



EQUITY INVESTORS AND THE PHOTONICS INDUSTRY (EIPi) - UPDATE 2024

INVESTMENTS IN PHOTONICS REPRESENT ONLY 2% OF THE OVERALL FUNDRAISING IN THE USA AND 5% IN EUROPE. YET, THE PHOTONICS INDUSTRY HAS BEEN GROWING STEADILY FOR THE PAST 15 YEARS WITH A RATE OF 6-8% EACH YEAR AND PHOTONICS COMPANIES CAN PROVIDE A SECURE AND HIGH RETURN ON INVESTMENTS, FOLLOWING THE RIGHT STRATEGY. STILL, PHOTONICS DOES NOT GAIN AS MUCH ATTENTION AS IT SHOULD FROM VCS, DESPITE ITS POTENTIAL OF ENABLING ALMOST EVERY MAJOR RECENT DISRUPTION LIKE QUANTUM COMPUTING, AR/VR AND NOW, AI CHIPS.

REPORT OUTLINE

- Title: EQUITY INVESTORS AND THE PHOTONICS INDUSTRY (EIPi) - UPDATE 2024
- 68+ slides (PDF)
- € 3 990 - Multi users license

KEY FEATURES OF THE REPORT

- Quarterly investments in photonics / 2015-2023
- Breakdown by geographical area
- Breakdown by deal size
- Top investments in 2023 per quarter
- Breakdown by market segment
- 2019-2023 Funding localization by segment
- Most-funded segments by country between 2019 and 2023

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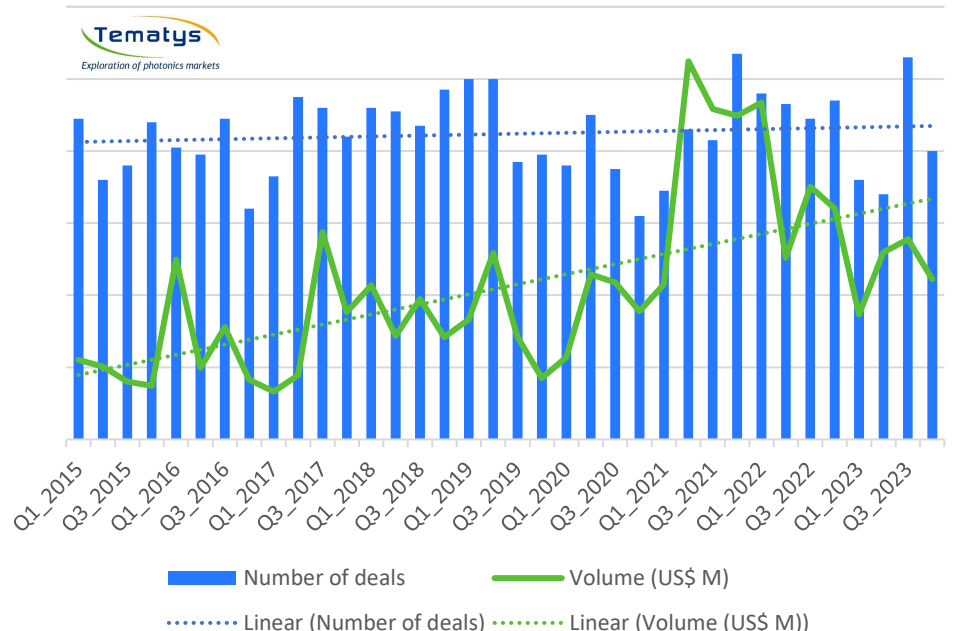
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Niche hardware technologies, like photonics, are considered to require many years before starting the ramp-up of their revenue. This is partially true since the industrialization of a product takes time, all the more as customers need to validate their demand by testing prototypes before acquiring new products. On the other hand, when the product and its associated manufacturing processes are ready, the risk of failure for a photonics start-up is much lower in comparison to other

industrial sectors. At the end, the return of investment perspective is similar to that of the all-digital ecosystem. Now the time has come, for all players in the industry to take on the responsibility of drumming up the advantages of photonics and convincing investors that their potential remains underrated.

TEMATYS is pleased to release its first study on investments in photonics. This report will be updated yearly.

Quarterly investments in photonics / NB and volume / 2015-2023





AUTHORS



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Kimon Moratis got his PhD working on a joint project between Institut Néel- CNRS and CEA, Grenoble. he worked as a post-doctoral researcher in INSP-CNRS/Sorbonne Université, C2N-CNRS and MPQ-Université Paris Cité, France. For more than 10 years, he has worked on research projects focusing on development of nanostructures with applications in Photonics, Optoelectronics and Quantum Technologies.

THE YEARLY AVERAGE DEAL SIZE IS INCREASING TWICE AS FAST IN NORTH-AMERICA AND IN ASIA THAN IN EUROPE

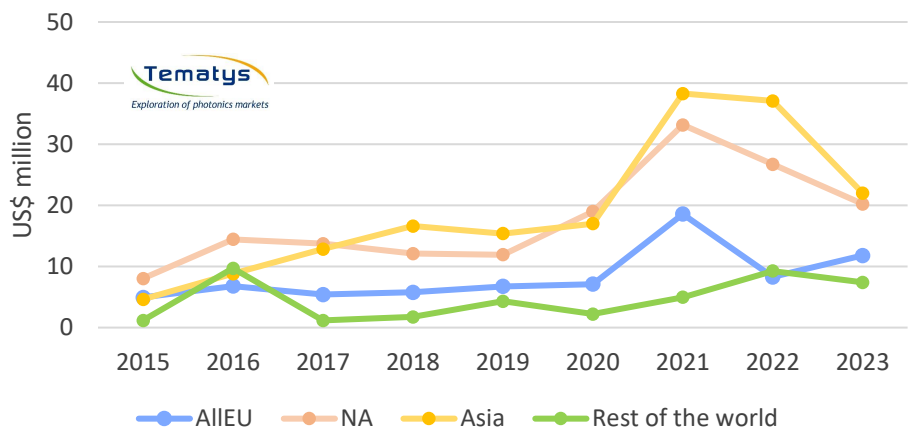
The average global number of deals remained steady almost from 2015 to 2023. This stability stems from the decline in the number of investments in North America and its increase in Europe, Asia, and elsewhere.

On the other hand, the volume of investments in photonic companies has been multiplied by 4 during the same period, despite large variations from one quarter to another. In terms of volume, the post-COVID 19 period shows a significant peak, probably due to the easy access to

money for fundraising.

The situation also depends on the geographical location. European companies still struggle to sign larger deals and fund their product industrialization and growth; the average deal size in Europe went from US\$ 5 million in 2015 to US\$ 12 million. In Asia and North America, the average deal size in 2015 was similar to that in Europe but it grew much more as it crossed US\$ 20 million in 2023 with a significant peak in 2021-2022.

Average size of investment in photonics / by geographical area
/ Average deal size - US\$ million



The report provides a comprehensive analysis of all investments in photonic companies by geographical area, by deal size and by application field. It also provides a list of the top 10 investments in photonics in 2023.

In the last sections, it describes the strengths and weaknesses of each geographical region per market segment and the applications that receive the highest funding amounts.

INCLUDED AND NOT INCLUDED IN THE REPORT

- INCLUDED** In the report
- Investment statistics from:
 - Venture capital
 - Business angels
 - Corporate funding (take-overs excluded)
 - Equity funding by Public funds

- NOT INCLUDED** In the report
- Grants statistics
 - IPO list and statistics
 - Post IPO funding statistics
 - Bank loans statistics
 - M&A list and statistics



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2.2 Come 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 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 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.

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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.

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Bank code : 30003, Branch code : 03310
Account No : 00020560739 - 46
SWIFT or BIC code : SOGEFRPP
IBAN : FR76 30003 0331 0000 2056 0739 46

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.

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.

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- Posting any Product to any other online service (including bulletin boards or the Internet);
- Licensing, leasing, selling, offering for sale or assigning the Product.

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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.

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9.2 French law shall govern the relation between the Buyer and the Seller, in accordance with these terms and Conditions.