

Quantum Photonics Market Size by Offering (Systems, and Services), Application (Quantum Communications, Quantum Computing, and Quantum Sensing & Metrology), Vertical (Banking & Finance, Agriculture & Environment) and Region - Global Forecast to 2030

Market Report | 2023-06-07 | 217 pages | MarketsandMarkets

AVAILABLE LICENSES:

- Single User \$4950.00
- Multi User \$6650.00
- Corporate License \$8150.00
- Enterprise Site License \$10000.00

Report description:

The quantum photonics market is valued at USD 0.4 billion in 2023 and is anticipated to be USD 3.3 billion by 2030, growing at a CAGR of 32.2% from 2023 to 2030. Factors such as rising demand for secure communication and growing investment in quantum photonics computing are driving the growth of the market during the forecast period.

Growing investment in quantum photonics

In recent years, several businesses and academic organizations have made large investments in quantum photonics. Growing investment in quantum photonics is a major driver for its advancement and adoption. Companies and organizations are recognizing the immense potential of quantum photonics technology in revolutionizing various industries, including computing, communications, and sensing. The increasing investment is fueling research and development efforts, leading to hardware, algorithms, and applications breakthroughs. Funding from governments, venture capitalists, and technology giants are providing the necessary resources to accelerate the progress of quantum photonics. The increased investment in quantum photonics fosters innovation, attracts highly skilled professionals, and expands the ecosystem. This surge in funding is propelling the growth of quantum photonics and creating opportunities for transformative solutions in various industries.

PsiQuantum, a California-based firm, is working to create a viable, fault-tolerant quantum computer utilizing photonic qubits quantum computer. In a fundraising round that was headed by BlackRock and included Baillie Gifford and M12 (Microsoft's startup fund), the business raised USD 215 million in 2020. With this funding, PsiQuantum will be able to expand its business and quicken the development of its quantum photonics technology.

Xanadu, a Canadian quantum computing startup that raised USD 100 million in a funding round in 2021, and QuTech, a Dutch

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

research institute that is working to develop a photonic-based quantum computer in cooperation with several industrial partners, are two other notable players in the quantum photonics market in addition to PsiQuantum.

Potential for quantum supremacy

Quantum photonics is an exciting technology that has the potential to transform computing by utilizing photons' unique features to conduct sophisticated computations. The capacity of quantum computers to do tasks that are beyond the capability of classical computers is referred to as quantum supremacy. While there has been considerable success in showing quantum supremacy with superconducting qubits, quantum supremacy with photonic qubits has yet to be shown. However, major research is being conducted in the field of photonic quantum computing, and quantum photonics computing may attain quantum supremacy in the future.

In June 2022, Xanadu announced the launch of Borealis, the company's newest quantum computer, for public use through the cloud. Borealis is the biggest photonic quantum computer ever developed and the first to be made available to the public, with 216 squeezed-state qubits.

?

Asia Pacific is the fastest-growing region in the quantum photonics market

There is a significant market for quantum photonics in Asia Pacific, specifically in countries like Japan, South Korea, and China. The significant growth of the Asia Pacific quantum photonics market can be attributed to the increasing demand for quantum photonics systems and services from emerging economies such as China and Japan for use in different applications in the space & defense, healthcare & pharmaceutical, and energy & power industries in the coming years.

The breakup of primaries conducted during the study is depicted below:

- By Company Type: Tier 1 - 18 %, Tier 2 - 22%, and Tier 3 -60%
- By Designation: C-Level Executives - 21%, Directors - 35%, and Others - 44%
- By Region: North America- 45%, Europe - 38%, Asia Pacific - 12%, Rest of world- 5%

Research Coverage

The report segments the quantum photonics market and forecasts its size, by value, based on region (North America, Europe, Asia Pacific, and RoW), offering (systems, and services), application (quantum communication, quantum computing, quantum sensing & metrology), and vertical (Space & Defense, Banking & Finance, Healthcare & Pharmaceutical, Transportation & Logistics, Government, Agriculture & Environment, Others(include academia, retail, telecom, media, energy & power, chemical, industrial, and oil & gas sectors). The report also provides a comprehensive review of market drivers, restraints, opportunities, and challenges in the quantum photonics market. The report also covers qualitative aspects in addition to the quantitative aspects of these markets.

Reason to buy Report

The report will help the market leaders/new entrants in this market with information on the closest approximations of the revenue numbers for the overall quantum photonics market and the subsegments. This report will help stakeholders understand the competitive landscape and gain more insights to position their businesses better and to plan suitable go-to-market strategies. The report also helps stakeholders understand the pulse of the market and provides them with information on key market drivers, restraints, challenges, and opportunities.

The report provides insights on the following pointers:

- Analysis of key drivers (rising demand for secure communication ,growing investment in quantum photonics, and potential for quantum supremacy), restraints (lack of standardization in quantum photonics, and regulatory challenges can hinder quantum photonics adoption and commercialization), opportunities (Advancements in quantum communications, Growing R&D and investments in quantum photonics computing), and challenges (Experimental constraints in quantum photonics computing) influencing the growth of the quantum photonics market

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

-□Product Development/Innovation: Detailed insights on upcoming technologies, research & development activities, and new product & service launches in the quantum photonics market

-□Market Development: Comprehensive information about lucrative markets - the report analyses the quantum photonics market across varied regions

-□Market Diversification: Exhaustive information about new products & services, untapped geographies, recent developments, and investments in the quantum photonics market

-□Competitive Assessment: In-depth assessment of market shares, growth strategies and service offerings of leading players like Toshiba (Japan), Xanadu (Canada), Quandela (France), ID Quantique (Switzerland), and PsiQuantum (US), among others in the quantum photonics market

Table of Contents:

| | | |
|----------|---|----|
| 1 | INTRODUCTION | 26 |
| 1.1 | STUDY OBJECTIVES | 26 |
| 1.2 | MARKET DEFINITION | 26 |
| 1.3 | INCLUSIONS AND EXCLUSIONS | 27 |
| 1.4 | STUDY SCOPE | 28 |
| 1.4.1 | MARKETS COVERED | 28 |
| FIGURE 1 | QUANTUM PHOTONICS MARKET: SEGMENTATION | 28 |
| 1.4.2 | REGIONAL SCOPE | 28 |
| 1.4.3 | YEARS CONSIDERED | 29 |
| 1.5 | CURRENCY CONSIDERED | 29 |
| TABLE 1 | CURRENCY CONVERSION RATES | 29 |
| 1.6 | LIMITATIONS | 29 |
| 1.7 | STAKEHOLDERS | 30 |
| 1.8 | RECESSION IMPACT | 30 |
| 2 | RESEARCH METHODOLOGY | 31 |
| 2.1 | RESEARCH DATA | 31 |
| FIGURE 2 | QUANTUM PHOTONICS MARKET: RESEARCH DESIGN | 31 |
| 2.1.1 | SECONDARY AND PRIMARY RESEARCH | 32 |
| FIGURE 3 | QUANTUM PHOTONICS MARKET: RESEARCH APPROACH | 32 |
| 2.1.2 | SECONDARY DATA | 32 |
| 2.1.2.1 | Key secondary sources | 33 |
| 2.1.2.2 | Key data from secondary sources | 33 |
| 2.1.3 | PRIMARY DATA | 34 |
| 2.1.3.1 | List of key primary interview participants | 34 |
| 2.1.3.2 | Key data from primary sources | 34 |
| 2.1.3.3 | Breakdown of primaries | 35 |
| 2.1.3.4 | Key industry insights | 35 |
| 2.2 | MARKET SIZE ESTIMATION | 36 |
| FIGURE 4 | RESEARCH FLOW FOR MARKET SIZE ESTIMATION | 36 |
| FIGURE 5 | MARKET SIZE ESTIMATION METHODOLOGY: REVENUES OF COMPANIES | 36 |
| 2.2.1 | BOTTOM-UP APPROACH | 37 |
| FIGURE 6 | MARKET SIZE ESTIMATION METHODOLOGY: BOTTOM-UP APPROACH | 37 |
| 2.2.2 | TOP-DOWN APPROACH | 37 |

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

FIGURE 7 □ MARKET SIZE ESTIMATION METHODOLOGY: TOP-DOWN APPROACH □ 37

2.3 □ MARKET BREAKDOWN AND DATA TRIANGULATION □ 38

FIGURE 8 □ DATA TRIANGULATION □ 38

2.4 □ RESEARCH ASSUMPTIONS □ 39

TABLE 2 □ QUANTUM PHOTONICS MARKET: RESEARCH ASSUMPTIONS □ 39

2.5 □ PARAMETERS CONSIDERED TO ANALYZE RECESSION IMPACT ON QUANTUM PHOTONICS MARKET □ 39

TABLE 3 □ QUANTUM PHOTONICS MARKET: RECESSION IMPACT APPROACH □ 39

2.6 □ RESEARCH LIMITATIONS □ 40

FIGURE 9 □ QUANTUM PHOTONICS MARKET: RESEARCH LIMITATIONS □ 40

2.7 □ RISK ASSESSMENT □ 40

TABLE 4 □ QUANTUM PHOTONICS MARKET: RISK ASSESSMENT □ 40

3 □ EXECUTIVE SUMMARY □ 41

FIGURE 10 □ SYSTEMS SEGMENT TO ACCOUNT FOR LARGER SHARE OF QUANTUM COMPUTING MARKET DURING FORECAST PERIOD □ 42

FIGURE 11 □ QUANTUM PHOTONICS MARKET, BY APPLICATION, 2023 VS. 2030 □ 42

FIGURE 12 □ BANKING & FINANCE SEGMENT TO DOMINATE QUANTUM PHOTONICS MARKET IN 2030 □ 43

FIGURE 13 □ ASIA PACIFIC QUANTUM PHOTONICS MARKET TO REGISTER HIGHEST CAGR DURING FORECAST PERIOD □ 44

4 □ PREMIUM INSIGHTS □ 45

4.1 □ ATTRACTIVE OPPORTUNITIES FOR PLAYERS IN QUANTUM PHOTONICS MARKET □ 45

FIGURE 14 □ RISING INVESTMENTS IN QUANTUM PHOTONICS TECHNOLOGY TO CREATE OPPORTUNITIES FOR MARKET PLAYERS □ 45

4.2 □ QUANTUM PHOTONICS MARKET, BY OFFERING □ 45

FIGURE 15 □ SYSTEMS SEGMENT TO REGISTER HIGHER CAGR DURING FORECAST PERIOD □ 45

4.3 □ QUANTUM PHOTONICS MARKET, BY APPLICATION □ 46

FIGURE 16 □ QUANTUM COMMUNICATIONS TO ACCOUNT FOR LARGEST SHARE OF MARKET DURING FORECAST PERIOD □ 46

4.4 □ NORTH AMERICA QUANTUM PHOTONICS MARKET, BY APPLICATION AND COUNTRY □ 46

FIGURE 17 □ QUANTUM COMMUNICATIONS TO HOLD LARGEST SHARE OF NORTH AMERICAN MARKET IN 2023 □ 46

4.5 □ QUANTUM PHOTONICS MARKET, BY VERTICAL □ 47

FIGURE 18 □ BANKING & FINANCE SEGMENT TO HOLD LARGEST MARKET SHARE DURING FORECAST PERIOD □ 47

4.6 □ QUANTUM PHOTONICS MARKET, BY REGION □ 47

FIGURE 19 □ SOUTH KOREA TO REGISTER HIGHEST GROWTH DURING FORECAST PERIOD □ 47

5 □ MARKET OVERVIEW □ 48

5.1 □ INTRODUCTION □ 48

5.2 □ MARKET DYNAMICS □ 48

FIGURE 20 □ QUANTUM PHOTONICS MARKET: DRIVERS, RESTRAINTS, OPPORTUNITIES, AND CHALLENGES □ 48

5.2.1 □ DRIVERS □ 49

FIGURE 21 □ ANALYSIS OF IMPACT OF DRIVERS ON QUANTUM PHOTONICS MARKET □ 49

5.2.1.1 □ Rising demand for secure communication □ 49

5.2.1.2 □ Potential for quantum supremacy □ 50

?

5.2.1.3 □ Growing investment in quantum photonics □ 50

5.2.1.4 □ Integration with existing technologies □ 50

5.2.2 □ RESTRAINTS □ 51

FIGURE 22 □ ANALYSIS OF IMPACT OF RESTRAINTS ON QUANTUM PHOTONICS MARKET □ 51

5.2.2.1 □ Lack of standardization in quantum photonics □ 51

5.2.2.2 □ Regulatory challenges hinder quantum photonics adoption and commercialization □ 52

5.2.2.3 □ Difficulty in quantum photonics scaling □ 52

5.2.3 □ OPPORTUNITIES □ 52

FIGURE 23 ANALYSIS OF IMPACT OF OPPORTUNITIES ON QUANTUM PHOTONICS MARKET 52

5.2.3.1 Advancements in quantum communications 53

5.2.3.2 Growing R&D and investments in quantum photonics computing 53

5.2.3.3 Opportunities for hardware and software in quantum photonics computing market 54

5.2.4 CHALLENGES 54

FIGURE 24 ANALYSIS OF IMPACT OF CHALLENGES ON QUANTUM PHOTONICS MARKET 54

5.2.4.1 Experimental constraints in quantum photonics computing 54

5.3 VALUE CHAIN ANALYSIS 54

FIGURE 25 QUANTUM PHOTONICS MARKET: VALUE CHAIN ANALYSIS 55

5.3.1 RESEARCH, DESIGN, AND DEVELOPMENT 55

5.3.2 MANUFACTURERS 55

5.3.3 SOFTWARE PROVIDERS 55

5.3.4 SYSTEM INTEGRATORS 55

5.3.5 END-USER INDUSTRIES 56

5.4 ECOSYSTEM ANALYSIS 56

TABLE 5 QUANTUM PHOTONICS MARKET: ECOSYSTEM ANALYSIS 56

FIGURE 26 QUANTUM PHOTONICS MARKET: ECOSYSTEM ANALYSIS 57

5.5 PORTER'S FIVE FORCES ANALYSIS 58

FIGURE 27 QUANTUM PHOTONICS MARKET: PORTER'S FIVE FORCES ANALYSIS 58

5.5.1 THREAT OF NEW ENTRANTS 58

5.5.2 BARGAINING POWER OF SUPPLIERS 58

5.5.3 BARGAINING POWER OF BUYERS 59

5.5.4 THREAT OF SUBSTITUTES 59

5.5.5 INTENSITY OF COMPETITIVE RIVALRY 59

5.6 PRICING ANALYSIS 59

FIGURE 28 AVERAGE SELLING PRICE OF PHOTONIC QUANTUM COMPUTER OFFERED BY XANADU, BY APPLICATION 60

5.7 CASE STUDY ANALYSIS 61

TABLE 6 IDQ & SK BROADBAND EXPAND USE OF QKD TO PROTECT CRITICAL DATA IN SOUTH KOREA 61

TABLE 7 CHARACTERIZING AND ENTANGLEMENT OF PHOTON-PAIR SOURCES 61

TABLE 8 ROLLS-ROYCE PARTNERS WITH XANADU TO CO-DEVELOP QUANTUM ALGORITHM TO ACCELERATE AEROSPACE RESEARCH 62

TABLE 9 QUANDELA AND CRYPTONEXT SECURITY PARTNERED TO OFFER FULLY INTEGRATED QUANTUM-SAFE SOLUTION 62

TABLE 10 ORCA COMPUTING PARTNERED WITH UK MINISTRY OF DEFENCE (MOD) TO DEVELOP QUANTUM COMPUTING FOR FUTURE DATA PROCESSING CAPABILITIES 63

5.8 TRADE ANALYSIS 63

TABLE 11 IMPORT DATA FOR ELECTRONIC INTEGRATED CIRCUITS, BY COUNTRY, 2017-2021 (USD MILLION) 63

TABLE 12 EXPORT DATA FOR ELECTRONIC INTEGRATED CIRCUITS, BY COUNTRY, 2017-2021 (USD MILLION) 64

5.9 TARIFF ANALYSIS 64

TABLE 13 TARIFFS IMPOSED BY US ON IMPORTS OF ELECTRONIC INTEGRATED CIRCUITS; PARTS THEREOF, 2021 64

TABLE 14 TARIFFS IMPOSED BY CHINA ON IMPORTS OF ELECTRONIC INTEGRATED CIRCUITS; PARTS THEREOF, 2021 65

TABLE 15 TARIFFS IMPOSED BY GERMANY ON IMPORTS OF ELECTRONIC INTEGRATED CIRCUITS; PARTS THEREOF, 2021 65

5.10 REGULATIONS 65

5.10.1 REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS 66

TABLE 16 NORTH AMERICA: REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS 66

TABLE 17 EUROPE: REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS 66

TABLE 18 ASIA PACIFIC: REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS 67

TABLE 19 ROW: REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS 67

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

| | | |
|-----------|--|----|
| 5.10.2 | REGULATORY STANDARDS | 68 |
| 5.10.2.1 | P1913 - Software-defined quantum communication | 68 |
| 5.10.2.2 | P7130 - Standard for quantum technologies definitions | 68 |
| 5.10.2.3 | P7131 - Standard for quantum computing performance metrics and benchmarking | 68 |
| 5.11 | TECHNOLOGY ANALYSIS | 68 |
| 5.11.1 | QUANTUM IMAGING | 68 |
| 5.11.2 | QUANTUM CRYPTOGRAPHY | 68 |
| 5.11.3 | QUANTUM SIMULATION | 68 |
| 5.11.4 | QUANTUM NANOPHOTONICS | 69 |
| 5.11.5 | QUANTUM ERROR CORRECTION | 69 |
| 5.11.6 | PROCESSORS & CHIPS | 69 |
| 5.11.7 | DEVELOPMENT TOOLS | 70 |
| 5.11.8 | MACHINE LEARNING | 70 |
| ? | | |
| 5.12 | PATENT ANALYSIS | 70 |
| TABLE 20 | PATENT REGISTRATIONS, 2019-2022 | 71 |
| FIGURE 29 | COMPANIES WITH HIGHEST NUMBER OF PATENT APPLICANTS IN LAST 10 YEARS, 2013-2022 | 76 |
| FIGURE 30 | NUMBER OF PATENTS GRANTED OVER LAST 10 YEARS, 2013-2022 | 76 |
| TABLE 21 | TOP 20 PATENT OWNERS IN LAST 10 YEARS, 2013-2022 | 76 |
| 5.13 | KEY CONFERENCES AND EVENTS, 2023-2024 | 77 |
| TABLE 22 | QUANTUM PHOTONICS MARKET: KEY CONFERENCES AND EVENTS, 2023-2024 | 77 |
| 5.14 | REVENUE SHIFT AND NEW REVENUE POCKETS FOR CUSTOMERS' BUSINESSES | 79 |
| FIGURE 31 | REVENUE SHIFT IN QUANTUM PHOTONICS MARKET | 79 |
| 5.15 | KEY STAKEHOLDERS AND BUYING PROCESS | 80 |
| 5.15.1 | KEY STAKEHOLDERS IN BUYING PROCESS | 80 |
| FIGURE 32 | INFLUENCE OF STAKEHOLDERS ON BUYING PROCESS FOR TOP THREE APPLICATIONS | 80 |
| TABLE 23 | INFLUENCE OF STAKEHOLDERS ON BUYING PROCESS FOR TOP THREE APPLICATIONS (%) | 80 |
| 5.15.2 | BUYING CRITERIA | 81 |
| FIGURE 33 | KEY BUYING CRITERIA FOR TOP THREE APPLICATIONS | 81 |
| TABLE 24 | KEY BUYING CRITERIA FOR TOP THREE APPLICATIONS | 81 |
| 6 | QUANTUM PHOTONICS MARKET, BY OFFERING | 82 |
| 6.1 | INTRODUCTION | 83 |
| FIGURE 34 | SYSTEMS SEGMENT TO ACCOUNT FOR LARGER SHARE OF MARKET DURING FORECAST PERIOD | 83 |
| TABLE 25 | QUANTUM PHOTONICS MARKET, BY OFFERING, 2020-2022 (USD MILLION) | 83 |
| TABLE 26 | QUANTUM PHOTONICS MARKET, BY OFFERING, 2023-2030 (USD MILLION) | 83 |
| 6.2 | SYSTEMS | 84 |
| 6.2.1 | INCREASING DEVELOPMENT OF QUANTUM PHOTONICS COMPUTING SYSTEMS TO DRIVE MARKET | 84 |
| TABLE 27 | SYSTEMS: QUANTUM PHOTONICS MARKET, BY APPLICATION, 2020-2022 (USD MILLION) | 84 |
| TABLE 28 | SYSTEMS: QUANTUM PHOTONICS MARKET, BY APPLICATION, 2023-2030 (USD MILLION) | 84 |
| TABLE 29 | SYSTEMS: QUANTUM PHOTONICS MARKET, BY REGION, 2020-2022 (USD MILLION) | 85 |
| TABLE 30 | SYSTEMS: QUANTUM PHOTONICS MARKET, BY REGION, 2023-2030 (USD MILLION) | 85 |
| 6.3 | SERVICES | 85 |
| TABLE 31 | QUANTUM PHOTONICS MARKET, BY SERVICES, 2020-2022 (USD MILLION) | 85 |
| TABLE 32 | QUANTUM PHOTONICS MARKET, BY SERVICES, 2023-2030 (USD MILLION) | 86 |
| TABLE 33 | SERVICES: QUANTUM PHOTONICS MARKET, BY APPLICATION, 2020-2022 (USD MILLION) | 86 |
| TABLE 34 | SERVICES: QUANTUM PHOTONICS MARKET, BY APPLICATION, 2023-2030 (USD MILLION) | 86 |
| TABLE 35 | SERVICES: QUANTUM PHOTONICS MARKET, BY REGION, 2020-2022 (USD MILLION) | 86 |

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

TABLE 36 SERVICES: QUANTUM PHOTONICS MARKET, BY REGION, 2023-2030 (USD MILLION) 87

FIGURE 35 SERVICES SEGMENT: ASIA PACIFIC TO REGISTER HIGHER CAGR DURING FORECAST PERIOD 87

6.3.1 QUANTUM COMPUTING AS A SERVICE (QCAAS) 87

6.3.1.1 Accessing power of quantum photonics through cloud-based platforms to fuel market 87

6.3.2 CONSULTING SERVICES 88

6.3.2.1 Increase in awareness of advantages of quantum photonics to drive market 88

7 QUANTUM PHOTONICS MARKET, BY APPLICATION 89

7.1 INTRODUCTION 90

FIGURE 36 QUANTUM COMMUNICATIONS SEGMENT TO LEAD MARKET DURING FORECAST PERIOD 90

TABLE 37 QUANTUM PHOTONICS MARKET, BY APPLICATION, 2020-2022 (USD MILLION) 90

TABLE 38 QUANTUM PHOTONICS MARKET, BY APPLICATION, 2023-2030 (USD MILLION) 91

7.2 QUANTUM COMMUNICATIONS 91

FIGURE 37 QUANTUM COMMUNICATIONS SEGMENT: ASIA PACIFIC TO GROW AT HIGHEST RATE DURING FORECAST PERIOD 92

TABLE 39 QUANTUM COMMUNICATIONS: QUANTUM PHOTONICS MARKET, BY REGION, 2020-2022 (USD MILLION) 92

TABLE 40 QUANTUM COMMUNICATIONS: QUANTUM PHOTONICS MARKET, BY REGION, 2023-2030 (USD MILLION) 92

TABLE 41 QUANTUM COMMUNICATIONS: QUANTUM PHOTONICS MARKET, BY APPLICATION, 2020-2022 (USD MILLION) 93

TABLE 42 QUANTUM COMMUNICATIONS: QUANTUM PHOTONICS MARKET, BY APPLICATION, 2023-2030 (USD MILLION) 93

TABLE 43 QUANTUM COMMUNICATIONS: QUANTUM PHOTONICS MARKET, BY OFFERING, 2020-2022 (USD MILLION) 93

TABLE 44 QUANTUM COMMUNICATIONS: QUANTUM PHOTONICS MARKET, BY OFFERING, 2023-2030 (USD MILLION) 93

TABLE 45 QUANTUM COMMUNICATIONS: QUANTUM PHOTONICS MARKET, BY VERTICAL, 2020-2022 (USD MILLION) 94

TABLE 46 QUANTUM COMMUNICATIONS: QUANTUM PHOTONICS MARKET, BY VERTICAL, 2023-2030 (USD MILLION) 94

7.2.1 QUANTUM RANDOM GENERATORS 94

7.2.1.1 Generation of random numbers for advanced level of security to boost market 94

7.2.2 QUANTUM KEY DISTRIBUTION 95

7.2.2.1 Secure data transfer provided by quantum key distribution to drive market 95

?

7.3 QUANTUM SENSING & METROLOGY 95

7.3.1 ATOMIC CLOCKS 96

7.3.1.1 Precise measurement of time provided by atomic clocks to fuel market growth 96

7.3.2 QUANTUM DOT PHOTODETECTORS 97

7.3.2.1 Ability of quantum dot photodetectors to make precise measurements to fuel market growth 97

7.3.3 PAR (PHOTOSYNTHETICALLY ACTIVE RADIATION) QUANTUM SENSORS 97

7.3.3.1 Use of PAR to monitor plant growth to drive market 97

7.3.4 QUANTUM LIDAR 98

7.3.4.1 Precise and detailed images even in challenging conditions to drive market 98

TABLE 47 QUANTUM SENSING & METROLOGY: QUANTUM PHOTONICS MARKET, BY REGION, 2020-2022 (USD MILLION) 98

TABLE 48 QUANTUM SENSING & METROLOGY: QUANTUM PHOTONICS MARKET, BY REGION, 2023-2030 (USD MILLION) 99

TABLE 49 QUANTUM SENSING & METROLOGY: QUANTUM PHOTONICS MARKET, BY APPLICATION, 2020-2022 (USD MILLION) 99

TABLE 50 QUANTUM SENSING & METROLOGY: QUANTUM PHOTONICS MARKET, BY APPLICATION, 2023-2030 (USD MILLION) 99

TABLE 51 QUANTUM SENSING & METROLOGY: QUANTUM PHOTONICS MARKET, BY VERTICAL, 2020-2022 (USD MILLION) 100

TABLE 52 QUANTUM SENSING & METROLOGY: QUANTUM PHOTONICS MARKET, BY VERTICAL, 2023-2030 (USD MILLION) 100

7.4 QUANTUM COMPUTING 100

7.4.1 ON-PREMISES 101

7.4.1.1 On-premises photonic quantum computer to offer enhanced security and low latency 101

7.4.2 CLOUD 102

7.4.2.1 Growing adoption of cloud-based quantum computing for research and development 102

TABLE 53 QUANTUM COMPUTING: QUANTUM PHOTONICS MARKET, BY REGION, 2020-2022 (USD MILLION) 102

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

TABLE 54 □ QUANTUM COMPUTING: QUANTUM PHOTONICS MARKET, BY REGION, 2023-2030 (USD MILLION) □ 103

TABLE 55 □ QUANTUM PHOTONICS MARKET, BY SERVICES, 2020-2022 (USD MILLION) □ 103

TABLE 56 □ QUANTUM PHOTONICS MARKET, BY SERVICES, 2023-2030 (USD MILLION) □ 103

TABLE 57 □ QUANTUM COMPUTING: QUANTUM PHOTONICS MARKET, BY DEPLOYMENT MODE, 2020-2022 (USD MILLION) □ 103

TABLE 58 □ QUANTUM COMPUTING: QUANTUM PHOTONICS MARKET, BY DEPLOYMENT MODE, 2023-2030 (USD MILLION) □ 104

TABLE 59 □ QUANTUM COMPUTING: QUANTUM PHOTONICS MARKET, BY OFFERING, 2020-2022 (USD MILLION) □ 104

TABLE 60 □ QUANTUM COMPUTING: QUANTUM PHOTONICS MARKET, BY OFFERING, 2023-2030 (USD MILLION) □ 104

?

TABLE 61 □ QUANTUM COMPUTING: QUANTUM PHOTONICS MARKET, BY VERTICAL, 2020-2022 (USD MILLION) □ 104

TABLE 62 □ QUANTUM COMPUTING: QUANTUM PHOTONICS MARKET, BY VERTICAL, 2023-2030 (USD MILLION) □ 105

8 □ QUANTUM PHOTONICS MARKET, BY VERTICAL □ 106

8.1 □ INTRODUCTION □ 107

FIGURE 38 □ BANKING & FINANCE SEGMENT TO DOMINATE MARKET DURING FORECAST PERIOD □ 107

TABLE 63 □ QUANTUM PHOTONICS MARKET, BY VERTICAL, 2020-2022 (USD MILLION) □ 107

TABLE 64 □ QUANTUM PHOTONICS MARKET, BY VERTICAL, 2023-2030 (USD MILLION) □ 108

8.2 □ SPACE & DEFENSE □ 108

8.2.1 □ RISE IN USE OF QUANTUM PHOTONICS FOR CONCURRENT EXECUTION OF PROCESSES TO BOOST MARKET □ 108

FIGURE 39 □ NORTH AMERICA SEGMENT TO DOMINATE QUANTUM PHOTONICS MARKET FOR SPACE & DEFENSE DURING FORECAST PERIOD □ 109

TABLE 65 □ SPACE & DEFENSE: QUANTUM PHOTONICS MARKET, BY REGION, 2020-2022 (USD MILLION) □ 109

TABLE 66 □ SPACE & DEFENSE: QUANTUM PHOTONICS MARKET, BY REGION, 2023-2030 (USD MILLION) □ 110

8.3 □ BANKING & FINANCE □ 110

8.3.1 □ INCREASE IN USE OF QUANTUM PHOTONICS IN BANKING & FINANCE SECTORS TO FUEL MARKET □ 110

FIGURE 40 □ ASIA PACIFIC TO RECORD HIGHEST CAGR FOR BANKING & FINANCE DURING FORECAST PERIOD □ 111

TABLE 67 □ BANKING & FINANCE: QUANTUM PHOTONICS MARKET, BY REGION, 2020-2022 (USD MILLION) □ 111

TABLE 68 □ BANKING & FINANCE: QUANTUM PHOTONICS MARKET, BY REGION, 2023-2030 (USD MILLION) □ 111

8.4 □ HEALTHCARE & PHARMACEUTICAL □ 112

8.4.1 □ RISE IN REQUIREMENT FOR PERSONALIZED DIAGNOSTIC TOOLS AND TAILORED THERAPIES TO BOOST MARKET □ 112

FIGURE 41 □ ASIA PACIFIC SEGMENT TO DOMINATE MARKET FOR HEALTHCARE & PHARMACEUTICAL DURING FORECAST PERIOD □ 112

TABLE 69 □ HEALTHCARE & PHARMACEUTICAL: QUANTUM PHOTONICS MARKET, BY REGION, 2020-2022 (USD MILLION) □ 112

TABLE 70 □ HEALTHCARE & PHARMACEUTICAL: QUANTUM PHOTONICS MARKET, BY REGION, 2023-2030 (USD MILLION) □ 113

8.5 □ TRANSPORTATION & LOGISTICS □ 113

8.5.1 □ INCREASE IN USE OF QUANTUM-BASED METHODS TO IMPROVE TRAFFIC FLOW TO DRIVE MARKET □ 113

FIGURE 42 □ ASIA PACIFIC SEGMENT TO GROW AT HIGHEST CAGR IN QUANTUM PHOTONICS MARKET FOR TRANSPORTATION & LOGISTICS DURING FORECAST PERIOD □ 114

TABLE 71 □ TRANSPORTATION & LOGISTICS: QUANTUM PHOTONICS MARKET, BY REGION, 2020-2022 (USD MILLION) □ 114

TABLE 72 □ TRANSPORTATION & LOGISTICS: QUANTUM PHOTONICS MARKET, BY REGION, 2023-2030 (USD MILLION) □ 114

8.6 □ GOVERNMENT □ 115

8.6.1 □ SPIKE IN INVESTMENTS FOR DEVELOPMENT OF QUANTUM PHOTONICS TECHNOLOGY TO DRIVE MARKET □ 115

FIGURE 43 □ ASIA PACIFIC SEGMENT TO DOMINATE MARKET FOR GOVERNMENT SECTOR DURING FORECAST PERIOD □ 115

TABLE 73 □ GOVERNMENT: QUANTUM PHOTONICS MARKET, BY REGION, 2020-2022 (USD MILLION) □ 116

TABLE 74 □ GOVERNMENT: QUANTUM PHOTONICS MARKET, BY REGION, 2023-2030 (USD MILLION) □ 116

8.7 □ AGRICULTURE & ENVIRONMENT □ 116

8.7.1 □ PRECISE DETECTION CAPABILITIES FOR MONITORING CRUCIAL PARAMETERS TO BOOST MARKET □ 116

FIGURE 44 □ NORTH AMERICA SEGMENT TO GROW AT HIGHEST CAGR FOR AGRICULTURE & ENVIRONMENT MARKET DURING FORECAST PERIOD □ 117

TABLE 75 □ AGRICULTURE & ENVIRONMENT: QUANTUM PHOTONICS MARKET, BY REGION, 2020-2022 (USD MILLION) □ 117

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

TABLE 76 □ AGRICULTURE & ENVIRONMENT: QUANTUM PHOTONICS MARKET, BY REGION, 2023-2030 (USD MILLION) □ 118

8.8 □ OTHERS □ 118

FIGURE 45 □ ASIA PACIFIC SEGMENT TO LEAD MARKET FOR OTHERS SEGMENT DURING FORECAST PERIOD □ 118

TABLE 77 □ OTHERS: QUANTUM PHOTONICS MARKET, BY REGION, 2020-2022 (USD MILLION) □ 119

TABLE 78 □ OTHERS: QUANTUM PHOTONICS MARKET, BY REGION, 2023-2030 (USD MILLION) □ 119

9 □ QUANTUM PHOTONICS MARKET, BY REGION □ 120

9.1 □ INTRODUCTION □ 121

FIGURE 46 □ SOUTH KOREA TO REGISTER HIGHEST CAGR DURING FORECAST PERIOD □ 121

TABLE 79 □ QUANTUM PHOTONICS MARKET, BY REGION, 2020-2022 (USD MILLION) □ 121

TABLE 80 □ QUANTUM PHOTONICS MARKET, BY REGION, 2023-2030 (USD MILLION) □ 122

9.2 □ NORTH AMERICA □ 122

9.2.1 □ NORTH AMERICA: RECESSION IMPACT □ 123

FIGURE 47 □ NORTH AMERICA: SNAPSHOT OF QUANTUM PHOTONICS MARKET □ 123

TABLE 81 □ NORTH AMERICA: QUANTUM PHOTONICS MARKET, BY COUNTRY, 2020-2022 (USD MILLION) □ 124

TABLE 82 □ NORTH AMERICA: QUANTUM PHOTONICS MARKET, BY COUNTRY, 2023-2030 (USD MILLION) □ 124

TABLE 83 □ NORTH AMERICA: QUANTUM PHOTONICS MARKET, BY APPLICATION, 2020-2022 (USD MILLION) □ 124

TABLE 84 □ NORTH AMERICA: QUANTUM PHOTONICS MARKET, BY APPLICATION, 2023-2030 (USD MILLION) □ 124

TABLE 85 □ NORTH AMERICA: QUANTUM PHOTONICS MARKET, BY VERTICAL, 2020-2022 (USD MILLION) □ 125

TABLE 86 □ NORTH AMERICA: QUANTUM PHOTONICS MARKET, BY VERTICAL, 2023-2030 (USD MILLION) □ 125

?

9.2.2 □ US □ 126

9.2.2.1 □ Extensive investments in quantum photonics research & development to drive market □ 126

9.2.3 □ CANADA □ 127

9.2.3.1 □ Spike in government-led investments for development of new technologies to fuel market □ 127

9.2.4 □ MEXICO □ 127

9.2.4.1 □ Rise in quantum photonics developmental initiatives to boost market □ 127

9.3 □ EUROPE □ 127

9.3.1 □ EUROPE: RECESSION IMPACT □ 128

FIGURE 48 □ EUROPE: SNAPSHOT OF QUANTUM PHOTONICS MARKET □ 129

TABLE 87 □ EUROPE: QUANTUM PHOTONICS MARKET, BY COUNTRY, 2020-2022 (USD MILLION) □ 129

TABLE 88 □ EUROPE: QUANTUM PHOTONICS MARKET, BY COUNTRY, 2023-2030 (USD MILLION) □ 130

TABLE 89 □ EUROPE: QUANTUM PHOTONICS MARKET, BY APPLICATION, 2020-2022 (USD MILLION) □ 130

TABLE 90 □ EUROPE: QUANTUM PHOTONICS MARKET, BY APPLICATION, 2023-2030 (USD MILLION) □ 130

TABLE 91 □ EUROPE: QUANTUM PHOTONICS MARKET, BY VERTICAL, 2020-2022 (USD MILLION) □ 131

TABLE 92 □ EUROPE: QUANTUM PHOTONICS MARKET, BY VERTICAL, 2023-2030 (USD MILLION) □ 131

9.3.2 □ UK □ 132

9.3.2.1 □ Industrial developments and increase in adoption of quantum photonics to fuel market □ 132

9.3.3 □ GERMANY □ 132

9.3.3.1 □ Strong industrial and research presence in Germany to drive quantum photonics market □ 132

9.3.4 □ FRANCE □ 133

9.3.4.1 □ Surge in demand for advanced technologies for secure communications to fuel market □ 133

9.3.5 □ NETHERLANDS □ 134

9.3.5.1 □ Rise in initiatives to develop quantum photonics technology to drive market □ 134

9.3.6 □ REST OF EUROPE □ 135

9.4 □ ASIA PACIFIC □ 135

9.4.1 □ ASIA PACIFIC: RECESSION IMPACT □ 136

FIGURE 49 □ ASIA PACIFIC: SNAPSHOT OF QUANTUM PHOTONICS MARKET □ 136

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

| | | |
|-----------|--|-----|
| TABLE 93 | ASIA PACIFIC: QUANTUM PHOTONICS MARKET, BY COUNTRY, 2020-2022 (USD MILLION) | 137 |
| TABLE 94 | ASIA PACIFIC: QUANTUM PHOTONICS MARKET, BY COUNTRY, 2023-2030 (USD MILLION) | 137 |
| TABLE 95 | ASIA PACIFIC: QUANTUM PHOTONICS MARKET, BY APPLICATION, 2020-2022 (USD MILLION) | 137 |
| TABLE 96 | ASIA PACIFIC: QUANTUM PHOTONICS MARKET, BY APPLICATION, 2023-2030 (USD MILLION) | 138 |
| TABLE 97 | ASIA PACIFIC: QUANTUM PHOTONICS MARKET, BY VERTICAL, 2020-2022 (USD MILLION) | 138 |
| TABLE 98 | ASIA PACIFIC: QUANTUM PHOTONICS MARKET, BY VERTICAL, 2023-2030 (USD MILLION) | 139 |
| 9.4.2 | CHINA | 139 |
| 9.4.2.1 | Government-led initiatives and spike in funding for development of quantum computers to fuel market | 139 |
| 9.4.3 | JAPAN | 140 |
| 9.4.3.1 | Rise in focus on deployment of emerging technologies to boost market | 140 |
| 9.4.4 | SOUTH KOREA | 140 |
| 9.4.4.1 | Growing adoption of quantum photonics technology by key consumer electronics manufacturers to drive market | 140 |
| 9.4.5 | REST OF ASIA PACIFIC | 140 |
| 9.5 | REST OF THE WORLD | 140 |
| TABLE 99 | ROW: QUANTUM PHOTONICS MARKET, BY COUNTRY, 2020-2022 (USD MILLION) | 141 |
| TABLE 100 | ROW: QUANTUM PHOTONICS MARKET, BY COUNTRY, 2023-2030 (USD MILLION) | 141 |
| TABLE 101 | ROW: QUANTUM PHOTONICS MARKET, BY APPLICATION, 2020-2022 (USD MILLION) | 141 |
| TABLE 102 | ROW: QUANTUM PHOTONICS MARKET, BY APPLICATION, 2023-2030 (USD MILLION) | 141 |
| TABLE 103 | ROW: QUANTUM PHOTONICS MARKET, BY VERTICAL, 2020-2022 (USD MILLION) | 142 |
| TABLE 104 | ROW: QUANTUM PHOTONICS MARKET, BY VERTICAL, 2023-2030 (USD MILLION) | 142 |
| 9.5.1 | SOUTH AMERICA | 142 |
| 9.5.1.1 | Establishment of quantum communities to drive market | 142 |
| 9.5.2 | MIDDLE EAST & AFRICA | 143 |
| 9.5.2.1 | Rise in initiatives to increase awareness regarding quantum photonics to boost market | 143 |
| 10 | COMPETITIVE LANDSCAPE | 144 |
| 10.1 | INTRODUCTION | 144 |
| 10.2 | KEY STRATEGIES ADOPTED BY MAJOR COMPANIES | 144 |
| TABLE 105 | OVERVIEW OF STRATEGIES ADOPTED BY KEY PLAYERS IN QUANTUM PHOTONICS MARKET | 144 |
| 10.3 | REVENUE ANALYSIS | 145 |
| FIGURE 50 | REVENUE ANALYSIS OF KEY PLAYERS IN QUANTUM PHOTONICS MARKET, 2020-2022 | 145 |
| 10.4 | MARKET SHARE ANALYSIS, 2022 | 145 |
| FIGURE 51 | QUANTUM PHOTONICS MARKET: SHARE OF KEY PLAYERS, 2022 | 146 |
| TABLE 106 | QUANTUM PHOTONICS MARKET: DEGREE OF COMPETITION | 146 |
| ? | | |
| 10.5 | COMPANY EVALUATION QUADRANT, 2022 | 148 |
| 10.5.1 | STARS | 148 |
| 10.5.2 | EMERGING LEADERS | 148 |
| 10.5.3 | PERVASIVE PLAYERS | 148 |
| 10.5.4 | PARTICIPANTS | 148 |
| FIGURE 52 | QUANTUM PHOTONICS MARKET: COMPANY EVALUATION QUADRANT, 2022 | 149 |
| 10.6 | COMPETITIVE BENCHMARKING | 150 |
| 10.6.1 | COMPANY FOOTPRINT: OFFERING | 150 |
| 10.6.2 | COMPANY FOOTPRINT: REGION | 151 |
| 10.6.3 | COMPANY FOOTPRINT: APPLICATION | 152 |
| 10.6.4 | OVERALL COMPANY FOOTPRINT | 153 |
| 10.7 | STARTUP/SME EVALUATION QUADRANT, 2022 | 154 |
| 10.7.1 | PROGRESSIVE COMPANIES | 154 |

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

| | | |
|-----------|---|-----|
| 10.7.2 | RESPONSIVE COMPANIES | 154 |
| 10.7.3 | DYNAMIC COMPANIES | 154 |
| 10.7.4 | STARTING BLOCKS | 154 |
| FIGURE 53 | QUANTUM PHOTONICS MARKET: STARTUP/SME EVALUATION QUADRANT, 2022 | 155 |
| TABLE 107 | QUANTUM PHOTONICS MARKET: LIST OF KEY STARTUPS/SMES | 156 |
| TABLE 108 | QUANTUM PHOTONICS MARKET: COMPETITIVE BENCHMARKING OF KEY STARTUPS/SMES | 157 |
| 10.8 | COMPETITIVE SITUATIONS AND TRENDS | 157 |
| TABLE 109 | QUANTUM PHOTONICS MARKET: PRODUCT LAUNCHES, 2020-2023 | 157 |
| TABLE 110 | QUANTUM PHOTONICS MARKET: DEALS, 2020-2023 | 159 |
| TABLE 111 | QUANTUM PHOTONICS MARKET: OTHERS, 2020-2023 | 168 |
| 11 | COMPANY PROFILES | 169 |
| | (Business overview, Products offered, Recent Developments, MNM view)* | |
| 11.1 | KEY PLAYERS | 169 |
| 11.1.1 | XANADU | 169 |
| TABLE 112 | XANADU: COMPANY OVERVIEW | 169 |
| TABLE 113 | XANADU: PRODUCTS OFFERED | 170 |
| TABLE 114 | XANADU: PRODUCT LAUNCHES | 171 |
| TABLE 115 | XANADU: DEALS | 171 |
| 11.1.2 | PSI QUANTUM | 174 |
| TABLE 116 | PSIQUANTUM: COMPANY OVERVIEW | 174 |
| TABLE 117 | PSIQUANTUM: PRODUCTS OFFERED | 175 |
| TABLE 118 | PSIQUANTUM: DEALS | 175 |
| 11.1.3 | QUANDELA | 178 |
| TABLE 119 | QUANDELA: COMPANY OVERVIEW | 178 |
| TABLE 120 | QUANDELA: PRODUCTS OFFERED | 179 |
| TABLE 121 | QUANDELA: PRODUCT LAUNCHES | 180 |
| TABLE 122 | QUANDELA: DEALS | 180 |
| 11.1.4 | ID QUANTIQUÉ | 182 |
| TABLE 123 | ID QUANTIQUÉ: COMPANY OVERVIEW | 182 |
| TABLE 124 | ID QUANTIQUÉ: PRODUCTS OFFERED | 183 |
| TABLE 125 | ID QUANTIQUÉ: PRODUCT LAUNCHES | 184 |
| TABLE 126 | ID QUANTIQUÉ: DEALS | 184 |
| 11.1.5 | TOSHIBA | 187 |
| TABLE 127 | TOSHIBA: COMPANY OVERVIEW | 187 |
| FIGURE 54 | TOSHIBA: COMPANY SNAPSHOT | 188 |
| TABLE 128 | TOSHIBA: PRODUCT LAUNCHES | 189 |
| TABLE 129 | TOSHIBA: DEALS | 190 |
| 11.1.6 | ORCA COMPUTING | 192 |
| TABLE 130 | ORCA COMPUTING: COMPANY OVERVIEW | 192 |
| TABLE 131 | ORCA COMPUTING: PRODUCTS OFFERED | 192 |
| TABLE 132 | ORCA COMPUTING: DEALS | 193 |
| 11.1.7 | QUIX QUANTUM | 194 |
| TABLE 133 | QUIX QUANTUM: COMPANY OVERVIEW | 194 |
| TABLE 134 | QUIX QUANTUM: PRODUCTS OFFERED | 194 |
| TABLE 135 | QUIX QUANTUM: PRODUCT LAUNCHES | 195 |
| TABLE 136 | QUIX QUANTUM: DEALS | 195 |
| 11.1.8 | TUNDRASYSTEMS GLOBAL | 197 |

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

TABLE 137 TUNDRASYSTEMS GLOBAL: COMPANY OVERVIEW 197

TABLE 138 TUNDRASYSTEMS GLOBAL: PRODUCTS OFFERED 197

11.1.9 NORDIC QUANTUM COMPUTING GROUP (NQCG) 199

TABLE 139 NORDIC QUANTUM COMPUTING GROUP: COMPANY OVERVIEW 199

TABLE 140 NORDIC QUANTUM COMPUTING GROUP: PRODUCTS OFFERED 199

TABLE 141 NORDIC QUANTUM COMPUTING GROUP: DEALS 200

11.1.10 NU QUANTUM 201

TABLE 142 NU QUANTUM: COMPANY OVERVIEW 201

TABLE 143 NU QUANTUM: PRODUCTS OFFERED 202

TABLE 144 NU QUANTUM: DEALS 202

*Details on Business overview, Products offered, Recent Developments, MNM view might not be captured in case of unlisted companies.

11.2 OTHER KEY PLAYERS 204

11.2.1 SINGLE QUANTUM 204

11.2.2 AMAZON WEB SERVICES 205

11.2.3 NTT TECHNOLOGIES 206

11.2.4 M SQUARED 207

11.2.5 AOSENSE 208

11.2.6 NEC CORPORATION 209

11.2.7 QUANTUM XCHANGE 210

11.2.8 CRYPTA LABS 211

11.2.9 MICROCHIP TECHNOLOGY 212

11.2.10 MENLO SYSTEMS 213

11.2.11 THORLABS 213

11.2.12 QUINTESSENCE LABS 214

11.2.13 QUANTUM DICE 215

11.2.14 QUSIDE 216

11.2.15 QUBITEKK 216

12 APPENDIX 217

12.1 DISCUSSION GUIDE 217

12.2 KNOWLEDGESTORE: MARKETSDMARKETS' SUBSCRIPTION PORTAL 220

12.3 CUSTOMIZATION OPTIONS 222

12.4 RELATED REPORTS 222

12.5 AUTHOR DETAILS 223

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Quantum Photonics Market Size by Offering (Systems, and Services), Application (Quantum Communications, Quantum Computing, and Quantum Sensing & Metrology), Vertical (Banking & Finance, Agriculture & Environment) and Region - Global Forecast to 2030

Market Report | 2023-06-07 | 217 pages | MarketsandMarkets

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 | \$4950.00 |
| | Multi User | \$6650.00 |
| | Corporate License | \$8150.00 |
| | Enterprise Site License | \$10000.00 |
| | | 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* | <input type="text"/> | Phone* | <input type="text"/> |
| First Name* | <input type="text"/> | Last Name* | <input type="text"/> |
| Job title* | <input type="text"/> | | |
| Company Name* | <input type="text"/> | EU Vat / Tax ID / NIP number* | <input type="text"/> |
| Address* | <input type="text"/> | City* | <input type="text"/> |

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Zip Code*

Country*

Date

2026-03-11

Signature

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com