Table D.1: Countries represented (2024)

Region	Country	Reporting companies (number)	Hours (thousands)
Africa	Algeria	4	33,021
Africa	Angola	6	56,572
Africa	Cameroon	2	6,175
Africa	Chad	1	2,935
Africa	Congo	3	38,199
Africa	Drc - Democratic Republic of the Congo (formerly Zaire)	1	4,112
Africa	Egypt	10	121,522
Africa	Equatorial Guinea	4	5,988
Africa	Gabon	5	17,015
Africa	Ghana	3	6,697
Africa	Ivory Coast	3	3,899
Africa	Kenya	2	480
Africa	Libya	5	23,185
Africa	Mauritania	6	1,654
Africa	Morocco	1	55
Africa	Mozambique	4	3,917
Africa	Namibia	3	1,716
Africa	Nigeria	7	128,603
Africa	São Tomé and Príncipe	1	16
Africa	Senegal	4	4,708
Africa	South Africa	2	98
Africa	Tanzania	2	230
Africa	Tunisia	3	5,149
Africa	Uganda	2	12,579
Asia/Australasia	Australia	10	55,926
Asia/Australasia	Bangladesh	1	5,186
Asia/Australasia	Brunei	2	968
Asia/Australasia	China	10	186,993
Asia/Australasia	India	4	148,768
Asia/Australasia	Indonesia	9	335,926
Asia/Australasia	Japan	2	5,071
Asia/Australasia	Malaysia	9	38,688
Asia/Australasia	Myanmar	1	5,605
Asia/Australasia	New Zealand	1	1,059
Asia/Australasia	Pakistan	1	5,843
Asia/Australasia	Papua New Guinea	2	21,504
Asia/Australasia	Philippines	1	2,151
Asia/Australasia	Singapore	4	7,563
Asia/Australasia	South Korea	2	97
Asia/Australasia	Thailand	6	54,603
Asia/Australasia	Vietnam	3	1,418
Europe	Albania	2	402
Europe	Austria	1	1,264
Europe	Bulgaria	1	4
Europe	Croatia	1	2,552
Europe	Cyprus	4	266
Europe	Denmark	1	6,750
Europe	France	5	2,244
Europe	Germany	2	2,604
Europe	Hungary	1	2,923
Europe	Italy	4	12,809
Europe	Netherlands	4	10,125
Europe	Norway	10	100,042
Europe	Poland	1	8,999
Europe	Romania	1	21,504
Europe	Spain	1	1,876
Europe	Switzerland	1	2
Europe	UK	17	56,030
Middle East	Bahrain	1	22,630
Middle East	Iraq	6	47,114
Middle East	Israel	1	2,267
Middle East	Jordan	1	2

Region	Country	Reporting companies (number)	Hours (thousands)
Middle East	Kurdistan Region Of Iraq	2	8,596
Middle East	Kuwait	3	201,806
Middle East	Oman	6	59,550
Middle East	Qatar	8	389,370
Middle East	Turkey	2	1,468
Middle East	UAE	11	437,030
Middle East	Yemen	2	989
North America	Canada	10	92,114
North America	Mexico	10	334,155
North America	USA	14	329,870
Russia & Central Asia	Azerbaijan	5	98,343
Russia & Central Asia	Georgia	1	1,952
Russia & Central Asia	Kazakhstan	5	125,043
Russia & Central Asia	Turkmenistan	1	2,851
South & Central America	Argentina	11	114,712
South & Central America	Bolivia	6	5,522
South & Central America	Brazil	12	245,166
South & Central America	Colombia	5	3,656
South & Central America	Ecuador	1	1,273
South & Central America	Guatemala	1	1,626
South & Central America	Guyana	2	19,721
South & Central America	Peru	3	14,978
South & Central America	Suriname	2	502
South & Central America	Trinidad and Tobago	5	8,731
South & Central America	Venezuela	3	1,530

Appendix E - Glossary of terms

Assault and violent act (as an incident/event category)

Intentional attempt, threat or act of bodily injury by a person or person(s) or by violent harmful actions of unknown intent, includes intentional acts of damage to property.

Aviation accident (as an incident/event category)

An occurrence associated with the operation of an aircraft which, in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked or, in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time as it comes to rest at the end of the flight and the primary propulsion system is shut down.

Caught in, under or between (as an incident/event category)

Injury where injured person is crushed or similarly injured between machinery moving parts or other objects, caught between rolling tubulars or objects being moved, crushed between a ship and a dock, or similar incidents. Also includes vehicle incidents involving a rollover.

Causal factors

See IOGP Safety data reporting users' guide.

Commentary drive

A training technique whereby the driver conducts a typical journey and, while driving, explains what hazards he/she sees or can anticipate in the road ahead, including unseen hazards, and what safe driving techniques they will or would utilize to eliminate or minimize the threat from such hazards. The driver is accompanied by a qualified instructor who assesses if the driver is employing the correct defensive driving techniques and proper seeing habits to identify and avoid driving hazards. At the end of drive, the assessor provides feedback and coaching to the driver on any areas of improvement.

Commute travel

For injury/illness reporting, Commute travel begins when the worker is seated in the vehicle in preparation for departure and ends when the worker arrives at their home or worksite and the vehicle is placed in park or taken out of gear. For MVC reporting, Commute travel begins when the worker is no longer driving on company business.

Note: Travel to and from field operations locations is considered to be company business travel.

A vehicle crash is considered to have occurred during commute travel if it meets the definition above, regardless whether the event occurs while driving a company or personal vehicle or whether the employee or contract employee is being compensated during this time. Where appropriate, any vehicle crash occurring during Commute travel may be considered as asset or property damage but not as an MVC.

Note: All work-related travel performed by workers that are home-based, i.e., work from their place of residence, is considered to be company business travel.

Commuting

- Travel from home to first work site and travel from last work site to home.
- Travel between a worker's identified work location and any location for personal business, including a restaurant.
- Travel between a worker's established 'home away from home' to the first worksite or to any location for personal business, including a restaurant.
- Travel between home and a non-company event, e.g., local conference or other similar function.

Company employee

Any person employed by and on the payroll of the reporting company, including corporate and management personnel specifically involved in E&P. Persons employed under short-service contracts are included as company employees provided they are paid directly by the company.

Confined space (as an incident/event category)

Spaces that are considered confined because their configurations hinder the activities of employee who must enter, work in, and exit them. Confined spaces include, but are not limited to underground vaults, tanks, storage bins, manholes, pits, silos, process vessels and pipelines.

Construction (as a work function)

Major construction and fabrication activities as well as disassembly, removal and disposal (decommissioning) at the end of the facility life. Includes construction of process plant, yard construction of structures, offshore installation, hook-up and commissioning, and removal of redundant process facilities.

Construction, commissioning, decommissioning (as a type of activity)

Activities involving the construction, fabrication and installation of equipment, facilities or plant, testing activities to verify design objectives or specification, and also disassembly, removal and disposal (decommissioning) at the end of the facility life.

Contracted (vehicle)

See Owned, contracted or leased.

Contractor

A contractor is defined as an individual or organization performing work for the reporting company, following verbal or written agreement. Subcontractor is synonymous with contractor.

Contractor employee

Any person employed by a contractor or contractor's subcontractor(s) who is directly involved in execution of prescribed work under a contract with the reporting company.

Cut, puncture, scrape (as an incident/event category)

Abrasions, scratches and wounds that penetrate the skin.

Diving operations

The personnel, equipment and management systems to support a person who dives. A person dives if they enter water or any other liquid, or a chamber in which they are subject to pressure greater than 100 millibars above atmospheric pressure, and in order to survive in such an environment breathes air or other gas at a pressure greater than atmospheric pressure. Or for such a purpose uses a vehicle, capsule or suit where a sealed internal atmospheric pressure is maintained and where the external pressure differential is greater than 100 millibars.

Diving, subsea, ROV (as a type of activity)

Operations involving diving (see definition for diving operations), subsea equipment or activities and/or operations involving underwater remotely operated vehicles (ROV).

Drilling (as a work function)

All exploration, appraisal and production drilling, and workover as well as their administrative, engineering, construction, materials supply and transportation aspects. It includes site preparation, rigging up and down, and restoration of the drilling site upon work completion. Drilling includes all exploration, appraisal and production drilling.

Drilling/workover/well services (as a type of activity)

Activities involving the development, maintenance work or remedial treatments related to an oil or gas well.

Dropped objects (as an incident/event category)

Any item with the potential to cause injury, death, or equipment/environmental damage, that falls down or over from its previous position. Specifically excludes falls from height (people). Source: Dropped Object Prevention Scheme, Recommended Practice http://www.dropsonline.org/assets/documents/DROPS-Recommended-Practice-2017.pdf

Event

An unplanned or uncontrolled outcome of a business operation or activity that has or could have contributed to an injury or physical damage or environmental damage.

Excavation, trenching, ground disturbance (as a type of activity)

Work that involves a cut, cavity, trench or depression in the earth's surface formed by earth removal.

Exploration (as a work function)

Geophysical, seismographic and geological operations, including their administrative and engineering aspects, construction, maintenance, materials supply, and transportation of personnel and equipment (excluding drilling).

Explosion or Burn (as an incident/event category)

Burns or other effects of fires, explosions and extremes of temperature. 'Explosion' means a rapid combustion, not an overpressure.

Exposure: Electrical (as an incident/event category)

Exposure to electrical shock or electrical burns etc.

Exposure: Noise, Chemical, Biological, Vibration (as an incident/event category)

Exposure to noise, chemical substances (including asphyxiation due to lack of oxygen not associated with a confined space), hazardous biological material, vibration or radiation.

Falls from height (as an incident/event category)

A person falls from one level to another or event is related to work at height.

Fatal Accident Rate (FAR)

The number of company/contractor fatalities per 100 000 000 (100 million) hours worked.

Fatal incident rate (FIR)

The number of incidents that result in one or more fatalities per 100 million hours worked.

Fatality

Cases that involve one or more people who died as a result of a work-related incident.

Fatigue (as a causal factor)

Person(s) involved were mentally tired for whatever reason e.g., excessive work hours, shift patterns, staffing levels insufficient, ill-health etc. The loss of situational awareness, task fixation, distraction, and mental fatigue due to sleep loss are examples of conditions that apply to this causal factor.

First Aid Case

Cases that are not sufficiently serious to be reported as medical treatment or more serious cases but nevertheless require minor first aid treatment, e.g., dressing on a minor cut, removal of a splinter from a finger. First aid cases are not recordable incidents.

High Potential Event

A high potential event is an event which could have, under slightly different circumstances, realistically resulted in a fatal incident.

Home away from home

When travelling, workers establish a 'home away from home' when checked into a hotel, motel, or other similar temporary residence.

Travel directly to the temporary residence before check-in from the airport (train station, etc.) or rental car agency and travel direct from home to the temporary residence is considered business travel, when on work-related business.

Travel home directly from the temporary residence after checkout to the airport (train station, etc.) or rental car agency and travel direct to home from the temporary residence is considered business travel, when on work-related business.

Company mandated accommodation is not considered to be home away from home. This is considered to be a field operations location therefore travel to and from such locations is considered to be company business travel and not a commute.

Hours Worked

The actual hours worked, including overtime hours, are recorded in the case of onshore operations. The hours worked by an individual will generally be about 2,000 per year. For offshore workers, the hours worked are calculated on a 12-hour work day. Consequently, average hours worked per year will vary from 1,600 to 2,300 hours per person depending upon the on/off shift ratio. Vacations and leave are excluded.

Hours Worked in Year (thousands)

Hours are rounded to the nearest thousand.

Incident

An unplanned or uncontrolled Event or chain of Events that has resulted in at least one fatality, recordable injury, or physical or environmental damage.

Key performance indicators (KPI)

Information or data that provides evidence of a Company's performance in managing its key risks. KPIs may also be referred to as performance metrics. In the Safety Performance Indicators report, these include: number of fatalities, fatal accident and incident rates, lost time injury rate and total recordable injury rate.

Lifting, crane, rigging, deck operations (as a type of activity)

Activities related to the use of mechanical lifting and hoisting equipment, assembling and disassembling drilling rig equipment and drill pipe handling on the rig floor.

Lost Time Injury (LTI)

A fatality or lost work day case. The number of LTIs is the sum of fatalities and lost work day cases.

Lost time injury rate (LTIR)

The number of lost time injuries (fatalities + lost work day cases) per 1,000,000 hours worked.

Lost Work Day Case (LWDC)

Any work-related injury, other than a fatal injury, which results in a person being unfit for work on any day after the day of occurrence of the occupational injury. "Any day" includes rest days, weekend days, leave days, public holidays or days after ceasing employment.

LWDC severity

The average number of lost days per lost work day case.

Maintenance, inspection and testing (as a type of activity)

Activities related to preserving, repairing, examining and function testing assets, equipment, plant or facilities.

Medical Cause of Death

This is the cause of death given on the death certificate. Where two types of causes are provided, such as "pulmonary oedema" caused by "inhalation of hot gases from a fire", both are recorded.

Medical Treatment Case (MTC)

Cases that are not severe enough to be reported as lost work day cases or restricted work day cases but are more severe than requiring simple first aid treatment.

Motor Vehicle Crash (MVC)

A work-related motor vehicle incident e.g., collision or other event), which resulted in vehicle damage, or vehicle rollover, or personal injury, or fatality.

Note: Contractor Motor Vehicle Crash includes any vehicle operated by a contractor or subcontractor while performing work on behalf of the company, where injuries, kilometres driven, or hours worked should be recorded (e.g., delivery/courier services are excluded).

Near Miss

An unplanned or uncontrolled event or chain of events that has not resulted in recordable injury or physical damage or environmental damage but had the potential to do so in other circumstances.

Number of days unfit for work

The sum total of calendar days (consecutive or otherwise) after the days on which the occupational injuries occurred, where the persons involved were unfit for work and did not work.

Number of Employees

Average number of full-time and part-time employees involved in exploration and production, calculated on a full-time basis, during the reporting year. For example 2 part time employees each working 20 - 30 hours per week is equivalent to 1 full time employee.

Number of Fatalities

The total number of Company employees and/or Contractor employees who died as a result of an incident. Delayed deaths that occur after the incident are included if the deaths were a direct result of the incident. For example, if a fire killed one person outright, and a second died three weeks later from lung damage caused by the fire, both are reported.

Occupational Illness

Any abnormal condition or disorder, or any fatality other than one resulting from an occupational injury, caused by exposure to environmental factors associated with employment. Occupational illness may be caused by inhalation, absorption, ingestion of, or direct contact with the hazard, as well as exposure to physical and psychological hazards. It will generally result from prolonged or repeated exposure. Refer to IOGP/IPIECA Report 393 - Health Performance Indicators.

Occupational Injury

Any injury such as a cut, fracture, sprain, amputation, etc., or any fatality, which results from a work-related activity or from an exposure involving a single incident in the work environment, such as deafness from explosion, one-time chemical exposure, back disorder from a slip/trip, insect, or snake bite.

Office, warehouse, accommodation, catering (as a type of activity)

Activities related to work conducted in offices, warehouses, workshops, accommodation and catering facilities.

Officially declared [From API RP 754]

A declaration by a recognized community official (e.g. fire, police, civil defence, emergency management) or delegate (e.g. Company official) authorized to order the community action (e.g. shelter-in-place, evacuation).

Off-road

A route used for access to places which are not accessible by a road, (see 'Road').

Offshore Work

All activities and operations that take place at sea, including activities in bays, in major inland seas, such as the Caspian Sea, or in other inland seas directly connected to oceans. Incidents including transportation of people and equipment from shore to the offshore location, either by vessel or helicopter, should be recorded as "offshore".

Onshore Work

All activities and operations that take place within a landmass, including those on swamps, rivers and lakes. Land-to-land aircraft operations are counted as onshore, even though flights are over water.

Other (as an incident/event category)

Used to specify where an incident cannot be logically classed under any other category. In the case of incident activities, includes air transport incidents.

Overexertion or Strain (as an incident/event category)

Physical overexertion, e.g., muscle strain.

Permanent Impairment (PI)

A direct work-related injury outcome that prevents a return to the person's previous (pre-incident) whole person function within 180 days as a result of an acute, single incident resulting in any of the following:

- Permanent loss of body parts
- Permanent reduction of organ's physiological function
- Permanent reduction in skin and musculoskeletal function
- Permanent reduction in psychological, social, or cognitive function

Pressure Release (as an incident/event category)

Release of gas, liquid or object under pressure from a pressurized system.

Production (as a work function)

Petroleum and natural gas producing operations, including their administrative and engineering aspects, minor construction, repairs, maintenance and servicing, materials supply, and transportation of personnel and equipment. It covers all mainstream production operations including wireline. Gas processing activities with the primary intent of producing gas liquids for sale including:

- work on production wells under pressure
- oil (including condensates) and gas extraction and separation (primary production)
- heavy oil production where it is inseparable from upstream (i.e. stream assisted gravity drainage) production
- primary oil processing (water separation, stabilization)
- primary gas processing (dehydration, liquids separation, sweetening, CO2 removal)
- floating storage units (FSUs) and sub-sea storage units
- gas processing activities with the primary intent of producing gas liquids for sale
    - secondary liquid separation (i.e. natural gas liquids [NGL] extraction using refrigeration processing)
    - liquefied natural gas (LNG) and gas to liquids (GTL) operations
- flow-lines between wells and pipelines between facilities associated with field production operations
- oil and gas loading facilities including land or marine vessels (trucks and ships) when connected to an oil or gas production process
- pipeline operations (including booster stations) operated by company E&P business.

Production excludes:

- production drilling or workover
- mining processes associated with the extraction of heavy oil tar sands
- heavy oil when separable from upstream operations
- secondary heavy oil processing (upgrader)
- refineries.

Production operations (as a type of activity)

Activities related to the extraction of hydrocarbons from source such as an oil or gas well or hydrocarbon bearing geological structure, including primary processing, storage and transport operations. Includes normal, start-up or shut-down operations.

Recordable

A type of event, incident, injury, release or other outcome which has been determined to meet or exceed definitions, criteria or thresholds for inclusion and classification in reported data.

Restricted Work Day Case (RWDC)

Any work-related injury other than a fatality or lost work day case which results in a person being unfit for full performance of the regular job on any day after the occupational injury. Work performed might be:

- an assignment to a temporary job
- part-time work at the regular job
- working full-time in the regular job but not performing all the usual duties of the job.

Where no meaningful restricted work is being performed, the incident is recorded as a lost work day case (LWDC).

Road

A thoroughfare which has a prepared, graded and levelled surface designed for the conveyance of motor vehicles (see also 'off-road'), such as:

- Asphalt, tarmac
- Concrete
- Aggregate
- Dirt/sand
- Ice

RWDC Severity

The average number of days of restricted work per restricted work day case.

Sabotage

Deliberately destroy, damage, or obstruct (something).

Seismic/survey operations (as a type of activity)

Activities relating to the determination of sub-surface structures for the purpose of locating oil and gas deposits including geophysical and seismic data acquisition.

Slips and Trips (at the same height) (as an incident/event category)

Slips, trips and falls caused by falling over or onto something at the same height.

Struck By (as an incident/event category)

Incidents/events where injury results from being hit by moving equipment and machinery, or by flying or falling objects. Also includes vehicle incidents where the vehicle is struck by or struck against another object.

Third Party [From API RP 754]

Any individual other than an employee, contractor or subcontractor of the Company, e.g. visitors, non-contracted delivery drivers, residents.

Total recordable injuries

The sum of fatalities, lost work day cases, restricted work day cases and medical treatment cases.

Total recordable injury rate (TRIR)

The number of recordable injuries (fatalities + lost work day cases + restricted work day cases + medical treatment cases (MTC)) per million hours worked. Note when MTC are not reported by a company for a country the associated fatalities, lost work day cases and restricted work day cases are excluded from TRIR calculations.

Transport – Air (as a type of activity)

Involving aircraft, either fixed wing or helicopters. Injuries caused by accidents on the ground at airports are classified in one of the other categories.

Transport – Land (as a type of activity)

Involving motorized vehicles designed for transporting people and goods over land, e.g., cars, buses, trucks. Pedestrians struck by a vehicle are classified as land transport incidents. Incidents from a mobile crane would only be land transport incidents if the crane were being moved between locations.

Transport - Water, including Marine Activity (as a type of activity)

Involving vessels, equipment or boats designed for transporting people and goods over water (including inland, marine, ice roads and marsh/swamp), e.g., supply vessels, crew boats.

Unspecified – Other (as a type of activity)

Incidents that cannot be logically classed under other headings or where the activity is unknown.

Unspecified (as a work function)

Unspecified is used for the entry of data associated with office personnel whose work hours and incident data cannot be reasonably assigned to the administrative support of one of the function groupings of exploration, drilling, production or construction. Corporate overhead support personnel, such as finance or human resources staff, may be examples where work hours cannot be specifically assigned to a particular function. All other data that are not separated out by function are reported as unspecified. NOTE: Data for companies that did not split their data submission by work function are included in the 'unspecified' function.

Unspecified (in general)

Unless otherwise defined, data are categorized as unspecified where the requested breakdown is not available. No data provided.

Water related/drowning (as an incident/event category)

Incidents/events in which water played a significant role including drowning.

Wilful damage

Wilful or malicious damage or destruction of the property of another.

Work-Related Injury

See Occupational Injury.

International Association of Oil & Gas Producers

IOGP safety performance indicators - 2024 data summarizes the safety performance of Member Companies participating in the data collection programme. 4.2 billion work hours of data from 56 companies were analysed according to the following key performance indicators:

- number of fatalities
- fatal accident and incident rates
- total recordable injury rate, and
- lost time injury rate.

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