

Fiber Lasers 2025: Technologies, Applications and Market Trends

BY ENABLING THE PROCESING OF DIFFERENT TYPES OF MATERIALS, FIBER LASERS ARE ESSENTIAL INDUSTRIAL TOOLS

REPORT OUTLINE

- Title: Fiber Lasers 2025: Technologies, Applications and Future Trends
- 90+ slides (PDF)
- € 4990 - Multi users' license

KEY FEATURES OF THE REPORT

- Overview of the factors and trends that influence the global fiber lasers market
- Presentation of the most common fiber laser technologies and their applications
- Detailed technology breakdown for each application including revenues, ASPs and number of units sold
- Presentation of the sales of fiber laser sources by geographical region
- Detailed forecast of the different segments of fiber lasers for the period 2025-2030

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

CONTACT

Susmita SRIDHAR, PhD
ssridhar@tematys.com
 TEMATYS
 7 Rue de la Croix Martre
 91120 PALAISEAU, FRANCE
 Tel: +33 6 16 17 12 91
 Fax: +33 9 72 39 44 39
www.tematys.com

From the early 2000s and on, fiber laser technology advanced in a spectacular pace, not only in terms of output powers, that today are in the order of hundreds of kW, but also in terms of versatility. Fiber lasers operating both in CW but also in pulsed mode, that emit in a broad range of wavelengths from the UV to the IR, provide solutions to the industry, medicine, science, sensing and defense.

The main application of fiber lasers is for materials processing. High-power fiber lasers with output powers of several kW are used for cutting and welding thick metal sheets and for the SLM additive manufacturing of metal based components. Pulsed and ultrafast fiber lasers have become essential tools for the processing and micromachining of glass, ceramics, polymers, composites, semiconductors and thin metal sheets.

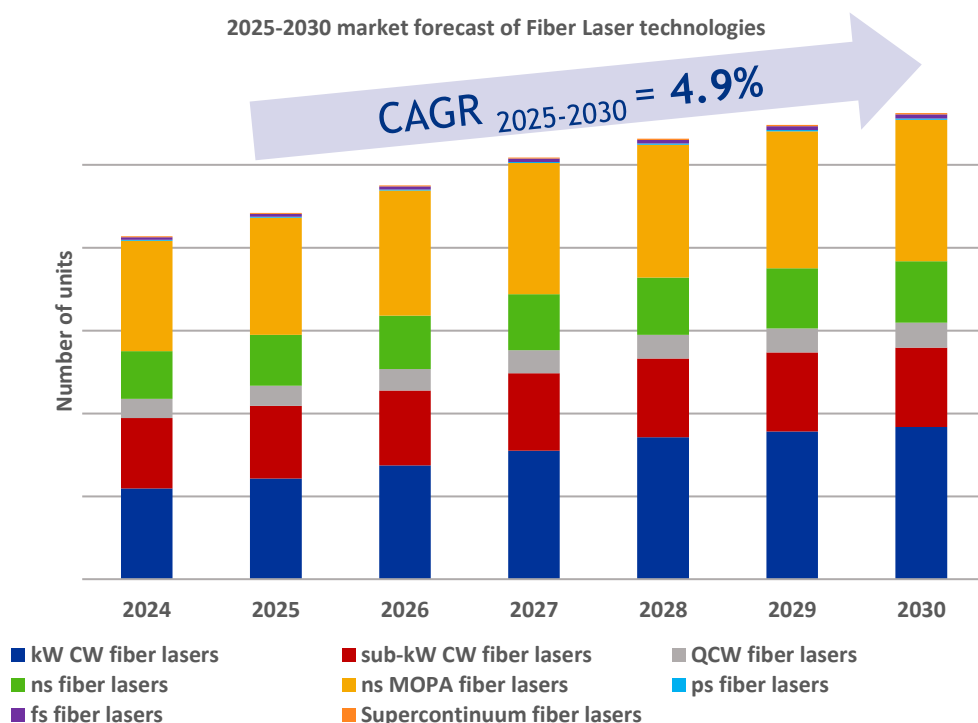
REPORT'S OBJECTIVES

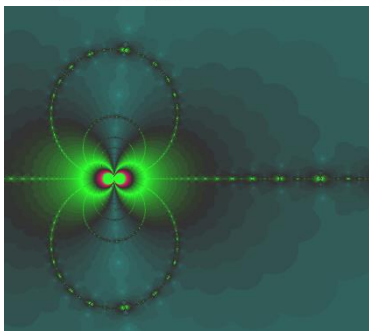
The objective of this report, is to present a comprehensive analysis of the global fiber lasers market for 2024. The market is broken down by commercially available technologies such as CW (kW and sub-kW), QCW, pulsed ns, ns MOPA, ps and fs ultrafast, and supercontinuum fiber lasers and their applications.

It examines the parameters that influenced the global fiber lasers market for 2024, including industrial and technological trends, challenges due to increased competition, as well as macroeconomic factors.

The report includes detailed figures of the fiber lasers market in terms of revenues, ASPs and number of units sold for 2024, a market breakdown for APAC, EMEA and Americas and a forecast for the period 2025-2030.

2025-2030 market forecast of Fiber Laser technologies





DESPITE NUMEROUS CHALLENGES, NEW MARKET OPPORTUNITIES EMERGED FOR FIBER LASERS IN 2024

INFORMATION SOURCES

- In-house knowledge of fiber laser technologies, their applications and their markets.
- Market data based on financial & business information of 100+ fiber lasers manufacturers.
- Interviews with key companies and industry experts that are involved in the fiber lasers business including manufacturers and integrators.
- Literature research.
- Participation in international conferences and exhibitions in the universe of lasers.

Fiber lasers are well known for their applications in materials processing, but for many years now they have proven their superiority in other segments outside the industry. These unique devices offer the advantage of a compact and cost-effective design, with improved stability in mechanical and thermal shocks with respect to their DPSSLs counterparts. These characteristics make fiber lasers the light source of choice in harsh and demanding environments.

Fiber lasers equip optical fiber sensor systems, that are used for the detection of oil pockets in the sea floor and for the efficient exploitation of existing fossil fuels reservoirs. DAS is a fiber optic-based technique that is commonly used in oceanography, life sciences and pipe monitoring.

Communications is a segment with strong perspectives, as fiber lasers have already shown their potential for several applications such as in FSO and in high precision signal distribution systems.

In Medicine, Tm and Ho doped fiber lasers emitting near 2 μm , have applications in general surgery and in lithotripsy.

The sales of fiber lasers for military applications will experience a rapid growth the following years, as countries will increase their defense budgets due to ongoing global tensions.

The market of lasers for materials processing, including that of fibers, was affected by the weak performance of several industrial sectors, including semiconductors during 2023 and the automotive in 2024.

Following the progressive recovery of the industries that rely on them, the demand of fiber lasers increased but the market volume didn't follow the same growth rate, due to decreasing ASPs.

The global automotive industry showed signs of recovery during 2025 and this in combination with the demands from other heavy industrial sectors, such as shipbuilding and aerospace, will have a positive impact on the sales of high-power fiber lasers.

Additionally, In the following years the semiconductors industry is expected to see a fast growth due to massive investments for the development and expansion of infrastructure for AI applications. This growth will drive the sales of pulsed and ultrafast fiber lasers, as their demand will keep increasing for the processing of materials that are critical for the manufacturing of computer hardware

Although the sales of fiber lasers in terms of number of units will rapidly increase, revenues will not follow the same rate, as ASPs are expected to continue decreasing in the period 2025-2030, though at lower rates. According to some estimations, the ASPs of CW fiber lasers for high-power materials processing might drop below \$800/kW.

In order to adapt to the strong competition, fiber lasers companies worldwide are employing different strategies, including the continuous improvement of their products, investments on the development of intelligent manufacturing equipment and pivoting towards other sectors, such as medicine and defense.

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

CONTACT

Susmita SRIDHAR, PhD
ssridhar@tematys.com
 TEMATYS
 7 Rue de la Croix Martre
 91120 PALAISEAU, FRANCE
 Tel: +33 6 16 17 12 91
 Fax: +33 9 72 39 44 39
www.tematys.com

AUTHORS



Kimon MORATIS, PhD:
Photonics Markets'
Analyst



Thierry ROBIN, PhD:
Partner, Product
Features Definition



Benoît d'HUMIÈRES :
Partner, Strategy consulting,
Administrative Management

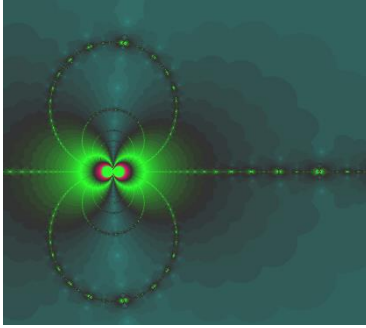


TABLE OF CONTENTS

1. INTRODUCTION

- Methodology
- Glossary
- Scope of this report
- Technologies and applications of fiber lasers
- Overview of the global fiber lasers market for 2024
- 2025 - 2030 market forecast for fiber lasers
- List of companies analyzed for this study

2. FIBER LASER TECHNOLOGIES AND THEIR APPLICATIONS

- CW fiber lasers
- QCW fiber lasers
- Nanosecond fiber lasers
- Nanosecond MOPA fiber lasers
- Ultrafast fiber lasers
- Supercontinuum fiber lasers

3. MARKET ANALYSIS OF FIBER LASERS APPLICATIONS FOR 2024

- kW materials processing
- sub-kW materials processing
- Marking and Engraving
- Communications
- Sensing and Instrumentation
- Medicine and Cosmetics
- Defense
- Research and Development

4. REGIONAL ANALYSIS OF THE FIBER LASERS MARKET

- Fiber lasers manufacturers by geographical region
- Global distribution of fiber lasers sales for 2024

OTHER TEMATYS REPORTS

- **2025:** Ultrafast Lasers 2025: Technologies, Applications and Market trends
- **2025:** Global Market of Lasers 2025: Technologies, Markets, Applications and Future trends
- **2024:** Equity Investors and the Photonics Industry (EIPi) - Update 2024
- **2024:** Metamaterials & Metasurfaces for Optics and RF: Market, Technologies and Trends
- **2023:** Raman Technologies: Technologies, Markets trends and Customers' needs
- **2022:** Spectral imaging: End-user needs, Markets and trends

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

CONTACT & ORDERS

Susmita SRIDHAR, PhD
ssridhar@tematys.com
TEMATYS
7 Rue de la Croix Martre
91120 PALAISEAU, FRANCE
Tel: +33 6 16 17 12 91
Fax: +33 9 72 39 44 39
www.tematys.com

TABLE OF CONTENTS (CONT.)

5. 2025-2030 EVOLUTION OF THE GLOBAL FIBER LASERS MARKET

- Industrial fiber lasers market trends
- Fiber lasers for Communications market trends
- Fiber lasers for Sensing and Instrumentation market trends
- Fiber lasers for Medicine and Cosmetics market trends
- Fiber lasers for Defense market trends
- Fiber lasers for Research and Development market trends

6. CONCLUSIONS

7. APPENDICES

- The global manufacturing industry
- Overview of the global automobile production

8. ABOUT TEMATYS

OTHER TEMATYS REPORTS

- **2025:** Ultrafast Lasers 2025: Technologies, Applications and Market trends
- **2025:** Global Market of Lasers 2025: Technologies, Markets, Applications and Future trends
- **2024:** Equity Investors and the Photonics Industry (EIPi) - Update 2024
- **2024:** Metamaterials & Metasurfaces for Optics and RF: Market, Technologies and Trends
- **2023:** Raman Technologies: Technologies, Markets trends and Customers' needs
- **2022:** Spectral imaging: End-user needs, Markets and trends

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

CONTACT & ORDERS

Susmita SRIDHAR, PhD
ssridhar@tematys.com
TEMATYS
7 Rue de la Croix Martre
91120 PALAISEAU, FRANCE
Tel: +33 6 16 17 12 91
Fax: +33 9 72 39 44 39
www.tematys.com

Fiber Lasers 2025: Technologies, Applications and Market Trends

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: 7TH OF NOVEMBER 2025

- Corporate multi user license: 4990.00 €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 Tréville 75009 PARIS / France

By fax: +33 9 72 39 44 39

By Email: info@tematys.com

CONTACT

Susmita SRIDHAR, PhD

ssridhar@tematys.com

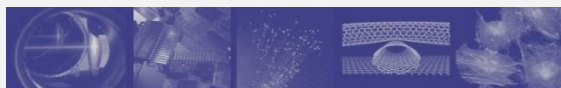
Tel: +33 6 16 17 12 91

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 <http://tematys.fr/Publications/>

Definitions:

"acceptance": action by which the Buyer accepts the terms and 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 pro-vide 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 data-bases in their Extranet and let their members download it for free.

"Products": depending on the purchase order, reports or database on optics, photonics, sensors, quantum technologies, 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 HEREUNDER 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 Buyer 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 as an attached document or through a download link sent by email or made available online or TEMATYS's internet platform. In the absence of any confirmation in writing, orders shall not be deemed to have been accepted.

2. Mailing of the Products

2.1 Products are delivered 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 Some weeks prior to the release date the Seller can propose a pre-release 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 delivery of the Product will occur only upon payment by the Buyer, in accordance with the conditions contained in article 3.

2.4 The delivery 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 90 days from the date of the original download or receipt of the Product.

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. The price of each Product is exclusive of VAT, which is invoiced in addition in accordance with the rules and at the rate in force on the date of invoicing. 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:

SOCIETE GENERALE – PARIS CHARONNE

166, boulevard Voltaire, 75011 PARIS FRANCE

Bank 30003: 42559, Branch code: 03310

Account No: 00020560739-46

SWIFT or BIC code: SOGEFRPP

IBAN FR76 3000 3033 1000 0205 6073 946

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. Any delay in meeting the conditions stipulated will give rise to the payment by the Customer of interest at a rate equal to three times the legal interest rate in accordance with French law no. 2008-776 of 4 August 2008, calculated pro rata temporis.

3.5 Our publications (report, database, tool...) are delivered only after reception of the payment.

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 labour costs, delays, loss caused or any other reason. The re-placement 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 delivery of the Products are given in 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.

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, labour 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 Intellectual Property rights (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 purposes. 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 TEMATYS' digital platform. 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, multilicence, only the employee of the Buyer 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 Buyer, 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.