Rapid industrialization is one of the overwhelming contributing factors to severe environmental damage. Toxic emissions from various industries can pollute air, water, and land. Power plants and many other industries are emitting tons of harmful gases into the atmosphere. Recognizing the negative consequences of these gases, many countries have taken major steps to properly monitor and curb emission levels.

Governments around the world require industries to keep track of pollutant emission rates using emission monitoring systems (EMS). While continuous EMS (CEMS) has been traditionally used and approved for emission monitoring, many countries now also approve software-based predictive EMS for use in certain applications in lieu of an installed CEMS.

More plants are now choosing CEMS that utilizes Fourier transform infrared spectroscopy (FTIR), as this technique can measure multiple gases without frequent calibrations. In situ systems are also getting more popular as these can measure ammonia (NH3) gas. Multi-component products will reduce the cost of ownership with connected world (Internet of Things) solutions, and sensitive products are required due to reduction in emission limit values with a complete solution.

PEMS provides a cost-effective alternative to CEMS. Although PEMS is now approved for use in lieu of CEMS by US, as well as a few European and Middle Eastern countries, adoption of PEMS remains slow. A major reason for slow adoption is limited applicability of the PEMS.

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Users are exhibiting a cautious optimism toward emission monitoring systems. Nevertheless, suppliers believe it is not a question of IF, but WHEN they will catch on. So how can suppliers increase their value proposition?

- Are different strategies required for new installations vs. retrofit?
- Will new distribution channels be required?
- How critical is initial cost in relation to lifecycle cost?
- How will niche market products impact the total market?

This research is available as a Market Intelligence Workbook (Excel) and/or a concise, executive-level Market Analysis Report (PDF), with or without detailed charts.

**STRATEGIC ANALYSIS**
- Major, Regional, and Industry Trends
- Strategic Recommendations

**COMPETITIVE ANALYSIS**
- Market Shares of the Leading Suppliers
- Market Shares by Region
  - North America
  - Europe, Middle East, Africa
  - Asia
  - Latin America
- Market Shares by System Type
  - CEMS
  - PEMS
- Market Shares by Revenue Category
  - Hardware Revenues
  - Software Revenues
  - Services Revenues
- Market Shares by Component
  - Analyzer
  - Data Acquisition System
  - Hardware Mounting
  - Sample Conditioning
  - Sensors/Probe
  - Shelter/Enclosure
  - Workstation
- Market Shares by Measured Variable

**MARKET FORECASTS & HISTORIES**
- Shipments by Region
- Shipments by System Type
- Shipments by Revenue Category
- Shipments by Component
- Shipments by Measured Variable
- Shipments by Application Type
- Shipments by Transmission Method
- Shipments by Industry
- Shipments by Customer Type
- Shipments by Sales Channel

**INDUSTRY PARTICIPANTS**
- The research identifies all relevant suppliers serving this market.

**RESEARCH FOCUS AREAS**
- Market Shares by Application Type
- Market Shares by Transmission Method
- Market Shares by Industry
  - Cement & Glass
  - Chemical
  - Electric Power Generation
  - Incineration
  - Metals
  - Mining
  - Oil & Gas
  - Pharmaceutical & Biotech
  - Pulp & Paper
  - Refining
- Market Shares by Sales Channel
- Market Shares by Customer Type