

# Positive Material Identification Market by Offering (Equipment and Services), Technique (XRF and OES), Form Factor (Portable Analyzers and Benchtop Analyzers), Industry (Chemicals, Automotive, Scrap Recycling), and Geography - Global Forecast to 2023

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## Abstracts

“The PMI market is expected to grow at a CAGR of 7.79% between 2018 and 2023”

The positive material identification (PMI) market is expected to grow from USD 1.99 billion in 2018 to USD 2.89 billion by 2023, at a CAGR of 7.79% between 2018 and 2023. Some of the drivers for the growth of this market are stringent safety regulations by governments and quality control requirements, declining efficiencies of aging assets and the subsequent need for operational safety, and innovative technological advancements in PMI equipment. The main restraint for the market growth is a high cost associated with PMI equipment.

“The PMI market for services is expected to grow at a higher CAGR during the forecast period”

The PMI services considered in the study involve only the third-party services offered by the testing, inspection, and certification (TIC) players, such as SGS, Bureau Veritas, Intertek, and T?V S?D. Various industry players purchasing PMI equipment for the testing of alloy and metal materials are not considered in this scope. The market for services is likely to grow at a higher CAGR owing to the increasing concentration of the third-party service providers in this market. This market is basically known as the outsourced market, wherein the experts render these services as per the client demands.

“XRF analyzers held major size of the PMI equipment market in 2017”

The adoption of XRF analyzers is huge as compared with that of OES analyzers, as XRF is the purest form of NDT, and these analyzers are less expensive than the OES analyzers. Also, the OES method results in burned marks on the objects, whereas XRF provides clean analysis. Moreover, XRF analyzers are small in size and are mostly portable, whereas OES analyzers are mostly suitable for laboratory use being benchtop devices weighing more than 15–20 kg per analyzer. These factors are likely to continue to boost the adoption of XRF analyzers in industries such as oil and gas, scrap recycling, and chemicals in the future as well.

“The PMI market in APAC is expected to be grow at the highest CAGR during the forecast period”

APAC is the largest contributor to the adoption of PMI offering. The region, including China, Japan, and India, has shown increased adoption in the market owing to strong industrial base in these countries. The market in APAC is expected to grow at the highest CAGR during the forecast period owing to the growing implementation of these equipment for the improvement of processes in various industries.

Breakdown of profile of primary participants:

By Company: Tier 1 – 53 %, Tier 2 – 15%, and Tier 3 – 32%

By Designation: C-Level Executives – 30%, Directors – 27%, and Others – 43%

By Region: North America – 20%, Europe – 16%, APAC – 40%, and RoW – 24%

The major players profiled in this report include:

Olympus (Japan)

Thermo Fisher (US)

Bruker (US)

Hitachi High Technologies Corporation (Japan)

Ametek (US)

Simadzu (Japan)

PANalytical B.V. (Netherlands)

SGS Group (Switzerland)

Bureau Veritas S.A. (France)

Intertek Group PLC (UK)

T?V S?D Group (Germany)

Element Materials Technology (UK)

T?V Rheinland AG Group (Germany)

Applus Services S.A. (Spain)

T?V Nord Group (Germany)

Tribogenics (US)

Torontech (Canada)

Sciaps (US)

Qsx Instruments (US)

Xenometrix (Israel)

## Research Coverage

The study segments the PMI market report into offering (equipment and services); the PMI equipment market has been further segmented into technique (XRF and OES) and form factor (portable analyzers and benchtop analyzers). The PMI market study also

covers industries and provides the geographic forecast of the market size for various segments with regard to 4 main regions—North America, Europe, Asia Pacific (APAC), and Rest of the World (RoW).

### Reasons to buy the report

The report would help the market leaders/new entrants in this market in the following ways:

1. This report segments the PMI market comprehensively and provides the closest approximations of the overall market size and those of the subsegments across different applications and regions.
2. The report provides the detailed analysis of the PMI market with the help of competitive leadership mapping, and value chain analysis including key companies in the market and their relations in the ecosystem.
3. The report helps stakeholders to understand the pulse of the market and provides them information on the key market drivers, restraints, challenges, and opportunities.
4. This report would help stakeholders to understand their competitors better and gain insights to enhance their position in the business.
5. The competitive landscape section includes the competitor ecosystem along with the recent and important developments, including expansions, and mergers and acquisitions in the PMI market.

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## About

The report "Positive Material Identification Market by Offering (Equipment and Services), Technique (XRF and OES), Form Factor (Portable Analyzers and Benchtop Analyzers), Industry (Chemicals, Automotive, Scrap Recycling), and Geography - Global Forecast to 2023", The positive material identification (PMI) market is expected to reach to USD 2.89 Billion by 2023 from USD 1.99 Billion in 2018, at a CAGR of 7.79% between 2018 and 2023. The growth of this market is mainly driven by stringent safety regulations by governments and quality control requirements, declining efficiencies of aging assets and the subsequent need for operational safety, and innovative technological advancements in PMI equipment.

**The report also covers other key players involved in this market are:**

Tribogeincs,

Torontech,

Sciaps,

QSX Instruments and

Xenemetrix

SGS Olympus, Thermo Fisher, Bruker, Hitachi, SGS, Bureau Veritas, Intertek, TUV SUD, and Element Materials Technology are the major players included in the report with market ranking analysis.

### **XRF held larger size of PMI equipment market in 2017**

The development of XRF instruments with high spatial resolution analysis capability is one of the major innovations in the XRF analyzers. These analyzers are now widely used by PMI experts, researchers, and analysts in various applications, such as metallurgy, forensics, polymers, electronics, archaeology, and environmental analysis.

XRF technique is mainly based on 2 methodologies-- energy-dispersive X-ray fluorescence (EDXRF) and wavelength- dispersive X-ray fluorescence (WDXRF).

### **PMI equipment market for portable analyzers is expected to grow at higher CAGR during forecast period**

Portable or handheld PMI equipment types are generally the XRF analyzers. These equipment types are among the widely used equipment due to their small size and lower prices than that of OES analyzers and are known to be based on the purest form of NDT technique. Alloy producers, cast houses, and scrap operations are some of the prime users for the portable PMI analyzers. Oil and gas, metals and heavy machinery, scrap and recycling, and chemicals are some of the major industries that use portable analyzers.

### **PMI market for oil and gas industry held the largest share in 2017**

The oil and gas industry includes refineries, transmission pipelines, subsea pipelines, and storage tanks. PMI is an effective tool in situations when the material is received with an inappropriate or demolished component certificate, or if it is otherwise missing. It can be used to address the doubt about the composition of components of a material. PMI solutions for the oil and gas industry include material verification services with qualitative and quantitative analyses.

### **APAC accounted for largest share of PMI market in 2017**

China is a prominent exporter to several countries around the world; this has led to the rise in the TIC services in the country to ensure compliance of the exported materials with the international standards. Many infrastructural development projects are under construction in this region and are scheduled to be completed during the forecast period considered for this market. The demand for automobiles in this region is estimated to grow by 2023, which would result in the need to increase manufacturing of vehicles. To address this need, the companies have to perform optimally, which can be achieved by the implementation of the PMI methods.

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