2021 IPLOCA Health, Safety & Environmental Statistics Report

issued August 2022

Message from the HSE & CSR Committee

This report combines IPLOCA members' health, safety and environmental statistics received for 2021.

The good news is that the number of fatalities has decreased compared to last year even if the 2025 target of zero fatalities has not as yet been reached. Three fatal incidents on worksites have been reported by our members.

The HSE & CSR Committee advises IPLOCA members to adopt behavioural Safety programmes which are considered the best practice in the industry. Continuous efforts still need to be maintained to eliminate fatalities in the pipeline industry.

The positive trend for Near-Misses which reached the 2020 target set by IPLOCA is maintained in 2021.

Graphics show a major decrease of lost-time injuries and an increase in total recordable incident rates.

The Committee highly recommends all IPLOCA members to focus on training and share industry best practices using the IPLOCA shared experience portal: www.iploca.com/hseplatform.

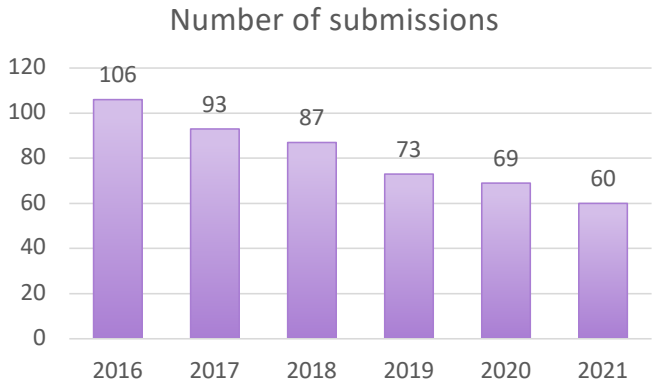
As the previous year, special attention should be given for incidents involving falls which account for almost one third of Lost Workday Injuries (LWI). Incidents involving hand tools represents the second biggest source of LWI (20%).

With regard to environmental incidents reported, the frequency of incidents has reached its lowest level over the ten last years.

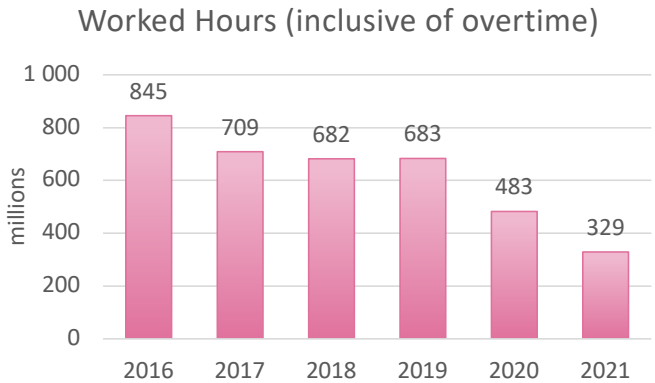
The number of overall training hours (both on Safety and Environment) has slightly increased this year, so it is advised to continue to pursue efforts in terms of management commitment. We encourage all our members to share their best practices and case studies to populate our HSE Portal.

The Committee is seeking to assist companies to adopt best prac¬tice by working together while providing training and networking within the industry so as to minimise the risks associated with the design, construction, operation and decommissioning of pipeline projects.

We urge you to read through this report and take appropriate and purposeful action for the future.



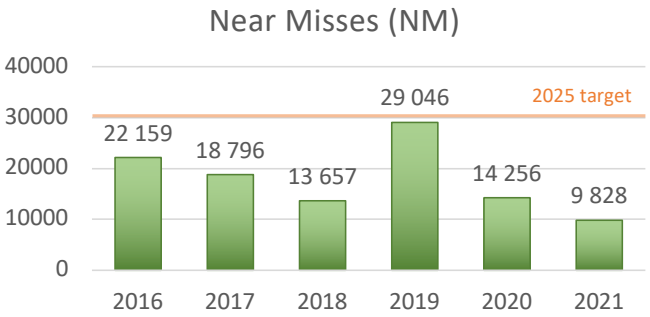
The 2021 IPLOCA HSE statistics were derived from data provided by 56 Regular Members (82% of total Regular Membership), 3 Associate Members and 1 Corresponding Member.



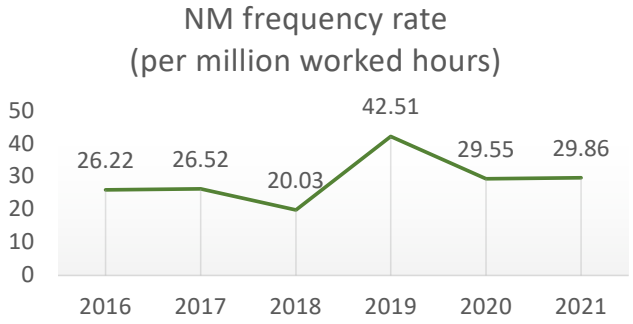
The number of hours worked during which the employee is present in the work environment as a condition of his or her employment, plus the extra hours put in as overtime.

Health & Safety (H&S)

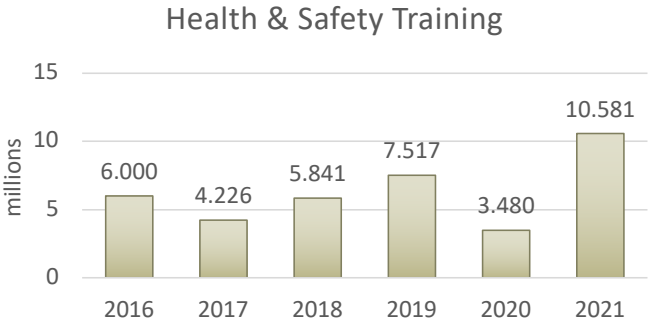
Leading Indicators



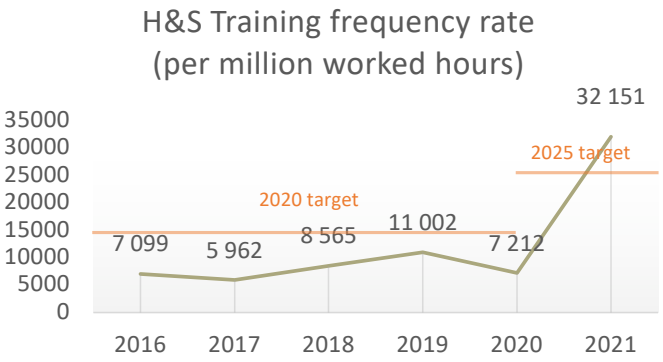
Near Miss: Any event which had the potential to cause injury and/ or damage and/or loss but which was avoided by circumstances. The term "incident" includes "near misses".



Near Misses frequency rate:
number of NM x 1 000 000
total worked hours

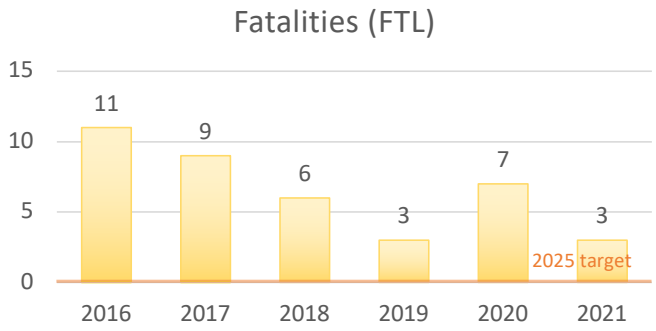


H&S Training Hours are the number of hours spent by personnel to get trained to H&S standards (includes all the hours spent by all the personnel to get trained).

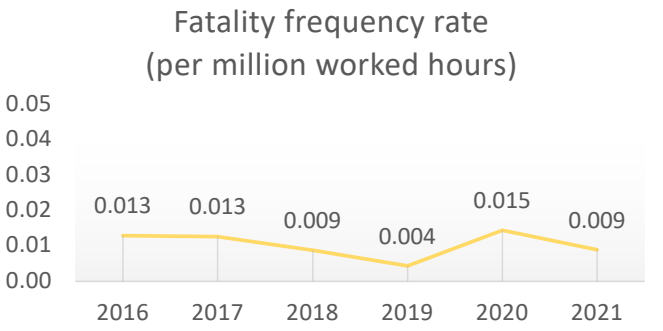


H&S Training frequency rate:
number of H&S training hours x 1 000 000
total worked hours

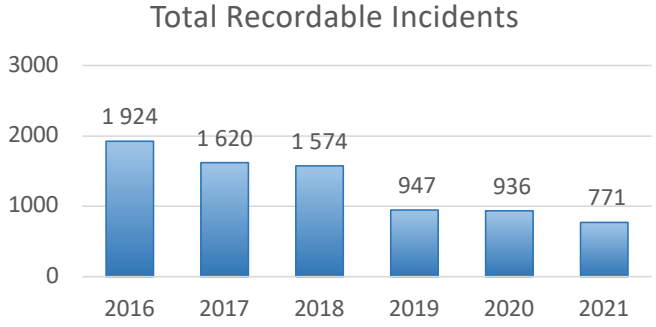
Lagging Indicators



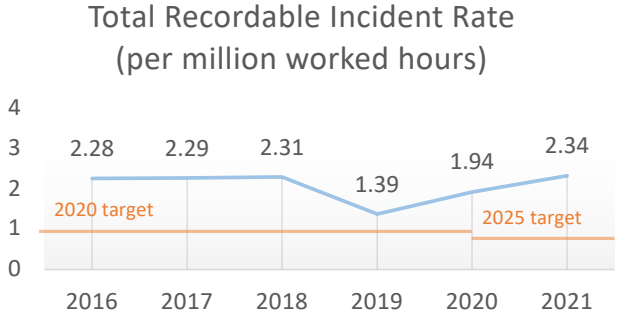
A fatality is a death resulting from a work injury or occupational illness, regardless of the time intervening between injury and death.



Fatalities frequency rate:
number of fatalities x 1 000 000
total worked hours



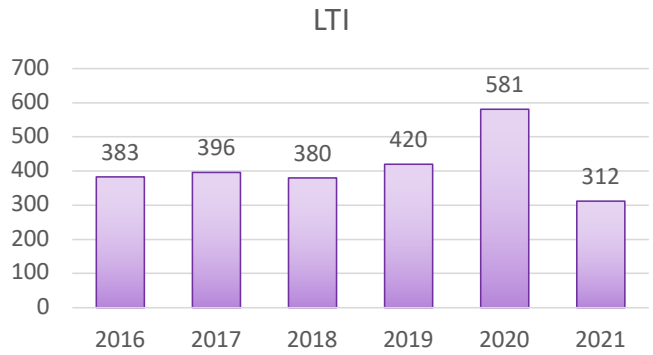
Total Recordable Incident cases are calculated with number of Lost Time Injuries (LTI), Medical Treatment Cases (MTC), and Restricted Work Cases (RWC).

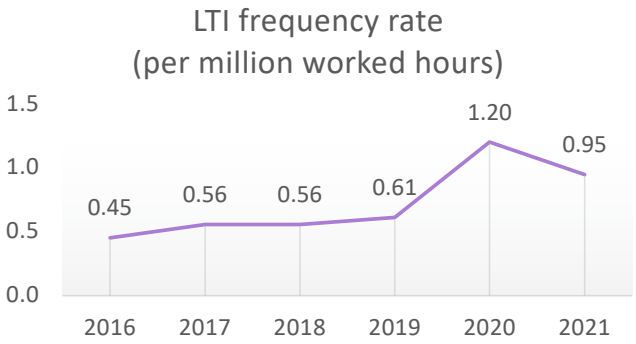


TRIR:
number of TRI x 1 000 000
total worked hours

Health & Safety (H&S)

Lost Time Injury Cases (LTI)





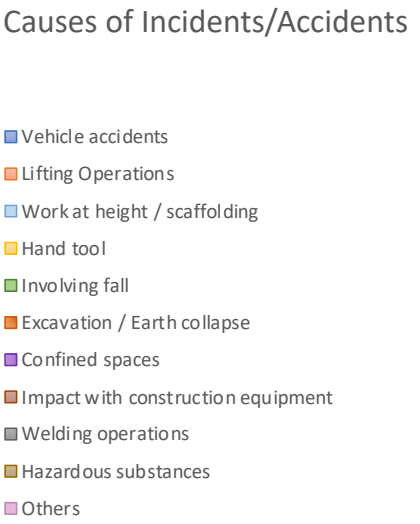
LostTime Injuries are the sum of fatalities, permanent total disabilities, permanent partial disabilities and lost workday cases.

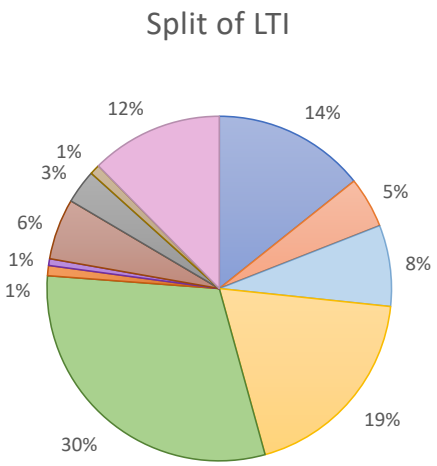
Note: if in a single incident 20 personnel receive LostTime Injuries, then it is accounted for corporate reporting purposes as 20 LTIs (not 1 LTI).

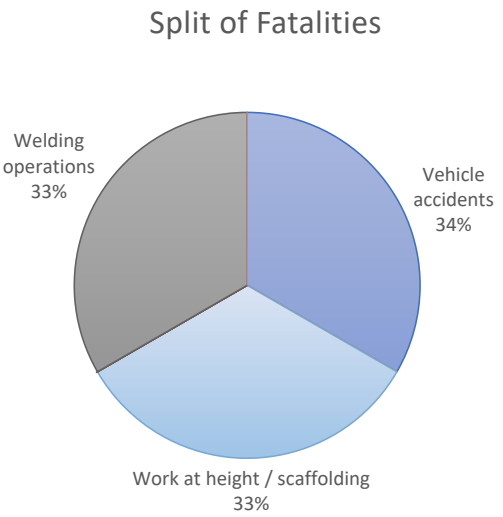
LTI frequency rate:

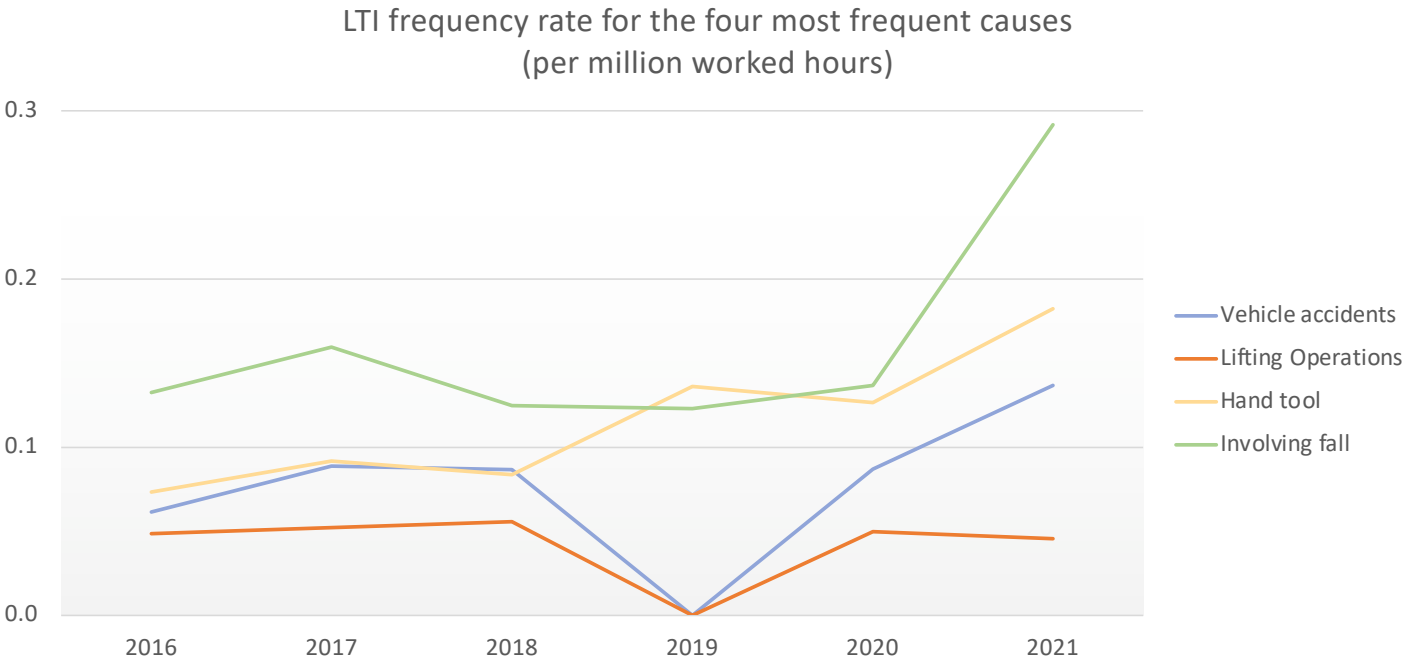
$$\frac{\text{number of LTI} \times 1\,000\,000}{\text{total worked hours}}$$

Description of Incidents/Accidents



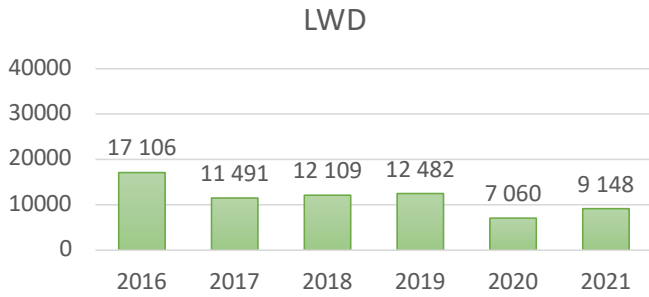




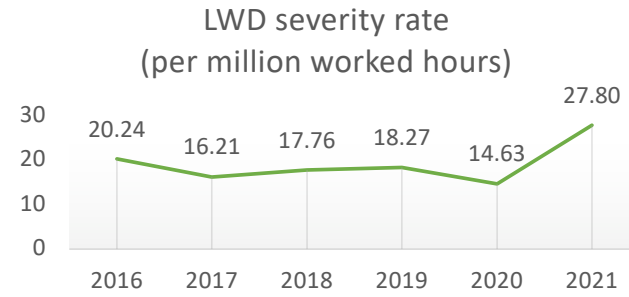


Health & Safety (H&S)

Lost Work Days (LWD)

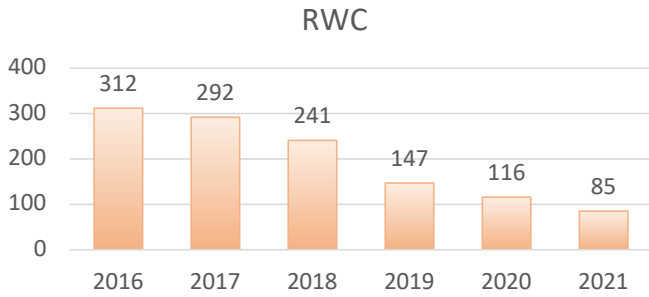


Lost Work Days are the sum of calendar days lost as a result of a work-related accident.

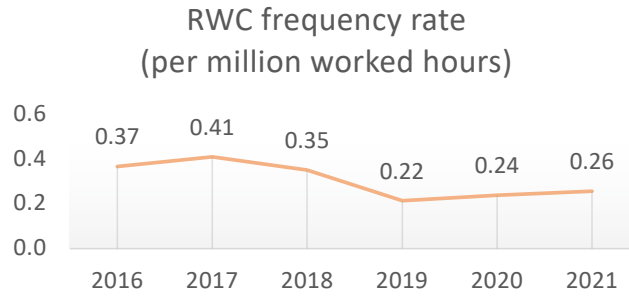


LWD severity rate:
number of LWD x 1 000 000
total worked hours

Restricted Work Cases (RWC)

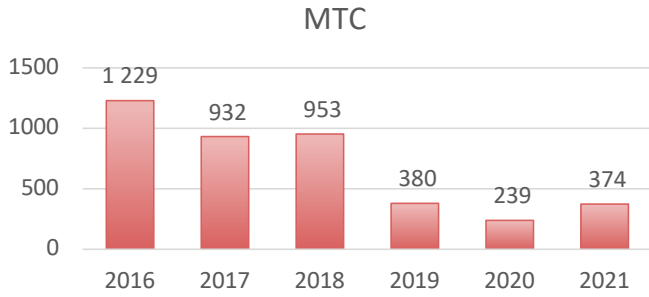


A Restricted Work Case is any work injury, which results in an employee not being able to conduct normal duties, after the day the Incident occurred.

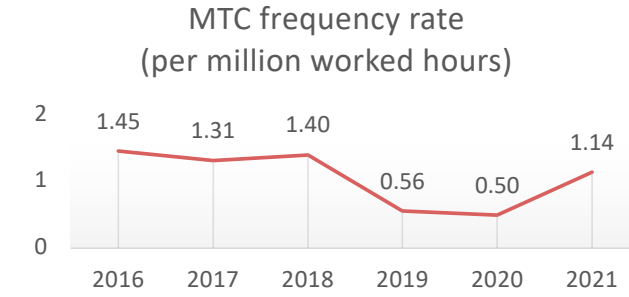


RWC frequency rate:
number of RWC x 1 000 000
total worked hours

Medical Treatment Cases (MTC)

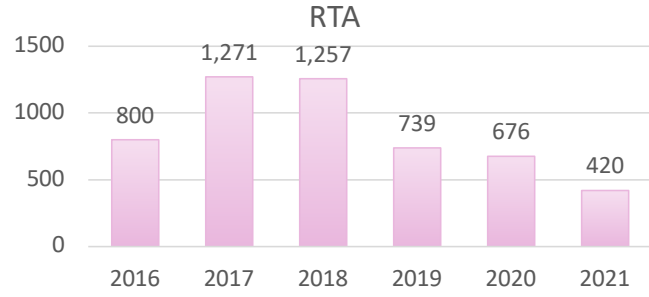


A medical treatment case is any work related injury that involves neither Lost Work Days nor Restricted Workdays but which required treatment by medical personnel.

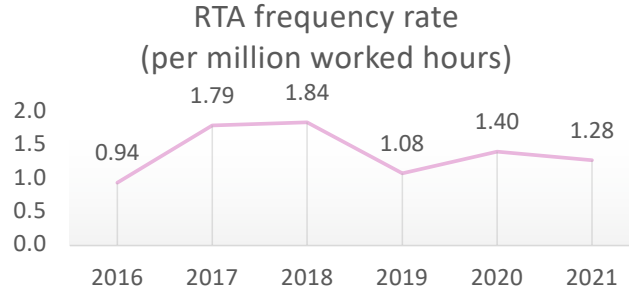


MTC frequency rate:
number of MTC x 1 000 000
total worked hours

Road Traffic Incidents / Accidents (RTA)



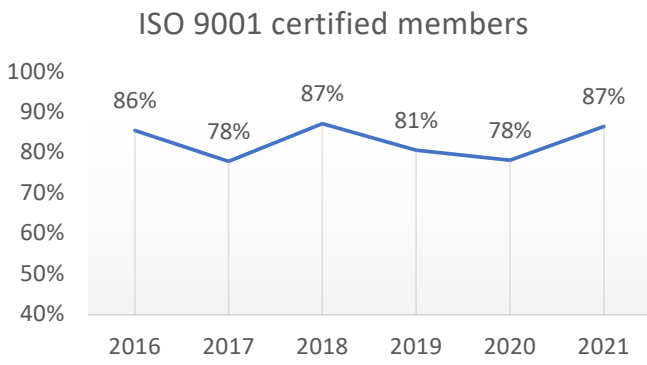
A road traffic incident/accident is any incident involving one or more moving vehicles which result in injuries and/or damage to property, vehicle(s) or loads being moved or carried by vehicles. Incidents during travel from camp, home or any other location to and back from the worksite should be included.

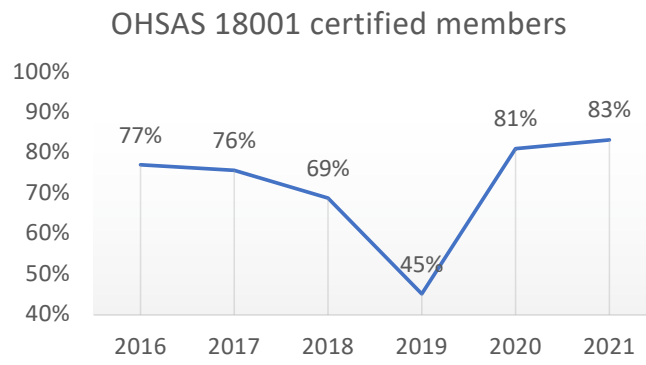


RTA frequency rate:
number of RTA x 1 000 000
total worked hours

Health & Safety (H&S)

Health & Safety Management Systems

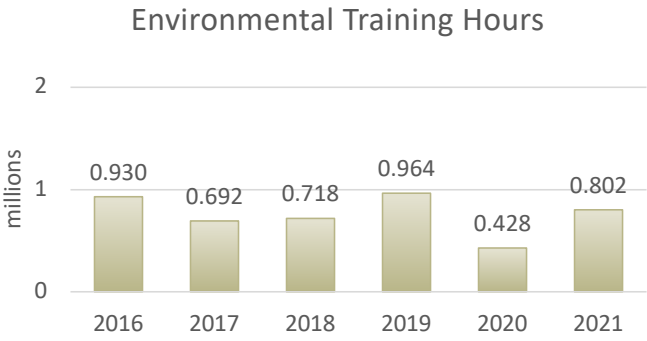




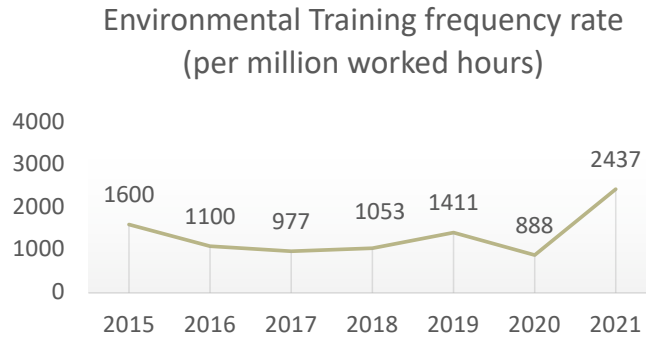
The ISO 9001 and OHSAS 18001 management system certifications have a high adoption rate – clearly leading certifications in the pipeline industry.

Environment

Environmental Training Hours

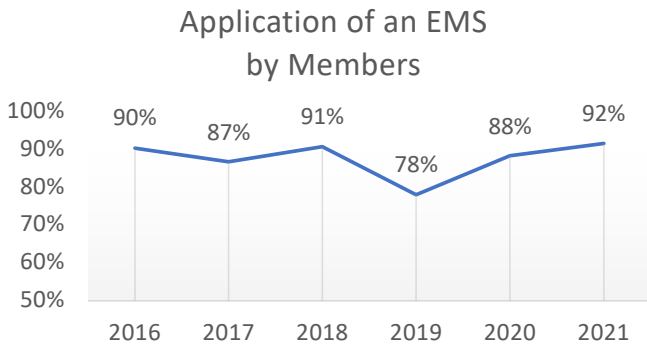


Environmental Training Hours are the number of worked-hours spent by personnel to get trained to environmental standards (includes all the hours spent by all the personnel to get trained).



Environmental Training frequency rate:
number of Environmental Training hours x 1 000 000
total worked hours

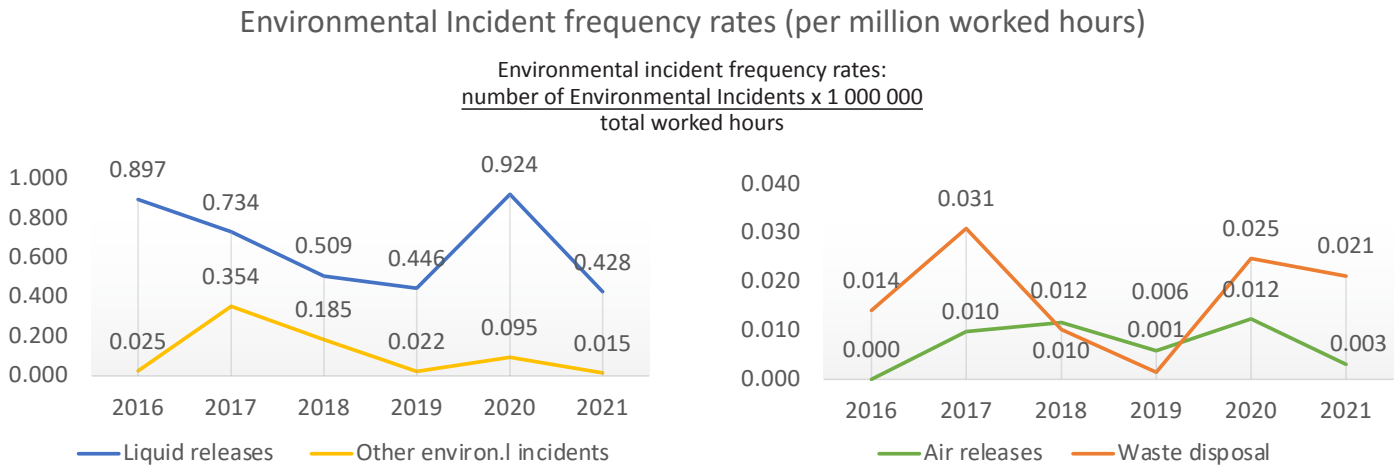
Environmental Management Systems (EMS)

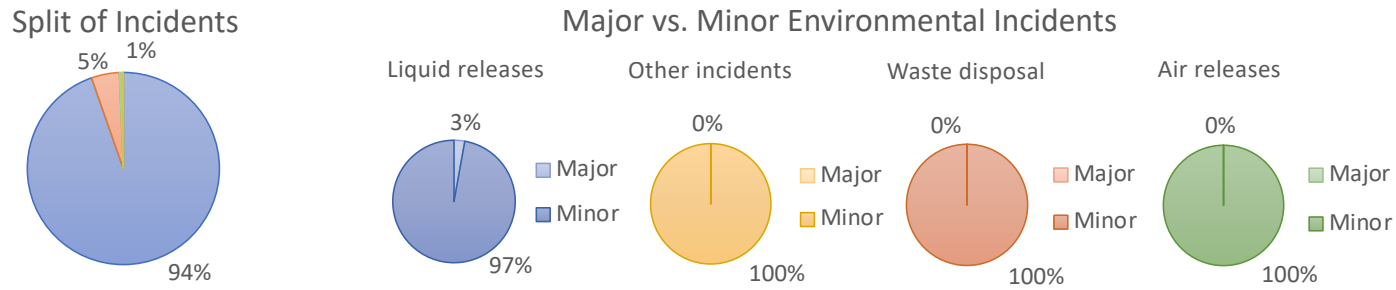


The ISO 14001 environmental management system certification has a high adoption rate – clearly a leading certification in the pipeline industry.

Environment

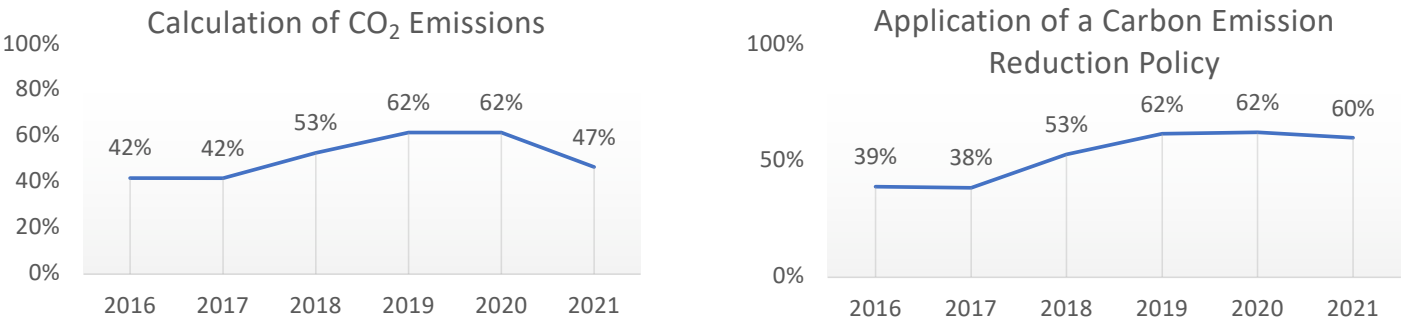
Environmental Incidents





For complete details on classification of incidents, please visit our website www.iploca.com/hsestatistics

CO_2 Emissions



47% of the members chose to use CO_2 emissions as an indicator of their environmental performance, and 60% apply a carbon emission reduction policy.

Carbon Emissions Calculation

Below is an extract of various methods used by the respondents to calculate their carbon emissions.

'In accordance with the Australian Federal Government National Greenhouse and Energy Act 2007 (NGER Act)'
'Using an ISO 14064 based software'
'Using US EPA (Environmental Protection Agency) estimation methods'
'Using DEFRA GHG conversion factors'
'Using IPCC Methodology and GHG Protocol Calculation Tools'
'Based on total energy consumption (fuel, gas, electricity)'
'Using the OMEGA TP software'
'Using the Panama Oil Record Book and Emissions according to MARPOL Annex VI'

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