

Calibration Services: Market Research Report

<https://marketpublishers.com/r/C42FDF1F935EN.html>

Date: November 2018

Pages: 359

Price: US\$ 5,600.00 (Single User License)

ID: C42FDF1F935EN

Abstracts

This report analyzes the worldwide markets for Calibration Services in US\$ Thousands by the following End-Use Sectors: Electronic Manufacturing, Communication, Aerospace & Defence, Industrial & Automotive, and Others. The global market is further analyzed by the following Parameters of Calibration: Mechanical Calibration Services, Electrical Calibration Services, Physical/Dimensional Calibration Services, and Thermodynamic Calibration Services. The US market is also analyzed by the following Segments: Original Equipment Manufacturers, In-House Laboratories, and Third Party Service Providers.

The report provides separate comprehensive analytics for the US, Canada, Japan, Europe, Asia-Pacific, Latin America, and Rest of World. Annual estimates and forecasts are provided for the period 2016 through 2024.

Also, a five-year historic analysis is provided for these markets. Market data and analytics are derived from primary and secondary research.

Company profiles are primarily based on public domain information including company URLs.

The report profiles 149 companies including many key and niche players such as -

ABB Ltd.

Brüel & Kjær Sound & Vibration Measurement A/S

ESSCO Calibration Laboratory

Endress+Hauser AG

Fluke Corporation

Keysight Technologies, Inc.

Contents

1. INTRODUCTION, METHODOLOGY & PRODUCT DEFINITIONS

Study Reliability and Reporting Limitations
Data Interpretation & Reporting Level
Quantitative Techniques & Analytics
Product Definitions and Scope of Study

2. MARKET OVERVIEW

Calibration Services: Indispensable for Accuracy & Precision of Test & Measurement Instruments
Focus on Preventive Maintenance and High Quality Standards Drive Demand for Calibration Services
Bright Prospects in Store for Calibration Services in Developing Markets
Stable Economic Outlook and Positive Manufacturing PMI to Aid Market Growth

Table 1. World Real GDP Growth Rates (%) by Country/Region for the Period 2017-2019 (includes corresponding Graph/Chart)

Table 2. Global Manufacturing Purchasing Managers' Index (PMI) for the Years 2010 through 1H2018 (includes corresponding Graph/Chart)

End-Use Industry Dynamics Impact Market Growth
Electronics Manufacturing Industry
Opportunity Indicators

Table 3. World Market for Smartphones: Shipments in Million Units for the Years 2015, 2017, 2019 and 2021 (includes corresponding Graph/Chart)

Table 4. Global Shipments of Desktop PCs, Laptops and Tablets in Million Units for the Years 2015, 2017, 2019 and 2021 (includes corresponding Graph/Chart)

Communications Industry
R&D and Commercial Deployment of 5G Network Technology
Aerospace & Defense Industry

NPL and STFC Collaborate for Space Calibration
Industrial Calibration Services
Automotive Industry: Potential for Calibration Services

Table 5. Global Automobile Production Volume in Thousand Units for the Years 2015, 2017 & 2020 (includes corresponding Graph/Chart)

Increasing Need for Calibration Services in Hybrid Vehicles

Table 6. Global Plug-in Vehicle Sales in Thousands for the Years 2016 through 2018E (includes corresponding Graph/Chart)

Changing Technologies & Trends to Impact Calibration of ECUs
Notable Trends, Drivers and Issues
Recognition of Intrinsic Cost Benefits: Critical to Market Acceptance
Need for Periodic Calibrations under ISO Regulations
Drive to Maintain Quality Standards
Accreditation Magnifies Business Case for Calibration Services
Advanced Instruments with Simple Calibration to Offset Technician Shortage
Advanced Portable Calibrators Enable Automated Documentation of Calibration Tasks
Proliferation of OEMs to Improve Quality of Calibration
Innovations in Service Delivery Mechanisms
Low-Cost Non-Accredited Services – The New Vertical for Service Providers
Onsite Calibration Fuels Adoption of Calibration Services
Outsourcing of Calibration Services: Enabling Businesses to Stay Updated with Changing Market Scenario
Advent of User-Friendly & Self-Calibrating Devices Pose a Threat to Outsourcing of Calibration Services
Expansion of Service Portfolio is Key to Future Growth
High Significance of Calibration Data for Plant Maintenance Operations
Shift to Paperless Calibration Management System
Rising Prominence of Paperless Technology for Maintenance & Calibration in Life Sciences Market
Calibration Software: A Key to Success
Calibration Management Software Shifts to Cloud Platform
Regulatory Requirements, Quality Standards and Business Goals of Organizations Driving Calibration Management Software Market

Improved Access to Expert Guidance Helps Laboratories
Medical Equipment Calibration Services: Essential to Improve & Maintain Device Accuracy
Calibration Services in Pharmaceutical Industry: Compliance and Quality Control Needs Drive Growth
Calibration Services – Critical Role in the Food Industry
Common Calibration Services in the Food Industry
Thermometer Calibration
Temperature Calibration
Color Measurement Calibration
Maintenance of Test Equipment and Standards
Rising Significance of Calibration in Plant Maintenance
Focus on Innovation
Increasing Role of Connectivity and Cloud
Choosing Between In-House and Outsourced Services
Pipette Calibration Services Market – Accredited Labs Aid Growth
Torque Calibration Services Market: Need for Better Results Favors Growth
Key Challenges
Cyclical Nature of Test & Measurement Industry
Increased Complexity of Standards Bothers Calibration Laboratories
Lack of Specialized Services Niggles Laboratories
High Cost of Calibration Piques Manufacturers
Widespread Awareness: The Need of the Hour
Price Sensitivity & Competition to Limit Market Potential
Rise of OEM: The Most Significant Threat to Third Party Vendors
Self-Calibration Features on Electrical Instruments
Offshore Manufacturing: A Cause of Concern

3. CALIBRATION SERVICES - AN OVERVIEW

Introduction
Calibration & Repair Services
Off-site and Onsite Testing
Types of Calibration
Component Calibration
System Calibration
Basic Process of Calibration
Instrument Calibration Process
Frequency of Calibration

Calibration Certification
Traceability Agreements
Common Parameters of Calibration
Thermodynamic Testing (Test for Temperature Instruments)
Electrical Testing (Test for Electronic & Electrical Tools)
Physical Testing
Mechanical Testing
End-Use Markets
Electronic Manufacturing
Communication
Aerospace & Defense
Industrial & Automotive
Others

4. STANDARDS AND GUIDES AND ACCREDITATION BODIES

Standards and Guides
ISO/IEC 17025:2005 – An Overview
Accreditation Bodies
Accreditation Bodies in the US
In Canada
In New Zealand
In India
In Vietnam
The American Association for Laboratory Accreditation (A2LA) - A Brief Overview
The International Laboratory Accreditation Cooperation (ILAC) - The Global Platform for Laboratory Accreditation Bodies

5. COMPETITIVE LANDSCAPE

A Glance at the Provider Landscape
OEMs
Third-Party Service Providers
NMIs
In-house Laboratories
Factors to Consider When Selecting a Calibration Service Provider
5.1 Focus on Select Players
ABB Ltd. (Switzerland)
Brüel & Kjær Sound & Vibration Measurement A/S (Denmark)

ESSCO Calibration Laboratory (USA)
Endress+Hauser AG (Switzerland)
Fluke Corporation (USA)
Keysight Technologies, Inc. (USA)
Micro Precision Calibration, Inc. (USA)
Optical Test and Calibration Limited (UK)
Rohde & Schwarz GmbH & Co. KG (Germany)
Siemens AG (Germany)
SIMCO Electronics (USA)
Technical Maintenance, Inc. (USA)
Tektronix, Inc. (USA)
Tradinco Instrumenten-Apparaten B. V. (Netherlands)
Transcat, Inc. (USA)
Trescal (France)

5.2 Product/Service Launches

Kaelus Rolls Out ACE-1000A Analyzer Calibration Extender
Cirrus Research Expands Calibration Service Offering in the UK
Rohde & Schwarz Launches R & S ZN-Z32 and Z33 Inline Calibration Units
Tektronix Launches DPO7OEI Calibrated Optical Probe and Analysis Software Solution
KAIE Introduces Torque Wrench Calibration Service
Fluke Introduces Fluke 729 Automatic Pressure Calibrator
Instrument Systems Rolls Out New Calibration Standard Series

5.3 Recent Industry Activity

Trescal Acquires Diamond Technical Services and ACTEAM Industries
Autoglass Commences Operations of New ADAS Calibration Centers
Cross Company Takes Over J. A. King
Transcat Takes Over Angel's Instrumentation
BriskHeat Enters into Strategic Partnership with AeroNed
Emerson Establishes Flow Calibration Service Center for Middle East and Africa
Keysight Technologies Snaps Up Thales Calibration Services
Trescal Enters into Partnership Agreement with STAHLWILLE
Trescal Takes Over MetricControl
Transcat Takes Over NBS Calibrations
Premium Inspection & Testing Group Takes Over Quality Testing Services
Trescal Acquires RS Calibration
Mesa Labs Partners with TPF Control to Expand Operations in Holland
Vaisala Expands Service Offering to Accredited Carbon Dioxide Calibrations
Trescal Acquires Vale Balanças, Aicher Kalibrierdienst, Atlas Copco and Massachusetts Metrology

Sun Nuclear Enters into Agreement with RSIC
Eurofins's CPT Division Takes Over Both Hursley and ETC
Anritsu Enters into Partnership with Trescal
ISA Continues Partnership with Beamex
Trescal Takes Over ASSI
Trescal Takes Over Calgas and ISL
OMERS Private Equity Inks Deal with Ardian to Acquire Trescal
Trescal Completes Takeover of Teclabor
Trescal Takes Over A+ Métrologie
Trescal Purchases Pyrometro
J. A. King Takes Over Trace 1 Calibration
DEWETRON Partners with Essco Calibration
LAW Calibration LLC Purchases QC Services
Trescal Takes Over Acucal
Element Materials Technology Group Acquires Exova
Trescal Acquires Gebhardt Instruments
Trescal Takes Over L3M Technologies
Industrial Physics Takes Over United Calibration
Trescal Acquires DMM
Euroloop Inks Partnership Agreement with Kiwa
Trescal Takes Over Exphil Calibration

6. GLOBAL MARKET PERSPECTIVE

Table 7. World Recent Past, Current and Future Analysis for Calibration Services by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific (excluding Japan), Latin America and Rest of World Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 8. World Historic Review for Calibration Services by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific (excluding Japan), Latin America and Rest of World Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 9. World 14-Year Perspective for Calibration Services by Geographic Region - Percentage Breakdown of Revenues for US, Canada, Japan, Europe, Asia-Pacific (excluding Japan), Latin America and Rest of World Markets for Years 2011, 2018 and

2024 (includes corresponding Graph/Chart)

Table 10. World Recent Past, Current and Future Analysis for Calibration Services by Parameter - Mechanical Calibration Services, Electrical Calibration Services, Physical/ Dimensional Calibration Services, and Thermodynamic Calibration Services Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 11. World Historic Review for Calibration Services by Parameter - Mechanical Calibration Services, Electrical Calibration Services, Physical/ Dimensional Calibration Services, and Thermodynamic Calibration Services Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 12. World 14-Year Perspective for Calibration Services by Parameter - Percentage Breakdown of Revenues for Mechanical Calibration Services, Electrical Calibration Services, Physical/Dimensional Calibration Services, and Thermodynamic Calibration Services Markets for Years 2011, 2018 and 2024 (includes corresponding Graph/Chart)

Table 13. World Recent Past, Current and Future Analysis for Calibration Services in Electronic Manufacturing Industry by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific (excluding Japan), Latin America and Rest of World Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 14. World Historic Review for Calibration Services in Electronic Manufacturing Industry by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific (excluding Japan), Latin America and Rest of World Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 15. World 14-Year Perspective for Calibration Services in Electronic Manufacturing Industry by Geographic Region - Percentage Breakdown of Revenues for US, Canada, Japan, Europe, Asia-Pacific (excluding Japan), Latin America and Rest of World Markets for Years 2011, 2018 and 2024 (includes corresponding Graph/Chart)

Table 16. World Recent Past, Current and Future Analysis for Calibration Services in Communication Industry by Geographic Region - US, Canada, Japan, Europe, Asia-

Pacific (excluding Japan), Latin America and Rest of World Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 17. World Historic Review for Calibration Services in Communication Industry by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific (excluding Japan), Latin America and Rest of World Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 18. World 14-Year Perspective for Calibration Services in Communication Industry by Geographic Region - Percentage Breakdown of Revenues for US, Canada, Japan, Europe, Asia-Pacific (excluding Japan), Latin America and Rest of World Markets for Years 2011, 2018 and 2024 (includes corresponding Graph/Chart)

Table 19. World Recent Past, Current and Future Analysis for Calibration Services in Aerospace & Defense Industry by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific (excluding Japan), Latin America and Rest of World Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 20. World Historic Review for Calibration Services in Aerospace & Defense Industry by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific (excluding Japan), Latin America and Rest of World Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 21. World 14-Year Perspective for Calibration Services in Aerospace & Defense Industry by Geographic Region - Percentage Breakdown of Revenues for US, Canada, Japan, Europe, Asia-Pacific (excluding Japan), Latin America and Rest of World Markets for Years 2011, 2018 and 2024 (includes corresponding Graph/Chart)

Table 22. World Recent Past, Current and Future Analysis for Calibration Services in Industrial & Automotive Industry by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific (excluding Japan), Latin America and Rest of World Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 23. World Historic Review for Calibration Services in Industrial & Automotive

Industry by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific (excluding Japan), Latin America and Rest of World Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 24. World 14-Year Perspective for Calibration Services in Industrial & Automotive Industry by Geographic Region - Percentage Breakdown of Revenues for US, Canada, Japan, Europe, Asia-Pacific (excluding Japan), Latin America and Rest of World Markets for Years 2011, 2018 and 2024 (includes corresponding Graph/Chart)

Table 25. World Recent Past, Current and Future Analysis for Calibration Services in Other Industries by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific (excluding Japan), Latin America and Rest of World Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 26. World Historic Review for Calibration Services in Other Industries by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific (excluding Japan), Latin America and Rest of World Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 27. World 14-Year Perspective for Calibration Services in Other Industries by Geographic Region - Percentage Breakdown of Revenues for US, Canada, Japan, Europe, Asia-Pacific (excluding Japan), Latin America and Rest of World Markets for Years 2011, 2018 and 2024 (includes corresponding Graph/Chart)

7. REGIONAL MARKET PERSPECTIVE

7.1 The United States

A. Market Analysis

Market Overview

In-house Laboratories – High Growth Segment

Positive Manufacturing Outlook Augurs Well for Calibration Services Market

Quality Control Spending in the Manufacturing Sector

Customer Education and Business Collaborations – Key Focus Areas

Key Statistics

Table 28. North American Electrical Calibration Services Market (2018E): Percentage Breakdown of Revenues by Application (includes corresponding Graph/Chart)

Table 29. North American Mechanical Calibration Services Market (2018E): Percentage Breakdown of Revenues by Application (includes corresponding Graph/Chart)

Table 30. North American Thermodynamic Calibration Services Market (2015): Percentage Breakdown of Revenues by Application (includes corresponding Graph/Chart)

Table 31. North American Physical Calibration Services Market (2015): Percentage Breakdown of Revenues by Application (includes corresponding Graph/Chart)

Regulatory Overview

Competitive Landscape

Table 32. Leading Service Providers in the North American Calibration Services Market (2018E): Percentage Breakdown of Revenues for SIMCO Electronics, Tektronix, Transcat, Trecal, Regional Players and Others (includes corresponding Graph/Chart)

B. Market Analytics

Table 33. US Recent Past, Current and Future Analysis for Calibration Services by End-Use Sector - Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 34. US Historic Review for Calibration Services by End-Use Sector - Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 35. US 14-Year Perspective for Calibration Services by End-Use Sector - Percentage Breakdown of Annual Revenues for Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets for Years 2011, 2018 and 2024 (includes corresponding Graph/Chart)

Table 36. US Recent Past, Current and Future Analysis for Calibration Services by Segment - Original Equipment Manufacturers, In-House Laboratories and Third Party Service Providers Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 37. US Historic Review for Calibration Services by Segment - Original Equipment Manufacturers, In-House Laboratories and Third Party Service Providers Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 38. US 14-Year Perspective for Calibration Services by Segment - Percentage Breakdown of Revenues for Original Equipment Manufacturers, In-House Laboratories and Third Party Service Providers Markets for Years 2011, 2018 and 2024 (includes corresponding Graph/Chart)

7.2 Canada Market Analysis

Table 39. Canadian Recent Past, Current and Future Analysis for Calibration Services by End-Use Sector - Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 40. Canadian Historic Review for Calibration Services by End-Use Sector - Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 41. Canadian 14-Year Perspective for Calibration Services by End-Use Sector - Percentage Breakdown of Annual Revenues for Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets for Years 2011, 2018 and 2024 (includes corresponding Graph/Chart)

7.3 Japan Market Analysis

Table 42. Japanese Recent Past, Current and Future Analysis for Calibration Services by End-Use Sector - Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 43. Japanese Historic Review for Calibration Services by End-Use Sector - Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 44. Japanese 14-Year Perspective for Calibration Services by End-Use Sector - Percentage Breakdown of Annual Revenues for Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets for Years 2011, 2018 and 2024 (includes corresponding Graph/Chart)

7.4 Europe

A. Market Analysis

Europe: A Major Calibration Services Market

Key Statistics

Table 45. European Electrical Calibration Services Market (2018E): Percentage Breakdown of Revenues by Application (includes corresponding Graph/Chart)

Table 46. European Electrical Calibration Services Market (2018E): Percentage Breakdown of Revenues by End-Use Sector (includes corresponding Graph/Chart)

Table 47. European Mechanical Calibration Services Market (2018E): Percentage Breakdown of Revenues by Application (includes corresponding Graph/Chart)

Table 48. European Mechanical Calibration Services Market (2018E): Percentage Breakdown of Revenues by End-use Sector (includes corresponding Graph/Chart)

Table 49. European Thermodynamic Calibration Services Market (2018E): Percentage Breakdown of Revenues by Application (includes corresponding Graph/Chart)

Table 50. European Physical Calibration Services Market (2018E): Percentage Breakdown of Revenues by Application (includes corresponding Graph/Chart)

A Peek into Challenges in Store
An Intensely Competitive Marketplace
Regulatory Overview
B. Market Analytics

Table 51. European Recent Past, Current and Future Analysis for Calibration Services by Geographic Region - France, Germany, Italy, UK, Spain, Russia and Rest of Europe Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 52. European Historic Review for Calibration Services by Geographic Region - France, Germany, Italy, UK, Spain, Russia and Rest of Europe Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 53. European 14-Year Perspective for Calibration Services by Geographic Region - Percentage Breakdown of Annual Revenues for France, Germany, Italy, UK, Spain, Russia and Rest of Europe Markets for Years 2011, 2018 and 2024 (includes corresponding Graph/Chart)

Table 54. European Recent Past, Current and Future Analysis for Calibration Services by End-Use Sector - Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 55. European Historic Review for Calibration Services by End-Use Sector - Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 56. European 14-Year Perspective for Calibration Services by End-Use Sector - Percentage Breakdown of Annual Revenues for Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets for Years 2011, 2018 and 2024 (includes corresponding Graph/Chart)

7.4.1 France
Market Analysis

Table 57. French Recent Past, Current and Future Analysis for Calibration Services by End-Use Sector - Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 58. French Historic Review for Calibration Services by End-Use Sector - Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 59. French 14-Year Perspective for Calibration Services by End-Use Sector - Percentage Breakdown of Annual Revenues for Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets for Years 2011, 2018 and 2024 (includes corresponding Graph/Chart)

7.4.2 Germany Market Analysis

Table 60. German Recent Past, Current and Future Analysis for Calibration Services by End-Use Sector - Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 61. German Historic Review for Calibration Services by End-Use Sector - Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 62. German 14-Year Perspective for Calibration Services by End-Use Sector - Percentage Breakdown of Annual Revenues for Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets for Years 2011, 2018 and 2024 (includes corresponding Graph/Chart)

7.4.3 Italy

Market Analysis

Table 63. Italian Recent Past, Current and Future Analysis for Calibration Services by End-Use Sector - Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 64. Italian Historic Review for Calibration Services by End-Use Sector - Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 65. Italian 14-Year Perspective for Calibration Services by End-Use Sector - Percentage Breakdown of Annual Revenues for Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets for Years 2011, 2018 and 2024 (includes corresponding Graph/Chart)

7.4.4 The United Kingdom Market Analysis

Table 66. UK Recent Past, Current and Future Analysis for Calibration Services by End-Use Sector - Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 67. UK Historic Review for Calibration Services by End-Use Sector - Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 68. UK 14-Year Perspective for Calibration Services by End-Use Sector - Percentage Breakdown of Annual Revenues for Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets for Years 2011, 2018 and 2024 (includes corresponding Graph/Chart)

7.4.5 Spain Market Analysis

Table 69. Spanish Recent Past, Current and Future Analysis for Calibration Services by End-Use Sector - Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 70. Spanish Historic Review for Calibration Services by End-Use Sector - Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 71. Spanish 14-Year Perspective for Calibration Services by End-Use Sector - Percentage Breakdown of Annual Revenues for Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets for Years 2011, 2018 and 2024 (includes corresponding Graph/Chart)

7.4.6 Russia Market Analysis

Table 72. Russian Recent Past, Current and Future Analysis for Calibration Services by End-Use Sector - Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 73. Russian Historic Review for Calibration Services by End-Use Sector - Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 74. Russian 14-Year Perspective for Calibration Services by End-Use Sector - Percentage Breakdown of Annual Revenues for Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets for Years 2011, 2018 and 2024 (includes corresponding Graph/Chart)

7.4.7 Rest of Europe Market Analysis

Table 75. Rest of Europe Recent Past, Current and Future Analysis for Calibration Services by End-Use Sector - Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 76. Rest of Europe Historic Review for Calibration Services by End-Use Sector - Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 77. Rest of Europe 14-Year Perspective for Calibration Services by End-Use Sector - Percentage Breakdown of Annual Revenues for Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets for Years 2011, 2018 and 2024 (includes corresponding Graph/Chart)

7.5 Asia-Pacific Market Analysis

Table 78. Asia-Pacific Recent Past, Current and Future Analysis for Calibration Services by Geographic Region - China, India and Rest of Asia-Pacific Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 79. Asia-Pacific Historic Review for Calibration Services by Geographic Region - China, India and Rest of Asia-Pacific Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 80. Asia-Pacific 14-Year Perspective for Calibration Services by Geographic Region - Percentage Breakdown of Annual Revenues for China, India and Rest of Asia-Pacific Markets for Years 2011, 2018 and 2024 (includes corresponding Graph/Chart)

Table 81. Asia-Pacific Recent Past, Current and Future Analysis for Calibration

Services by End-Use Sector - Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 82. Asia-Pacific Historic Review for Calibration Services by End-Use Sector - Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 83. Asia-Pacific 14-Year Perspective for Calibration Services by End-Use Sector - Percentage Breakdown of Annual Revenues for Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets for Years 2011, 2018 and 2024 (includes corresponding Graph/Chart)

7.5.1 China Market Analysis

Table 84. Chinese Recent Past, Current and Future Analysis for Calibration Services by End-Use Sector - Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 85. Chinese Historic Review for Calibration Services by End-Use Sector - Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 86. Chinese 14-Year Perspective for Calibration Services by End-Use Sector - Percentage Breakdown of Annual Revenues for Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets for Years 2011, 2018 and 2024 (includes corresponding Graph/Chart)

7.5.2 India A. Market Analysis Market Overview

Table 87. Calibration and Repair Services Market in India (2018E): Percentage Breakdown of Revenues by Segment - Electro-Technical, Fluid Flow & Optical, Mechanical and Thermal (includes corresponding Graph/Chart)

Lack of High-End Calibration Facilities Extends Opportunity
Competition

Table 88. Leading Players in the Indian Calibration and Services Market (2017): Percentage Breakdown of Sales for Keysight Technologies, National Physical Laboratory (NPL), Standardisation Testing and Quality Certification (STQC) Directorate, and Others (includes corresponding Graph/Chart)

B. Market Analytics

Table 89. Indian Recent Past, Current and Future Analysis for Calibration Services by End-Use Sector - Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 90. Indian Historic Review for Calibration Services by End-Use Sector - Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 91. Indian 14-Year Perspective for Calibration Services by End-Use Sector - Percentage Breakdown of Annual Revenues for Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets for Years 2011, 2018 and 2024 (includes corresponding Graph/Chart)

7.5.3 Rest of Asia-Pacific

A. Market Analysis

Current & Future Analysis

Calibration and Repair Services in Southeast Asia – An Overview

B. Market Analytics

Table 92. Rest of Asia-Pacific Recent Past, Current and Future Analysis for Calibration Services by End-Use Sector - Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 93. Rest of Asia-Pacific Historic Review for Calibration Services by End-Use Sector - Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 94. Rest of Asia-Pacific 14-Year Perspective for Calibration Services by End-Use Sector - Percentage Breakdown of Annual Revenues for Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets for Years 2011, 2018 and 2024 (includes corresponding Graph/Chart)

7.6 Latin America Market Analysis

Table 95. Latin American Recent Past, Current and Future Analysis for Calibration Services by Geographic Region - Brazil and Rest of Latin America Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 96. Latin American Historic Review for Calibration Services by Geographic Region - Brazil and Rest of Latin America Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 97. Latin American 14-Year Perspective for Calibration Services by Geographic Region - Percentage Breakdown of Annual Revenues for Brazil and Rest of Latin America Markets for Years 2011, 2018 and 2024 (includes corresponding Graph/Chart)

Table 98. Latin American Recent Past, Current and Future Analysis for Calibration Services by End-Use Sector - Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2016 through 2024 (includes

corresponding Graph/Chart)

Table 99. Latin American Historic Review for Calibration Services by End-Use Sector - Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 100. Latin American 14-Year Perspective for Calibration Services by End-Use Sector - Percentage Breakdown of Annual Revenues for Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets for Years 2011, 2018 and 2024 (includes corresponding Graph/Chart)

7.6.1 Brazil Market Analysis

Table 101. Brazilian Recent Past, Current and Future Analysis for Calibration Services by End-Use Sector - Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 102. Brazilian Historic Review for Calibration Services by End-Use Sector - Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 103. Brazilian 14-Year Perspective for Calibration Services by End-Use Sector - Percentage Breakdown of Annual Revenues for Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets for Years 2011, 2018 and 2024 (includes corresponding Graph/Chart)

7.6.2 Rest of Latin America Market Analysis

Table 104. Rest of Latin America Recent Past, Current and Future Analysis for Calibration Services by End-Use Sector - Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets Independently

Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 105. Rest of Latin America Historic Review for Calibration Services by End-Use Sector - Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 106. Rest of Latin America 14-Year Perspective for Calibration Services by End-Use Sector - Percentage Breakdown of Annual Revenues for Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets for Years 2011, 2018 and 2024 (includes corresponding Graph/Chart)

7.7 Rest of World Market Analysis

Table 107. Rest of World Recent Past, Current and Future Analysis for Calibration Services by End-Use Sector - Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 108. Rest of World Historic Review for Calibration Services by End-Use Sector - Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets Independently Analyzed with Annual Revenue Figures in US\$ Thousand for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 109. Rest of World 14-Year Perspective for Calibration Services by End-Use Sector - Percentage Breakdown of Annual Revenues for Electronic Manufacturing, Communication, Aerospace & Defense, Industrial & Automotive, and Others Markets for Years 2011, 2018 and 2024 (includes corresponding Graph/Chart)

8. COMPANY PROFILES

Total Companies Profiled: 149 (including Divisions/Subsidiaries - 156)

The United States (40)

Canada (7)

Europe (102)

France (3)
Germany (11)
The United Kingdom (57)
Italy (4)
Spain (2)
Rest of Europe (25)
Asia-Pacific (Excluding Japan) (6)
Africa (1)

I would like to order

Product name: Calibration Services: Market Research Report

Product link: <https://marketpublishers.com/r/C42FDF1F935EN.html>

Price: US\$ 5,600.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/C42FDF1F935EN.html>