Global Leak Detection Solutions - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)

Market Report | 2025-04-28 | 100 pages | Mordor Intelligence

AVAILABLE LICENSES:

- Single User License $4750.00
- Team License (1-7 Users) $5250.00
- Site License $6500.00
- Corporate License $8750.00

Report description:

The Global Leak Detection Solutions Market is expected to register a CAGR of 4.4% during the forecast period.

The market's growth can be attributable to an increase in demand for leak detection solutions among utility companies worldwide, owing to its advantages, including increased safety, cost savings, and environmental protection. Leak detection solutions also assist oil and gas industries make the workplaces safer by reducing the hazards of explosions and fire breakouts. Market growth is also predicted to be fueled by increased advances in natural gas and oil infrastructure worldwide.

For Instance, In March 2022, South West Water partnered with ASTERRA Satellite-based leak detection company to provide satellite data analysis to locate subterranean water breaches and cut leakage levels across its network. The method is similar to that used to search for water on other planets, such as Mars, and works by taking images of the globe with microwave sensors onboard a satellite in space, and microwaves can penetrate up to 2 meters deep. The data will reveal possible leaks that are not visible above ground.

For early leak detection, the technology has increased by using artificial intelligence, and proprietary hyperspectral gas analytics provide facility operators with an easy-to-understand, color depiction of the gas plume type, position, direction, size, and concentration of oil or gas. It enables a quicker and more effective reaction before leaks become more serious emissions or safety concerns.

Though the demand for leak detection systems in the oil and gas sector has grown in recent years, retrofitting issues in some leak detection systems, such as distributed temperature sensing (DTS) and distributed acoustic sensing (DAS) systems based on fiber optic, are limiting the market's growth. Fiber-optic leak detection devices are difficult and expensive to adapt to existing pipelines.

Longer pipelines (more than 50km) need many interrogator units, which raises sensor and interrogator system installation costs.

COVID-19 pandemic highlighted the need for accelerating the shift towards automation and remote inspection processes. A changing price dynamics have affected the global oil and gas industry significantly. It has affected key oil & gas players' financial positions and obstructed upcoming projects. For example, in April 2020, the Energy Ministry of Argentina suspended auctioning projects to develop the Vaca Muerta-Buenos Aires natural gas pipeline due to the country's aggrevating economic scenario resulting from the pandemic.

Leak Detection Solutions Market Trends

Oil & Gas is Expected to Drive the Market Growth

Many gas emission monitoring firms utilize machine learning and Artificial Intelligence (AI) to identify leaks in infrastructure more efficiently. A machine learning algorithm detects leaks and emission risks on the ground through satellite pictures. Machine learning data enables operators to recognize trends and patterns across time, allowing them to make data-driven choices. As a result, many oil and gas firms are attempting to replace the old leak detection solutions with technologically advanced ones. Various venture capital firms are investing in startups that provide AI-based leak detection and monitoring systems, opening new market prospects.

For Instance, In November 2021, SCF Ventures, a venture capital firm focusing on investing in energy services firms, announced its investment in Qube Technologies provides customers with internet-of-things ("IoT") devices to continuously monitor a host of gases, including methane, carbon dioxide, and hydrogen sulfide. Oil and gas operators can use Qube Technologies to provide continuous emission and leak monitoring equipment to better identify, decrease, and quantify methane emissions. The funding will aid Qube Technologies implementation of continuous monitoring systems, allowing the industry to reduce emissions even further.

According to the International Energy Agency, reducing gas emissions such as methane from hydrocarbon operations is one of the most cost-effective and impactful methods to help reach global climate and environmental goals. Various technologies are used for leak detection solutions, such as ultrasonic, pressure analysis, thermal Imaging, fiber optic, Laser absorption, LiDAR, vapor sensing, E- RTTM, etc.

Energy companies are establishing goals to manage methane emissions effectively to help address global climate change. For instance, in April 2021, Honeywell launched its gas cloud imaging (GCI) system in Europe to provide automated and continuous monitoring for leaks of hazardous and polluting gases such as methane at oil and gas, chemical industries, and power generation facilities across the continent.

In November 2021, Teledyne FLIR launched Si124, an ultrasonic leak detection camera. Air leak detection and identifying partial discharge from high-voltage systems are two of the most common applications for acoustic imaging. The Si124-LD is specific for compressed air leak detection. The FLIR Si124 can detect leaks and partial discharge up to 10 times quicker than standard methods using sound imaging from 124 built-in microphones.

North America is Expected to Register the Fastest Growth

North America is the fastest-growing leak detection solutions market. Due to rapid industrialization growth in the oil and gas industries, the use of leak detection solutions market has a high demand, and key players in North America, such as Honeywell International Inc, and Schneider Electric S.E., are also launching new products in Leak detection solution.

The key players in the North American region are launching different products to detect oil, gas, and chemical leaks. For instance, In October 2021, Honeywell announced the release of two Bluetooth-connected gas detectors that can continuously monitor dangerous gases even in fog, rain, snow, and other inclement weather and provide facilities to keep the oil and gas petrochemicals, chemicals, and other workers and industrial sites safe.

Strict government laws and norms can be credited to the region's progress. On hazardous liquid pipelines, the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration mandates the installation of a leak detection system. The United States government's backing for the oil and gas industry also propels the country's industrial development. As the oil and gas sector expands in the United States, the demand for leak detection solution increases. Furthermore, government subsidies to the oil and gas fuel regional market expansion.

According to International Energy Agency(IEA), LNG contracting activity shrank by almost 30% year-on-year (y-o-y) in 2020, while activity during 2021 has potential for recovery. Final investment decisions (FIDs) were also down from 2019 record high, with one North American project sanctioned in 2020, plus Qatar's major expansion plan confirmed in early 2021. These new investments, added to the wave of FIDs taken before 2020, should therefore prove sufficient to satisfy additional LNG demand in the coming years. which is a driving factor for the market players in North America.

With the discovery of several oil and gas reserves worldwide in recent years, several oil and gas exploration projects were initiated to fulfill the global demand for oil and gas. It has led to the increased requirement for monitoring oil and gas facilities, leading to the demand for leak detection systems. For Instance, In February 2022, B.P. Plc announced the startup of the Herschel Expansion project in the Gulf of Mexico. Herschel is the first of four major projects to be delivered globally in 2022. Phase 1 of the project comprises developing a new subsea production system. The first well is expected to increase platform annual gross production by an estimated 10,600 barrels of oil equivalent daily at its peak.

Leak Detection Solutions Industry Overview

The leak detection solutions market is highly fragmented. The rapid growth of industrialization increased the number of oil, gas, and chemical industries. Due to this, the demand for leak detection solutions market increased, With several companies operating in the segment. Leading players are currently focusing on Partnerships to provide efficient and sustainable services.

November 2021 - Schneider Electric and Prisma Photonics announced a partnership to provide services to oil and gas pipeline owners and operators to prevent accidental and malicious activity by providing real-time intelligence and precise monitoring of oil and gas infrastructure. As a result, customers can drive efficiency and sustainability through energy and resource loss avoidance.

Additional Benefits:

  The market estimate (ME) sheet in Excel format
 3 months of analyst support

Table of Contents:

Global Leak Detection Solutions - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)

Market Report | 2025-04-28 | 100 pages | Mordor Intelligence

To place an Order with Scotts International:

- - Print this form
- - Complete the relevant blank fields and sign
- - Send as a scanned email to support@scotts-international.com

ORDER FORM:

Select license	License	Price
	Single User License	$4750.00
	Team License (1-7 Users)	$5250.00
	Site License	$6500.00
	Corporate License	$8750.00
	VAT	
	Total	

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*		Phone*	
First Name*		Last Name*	
Job title*			
Company Name*		EU Vat / Tax ID / NIP number*	
Address*		City*	
Zip Code*		Country*	
		Date	2025-05-05
		Signature