

# Pitch Session of Exhibiting Companies



SWISS\*PHOTONICS



1. aCentauri
2. NKT Photonics
3. Swiss Recycling Technologies & Ocean Optics
4. *Lightium (only May 8!)*
5. Lumentum
6. Lasea
7. Novosan
8. Bern Univ. Appl. Sciences (BFH), School of Eng. And Computing
9. Schneeberger
10. Pointcloud
11. ZuriQ
12. EDWATEC
13. *Ligentec (only May 8)*
14. K2 Photonics
15. Optotune
16. Hamamatsu Photonics

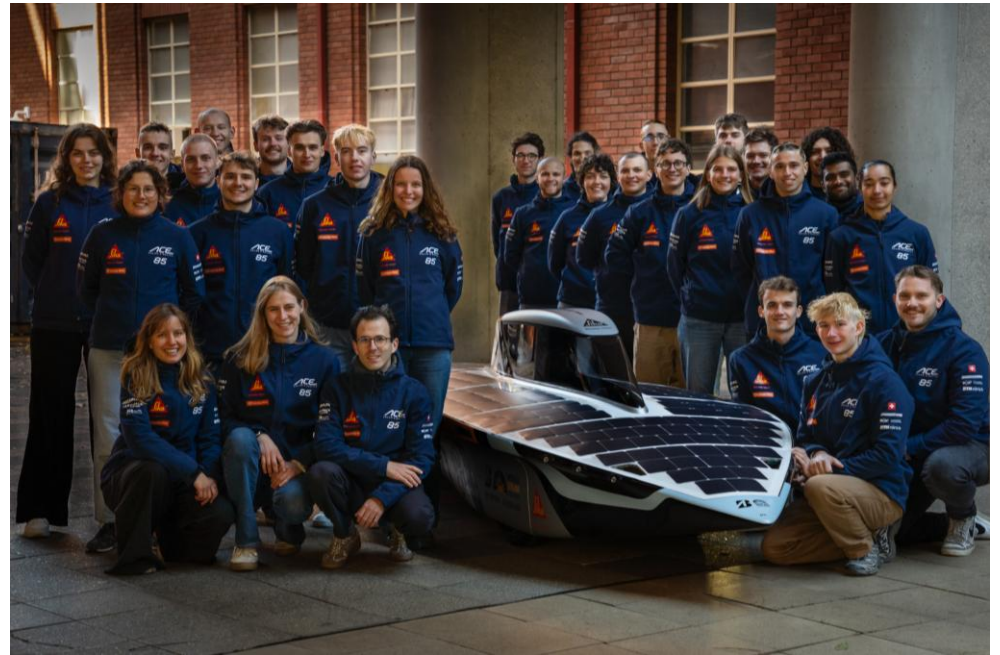
1.



# NCE

SOLAR  RACING





2.



# NKT PHOTONICS



# NKT Photonics at a glance

## Overview



- Headquarters in Denmark
- UFL production in Switzerland
- ~430 employees
- ~0.1 bEUR revenue

## Markets



- Medical & Life Science
- Industrial
- Quantum & Nano Technology
- Aerospace & Defense

## Products



- White light fiber lasers
- Single-frequency fiber lasers
- Ultrafast lasers
- Photonic crystal fibers

# Main markets for each product line

## SuperK

White light fiber lasers



Semicon  
Bio- & medical imaging  
Device characterization  
Materials & nano structures

## Koheras

Single-frequency fiber lasers



Semicon  
Remote sensing  
Quantum technology  
Directed Energy

## Origami & Aeropulse

Ultrafast lasers



Semicon  
Bio- & medical imaging  
Ophthalmology

3.



**Swiss Recycling Technologies AG**  
Premium plant engineering and equipment  
[www.srt.swiss](http://www.srt.swiss)





# SWISS

- Since 2024
- Part of mwn GmbH
- International (actually Europe)
- Sensor Sorting
- Testcenter for LIBS in Wolfwil, Switzerland will be expanded shortly

## Plant engineering in sensor sorting for

- LIBS
- Combinations of
  - Hyperspectral cameras
  - Colour camera applications
  - Inductive metal sensors

## Recycling technology

- Cable processing, conveyer technology, screening, separation, shredding, sorting

International sales & after sales support



- Since 2008
- About 25 employees, incl. SRT, excl. electrician and design engineers
- Training company with 3 trainees
- National (Switzerland)

## Plant engineering

- Consulting, planning, design, manufacturing, installation, after sales and spare parts management
- Integration of the best possible components for the customer

## Agriculture

- Consulting, sales, distribution, maintenance, repairs, service

## Software engineering



# All hands on deck

SRT/mwn has decades of experience in the mechanical sector as well as in sensor sorting. Its team of engineers shares a commitment to precision, simplicity and uncompromising performance, developing machines that deliver results of the highest quality.

# You in the Center

Our full -scale test center in Wolfwil, Switzerland is actually an enabling center for our clients. Of course, you can simply bring your non -ferrous material and sorting task to test and prove in advance that it works.

However, this might just be the first step toward developing a turnkey solution tailored to your specific needs, including comprehensive training for operating and maintaining the system.





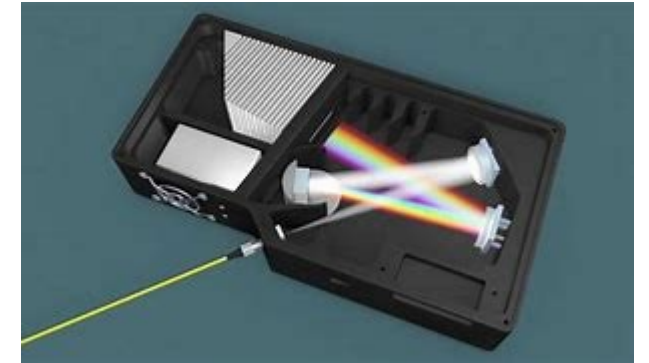
[www.srt.swiss](http://www.srt.swiss)

*Plant engineering and equipment*





Traditional monochromator, optical path, 1/3 to 1 meter



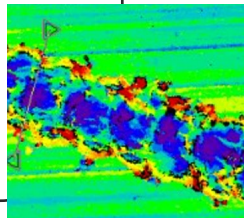
Miniature monochromator, optical path, 100 mm

- Ocean Optics started life in 1992 under US SBIR funding and developed the first miniature spectrometer
  - 10x smaller than previous models
- 200 people, 9 locations (including Ostfildern), 6 countries (including Germany) – core focus is on photonics devices
  - Ocean offers a range of spectrometers, from deep UV to NIR, from very low cost to TE cooled and sensitive
- Applied business unit supports some complicated uses of spectrometers, like LIBS based metal sorting

Today, alumin(i)um...



- SpeedSorter Aluminum Separation
  - 1t/h per module\*
  - 6 lanes = 6t/h\*
  - Reliable detection of coated, oxidized and dirty aluminum
  - No cleaning shot needed
  - Modular design and therefore redundant system
  - Smart design: single laser, no distance sensor, no focus
  - Industrial, long-life components and only few moving parts
  - No calibration needed



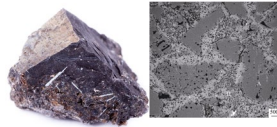
same hardware

modified hardware

Tomorrow, other interesting measurements...



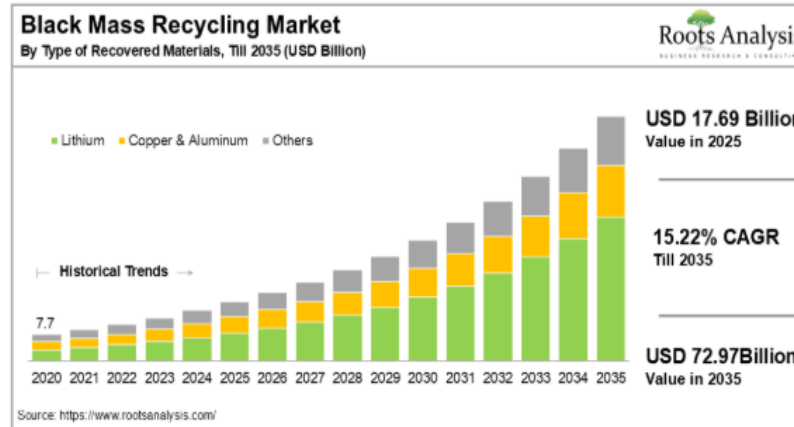
Other materials handling systems, other metals, quantitative analysis in scrap industry,



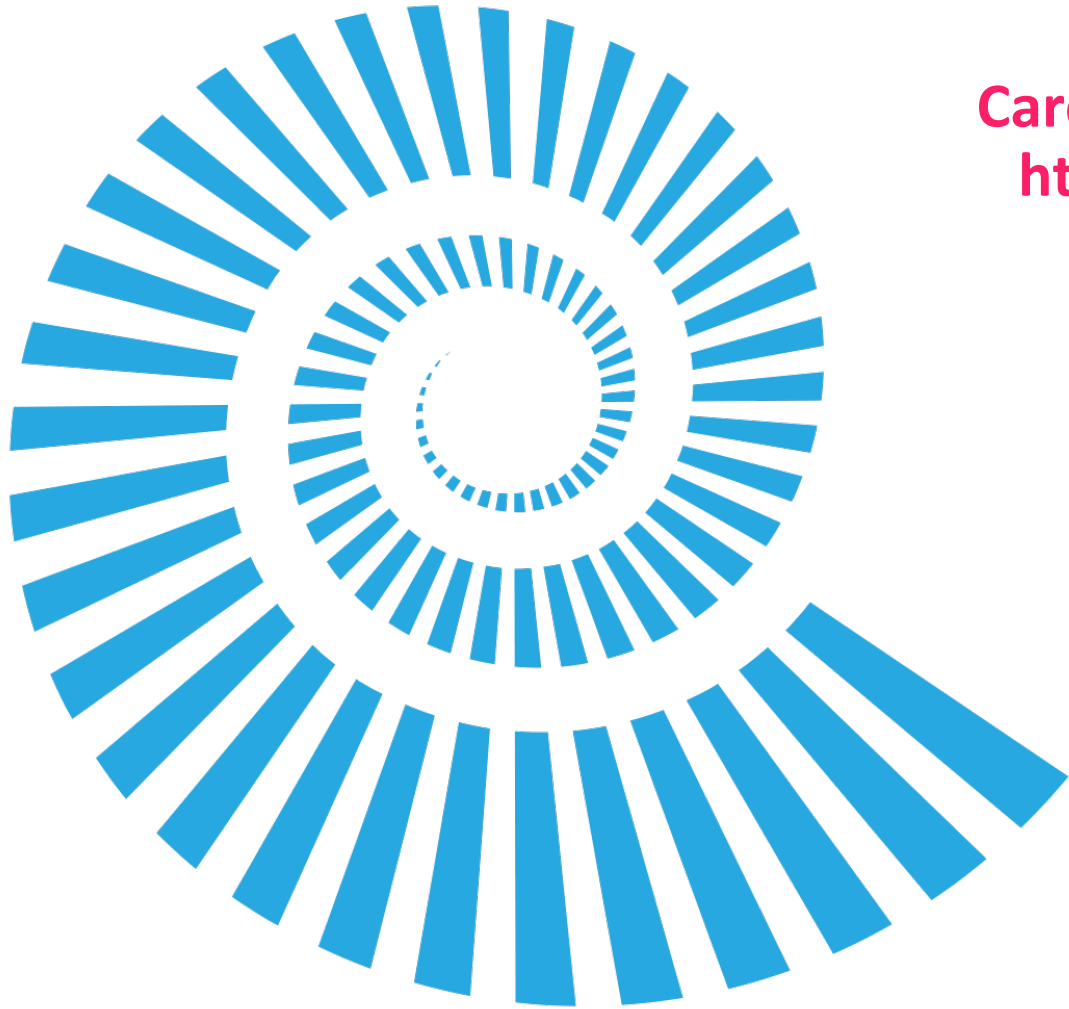
Online ore analysis and refractory separations



Core sample analysis



“Black mass,” recycled lithium battery material



## Contact Information

Sales etc, <https://www.oceanoptics.com>

Careers (manufacturing engineer currently sought)

<https://www.oceanoptics.com/people-careers/>

Me:

[amy.bauer@oceanoptics.com](mailto:amy.bauer@oceanoptics.com)



5.  LUMENTUM

# Photonics at the Forefront of Many Long-Term Trends

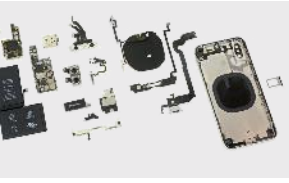


DNA sequencing  
Pharmaceutical screening  
Bio detection and analysis

**Demographics  
and Power of  
Genomics**

**New  
Materials, Processes,  
and Precision in  
Industrial Applications**

Laser cutting and welding  
Additive manufacturing



4G→5G→next-gen mobile  
Flex, glass, PCB  
LCD→ OLED / uLED

**New  
Materials  
and Precision in  
Microelectronics**

**Energy  
Efficiency and  
Climate Change  
Concerns**

Electric vehicles  
Green manufacturing



Cloud  
Data centers  
AI

**Compute and  
Content Storage  
and Delivery**

**Security  
Needs**

Biometric security  
Cashless transactions  
Secure access control



HD→ 4K→8K  
Work from home  
Telehealth  
Remote learning

**Increasing  
Bandwidth  
Requirements**

**Emergence of  
AR / VR and  
Computational  
Imaging**

Entertainment  
Education  
Remote work  
Ease of life

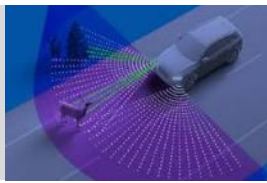


5G wireless  
Streaming video  
IOT

**Trends in Data  
Consumption  
and Mobility**

**Machine  
Vision  
Revolution**

LiDAR for ADAS & AVs  
Smart infrastructure  
Industry 4.0



**PHOTONICS ARE  
A CRITICAL AND  
ENABLING  
TECHNOLOGY**

# Photonics at the Forefront of Many Long-Term Trends

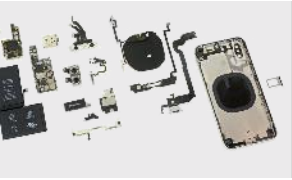


DNA sequencing  
Pharmaceutical screening  
Bio detection and analysis

**Demographics  
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**New  
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Laser cutting and welding  
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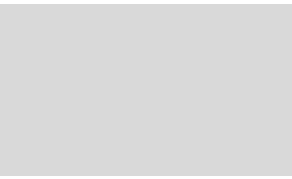


4G→5G→next-gen mobile  
Flex, glass, PCB  
LCD→ OLED / uLED

**New  
Materials  
and Precision in**

**Energy  
Efficiency and  
Climate Change**

Electric vehicles  
Green manufacturing



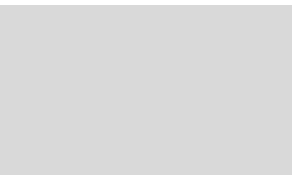
Cloud  
Data centers  
AI



**PHOTONICS ARE  
A CRITICAL AND  
ENABLING  
TECHNOLOGY**



Biometric security  
Cashless transactions  
Secure access control



HD→ 4K→8K  
Work from home  
Telehealth  
Remote learning



**Consumption  
and Mobility**

**Emergence of  
AR / VR and  
Computational  
Imaging**

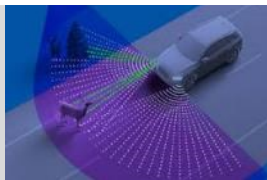
Entertainment  
Education  
Remote work  
Ease of life



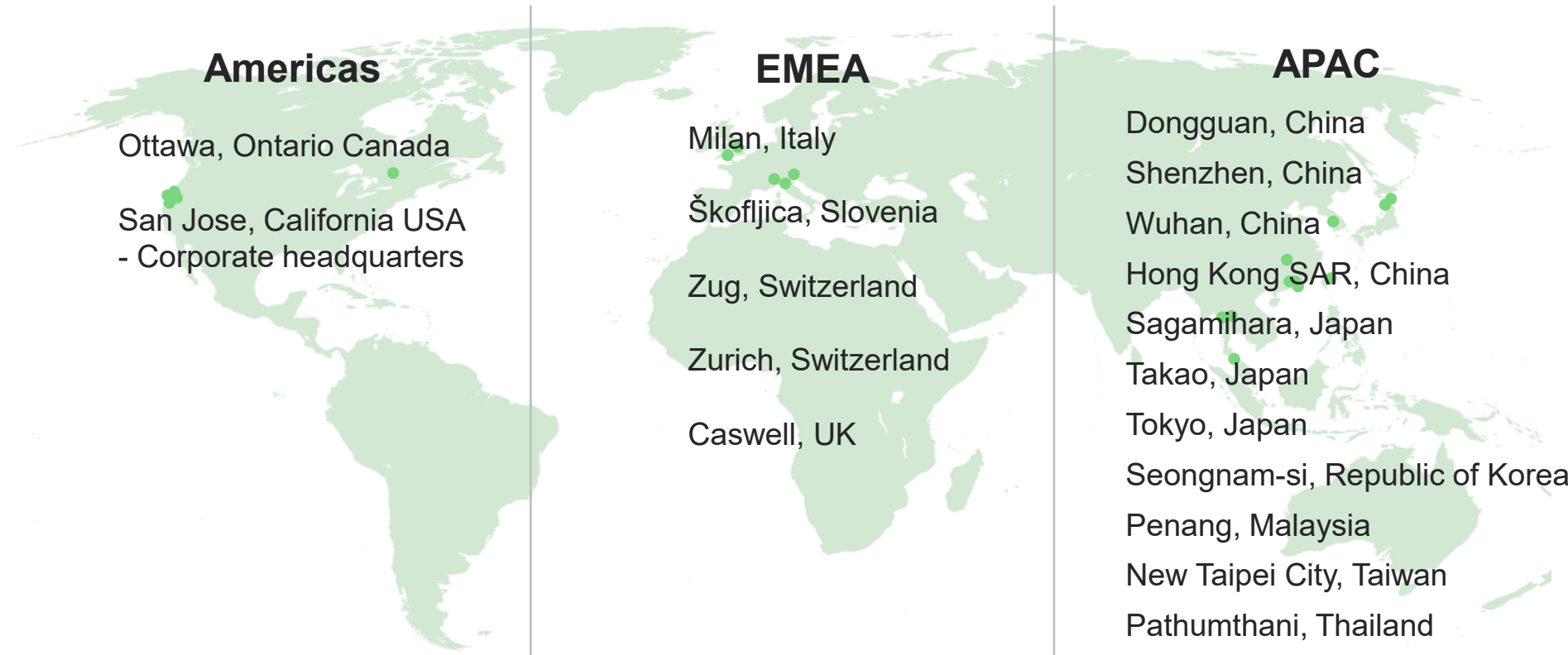
5G wireless  
Streaming video  
IOT

**Machine  
Vision  
Revolution**

LiDAR for ADAS & AVs  
Smart infrastructure  
Industry 4.0



# World's Leading Photonics Component Supplier – Global Footprint



10,000+

Employees

2100

Patents

1.65B

Revenue, US\$  
FY25 (Jul24-Jun25)

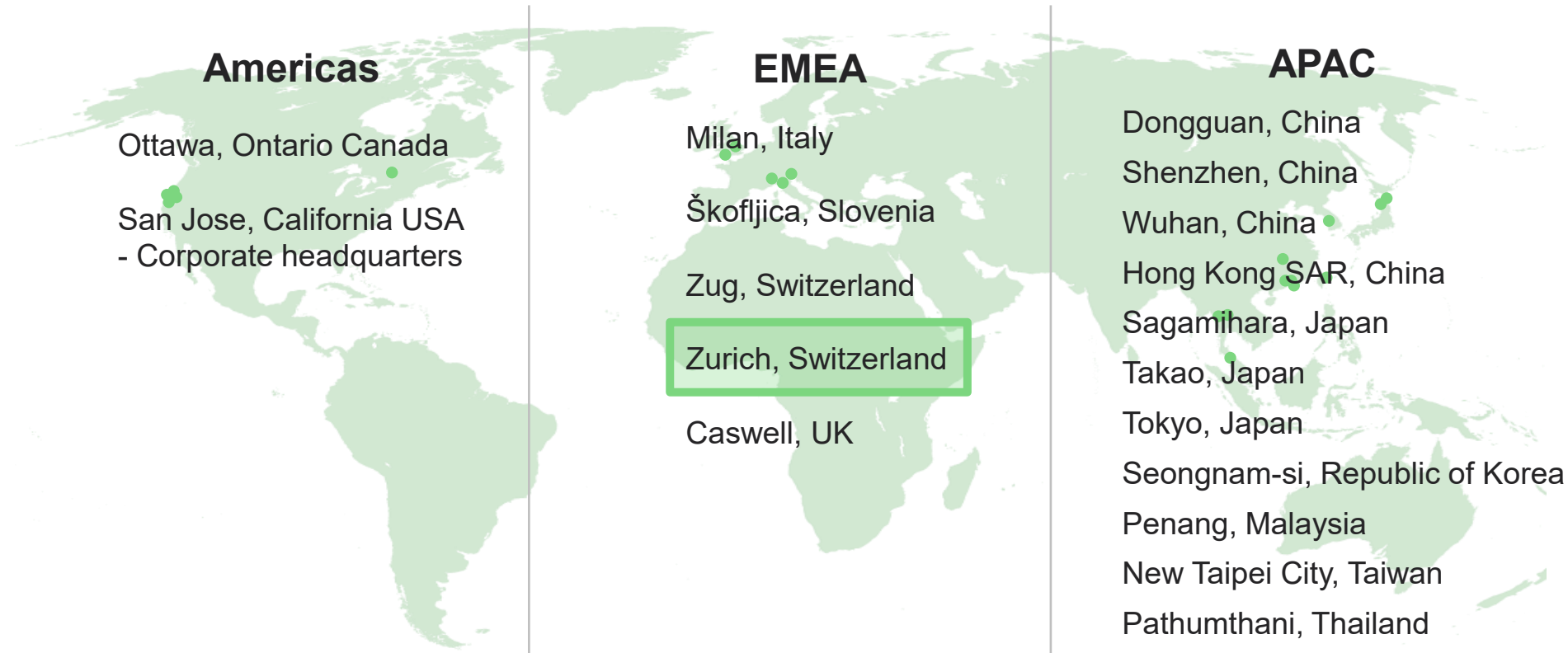
85%

Fiber-Telecom/  
Datacom

15%

Industrial  
Tech

# World's Leading Photonics Component Supplier – Global Footprint



1995

Founded, spinoff  
ETH Zurich

R&D

Industrial  
Ultrafast Lasers

~60

Employees

19

Nationalities

1000m<sup>2</sup>

Lab-space

6.





# LASEA

Thomas RAI- May, the 7th 2026




## WHO IS LASEA?




# A BELGIAN INDUSTRIAL GROUP IN HIGH-PRECISION LASER MICROMACHINING...

## ► Keys facts

 **> 200**  
employees

 **> 3 000**  
systems

 **> 50 years**  
experience

 **+120**  
patents

## ► 6 locations

### Liège

HQ & Business Unit



### Biel

Sales & Services



### Marnay

Business Unit



### Mons

Business Unit



### Bordeaux

Business Unit

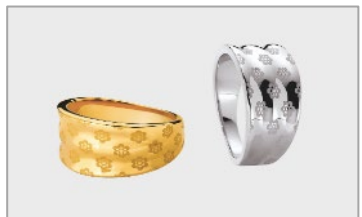
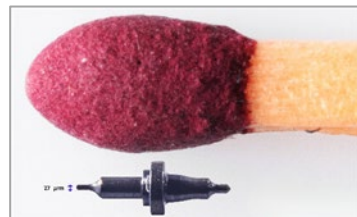
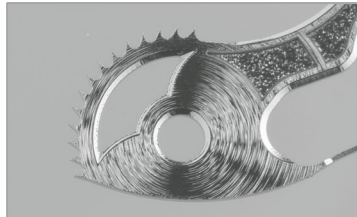
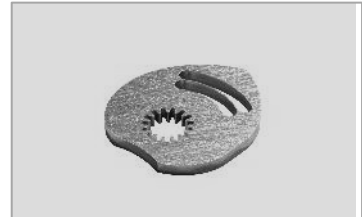
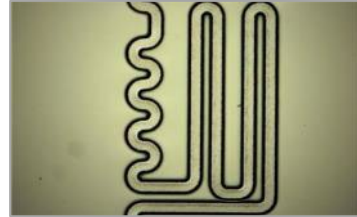


### San Diego

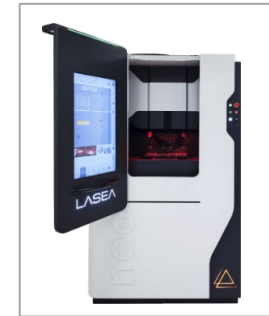
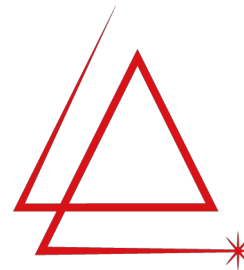
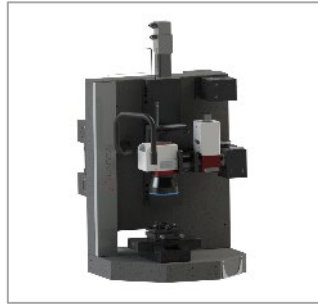
Sales & Services



# ... LASER PROCESS EXPERTISE AT THE CORE ...



## ... TRANSLATED INTO A COMPLETE MACHINE PORTFOLIO



## LET'S STAY IN TOUCH...



LASEA Groupe



Christophe SEURET  
*CEO LASEA Suisse*



Thomas RAI  
*Product Line Manager*





DRIVING **INNOVATION**  
IN PHOTONICS FOR A BETTER WORLD

7 & 8.

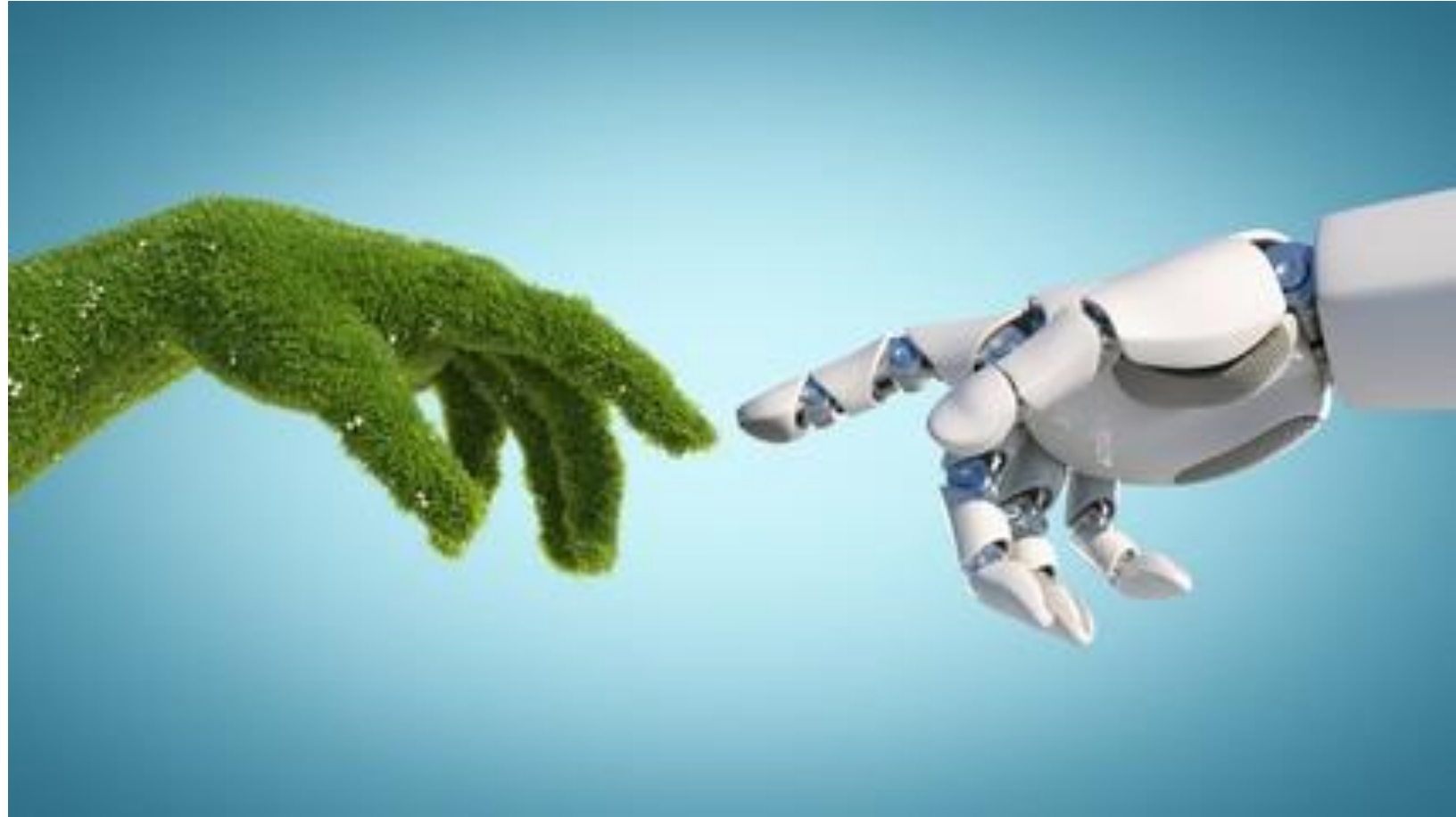


Berner Fachhochschule  
Haute école spécialisée bernoise  
Bern University of Applied Sciences

NOVOSAN  
LASER CLEAN



Berner Fachhochschule  
Haute école spécialisée bernoise  
Bern University of Applied Sciences



# Lasers for Green Production

Rainer Kling

- ▶ Institute for Applied Laser, Photonics and Surface Technologies ALPS

12 RESPONSIBLE  
CONSUMPTION  
AND PRODUCTION



# Laser Cleaning

## Raphael's Portrait : Why this 16th-Century masterpiece is not what it seems

<https://www.bbc.com/culture/article/20260408-why-this-16th-century-painting-isnt-what-it-seems>




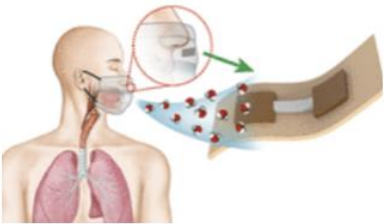
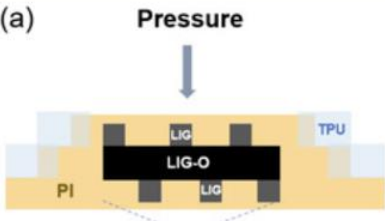
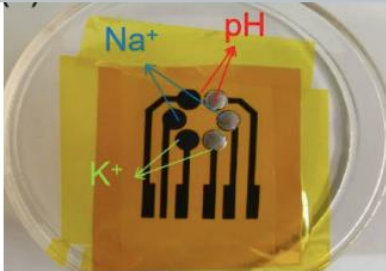
Bern University of Applied Sciences | ALPS

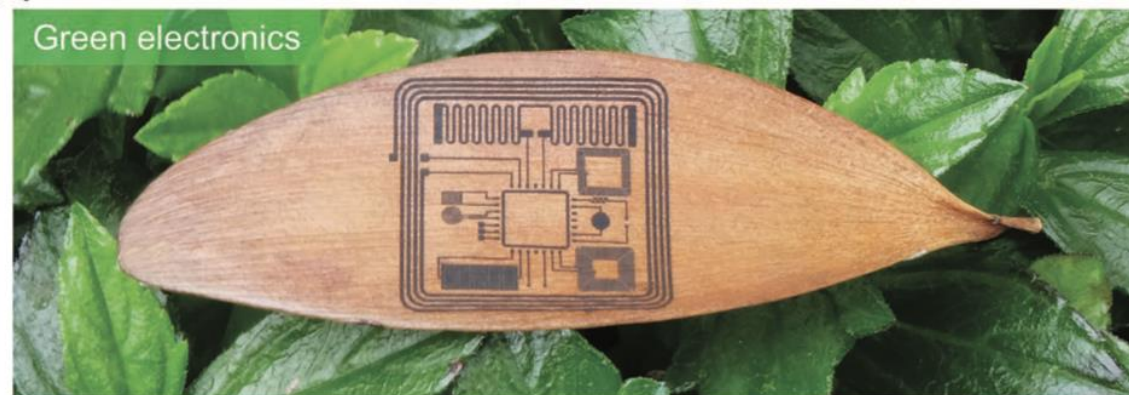
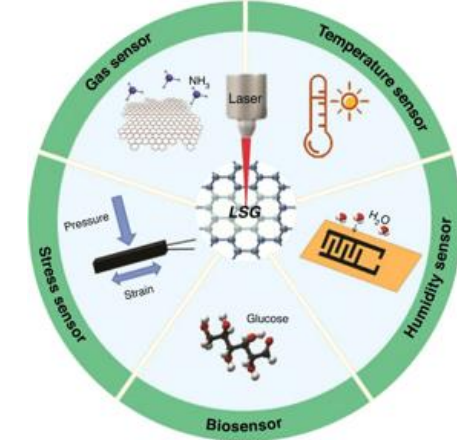
(Credit: Alamy/ Galleria Borghese)



# Green Electronics – Laser Induced Graphene

## Practical work @BFH: Sensor design and testing in the LAB

Motion <u>sensor</u>	Breath <u>sensor</u>	Pressure <u>sensor</u>	Salt-Sensor
			



**Figure 1.** a) Schematic illustration of femtosecond laser direct writing (FsLDW) for one-step laser-induced graphene (LIG) synthesis on wood.

# Master Programs @ BFH

We offer several master programmes at Bern University of Applied Sciences together with our partners.

**Offered in cooperation with all Swiss Universities of Applied Sciences**

- Master of Science in Engineering (MSE) [90 ECTS]

**Offered by UniBE and BFH**

- Master of Science in Precision Engineering (MPE) [120 ECTS]
- Master of Science in Biomedical Engineering (BME) [120 ECTS]

▶ <https://www.bfh.ch/de/themen/msc-engineering/>



9.

SCHNEEBERGER

# SCHNEEBERGER: Setting the Gold Standard in Precision Technology

- A Century of Expertise
- Linear Bearings Pioneers
- Family-Owned and Operated



## Global Presence



13 subsidiaries worldwide & 100 sales engineers and partner



14 global production sites



100'000 Sqm production area worldwide



Corporate HQ in Roggwil, Switzerland



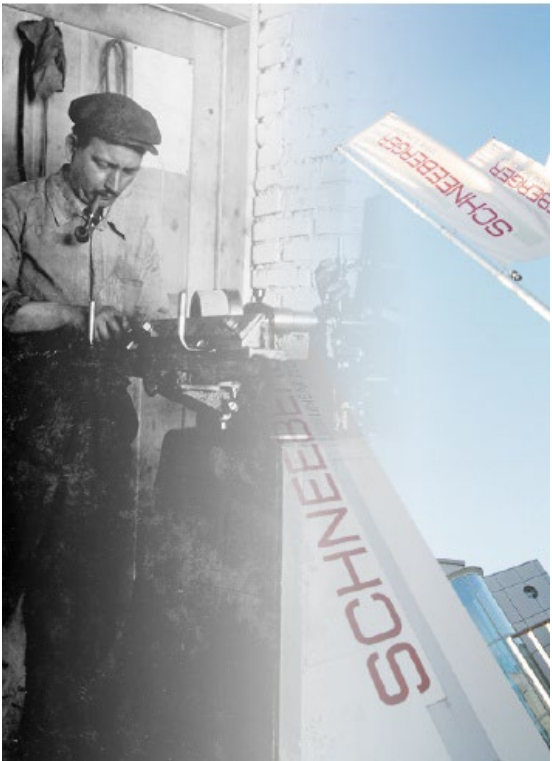
> 1'400 Employees worldwide



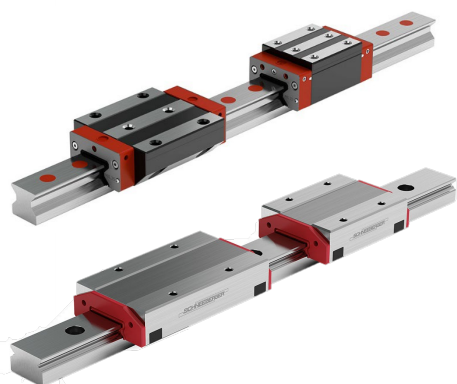
> 4'000 Customers trust in SCHNEEBERGER



100 Patents

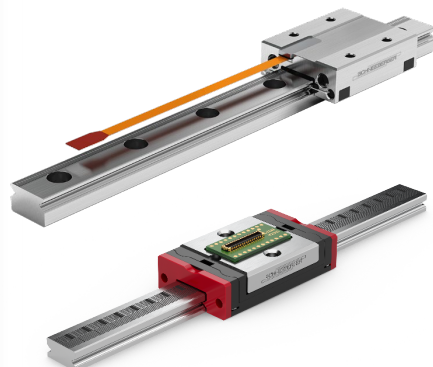


# SCHNEEBERGER: Product Range



## GUIDE

Profile linear guideways  
Linear bearings  
Frictionless tables



## MEASURE

Integrated linear distance  
measuring and positioning  
systems



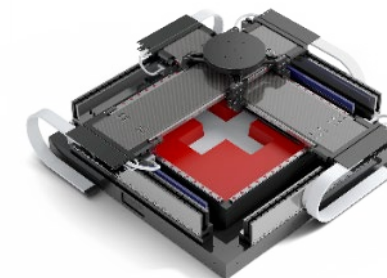
## DRIVE

Ball screws  
Gear racks



## MACHINE BASE

Mineral Casting  
Special applications  
techcon®



## SYSTEMS

Precision positioning  
systems  
Motion systems

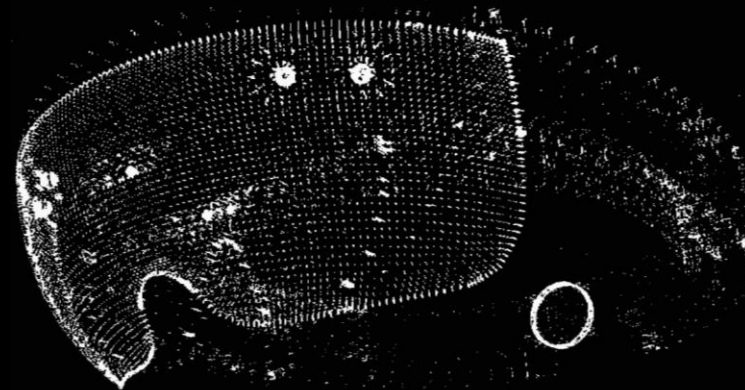
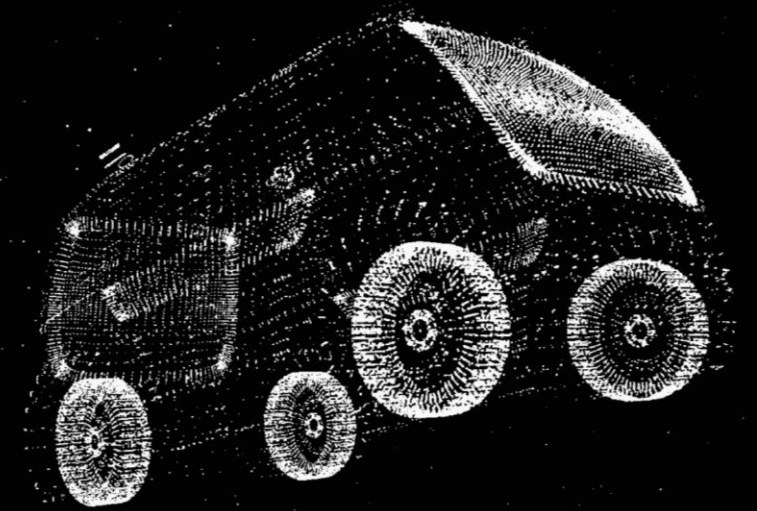
# SCHNEEBERGER: Industries and Applications

- Machine Tool
- Semi-conductor
- Medical technology
- Photonics
- Metrology
- Automation and Robotics
- Aerospace



10.  pointcloud

# Sensors for ubiquitous 4D imaging for autonomous mobility, industrial & consumer applications



<https://point.cloud/>

## COMPANY

Fabless PIC/IC company developing coherent 4D imaging solutions using a Silicon Photonics platform

- Pointcloud
- Partners



- Fabless photonic integrated circuits company
- Develops LiDAR based 4D imaging technology using Silicon Photonics
- Operations and partnerships in US, Asia and Europe, experienced engineering team, significant IP portfolio
- Fabrication using large scale commercial processes from top tier manufacturing partners

## TECHNOLOGY – MONOSTATIC COHERENT FOCAL PLANE ARRAY WITH PARALLEL READOUT

Coherent ranging combined with scalability of array technology:  
performance, simplicity, versatility

### Performance

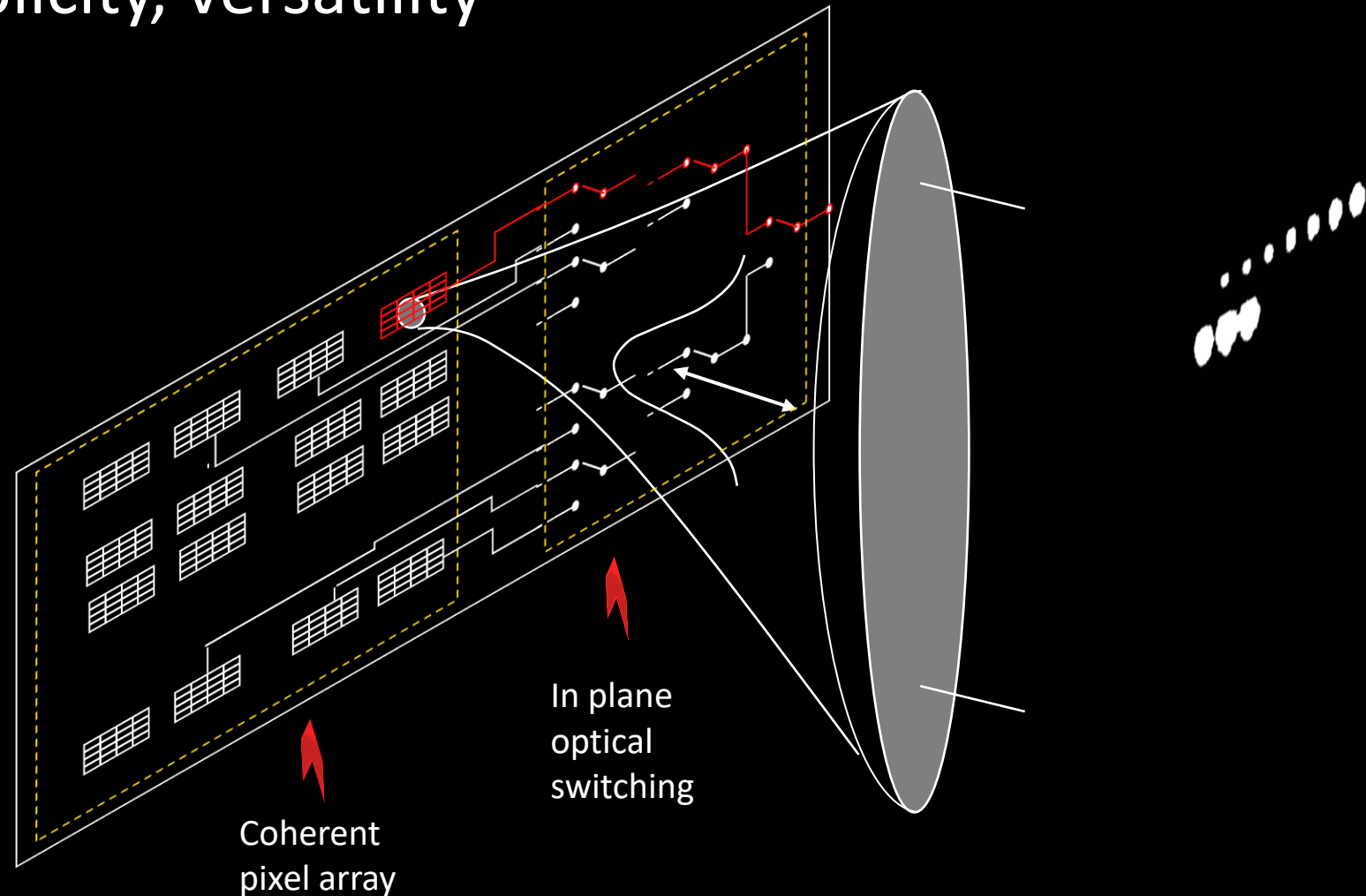
no compromise 4D imaging:  
resolution, range, accuracy,  
velocity measurement

### Simplicity

one chip, one lens  
no complex alignment  
silicon CMOS manufacturing

### Versatility

from mobile consumer to  
industrial and automotive



11.



# ZuriQ

Switzerland's first Quantum Computing system builder

## INNOVATION

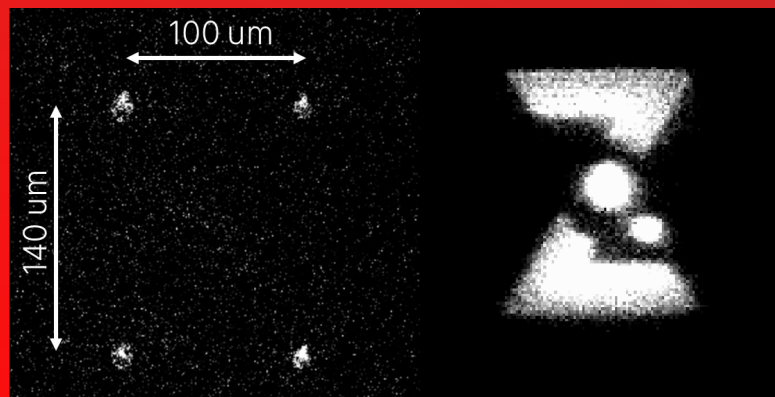
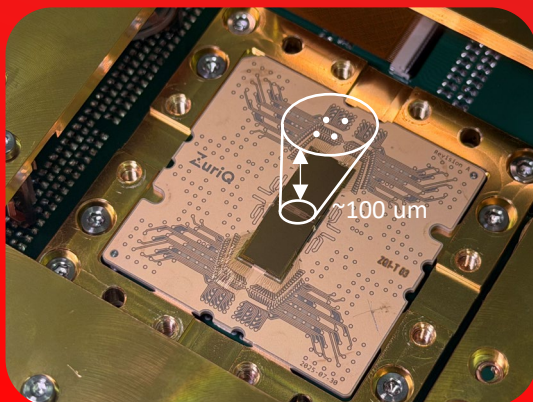
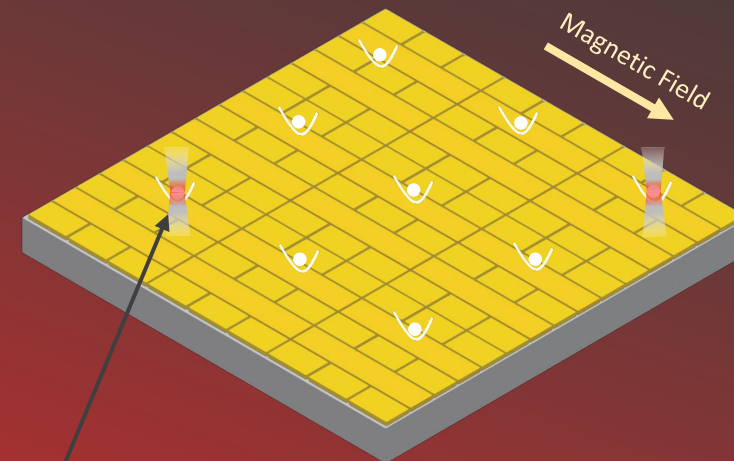
Novel trapped-ion architecture with 2D-native arrays solving the qubit quantity scaling bottleneck

## KEY ADVANTAGES

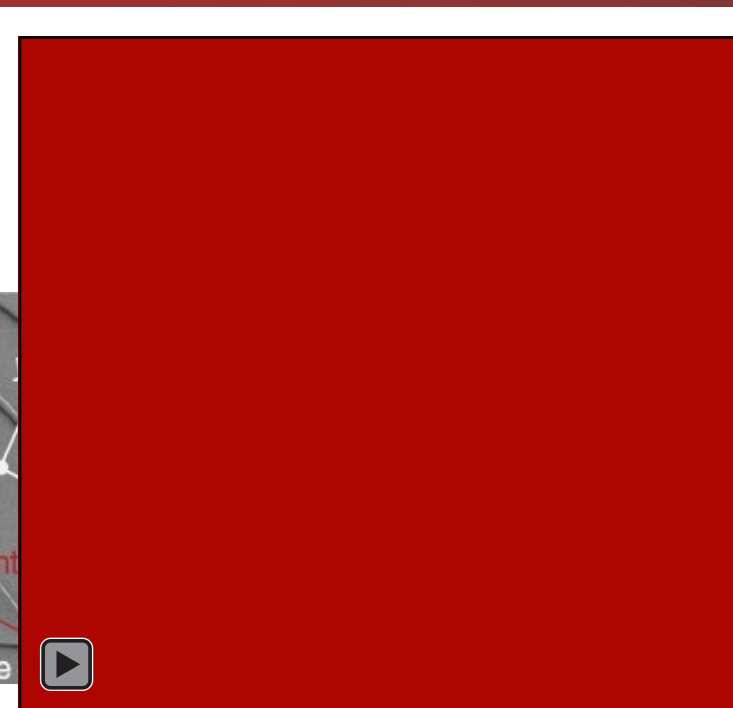
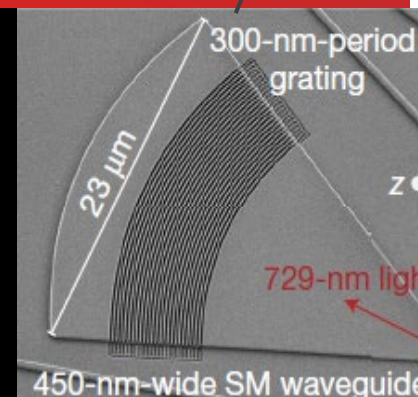
Ease of use: high connectivity, high density, reconfigurability  
Ease of manufacture: CMOS compatible

## INTEGRATED PHOTONICS

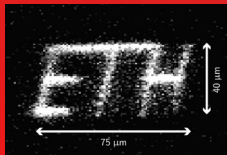
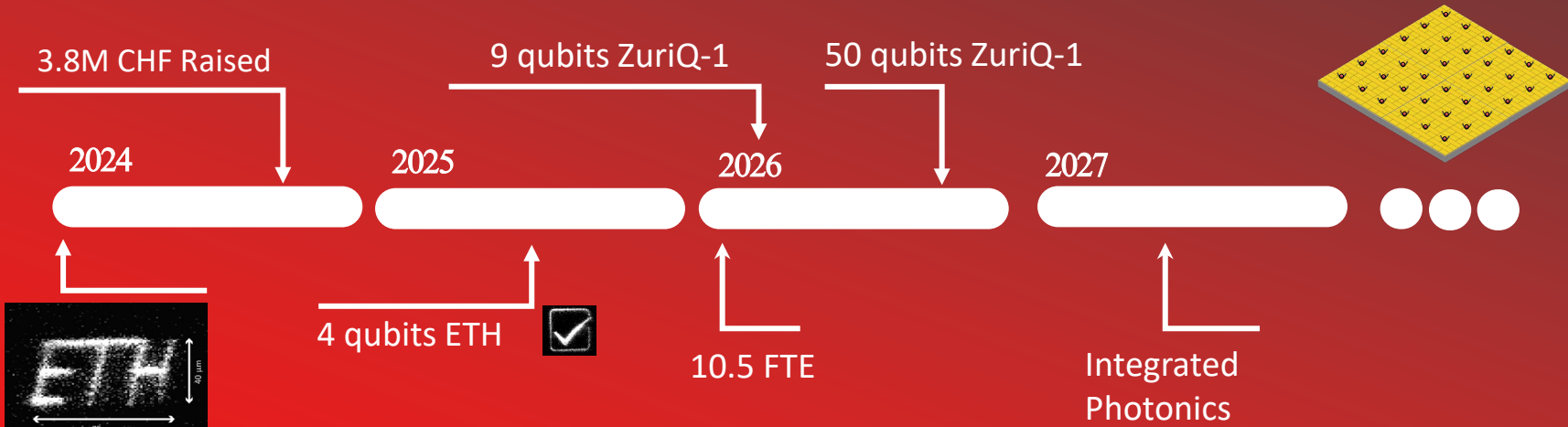
Key technology for laser light delivery that enables parallel quantum operations across chip



Camera image of 4 ions in a ZuriQ trap in 2025



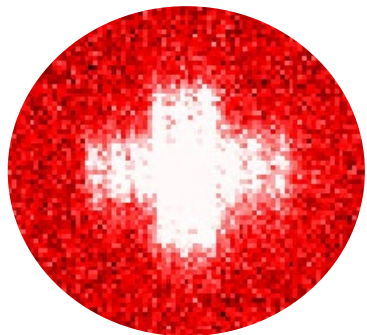
# Our Story



*Nature* **627**, 510–514 (2024)



[www.zuriq.com](http://www.zuriq.com)

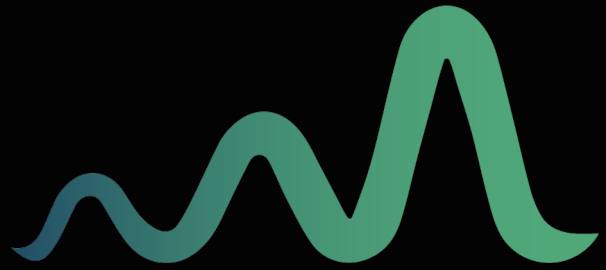


Spin-off



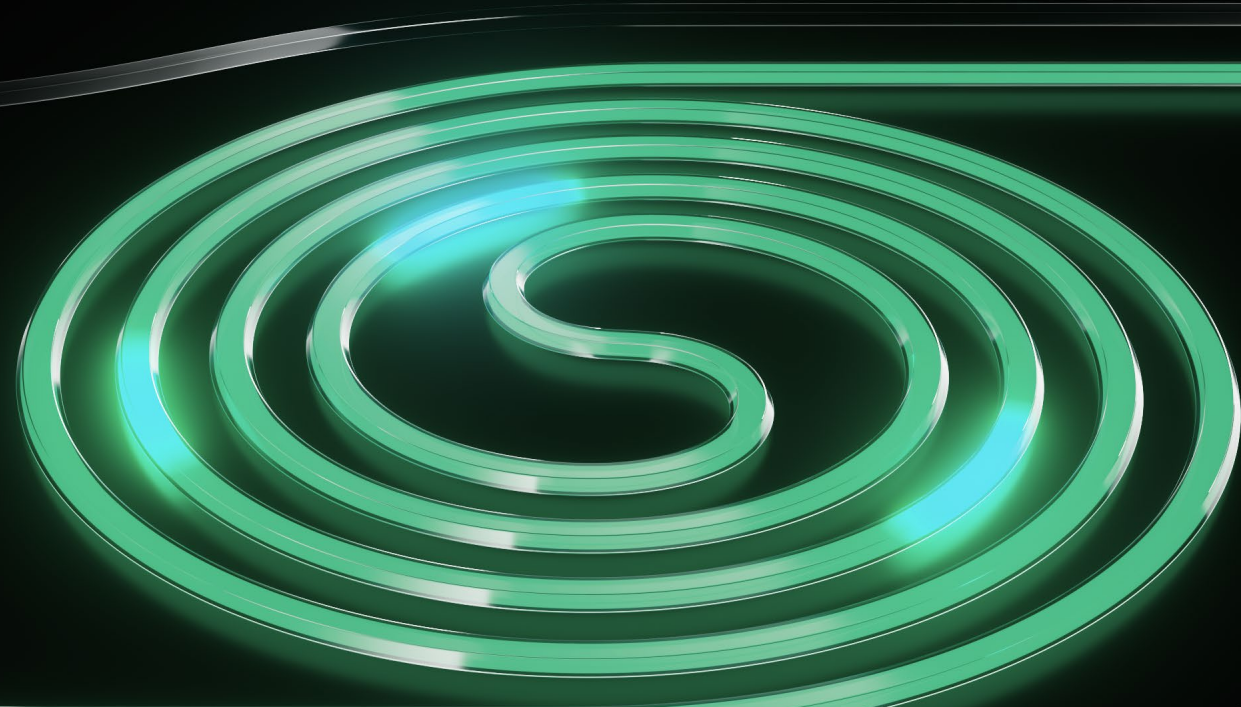
12.





**EDWATEC**

**Boosting Light  
to Transform  
Connectivity**

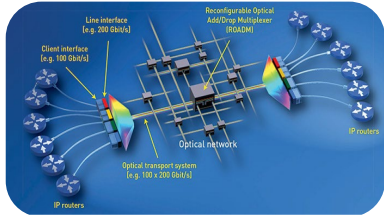


# Erbium Doped Fiber Amplifiers (EDFA)



## Revolutionized optical communication and the global internet

Optical networks



5G / 6G



Submarine links



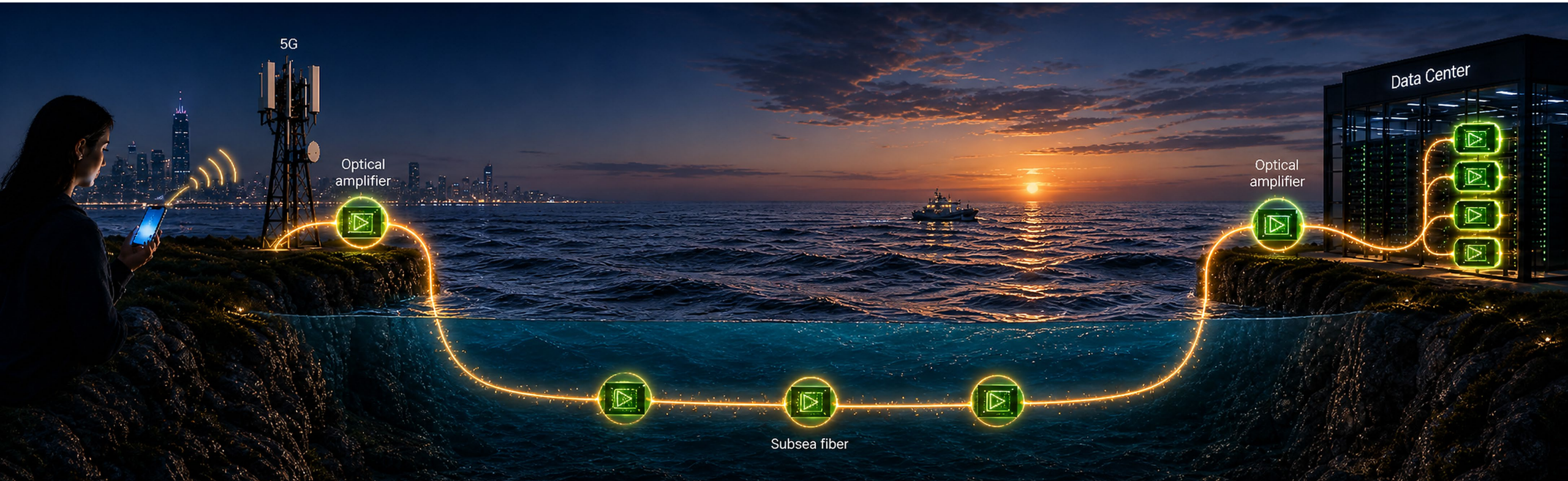
Satellite comm.



Optical Sensing



Data Center



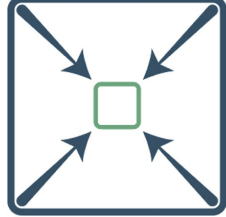
# First On-Chip Erbium Amplifier

## Erbium Doped Waveguide Amplifier

High performance



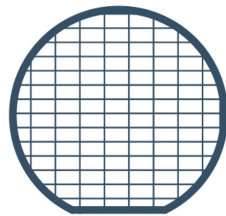
Compact



Cost efficient

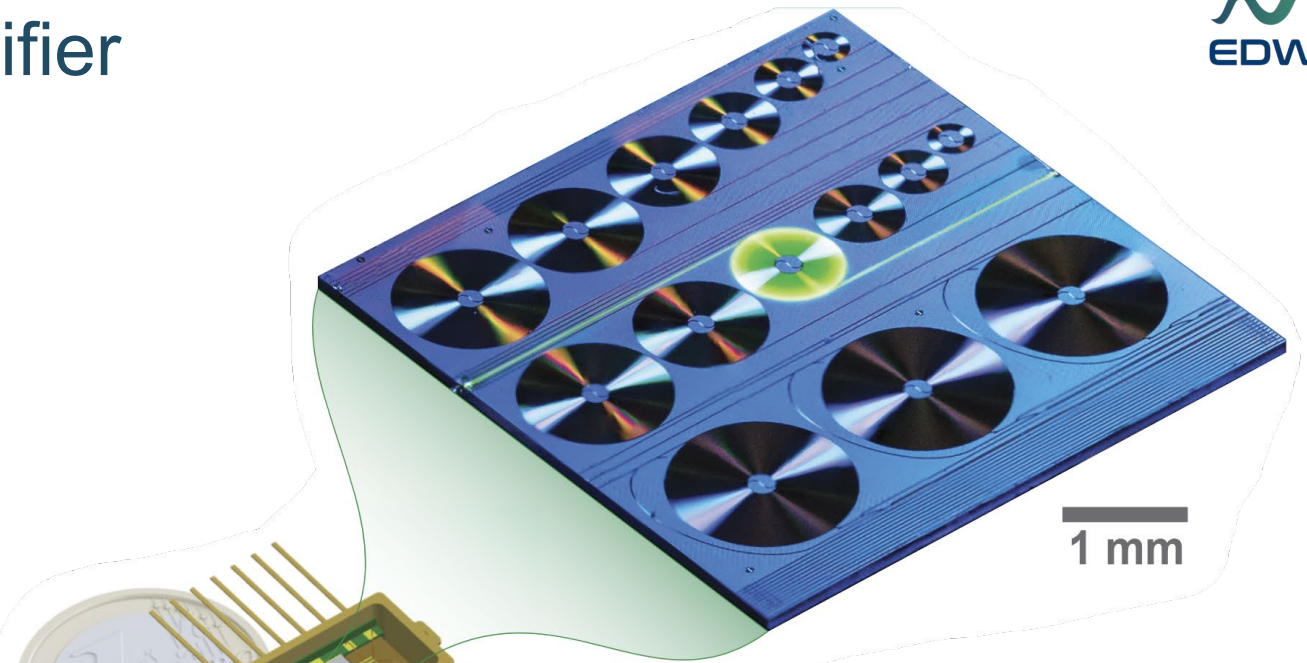


Scalable

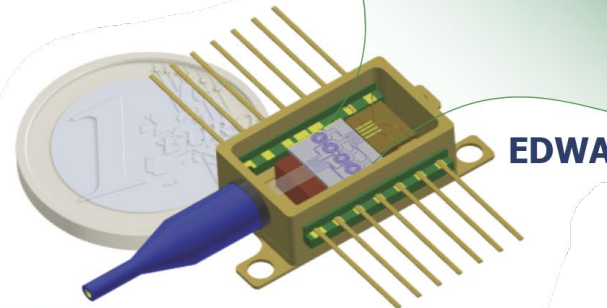


Erbium-doped fiber amplifiers

10 cm



1 mm



1 cm

Replacing bulky, manually assembled EDFA with EDWA Photonic Integrated Circuits

14.



**K2PHOTONICS**



K2PHOTONICS

 SWISS DEEP TECH

Spin-off | **ETH** zürich

 **esa** | BUSINESS INCUBATION CENTRE | Switzerland

K2 PHOTONICS · 360 CARLA

# Unlock the *power* of optical frequency combs

Carolin Bauer · Application Development Lead · [info@k2photonics.com](mailto:info@k2photonics.com)

# WHO WE ARE

A deep-tech startup building femtosecond laser engines for precision sensing, metrology and timing

## THE COMPANY

### ETH Zurich spin-off

Founded from the lab of **Prof. Ursula Keller** in 2023.

### Located at Technopark Zurich

Close to Zurich Hardbrücke in the heart of the city.

### 10 team members soon

Actively recruiting. Do you want to join us?



## THE PLATFORM

### Single-cavity dual comb

Two coherent combs from one cavity. No delay lines, no separate oscillators, simple systems.

### Watt-level output, no amplifiers

More power per comb mode means better SNR in every application, with less complexity.

### Femtosecond light from the UV to the MIR

Ultrashort pulses, broad spectral coverage. Using our OPO and harmonic generation modules, the ideal spectral band for any application is available.

### 60 MHz to 1 GHz

No matter if the application requires a high temporal or spectral resolution or a fast measurement - we have the right repetition rate at hand.

## APPLICATIONS

### Gas Sensing

Dual-comb spectroscopy over wide areas with multi-species (CH<sub>4</sub>, CO<sub>2</sub>, NH<sub>3</sub>, etc.) detection from one device.

### Non-destructive testing and metrology (e.g. Semiconductors)

Picosecond ultrasonics and THz-TDS for thin-film inspection. Faster than mechanical-delay systems.

### Atomic Clocks and Space applications

Optical frequency comb engine for atomic clock systems and next-gen satellite Positioning, Navigating, and Timing (PNT) constellations.

# JOIN THE TEAM

Small team, deep physics, real products.

## R&D Engineer

Design and improve sub-modules of our lasers.  
Assemble and test prototypes in the lab.  
Integrate laser engines into metrology systems.

## Laser Engineer

Assemble and test laser systems.  
Hands-on precision optical bench work.

## Sales and Marketing

Grow the customer base across R&D, semicon, sensing and space.  
Technical background required.

## Business Development

Build partnerships in academic and industrial markets.  
Strategy and execution.

## WHAT IT IS LIKE TO WORK HERE

**Early stage, small team, big scope.** You own your work from physics to customer.

**Deep science, real products.** Transferring the science of 30+ peer-reviewed papers to live systems with paying customers.

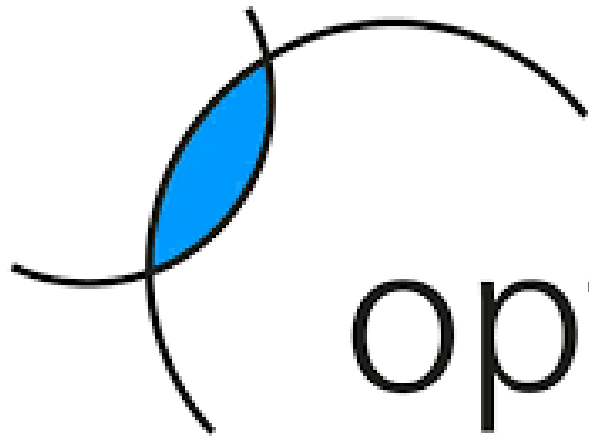
**Challenging tasks, room to grow.** Learn about product design, engineering, laser physics and much more.

## Come talk to us today and tomorrow.

We are growing and constantly looking for strong candidates for new positions and internships.

[k2photonics.com/careers](https://k2photonics.com/careers)  
careers@k2photonics.com

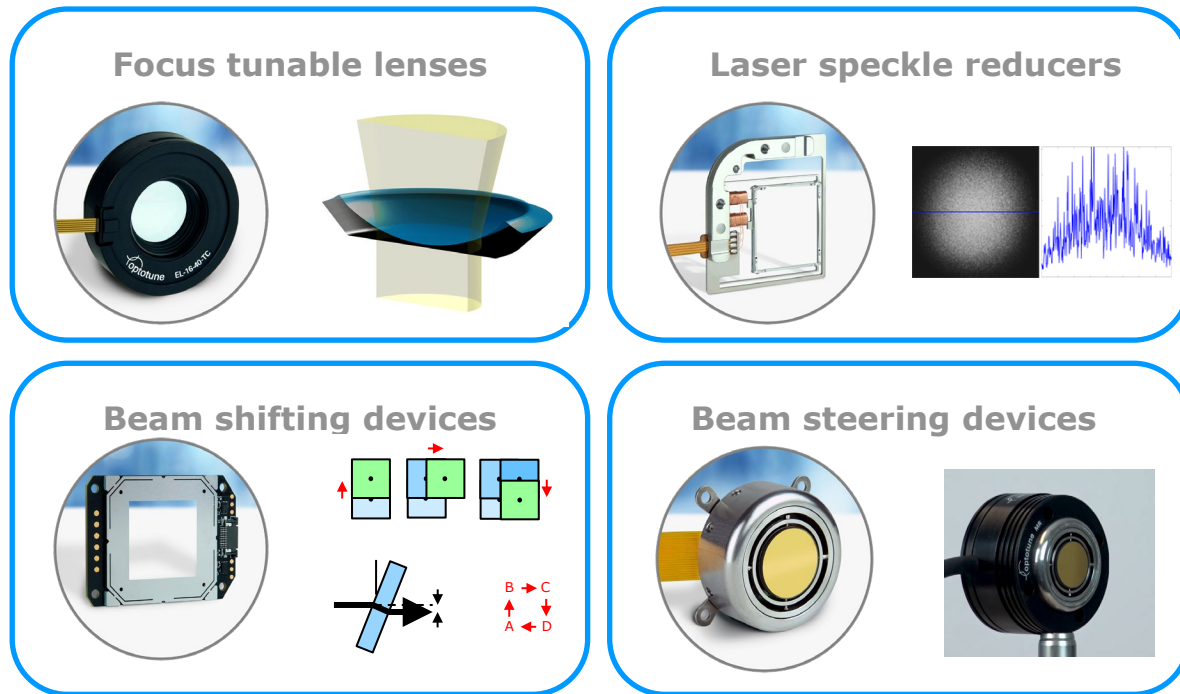
15.



optotune

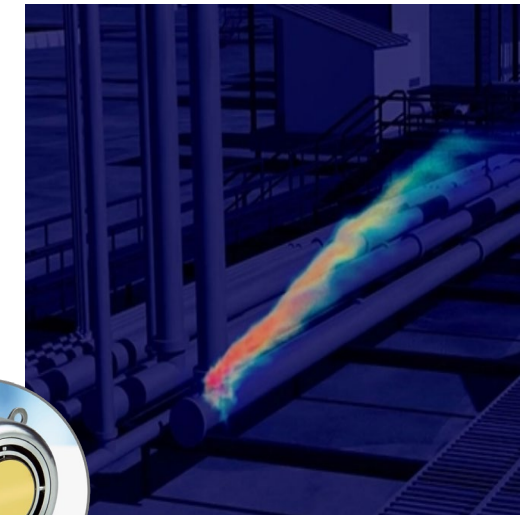
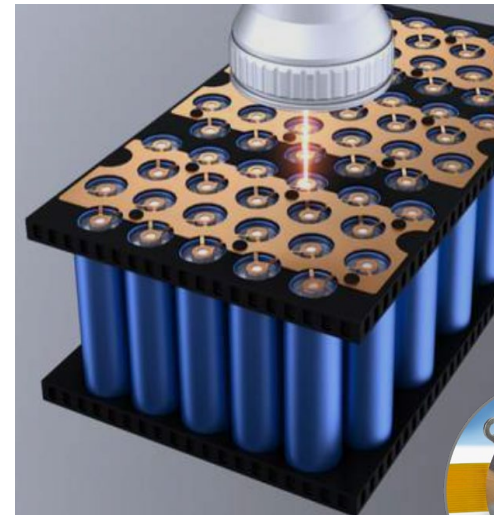
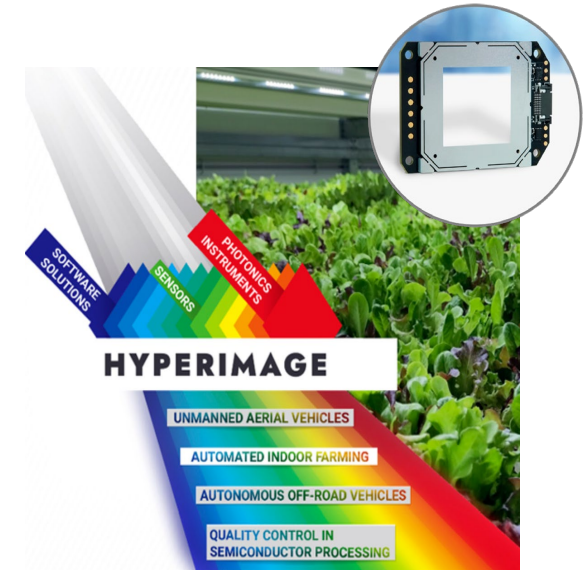
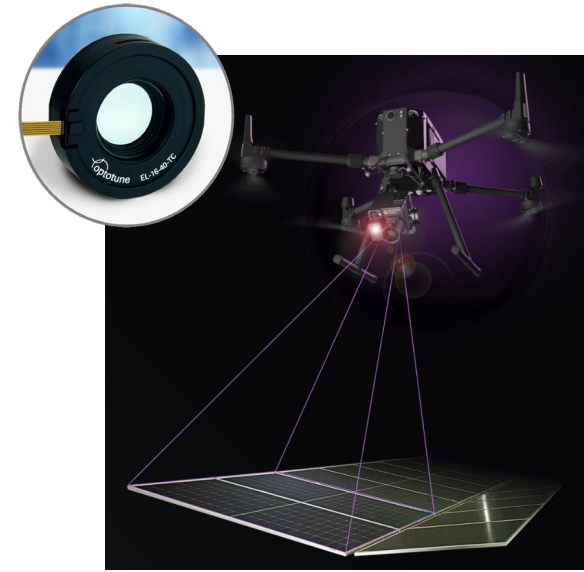
# Our mission: We make a positive impact through optical innovation

- Founded as **ETH Spin-Off**, privately owned
- More than **200 patents** filed, more than 60 granted
- **190 Employees**, 28% of revenue spent on R&D



# Our positive green Impact

- **Solar Cell Inspection:** Our adaptive lenses enhance precision and efficiency in drone-based solar inspection systems.
- **EV Battery Manufacturing:** Our lenses support high-accuracy battery inspection, while our mirrors enable advanced laser wobble technology for optimized welding processes.
- **Vertical Farming:** Our beam shifter improves multispectral imaging, enabling better crop monitoring and yield optimization.
- **Methane Detection:** Our mirrors expand the field of view in laser-based methane detection systems, increasing coverage and detection reliability.
- **Sustainability (Internal):** Our operations are powered entirely by 100% renewable electricity.



16.

**HAMAMATSU**  
PHOTON IS OUR BUSINESS

# Hamamatsu x 360 CARLA Career Symposium

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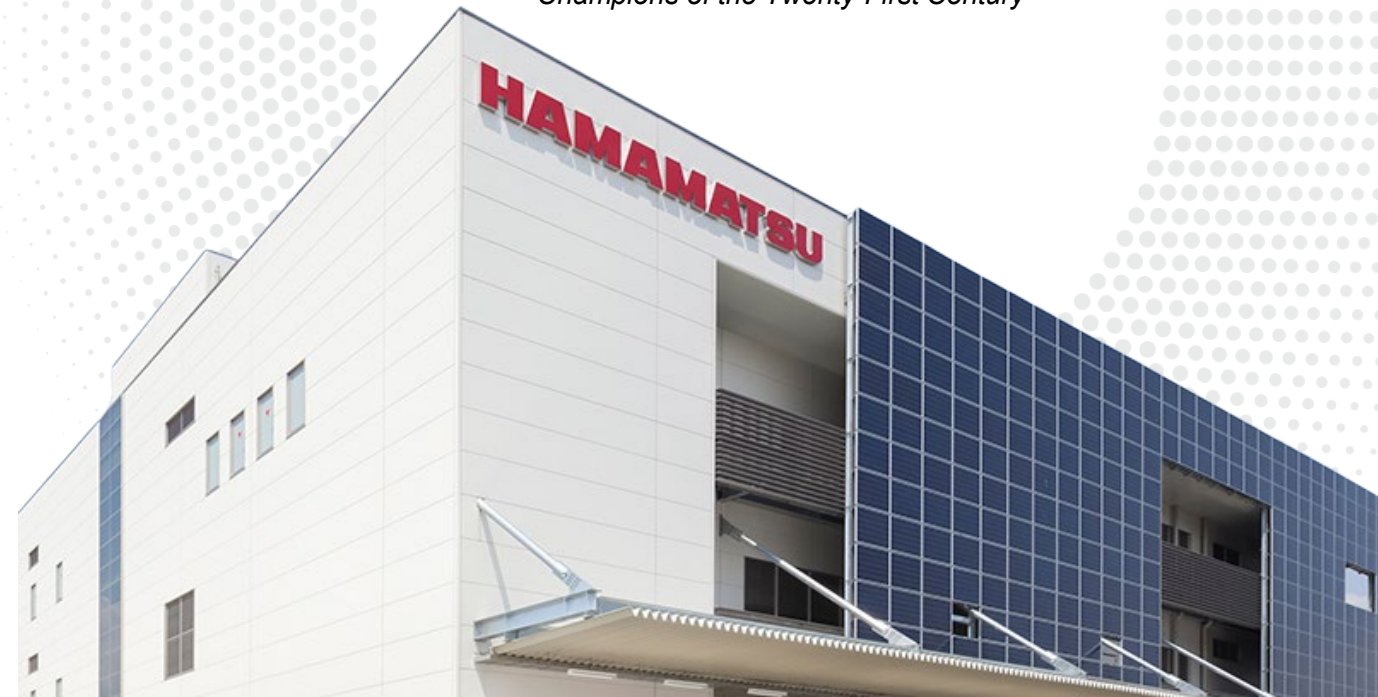
**Andrey Voloshin**

Senior Technologist - Hamamatsu Photonics Europe

07/05/2026

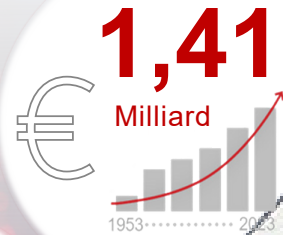
**"A HIDDEN CHAMPION  
OF THE 21ST CENTURY"**

Hermann Simon, author of the *Hidden  
Champions of the Twenty-First Century*



# Hamamatsu in a glance:

\*Figures taken in 2025



**90%**  
PMT Market share

**3** NOBEL PRIZE CONTRIBUTIONS



UNITED NATIONS GLOBAL COMPACT

- ✓ HUMAN RIGHTS
- ✓ LABOUR STANDARDS
- ✓ ENVIRONMENT
- ✓ ANTI-CORRUPTION

**22**   
Research and Production bases

**15.000+**  
PRODUCTS

**6,601**  
EMPLOYEES

Founded in **1953**

**1995**  
ENTRY IN TOKYO STOCK EXCHANGE

**HAMAMATSU**

# Our Wide Range of Markets:



# Hamamatsu Photonics France:

**46**  
**MILLION**  
REVENUE  
in 2024

Since  
1985

- ◆ HPF MAIN OFFICE
- ◇ HPF SALES OFFICE



**92**   
EMPLOYEES

**86%**   
ENGINEERS & PhDs

**99%**   
PRODUCTS  
DELIVERED ON TIME

**ISO**  
9001

# Thank you!

**HAMAMATSU**  
PHOTON IS OUR BUSINESS

