

Exploration of photonics markets



REPORT OUTLINE

- Title: RAMAN TECHNOLOGIES: Technologies, Markets Trends and Customers' Needs
- 80+ slides (PDF)
- € 3490 Multi users license

KEY FEATURES OF THE REPORT

- Overview of Raman Technologies, their applications and products (Raman systems, and components)
- Market revenue breakdown for the Raman market by product type and application
- Market forecast of the Raman market from 2022-2031
- Presentation of dominant market trends and some new products
- Summary of funded projects, investments and M&As related to Raman.

Buy the report and find all our publications here: https://tematys.fr/reports/en/

CONTACT

Susmita SRIDHAR, PhD

ssridhar@tematys.com

TEMATYS 6 Cité de Trévise 75009 PARIS Tel: +33 6 16 17 12 91 Fax: +33 9 72 39 44 39 www.tematys.com

RAMAN TECHNOLOGIES: Technologies, Markets Trends and Customers' Needs

IS RAMAN A FIRST CHOICE FOR SPECTROSCOPY?

Since the discovery of the Raman effect in 1928, Raman techniques have seen a plethora of advances and exploitation. To date, it is still one of the most researched topics in the field of spectroscopy and its likes. It has gained popularity as a powerful analytical tool used in various scientific fields to study molecular structures, chemical composition, and physical properties of materials.

Raman several spectroscopy has advantages that make it a preferred choice in certain scenarios: nondestructive and requires almost no sample preparation, high molecular specificity, water compatibility, high spatial resolution, etc. However, Raman is not without challenges like weak signals (compared to other spectroscopic techniques like Infrared Spectroscopy etc, large fluorescence interference, not being suitable for all types of samples etc. In summary, Raman spectroscopy is a valuable tool in many scientific and

analytical applications, but its suitability as a first choice depends on the specific requirements and characteristics of the sample under investigation.

HIGHLIGHTS

Speaking of Raman Technologies' market as an entity consists of not only components like Lasers, Detectors and Gratings but also mainly Raman Systems' as a whole. This report provides a broad view of the segments of the Raman Systems market including a breakdown based on product type: Raman Benchtop Systems, Raman Handheld Systems and Raman Process Systems. The report includes their current markets and forecasts (2022-2031), their application segments, R&D and Patents' landscape, Investments & fundraising and upcoming devices in the market. The Benchtop market, currently with the largest Raman Systems' market share was valued at \$ 260 M in 2022 with an expected CAGR of 5% in 2031.

RAMAN SYSTEMS' MARKET AND ITS APPLICATION SEGMENTS 2022 - 2031





Exploration of photonics markets



INFORMATION SOURCES

- Tematys' in-house knowledge of Raman Technologies and its markets.
- Financial & business information on 100+ Raman Technologies' market players.
- Interviews with key companies that manufacture & assemble Raman systems & components.
- Literature research.
- Participation in international conferences and webinars in the universe of Raman.

Buy the report and find all our publications here: https://tematys.fr/reports/en/

CONTACT

Susmita SRIDHAR, PhD <u>ssridhar@tematys.com</u> TEMATYS 6 Cité de Trévise 75009 PARIS Tel: +33 6 16 17 12 91 Fax: +33 9 72 39 44 39 www.tematys.com

WHERE'S THE RAMAN MARKET HEADING?

The Raman technologies market encompasses equipment, the instruments, and associated products used in Raman spectroscopy. This includes Raman spectrometers, Raman microscopes, Raman imaging systems, Raman probes, and related accessories. The market also includes software solutions for data analvsis and interpretation.

The market for Raman technologies has been growing steadily over the years, driven by the increasing demand for advanced analytical tools in research and development, quality control, and process monitoring. The expanding applications of Raman spectroscopy in industries such as pharmaceuticals, biotechnology, and semiconductors have also contributed to market growth. Even with the various advancements, there still hasn't been any disruption or scaleup of the market - validating that the Raman market, is indeed an 'improvements' market without any big breakthroughs expected.

Key factors influencing the Raman technologies market include several technological advancements in instrumentation, increasing automation and integration of Raman systems, and the growing need for non-destructive and label-free analysis techniques.

Additionally, the rising emphasis on stringent regulations and quality standards in industries like pharmaceuticals and food safety has fuelled the adoption of Raman spectroscopy. However, Raman is still in use when no other better method delivers the requirements.

In terms of market players, several companies are active in the Raman technologies market, including Bruker Corporation, Horiba Ltd., ThermoFisher Scientific Inc., Renishaw, and Agilent Technologies Inc. to name a few. These companies offer a range of Raman spectrometers and associated products diverse to cater to customer requirements. Currently, Raman benchtop systems make up the larger share of the Raman market, dominated by the above-mentioned players. Will these big players continue their dominance and or change their product range?

RAMAN'S FUTURE POINTS TOWARDS DEEP-UV AND TIME-GATED COMPONENTS' IMPROVEMENTS

The Raman market is not going to be a game-changer in the next decade, but it definitely promises a bundle of improvements that can help keep up its position. Developments in techniques like Deep UV and Time-gated Raman are the next go-to options.

Both Raman deep UV and time-gated techniques can be used independently or in combination to overcome challenges associated with fluorescence interference, weak scattering, or complex sample environments, ultimately improving the accuracy and sensitivity of Raman spectroscopy for various applications in fields such as materials pharmaceuticals, science, biotechnology, environmental and analysis.

Raman deep UV refers to the application of deep ultraviolet (UV) light for Raman spectroscopy. Time-gated Raman spectroscopy involves the use of timeresolved techniques to selectively collect Raman signals while minimizing unwanted background fluorescence or scattered light.

With the development of new ultrafast sources. UV sources and SPADs, achieving Deep-UV and Time-gated Raman have become inevitable tools for the future of Raman spectroscopy in its diverse applications. These developments complemented with advances in detection and analysis software are set to fuel the Raman market as a standalone market for Analytics and Spectroscopy techniques.



Exploration of photonics markets



AUTHORS



Susmita Sridhar, PhD, Photonics Markets' Analyst, European Projects Manager



Benoît d'Humières Partner, Strategy Consultant, Administrative Management



Thierry Robin Partner, Product Features Definition



Jacques Cochard Partner, Technology Transfer & Research Valorization

Buy the report and find all our publications here: https://tematys.fr/reports/en/

RAMAN-RELATED COMPANIES MENTIONED IN THE REPORT

Abundant Robotics, Active Fiber Systems Gmbh, Advanced Nano Technologies, Agilent Technologies, Agiltron, Agrobot, Airsense Analytics, Alakai Defence Systems, Allied Scientific Pro, Andor, Anton Paar, APE, Art Photonics Gmbh, Avispectro, Avantes, BASF, Bayspec, Betin Technologies, Biophotonics Diagnostics, Bio Tools, Blue River Technology, Broadcom, Brolight, Bruker, BW & Tek, Calmar Optcom, Cambridge Raman Imaging, Capilix, Cell Tool, Ceramoptec Gmbh, Chemring Detection Systems, Chroma Tech Corporation, Cloudminds Technology, Coherent, Colvistec, Control Development, CNI Laser, Cobalt Light Systems, Cobolt Ab /Huebner Photonics, Coda Devices, Coherent Inc., Crylas, Delta Photonics, DGA, Eblana Photonics, Edinburgh Instruments, Endophotonics, Endress + Hauser, Enspectr, Environics, Enwave Optronics Inc., Excelitas, Field Bee, Field Forensics, Flir, Foster + Freeman, G & B Bondtech Corp., GMP, Hamamatsu, Headwall Photonics, Horiba Scientific, Hubei Cubic-Ruiyi Instrument Co., Ltd, Innovative Photonic Solutions Lasers, Inphotonics Inc, Inspek Solutions, International Light Technologies, Intevac, Indatech (Chauvin Arnoux), Integrated Optics, IPG Photonics, Iris, IS Instruments, Jasco Inc., Kaiser Optical Systems, Klar Scientific, Laser Detect Systems, Laserglow Technologies, Lasertechnik Berlin Gmbh, Laser Quantum, Lemnatech, Leonardo, LightCore Technologies, Light Conversion, Lightnovo APS, Marqmetrix, Mcpherson Inc., Metrohm, Merck, Mettler-Toledo, Micromaterials Inc., MKS Spectraphysics, Mountain Photonics, Msguared, Nanobase, Nanophoton, Nova Ltd., N.P. Photonics, Nuctec Company Limited, Ocenahood, Ocean Insight, Ondax, Optigrate, Optiggain, Opton Laser, Opto Knowledge, Optonyx, Optosky, OTO Photonics, Oxford Instruments, Oxxius, Pendar Technologies, Perkin Elmer, Persertech, Photon Systems, PI, PKI Electronic Intelligence, Planartech LLC., Prolite, Q-peak Incorporated, QS Lasers, Quantel Lasers, Raman Health Technologies, Raman Systems Inc., RPMC, Real-Time Analysers, Renishaw, Resolution Spectra Systems, RGB Lasersystems, Rigaku, RiverD, Sacher Lasertechnik, Saimu Corporation, Sartorius, Sciaps, Sciencetech, Scientific Systems, Semrock, Seraph Biosciences, Serstech, Sirah Lasertechnik, Sol Instruments, Solar Laser Systems, Smiths Detection, Snowy Range Instruments, Spectra Precision, Spectra Solutions, Standa, Stellarnet Inc., Surface Optics Corporation, Tec5, Technobis, Teledyne FLIR, Teledyne Princeton Instruments, Thales, Thermo Fischer, Thorlabs, Time Gate Instruments, TIPD LLC., Toptica, Tornado Spectral Systems, TSI Inc., Uniklasers, Unisensor Sensorsysteme GmbH, Unisers, Viavi Solutions, Vibronix, Voxtel, Wasatch Photonics, Welldog Truly Unconventional, WiTec, Zeiss, Zolix Instruments



Market & Technology Report

Exploration of photonics markets



OTHER TEMATYS REPORTS

- 2022: Spectral Imaging: Enduser needs, Markets and Trends
- 2022: Metamaterials & Metasurfaces for optics and RF: Market, Technologies And Trends
- 2021: Imaging Breast & Prostate Cancer: Technologies, Market Trends and Applications
- 2021: Interband & Quantum Cascade Lasers
- 2020: Miniature, Micro and Chip-size Spectrometers: Technologies, Markets Trends and Customers' Needs
- 2019: Mid-IR Photodetectors and Systems: Applications & Markets

• • •

Buy the report and find all our publications <u>https://tematys.fr/reports/en/</u>

CONTACT & ORDERS

Susmita SRIDHAR, PhD

ssridhar@tematys.com TEMATYS 6 Cité de Trévise 75009 PARIS Tel: +33 6 16 17 12 91 Fax: +33 9 72 39 44 39 www.tematys.com

TABLE OF CONTENTS

- 1. INTRODUCTION
 - Report's Objectives
 - Information sources and methodology
 - Scope of the report
 - Glossary
 - Definitions
 - List of companies mentioned in the report

2. TECHNOLOGY SEGMENTATION

- Raman Universe
- Raman Spectroscopy
- Technological Landscape of RAMAN
- 3. APPLICATIONS
 - Defense & Homeland Security
 - Polymers
 - Material Sciences
 - Pharmaceuticals & Biotechnology
 - Life Sciences, Food & Agriculture
 - Processing Industry
 - Art, Culture, Environment & Others

- 4. MARKET DATA AND TRENDS
 - Value Chain
 - Market Data
 - Overview of Raman
 Systems' manufacturers
 - Overview of Raman Components' manufacturers
 - Finance & Takeovers
 - Forecasts
- 5. LATEST TRENDS IN RAMAN
 - Research & Development in RAMAN
 - Funded Projects
 - Patents' Landscape
 - R & D Perspectives
 - New Products
- 6. CONCLUSIONS
- 7. ABOUT TEMATYS



Preorder Form

RAMAN TECHNOLOGIES: Technologies, Markets Trends and Customers' Needs BILL TO

Name (Mr/Ms/Dr/Pr):	
Job title:	
Company:	
Address:	
City:	State:
Postcode/Zip:	
Country ⁽¹⁾ :	
⁽¹⁾ VAT Number (EU members):	
Tel:	
Email:	

RELEASE DATE: 26TH JULY 2023

Corporate multi user license: 3490.00 €HT⁽²⁾

(2) For price in dollars please use the day's exchange rate For French customer, add 20 % for VAT All reports are delivered electronically in PDF format

I hereby accept TEMATYS' Terms and Conditions of Sale ⁽³⁾ Date:____/____ Signature:

SHIPPING CONTACT

Name (Mr/Ms/Dr/Pr):

Tel:

Email:

PAYMENT

BY CREDIT CARD

□ VISA □ Mastercard □ AMEX Name of the Card Holder:

Card Number:	
Card Verification Value:	
Expiration date:	

BY BANK TRANSFER

BANK INFO: CREDITCOOP GARE DE L'EST 102, boulevard Magenta, FR-75010 PARIS Bank code : 42559, Branch code : 00003 Account No : 41000001859-92 SWIFT or BIC code : CCOPFRPPXXX IBAN : FR76 4255 9000 0341 0000 0185 992

RETURN ORDER BY

SARL TEMATYS By Post mail: 6 Cité Trévise 75009 PARIS / France By fax: +33 9 72 39 44 39 By Email: info@tematys.com

CONTACT

Susmita SRIDHAR, PhD <u>ssridhar@tematys.com</u> Tel: +33 6 16 17 12 91 NAF 7490B - Siret 528 943 616 00011 TVA Intracommunautaire : FR03528943616 www.tematys.com

MARKET RESEARCH - CUSTOM STUDIES - STRATEGY OPTICS - PHOTONICS - SENSORS - MATERIAL ENGINEERING



(3) Our Terms and Conditions of Sale are available on the following pages of this form and on our web site <u>http://tematys.fr/Publications/</u>

The price advertised for the present Report is only valid during the promotional period which ends on October, 7th 2020.

Our prices are subject to change. Please check on http://tematys.fr/Publications/

Tematys

Exploration of photonics markets

Definitions:

- conditions of sale in their entirety. It is done by signing the purchase order which mentions "I hereby accept TEMATYS's terms and Conditions of sale".
- "Buyer": any business user (i.e. any person acting in the course of its business activities, for its business needs) entering into the following general conditions to the exclusion of consumers acting in their personal interests.
- "Seller": Based in Paris (France headquarters), TEMATYS is a market research and business development consultancy company, facilitating market access for advanced technology industrial projects. TEMATYS works worldwide with the key industrial companies, r&d institutes and investors to help them understand the markets and technology trends.

"Contracting Parties" or "Parties": the Seller on the one hand and the Buyer on the other hand

- "Intellectual Property rights" ("IPr") means any rights held by the Seller in its Products, including any patents, trademarks, registered models, designs, copyrights, inventions, commercial secrets and know-how, technical information, company or trading names and any other intellectual property rights or similar in any part of the world, notwithstanding the fact that they have been registered or not and including any pending registration of one of the above mentioned rights
- "License": For the reports and databases, different licenses are proposed. The Buyer has to choose one license:
- 1. Single user license: a single individual at the company can use the report.
- 2. Corporate license: the report can be used by unlimited users within the company regardless of location. Subsidiaries are not included.
- 3. Clusters & professional association license: allows clusters & professional associations to provide the reports and databases to their members without extra payment. When purchasing a report with this license, Clusters & Professional Associations can add the reports and databases in their Extranet and let their members download it for free.
- "Products": depending on the purchase order, reports or database on optics, photonics, sensors, material engineering,... and their applications, to be bought either on a unit basis or as an annual subscription. (i.e. subscription for a period of 12 calendar months). The annual subscription to a package (i.e. a global discount based on the number of reports that the Buyer orders and/or a consulting approach), is defined in the order. Reports are established in PowerPoint and delivered on a PdF format and the database may include excel files. The products are produced either by TEMATYS itself, either by publishers for which TEMATYS acts as a reseller.

1. Scope

- 1.1 The Contracting Parties undertake to observe the following general conditions when agreed by the Buyer and the Seller, ANY ADDITIONAL, DIFFERENT, OR CONFLICTING TERMS AND CONDITIONS IN ANY OTHER DOCUMENTS ISSUED BY THE BUYER AT ANY TIME ARE HEREBY OBJECTED TO BY THE SELLER, SHALL BE WHOLLY INAPPLICABLE TO ANY SALE MADE HERELINDER AND SHALL NOT BE BINDING IN ANY WAY ON THE SELLER.
- 1.2 This agreement becomes valid and enforceable between the Contracting Parties after clear and non-equivocal consent by any duly authorized person representing the Buyer. For these purposes, the Buver accepts these conditions of sales when signing the purchase order which mentions "I hereby accept TEMATYS's terms and Conditions of sale". This results in acceptance by the Buyer
- 1.3 Orders are deemed to be accepted only upon written acceptance and confirmation by the Seller, within [7 days] from the date of order, to be sent either by email or to the Buyer's address. In the absence of any confirmation in writing, orders shall be deemed to have been accepted

2. Mailing of the Products

2.1 Products are sent by email to the Buyer:

- within [1] month from the order for Products already released; or
- within a reasonable time for Products ordered prior to their effective release. In this case, the Seller shall use its best endeavours to inform the Buyer of an indicative release date and the evolution of the work in progress.
- 2.2 Come weeks prior to the release date the Seller can propose a prerelease discount to the Buyer
- The Seller shall by no means be responsible for any delay in respect of article 2.2 above, and including in cases where a new event or access to new contradictory information would require for the analyst extra time to compute or compare the data in order to enable the Seller to deliver a high quality Products.
- 2.3 The mailing of the Product will occur only upon payment by the Buyer, in accordance with the conditions contained in article 3.
- 2.4. The mailing is operated through electronic means either by email via the sales department or automatically online via an email/password. If the Product's electronic delivery format is defective, the Seller undertakes to replace it at no charge to the Buyer provided that it is informed of the defective formatting within

Market & Technology Report

Product

- "acceptance": action by which the Buyer accepts the terms and 2.5 The person receiving the Products on behalf of the Buyer shall immediately verify the quality of the Products and their conformity to the order. Any claim for apparent defects or for non-conformity shall be sent in writing to the Seller within 8 days of receipt of the Products. For this purpose, the Buyer agrees to produce sufficient evidence of such defects.
 - 2.6 No return of Products shall be accepted without prior information to the Seller, even in case of delayed delivery. Any Product returned to the Seller without providing prior information to the Seller as required under article 2.5 shall remain at the Buyer's risk.

3. Price, invoicing and payment

- 3.1 Prices are given in the orders corresponding to each Product sold on a unit basis or corresponding to annual subscriptions. They are expressed to be inclusive of all taxes. The prices may be reevaluated from time to time. The effective price is deemed to be the one applicable at the time of the order.
- 3.2 TEMATYS may offer a pre-release discount for the companies willing to acquire in the future the specific report and agreeing on the fact that the report may be release later than the anticipated release date. In exchange to this uncertainty, the company will get a discount that can vary from 15% to 10%.
- 3.3 Payments due by the Buyer shall be sent by cheque payable to TEMATYS, credit card or by electronic transfer to the following account:

CREDITCOOP GARE DE L'EST

- 102, boulevard Magenta, 75010 PARIS FRANCE
- Bank code : 42559, Branch code : 00003

Account No: 41000001859-92

SWIFT or BIC code : CCOPFRPPXXX

- IBAN : FR76 4255 9000 0341 0000 0185 992
- To ensure the payments, the Seller reserves the right to request down payments from the Buyer. In this case, the need of down payments will be mentioned on the order.
- 3.4 Payment is due by the Buyer to the Seller within 30 days from invoice date, except in the case of a particular written agreement. If the Buyer fails to pay within this time and fails to contact the Seller the latter shall be entitled to invoice interest in arrears based on the annual rate refi of the «BCe» + 7 points, in accordance with article L. 441-6 of the French Commercial Code, Our publications (report, database, tool...) are delivered only after reception of the payment.
- 3.5 In the event of termination of the contract, or of misconduct, during the contract, the Seller will have the right to invoice at the stage in progress, and to take legal action for damages.

4. Liabilities

- 4.1 The Buyer or any other individual or legal person acting on its behalf, being a business user buying the Products for its business activities, shall be solely responsible for choosing the Products and for the use and interpretations he makes of the documents it purchases, of the results he obtains, and of the advice and acts it deduces thereof.
- 4.2 The Seller shall only be liable for (i) direct and (ii) foreseeable pecuniary loss, caused by the Products or arising from a material breach of this agreement
- 4.3 In no event shall the Seller be liable for:
- a) damages of any kind, including without limitation, incidental or consequential damages (including, but not limited to, damages for loss of profits, business interruption and loss of programs or information) arising out of the use of or inability to use the Seller's website or the Products, or any information provided on the website, or in the Products:
- b) any claim attributable to errors, omissions or other inaccuracies in the Product or interpretations thereof.
- 4.4 All the information contained in the Products has been obtained from sources believed to be reliable. The Seller does not warrant the accuracy, completeness adequacy or reliability of such information, which cannot be guaranteed to be free from errors.
- 4.5 All the Products that the Seller sells may, upon prior notice to the Buyer from time to time be modified by or substituted with similar Products meeting the needs of the Buyer. This modification shall not lead to the liability of the Seller, provided that the Seller ensures the substituted Product is similar to the Product initially ordered.
- 4.6 In the case where, after inspection, it is acknowledged that the Products contain defects, the Seller undertakes to replace the defective products as far as the supplies allow and without indemnities or compensation of any kind for labor costs, delays, loss caused or any other reason. The replacement is guaranteed for a maximum of two months starting from the delivery date. Any replacement is excluded for any event as set out in article 5 below.
- 4.7 The deadlines that the Seller is asked to state for the mailing of the Products are given for information only and are not guaranteed. If such deadlines are not met, it shall not lead to any damages or cancellation of the orders, except for non-acceptable delays exceeding [4] months from the stated deadline, without information from the Seller. In such case only, the Buyer shall be entitled to ask for a reimbursement of its first down payment to the exclusion of any further damages.

90 days from the date of the original download or receipt of the 4.8 The Seller does not make any warranties, express or implied,

including, without limitation, those of saleability and fitness for a particular purpose, with respect to the Products. Although the Seller shall take reasonable steps to screen Products for infection of viruses, worms, Trojan horses or other codes containing contaminating or destructive properties before making the Products available, the Seller cannot guarantee that any Product will be free from infection.

5. Force majeure

The Seller shall not be liable for any delay in performance directly or indirectly caused by or resulting from acts of nature, fire, flood, accident, riot, war, government intervention, embargoes, strikes, labor difficulties, equipment failure, late deliveries by suppliers or other difficulties which are beyond the control, and not the fault of the Seller.

6. Protection of the Seller's IPr

- 6.1 All the IPr attached to the Products are and remain the property of the Seller or the publisher of the Product for which the Seller acts as a reseller and are protected under French and international copyright law and conventions
- 6.2 The Buyer agreed not to disclose copy, reproduce, redistribute, resell or publish the Product, or any part of it to any other party other than employees of its company. The Buyer shall have the right to use the Products solely for its own internal information nurnoses. In particular, the Buyer shall therefore not use the Product for purposes such as:

- Information storage and retrieval systems;

- Recordings and re-transmittals over any network (including any local area network);
- Use in any timesharing, service bureau, bulletin board or similar arrangement or public display;
- Posting any Product to any other online service (including bulletin boards or the Internet):
- Licensing, leasing, selling, offering for sale or assigning the Product.
- 6.3 The Buyer shall be solely responsible towards the Seller of all infringements of this obligation, whether this infringement comes from its employees or any person to whom the Buyer has sent the Products and shall personally take care of any related proceedings, and the Buyer shall bear related financial consequences in their entirety.
- 6.4 The Buyer shall define within its company point of contact for the needs of the contract. This person will be the recipient of each new report in PdF format. This person shall also be responsible for respect of the copyrights and will guaranty that the Products are not disseminated out of the company.
- 6.5 In the context of annual subscriptions, the person of contact shall decide who within the Buyer, shall be entitled to access on line the reports on I-micronews.com. In this respect, the Seller will give the Buyer a maximum of 10 passwords, unless the multiple sites organisation of the Buyer requires more passwords. The Seller reserves the right to check from time to time the correct use of this password.
- 6.6 In the case of a multisite, multilicense, only the employee of the Buver can access the report or the employee of the companies in which the Buyer have 100% shares. As a matter of fact the investor of a company, the joint venture done with a third party etc. cannot access the report and should pay a full license price.

7. Termination

- 7.1 If the Buyer cancels the order in whole or in part or postpones the date of mailing, the Buyer shall indemnify the Seller for the entire costs that have been incurred as at the date of notification by the Buyer of such delay or cancellation. This may also apply for any other direct or indirect consequential loss that may be borne by the Seller, following this decision.
- 7.2 In the event of breach by one Party under these conditions or the order, the non-breaching Party may send a notification to the other by recorded delivery letter upon which, after a period of thirty (30) days without solving the problem, the non-breaching Party shall be entitled to terminate all the pending orders, without being liable for any compensation.

8. Miscellaneous

- All the provisions of these terms and Conditions are for the benefit of the Seller itself, but also for its licensors, employees and agents. Each of them is entitled to assert and enforce those provisions against the Buyer
- Any notices under these terms and Conditions shall be given in writing. They shall be effective upon receipt by the other Party.
- The Seller may, from time to time, update these Terms and Conditions and the Buver, is deemed to have accepted the latest version of these terms and conditions, provided they have been communicated to him in due time.

9. Governing law and jurisdiction

- 9.1 Any dispute arising out or linked to these terms and Conditions or to any contract (orders) entered into in application of these terms and Conditions shall be settled by the French Commercial Courts of Paris. which shall have exclusive jurisdiction upon such issues.
- 9.2 French law shall govern the relation between the Buyer and the Seller, in accordance with these terms and Conditions.