



**AUDACIA**

Juin 2024  
Hôtel de Bourrienne  
58 rue d'Hauteville  
75010 Paris



# QUANTO NATION

## QUANTUM COMPUTING

*HQS Quantum Simulation*

*Kipu*

*Multiverse Computing*

*Nord Quantique*

*Orca Computing*

*Pasqal*

*QC design*

*Quandela*

*Qubit Pharmaceuticals*

## QUANTUM SENSING

*Euclid*

*Foqus*

*Pixel Photonics*

*Qnami*

## QUANTUM NETWORK

*Cryptonext security*

*EvolutionQ*

*KETS*

*MemQ*

*Qphox*

*Qunnect*

*VeriQloud*

*WelinQ*

## DEEP PHYSICS

*Inspek*

*Lighton*

*Sensorium*



## HQS Quantum Simulations

HQS Quantum Simulations GmbH is a spin-off from the Karlsruhe Institute of Technology and was founded in 2017 to bridge the gap between research and industry in the field of quantum computing. HQS Quantum Simulation offers the appropriate software to realize the potential of quantum simulation to accelerate the development of new materials in the chemical, pharmaceutical, and materials industry.

- Incorporated: 2017
- Employees: 42
- Country: Germany

[www.quantumsimulations.de](http://www.quantumsimulations.de)

[info@quantumsimulations.de](mailto:info@quantumsimulations.de)

### Value creation proposal

#### QUANTUM FOR INDUSTRY:

At HQS, our primary focus is on quantum simulation, a crucial tool for tackling challenges in quantum chemistry and materials science. Our advanced simulations provide invaluable insights into quantum systems, fostering breakthroughs in various industries, including pharmaceuticals, photonics, and the chemical industry.

In addition to quantum simulation, we also harness the power of quantum computing. We develop approaches that are not only relevant for near-term Noisy Intermediate-Scale Quantum (NISQ) devices but also for future error-corrected quantum computers. This forward-thinking strategy ensures our solutions remain at the forefront of quantum technology advancements.

At HQS, we're committed to driving innovation in industries that stand to benefit from quantum simulation and computing. Our mission is to provide cutting-edge solutions that empower scientists and engineers to make significant advancements in their fields.

### Founding team



**Dr. Michael Marthaler**  
CEO



**Dr. Iris Schwenk**  
COO

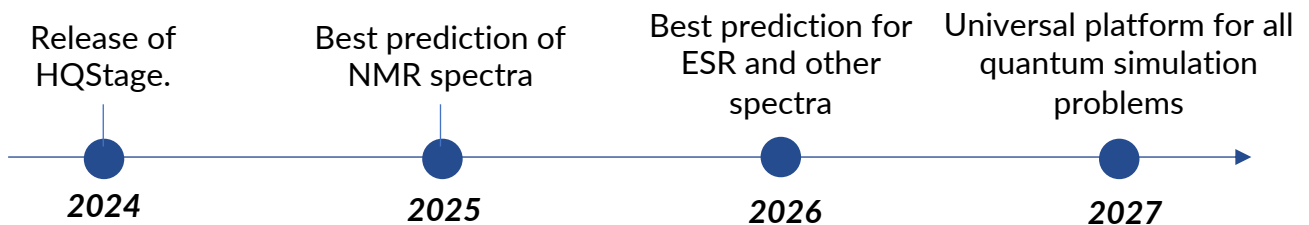


**Dr. Jan Reiner**  
CSO



**Dr. Sebastian Zanker**  
CTO

### Simplified roadmap





## Commercial/Potential use case

Quantum simulation is paving the way for significant advancements in the field of spectroscopy, including Nuclear Magnetic Resonance (NMR), Electron Spin Resonance (ESR), and Raman Spectroscopy.

- In the realm of NMR spectroscopy, our quantum simulation tools offer invaluable insights into the magnetic properties of atomic nuclei.
- For ESR spectroscopy, our quantum simulations will provide a deeper understanding of unpaired electron systems.
- In the field of Raman Spectroscopy, our quantum simulation tools can help predict and interpret Raman spectra.

At HQS, we're committed to making quantum simulation a practical tool for spectroscopic applications. Our software solutions are designed to help researchers and businesses leverage the power of quantum simulation, driving advancements and precision in spectroscopic techniques.



## References

- <https://quantumsimulations.de/news/hqs-introduces-hqstage>
- <https://quantumsimulations.de/news/progress-in-quantum-machine-learning-hqs-quantum-simulations-develops-an-innovative-autoselection-backend-library-for-the-autoqml-project>
- <https://arxiv.org/abs/2404.18903>
- <https://quantumsimulations.de/news/materials-science-applications-for-quantum-computing-on-the-qucun-platform-hqs-receives-an-order-from-basf>
- <https://quantumsimulations.de/news/using-quantum-technology-in-industry>
- <https://arxiv.org/abs/2210.11371>
- <https://arxiv.org/abs/2210.12138>



# Application- & Hardware-specific Algorithms for Early Industrial Usefulness

With our software-based approach, industry users can begin to solve real use cases on quantum computers years earlier, starting from ~ 1,000 physical qubits

- Incorporated: 2021
- Employees: 30 employees
- Country: Germany

[www.kipu-quantum.com.com](http://www.kipu-quantum.com.com)

## Value creation proposal

Useful quantum computing now. We believe that it is possible to use contemporary quantum processors to solve industrially relevant problems.

Our secret sauce is in making algorithms application and hardware-specific, cutting down the overhead significantly.

This allows to reduce the required number of physical qubits from millions to ~1,000 for use case such as combinatorial optimization, protein folding or molecular chemistry modeling.

Our target customers are large organizations with existing quantum computing efforts which have the ability to solve meaningful problems a decade earlier compared to other approaches, i.e. in a few years instead of the mid 2030ies.

## Founding team



**Dr. Daniel Volz**  
CEO

- Pioneered quantum computing at McKinsey
- Led EUR 25mn quantum effort at BASF SE



**Enrique Solano**  
Chief Visionary

- Leading quantum scientists & inventor of Kipu's core tech
- 20+ years of experience in relevant hardware and algorithm & interim-CEO of IQM Germany



**Dr. Tobias Grab**  
Chief Strategist / COO

- Founder and former CEO of CYNORA
- Serial entrepreneur: BASF's Chemovator

## Simplified roadmap

Applied Kipu's technology to 50-100 qubits

World's first demonstration of industrial usefulness

Bring useful QC-based products into production

Credible trajectory beyond €100m ARR





## Commercial/Potential use case

The commercial potential of quantum computing application is massive. The estimated economic value is ~\$72 billion by 2035. Because of our ability to solve use cases at industrial scales earlier than everybody else, we will capture a massive share of this opportunity.

Kipu Quantum has the ability to apply its unique application and hardware-specific algorithms to a wide array of different use cases, which are of relevance for chemicals, pharmaceuticals, financials and manufacturing players. The singularity of useful quantum computing is still 2-4 years out, but end users can already pilot our solutions and validate the outperformance versus standard approaches in quantum computing.

### Kipu algorithms outperform competing approaches by orders of magnitude, even on today's hardware

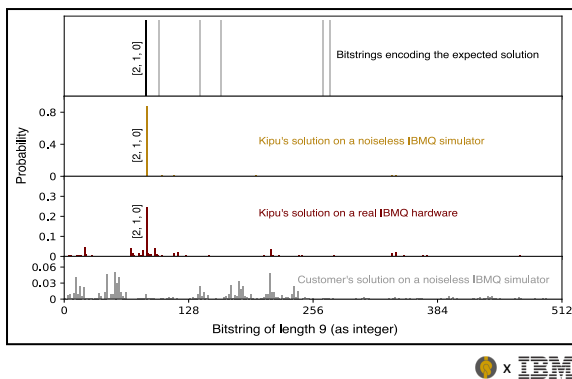


Fig 1: Job shop scheduling in robotics-assisted product development - success probability of a single run is improved 600 x

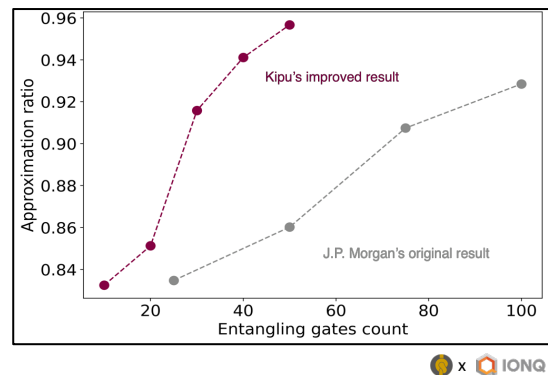
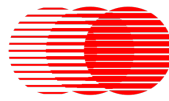


Fig 2: Portfolio optimization - a 40 x less greedy algorithm allows for significant improvement of the tested portfolio by 10 % while slicing the required time in half

## References

1. Analog counterdiabatic Quantum Computing, <https://arxiv.org/pdf/2405.14829>
2. Bias-field digitized counterdiabatic quantum optimization, <https://arxiv.org/pdf/2405.13898>
3. Microwave quantum memcapacitor effect, <https://rdcu.be/dl8yx>
4. Quantum optimization with Trapped Ions, <https://arxiv.org/pdf/2405.01447>
5. Image classification, <https://arxiv.org/pdf/2405.00548>



MULTIVERSE  
COMPUTING

1010  
1010  
Quantum  
computing

# Multiverse Computing

Multiverse Computing is the **leading and fastest-growing** private European company in **Quantum and Quantum-AI inspired** software. Bridging the gap between the most innovative technology and tackling the real problems and needs of companies in the finance, defence, energy, cybersecurity and advanced manufacturing verticals, among others.

- Founded: **2019**
- **+150** employees
- **+30** nationalities
- **20%** PhDs
- **+20** Scientific papers
- **+9000** citations
- **WW Locations:** HQ-Spain, Canada, UK, Germany, France and Italy.
- Revenue 2023: **5,2M**
- Total Sales 2023: **10M**
- Signed revenue 2024: **9,6M / target 13M)**

## Value proposition

Multiverse Computing is formed by a team of **world-renowned experts** in the field.

Integrating technologies such as:



**Quantum Computing:** algorithms based on Quantum Computing running on Quantum Hardware.



**Quantum-Inspired:** algorithms based on Quantum Computing principles running on conventional hardware systems.

Specifically, calculation technologies based on **“Tensor Networks”** allow to speed up calculations, enabling the resolution of problems that were previously unsolvable.

- **Patent-protection** on all developed technology.
- **Top 5** Spanish institution filing the most patents in Europe in 2023 (95 patents filed to date).

## Founders



Enrique Lizaso  
CEO

PhD (Biostatistics), Mathematician, Computer engineer, IESE  
Treasurer and member of the Governing Board of QuiC.  
20+ years of experience in financial industry as CEO of Unim Bank.



Román Orús  
CSO

PhD in Quantum Physics, more than 9K citations.  
Professor at DIPC  
Steering Board of Quantum Journal  
Founding father of Tensor Networks



Sam Mugel  
CTO

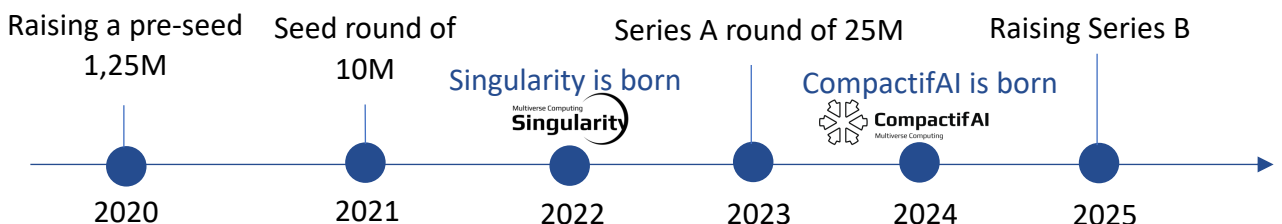
PhD in Physics, MSc (Physics)  
Expert in QC and QML  
Advisor for the McKinsey Tech Council and the Forbes Tech Council



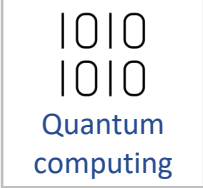
Alfonso Rubio  
CMO

President of barcelonaqbit-bqb and Quantum Observatory (Latin America, Spain, Portugal, Caribbeans)  
Member of the Strategic Advisory Quantum Board

## Simplified roadmap







## Products & Applications

Multiverse Computing's competitive advantage is based on Superior Technology:

- Harnesses Quantum and Quantum-inspired AI methods.
- Highly scalable solutions across diverse environments and it's easy to deploy and use.



Singularity software unlocks the power of Quantum Computing without the need of investing in expensive equipment and resources.

- Reducing costs
- Facilitating Quantum technology adoption.
- Backend hosted on AWS/Azure/etc.

Some sectors:

- Finance
- Energy
- Cybersecurity
- Manufacturing
- Defense

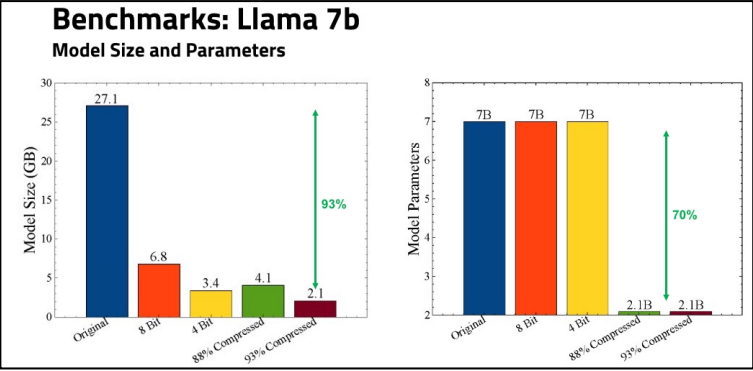


**CompactifAI**  
Multiverse Computing

Groundbreaking compressing tool of foundational models that use tensor networks to extremely compress AI systems, such as Large Language Models (LLMs), making these efficient and portable.

- 96%** Optimization
- 2x** Speed
- 50%** Energy
- 30%** Resource utilization

### Use case example: CompactifAI



- More than 93% size reduction by tensorization + quantization
- More than 70% parameter reduction
- The huge parameter reduction is the main source of speedup

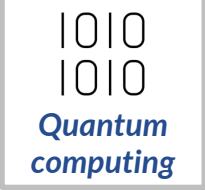
### Clients & Partners

Applying Quantum & AI solutions with us:

## References

- <https://arxiv.org/abs/2403.14379>
- <https://arxiv.org/abs/2401.14109>
- <https://arxiv.org/abs/2401.00867>
- <https://arxiv.org/abs/2211.14657>





# Error-correcting quantum processors

Nord Quantique is developing *bosonic codes* implemented with superconducting circuits. Bosonic systems provide a richer encoding space, making it easier to prevent noisy interactions to impact the system and produce errors, thus preserving quantum information.

- > Incorporated: January 2020
- > Employees: 28
- > Country: Canada

[www.nordquantique.ca](http://www.nordquantique.ca)

Julien Camirand +1 819 679 8729

## Value creation proposal

### Quantum computing requires better qubits

The development of full-scale fault-tolerant quantum computing is hindered by one major issue: noise on the chip that produces errors at the qubit level. Solving this issue does not simply call for larger and larger processors. The best way forward is to redesign processors from the ground up with low-error qubits. At Nord Quantique we develop superconducting circuits that can correct errors at the scale of individual qubits. It provides a faster pathway to fault-tolerant quantum computing.

## Founding team



**Julien Camirand**  
**Lemyre**  
**CEO**

- > Physics PhD Université de Sherbrooke
- > 10yr experience in scaling quantum technology



**Philippe St-Jean**  
**CBO**

- > Physics PhD Université de Montréal
- > Former Board Director at D-Wave Systems

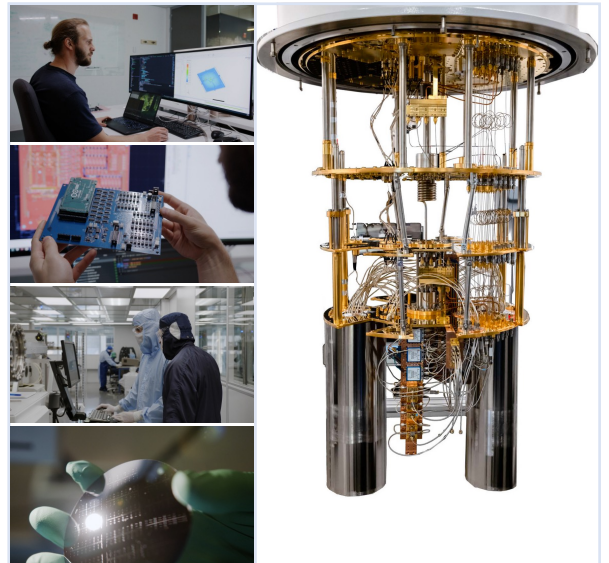
## Simplified roadmap

	2020	2021	2022	2023	2024	2025	2026+	...	2030	...	2040
Hardware	Spin-off Start of hardware development	Proof-of-concept Bosonic code stabilization	Error correction breakthrough with gain of 1.1	2-mode device First hardware demonstration	Scale-up MVP Implementation of 2 error corrected bosonic modes	4-mode device Blueprint for fault-tolerant implementation	Scaling technology and fabrication capabilities		Small-scale fault-tolerant processor		Large-scale fault-tolerant processor
Funding	Pre-Seed stage		Seed stage		Series A		Series B+				



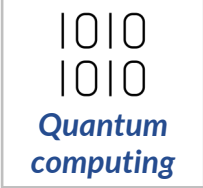
## Commercial/Potential use

Quantum processor technology is far from reaching the performance and reliability level required to unlock the quantum computing market. Current quantum computing architectures based on superconducting qubits are making approximately 1 error every 1,000 operations. This limits both the size of the algorithm that can be run on quantum computers or conversely, the size of a processor that can be built without having an error occurring at every clock-cycle. Quantum computing companies aim to reach fault-tolerance by implementing quantum error-correction methods, generating an overhead of 1,000 to more than 10,000 physical qubits per every logical qubit performing the computation. Nord's technology is hardware-efficient as it possesses intrinsic redundancy that can be leveraged to perform quantum error correction on individual qubits.



## References

- Autonomous quantum error correction of Gottesman-Kitaev-Preskill states:  
<https://journals.aps.org/prl/abstract/10.1103/PhysRevLett.132.150607>
- Stabilization of Finite-Energy Gottesman-Kitaev-Preskill States:  
<https://journals.aps.org/prl/abstract/10.1103/PhysRevLett.125.260509>
- Real-time quantum error correction beyond break-even:  
<https://www.nature.com/articles/s41586-023-05782-6>
- Circuit quantum electrodynamics:  
<https://journals.aps.org/rmp/abstract/10.1103/RevModPhys.93.025005>



# Photonic quantum accelerators for machine learning

ORCA is at the forefront of quantum accelerators for machine learning. Delivering a full stack solution with immediate and long-term utility to the most advanced users of High Performance Computing and Machine Learning.

- Incorporated: 2019
- Employees: 45
- Country: UK (HQ), Canada, USA, PL

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

Contact: Richard@orcacomputing.com

## Value creation proposal

A flexible, upgradable photonic architecture which can be used immediately as a quantum accelerator or long-term for error corrected applications.

ORCA's PT-series product is built from telecoms components:

- Robust,
- Maintenance-free,
- Networking/scalable-ready,
- Lower cost of ownership.

Software stack which allows users to programme in PyTorch: ML's native language

An architecture which can achieve fault tolerance with significantly fewer resources (and therefore achieved earlier)

Clear, value-creating applications in the near-term (see next page)

Some of the world's best scientists from the fields of quantum optics

An experienced management team, who can deliver

## Leadership team



**Richard Murray**  
CEO

- Previous UK gov/EU flagship lead for quantum technologies
- Technology consultant and entrepreneur
- PhD in physics



**Ian Walmsley**  
Chairman

- Professor of Physics
- Provost of Imperial college
- Ex-president of the Optical society of America



**Josh Nunn**

- CSO
- ORCA memory inventor



**Mike Piraino**

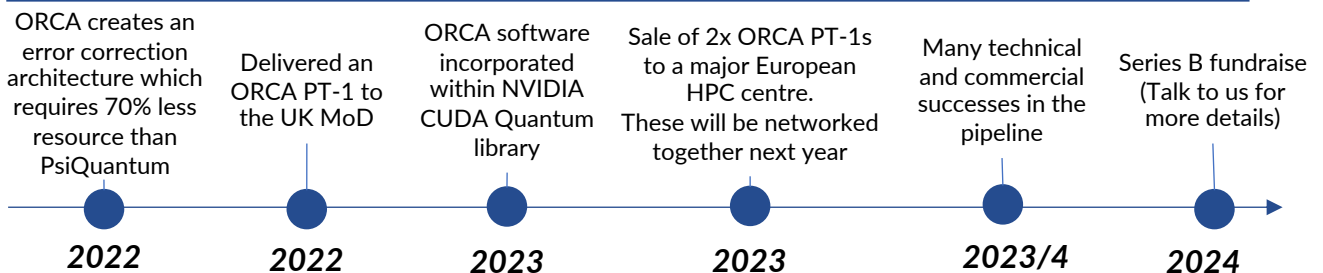
- COO
- Ex-Cray COO



**Per Nyberg**

- CCO
- Ex-Cray BD Exec

## ORCA timeline





1010  
1010  
Quantum  
computing

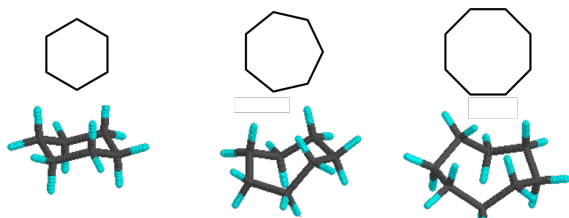
## Commercial use case

Advanced molecular formulation is an ever-critical tool to the chemistry industry: accelerating new product development, optimising chemical plant processes and helping to identify new strategies and investment opportunities.

Working with a large Fortune 500 company, ORCA PT-GAN hybrid quantum-classical GAN was applied to the molecular folding problem of establishing the position and angle of bonds for variable molecular lengths.

Compared with a purely Classical GAN, the ORCA technology delivered:

- More realistic distributions of folding angles
- Molecules not previously seen
- 20% improved angle accuracy on test set
- Opportunity to reduce time consuming lab work
- Accelerate the discovery of new and novel molecular compounds.



ORCA technology working alongside classical resources improve Generative Modelling to make them more 'real' than classical models:

**Top-** providing a 20% improvement in the accuracy of calculated molecular bond angles.

**Bottom-** improving the realism of generated faces

## Stats

Traction: 5 ORCA PT-1 systems sold to date

Execution: 2 PT-1 systems delivered (3 more within 2023)

High demand: £13,650,052/£4,352,496 (weighted) 2024 pipeline

Financial viability: Solid initial GM (~45%)

Future-proof and recurring revenue: 3/5 of customers have pre-purchased or budget allocated for upgrades

Highly defensible: Significant patent coverage + trade secrets & know-how

Reliability & Deployability:

- 1<sup>st</sup> PT-1 installed within hours of delivery in crate
- Productization progress (EMC testing, CE mark progress, modularization, manufacturing process)

## References

- [Towards an inductive bias for quantum statistics in GANs](#)
- [Certain properties and applications of shallow bosonic circuits](#)
- [Parity-encoding-based quantum computing with Bayesian error tracking](#)
- [High-speed noise-free optical quantum memory](#)
- [Pure Single Photons from Scalable Frequency Multiplexing](#)

# Neutral atoms quantum computing

Quantum computing

Pasqal builds quantum computers from ordered neutral atoms arrays to bring a practical quantum advantage to its customers and address real-world problems. Pasqal was founded by George Olivier Reymond, Christophe Jurczak, Professor Dr. Alain Aspect, Nobel Prize Laureate Physics, 2022, Dr. Antoine Browaeys, and Dr. Thierry Lahaye.

## Value creation proposal

Pasqal plans to accelerate the company's research and development efforts to build a 1,000-qubit quantum computer in the short term and fault-tolerant architectures in the long term. The company also plans to increase the production of its quantum systems for on-premise installations as well as expand the development of proprietary algorithms for customers across key verticals including energy, chemistry, automotive, mobility, healthcare, energy, technology, finance and government.

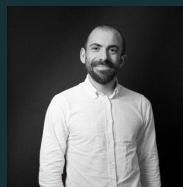
Pasqal raised €100M in early 2023 and will use the funding to further develop its neutral atoms quantum computing platform, which it believes will deliver major commercial advantages over classical computers by 2024.

## FOUNDING TEAM



Ex Safran  
PhD in Quantum Physics  
from IOGS

Georges-Olivier Reymond  
CEO



EX ICFO  
PhD in Quantum Physics  
from Polytechnique

Loïc Harlé  
Co-CEO



Teacher CNRS  
CNRS Silver Medal

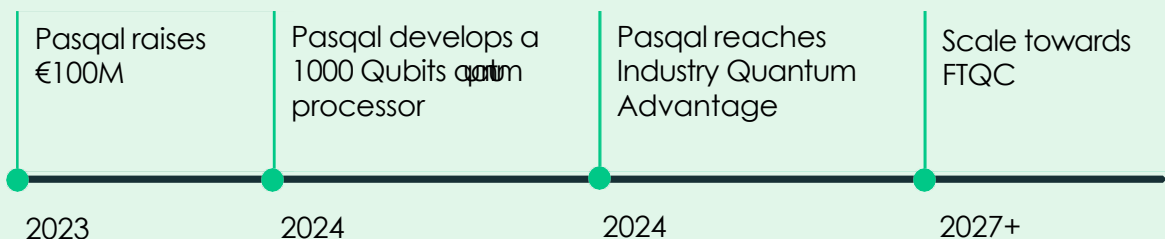
Antoine Browaeys  
CSO

Incorporated: March 2019 [www.pasqal.com](http://www.pasqal.com)

Employees: 170+ Contact: Nicolas Proust

Country: France Tel: +33 7 56 38 84 83

## SIMPLIFIED ROADMAP



## Commercial/Potential use case

Pasqal is currently engaged with many Global Fortune 500 companies. The company recently released research with Crédit Agricole CIB, the world's largest cooperative financial institution, that showed Pasqal's technology could solve complex financial optimization problems as accurately as classical computers.

BASF, the world's largest chemical company is exploring how Pasqal's technology can be used to predict weather patterns, while BMW is leveraging Pasqal's algorithms to simplify complex simulations that can be used for crash testing and development of lighter parts and materials. Other Pasqal customers include Siemens, Airbus, LG Electronics, Johnson & Johnson and Thales, among many others. Pasqal already sold 2 Quantum Processing Units to HPC centers.



Pasqal's Quantum Processing Unit

## REFERENCES

[Blueprint for a digital-analog variational quantum eigensolver using Rydberg atom arrays](#)

[Quantum pricing-based column-generation framework for hard combinatorial problems](#)

[Financial Risk Management on a Neutral Atom Quantum Processor](#)

[Microwave-engineering of programmable XXZ Hamiltonians in arrays of Rydberg atoms](#)

[Embedding the MIS problem for non-local graphs with bounded degree using 3D arrays of atoms](#)

[Many-body localization in waveguide QED](#)

[Pulsar: An open-source package for the design of pulse sequences in programmable neutral-atom arrays](#)

[Quantum computing with neutral atoms](#)



# Design-automation software for fault tolerance

QC Design is a quantum computing software company. We build design-automation software for fault-tolerant quantum computing. Our customers are quantum computing hardware companies across all platforms.

- Incorporated: 2021
- Employees: 15
- Country: Germany

www.qc.design

Ish Dhand +49 160 1720096

## Value creation proposal

**Problem:** Fault tolerance is necessary for quantum computing to provide large-scale commercial value. Quantum hardware teams are seeking to design fault-tolerance architectures and logical qubit demos. This is challenging since it requires powerful design software, which can take years of effort from rare experts in fault-tolerance, hardware and software to build and maintain.

**Solution:** We solve this problem by providing Plaquette, the only fault-tolerance design-automation software that can allow for designing in the presence of real-world imperfections.

We offer the software at an annual subscription fee that is an order of magnitude lower than building and maintaining this software in house. As a result, our customers get to fault-tolerance faster and with less cost.

## Founding team



**Ish Dhand**  
CEO

- 10+ years in QC
- Previously headed architecture @ Xanadu
- 12+ QC patents
- H-index > 17



**Shreya P. Kumar**  
CTO

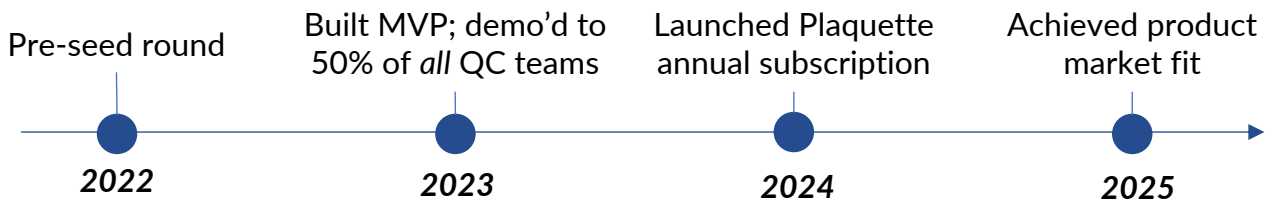
- 10+ years in QC
- Ex: research @ Xanadu
- World expert in fault-tolerance simulations
- 5+ QC patents



**Martin B. Plenio**  
Advisor

- World expert in QC
- Mentored over 100 PhD/postdocs
- H-index > 116
- Co-founded 2015 NVision Imaging

## Simplified roadmap





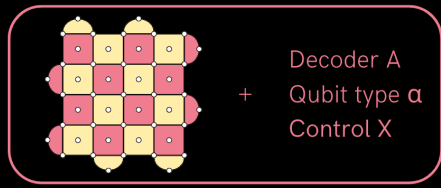


Commercial/Potential use case

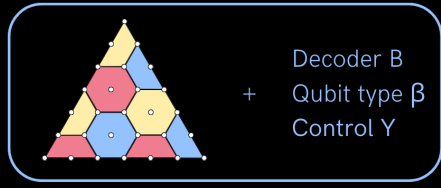
# Plaquette™ helps bring FT closer to reality

→ hardware companies can develop most feasible architecture for FT

## Different architectures



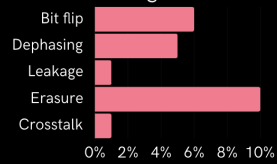
Plaquette™ →



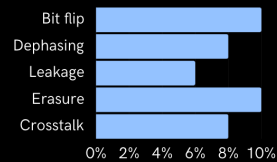
Plaquette™ →

## Different feasibility

Threshold (higher is better)



6 years away



4 years away!

QC Design's fault-tolerance design automation software, Plaquette™, accelerates our customers' paths to fault-tolerance by allowing the study of the fault-tolerance performance of matter- and photonic-based hardware platforms, accounting for all possible imperfections. This capability helps customers understand the feasibility of various fault-tolerance architectures.

Plaquette does this by enabling the users to study the fault-tolerance performance of their architectures, which include different combinations of error-correcting codes, decoders, qubit definitions, and control methods. By determining the tolerance of their initial designs to all hardware imperfections, Plaquette helps customers develop architectures that are more tolerant to errors, and therefore feasible.

These more robust architectures reduce the time and costs involved in hardware improvements. As a result, our offering ultimately helps customers get to transformative quantum computing faster, providing a competitive edge in quantum computing.

## References

- <https://www.qc.design>
- <https://www.qc.design/news/20231214-plaquetteplus>



## Industry-grade Quantum Computers

Quandela develops useful quantum computing solutions to enable quantum transformation within industry and society. From industrial-grade quantum computers to highly advanced quantum algorithms and cloud-accessible quantum processors, Quandela works along the entire value chain with high-impact products.

- Incorporated: 2017
- Employees: ~90
- Country: France, Germany, UK, South-Korea, Canada

<https://www.quandela.com>

Niccolo Somaschi +33 6 50 36 79 82

### Value creation proposal

Quantum computers holds the promise to revolutionize society tackling problems not accessible by current technologies, and of pressing importance to society, in the energy, pharmaceutical and security domain. Quandela works towards building such useful quantum computers leveraging semiconductor and photonic industries with stable and manufacturable processes that guarantee rapid scaling.

Quandela exploits a unique combination of photonic and semiconductor technologies that permits at once to build resource efficient quantum computing system and deploy a proprietary error-correcting architectures to securing computing power scaling. With its industrial approach Quandela has laid the foundations for the deployment of large-scale, error-corrected quantum computers.

### Founding team



**Niccolo Somaschi**  
CEO

- PhD from Southampton University
- Expert in Quantum and Semiconductor Technologies
- Jerphagnon Prize Nominee



**Valérian Giesz**  
COO

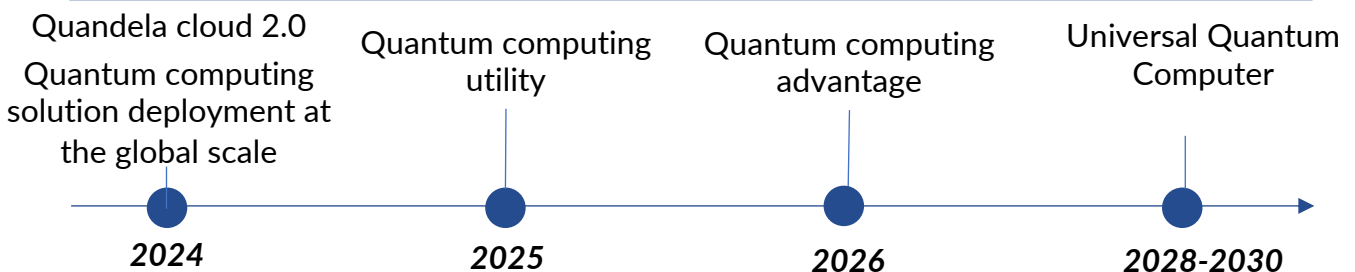
- Engineer from Institut d'optique and PhD from Université Paris-Saclay
- Choiseul 100 Laureate



**Pascale Senellart**  
CSO

- CNRS Research Director
- Professor at Ecole Polytechnique
- Member of French Academy of Sciences

### Roadmap





## Commercial Activities

Quandela builds on the mission to deploy quantum computing solutions with industrial value, to industries and organisation globally. We accomplish the mission by building datacentre-ready on premises QC systems (MosaiQ) and by providing cloud access to state-of-the-art machines, emulators and software suite ([www.cloud.quandela.com](http://www.cloud.quandela.com)). Quandela also works hand-in-hand with business partners (industries, corporates, academics, governments, administrations) to co-develop quantum algorithms, tailored to their industrial use-case and digital transformation (Quantum-Acceleration-Program). Thanks to its first production facilities (quantum computers factory in Massy and semiconductor qubit devices pilot-line in Saclay), Quandela is able to deliver on-premise QC in 8 months from the order date. The company has already delivered two quantum computing systems: at OVHcloud data centre in Croix (FR) in 2023 and at Exaion data centre in Sherbrooke (Canada) in February 2024.



MosaiQ installed in OVHcloud Data Center



MosaiQ installed in Exaion Data Center

## References

- [A spin-Optical Quantum Computing Architecture, arXiv:2311.05605](https://arxiv.org/abs/2311.05605)
- [A versatile single-photon-based quantum computing platform, Nature Photonics \(2024\)](https://doi.org/10.1038/s41566-024-01000-0)
- [A general-purpose single-photon-based Quantum computing platform, arXiv:2306.00874](https://arxiv.org/abs/2306.00874)
- [High-rate entanglement between a semiconductor spin and indistinguishable photons, Nature Photonics \(2023\)](https://doi.org/10.1038/s41566-023-01000-0)
- [Solving graph problems with single-photons and linear optics, arXiv:2301.09594](https://arxiv.org/abs/2301.09594)
- [Photonic Quantum Computing For Polymer Classification, arXiv:2211.12207](https://arxiv.org/abs/2211.12207)
- [Perceval: A Software Platform for Discrete Variable Photonic Quantum Computing, Quantum \(2023\)](https://doi.org/10.1038/s41566-023-01000-0)
- [Certified Randomness in tight space, arXiv:2301.035036](https://arxiv.org/abs/2301.035036)
- [A Complete Equational Theory for Quantum Circuits, arXiv:2206.10577](https://arxiv.org/abs/2206.10577)
- [High-fidelity Generation of four-photon GHZ states on-chip, arXiv:2211.15626](https://arxiv.org/abs/2211.15626)
- [Sequential Generation of linear cluster states from a single photon emitter, Nature Comm](https://doi.org/10.1038/nature21000)
- [Near-Optimal Single-photon sources in the solid state, Nature Photonics \(2016\)](https://doi.org/10.1038/nature21000)



## Quantum-Assisted Drug Discovery

Qubit Pharmaceuticals is a deeptech company pioneering quantum-aided drug discovery through advanced molecular modelling and simulation accelerated by hybrid HPC and quantum computing.

- 📄 Incorporated: 2020
- 📄 Employees: 60+
- 📄 Country: Paris, France & Boston, USA

[www.qubit-pharmaceuticals.com](http://www.qubit-pharmaceuticals.com)

Robert Marino, CEO

### Value creation proposal

Today, the drug discovery process is still mostly wet lab driven & error prone the cost of which has risen over the last 20 years to reach close to €3bn per program. The average time including discovery and go to market is 12 years.

Today, 70 drugs on the market have benefitted from traditional CADD and in ca. 10% of new molecules entering clinical studies today, AI played a role in the discovery process. And yet, whole classes of targets and mechanisms of actions remain challenging, such as targets with shallow or cryptic pockets, allosteric approaches, PPI, metalloproteins, GPCS or RNA.

Leveraging its proprietary quantum technologies (AMOEBa, Tinker-HP, Hyperion) and QADD platform (ATLAS) Qubit Pharmaceuticals intends to address these challenging targets, and to keep developing generative AI technologies to further accelerate drug discovery.

Qubit Pharmaceuticals accelerates their computations with advanced hybrid HPC & quantum technologies and prepares for the arrival of widely available quantum computers by developing and optimizing algorithms, solving for real quantum chemistry problems. Their ground state vector quantum emulator, Hyperion-1, co-developed with Sorbonne Université has achieved 40 perfect qubits in December 2023

### Leadership & Founding Team



**Robert Marino**  
CEO

- 📄 Co-Founder DeepTech founders
- 📄 3 companies launched
- 📄 PhD in Material Sciences, Université de Lille/Chime Paris Tech



**Marion Pierfitte**  
COO

- 📄 12+ years in senior positions in pharma industry (Janssen, AstraZeneca, ZS Associates)
- 📄 5+ years Start-up mentor, EIT Health, AstraZeneca
- 📄 MBA, INSEAD



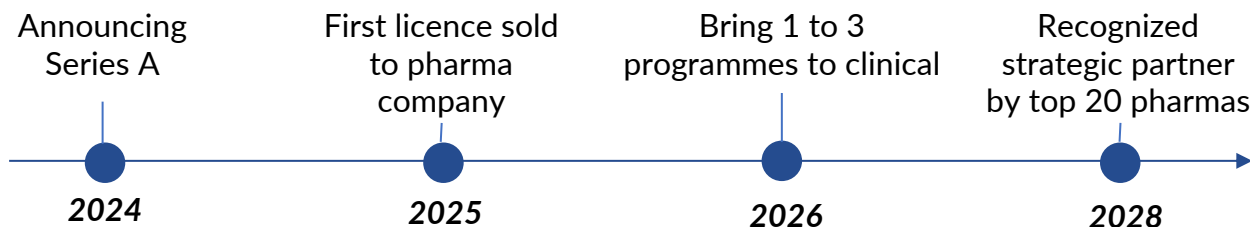
**Jean-Philip Piquemal**  
CSO

- 📄 Professor Theoretical Chemistry
- 📄 Expert in Quantum chemistry & HPC computing
- 📄 Atos Fourier Prize Laureate
- 📄 Royal Society of Chemistry Fellow

#### Other founders:

- 📄 Louis Lagardère (Sorbonne Université et CNRS),
- 📄 Jay Ponder (Washington University in St Louis),
- 📄 Pengyu Ren (University of Texas at Austin).

### Simplified roadmap





## Commercial/Potential use case

Our technology allows us to work on complex targets for which the pharmaceutical industry has to date found little or no drugs, enabling us to address areas of high medical needs, such as patients suffering from cancer resistance, chronic inflammatory, or infectious diseases.

We are particularly optimistic because our lead program, KAT6A, is on track to discover a best-in-class treatment for breast cancer. KAT6A is over-expressed in 10-15% of breast cancers, representing an addressable market of +\$6bn. While Pfizer already has a treatment in the clinic, most molecules are chemically similar. We have initial in vivo results showing promise for new chemical classes.

We have also achieved promising preliminary results this year demonstrating our ability to predict affinity of small molecules to RNA. This type of target is recognized for its major therapeutic potential, but it presents significant challenges for traditional research methods. Our technologies are particularly capable of addressing these difficulties, and would therefore make it possible to find promising new treatments.

## Focusing on complex targets allows us to address areas of high unmet need

Type	Target & Area	Discovery stage			Partnerships
Cancer resistance	KAT6A	Target / MOA characterisation	Hit to lead	Lead to precandidate	
Chronic immune diseases	IL4R	Target / MOA characterisation	Hit to lead	Lead to precandidate	
Cancer resistance	mRas	Target / MOA characterisation	Hit to lead	Lead to precandidate	*Partnership under discussion
Cancer resistance	Sting Pathway	Target / MOA characterisation	Hit to lead	Lead to precandidate	instititut Curie
Chronic immune diseases	GPCR platform	Target / MOA characterisation	Hit to lead	Lead to precandidate	UDS Université de Sherbrooke
Cancer resistance & chronic immune diseases	RNA platform	Target / MOA characterisation	Hit to lead	Lead to precandidate	€2M Grant bpi france
Infectious diseases	Antivirals platform	Target / MOA characterisation	Hit to lead	Lead to precandidate	*Partnership under discussion

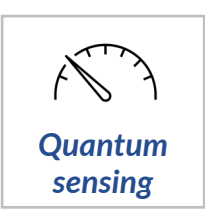
+16 additional drug discovery programs under evaluation

Fully owned
Pharma Biotech
Academic partnership

Current portfolio Qubit Pharmaceuticals

## References

- Feniou C. et al. Overlap-ADAPT-VQE: Practical Quantum Chemistry on Quantum Computers via Overlap-Guided Compact Ansätze, <https://arxiv.org/abs/2301.1019>
- Traoré D. et al. Shortcut to Chemically Accurate Quantum Computing via Density-based Basis-set Correction, *Chemical Physics* 2024 <https://arxiv.org/abs/2405.11567>
- El Khoury, et al. Computationally driven discovery of SARS-CoV-2 Mpro inhibitors: from design to experimental validation. *Chem. Sci.* 2022, 13, 3674, DOI: 10.1039/D1SC05892D
- QM/AMOEBA description of properties and dynamics of embedded molecules <https://wires.onlinelibrary.wiley.com/doi/10.1002/wcms.1674>



# Quantum Sensing/Imaging + AI for Building Reliable and Secure Electronics Systems

Patented quantum sensing/imaging +AI technology provides first-of-its-kind capability for non-invasive imaging of deep 3D currents in Electronics Systems & EV batteries. Specialized analysis software extracts valuable insights about device structures, functions, & onboard data.

- Incorporated: February 2022
- Employees: 2 + technical staff from Quantum Catalyzer
- Country: United States of America

[www.q-cat.io](http://www.q-cat.io)  
[www.euqlid.io](http://www.euqlid.io) (coming August 2024)

## Value creation proposal

EuQlid provides unique quantum sensing and imaging + AI technology for building reliable and secure Electronics Systems.

With our hardware sensing platform and AI based imaging software, we offer noninvasive imaging of 3D currents in ICs, 3D packages, boards and EV batteries. This enables multiple applications in inline quality control, trojan identification, failure prediction, design optimization, fault analysis, and energy management.

EuQlid instrumentation provides high resolution and sensitivity, wide field of view vector imaging, and operates under ambient conditions, differentiating itself from existing magnetic and optical metrology techniques.

## Founding team



*Ronald Walsworth, PhD*

- Founder of EuQlid and Quantum Catalyzer
- Professor, University of Maryland (formerly Harvard)



*Amanda Stein*

- CEO of EuQlid



*David Glenn, PhD*

- CTO of EuQlid and Principal Quantum Scientist at Quantum Catalyzer

## Simplified roadmap

Foundational project begins in Walsworth Lab at Harvard

2018

EuQlid established & seed round raised

2022

First paid partnerships with major corporations

2023

\$10M series A raise (projected)

2024

\$10M in revenue from contracts and sale of instrumentation

2026

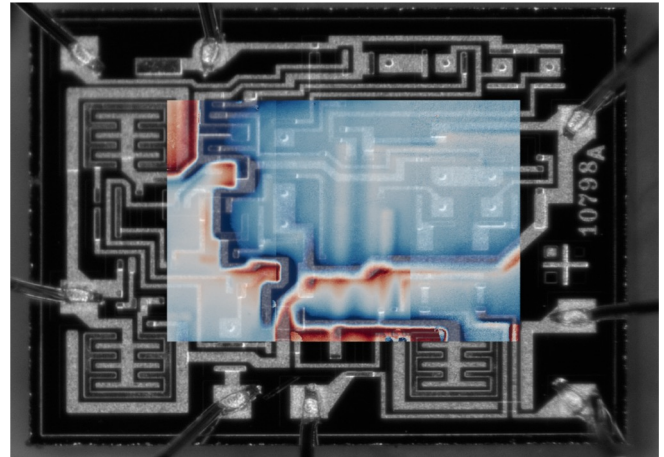


## Commercial/Potential use case

EuQlid has a strong technical foundation, pre-seed funding led by Quantonation, government support, and industry collaborations.

Given the broad set of opportunities, the starting primary target market focus for us is inline inspection and infield monitoring of 3D packages and EV batteries which provide large obtainable market potential.

We have strategic engagements underway with industry-leading partners in advanced CMOS, 3D packages and EV batteries inline and infield applications.



*Magnetic map of decapsulated IC overlaid on photomicrograph of the same.*

## References

**2019:** *Principles and Techniques of the Quantum Diamond Microscope*

**2019:** *Imaging crystal stress in diamond using ensembles of nitrogen-vacancy centers*

**2020:** *Magnetic Field Fingerprinting of Integrated-Circuit Activity with a Quantum Diamond Microscope*

**2020:** *Backside Integrated Circuit Magnetic Field Imaging with a Quantum Diamond Microscope*

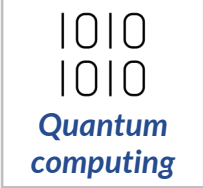
**2021:** *Vector Magnetic Current Imaging of an 8 nm Process Node Chip and 3D Current Distributions Using the Quantum Diamond Microscope*

**2022:** *Hardware Trojan Detection Using Unsupervised Deep Learning on Quantum Diamond Microscope Magnetic Field Images*

**2022;** *Directional Detection of Dark Matter Using Solid-State Quantum Sensing*

**2022:** *High-Precision Mapping of Diamond Crystal Strain Using Quantum Interferometry*

**2023:** *Quantum sensors for biomedical applications*



# Foqus Technologies Inc.

Foqus was founded with the vision of making non-invasive medical imaging accessible. The team develops Quantum and AI technology-based software solutions to remove barriers in diagnostic imaging by enhancing quality and efficiency.

- Incorporated: 2021.02.17
- Employees: 10
- Country: Canada

www.foqus.ca

Sadegh Raeisi +1 647 425 4787

## Value creation proposal

Magnetic Resonance Imaging (MRI) is the gold standard of diagnostic imaging. The images are widely used for disease diagnosis and treatment monitoring for diverse medical conditions. However, access to affordable and timely MRI scans remains a challenge due to the long MRI scan time, typically ranging between 30 minutes and 60 minutes on average.

Leveraging its patented Quantum and AI technologies, Foqus has developed a revolutionary software solution to enhance MRI performance both in quality and speed. The solution reduces MRI scan time from 30 minutes to under 5 minutes. It helps to improve the patient experience, cut down the costs and increase MRI throughput, making affordable and timely MRI scans an achievable reality.

## Founding team



**Sadegh Raeisi**  
CEO

- Ph.D. in physics from the Institute of Quantum Computing (IQC), University of Waterloo



**Michele Mosca**  
Co-Founder

- Ph.D. from the University of Oxford
- Professor of the (IQC), the University of Waterloo

## Simplified roadmap

- 1st product launch (Brain)
- First 3 deals closed
- 2<sup>nd</sup> product launch (Full-body)
- \$8M ARR (30 deals closed)
- Quantum product launch
- \$100M ARR (400 deals closed)







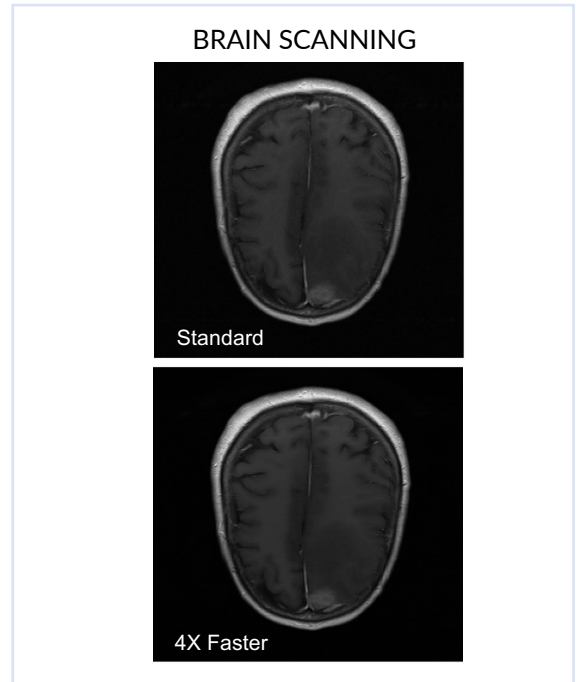
# Foqus Technologies Inc.

## Commercial/Potential use case

Foqus software solutions improve access to MRI.

An MRI scan, on average, takes about 30 to 60 minutes. This results in long MRI wait times and difficulties for individuals with claustrophobia, young children, and elderly. Foqus software reduces the scan time to less than 5 minutes to resolve these issues.

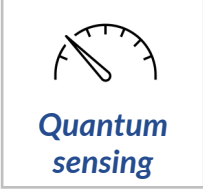
Foqus proprietary technology [1-6] can also be used for acquiring better-quality images. MRI currently has limitations in what it can sense or image in the body. The patented quantum technologies can expand MRI's capabilities for applications such as metabolic imaging which have remained elusive.



*This picture demonstrates the image outcomes acquired by using the software*

## References

1. Raeisi, M Kieferova, M Mosca, Physical review letters, 122(22), p.220501, (2019).
2. Zaiser, S., et al. Cyclic cooling of quantum systems at the saturation limit, Nature NPJ Quantum Information Journal, 7, 92 (2021).
3. Raeisi, Sadegh, Michele Mosca, and Maria Kieferova. "Method for decreasing entropy in a quantum system." U.S. Patent No. 10,560,096. 11 Feb. 2020.
4. PCT Application No. PCT/CA2023/050655
5. US Provisional Application No. 63/599,839
6. US Provisional Application No. 63/558,954



## Scalable Photon Detectors

Pixel Photonics is a deep tech startup from Germany developing and providing the next generation of superconducting nanowire single-photon detectors (SNSPDs) for quantum applications. Based on the culminated research of more than a decade the team works at the cutting edge of technology, enabling quantum applications of tomorrow.

- Incorporated: 2021
- Employees: 37
- Country: Germany

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

Nomcontact +49 251 83 63 835

### Value creation proposal

Scaling Quantum Technologies, particularly increasing the number of Qubits, is a critical milestone for driving the Quantum Revolution 2.0. Approximately 70% of competing quantum computing approaches and various quantum technologies like QKD rely upon the efficient and rapid detection of small light signals or single-photons, making photon detectors a key component for such systems.

Our unique approach allows us to provide, highly efficient SNSPDs in a scalable way, offering a scalable light detection solution for quantum applications such as QKD and Quantum Computing.

Leveraging a platform-agnostic design allows seamless integration of our technology within existing quantum computer environments either as modules or directly on almost any quantum computing platform, significantly enhancing the capabilities and performance of these quantum computing systems.

### Management team



**Nicolai Walter,**  
CEO

- Physicist, KIT, WWU
- PhD topic »Completely integrated Quantum Circuits«
- Co-Founder



**Wladick Hartmann,**  
CTO

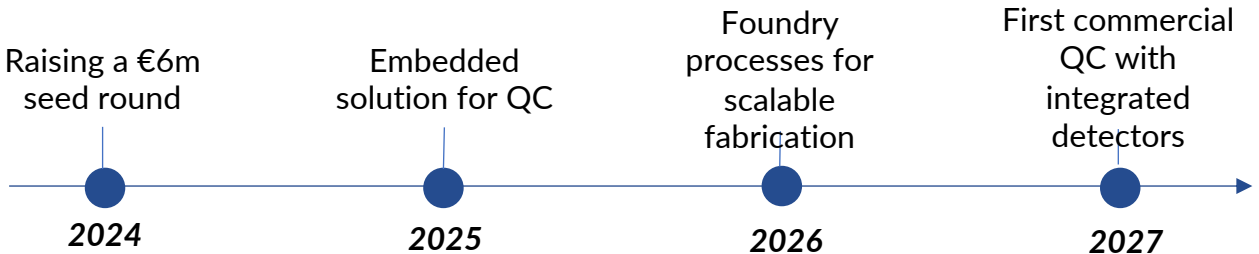
- PhD in physics from WWU
- Innovation Prize NRW 2022
- Co-Founder



**Christoph Seidenstücker,**  
CFO

- Business Chemist
- Serial Founder
- Co-Founder

### Simplified roadmap

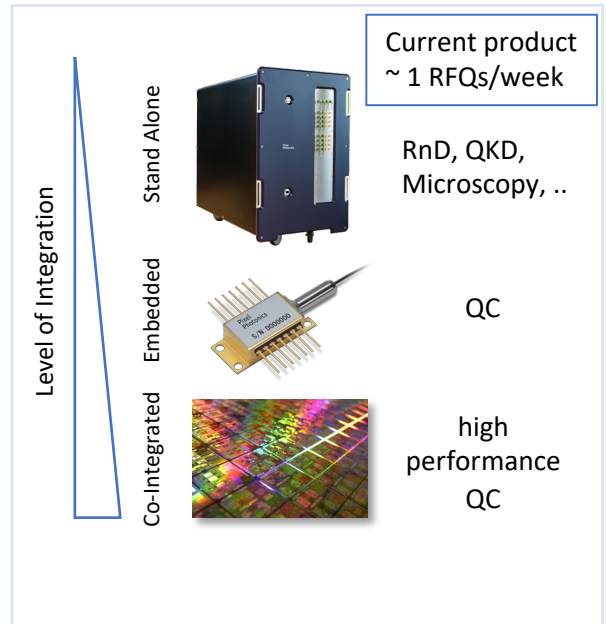




## Commercial/Potential use case

The commercialisation of Pixel Photonics' products can be divided into three major parts.

- Standalone single-photon detection solution for the end-customer, e.g. QKD supplier, academic market, fluorescent microscopy applications. ~100 systems per year (5 Systems sold in 2023, limited by manufacturing capabilities)
- Embedded solutions for quantum computing companies: Electronics and software for the integration of detector modules within existing QC system
- Full integration on the QC platform of choice: chip- or chiplet- level direct integration to further increase scalability



*Different levels of integration for different use cases enables early adoption of technology*

## References

- [Why I am optimistic about the silicon-photonic route to quantum computing](#)
- [High-speed and high-efficiency travelling wave single-photon detectors embedded in nanophotonic circuits](#)
- [Broadband waveguide-integrated superconducting single-photon detectors with high system detection efficiency](#)
- [Detector-integrated on-chip QKD receiver for GHz clock rates](#)
- [Scaling waveguide-integrated superconducting nanowire single-photon detector solutions to large numbers of independent optical channels](#)
- [Broadband Spectrometer with Single-Photon Sensitivity Exploiting Tailored Disorder](#)
- [Waveguide-integrated superconducting nanowire single-photon detectors](#)



## Beyond measure

Qnami is a quantum sensor company providing the highest precision data to the industry.

- Incorporated: 2017
- Employees: 25
- Country: Switzerland

[www.qnami.ch](http://www.qnami.ch)

Mathieu Munsch +33 6 84 20 95 60

### Value creation proposal

Sensors are a key component of the digitalization and a global market expected to reach \$170B+ by 2030. With their high precision, high sensitivity, quantum sensors are particularly suited for a range of use cases which will grow to \$25B-40B in the same period. Examples include nanoscale defect inspection of semiconductor wafer, anti-submarine warfare and biomagnetic imaging.

Qnami is a uniquely portable, compact and scalable quantum platform for sensors application. Our technology leverages NV centers in diamond to provide best resolution and sensitivity in a compact form factor and without the need for cryogenics.

### Founding team



**Mathieu Munsch**  
Cofounder, CEO

- Advisor singularity fund (CH)
- Strategic committee 1bn European Quantum Flagship



**Patrick Maletinsky**  
Cofounder

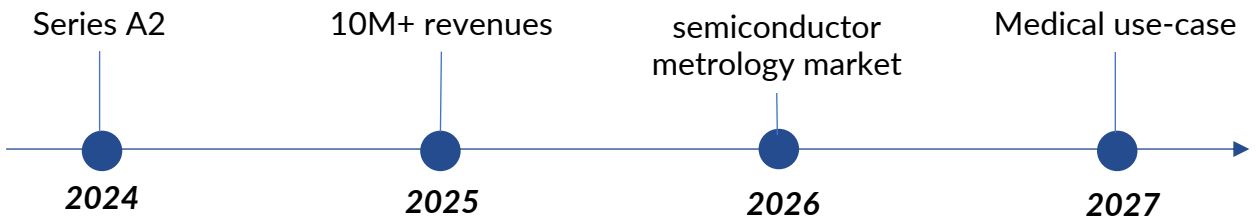
- Prof. University of Basel
- Director Swiss Nanoscience Institute



**Felipe Favaro**  
Cofounder, CTO

- PhD Quantum materials
- Head of quantum foundry

### Simplified roadmap



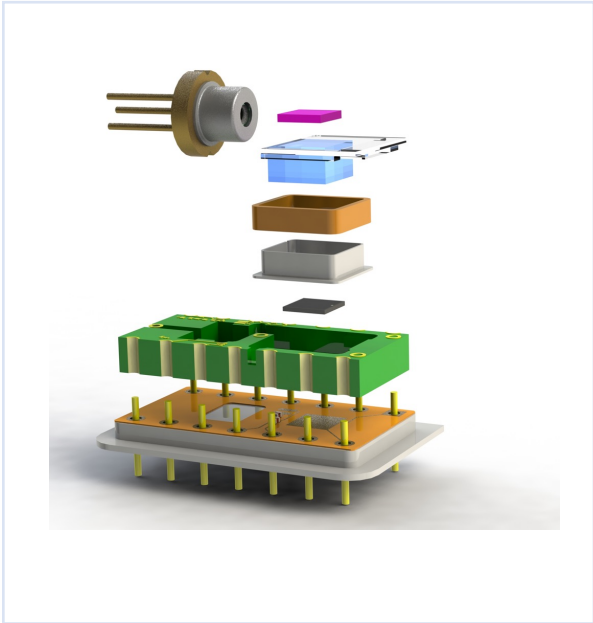


## Commercial/Potential use case

In the semiconductor industry, the reduction in node size is driven by AI applications and the demand for memory capacity. Metrology needs are lagging behind resulting in increasing cost for technology development. NV centers have unique advantage to provide the required atomic level sensitivity.

In defense, undersea surveillance and navigation in GPS denied environment are use cases demanding more precision than currently available from classical sensor technologies.

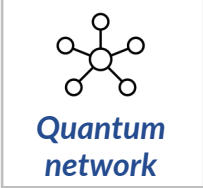
In neurotechnology, major milestones are being achieved in the development of a brain computer interface. Classical sensor technology however require implants to be positioned directly on the brain. Owing to higher sensitivity, quantum sensors open an avenue for non-invasive brain computer interface.



Diamond quantum sensor

## References

- [https://qnami.ch/wp-content/uploads/2020/07/Qnami\\_WhitePaper1\\_NV\\_magnetometry-5.pdf](https://qnami.ch/wp-content/uploads/2020/07/Qnami_WhitePaper1_NV_magnetometry-5.pdf)



# Post Quantum Cryptography (PQC)

CryptoNext, spin off from Inria, CNRS and Sorbonne University, provides post quantum cryptography software solutions to address the quantum threat and help organizations to smoothly migrate their IT/OT infrastructures to quantum safe.

- Incorporated: 2019
- Employees: 20
- Country: France

[www.cryptonext-security.com](http://www.cryptonext-security.com)

## Value creation proposal

Quantum computers pose a systemic threat to our cybersecurity : they will be able to break the public key cryptosystems that secure Internet networks (https, IPsec VPN), mobile messaging apps (Signal, WhatsApp...), digital signature protocols, blockchain applications, etc...

A practical approach against this threat is to build quantum-resistant public key crypto-systems.

CryptoNext Security provide its leading Quantum Safe Remediation Suite, based on its world reference Post Quantum Library to upgrade IT infrastructures and embedded products to quantum safe.

## Executive team

### Jean-Charles Faugère - Founder & CTO



- Pioneer in Post Quantum Cryptography academic research
- Senior Scientist INRIA
- ENS Ulm + PhD Computer Science

### Florent Grosmaître - CEO



- 15+ years of entrepreneurial experience in software industry
- Arts et Métiers + HEC Entrepreneurs

### Christian d'Orival - Chief Revenue Officer



- 30 years of executive, business development and revenue operations for FR and US entities
- Institut Supérieur d'Electronique Paris

### René Martin - Chief Product Officer



- 30 years of technical & business unit lead (Atos Trustway) in cyber field.
- DESS Computer Science Paris

## Simplified roadmap

Pre-seed round  
Tech + pilots

Seed round 11 M€  
Industrialization

Going  
into production – business  
acceleration

2020

2023

2025 - 2026



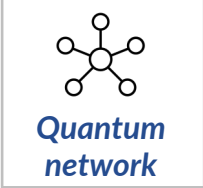
## Commercial/Potential use case

The impact of the quantum threat is systemic. All organization are concerned and will have to migrate their IT/OT infrastructure to quantum safe cryptography in the next few years.

Example of use cases already deployed:

- Quantum resistant time stamping to secure contracts digitally signed between banks and their clients.
- Quantum resistant VPN to secure interbanking communications, against harvest now, decrypt later principle.
- Quantum Safe Messaging App to secure enterprise communications
- Quantum resistant OTA (Over The Air) updates to secure firmware updates on IoT & embedded products
- Quantum Resistant TLS to secure SaaS business application

 Secured web	 VPN
 Mobile messaging	 Payments
 Web-conference	 Digital Signature
 Identity - PKI	 Blockchain



# Quantum-Safe Cyber Security

evolutionQ is the quantum-safe company. We combine PQC and QKD to protect organizations using our next generation, scalable cybersecurity software solutions that provide cryptographic defense-in-depth and protect organizations from the risk of public-key cryptography being compromised.

- Incorporated: 2015
- Employees: 35
- Countries: Canada, Germany

www.evolutionq.com  
+1 (647) 499-0747

## Value creation proposal

## Founding team

evolutionQ leads the charge in quantum-safe security software. Our solutions enable customers to achieve unparalleled flexibility, and secure global reach.

BasejumpQDN™ provides strong quantum-safe security across satellite, free-space and terrestrial networks. QDN integrates networks to a global scale, reduces costs by avoiding hardware vendor lock-in, and optimizes network availability.

MultimodalKES™ utilizes a hybrid approach to protecting against classical and quantum attacks. KES combines classical cryptography and PQC to establish E2E encryption that is significantly stronger than other key establishment solutions.

With three US patents granted, and ongoing provisional patent filings, we are confident our technology is positioned to remain at the forefront of the quantum revolution.



**Michele Mosca**  
CEO

- Co-founder, Institute for Quantum Computing, University of Waterloo
- Co-founder, Quantum Industry Canada
- Doctorate in Mathematics, Oxford



**Norbert Lütkenhaus**  
CTO

- Executive Director, Institute for Quantum Computing, University of Waterloo
- PhD in Physics, University of Strathclyde



**David Jao**  
Chief Cryptographer

- Professor, Faculty of Mathematics, University of Waterloo
- PhD in Mathematics, Harvard

## Simplified roadmap

Merging quantum networks on the ground and in space.

Defense-in-depth quantum-safe networks combining QKD, PQC and OTP Technologies

Enabling service provider partners to offer efficient & affordable quantum networks

Certifiable quantum-safe security for high trust customers (government, regulated industries)







## Commercial use case

evolutionQ's primary focus lies in industries that must protect data in transit; such as financial services, aerospace, defense, critical infrastructure, and governments. We are serving these sectors both directly, and through service providers that help enable them. Early traction and success includes:

1. We guide organizations along their quantum-readiness journey, helping them to understand the quantum threat and timeline through our pioneering Quantum Risk Assessment (QRA), and through defence in depth and resilience by design approaches. We work to guide them towards taking action trialing quantum-safe solutions, including our own software.
2. Our flagship BasejumpQDN™ subscription software enables scalable deployments of hardware utilizing quantum-based cryptographic solutions. Our BasejumpSIM™ offering allows organizations to define and test similar systems through software only, limiting capital investments. The growing demand for quantum-safe solutions is reflected in our expanding portfolio of signed customer subscription agreements.
3. Our strategic collaboration with Nokia, a leading global telecom equipment manufacturer that is increasingly enabling encryption across their product line, allows us to offer our quantum-safe software as part of their approved Security Blueprint. This provides a turn-key offering across Nokia's extensive customer base, while expanding value to customers.
4. We announced our MultimodalKES™ offering in May 2024 and we are currently discussing early pilots with financial organizations, telcos, network equipment manufacturers, and cloud providers.

## References

- [2023 Quantum Threat Timeline Report](#)
- [The Quantum Security Era is Coming - Here's How Leaders Can Prepare For It](#)
- [Horizon Scan - Navigating the Quantum Economy](#)
- [Field Demonstration of a Fully Managed, L1 Encrypted 3 Node Network...](#)
- [Cyber Security Agency of Singapore Quantum Readiness Index \(QRI\)](#)
- [Bank of Canada Taps evolutionQ to Explore Impact of Quantum Computing...](#)
- [A Strategic Framework for Quantum-Cryptography in FuSSE](#)
- [BasejumpQDN Software Product Page](#)
- [Basejump SIM Software Product Page](#)
- [MultimodalKES Software Product Page](#)



## Quantum Security Technologies

Quantum computing is advancing rapidly and will be able to crack all the existing protections on our data and privacy. KETS develops quantum-safe chip-based encryption to protect critical data from all advanced computer attacks.

- Incorporated: 2016
- Core employees: 11
- Country: UK

[www.kets-quantum.com](http://www.kets-quantum.com)

### Value creation proposal

Every day, billions of people exchange digital keys to securely send data around the world. Lots of it is very, very valuable. None of these keys are quantum-safe and hackers are already storing valuable data in preparation for Q-Day.

Quantum threats require a quantum solution. Quantum key distribution (QKD) gives the best security promise for generating and distributing truly secure keys. Software alone is not enough.

Industry and experts agree. But you can't hope to secure all of our communications and data storage with large, expensive, power-hungry hardware. We need a scalable solution.

KETS has cracked this problem by pioneering the chip-based approach to quantum security enabling us to embed this security into billions of devices.

### Founding team



**Dr. Chris Erven**  
CEO

- Former Lecturer in Quantum Engineering and Deputy Director of QTEC
- PhD in Quantum Information from UW



**Dr. Philip Sibson**  
CTO

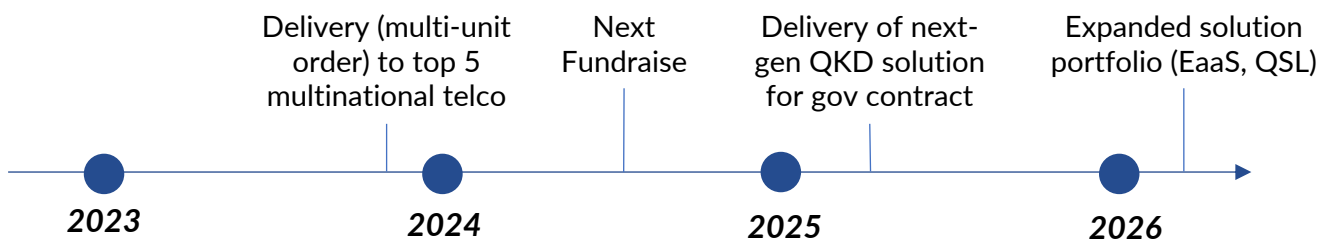
- Lead developer behind world's 1st chip-to-chip QKD demos
- PhD in Physics from UoB



**Dr. Jake Kennard**  
CAO

- 12 years experience in integrated quantum photonic comms
- PhD in Physics from UoB

### Simplified roadmap



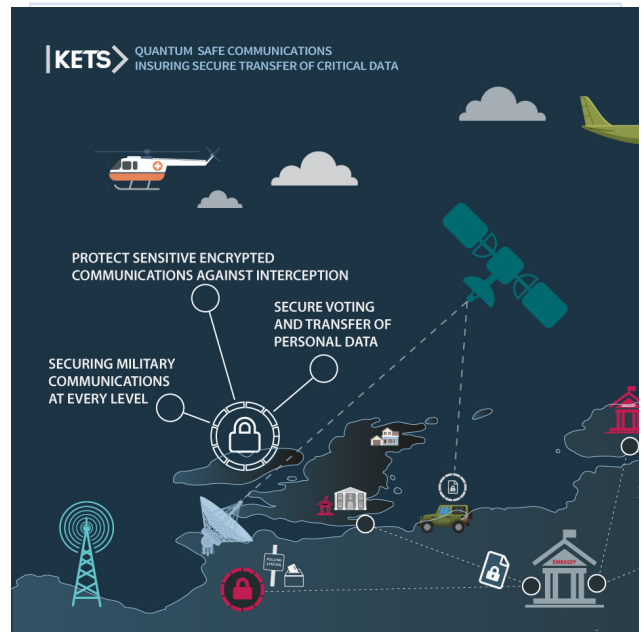


## Commercial/Potential use case

The QKD market will be worth \$10B by the end of the decade as every major quantum nation builds a quantum communication network.

The first high-value use-cases are in:

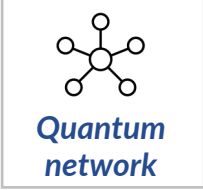
- Data centres – this is where our valuable data is stored and where high-value compute happens. We need to secure the links in and out.
- Telecommunications networks – network operators provide the infrastructure which we rely on to communicate with each other and with the cloud. We need to upgrade their services to be quantum-safe.
- Government and Defence – they have the high-value secrets we want to keep safe for decades. They are driving the initial construction of many of the first quantum networks.



Only KETS chip-based approach can ubiquitously secure critical data for Governments and Defence

## References

- [Chip-Based Quantum Key Distribution](#) – world's first chip-to-chip QKD demonstration
- [Integrated silicon photonics for high-speed quantum key distribution](#) – a GHz clocked silicon quantum key distribution transmitter
- [A homodyne detector integrated onto a photonic chip for measuring quantum states and generating random numbers](#) – a silicon quantum random number generator
- [Secure NFV Orchestration Over an SDN-Controlled Optical Network With Time-Shared Quantum Key Distribution Resources](#) – quantum secured Software Defined Networks (SDN)
- [Combining a quantum random number generator and quantum-resistant algorithms into the GnuGPG open-source software](#) – a quantum-safe digital document signing demo



## Quantum Network Technologies

memQ is developing technology that enables the networking of quantum modalities such as computers, sensors into a network. This is in addition to entanglement distribution. We are leveraging the power of rare-earth ions monolithically integrated with silicon photonics.

- Incorporated: 2021 (Ops: 2022)
- Employees: 6
- Country: USA

[www.memq.tech](http://www.memq.tech)

contact

+1 312 536 1855

### Value creation proposal

memQ is developing on-chip technology to generate, store and distributed entanglement. Our focus is on building this technology at the telecom C-band, where the photon loss is the lowest.

We are bringing all these capabilities to a single integrated photonic chip on technology that is already available at photonic foundries today.

### Founding team



**Manish Singh**  
CEO

- PhD in quantum science and Engineering from the University of Chicago
- TSMC R&D, Taiwan



**Sean Sullivan**  
CTO

- PhD in Material Science from University of Texas, Austin
- Post-doc at Argonne National Laboratory



**Supratik Guha**  
co-founder, advisor

- Professor of Molecular Engineering at University of Chicago
- PhD in Materials Science from USC

### Simplified roadmap

Raising a \$12MM fund

2024

Pilot and test runs w/ telecom partners

2025

Integrated Photonic Chip tapeout

2026

Launch with QC partners

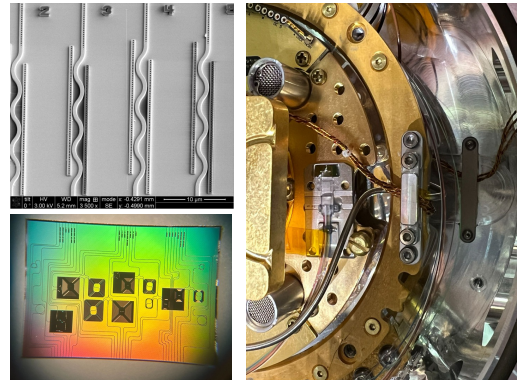
2027



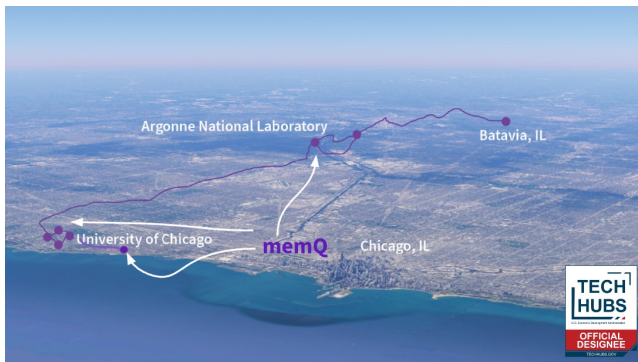
## Commercial/Potential use case

Our technology that allows for entanglement generation at telecom C-band is being used to develop solutions to problems in the telecom industry and in the larger position-navigation-timing (PNT) space.

By utilizing this same infrastructure that is used for data transfer, we also aim to connect quantum computers and sensors via optical interconnects.



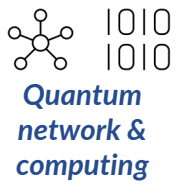
(top-left) memQ's nanophotonic devices used to engineer light-matter interface  
(bottom-left) Foundry fabricated test chip  
(right) Packaged device inside a cryostat



(left) memQ runs entanglement distribution on the Chicago Quantum Network (132 km)

## References

- A perspective on the pathway to a scalable quantum internet using rare-earth ions
  - <https://doi.org/10.1063/5.0156874>
- Quasi-deterministic localization of Er emitters in thin film TiO<sub>2</sub> through submicron-scale crystalline phase control
  - <https://doi.org/10.1063/5.0176610>



# Scaling quantum computing

QphoX is developing the hardware that will enable quantum processors to scale and interconnect, ushering in the era of high-performance, commercially useful quantum computing.

- Incorporated: February 2021
- Employees: 15
- Country: Netherlands

[www.qphox.eu](http://www.qphox.eu)

## Value creation proposal

By optically controlling qubits and creating remote entanglement links between distantly separated quantum processors using our patented Quantum Modem technology, QphoX presents the first viable solution for scaling the performance of today's most advanced quantum computers through connectivity and parallelization.

QphoX's technology is based on fully integrated devices that convert photons between microwave and optical frequencies. The platform provides the unique combination of efficiency, ultra-low noise, bandwidth and scalability.

QphoX's Quantum Modem will play an indispensable role in bridging optical quantum networks and quantum processors, serving as the gateway to the Quantum Internet.

## Founding team



**Simon Groeblacher**  
CEO

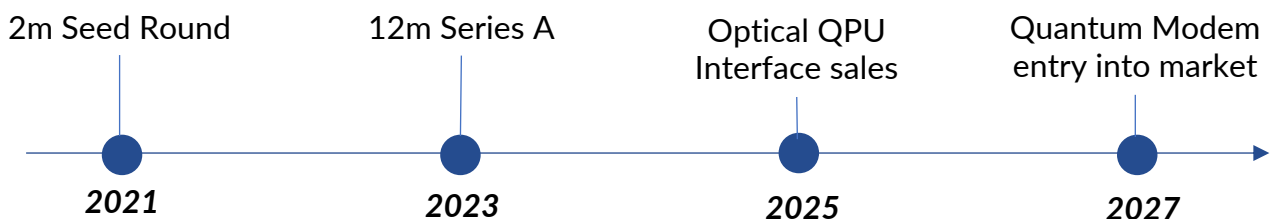
- Professor of Quantum Physics at TU Delft
- Postdoc in Physics at Caltech
- PhD in Physics from Vienna University

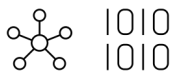


**Robert Stockill**  
CTO

- Marie Curie Fellow at TU Delft
- PhD in Physics from Cambridge University
- MPhys in Physics from Oxford University

## Simplified roadmap





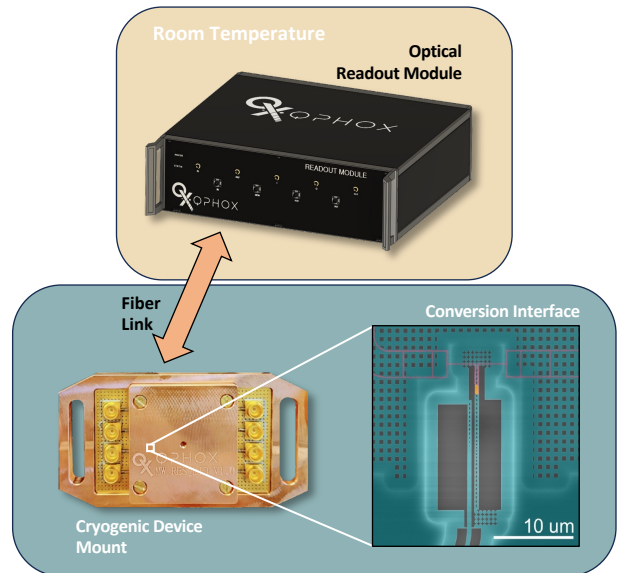
Quantum  
network &  
computing

## Commercial/Potential use case

Our Optical QPU Interface, an all-optical readout and control system, provides an immediate scaling solution for microwave quantum computing manufacturers, allowing larger processors to be built in a single cryostat by significantly reducing the generated heat-load.

By enabling remote entanglement links, our Quantum Modem will provide the ultimate solution in scaling quantum processors, linking them together via room-temperature fiber networks to realize large scale systems capable of practical applications.

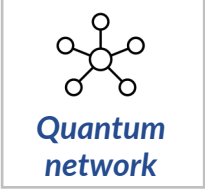
Wavelength conversion from a diverse set of quantum resources to a unified telecom frequency standard allows for key advancements in quantum information processing (e.g. interconnecting memories and processors) and will enable the first applications on the Quantum Internet.



QphoX Optical QPU Interface

## References

- [An integrated microwave-to-optics interface for scalable quantum computing](#)
- [Ultra-low-noise microwave to optics conversion in gallium phosphide](#)
- [Microwave-to-optics conversion using a mechanical oscillator in its quantum ground state](#)



# Enabling the Quantum Internet

Qunnect is innovating products to transform the existing telecommunications infrastructure into scalable quantum networks to support ultra-secure communication, distributed quantum sensing and computing. We build the foundation for the Quantum Internet

- Incorporated: Nov.18, 2017
- Employees: 20
- Country: USA & NL

[www.qunnect.inc](http://www.qunnect.inc)

## Value creation proposal

Qunnect innovates hardware to transform existing telecommunications fiber into quantum networks. In 2021 we were the first company in the world to commercialize a quantum memory that operates without the need for extreme cooling or vacuum, addressing a significant barrier to scaling these technologies. We followed this achievement with the release of an entanglement source, the only commercial device producing high rate, narrow linewidth photons to natively interface with quantum devices (memories, sensors, computers) and telecom fiber.

Qunnect's products have been tested on Gotham Q, a commercial-grade fiber network in NYC. Qunnect demonstrated sustained generation, distribution & preservation of entanglement over weeks of continuous operation. Such metrics are the key to enabling protocols for real-world networking and future use cases.

## Founding team



**Noel Goddard**  
CEO

- Investor, Accelerate New York Seed Fund
- Serial Entrepreneur
- Professor of Physics Hunter College, CUNY



**Mehdi Namazi**  
CSO

- Fellow, Yale University Quantum Institute
- PhD in Quantum/AMO Physics, Stony Brook University



**Maël Flament**  
CTO

- Serial Entrepreneur
- MS in Physics Instrumentation, Stony Brook University

## Simplified roadmap

\$1.5M in orders; Strategic partnerships with Industry & Gov; Raising \$20M Series B

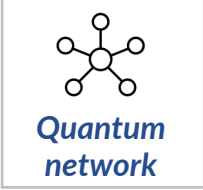
Developing protocol specific QU-Racks; Scaling sales & manufacturing; Industry hardening product designs

Sales of protocol specific QU-Racks; Commercialization of Quantum Repeater Rack

Acquisition or Series C Raise







## Commercial/Potential use case

Qunnect has spent the past 4 years addressing the core challenges in commercializing quantum networking. Quantum networks must be able to reliably distribute useful qubits across the network, while maintaining high fidelity. For practical applications, these devices must be telecom compatible, adopt a standard form factor, require little maintenance, and be remotely monitored/controlled through software.

In Q2, Qunnect announced record-breaking performance of their components distributing entanglement over their GothamQ Network in NYC. We achieved 15+ days of continuous operation with as high as 500k pairs/s preserved post-transmission, at 99% fidelity and 99% network uptime. In 2024 the company will launch QU-RACK Gotham, a system to enable users to replicate this protocol on any fiber testbed.

Having developed the core infrastructure suite, we will turn our attention to use-case protocols in cybersecurity and sensing. Future QU-RACKs will be dedicated to performing these protocols for our customers in defense, critical infrastructure, data centers and finance.



**Top Panel** – Qunnect’s Gotham Q network spanning Manhattan, Brooklyn and Queens. **Lower Panel** - QU-RACK GOTHAM enables users to replicate the entanglement distribution protocols performed on the Gotham Q network in NYC.

## References

- [Field-deployable quantum memory for quantum networking](#)
- [High-rate sub-GHz linewidth bichromatic entanglement source for quantum networking](#)
- [Automated distribution of high-rate, high-fidelity polarization entangled photons using deployed metropolitan fibers](#)



# VeriQloud

VeriQloud's vision is to address cybersecurity in a quantum world. To address the quantum threat, we develop solutions that secures data in-transit and at-rest. We also contribute to building a quantum internet connecting quantum resources all over the world.

- Incorporated: 2017
- Employees: 10
- Country: France

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

Marc Kaplan +33 6 64 96 84 67

## Value creation proposal

VeriQloud has developed quantum safe solutions for communication and storage. These solutions can be used to create a distributed cloud infrastructure that ensures the long-term and quantum-proof security of the data.

Our solutions are also compatible with future evolutions, especially when quantum computers will be connected to quantum networks. In this case, our technology will allow a lightweight client to encrypt a computation delegated to a quantum computer. This directly address the privacy issue of quantum computing, making it possible to boost customer's confidence in quantum cloud solutions.

## Founding team



**Marc Kaplan**  
CEO

- Research fellow at U of Montréal
- PhD in Computer science at Université Paris Saclay



**Elhham Kashefi**  
CSO

- Research director CNRS
- Professor U of Edinburgh
- PhD in Computer Science at Imperial College



**Josh Nunn**  
Scientific advisor

- CTO ORCA Computing
- Reader U of Bath
- PhD in Physics at Oxford University

## Simplified roadmap

Quantum safe datacenter demonstrated

2024

Secure quantum cloud computing demonstrated

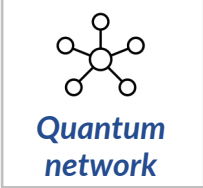
2025

Quantum-safe data management deployed

2026

Secure quantum cloud computing publicly available

2027



## Commercial/Potential use case

Qasmat is a distributed cloud solution that ensures long-term security of the data. It is already available and can be deployed seamlessly in multi-cloud environment. This ensures the highest protection for data in healthcare, finance or governments. It can be downloaded for testing from [veriquad.github.io](https://veriquad.github.io).

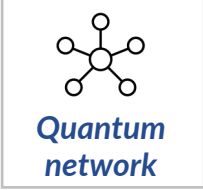
Using similar techniques, we are developing the QEnclave, a trusted execution environment for quantum computers. This technology adds a layer of privacy to quantum computing, a strong differentiating factor for quantum hardware providers. Using our QEnclave, quantum computers can execute programs in a cloud environment without jeopardizing their customers' data.



*This picture shows how Qline can be used to realize the last-mile of quantum networks*

## References

- [Establishing shared secret keys on quantum line networks: protocol and security](#)
- [Privacy-enhancing techniques on quantum networks](#)
- [Multi-client distributed blind quantum computation with the Qline architecture](#)
- [QEnclave -- A practical solution for secure quantum cloud computing](#)



## Quantum interconnects

Welinq is a Paris-based spin-out from Sorbonne Université, CNRS, and PSL-university. The company provides quantum links based on cold-atom quantum memories to interconnect quantum processors and ensure access to quantum computing at a distance. Welinq develops, deploys, and operates its full stack quantum link solution in quantum computing and quantum communication infrastructures and develops end-user-oriented algorithms for multi-core and distributed quantum computing.

- Incorporated: 25th Jan. 2023
- Employees: 15 FTEs
- Country: France

[www.welinq.eu](http://www.welinq.eu)

### Value creation proposal

Welinq interconnection solutions enable:

- **The scale-up of quantum computing:**  
Interconnecting quantum computers with quantum links allows to increase the number of qubits available for computation, overcoming the limitations of individually-taken quantum computers.
- **Short-cuts to error correction:**  
Connecting Quantum Memories to QPUs and interconnecting QPUs between each other will allow more diverse and enhanced error-correction strategies.
- **Quantum information networks:**  
Efficient quantum memories are the key missing asset for enabling entanglement-based networked quantum computing and long-distance quantum communications.

### Founding team



**Tom Darras**  
CEO

- Hello Tomorrow Winner
- PhD in Quantum Physics



**Julien Laurat**  
CSO Hardware

- Professor at Sorbonne Univ.
- PhD in Quantum Physics



**Eleni Diamanti**  
CSO Protocols

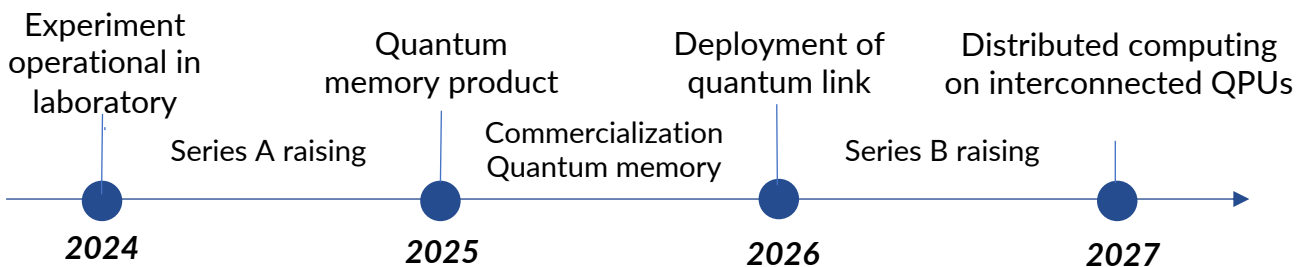
- CNRS Research Director
- PhD from Stanford



**Jean Lautier-Gaud**  
Business Development

- MBA Collège des Ingénieurs
- PhD in Quantum Physics

### Simplified roadmap





## Potential use case

- Quantum computer interconnects for multi-core quantum computing:

To providers of quantum computing, Welinq delivers a fullstack quantum link solution to reach quantum computational advantage for industry use-cases in multi-QPU architectures.

- Entanglement creation between remote quantum memories in a quantum network:

By deploying quantum memories in fiber-based quantum networks, Welinq can implement entanglement-based quantum communications with no limitation in achievable distance

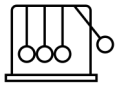
**All these is made possible by Welinq's unique industry-grade quantum memory technology.**



*Schematic of Welinq's world record quantum memory product, integrated in a 19-inch rack and deployable in quantum computing and quantum communication infrastructures.*

## References

- [Efficient reversible entanglement transfer between light and quantum memories](#), Optica, **7**, 1440 (2020).
- [Highly-efficient quantum memory for polarization qubits in spatially-multiplexed cold atomic ensemble](#), Nature Communications, **9**, 363 (2018)
- [Functional quantum nodes for entanglement distribution over scalable quantum networks](#), Science, **316**, 5829, (2007)
- [A quantum bit encoding converter](#), Nature Photonics, **17**, 165, (2023)
- [Quantum Internet: A vision for the road ahead](#), Science, **362**, 6412, 2018



# Chemical sensing with photonic chips

InSpek is bringing the benefits of integrated photonics to industrial sensing. With chip-based sensors that are cheaper, smaller, and more sensitive than current sensors, InSpek aims to decrease the costs and environmental footprint of processes in the biotech industry.

- Incorporated: 2021
- Employees: 8
- Country: France

[www.inspek-solutions.com](http://www.inspek-solutions.com)

## Value creation proposal

Bioprocessing consists in using living organisms such as cells or yeasts to make useful products. Yet the complexity of these processes results in a low yield, with error rates sometimes as high as 30%, amounting in billions lost yearly by pharmaceutical companies. Models to simulate and optimize those processes aren't available because of the lack of representative, comprehensive data and precise understanding of what happens in bioreactors.

By using optical chips, InSpek is providing the first comprehensive, real-time sensors for bioprocessing. The will have a dual impact on process efficiency: first by enabling real-time process control, second by paving the way for bioprocess models that will shorten the development times and improve process yields. We believe these improvements will be key in turning the promises of synthetic biology into reality.

## Founding team



**Jérôme Michon**  
CEO

- PhD in Materials Science & Engineering from MIT



**Ivan-Lazar Bundalo**  
CTO

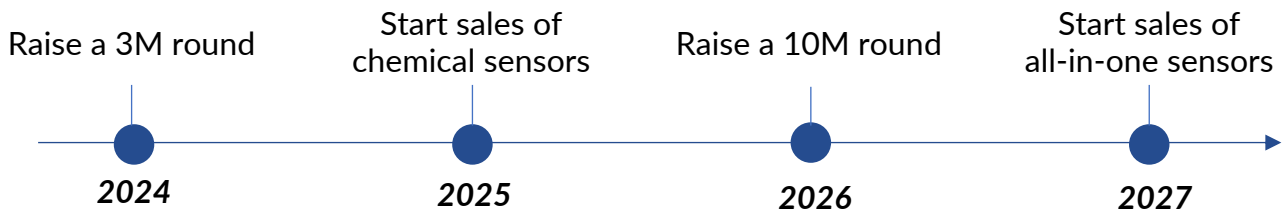
- PhD in Optical Sensing from DTU

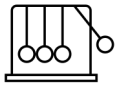


**Laurent Vivien**

- Head of Photonics department at C2N
- Research Director at CNRS

## Simplified roadmap

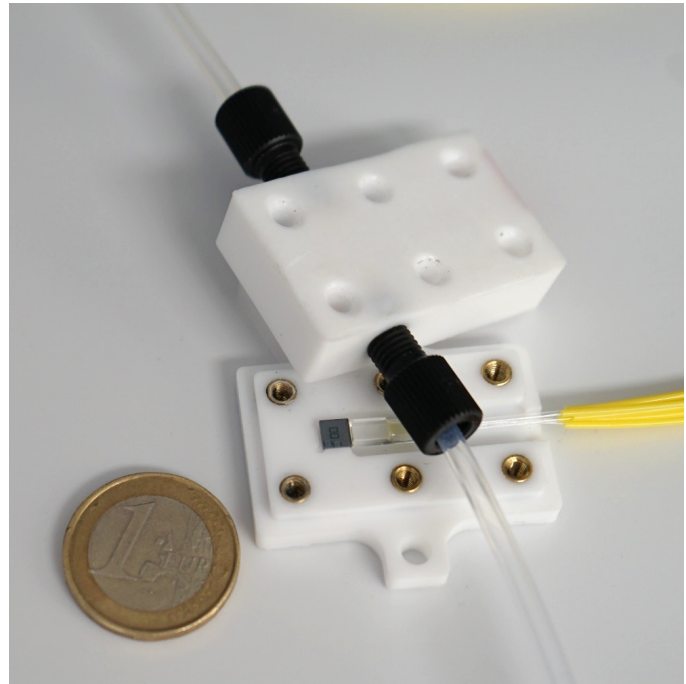




## Commercial/Potential use case

InSpek's chip-based sensors will be used by biochemical engineers during the R&D and production phases of bioproducts. The sensors can be placed directly within bioreactors, with the system connected to the bioreactors' control system, to provide real-time information about the chemical composition inside the bioreactors and thereby enable real-time feedback.

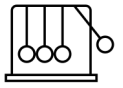
Thanks to their small size and very small volume required for analysis, the sensors can also be used during the purification steps of the product. They are then integrated in a flow cell and provide real-time information about the composition of the liquid. This can be used to detect when the purification has reached its objective, and thus avoid running the reaction for too long and wasting reagents.



*This picture shows a chip-based sensor integrated in a flow cell, for measurement of small volumes of liquids.*

## References

- [Waveguide-enhanced Raman sensors for bioprocess monitoring](#)
- [A packaged, fiber-coupled waveguide-enhanced Raman spectroscopic sensor](#)
- [Sensitivity comparison of free-space and waveguide Raman for bulk sensing](#)
- [From Lab to Fab: The Journey of Waveguide-Enhanced Raman Spectroscopy](#)



## Generative AI

LightOn is a leader in Large Language Models, as an alternative to OpenAI's GPT3 / ChatGPT, both in the construction of some of the world's best models, and in their use in the Enterprise context.

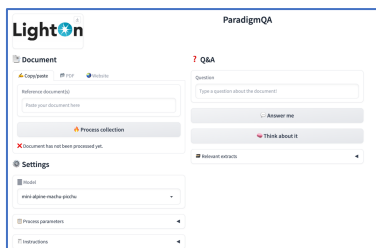
- Incorporated: 2016
- Employees: 37
- Country: France

<https://LightOn.ai>

### Value creation proposal

LightOn develops Paradigm, a turnkey platform for Enterprises to leverage the incredible power of Large Language Models for large productivity gains across business units

- **deploy**, in a secure-by-design way : Paradigm is installed within the customer's infrastructure.
- **use** : Paradigm lets you design optimal prompting strategies.
- **customize** : endless customization options for your use cases, with your data, on your infrastructure.



### Founding team



**Laurent Daudet**  
Co-CEO

- Ecole Normale Supérieure graduate
- PhD in Applied Mathematics
- University Professor at Paris Cité (on leave)



**Igor Carron**  
Co-CEO

- Ph.D from Texas A&M University
- Engineering degree from INPG
- co-organizer of the Paris Machine Learning meetup,

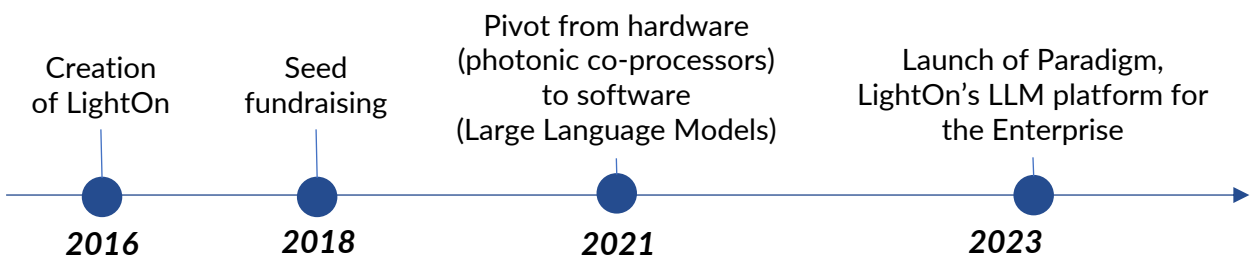
**Sylvain Gigan**

- Professor Sorbonne advisor

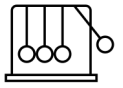
**Florent Krzakala**

- Professeur EPFL advisor

### Simplified roadmap







## Commercial/Potential use case

Paradigm: A platform for your Generative AI team

Build powerful prompt and fine-tune models for increased accuracy with no effort. Evaluate your AI's performance using Paradigm robust framework. Boost revenue with LightOn, offering tailored solutions and expert guidance for navigating AI advancements.

Privacy: With Paradigm, we take the security of your data, IP, and privacy seriously by offering a platform that can be deployed in your infrastructure.

Easy to serve: With the control tower feature, comprehensive dashboards, prompt management services, fine-tuning tools and exceptional support, our turnkey platform is designed to make managing and optimizing your language model deployment effortless.

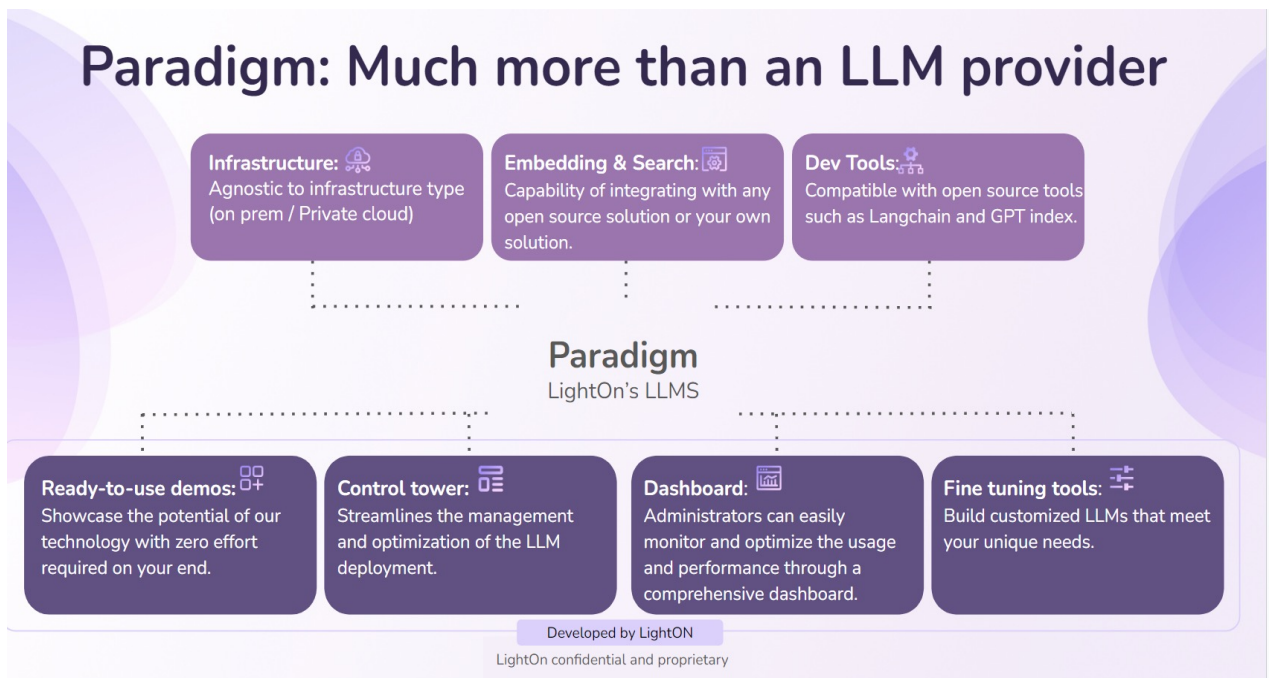
Rapid Customization: Based on your own usage and human feedback, Paradigm can rapidly build custom versions of an already powerful LLM into the engine of your growth.

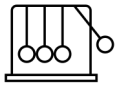
Positive Outcomes:

Data governance is yours

Reduce time to applications and automate tasks

Provides a competitive advantage





Deep physics

# Tunable Mid-Infrared Devices

Tailor-made infrared metamaterial systems, including multi-gas sensors with record sensitivity and specificity in chemically complex environments.

- Incorporated: May 21, 2022
- Employees: 4 FTE, 2 PTE
- Country: USA

<https://www.sensoriumtl.com>

## Value creation proposal

Sensorium Technological Laboratories (STL) specializes in the design and production of tunable infrared (IR) materials based on nanophotonic research. The core value creation lies in its exceptional ability to design components with arbitrary IR response. This opens a wide range of applications, for environmental monitoring, manufacturing, defense, and healthcare.

For gas detection, Sensorium's expertise allows the creation of precisely tailored emitters and filters to match desired spectral waveforms. They are cultivating strategic partnerships with leading organizations in the semiconductor industry and greenhouse gas monitoring. Sensorium is actively researching the potential of their technology for radiative cooling, which hold tremendous potential for the Middle East, enabling them to meet their sustainability commitments. STL is pushing technological boundaries and is positioned to be a key player in shaping the future of nanophotonics while creating value and fostering a more sustainable world.

## Founding team



**Joshua Caldwell**  
CEO

- Prof. Mechanical Engineering, Director of Interdisciplinary Materials Science
- PhD in Physical Chemistry – University of Florida



**Simone De Liberato**  
CTO

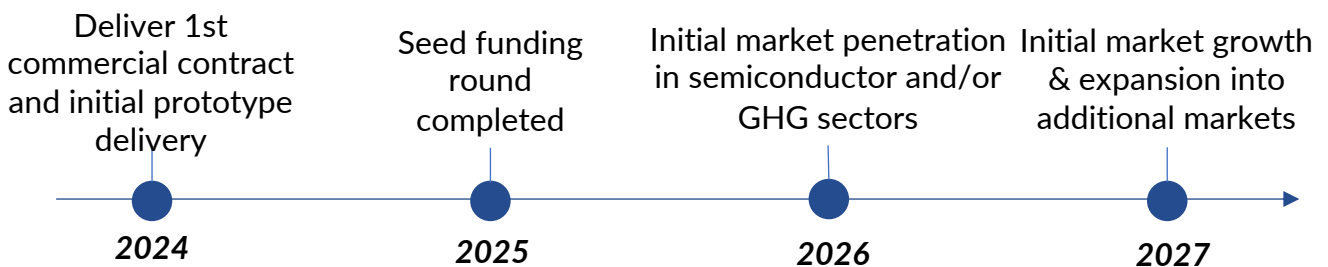
- Prof. Quantum Nanophotonics
- Ph.D. in Theoretical Physics – Paris Diderot

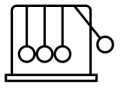


**Davide Venturelli**  
Business Advisor

- Assoc. Director Quantum Technologies, USRA/NASA
- Ph.D. in Nanophysics – Grenoble, SISSA

## Simplified roadmap



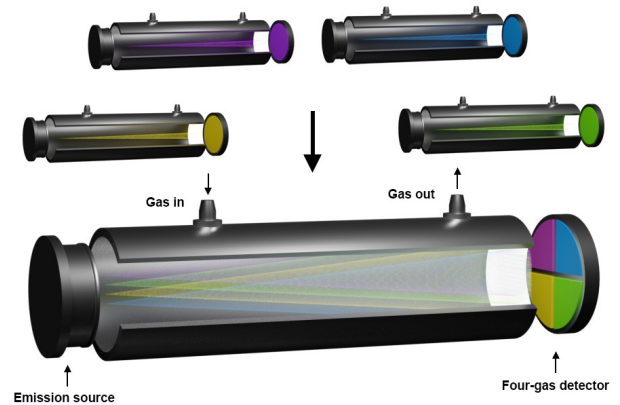


## Commercial/Potential use case

Current industrial gas sensing relies on high-cost/large components like Fourier transform infrared (FTIR) spectrometers, or small-footprint, low-cost components like non-dispersive infrared (NDIR) sensors. Yet, NDIR is not sufficiently chemically specific leading to high false positive rates, as well as limited sensitivities (typically ppm), not suitable for most advanced applications like semiconductor growth or eddy correlation measurements for greenhouse gas flux measurements.

Tamm-Sense is STL's first product. It offers a spectrally tailored emitter and/or detector to match the IR absorption of a specific gas eliminating the trade off between sensitivity and selectivity, while dramatically improving the ultimate sensitivity levels. This is achieved through a proprietary algorithm performing an inverse design of the components. Further, this enables the opportunity for multiple gases to be detected within a single OEM platform.

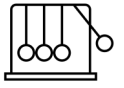
# Tamm-Sense



*This schematic highlights the concept of the Tamm-Sense design. Instead of individual NDIR sensors each tuned to a given gas of interest with limited sensitivity, the Tamm-polaritons at the heart of STL tech offer the ability to directly match an arbitrary waveform rather than a single vibrational band. This dramatically improves sensitivity, selectivity, and the ability to combine multiple sensors into a single platform reducing overall footprint and cost.*

## References

- [Coupled Tamm Phonon and Plasmon Polaritons for Designer Planar Multiresonance Absorbers](#)
- [Deterministic inverse design of Tamm plasmon thermal emitters with multi-resonant control](#)



Deep physics

# Transforming care with ultrasound data

Driven by a powerful ambition to address unsolved medical issues, Resolve Stroke turns ultrasound into life-saving data

- Incorporated: 2022
- Employees: 11
- Country: France

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

Aritz Zamacola +33 6 30 79 44 70

## Value creation proposal

Resolve Stroke is at the forefront of a new healthtech field aimed at extracting drastically more information from ultrasound raw data leveraging software-based ultrasound systems. From Imaging to Genomics, data is pivotal to enhancing accessibility & precision of treatments.

Today, lack of imaging kills and leads to countless unmet medical needs. Enabling diagnosis and providing it in the right place at the right time will save lives.

We now have access to incredibly rich ultrasound data that have the potential to make-life saving discoveries possible through the development of new biomarkers.

## Founding team



**Aritz Zamacola**  
CEO

- Former key member of the Roland Berger Healthcare practice
- MSc in biomedical Imperial College London, Centrale Supélec, HEC Paris



**Vincent Hingot**  
CTO

- Expert in software-based ultrasound
- PhD in Biomedical ultrasound from Sorbonne Uni.
- Visiting student Harvard



**Olivier Couture**  
CSO

- ULM tech. inventor
- Research director @CNRS
- PhD, Toronto Uni. Canada

## Simplified roadmap

First clinical studies

Seed round

Market entrance

New applications

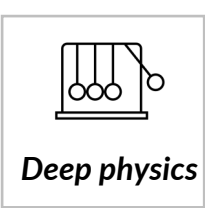


2024

2025

2026

2027



Deep physics

## Commercial/Potential use case

Our name outlines one of our key ambitions: to provide the Stroke diagnosis at patient's bedside and improve the outcome of the 70% of the 14 m stroke patients that are today diagnosed too late.

We are transforming global care step by step starting by Neurocritical care. We achieved a fast-track agenda introducing the first 3D brain ultrasound device for Intensive Care Units.

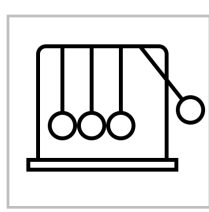
We are just scratching the surface of understanding the impact of our development, with already strong demand for clinical partnerships for other applications. Our ability to monitor blood flow in detail opens up vast prospects: from tumor monitoring to transplant management.



*This picture outlines Resolve Stroke's clinical data acquisition platform and its ultrasound « engine »*

## References

- [3D transcranial ultrasound localization microscopy for discrimination between ischemic and hemorrhagic stroke in early phase](#)
- [Ultrafast ultrasound localization microscopy for deep super-resolution vascular imaging](#)
- [Deep Learning-Based Microbubble Localization for Ultrasound Localization Microscopy](#)



## Pioneering quantum materials for energy storage

Quantum materials have been widely investigated for applications in particular for quantum computing and topological electronics. At Pioniq we take advantage of 10 years of academic research on quantum materials for designing Li-free, Co-free, Ni-free, safe and sustainable disruptive energy storage solutions powered by quantum phenomena.

[www.pioniq-technologies.com](http://www.pioniq-technologies.com)

Contact : Brigitte Leridon

- Incorporated: 2023-12-26
- Employees: 5
- Country: France

### Founding team

### Value creation proposal

Reliable and performing electrical energy storage solutions are required for accelerating the energy transition. However the rise in demand for electric vehicles and for the internet of thing poses major challenges regarding the availability of critical materials (such as Li, Co, Ni..) and the safety of Li-based or Na-based devices.

At Pioniq we combine advanced ab-initio calculations and simulations, material synthesis and characterizations and extensive device testing to identify and integrate selected quantum materials in order to design solid-state batteries and supercapacitors without any critical raw material.



**Brigitte Leridon**  
CEO

- CNRS Researcher in Quantum Materials
- PhD in Physics from ENS and Sorbonne Université, Eng. ESPCI Paris



**Rémi Federicci**  
CTO

- Ex-Project leader at NextDot
- PhD in Physics from ESPCI Paris and Sorbonne Universités



**Clément Barraud**  
COO

- Associate Professor in Quantum Physics at UPC
- PhD in Physics from Sorbonne Université
- ex-CSO/advisor at Happy Electron/Kinetik VC (UK)

### Simplified roadmap

Raising a 1.5m pre-seed round

Thin film demonstration

Thin film battery prototype + Seed round

Commercialization

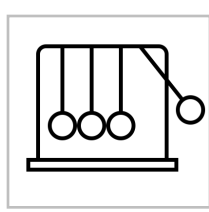
2024

2025

2026

2029





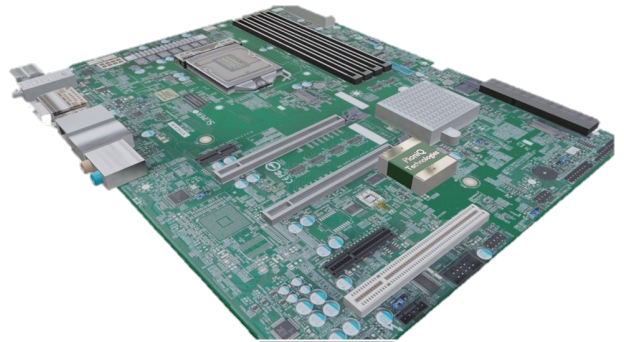
## Commercial/Potential use case

At Pioniq Technologies we design solid-state batteries and supercapacitors.

The use of solid crystalline quantum materials as advanced solid electrolytes makes possible the design of on-chip supercapacitors and batteries. These are extremely promising for micro-electronics in particular in the defense, IoT and IIoT sectors.

In a second stage, we will design bulk energy storage systems for mobility and stationary storage of renewable energies.

Our business model includes direct sale of products, licensing and service to custom-design high-performance electrical energy storage solutions.



*This picture outlines the possibility of integration of Pioniq products onto an electronic circuit board.*

## References

- [R. Federicci et al., Phys. Rev. Materials, 1 \(2016\) 032001](#)
- [R. Federicci et al., Journal of Applied Physics, 124\(15\) \(2018\) 152104](#)
- [R. Federicci et al., Acta Cryst. B73 \(2017\) 1142](#)
- [R. Rani et al. Materials Letters 258 \(2020\) 126784](#)
- [S. de Sousa Coutinho et al., Solid State Ionics 264 \(2021\) 115630](#)
- [S. de Sousa Coutinho et al., Solid State Ionics 333 \(2019\) 72](#)
- V. Di Giorgio et al. , in preparation (2024)
- M. Arnaud et al., in preparation (2024)



# Scaling quantum computing

QphoX is developing the hardware that will enable quantum processors to scale and interconnect, ushering in the era of high-performance, commercially useful quantum computing.

- Incorporated: February 2021
- Employees: 24
- Country: the Netherlands

[www.qphox.eu](http://www.qphox.eu)

## Value creation proposal

By optically controlling qubits and creating remote entanglement links between distantly separated quantum processors using our patented Quantum Modem technology, QphoX presents the first viable solution for scaling the performance of today's most advanced quantum computers through connectivity and parallelization.

QphoX's technology is based on fully integrated devices that convert photons between microwave and optical frequencies. The platform provides the unique combination of efficiency, ultra-low noise, bandwidth and scalability.

QphoX's Quantum Modem will play an indispensable role in bridging optical quantum networks and quantum processors, serving as the gateway to the Quantum Internet.

## Founding team



**Simon Groeblacher**  
CEO

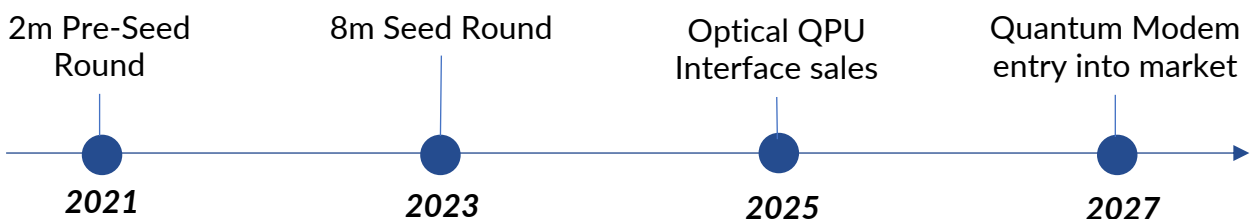
- Professor of Quantum Physics at TU Delft
- Postdoc in Physics at Caltech
- PhD in Physics from Vienna University



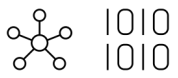
**Robert Stockill**  
CTO

- Marie Curie Fellow at TU Delft
- PhD in Physics from Cambridge University
- MPhys in Physics from Oxford University

## Simplified roadmap







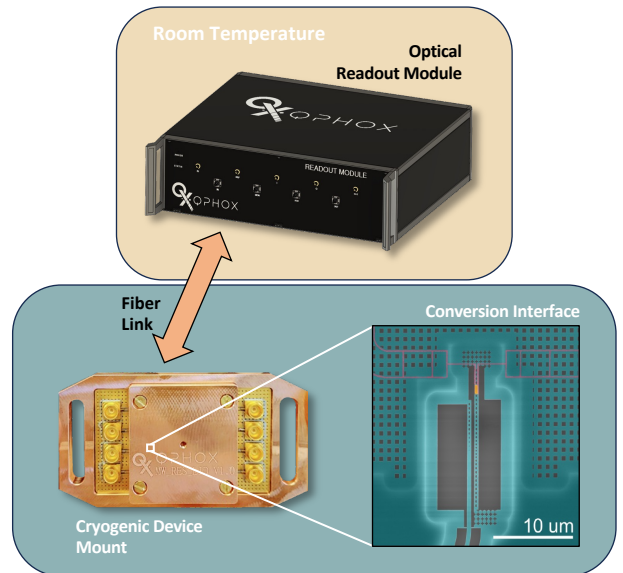
Quantum  
network &  
computing

## Commercial/Potential use case

Our Optical QPU Interface, an all-optical readout and control system, provides an immediate scaling solution for microwave quantum computing manufacturers, allowing larger processors to be built in a single cryostat by significantly reducing the generated heat-load.

By enabling remote entanglement links, our Quantum Modem will provide the ultimate solution in scaling quantum processors, linking them together via room-temperature fiber networks to realize large scale systems capable of practical applications.

Wavelength conversion from a diverse set of quantum resources to a unified telecom frequency standard allows for key advancements in quantum information processing (e.g. interconnecting memories and processors) and will enable the first applications on the Quantum Internet.



QphoX Optical QPU Interface

## References

- [Optical readout of a superconducting qubit using a scalable piezo-optomechanical transducer](#)
- [An integrated microwave-to-optics interface for scalable quantum computing](#)
- [Ultra-low-noise microwave to optics conversion in gallium phosphide](#)
- [Microwave-to-optics conversion using a mechanical oscillator in its quantum ground state](#)



## Silicon Photonics on- chip FMCW LiDAR

The deeptech startup SteerLight develops a new generation of 3D vision sensors - on-chip Silicon Photonics FMCW LiDARs - with compactness, robustness and price scalability that pave the way to massive adoption, and will enable safer mobility, industry and daily lives.

- Incorporated: 27/07/2024
- Employees: 8
- Country: France

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

### Value creation proposal

The unique value proposition of SteerLight is enabled by the choice of an industrial revolution that is the **Silicon Photonics technology**: this technology enables the co-manufacturing and co-assembly of optics and electronics functions at the silicon chip level **using only standard semiconductor-industry processes**. Such approach enables modularity, and paves the way to volume manufacturing and the associated price scalability.

- **High performance** (angular resolution smaller than 0,1°/ range 30-50m for the first product, > 300m for the second generation), and **enhanced immunity to parasitic signals** (sun, other LiDARs)
- **Robustness** (vs. shocks and temperature) & **reliability** (no mechanical parts, no lens)
- **Ultimate miniaturization** (15 cm<sup>3</sup>) for seamless integration
- **Scalable price with the volume**

### Founding team



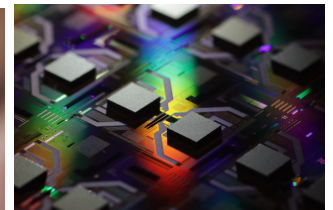
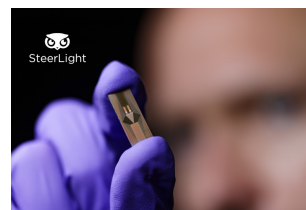
**François SIMOENS**  
CEO

- More than 30 years of experience in innovation programs
- Director Strategic Marketing
- PhD in Physics from Paris VI University

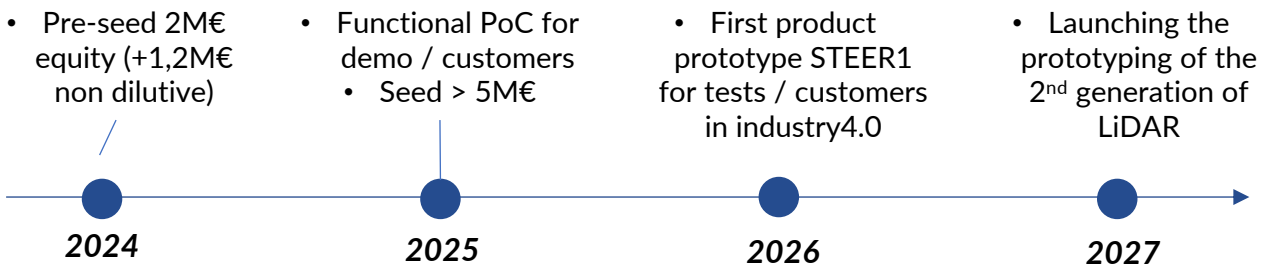


**Jérôme MEILHAN**  
CTO

- Expert in optoelectronics system architecture
- PhD in Optoelectronics and Radiofrequency from the INPG Grenoble Institute of Technology



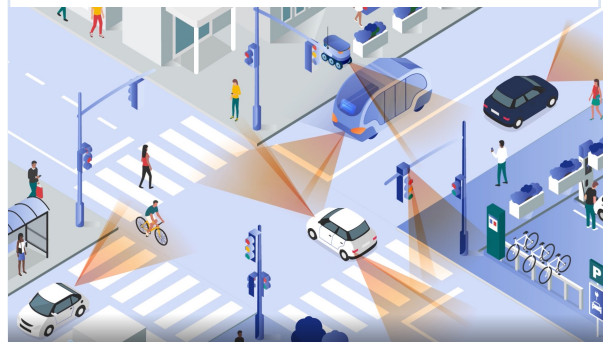
### Simplified roadmap





## Commercial/Potential use case

The 1st targeted market is the **industry4.0** preferentially related to autonomous mobile robotics (AMRs) for **logistics, industry and services**, that already integrates safety LiDARs as a must-have. The 1st product will come as a substitute of safety LiDAR bringing performance and miniaturization that existing products don't satisfy. According to the Yole 2022 study, the LiDAR market for industry and logistics is growing strongly (CAGR>20%) with TAM prospects in 2027 of €465M and €344M respectively. The 2nd product with significant improvement in performance by adding 3D scanning and an extended detection distance, will address both the needs of customers in the first market but also those of **urban mobility (ADAS via automotive tier one, infrastructure and smart cities, etc.)**. These additional applications represent a LiDAR market totaling \$3.7 billion in 2027.



*This picture outlines the 2 first targeted markets: Industry4.0 and Transportation*

## References

- **Portfolio of know-how and 9 patents licensed by CEA-Leti. (exclusive licensing)**
- Nicola A. Tyler & al., "SiN integrated optical phased arrays for two-dimensional beam steering at a single near-infrared wavelength," Opt. Express 27, 5851-5858 (2019)
- Sylvain Guerber & al., "Development, calibration and characterization of silicon photonics based optical phased arrays", <https://doi.org/10.1117/12.2582679>
- J. Hue & al., "Modular and versatile characterization test bench for optical phased arrays", Proc. SPIE 12008, Photonic Instrumentation Engineering IX, 120080I (5 March 2022); <https://doi.org/10.1117/12.2607724>
- D. Fowler & al., "Integrated Optical Phased Array Based on a Binary Splitter Tree With Reduced Number of Control Voltages," in Journal of Lightwave Technology, vol. 40, no. 12, pp. 4027-4032, 15 June 15, 2022, ", <https://doi.org/10.1109/JLT.2022.3154971>
- Simoens, F. ; Barrera, C. ; Colard, M. ; Cluzeau, D. ; Meilhan, J., « FMCW chip-scale LiDARs for safer and smarter mobility of people and goods », <https://doi.org/10.1117/12.2651701>



# Silicon CMOS Spin-based Quantum Computing

Diraq is a world leader in building quantum processors using electron spins in CMOS quantum dots. Diraq aims to unlock the commercial applications of quantum computing to deliver economic and societal benefits globally.

- Incorporated: 6 May 2022
- Staff: 29
- Country: Australia

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

## Value creation proposal

Diraq's value proposition is to deliver error-corrected quantum computing systems, via spin qubits - the only technology dense enough to fit millions of qubits on a single chip, enabling billion-plus qubit processors in one compact cryostat, to allow ubiquitous, universal quantum computing across all industry verticals.

By leveraging the existing capabilities and robust infrastructure developed by the semiconductor industry, Diraq can rapidly scale to deliver exceptionally powerful quantum processors with qubit counts in the many millions, surpassing the capabilities of other quantum technologies, forging a faster and cheaper road to market.

Diraq's patented qubits are the same size as today's transistors and use the same semiconductor manufacturing (known as CMOS) used by chip foundries to produce today's semiconductor components.

As well as being compatible with CMOS technology, silicon offers a highly advantageous environment for qubits, with relatively low noise and demonstrated high-fidelity operations - allowing for operation with the necessary precision for fault-tolerant quantum computation.

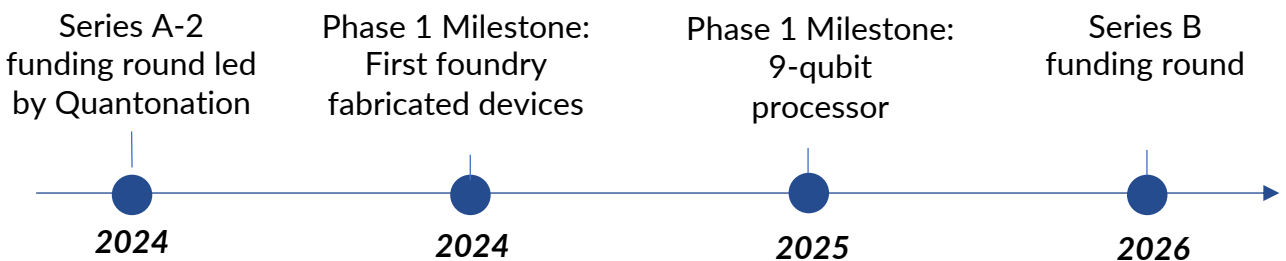
## Founding team



**Andrew Dzurak**  
CEO & Founder

- Scientia Professor in Quantum Engineering at UNSW Sydney
- PhD in Physics from the University of Cambridge

## Simplified roadmap





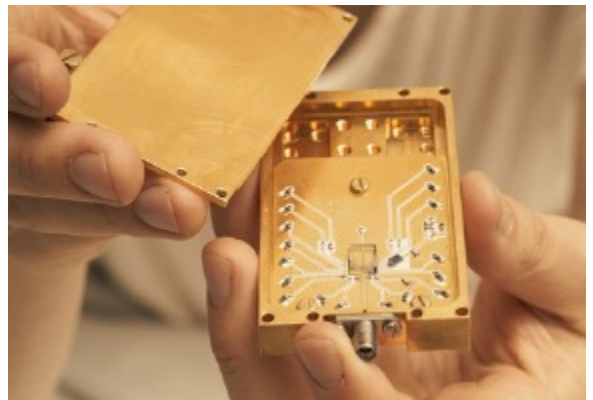
## Commercial/Potential use case

Engineered with a focus on energy efficiency, Diraq's quantum processors are designed to be compact, cost-effective, and capable of executing highly valuable computations.

Diraq's quantum computers will be universal, meaning they will be capable of running any quantum algorithm of interest. From here, the potential use cases are virtually boundless, offering a multitude of avenues to address critical challenges across fields such as pharmaceuticals, chemistry, energy, machine learning for finance, optimisation for logistics, cryptography, among others.

Materials design and chemistry simulations, e.g. better battery materials, are a few examples of the world-changing applications of quantum computation that require error correction.

Even by optimistic accounts, these calculations will require quantum processors containing tens of millions of qubits at a minimum. Spin qubits have a significant advantage, as qubit-to-qubit spacings under 100nm allow millions of quantum dots to be integrated on a single chip.



*Enclosure with a printed circuit board and a Diraq chip at the centre*

## References

- [High-fidelity spin qubit operation and algorithmic initialization above 1 K](#)
- [On-demand electrical control of spin qubits](#)
- [Single-electron spin resonance in a nanoelectronic device using a global field](#)
- [Silicon CMOS architecture for a spin-based quantum computer](#)
- [A two-qubit logic gate in silicon](#)
- [An addressable quantum dot qubit with fault-tolerant control-fidelity](#)



# EXPANSION

AEROSPACE VENTURES

*New Space & New Air Mobility*



## Access to Space

Development of launchers and other ascending vehicles



## In-orbit services

Development of services for in-orbit testing, manufacturing, services, cargo...



## Space Surveillance

Detection and characterization of space assets and debris, mainly in Low Earth Orbit

## New Space



## Enabling Technologies

Materials, components, subsystems, systems and software with space applications



## Satellites

Satellite & systems manufacturers and satellites operators



## Space data exploitation

Analysis and services based on Earth Observation space data for environmental rating, surveillance, agriculture...



## VTOL

Vertical take-off & landing aircrafts for urban and regional mobility

## New Air Mobility



## Drones

Drones addressing multiple markets: surveillance, maintenance, delivery...



## Decarbonized aviation

All technical solutions decreasing pollution from air transportation





**Access to  
Space**

**LATITUDE  
HYPRSPACE  
ZEPHALTO**

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**In-orbit  
services**

**THE EXPLORATION COMPANY  
SPACE CARGO UNLIMITED**

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**Space  
Surveillance**

**ALDORIA  
LOOK-UP SPACE**

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**Enabling  
Technologies**

**MIRATLAS**

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**Satellites**

**ION-X  
ARKADIA SPACE  
OSMOS X\*  
REORBIT  
U-SPACE\*  
CONSTELLATION\***

---



**Earth  
Observation**

**WALTR  
ORBIFY\***

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Note (\*) = Closing ongoing







VTOL

**ASCENDANCE FLIGHT  
TECHNOLOGIES**

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Drones

**EOS TECHNOLOGIE**





### VALUE PROPOSAL

Latitude provides **tailor-made and responsive access to Low-Earth Orbit** for satellite manufacturers, with a cheaper service than competition

📍 Reims, France

👤 120

💡 2019

🌐 <https://www.latitude.eu/>

### Presentation

Latitude develops a microlauncher (payload >100kg) based on reliable choices in the design (propulsion, structure, etc.) and **proprietary innovative engine manufactured with 3D-printing.**

Their launcher is for orbiting and renewing nano-satellite constellations.

**Latitude's strategic launchpads are in SaxaVord (Shetland Islands) and Kourou (French Guyana)** and thus offering a decisive access to space, bridging Europe and beyond for seamless collaboration.

Latitude's main product is a **100kg capacity nano launcher (Zephyr) with a cost of \$35,000/kg in terms of payload.**

### Founding team



**Stanislas Maximin**  
CEO

- Young entrepreneur, background in management from IESEG
- President during 2 years of Alliance New Space France



**Kevin Monvoisin**  
COO

- Background of Aerospace Engineering
- Worked 3 years for Safran

### Simplified roadmap





## Technology & commercial use-case

Zephyr, a groundbreaking space launcher, melds the rich French industrial heritage with advanced aerospace powering Europe's space ambitions.

Zephyr has an overall **length of 17m** and a **diameter of 1.2m**. The payload target is **100kg for LEO** (Low Earth Orbit) and **80kg for SSO** (Sun Synchronous Orbit).



At Latitude, they are using a **3D printed technology called Navier** that exemplifies innovative advancements.



Latitude benefits from its **own test bench** close to its offices in Vatry (only company in Europe expect PLD), since July 2023.



### PARTNERSHIPS & CONTRACTS



**Raise of €10M in 2022** for prototypes MK1 test campaign  
**Series B round of €30M (end of 2023)** for final engines assembly



## VALUE PROPOSAL

HyPrSpace is developing a **range of micro-launchers based on hybrid rocket motors** which combine the thrust of solid propulsion with the modularity of liquid propulsion

📍 Talence, France

🏠 33

💡 2019

🌐 <https://hypr-space.com/>

### Presentation

Hybrid Propulsion for Space (HyPrSpace) designs, manufactures and **launches rockets to provide a dedicated in-orbit service for microsatellite segment.**

Their innovation is based on a proprietary technology that enhances hybrid space propulsion. HyPrSpace offers its private (telecoms, satellite data providers, etc.) and public (governments) customers a reactive launch service at a competitive price (**250kg in Low Earth Orbit at \$20,000/kg**).

HyPrSpace's secret sauce is based on a combination of **liquid oxidizer with a solid fuel**, leveraging the flexibility and efficiency of bi-liquid propulsion, where thrust can be modulated, as well as the ease of use and low cost of solid propellants.

### Founding team



**Alexandre Mangeot**  
CEO/CTO

- PhD in space propulsion
- Expert in space technologies and teacher at ELISA Aerospace



**Sylvain Bataillard**  
COO

- Great experience at ATR and ArianeGroup as an engineer
- Teacher at ELISA Aerospace

### Simplified roadmap



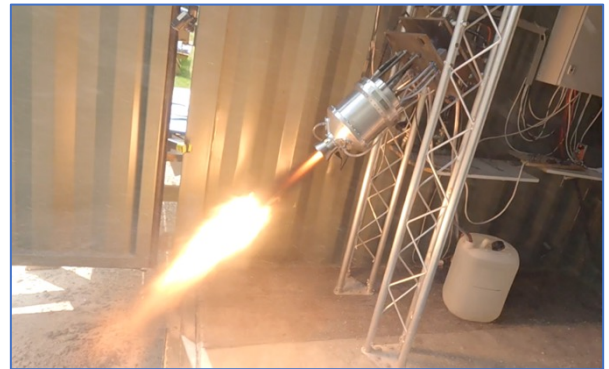


## Technology & commercial use-case

HyPrSpace develops a Hybrid Rocket Engine (HRE) that has the potential of featuring **benefits of both liquid and solid propulsion technologies, increasing economic efficiencies** (production, robustness, scalability) and **technical performances**.

Liquid oxidizer in an HRE structure is stored in a tank and feeds the combustion chamber, which contains the solid fuel grain.

HyPrSpace develops an overhauled engine architecture by putting the **oxidizer tank inside the fuel grain tank** where the combustion occurs. HyPrSpace was **rewarded by France 2030 R&D program on micro-launcher** for this patented design.



### PARTNERSHIPS & CONTRACTS



Winner of the France 2030 call for projects (€500k in grants)

€ **€10M Series A** early next year

Strong exit potential due to **unique technological development**



## VALUE PROPOSAL

Zephalto offers a **low-carbon footprint balloon journey** that transports passengers to the nearspace, providing space observation experience in the stratosphere at an altitude of **25 kilometers**

📍 Le Pouget, France

👤 26

💡 2016

🌐 <https://www.zephalto.com/>

### Presentation

Zephalto's cruises offer passengers a safe and green opportunity to observe the Earth's curvature from **an altitude of 25 kilometres** in the dark expanse of space. This experience comes at a significantly lower cost and allows customers to select their preferred location.

The space capsule called « **Céleste** » is a **20m<sup>2</sup> and 6 seats capsule**. The flight costs **120k€**, lasts for 6 hours and emits only 26.6kg of CO2 (lowest amount of CO2 required for space flight).

**With over 60 years of space balloon research and development, numerous patents and registered procedures, CNES** (Centre National d'Etudes Spatiales) has granted exclusive access to its most advanced technologies.

### Founding team



- Experienced in Air Traffic Controller at DGAC for 8 years
- President and founder of Zephalto

**Vincent Farret d'Astiès**  
Founder & Head of design

### Simplified roadmap





## Technology & commercial use-case

Zephalto is proposing a major technological innovation in stratospheric ballooning: the **reusable envelope**.

Thanks to this envelope and numerous technical advances, **Céleste has an extremely low carbon footprint and makes flight accessible to all physical conditions.**

Zephalto flights enable us to **collect atmospheric data on unprecedented profiles**, increasing the number of space and ground-based observations.

Zephalto has developed two prototypes before the POC of Celeste. **Luciole a low altitude test vector** (6km of altitude) and **Lucy a stratospheric test vector** (25 km of altitude) to validate launch operations and large envelope concept.



### PARTNERSHIPS & CONTRACTS



CENTRE NATIONAL D'ETUDES SPATIALES



**FUTURE 40**



**Series A round at the end of 2023**

Several **dozen pre-orders booked**





## VALUE PROPOSAL

The Exploration Company wants to democratize space exploration for space and non-space industries by **making space exploration affordable, sustainable and open**

📍 Paris, France and Munich, Germany

👤 100

💡 2021

🌐 <https://www.exploration.space/>

### Presentation

The Exploration Company is developing a **space capsule that can be reused and refueled in orbit.**

They are targeting the cargo market for new space stations (5 stations in orbit by 2030).

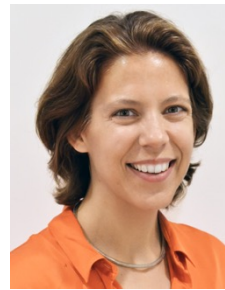
After that they will target cargo to the moon market, in-space manufacturing and commercial use of orbit (advertising).

They want to make space exploration affordable with the Nyx capsule :

- **1kg Nyx Earth < €15k**
- **1kg Nyx Moon < €300k**

The booking will be **open until 6 months before launch and for all space players**, including space and non-space companies.

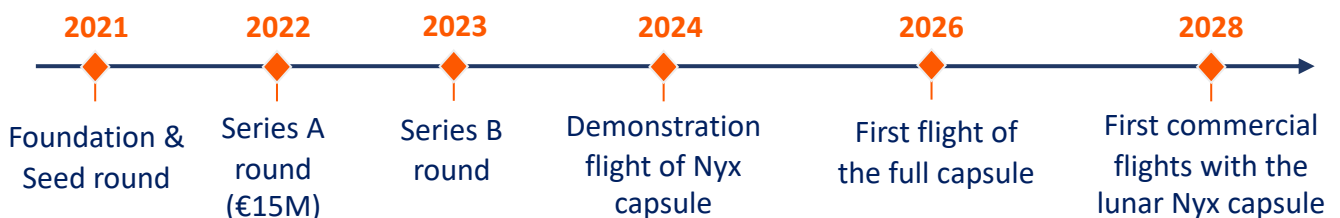
### Founding team



**Helene Huby**  
CEO

- VP Orion-ESM and Head of Innovation at Airbus Defence & Space and ArianeGroup
- Graduated from ENS Paris and from ENA

### Simplified roadmap





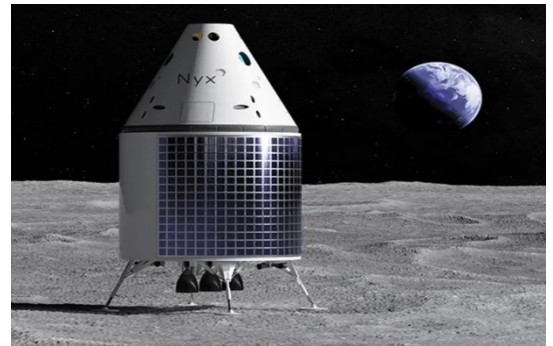
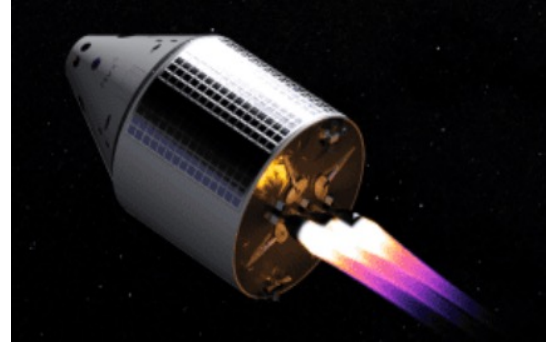


## Technology & commercial use-case

The Exploration Company is offering two main products :

- Nyx Earth capsule that can stay during **6 months in Low Earth Orbit with a payload of 4,000 kg.**
- Nyx Moon capsule that will automatically land on the lunar surface in 2028 (**500kg of payload pressurized to Lunar surface & 1000kg of payload unpressurized**)

These two vehicles will be **modular, reusable and in-orbit refuellable**. It will carry cargo and, in the longer run, humans.



### PARTNERSHIPS & CONTRACTS



Revenue of **€150M** in 2025 and **€650M** in 2027

Contract of **€100M** with Axiom



### VALUE PROPOSAL

Space Cargo Unlimited is developing an **in-orbit production platform for cutting-edge industrial applications** (Agriculture, Biology, Materials, Medicine)

📍 Luxembourg & Turin, Italy

👤 15

💡 2014

🌐 <https://https://space-cu.com/>

### Presentation

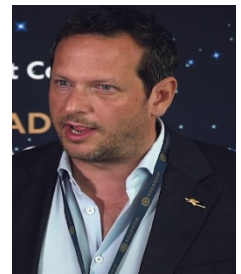
Space Cargo Unlimited, established in 2014 by private investors and space enthusiasts, Space Cargo Unlimited is committed to **harnessing the possibilities of microgravity research in space for profitable applications here on Earth.**

By enabling research and manufacturing missions in Low Earth Orbit, **SCU taps into the potential of space environment to create a range of impactful products**, spanning from life sciences to new materials. In partnership with scientific experts Space Cargo Unlimited initiated a pioneering research endeavour on the International Space Station (ISS) on November 2nd, 2019. This program, places special emphasis on **the future of agriculture linked to evolving conditions of our planet.**

### Founding team



**Nicolas Gaume**  
CEO



**Achim Schwarzwälder**  
CTO



**Dan Katz**  
COO



**Emmanuel Etcheparre**  
SBU BU Leader

### Simplified roadmap





## Technology & commercial use-case

Space Cargo's main focus is on the **production of microbeads** (a market that already exists on Earth for the analysis of microbes by pharmaceutical research laboratories) **and ZBLAN optical fibre, manufactured using fluorine**, which has a throughput capacity 100 times greater than traditional silica fibre. The use of fluorine means that this fibre has to be manufactured in microgravity to avoid formation of lumps inside the fibre, and therefore to improve the transmission of the optical signal. **The REV-1 vehicle** is based on the shuttle developed as part of the ESA's Space Rider study programme, which itself stems from experiments on the IX-V vehicle developed by Thales Alenia Space and who has already flown.



### PARTNERSHIPS & CONTRACTS



CENTRE NATIONAL D'ETUDES SPATIALES



**€8M raised** that will be used to finalize the Executive Design, launch supply contracts  
**Series A round** end of 2023 (€15-20M)



## VALUE PROPOSAL

Aldoria is a **prominent player in the Space Situational Awareness (SSA)** market. Their expertise lies in **detecting, tracking, and predicting collision risks** of artificial satellites and space debris with responsive optical sensors

📍 Paris, France

👤 30

💡 2017

🌐 <https://aldoria.com/>

## Presentation

Aldoria (former Share My Space) disrupts space surveillance using Multi-Telescope Observation Stations (MTOS), employing optical means to detect and track space objects in low earth orbit. Unlike costly radar solutions, **Aldoria's four strategically placed stations will offer continuous global coverage**, overcoming challenges such as object rotation speeds.

With custom-made cameras and high-performance telescopes, Aldoria aims at **catalogue up to 100,000 space objects** within three years, providing a cost-effective and secure solution.

These stations are carefully situated to ensure a continuous flow of data and **minimize disruptions due to bad weather**.

## Founding team



**Romain Lucken**  
CEO

- Doctor in Plasma Physics and engineer from École Polytechnique
- Expert in numerical modelling and simulation



**Damien Giolito**  
COO

- Civil engineer, a professional pilot, inventor and entrepreneur
- Director of an aerial survey company for 10 years

## Simplified roadmap





## Technology & commercial use-case

Aldoria has patented the innovative concept of **Multi-Telescopes Observation Stations (MTOS)**, utilizing four synchronized passive telescopes to continuously observe a **360° area of the sky** and detect all passing space objects. Each telescope allowing independent tracking and characterization of specific objects.

Aldoria offers two main products: an **automated satellite navigation solution** based on tracked orbital objects from the US Air Force and **on-demand space surveillance missions from their observatory**. Their core technological expertise lies in a catalogue of 100,000 orbital objects, catering to space traffic management and national sovereignty needs.



### PARTNERSHIPS & CONTRACTS



Data supply & study



Space surveillance



Launch safety



ASTROSCALE

Object characterization



SSA training



Collision avoidance with optical data



**Positive cashflow in 2027**



**Raised €9M Series A in September 2023**

**Gross profit margin of €820k in August 2023**





## VALUE PROPOSAL

Look-Up Space develop a **network of ground-based radars to supply data and services** on Space Situational Awareness (SSA) to Launchers, Operators and Regulators

📍 Toulouse, France

👤 18

💡 2020

🌐 <https://www.lookupspace.com/>

### Presentation

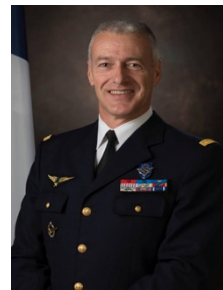
Look Up Space is developing a **ground-based network of radars** (1 in Guyana and 1 in France) with a software surveillance and a device for **tracking objects > 3cm** (reducing 90% of catastrophic risks) day, night, and when it is raining **8 to 14 times per day**.

They are proposing a **modular radar technology, upgradable and scalable, with a limited maintenance (only to change batteries)**.

The **market is targeted for LEO**, operational from 300km to 600km (can reach 800km thanks to its modularity).

**They provide 24/7 access to data and high revisit rates**, combined with CNES algorithms and proprietary software.

### Founding team



**Michel Friedling**  
CEO

- Major General (retired) of the French Air and Space Force
- Fighter pilot, background in aeronautics and space engineering



**Juan-Carlos Dolado**  
CTO

- Former head of the space situational awareness office at the French Space Agency (CNES)
- Member of the IAA's Space Debris Committee

### Simplified roadmap





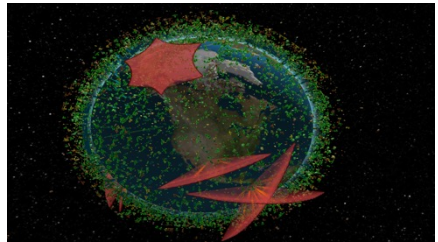
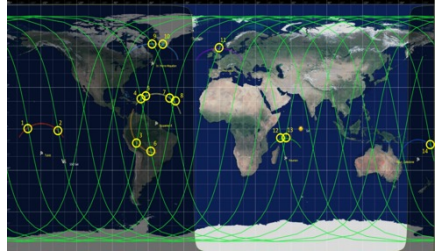
## Technology & commercial use-case

For the manufacturing of radars Look Up Space leads a consortium (CISTEME, SELHA) with **8 subcontractors** (all subcontractors of Thales).

Look-Up Space's radars will be able to adopt a "standby" mode but also a "tracking" mode for more specific needs on a satellite in each period.

The main applications of Look-up Space services are the following:

- **Detection** and definition of orbital manoeuvres
- **Debris removal**
- **Constellation deployment**
- In-orbit services
- Missile detection
- Object detection at very high altitudes



### PARTNERSHIPS & CONTRACTS



France 2030 project won with Cisteme and Sehla for €6M grant



Pre-Seed at €1.1M in 2022

€7M Seed round in June 2023



### VALUE PROPOSAL

Miratlas is proposing the **complete characterisation of all the atmospherical parameters** necessary for free space optical communication (Cloud cover, turbulence and absorption)

📍 Pertuis, France

👥 12

💡 2018

🌐 <https://www.miratlas.com/>

### Presentation

Faced with a growing telecommunications market which is struggling to bridge global digital divide, Miratlas proposes to assist in the development of **terrestrial optical infrastructure to space, covering the entire planet.**

Miratlas **designs, produces and sells atmospheric characterization instruments** and data that are becoming increasingly important as the climate warms.

Miratlas also offers a **real-time and continuous monitoring of atmospheric turbulence.** The data collected allows us to mitigate by anticipating and minimizing the impact of the atmosphere on the propagation of light.

### Founding team



**Jean-Edouard Communal**  
CEO

- Ph.D in laser physics and nonlinear optics from Trinity College Dublin
- 20 years sales experience in the photonics industry.



**Frédéric Jabet**  
CTO

- Previously CTO at Alcatel Lucent and founder of Airylab
- IT and optical MSc and worked for telecom industry

### Simplified roadmap





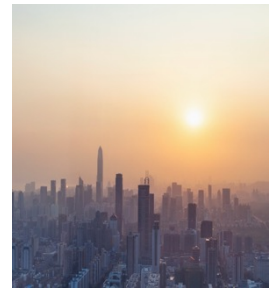


## Technology & commercial use-case

Miratlas technology was designed to offer **complete, cutting edge, atmospheric characterisation within a telecom grade system.**

Miratlas has built the **Sky Monitor device for autonomous remote operations** including a wide range of passive optical sensors available for the first time in a compact and easy to install package.

The Sky Monitor is a **measuring cloud cover, atmospheric turbulence and absorption to survey potential sites for optical communication ground station.** Deployed in network, it enables site comparison and selection of the optimal ground network design and future operations.



### PARTNERSHIPS & CONTRACTS

AIRBUS



CENTRE NATIONAL D'ETUDES SPATIALES



ONERA

THE FRENCH AEROSPACE LAB



DLR



€1.6M in sales over the past 3 years with ESA, NASA, Airbus, ONERA & others

Seed round of €2M in May 2022





### VALUE PROPOSAL

ION-X offers a **new type of electric propulsion** based on the ejection of very fine, **fully ionized particles**, mainly for small satellites to increase thrust, efficiency and performance

📍 Palaiseau, France

👤 10

💡 2021

🌐 <https://ion-x.space/>

### Presentation

ION-X is currently developing a **1U plug-and-play thruster able to deliver unmatched thrust and fuel efficiency (ISP)** while offering great operability with non-toxic & non-pressurized propellant. Their product will also allow satellites operators **to adapt in real time thrust and efficiency depending on the required orbital manoeuvres**. Their system will also be very well suited for end-of-life management or debris avoidance manoeuvre.

With production costs and manufacturing processes compatible with at-scale roll-out, **ION-X will offer competitive lead-time for constellation projects by the end of 2024.**

### Founding team



**Thomas Hiriart**  
CEO

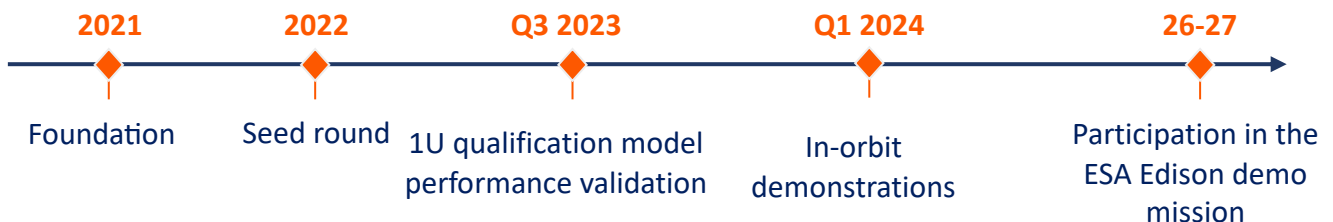
- Background in Aerospace engineering from Isae-Supaero and GeorgiaTech
- Worked for ArianeGroup for 3 years



**Jacques Giérak**  
Inventor & Scientific board

- Engineer and doctor in propulsion
- Author of 30 patents and over 100 scientific publications and transferred some of its work to the industrial world (RAITH, leader in nano-fabrication)

### Simplified roadmap



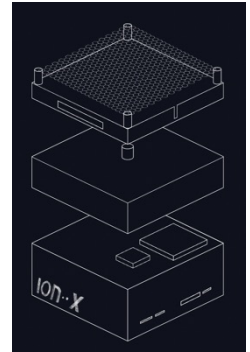


## Technology & commercial use-case

The patented technology developed by ION-X is based on the development of a **new form of ionic propulsion** based on the **Electro-Hydro-Dynamic principle from the C2N laboratory**.

Traditional plasma propulsion technologies are becoming too cumbersome to equip nano and micro-satellite constellations and are unsuited **to meeting the needs of a market growing by over 20% per year** (estimated at €1 billion by 2025).

In contrast to other electro-spray thrusters currently available ION-X stands out due to its distinctive approach, enabling a substantial enhancement in emitted flux, **ion velocity, and overall stability of emission process without any noticeable degradation**.



### PARTNERSHIPS & CONTRACTS



€500K of public funding secured and €10M in progress from EIC Accelerator, France 2030 and CNES



LOIs in progress from Spire, EnduroSat, Space Inventors, OHB Sweden, Hemeria Series A S1 2024 just before IoD to support production ramp-up



### VALUE PROPOSAL

Arkadia develops a range of **chemical thrusters for satellites**, Orbital Transfer Vehicles (OTVs) and second stages of launchers, based on two key innovations : **ceramic combustion chamber** and **“green” propellant**

📍 Benlloch, Spain

👤 9

💡 2020

🌐 <https://arkadiaspace.com/>

### Presentation

Arkadia’s main goal is to **provide the new generation of chemical thruster for space propulsion (for satellites > 50kg) market** at a competitive price and manufactured in Europe.

Arkadia aims to offer a range of thrusters, **from 5N (monopropellant) to 50N and 200N (bipropellant)** to answer these new needs.

Chemical propulsion is specifically relevant **for satellites above 50-100kg**, quick maneuver, deorbit and going to the right orbit. It is also very useful for space vehicles like capsules, OTV (orbital transfer vehicles) and second stages of launchers.

### Founding team



**Francho Garcia**  
CEO



**Ismael Gutierrez**  
CTO



**Sergio Soler**  
CFO



**Francisco Espinosa**  
Director of Mechanical Engineering

### Simplified roadmap





## Technology & commercial use-case

Arkadia Space is developing three key technologies:

- **Test facilities** designed and built entirely by Arkadia teams. These facilities enable regular tests to be carried out. There are very few of these in Europe.
- The **use of ceramics**. No patent will be filed, the idea being to rely on industrial secrecy. The Arkadia Space teams are very confident in the **lead they have taken with their test facilities**.
- The creation of a **suitable mixture based on hydrogen peroxide**; a fuel identified by all the major players as being the future of chemical propulsion. No patents will be filed, the idea being to be at the origin of the creation of a standard fuel used by the whole industry.



Monopropellant Thruster of 5N



Bipropellant Thruster 50N and 200N



## PARTNERSHIPS & CONTRACTS



**Awarded several grants and loans including €254K** from the Spanish Ministry of Industry, the European Commission and GVA



Expected revenue in 2030 of **€80M**

Seed round of €2M in 2023



OSMOS X



Propulsion

## VALUE PROPOSAL

Osmos X offers **propulsion** technology with **unprecedented performances**, allowing new use-cases related to **in-space transportation**

📍 Rennes, France

👤 4

💡 2022

🌐 <https://www.osmos-x.com/>

### Presentation

Osmos X develops an **in-orbit mobility vehicle** based on a **disruptive ionic thruster**.

The thrust will be used for **multi-orbits mobility** with a long-use vehicle, but also space station support, **debris removal** (especially small ones) and space exploration in the long term.

Osmos X wants to stay focus on the **propulsion** by **outsourcing the rest** of the vehicle and hire a small team.

For now, the business model is based on the **operation of their own OTVs** equipped with their propulsion system, providing in-orbit services for satellite operators and space stations.

### Founding team



**Matthieu Cavellier**  
CEO

- PhD in Materials science, experience in R&D management
- Managing director of Pantechnik



**Jean-François Malinjoud**  
Financial advisor & Investor relationship

- Engineer from Mines Paris
- 20 years' experience in private equity

### Simplified roadmap





OSMOS X



Propulsion

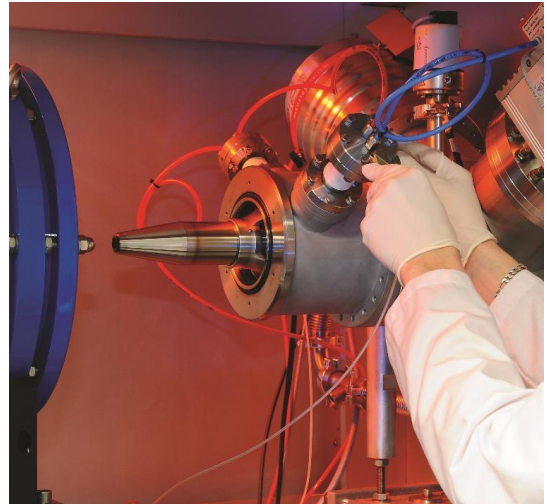
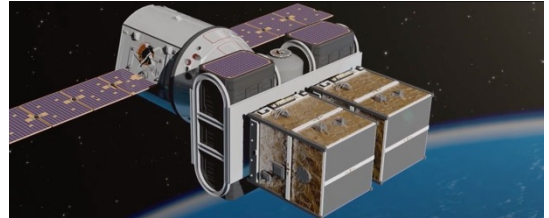
## Technology & commercial use-case

The thruster is based on the **VASMIR** concept. **Ion source** of Osmos-X allow them to withdraw several electrons from all the periodic elements (even molecules). This thruster increases both **weight and speed of ejected ions**:

- High thrust (up to 100N)
- Vey high specific impulse (up to 100.000s)
- Weak energy consumption (around 100kW)

The features of the thruster allow them to reach **performances** which suit **new use cases**, especially a **heavy and reusable OTV vehicle**.

Other value proposal including **debris removal and interplanetary trucking** are more difficult to assess for now.



### PARTNERSHIPS & CONTRACTS



BUSINESS  
INCUBATION  
CENTRE

**PANTECHNIK**   
*Boost Your Physics*

Raised **€1M** in 2023



Raising a **€1M seed round**, for for IoD **demonstration** of the concept and scale-1 Earth prototype. Room for a **€600k ticket** for Expansion





## VALUE PROPOSAL

ReOrbit develops a **new way to manufacture satellites with a software-based approach** allowing more modularity, autonomy, availability and connectivity

📍 Helsinki, Finland

👤 29

💡 2019

🌐 <https://www.reorbit.space/>

### Presentation

ReOrbit is providing **new generation of satellites for constellations** with lower costs and faster development time.

By adopting a **"software-first" strategy**, ReOrbit aims to revolutionize the traditional approach to satellite manufacturing, moving away from rigid, single-use satellites built with proprietary software. Instead, they strive to **create reusable, flexible, and cost-effective space systems that can collaborate, communicate, and autonomously manoeuvre together.**

**All of this is available at a price point that is significantly lower (less than 70%) than traditional satellites.**

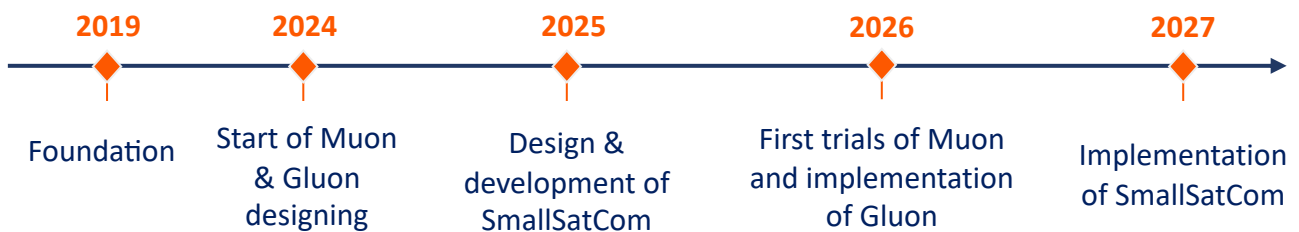
### Founding team



**Sethu SAVEDA Suvanam**  
CEO

- 14 years' experience in business development and space avionics development
- PhD in space systems reliability

### Simplified roadmap



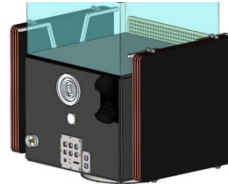




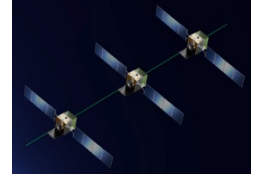
## Technology & commercial use-case

Reorbit is proposing three main products :

- SmallSatCom, a flexible satellite based on the **“made to fit”** concept with applicable services ranging from High-throughput satellites (HTS) to secure defence.
- Gluon, a **highly flexible software-defined satellite platform** able to accommodate several types of payloads from Earth Observation to Relay laser communications services (Scalable for 200-500 kg in LEO or MEO).
- Muon, a **flexible satellite with any payload or purpose**, such as earth observation and satellite communications.



“Gluon” platform



“Quartz” network



## PARTNERSHIPS & CONTRACTS



€30M contracts with 4 customers incl. European Commission and ESA



€2M revenue in 2022

€5M seed round in 2023



### VALUE PROPOSAL

Short **lead-time** (6 months), industrial quality **and reliability**, high-standard **quality and performance** of the product, extended **life duration** (>7 years) and maximal **availability** (> 99.8%)

📍 Toulouse, France

👤 70

💡 2018

🌐 <https://www.u-space.fr/>

### Presentation

U-Space **manufactures satellite, integrating off-the-shelf** components with in-house software suit and processes, and a unique integration and serial production approach.

U-Space benefits from the **expertise of ADS** (system engineering) and the pioneering experience of **OneWeb** (VP industry former project manager and lead engineer on the OneWeb).

They target production capacity of 1 satellite/day by the end of 2025. This approach will allow U-Space to achieve **significant gross margins** (50%) Resolving the financial equation of constellations.

### Founding team



**Fabien Apper**  
President & Sales

- ISAE Supaéro & CNES
- Nanosatellite system engineer
- Eye-sat & Entry-sat programs



**Nicolas Humeau**  
CEO

- IMT Atlantique, CNES & ISAE Supaero Eye-sat & Entry-sat programs
- Mission control center & Ground segment system engineer

### Simplified roadmap



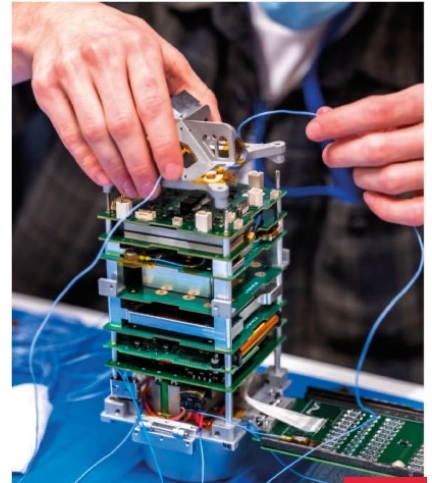


## Technology & commercial use-case

U-Space propose platforms from **4kg to 100 kg** and target middle-size constellation projects. They address the satellite whole life cycle from the **preliminary study** to **satellite operations**, with a **design to manufacture** & a **design to cost** approach.



Their USP is based on their **lead-time (6 months)**, the high-standard quality, performance, extended life duration (>7 years) and a maximal availability (> 99.8%), of their product.



The company genesis is the **student Eye-Sat and Entry-Sat projects** carried out by CNES and ISAE SUPAERO, which involved the design, manufacture and launch of a nanosatellite (astronomy mission).

### PARTNERSHIPS & CONTRACTS



SPACE ANTENNA MAKERS

Raised a **€3.5M Seed** round in 2022



Raise up to **€2.75M**, of which €2.25M from historical investors and a **€500k ticket** for Expansion, for the **first factory capability** set up



### VALUE PROPOSAL

Constellation develops a **broadband constellation** with a **multi-orbit architecture** to provide **high speed/low latency internet**.

📍 Paris, France

👥 10

💡 2022

🌐 <https://www.constellation.global/>

### Presentation

Constellations Global is a Toulouse-based broadband satellite mega constellation operator, in two orbits: VLEO and MEO, focused primarily on consumer and mobility market. CT plans to introduce a business model friendly to terrestrial networks operators and use their 5G spectrum via terrestrial fillings..

It is a **B2B2C constellations** which allows telecom and mobility operators to provide a universal high speed/low latency internet to their customer.

Since remote areas with low population density will never be covered by fixed optical fiber due to too high costs, Constellation could **fix a huge market gap** thanks to its project.

### Founding team



**Charles Delfieux**  
CEO

- 11y experience in the design and execution of multiple complex project at the World Bank.
- Ponts ParisTech + Imperial College London



**Hugues Favin Leveque**  
CTO

- 10y experience in engineering and business development.
- Former VP of connectivity at Airbus
- Mines ParisTech

### Simplified roadmap





## Technology & commercial use-case

Constellions is developing 4 technological bricks during the orbit demonstration program which are:

1. 5G NTN orchestration software
2. 5G mmWave antennas and NTN radio interface
3. VLEO satellites and dispenser
4. MEO satellites



Constellation's uniqueness lies on the use of **5G frequencies** owned by telecom and mobility operators to provide universal high speed/low latency internet to their clients. This will allow telecommunication operators to monetize their frequencies already bought and get new customers in new areas.

### PARTNERSHIPS & CONTRACTS

THALES

esa



Deutsche Telekom

bpi france



Revenues from broadband services starting as early as 2026 over latitude  $\pm 0^\circ/60^\circ$

Wants to raise **series A of €16M** by Q1 2024

Strong exit potential through an IPO due to **the scope of the project**



### VALUE PROPOSAL

WaltR is an **independent service provider** proposing reliable measurement of **polluting emissions** based on **space data**

📍 Toulouse, France

👤 16

💡 2018

🌐 <https://www.waltr.fr/>

### Presentation

WaltR develops **local and global solutions for carbon and pollutants emissions and environmental scoring** for industrial and financial players. Solution are based on ground sensors and satellite imagery.

The main stakeholders are **financial institutions, insurance companies, public actors, corporate players, airports, ports and banks.**

Main business cases are green finance, green industry and air quality monitoring.

The **market for air quality is about 4.4B\$ in 2021.** They already have a **good traction with airports** (ADP, Nice, Marseille, Spanish airports) and they are in **advanced discussion with banks** (Groupe BPCE) to launch a pilot project with impact loans.

### Founding team



**Éric Pequignot**  
CEO



**Arnaud Dedieu**  
Lead Biz Dev



**Javier Andrey**  
CSO

### Simplified roadmap





### Technology & commercial use-case

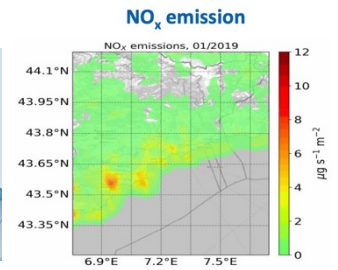
WaltR is proposing **two DaaS (Data as a service) patented solutions to leverage green opportunities** and accelerate environmental transition :

- **Global Emission Tracker (GET)** : a multiple GPS points or areas of interest tacked anywhere using Copernicus satellites
- **Local Emission Tracker (LET)** : It provides access to real time CO2 emissions to support systematic regulation control and carbon assessment, complementary to satellites images, algorithms of data analysis are the same

WaltR camera's is a classical optical, **UV and infrared camera**. It is equipped with several filters to allow **detection and measure of several different pollutants (CO2, NO2, NO, CH4, etc.)**

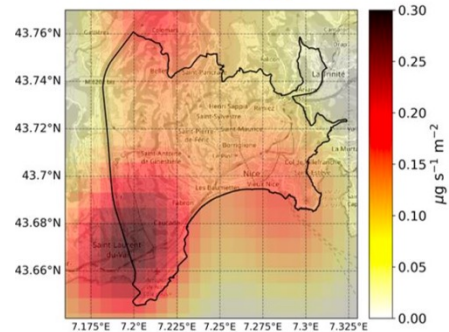


Ground sensor for local emission tracker (LET)



Example of global emission tracker (GET) imagery

WaltR's high resolution emission maps



### PARTNERSHIPS & CONTRACTS



MoU with **BPCE** (huge banking group) and **Skyline Partners** (insurer)

€ First contract signed with **ADP** for LET (€1M on several years)

€600k sales in 2022, 1.2M€ in 2023C



## VALUE PROPOSAL

Orbify provides automated **satellite-based environmental insights using a geospatial Data Platform.**

📍 Cracow (Poland)

👥 12

💡 2021

🌐 <https://orbify.com/>

### Presentation

- Orbify offers a **SaaS platform** which turn raw EO data into precise indicators such as sustainability reporting, operational footprint, climate risks, carbon impact, compliance certificates, etc.
- Orbify's main purpose is to use **space data and remote measuring for environmental preservation and transformation.** Consequently, the main market targeted is aera management for environmental projects (forestry, agriculture, etc.).
- In the meantime, they will make their platform evolve from tailored templates and customizable dashboards (today) into an EO analysis marketplace with AI-made reports, predictive risk models, near-real time alerting (2024-2026).

### Founding team



**Jakub Dziwisz**  
CEO

- 5 years at Airhelp as a CTO
- Software engineering roles before



**Ewelina Kalemba**  
Head of Ops

- Prev. HR at AirHelp and several HR management positions



**Michal Wiczorek**  
Head of product

- Software engineer
- Colleague of Jakub at previous companies

### Simplified roadmap





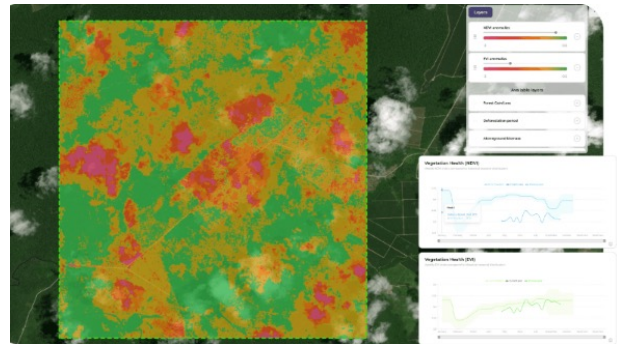


### Technology & commercial use-case

Orbify proposes a **very user-friendly platform** allowing a large number of users to have a new way to use space data for **environmental analytics**.

They collect different data such as land cover analysis, Carbon Stock Assessment, environmental and vegetation conditions, natural and anthropogenic hazards, biodiversity classification to produce carbon projects, carbon projects, climate risk assessment...

Orbify can target **different kind of client** on **different kind of uses-cases** such as Air quality monitoring, Forest health monitoring, crop yield optimisation, urban planning, flood mapping



### PARTNERSHIPS & CONTRACTS



The team plans to achieve \$2.5M ARR in 2025 before the next round. Breakeven (2026) and Profitability (2027) should come alongside.



## VALUE PROPOSAL

Ascendancy Flight Technologies is a French company that **develops and sells vertical take-off and landing (VTOL) aircraft** and hybrid propulsion systems

Toulouse, France

40

2018

<https://www.ascendancy-ft.com/>

### Presentation

Ascendancy Flight Technologies is developing **VTOLs aircraft and hybrid propulsion systems**, with dual positioning as an aircraft manufacturer (ATEA aircraft) and as a system provider (STERNA system).

The ATEA is a vertical take-off and landing aircraft that can carry 4 passengers and a pilot over 400km in nominal use at a cruising speed of 200km/h. Three passengers are seated in the rear, the fourth sits next to the pilot.

**STERNA is an aircraft hybridization service based on the company's proprietary.** The expected CO2 emission savings are of the same order of magnitude as the comparison between ATEA and an helicopter.

### Founding team



**Jean-Christophe Lambert**  
CEO



**Thibault Baldivia**  
CCO

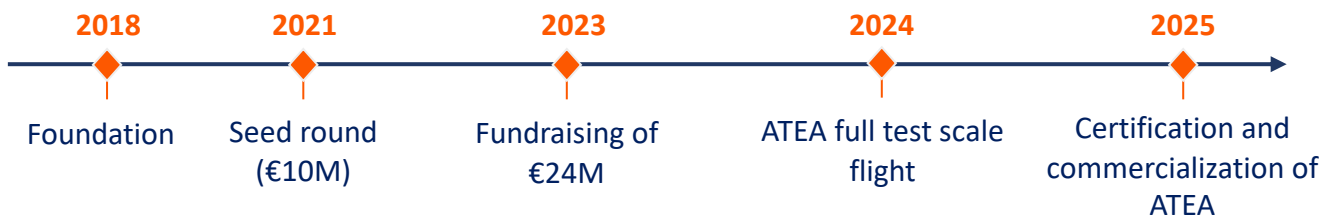


**Benoît Ferran**  
CTO



**Clément Dinel**  
Hybrid Director

### Simplified roadmap





## Technology & commercial use-case

The ATEA is a carbon structure aircraft with a **14m wingspan and 10m length**. It has **4 wings, 8 rotors (2 per wing) and 2 vertical propellers**.

All the motors are electric, and **the electricity used comes from two modular sources: two batteries and a thermal generator**.



The STERNA solution basically consists of two parts:

- A hardware part, which consist of the power box to redistribute power and data to the engines.
- A software part with the hybrid operation system, which combines two different energy sources in the power chain and then allocates the electrical power to the different motors in an intelligent way.



### PARTNERSHIPS & CONTRACTS



First partnership signed with **Daher for STERNA**, advanced discussions with **DGA and ATR**

LOIs signed for **255 aircrafts by 6 players** (Helifirst, PhilJets, FlyShare...)



Drones

## VALUE PROPOSAL

EOS Technologies designs and markets **light and tactical UAVs for Defence purposes**

📍 Mérignac, France

👤 20

💡 2019

🌐 <https://www.eos-technologie.com/>

### Presentation

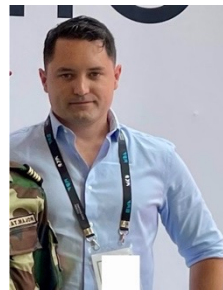
EOS Technologie designs and manufactures **fixed-wing UAV systems (unmanned gliders) for observation and cargo transport missions, for the civilian and military markets.**

EOS meets a twofold need: France's strategic need to secure its sovereignty in the drone sector, in a sector largely dominated by USA, Israel, China, Russia and Turkey.

An operational need to reduce the cost of UAVs, while making them more economical, quieter, longer-lasting and easier to deploy.

**EOS Technologie wants to introduce to the drone sector advances made by Tesla in the automotive sector:** machines that are quieter, more efficient than their combustion counterparts and easier to use.

### Founding team



- Former Army Special Forces
- Drone pilot and competitive radio-controlled aircraft pilot (> 1000 h of flight time)

**Sébastien Verniaud**

President

### Simplified roadmap





Drones

## Technology & commercial use-case

In just 3 years, EOS Technologie has managed to prove its double promise, **by developing 3 ranges of electric drones** capable of flying over the area to be observed with the engine off, **on average 2 to 8 times lighter than the competition, with a range 2 to 3 times greater and for a cost 2 to 15 times lower :**

- Strix 300 ( 3m wingspan, 3h range, video transmission over 40km, 0.5kg payload)
- Strix 425 (4.25m wingspan, 5h autonomy, datalink over 80 to 120km, 1.5kg payload)
- Tactical Drone Endurance 900 ( 9m wingspan, 6h range, datalink > 100 km, 5kg payload)
- Tactical Drone Endurance 1200 ( 12.4m wingspan, 24h range, datalink > 800 km, 30kg payload).



## PARTNERSHIPS & CONTRACTS



INNOVATION  
DÉFENSE  
LAB



**KNDS**

Revenue of **€1.6M** in 2022



Seed round of **€2.5M** in 2022

Second fundraising round in process, > **€20M**





# Exergon

Energy Transition Ventures

## **ENERGY STORAGE**

*VoltR*  
*Entroview*

## **NUCLEAR**

*Stellaria*



## VALUE PROPOSAL

VOLTR specializes in the **second life of lithium batteries**: from their collection to the manufacture of customized batteries from high-performance & French second-life cells.

📍 Verrières en Anjou, France

👤 20

💡 2023

🌐 <https://www.voltr.tech/>

## Presentation

VoltR refurbishes lithium battery cells.

VoltR has developed an IA technology that allows the characterisation and prediction of cells' future performance and degradation rate for a given use

Then the team reassemble cells with the same performance potential to make new battery stacks for dedicated use.

Refurbishment process:

1. Cells with capacity above 60% collection (i.e agreement with eco organisations)
2. Battery cyler process
3. Characterisation tests -> algorithm developed inhouse
4. Prediction test (IA based on NASA/MIT open source data)
5. Cell assembly to create new battery -> algorithm developed inhouse

## Founding team



**Maxime Bleskine**  
CEO

- Background of engineering
- Business development for Mid-cap companies



**Alban Regnier**  
CFO

- Founder of OKAMAC (2011)
- French Tech 120
- +100 employees
- Turnover: 30M€



**François Mallet**  
COO

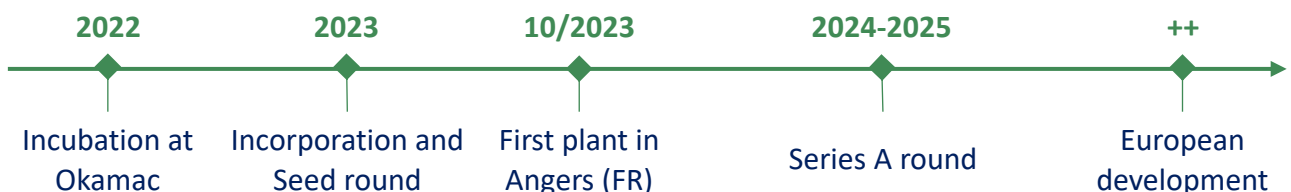
- Background of engineering
- Plant management & consulting experiences



**Thibaud Maufront**  
CTO

- Background of electrochemical engineering

## Simplified roadmap







## Market



### Stationary storage

- Renewable power storage
- Autoconsumption



### Micromobility

- E-Bikes
- E-Scooters



### Home mobile devices

- Smart Home
- Home appliances
- Speakers
- etc.



### Industrial mobile devices

- Mobile electrical tools
- Sensors
- Medical equipment
- etc.



*Inauguration of the Angers plant in presence of the Minister Christophe Béchu, the Vice President of the Pays de la Loire Constance Nubbula and Jean-Marc Verchère Mayor of Angers*

## PARTNERSHIPS & CONTRACTS



**Raise of 4M€ in 2023 for the first production line in France**

**Series A round for the first plant in France and to increase & automate the production**



### VALUE PROPOSAL

ENTROVIEW, a deeptech start up, develops **Battery Diagnostic Software** using **real time entropy variations**, to deeply understand the battery.

📍 Paris, France

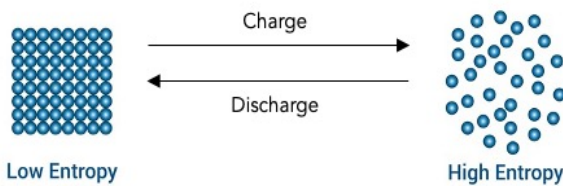
👥 8

💡 2021

🌐 <https://entroview.com/>

### Presentation

Entroview's team develops battery diagnostic software based on real-time measurement of entropy variation.



Entroview proposed 3 types of products based on its patents:

- 1. Detect defect in Gigafactory production lines**  
Faster defaults detection (10h vs. 10 to 15 days currently), which means important time & storage space saving in Gigafactory end-of-line test simplification
- 2. LFP State of charge accurate measurement**  
Critical to ensure vehicle autonomy and to increase lifespan of the battery pack
- 3. State of Health characterization**  
To ensure safety in the battery pack but also to explore new opportunities in the second-life battery market

### Founding team



- 20 years of entrepreneurial experience
- Cofounder of Runview (ex ABBD)
- From 0 to 7 M€ turnover
- Cofounder of Likewatt (deeptech start-up)

**Gaëtan Depaëpe**  
CEO



- Telecom Paristech Engineer
- Master in Physics
- Phd Singapore / Grenoble on thermodynamics of Li-ion batteries

**Sohaïb El Outmani**  
CTO

### Simplified roadmap



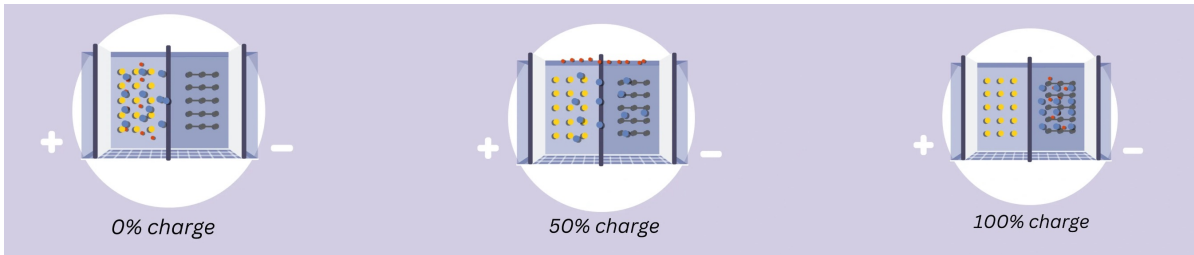


## Technology

Entropy is the number of configurations of atoms. It is connected to the molecular structure of cells.

Therefore, we can determine what is inside each cell and link the results to chemical composition, particle size, or phase transition.

In the context of lithium-ion batteries, it relates to the various ways lithium atoms can position themselves within the battery's electrodes. This is represented by the journey of lithium molecules during charge below.



This information provides microscopic-level insights into the battery's structure and materials.

### PARTNERSHIPS & POC



Raise of 1,5M€ in 2024 for the development of the 3 first MVP Series A round will be to extend features & geographical scope



## VALUE PROPOSAL

Stellaria offers an innovative concept for a **compact, fourth-generation, liquid-fueled, small modular nuclear reactor** of the molten-salt reactor type

Grenoble, France

8

2023

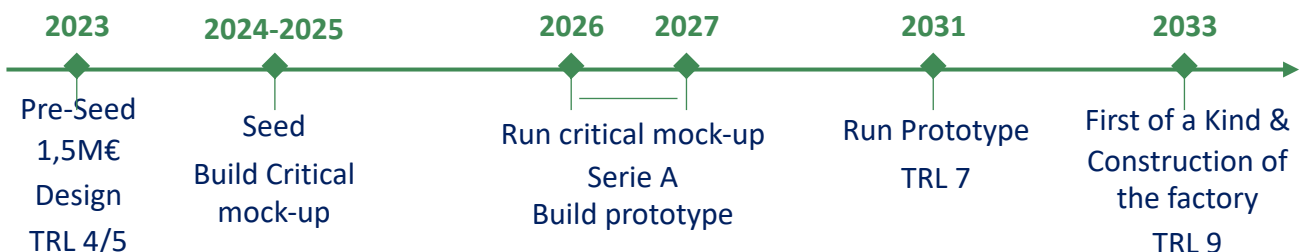
<https://www.stellaria-energy.com>

## Presentation

Stellaria is pioneering the development of a compact 4<sup>th</sup> generation Advanced Modular Reactor capable of generating 120 MWe, employing liquid fuel in the form of Molten Salt Reactors. This departure from the solid fuel reactors prevalent worldwide represents a groundbreaking innovation, offering numerous advantages:

- Stellaria's reactor boasts **inherent safety features** compared to conventional large reactors, operating at an internal pressure of 1 bar and incorporating passive safety systems such as natural circulation and residual heat evacuation.
- It **facilitates fuel regeneration and incineration of waste produced by other operating reactors**, contributing to waste reduction and management.
- The reactor offers **ultra-controllability and a 5-year autonomy**, enhancing operational flexibility and reliability.

## Simplified roadmap



## Founding team



### Nicolas Breyton - CEO

Mechanical engineering graduate with 22 years of industry experience (Management roles at Renault & Schneider-Electric)



### Guillaume Campioni - CNO

- Ph.D. in reactor neutronics - CEA
- 15 y of experience in structuring task-force teams & leading innovation in molten salt reactors



### Lucas Tardieu - Lead Engineer

- Background of Atomic Engineering
- Reactor design engineer at CEA
- Inventor of a new micro-reactor for defense



### Bruno Desbrière - Safety Leader

- Former Deputy Head of Reactor Division at ILL for 15+ years.
- Led post-Fukushima safety enhancements for RHF



### Didier Rochas - VP Partner Bus. Dev.

- Centrale graduate with 30+ years at Schneider-Electric (startup partnerships & acquisitions)
- Founded startup for ship-to-shore electrical connections



## Industrial Applications



### Electricity Production

For smaller communities or specific needs, such as mining operations, industrial sites & isolated rural areas



### Hydrogen Production

Production of Hydrogen using the electrolysis process



### Naval Propulsion

Supplier of energy to ships, including cruise ships, container vessels, & submarines



### Urban Heating

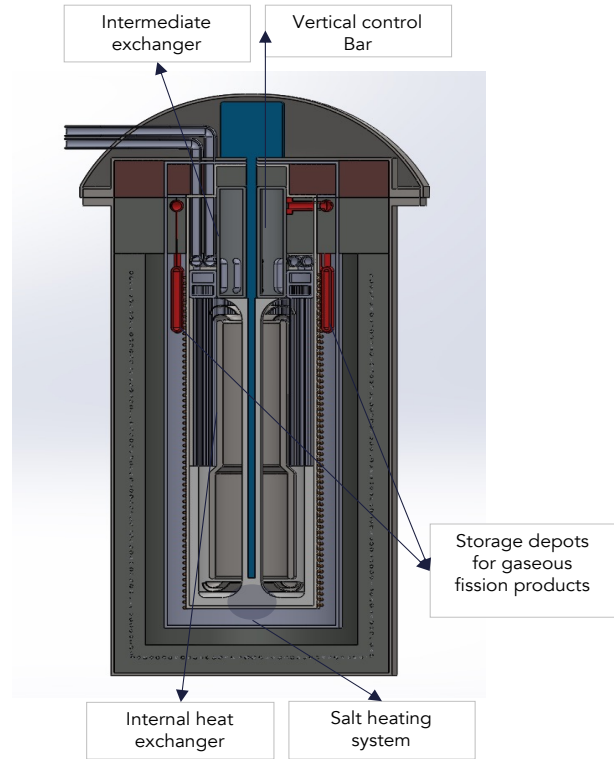
Urban heating networks, utilizing residual heat generated during electricity production.



### Microgrid System

Powering microgrid systems, beneficial for remote regions or distant industrial sites

## Technology



*Stellaria Reactor's design*

## PARTNERSHIPS



Raise of 1,5M€ in 2023 to design the reactors

Seed round for the development of the critical mock-up





# SORBONNE VENTURE

## **DIAGNOSTICS**

*Austral Dx*

## **BIOTECH**

*Polygon Therapeutics*



Austral Diagnostics is a MedTech company developing the first **AI-powered, contactless auscultation device** that entirely **automizes the cardio-pulmonary auscultation process**



2021



France



7



[australdx.fr](http://australdx.fr)

## Overview

Founded in November 2021 by Philippe Mendels-Flandre, Mathieu Couade, and Frédéric Giral, AUSTRAL DX (Diagnostics) is a medical diagnostics technology company actively involved in **reducing pressure on healthcare systems**.

Their first-in-class **non-contact, operator-independent** auscultation device fully **automates the cardiopulmonary auscultation process** and incorporates advanced **ultrasound-based** technology. This new class of medical diagnostic devices aims to improve the work of doctors by providing better, faster and safer access to diagnostic data through the analysis of body surface vibrations.

The medical device has been designed to **help build a more efficient system** in situations of massive patient influx, as in hospital emergency departments. It optimizes budget allocation per patient, while improving diagnoses and reducing the number of irrelevant interventions and procedures.

## Management Team



### Philippe Mendels-Flandre

Co-founder & CEO

- Strong background in Medical Device development and managing position in healthcare companies



### Mathieu Couade

CSO

- PhD in acoustic physics
- Expert in signal processing



### Frédéric Giral

CTO

- MS in Semi-conductors
- Expertise and significant experience in hardware development

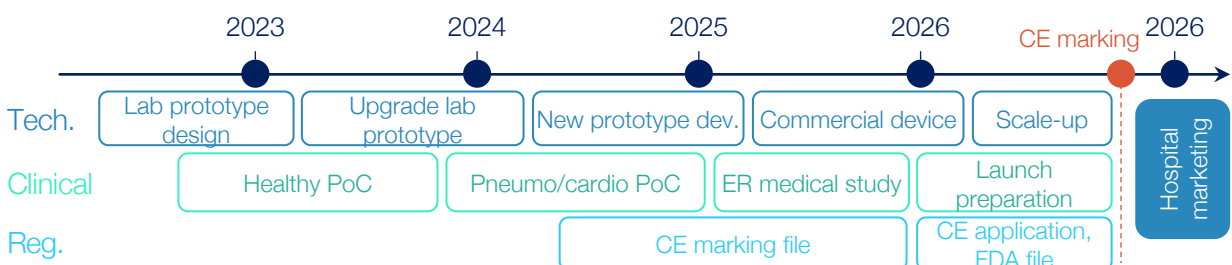


### Mathias Fink

Co-founder and scientific advisor

- World-renowned professor in several Universities, and member of Académie des Sciences
- Created Institut Langevin dedicated to waves and acoustics
- 6 startups based on his work

## Roadmap







## Technology and use cases

The technology is based on Mathias Fink's work on the analysis of movements and vibrations on the body surface induced by the natural activity (cardiopulmonary activity, blood flow, vocalizes).

By emitting ultrasonic waves on 1,200 spots of the body at a high speed of 1,000 times per second, the device is able to capture perturbations and link them to specific abnormalities.

By performing analyses of perceived signs and by comparison with healthy cases, Austral Dx solution can provide valuable diagnostic data for clinicians, and thus automatize cardiopulmonary auscultation.

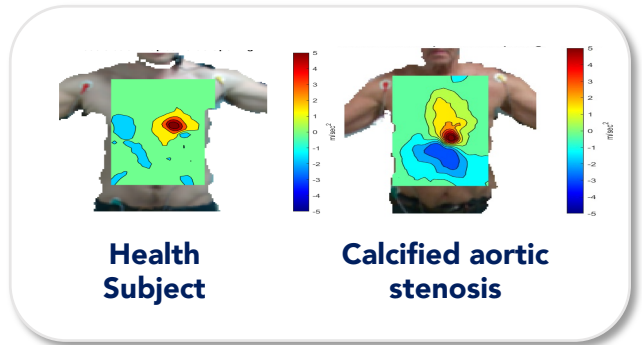
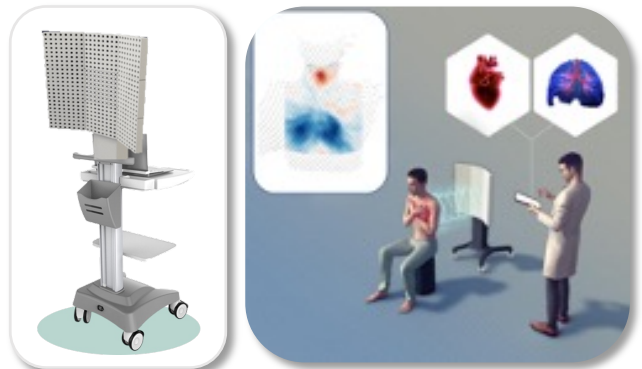
For patients with dyspnea and chest pain, the device can identify the medical affection and optimize the workflow at emergency rooms.

The solution could also be implemented in situations where the medical presence is low.

The company holds **2 patents**, and a 3<sup>rd</sup> one is pending.

**Emergency departments** are under constant and increasing pressure from the massive influx of patients. Today's technologies and resources are barely adequate to manage these situations, and there is a clear need for fast, reliable and cost-effective solutions.

In France, there are 697 SUs in 3,000 hospitals, generating 22 million visits a year. Chest pain and dyspnea account for 2 million of these visits. With the American and Chinese markets, the **global market size is 1.8 billion euros**.



### Partnerships



### ESG

- Improve patient's pathway in ER and doctors' workflow by reducing auscultation time
- Reduce unnecessary procedures and increase efficiency of healthcare system
- Enable more precise diagnosis
- Bring medical care closer to patients



Polygon Therapeutics is a pioneering **cardio-immunology biotech** that aims to develop an innovative biomedicine to improve the acute management of **myocardial infarction**



2021



France



9

[polygon.care](https://polygon.care)

## Overview

Based on Pr. Ait-Oufella's research work (INSERM PARCC) on **cardiovascular immunology** and more specifically on the role of **CD8+ T cells** in pathophysiology, the company develops a **novel monoclonal antibody** to treat the acute phase of myocardial infarction (MI) and lower the damage on patients' heart.

The treatment is able to lower the quantity of immune cells recruited following a **myocardial infarction** and causing toxicity. This results on an **improved heart function and a better cardiac reperfusion**.

The company holds the **only patent** for anti human CD8 antibody which has other potential applications.

The company contributes to **reduce the burden of MI** by containing the long-term effect.

## Management Team



### Pr. Hafid Ait-Oufella

CSO &amp; CMO

- MD, PhD
- PU-PH, team head INSERM, intensive care St Antoine
- Science & Medical expertise



### Mohamed About Ali

CEO

- PharmD, MSc in Management (ESSEC)
- Ex IQVIA, Sanofi Genzyme, Chiesi
- Strategy & scientific operations expertise

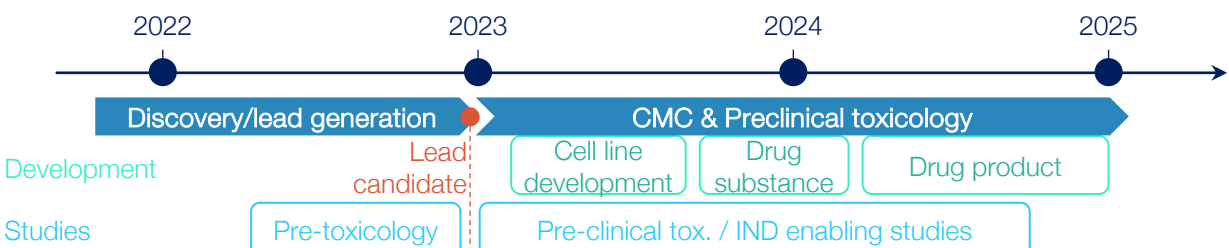


### Tatiana Monseur

COO

- MSc in Management (ESSEC)
- Ex consultant at Bain & Company specialized in Pharma
- Finance and PMO expertise

## Roadmap





## Technology and use cases

Polygon's lead therapeutic candidate is **PLG 101**, an **anti-CD8 monoclonal antibody** designed to target and attenuate CD8+ T cell-induced cytotoxicity in cardiac tissue through the **transient and selective depletion of CD8+ T cells**.

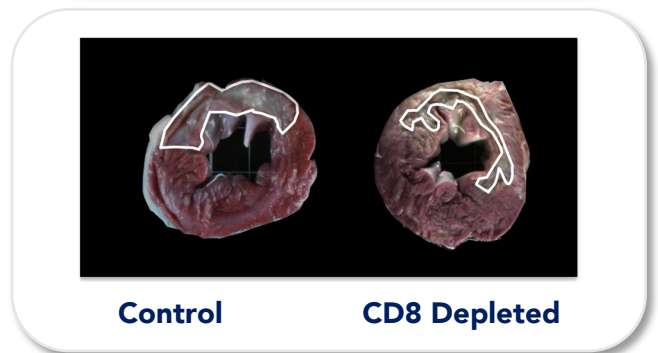
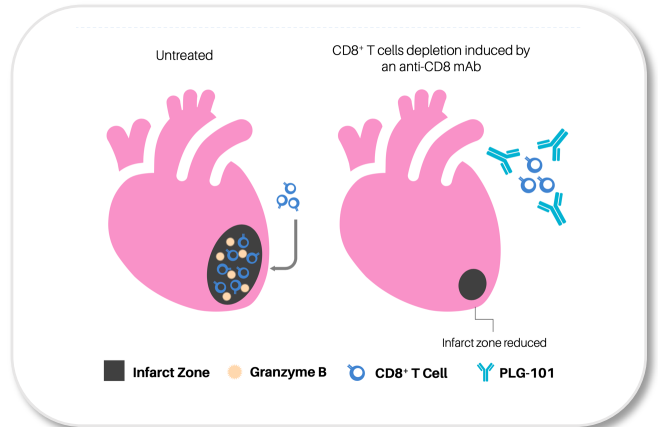
Moreover, the pharmacological activity of PLG-101 means that it could also be used as an **additional treatment in the management of other cardiovascular diseases** such as myocarditis, or immunological diseases such as toxic epidermal necrolysis (TEN), a serious skin condition caused by immune cytotoxic hyperactivity.

In partnership with Sorbonne University, INSERM, AP-HP and Université de Paris, Inserm Transfert has registered **two method patents** and granted exclusive **worldwide license** to the company.

In 2022, Polygon has submitted another patent on the product.

While the early mortality of patients following a MI (**7M patients** in the world) is decreasing, long-term effects of this cardiovascular affection remain an important burden and increase the **risk of secondary complications such as heart failure**. Costs of care following a MI represent 10-15k€ per patient per year in Europe.

The treatment could also be used in **Toxic Epidermal Necrolysis** (dermatological disease) and **Marfan Syndrome** (genetic disorder). Overall, the product could treat **1,9M patients per year worldwide** and generate a revenue of **€ 4Bn per year** from 2042.



### Partnerships




### ESG


- Improve patients' health after MIs, and reduce long-term effect such as chronic heart failure and relapse
- Decrease patients' mortality and improve quality of life
- Diminution of hospitalizations
- Improve care and patient pathway, and reduce related costs

# REAL ESTATE

## VALUE PROPOSAL

A pioneer in coliving in France, Sharies develops managed housing with services. The **aesthetically pleasing yet functional units** include access to comfortable communal spaces and a **host of services**, all **controllable via a mobile app**.

 Paris, France

 34 employees

 2017

 <https://sharies.co/fr>

## Presentation

Coliving responds to major sociological challenges by encouraging social ties through the right combination of independence and community living:

Each resident has his or her own private unit and shares parts of life with the other residents (meals, sports, cinema, etc.).

This sustainable way of life is built around sharing and community, especially for today's urban workers, whatever their age.



**17 residences** in France and Belgium



Paris (and suburbs), Lille, Nancy, Reims, Bruxelles

## Founding Team



**Julien Morville**  
Co-Founder & CEO

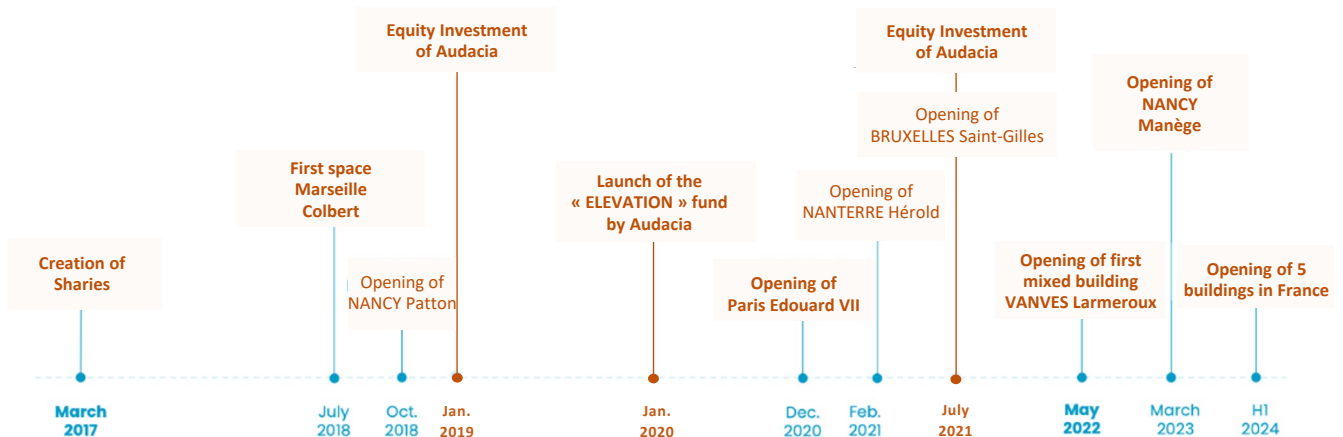
- +5 years' experience as an asset manager in Real Estate
- Master in Real Estate Management, ESSEC



**Augustin Midon**  
Co-Founder

- Entrepreneur: founder of DECAUM (construction company)
- Kedge Business School graduate

## Simplified Roadmap



## Our assets



### ELEVATION 1

- Club-deal completed in 2019 for the creation of a residence in **Vanves (92)**
- Close to the future **L15 metro station**
- **57 rooms**, fitness center, screening room, café-coworking area

### FPS AUDACIA ELEVATION

FPS dedicated to investing in coliving residences in France

**Massy:** 34 rooms, fitness center, coworking space, near RER station (opening January 2024)

**Reims:** 166 rooms, restaurant, 85 coworking workstations, services, near Reims TGV station (opening April 2024)





AUDACIA

**CAPITAL  
DEVELOPPEMENT**  
*Portfolio & Investor  
Booklet*

Constellation I  
Constellation II  
Constellation III  
Obligations Relance  
Fonds Pépites

---

*juin 2024*

---

**PME & ETI**  
**de croissance et**  
**de l'économie**  
**réelle**





# MESSAGE DE L'ÉQUIPE

Les PME et ETI familiales sont des piliers de l'économie nationale. L'accélération de leur croissance répond à la fois à un retour en force de la consommation locale et responsable et à une volonté grandissante de maîtrise de la chaîne de production. Par son accompagnement, Audacia cherche à favoriser l'innovation au sein de secteurs d'activité traditionnels en quête d'agilité.

Par la prise de participation minoritaire au capital de PME familiales positionnées sur des secteurs offrant des perspectives de création de valeur attractives, notre ambition est de participer au renouveau du tissu économique et industriel français.

Nos investissements visent des sociétés ayant un historique de croissance et de rentabilité, qui veulent accélérer leur expansion au travers d'une politique de développement organique et/ou de croissance externe.

Audacia se positionne comme un partenaire stratégique de long terme et accompagne ses participations de son expertise et de son réseau développé depuis 15 ans.



**Thomas Schmitz**  
Directeur des  
Investissements



**Alexandre Chevet**  
Directeur de  
participations



**Justine Berthon**  
Chargée d'affaires



**Thibault Donat**  
Chargé d'affaires



**Mathilde Ousset**  
Analyste

## INFORMATIONS CLÉS

### Investissements réalisés

**+860 M€ (2008-2023)**

### Nombre de sociétés financées

**+360 (2008-2023)**

### Taille ticket d'investissement

Holdings Constellation	<b>1M€ - 3M€</b>
Fonds Pépite	<b>5M€ - 15M€</b>
Obligations Relance	<b>2M€ - 7M€</b>

### TRI dernières opérations

**22%**





# SECTEURS VISÉS

---



## Industrie

Industrie manufacturière sur les secteurs de l'aéro, automobile, du luxe, des biens de consommation grand public

---



## Services à la personne

Réseaux de crèches, maintien à domicile , residence senior et éducation

---



## Consumer goods

Equipements sportifs et de mobilité, maroquinerie, prêt-à-porter

---

## Économie traditionnelle



## Services BtoB

Affichage publicitaire, édition de logiciels, avantage salariés

---



## Agro-alimentaire

Maisons viticoles, boulangeries, et autres enseignes de l'agroalimentaire.

---



## Hôtellerie / Restauration

Hôtellerie mur et fonds, restauration à theme et haut de game.

---



## Santé

Pharma, laboratoires, santé visuelle et auditive.



# CAPITAL DEVELOPPEMENT (1/2)



## Services BtoB

SEWAN (*)	4
OBIZ (*)	6
GIROD MEDIA	8
ATDI (**)	10
ATLANTIS TELEVISION (*)	12



## Services à la personne / BTOC

LES PETITES CANAILLES	14
QL CLEAN (*)	16



## Industrie

NINKASI	18
AEGIS PLATING (*)	20
ZODIAC MILPRO (*)	22
VIE & VÉRANDA (*)	24
GROUPE OBER (*)	26
BIOSYL (*)	28
DECOTEC (*)	30
OSE (**)	32



## Consumer goods

LEPAPE (*)	34
MAISON KITSUNÉ (*)	36
VANESSA BRUNO (*)	38

# CAPITAL DEVELOPPEMENT (2/2)



**Agro-  
alimentaire**

**MAISON L'ORGERIL**

40

**MAISON LANDEMAINE (\*)**

42



**Hôtellerie /  
restauration**

**LOULOU GROUPE**

44

**LA BONBONNIÈRE (\*)**

46



**Santé**

**ACUITIS (\*)**

48

**GRAND AUDITION (\*)**

50

**DELPHARM (\*)**

52





## PROPOSITION DE VALEUR

Sewan fournit des solutions de communication, de connexion Internet et d'hébergement de données à destination des TPE, PME et ETI.

📍 Paris, France

👤 770+

💡 2007

🌐 <https://www.sewan.fr>

### Présentation

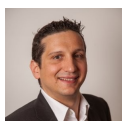
Fondé en 2007, Sewan est un des principaux **opérateurs de la télécommunication BtoB indépendant** sur le marché français.

L'offre du groupe se segmente en trois départements : un ensemble de solutions de **communication** (téléphonique, vocale et électronique), de **connexion Internet** et d'**hébergement de données**.

La distribution de l'ensemble des services est réalisée à la fois via un réseau de revendeurs indirects, mais aussi en direct à destination d'ETI/ grands comptes.

Le groupe mise sur sa plateforme unique et révolutionnaire, **Sophia**, permettant à ses **145 000 clients finaux** et ses partenaires de commander et gérer leurs abonnements de manière autonome, tout en automatisant la facturation.

### Portrait des fondateurs



**Alexis de Goriainoff**  
CEO

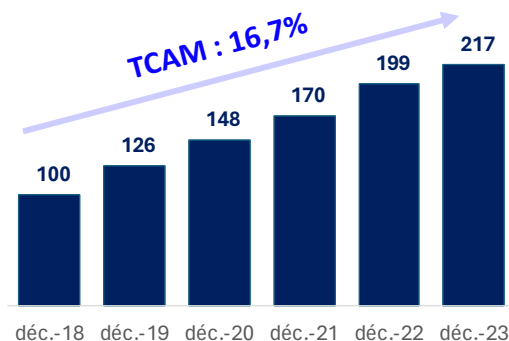


**David Brette**  
Directeur Général



**Christophe Cresp**  
Directeur Associé

### Croissance du groupe (CA, base 100)



### Historique du groupe





## Forces et opportunités

Un opérateur de services TIC B2B leader en France, positionné sur un segment de marché en croissance.

Un positionnement sur le segment des PME et ETI, qui rattrapent leur retard en matière de digitalisation et répondent aux nouveaux besoins en matière de télécommunication.

L'utilisation d'une plateforme unique, Sophia, propriété du groupe, apportant une réelle valeur ajoutée en matière de performance et de rétention client vis-à-vis des concurrents.

Une équipe managériale toujours en place depuis la création du groupe il y a 20 ans.

Un projet d'internationalisation réussi avec notamment six acquisitions depuis 2016.

De fortes perspectives de croissance à l'international notamment via des croissances externes.



### CHIFFRES CLES



**> 150 m€**

Chiffre d'affaires 2023



**770+**

Collaborateurs



**5 pays**

Présence géographique



**15+**

Année d'existence



**145 000**

Entreprises clientes



**1 250**

Partenaires distributeurs



## PROPOSITION DE VALEUR

Le groupe Obiz propose à ses clients des solutions à la fois de marketing relationnel, mais aussi de fidélisation à destination de leurs collaborateurs et de leurs propres clients.

Lyon, France

90+

2010

<https://obiz-concept.fr>

### Présentation

Fondée en 2010, Obiz est une société cotée spécialisée dans le développement de solutions de **marketing relationnel** et sur le marché des **avantages salariés**.

Obiz se place comme un **intermédiaire** entre les **entreprises clientes** (font appel à Obiz pour fidéliser leurs employés et clients avec des avantages), les **bénéficiaires** (regroupent les collaborateurs et les clients de clients d'Obiz), et des **partenaires** (proposent des offres promotionnelles).

Obiz assure **l'entièreté du cycle de vie d'un logiciel**, de la mise en place à l'utilisation, la maintenance jusqu'à l'up-selling.

Le groupe s'est renforcé par de multiples **croissances externes**, qui ont jusqu'à présent permis de compléter l'offre et d'élargir la base partenaire, client et bénéficiaire.

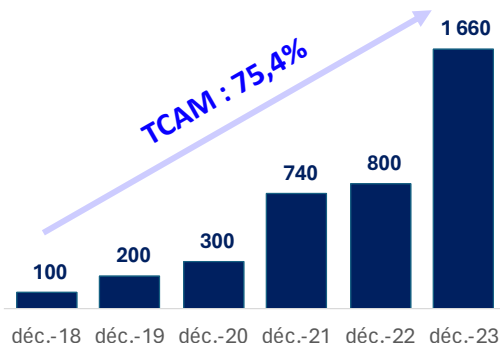
### Portrait du fondateur



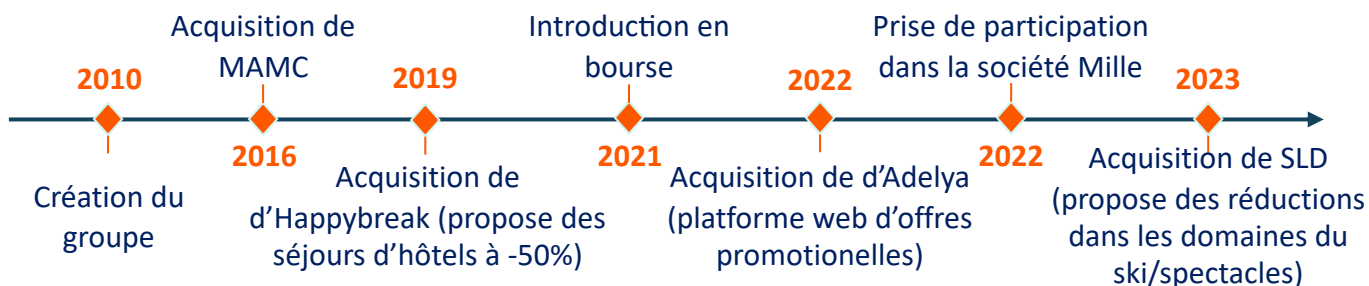
**Brice Chambard**  
Fondateur et CEO

- Fondateur et président du groupe Obiz depuis 2010
- Co-fondateur d'HOP
- Ex-directeur de région chez Tyco
- Diplômé de l'IAE Lyon

### Croissance du groupe (CA, base 100)



### Historique du groupe





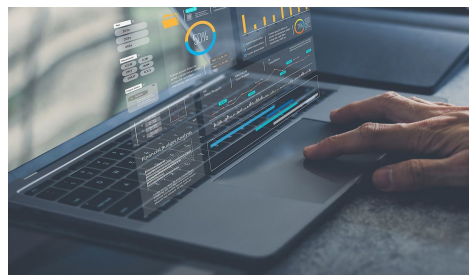
## Forces et opportunités

Un vaste réseau de partenaires, composé d'enseignes internationales et d'une multitude d'acteurs de proximité, totalisant plus de 50 000 partenaires spécialisés dans de multiples secteurs d'activité en France et à l'international.

Des opérations de croissances externes réalisées présentant d'importantes synergies commerciales, permettant au groupe de devenir un acteur majeur sur ses deux marchés.

Une implantation consolidée sur le marché de la fidélisation client, notamment avec l'acquisition de la plateforme web Loyalty Adelya, pionnier français du secteur.

Des tendances de marché favorables sur les segments du marketing relationnel et de la fidélisation collaborateurs/clients, soutenues par de nouvelles attentes consommateurs.



### CHIFFRES CLES



**> 50 m€**

Chiffre d'affaires 2023



**90+**

Collaborateurs



**+207%**

Δ du CA (2022-2023)



**35 500 000+**

Bénéficiaires



**50 000+**

Partenaires



**3**

Acquisitions depuis 2022



## PROPOSITION DE VALEUR

Acteur majeur sur le marché de la communication extérieure, Girod Médias conçoit et commercialise via la location de mobilier urbain d'affichage publicitaire en France et à l'international.

📍 Morbier (39), France

👤 140+

💡 1990

🌐 <https://www.girodmedias.fr>

### Présentation

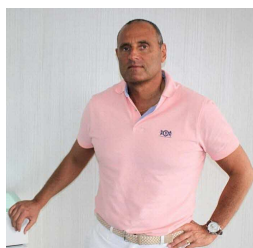
Fondée en 1990, Girod Médias est une entreprise familiale opérant sur le **marché de la communication extérieure**.

Acteur de référence dans plus de **350 villes de taille intermédiaire** (moins de 100 000 habitants), les activités du groupe se divisent en trois pôles : le **mobilier urbain publicitaire**, **l'affichage sur domaine privé** et le **fléchage commercial** au sein des collectivités.

Très active à l'international, notamment via des acquisitions, la société est le **4<sup>ème</sup> acteur en France** et le **3<sup>ème</sup> acteur au Portugal**, avec une forte croissance prévue en Espagne.

Girod Médias commercialise au travers d'agences, ses panneaux et faces dont il loue les emplacements dans le cadre de **campagnes nationales et régionales**.

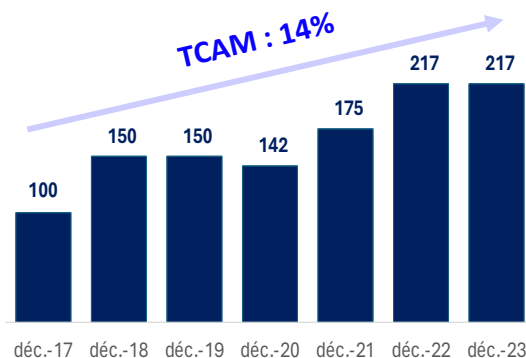
### Portrait du fondateur



**Philippe Girod**  
Fondateur & CEO

- Fondateur et président du groupe Girod Médias depuis 1990
- Ex-responsable commercial puis de développement international chez Signaux Girod

### Croissance du groupe (CA, base 100)



### Historique du groupe







## Forces et opportunités

Un réseau publicitaire solide, bâti depuis plus de 30 ans.

Une forte résilience du business model en raison d'une faible exposition aux fluctuations macroéconomiques des annonceurs régionaux localisés dans les villes de taille intermédiaire.

Un acteur ciblant les communes de moins de 100 000 habitants, caractérisées par l'absence de géants du secteur.

Une capacité démontrée à opérer des build-ups et à générer des synergies importantes.

Un développement à l'international très amorcé et en croissance.

Des opportunités de gain de parts de marché à l'international notamment au Portugal, en Espagne et en Autriche.



### CHIFFRES CLES



**> 20 m€**

Chiffre d'affaires 2023



**140+**

Collaborateurs



**4 pays**

Présence géographique



**17**

Agences en Europe



**350+**

Communes sous contrat



**9**

Build-up depuis 1990





## PROPOSITION DE VALEUR

ATDI apporte des solutions de gestion des ondes à destination des domaines civil et militaire.

📍 Paris, France

👤 40+

💡 1991

🌐 <https://atdi.com>

### Présentation

Créé en 1991 par Philippe Missud, ATDI est un **éditeur de 6 logiciels** spécialisés dans la gestion et le contrôle du **spectre radioélectrique**, le radio-planning, la cartographie numérique et la guerre électronique.

Le groupe compte plus de **2 500 clients**, répartis dans **plus de 100 pays**, regroupés en deux domaines d'activité, le domaine civil (70% de l'activité) et le domaine militaire (30% de l'activité).

ATDI est implanté en France, en Australie, en Pologne, au Royaume-Uni, et aux États-Unis.

Le groupe souhaite poursuivre son développement en lançant une offre intégrant une **intelligence artificielle** pour ses applications militaires, en poursuivant son **déploiement à l'international** et en accélérant la **prospection aux États-Unis**.

### Historique de croissance



### Portrait du dirigeant

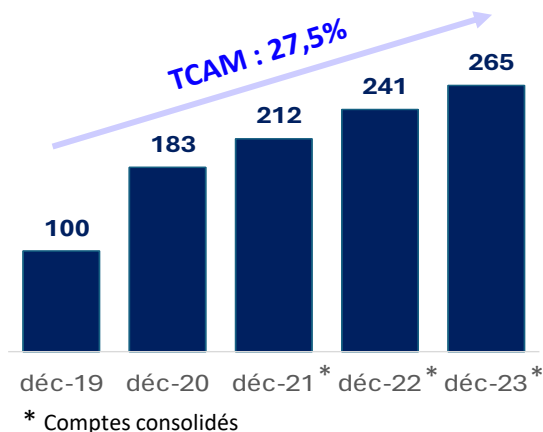


- Fondateur et Président de la société depuis 1991
- Contributeur actif au développement des logiciels

**Philippe Missud**

Fondateur et Président

### Croissance du groupe (CA, base 100)





## Forces et opportunités

Une offre personnalisée adaptée aux demandes spécifiques de chaque client.

Une large gamme de fonctionnalités développés et améliorés constamment depuis 30 ans.

Une forte capacité de rétention de ses clients.

Un contexte géopolitique mondial tendu favorisant l'activité des logiciels à usage militaire.

Un marché des télécoms toujours plus actif avec l'arrivée en continue de nouvelles technologies de transmission.

Des barrières à l'entrée importantes qui affaiblissent l'intensité concurrentielle.



### CHIFFRES CLES



**> 5 m€**

Chiffre d'affaires 2023



**40+**

Salariés



**100**

Pays de commercialisation



**+20 %**

TCAM 2018-2023



**6**

Logiciels



**2 500**

Clients



## PROPOSITION DE VALEUR

Atlantis TV est le leader français de la post-production télévisuelle et un acteur en devenir dans la post-production publicitaire et cinématographique (sous-titrage, doublage).

📍 Boulogne-Billancourt, France

👤 150+

💡 2003

🌐 <https://www.atlantistv.fr>

### Présentation

Créé en 2003 et initialement spécialisé dans la post-production **télévisuelle**, le groupe Atlantis TV a élargi cette activité au secteur de la **publicité** et du **cinéma**, via l'acquisition de sociétés.

Le groupe offre à ses clients (chaînes TV, producteurs) un **accompagnement sur mesure** dans la fabrication de leurs programmes (Téléfoot, Top Chef...).

Atlantis TV leur met à disposition des salles de tournage et de montage réparties dans **7 sites en région parisienne**.

Via une stratégie de **croissance externe**, le groupe souhaite étendre ses activités **en Belgique et en Afrique**, profitant de l'implantation durable de nombreux clients, qui ont besoin de contenu local pour alimenter leur plateforme.

### Historique de croissance



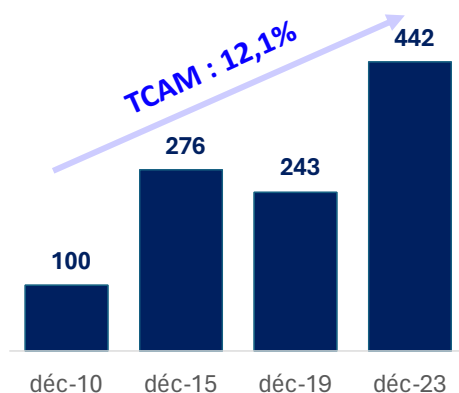
### Portrait du dirigeant



**Frédéric Houzelle**  
Président

- Fondateur du groupe Atlantis TV en 2003 et Président
- Ex-DG de IEPSO
- Ex-Président de Prestige Télévision et de Satel J

### Croissance du groupe (CA, base 100)





## Forces et opportunités

Une position de leader sur son marché historiques, conforté par d'étroites relations avec les principaux donneurs d'ordres nationaux.

Une diversification réussie sur les secteurs porteurs de la publicité et de la fiction.

Une capacité démontrée à générer de la croissance organique sur le long terme et à intégrer des croissances externes pour diversifier ses activités et pénétrer de nouveaux marchés.

Une diversification en cours sur les segments dynamiques du doublage et de la fiction couplée à une expansion géographique.

Un marché porteur, dans un contexte de demande croissante de contenus audiovisuels, dynamisé par le succès des plateformes de streaming.



### CHIFFRES CLES



**> 30 m€**

Chiffre d'affaires 2023



**7**

Sites



**120**

Unités de tournage



**+12,1 %**

TCAM 2010-2023



**15 000 m<sup>2</sup>**

Surface des ateliers



**500**

Salles de montage



## PROPOSITION DE VALEUR

Le groupe Les Petites Canailles exploite des crèches, commercialisées principalement auprès d'entreprises et de collectivités locales.

📍 Neuilly-sur-Seine, France

👤 400+

💡 2010

🌐 <https://www.lespetitescanailles.fr>

### Présentation

Fondé en 2010, Les Petites Canailles est un **opérateur de crèches** en propre évoluant principalement en Île-de-France.

Les crèches sont **haut de gamme**, de **grande capacité** (entre 20-35 berceaux par établissement), et localisées à **proximité du domicile des parents** ou proche de leurs lieux de travail.

Le groupe a récemment **diversifié ses activités** avec des programmes bilingues et des écoles Montessori.

La croissance du groupe s'est effectuée en totalité en **croissance organique**, via l'ouverture de nouveaux établissements.

Les Petites Canailles est un **challenger sur son marché** et se positionne juste derrière les leaders du secteur.

### Historique du groupe



### Portrait des fondateurs

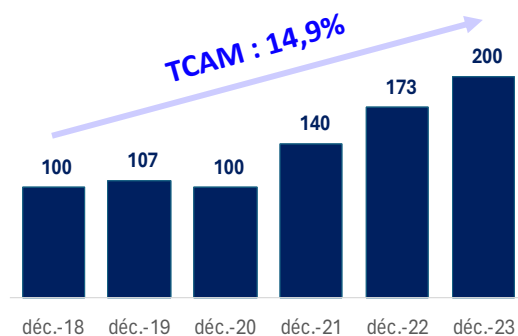


**Damien Tondelli**  
Président



**Sébastien Martin**  
Directeur Général

### Croissance du groupe (CA, base 100)





## Forces et opportunités

Une stratégie de pré commercialisation unique et peu risquée avec l'ouverture d'établissements uniquement à l'instant où le taux d'occupation atteint les 50%.

Une offre diversifiée à l'aide de méthodes modernes, pratiques, innovantes et recherchées : école Montessori, programme bilingue et démarche durable.

Un marché en déficit structurel d'offre.

Un secteur subventionné par les pouvoirs publics limitant les besoins en financement à l'ouverture de crèches.

Un taux d'occupation élevé grâce à un système de gestion mise en place en 2021.

Un développement au-delà d'Île-de-France au niveau national en cours, entamé avec une première implantation à Bordeaux.



### CHIFFRES CLES



**> 25 m€**

Chiffre d'affaires 2023



**400+**

Collaborateurs



**1 250+**

Berceaux disponibles



**40**

Établissements



**38**

Crèches



**2**

Écoles Montessori



## PROPOSITION DE VALEUR

QL Clean se positionne comme un acteur de la consolidation du multiservice bâtiment, avec une profonde orientation écologique.

📍 Paris, France

👤 80+

💡 2021

🌐 <https://qlclean.fr>

### Présentation

Fondé en 2021, QL Clean est un consortium d'investissement créé dans le but de consolider le **marché de la rénovation et de l'entretien de bâtiments**.

La stratégie de développement du groupe repose initialement sur une succession d'opérations de **croissance externe** en regroupant des marchés de niche dans la rénovation.

Grace à l'acquisition de **5 entités**, QL Clean fournit des services de traitement contre les termites d'installation de panneaux photovoltaïques et d'installation de systèmes de chauffage.

Le groupe réalise la majorité de ses ventes en **BtoC** et a pour volonté de diversifier son portefeuille client en **BtoB**.

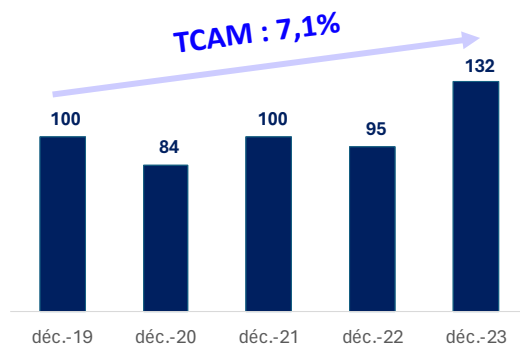
### Portrait du fondateur



**Jean-Charles Lebeau**  
Co-fondateur & CEO

- Président de QL Clean depuis 2021
- Ex-asset manager chez Solvay
- Diplômé de l'EM Lyon et de Centrale Supélec

### Croissance du groupe (CA, base 100)



### Historique du groupe







## Forces et opportunités

Une forte capacité à réaliser des opérations de croissance externe avantageuses dans des conditions favorables grâce à une méthode de sourcing et d'analyse d'opportunité propre au groupe.

Une équipe managériale expérimentée dans la lignée de la stratégie de croissance externe (30 ans d'expérience en M&A).

Un marché en croissance, porté par des dynamiques favorables principalement tirées par l'État français (subventions).

Après une stratégie agressive de build-up ayant porté ses fruits, le groupe compte se focaliser sur la croissance organique des entreprises acquises.

Un marché atomisé et composé de PME offrant de solides opportunités de consolidation.



### CHIFFRES CLES



**> 20 m€**

Chiffre d'affaires 2023



**80+**

Collaborateurs



**3**

Secteurs d'activité



**+7,1%**

TCAM 2019-2023



**5**

Croissances externes



**8 villes**

Présence en France





## PROPOSITION DE VALEUR

Ninkasi est un pionnier de la bière craft en France et bénéficie d'une position forte grâce à une maîtrise de la production et une forte notoriété régionale.

📍 Lyon, France

👤 120+

💡 1997

🌐 <https://www.ninkasi.fr>

### Présentation

Fondée en 1997, Ninkasi est un **brasseur de bière craft lyonnais**.

Grâce à son **image de marque** singulière liant burger et musique, ainsi que son établissement flagship de Gerland (Lyon), le groupe est parvenu à s'implanter dans toute la région Rhône Alpes.

Ninkasi distribue ses bières via son réseau CHR exploité en propre et en franchise (**25 restaurants**), ainsi qu'en GMS, canal renforcé depuis 2023 par un contrat de distribution avec IBB, distributeur national de premier plan.

Ninkasi ambitionne de devenir une **marque nationale**, grâce à son nouvel outil de production inauguré en 2023, capable de produire **120 000 hl** de bière par an (x3 vs ancien outil de production).

### Historique du groupe



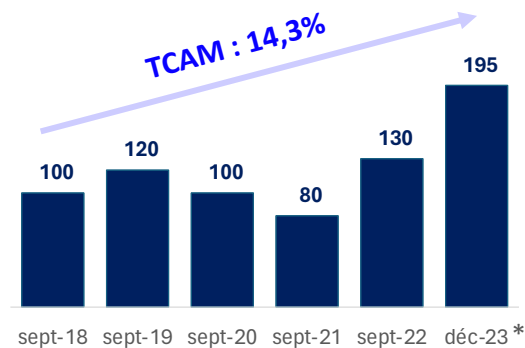
### Portrait du fondateur



**Christophe Fargier**  
CEO

- Fondateur et président du groupe Ninkasi depuis 1997
- IAE Lyon : DESS Entrepreneuriat et Management des petites organisations (1995)

### Croissance du groupe (CA, base 100)



\* Agrégé 15 mois



## Forces et opportunités

Une capacité de production largement supérieure aux concurrents comparables à Ninkasi, témoignant du potentiel industriel du groupe à l'échelle nationale.

Une force de vente intégrée, permettant de maîtriser l'implantation régionale.

Forte identité de marque, construite autour d'un concept de restauration et d'un esprit culturel (régie musicale internalisée et fonds de dotation dédié à l'émergence d'artistes régionaux).

Marque bien implantée en GMS, au niveau régional et au potentiel national (résultats encourageants des référencements nationaux au sein des enseignes Monoprix et Franprix).

Partenariat structurant avec La Maison du Whisky, pour le lancement de la gamme de whisky Ninkasi.



### CHIFFRES CLES



**> 30 m€**

CA agrégé 2023(\*)



**120 000 hL**

Production de bières



**25**

Établissements



**+14,3 %**

TCAM 2020-2023



**2 000 hL**

Production Whisky



**15**

Établissements franchisés

(\*) chiffre d'affaires sur un exercice de 15 mois non retraité des flux intercos.



## PROPOSITION DE VALEUR

Aegis se positionne en tant que consolidateur des secteurs du traitement de surface et du décapage, à destination des marchés aéronautique, aérospatial, automobile et défense.

📍 Lorient (56), France

👤 200+

💡 2004

🌐 <https://aegis-plating.com>

### Présentation

Implanté dans le Grand-Ouest depuis plus de 20 ans, Aegis est un groupe constitué d'une vingtaine de sociétés disposant leur propre site de production et spécialisée dans le traitement des métaux (électrolyse, galvanisation à chaud, peintures et laquage, grenailage, etc.).

La stratégie de croissance externe du groupe lui a permis d'acquérir de nouveaux procédés et savoir-faire, permettant de proposer une offre complète adressée un panel de secteurs d'activité large.

Le groupe dispose de plus de 250 certifications auprès des clients Airbus, Boeing, Thalès, GE, Safran, Scheider, etc.

Le groupe poursuit sa stratégie en vue de devenir un acteur incontournable du marché français sur son secteur.

### Historique de croissance



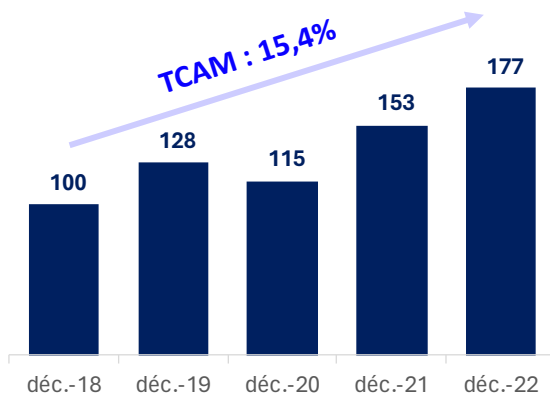
### Portrait du dirigeant



**Patrick Lautridou**  
Président

- Président fondateur Aegis Plating Solutions (depuis 2004)
- Contrôleur financier – Diana Ingrédients (1996-2003)

### Croissance du groupe (CA, base 100)





## Forces et opportunités

Acteur de taille critique sur son marché, qui bénéficie de la confiance des donneurs d'ordres grâce à sa solidité.

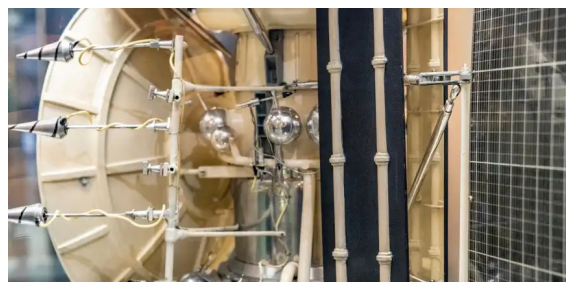
Un pouvoir de négociation conséquent avec les donneurs d'ordre, en raison d'un niveau de qualité optimal et de sa position de leader.

Un savoir-faire très particulier, que la plupart des grands donneurs d'ordres (équipementiers et sous-traitants de rang 1) ne peuvent internaliser.

Une forte récurrence des clients historiques compte tenu de la technicité des produits demandés.

Une capacité démontrée à intégrer des croissances externes et croître de manière rapide et maîtrisée.

Un secteur atomisé, composé de PME et TPE offrant des opportunités d'acquisition.



### CHIFFRES CLES



**> 20 m€**  
CA consolidé



**200+**  
Salariés



**+20 sites**  
De production



**+15,4 %**  
TCAM 2018-2022



**250+**  
accréditations



**+16**  
Acquisitions depuis 2004



## PROPOSITION DE VALEUR

Zodiac MILPRO produit et commercialise des bateaux pneumatiques et semi-rigides à destination des instances militaires et autres professionnels du secteur.

📍 Paris, France

👤 380+

💡 2012

🌐 <https://zodiacmilpro.com>

### Présentation

Fondée en 2012, Zodiac MILPRO (militaires et professionnels) est une ex-filiale du groupe Zodiac Marine Pool **spécialisé dans les bateaux pneumatiques et semi-rigides**.

La société **conçoit, assemble et assure l'intégration technique** de différentes plateformes, sur lesquelles le groupe implémente des pièces technologiques en fonction des besoins de la clientèle.

**Acteur de référence** en France comme à l'international, l'entreprise fournit les **services de police et les institutions militaires** de pays comme la France, la Chine ou les États-Unis.

La croissance du groupe s'est effectuée en partie en **croissance externe**, via l'acquisition de sociétés pour élargir la présence sur la chaîne de valeur.

### Historique du groupe

1896

Création de l'ancienne société mère du Groupe

2012

Rachat du segment militaire de Zodiac Marine Pool

2017

Rachat de l'entreprise par Argos Wityu

2021

Acquisition de Vectis Marine Design (architecture navale)

2022

Acquisition de Yacht Werft Meyer (conception de bateaux sur mesure)

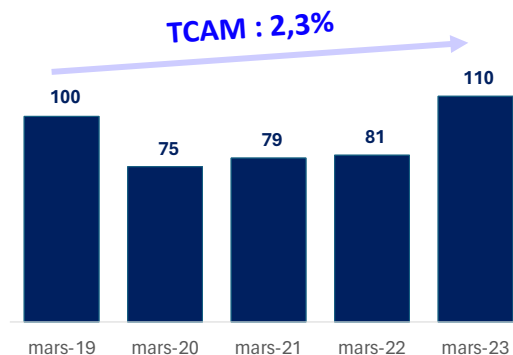
### Portrait du dirigeant



**Guillaume Laurin**  
Président

- Président de Zodiac Milpro depuis 4 ans
- Ex-président du directoire de NSE Groupe
- Ex-directeur du dev. chez ECT Industries

### Croissance du groupe (CA, base 100)





## Forces et opportunités

Un savoir-faire unique qui relève de plus 100 ans d'expérience, et confère au groupe une renommée incontournable dans le secteur.

Une présence internationale notamment grâce à contrats avec les instances militaires nationales les plus prestigieuses (Raid, US Army, Police Nationale, Marine, etc).

Un réseau de distribution solide en interne, grâce à des filiales implantées sur la majeure partie des marchés adressés par le groupe.

Une présence complète sur la chaîne de valeur renforcée avec l'acquisition de Yacht Werft Meyer (spécialisé dans la conception et production de bateaux premium sur mesure).

Un secteur comportant des opportunités technologiques, le groupe met l'accent sur la R&D (acquisition Vectis Marine Design) pour augmenter la performance de son offre (inclusion du tracking data sur ses bateaux).



### CHIFFRES CLES



**> 50 m€**

CA 2023



**380+**

Collaborateurs



**80+**

Pays de commercialisation



**100+**

Ans d'existence



**5**

Sites de production



**8**

Gammes de bateaux



## PROPOSITION DE VALEUR

Vie & Véranda design, fabrique et commercialise des vérandas, pergolas et extensions de jardin haut-de-gamme.

📍 Feyzin (69), France

👤 270+

💡 1984

🌐 <https://www.vie-veranda.com>

### Présentation

Fondé en 1984 par la famille Pinoncély, le groupe Vie & Véranda conçoit l'ensemble de ses **produits sur mesure**, en utilisant principalement le **bois** comme matériau de construction.

Leader sur le marché français, le groupe possède son propre **outil de production** à Feyzin, spécialisé dans la production d'équipements de jardin en bois et aluminium.

La commercialisation se fait grâce à un vaste **réseau d'agences**, détenues en **propre et en franchise**, sur l'ensemble du territoire français et sous 5 marques différentes.

L'activité du groupe est principalement localisée en France, le groupe peut également intervenir en Suisse et au Luxembourg.

### Historique du groupe



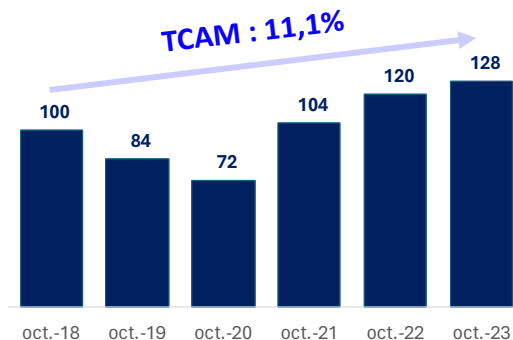
### Portrait du dirigeant



**Lucas Pinoncély**  
CEO

- Succède à son père en tant que CEO de Vie & Vérandas en 1996
- Précédemment chargé d'ouvrir les agences parisiennes du groupe

### Croissance du groupe (CA, base 100)







## Forces et opportunités

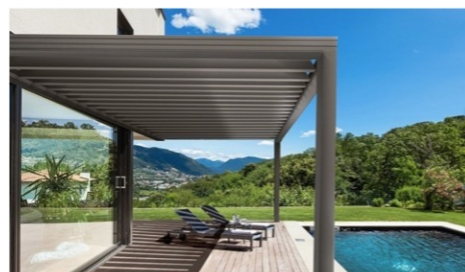
Un positionnement de leader sur le marché français sur la conception et la production de vérandas haut-de-gamme, en bois et aluminium.

Un maillage territorial dense et en croissance avec 50 agences (21 en propres et 29 en franchises).

Un marché en phase de pleine croissance, l'aménagement extérieur ayant connu un fort essor à la suite de la pandémie du Covid-19.

Un élargissement au fil des années de la gamme de produits proposée.

Une expertise de production différenciante dans les matériaux utilisés, le groupe s'est repositionné sur des vérandas en bois et aluminium, une offre différenciante de la vaste majorité des concurrents qui utilisent l'aluminium.



### CHIFFRES CLES



**> 30 m€**

CA consolidé 2023



**270+**

Collaborateurs



**3**

Pays de commercialisation



**40+**

Ans d'existence



**1**

Site de production



**50**

Agences





## PROPOSITION DE VALEUR

Le groupe Ober produit et commercialise des panneaux d'agencement d'intérieur décoratifs majoritairement en bois et béton, pour une clientèle haut de gamme BtoB en France et à l'international.

📍 Longeville-en-Barrois (55), France

👤 380+

💡 1925

🌐 <https://www.ober-surfaces.com>

### Présentation

Fondé en 1925, le groupe Ober est spécialisé dans la conception et la fabrication de **panneaux d'ameublement** et d'agencement d'intérieurs décoratifs.

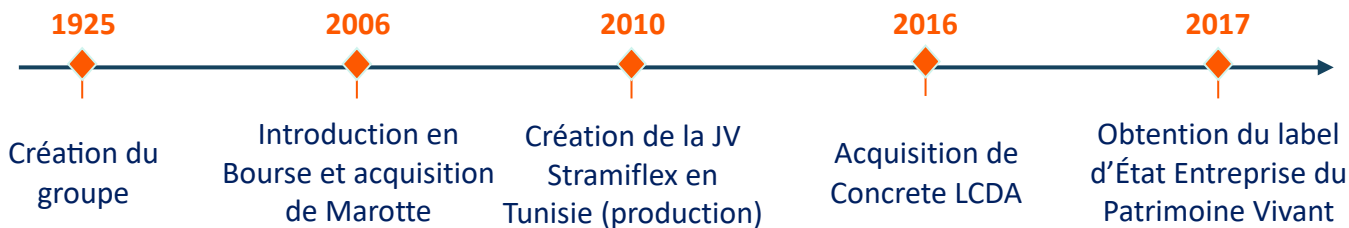
Grâce à une **stratégie de croissance externe** et d'**investissements R&D**, le groupe propose une gamme de **panneaux en bois, béton**, tissu ou matière minérale.

Les produits s'adressent à une **clientèle professionnelle premium**, meublant des hôtels de luxe, des boutiques prestigieuses et des salles de spectacle.

La production est réalisée en grande partie par le groupe en **France et en Tunisie**.

Les produits sont distribués dans le monde entier avec près de 50% des ventes hors Europe.

### Historique du groupe



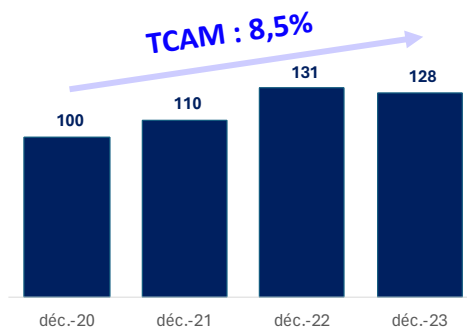
### Portrait des dirigeants



*Étienne de la Thebaudière*  
CEO

- Directeur Général d'Ober Groupe depuis 2004
- Diplômé d'un DEA stratégies et entreprise à l'ESCP

### Croissance du groupe (CA, base 100)





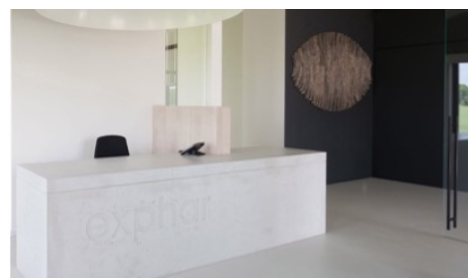
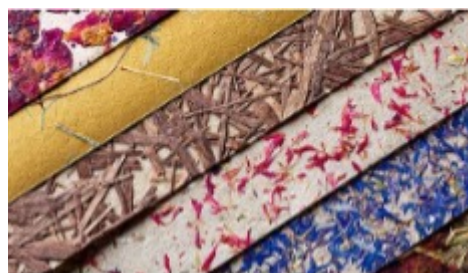
## Forces et opportunités

Une offre large sur des marchés complémentaires, une profondeur de gamme permettant au groupe de se différencier de ses concurrents tout en réduisant son exposition à un seul marché.

Une présence internationale historique, grâce à des croissances externes (Tunisie) ou organiques (États-Unis), le groupe a mis en place un réseau de distribution mondial avec des ventes dans près de 50 pays.

Une image de marque prestigieuse (Marotte) et des collaborations avec des décorateurs de renom (Patrick Nerguet).

Une forte diversification dans les matériaux utilisés, les investissements en R&D du groupe ont permis la production et la commercialisation de nombreuses solutions esthétiques et techniques dans des matériaux variés.



### CHIFFRES CLES



**> 30 m€**

CA consolidé 2023



**380+**

Collaborateurs



**50+**

Pays de commercialisation



**100**

Ans d'existence



**3**

Sites de production



**600+**

Références produit



## PROPOSITION DE VALEUR

Le groupe Biosyl fournit des granulés et pellets de bois pour les besoins de chauffage domestique.

📍 Cosne-Cours-sur-Loire (58), France

👤 70+

💡 2010

🌐 <https://www.biosyl.fr>

### Présentation

Fondé en 2010, le groupe Biosyl est spécialisé dans la fabrication de **pellets**, **granulés de bois** composés de sciures de bois compressées, destinés au chauffage domestique.

La production est réalisée dans **deux usines** en France appartenant au groupe.

Le groupe s'approvisionne auprès **d'acteurs locaux** et **d'exploitants agricoles**.

Les pellets sont majoritairement distribués en **Grande Surface Alimentaire** et en **Grande Surface de Bricolage**. Depuis 2021, le groupe commercialise également ses produits sur son site Internet.

Le groupe produit jusqu'à **200 000 tonnes** de pellets par an, alimentant près de **150 000 foyers** en chauffage et énergie.

### Historique du groupe



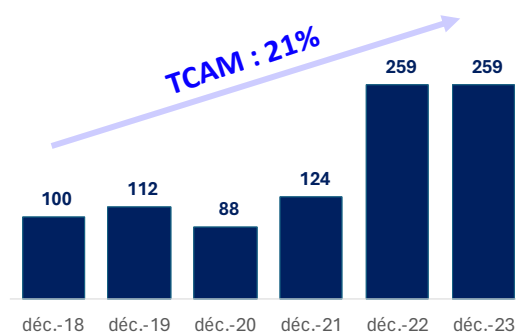
### Portrait du fondateur



**Antoine de Cockborne**  
Fondateur et CEO

- Fondateur et CEO du groupe depuis 2010
- Ex-analyste M&A Real Estate chez Merrill Lynch à Londres
- Diplômé de HEC Paris

### Croissance du groupe (CA, base 100)





## Forces et opportunités

Un marché en forte croissance, tiré par des tendances long terme comme l'augmentation du nombre d'installations de chauffage au bois chez les ménages français, privilégié par la législation sur les installations de chauffage aux énergies fossiles.

Une expertise industrielle éprouvée et duplicable, les progrès du groupe permettant l'ouverture d'une nouvelle usine en 2022 et l'ouverture d'une troisième usine en 2024.

Une position d'acteur majeur dans un marché atomisé, les concurrents (sociétés régionales) ayant un pouvoir de négociation plus faible sur l'approvisionnement de matières premières.

Issu d'une famille de forestiers, le dirigeant et fondateur bénéficie d'un réseau très qualifié sur toute la chaîne de valeur et d'une profonde connaissance du marché.



### CHIFFRES CLES



**> 40 m€**

CA consolidé 2023



**70+**

Collaborateurs



**200 000 t**

Production annuelle



**10**

Ans d'existence



**2**

Sites de production



**2**

Marques de distribution





## PROPOSITION DE VALEUR

Decotec est spécialisé depuis plus de 50 ans dans la conception, la fabrication et l'assemblage de meubles de salles de bains moyen/haut-de-gamme en France et à l'international.

📍 Tuffé (72), France

👤 170+

💡 1974

🌐 <https://decotec.fr>

### Présentation

Labelisé **Entreprise du Patrimoine Vivant**, Decotec exerce depuis 1974 sur le secteur de **l'ameublement de salles de bains** moyen/haute gamme.

Le groupe fabrique ses solutions dans son usine dans la Sarthe et les commercialise dans des **showrooms** de groupes clients et des **grandes surfaces** de bricolage.

Une stratégie de développement a été mise en place à l'arrivée du nouveau PDG, Decotec souhaite **diversifier son offre** produit, diversifier sa clientèle vers **l'hôtellerie** et les **chantiers navals** et accentuer son **expansion internationale** notamment en Allemagne.

Axé sur l'international, Decotec distribue ses produits en France, en Allemagne, au Benelux, en Suisse et au Royaume Uni.

### Historique du groupe



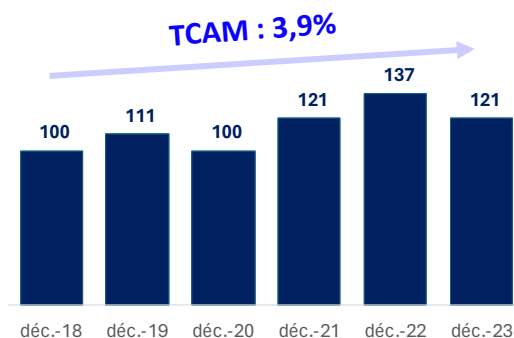
### Portrait du dirigeant



**Laurent de Bray**  
Président

- Président du groupe depuis 2021
- Ex-CEO d'Euromat
- Ex-CEO de Philips Lighting

### Croissance du groupe (CA, base 100)





## Forces et opportunités

Un groupe ancré depuis 1991 et qui détient un savoir-faire riche et jouit d'une réputation unique.

Une diversification des activités du groupe pour élargir sa clientèle et permettre une croissance forte sur un marché mature, Decotec multiplie les investissements en R&D et a mis au jour le receveur de douche le plus léger du marché.

Des projets connexes à son activité qui représentent des leviers de croissance importants.

Un engagement RSE significatif à la fois dans le sourcing produit et ses pratiques (obtention de la médaille de Bronze EcoVadis).

Une diversification avec la recherche de contrats avec des hôtels et des chantiers navals.



### CHIFFRES CLES



**> 20 m€**

CA consolidé 2023



**170+**

Collaborateurs



**12%**

Parts de marché



**50**

Ans d'existence



**1**

Site de production



**600+**

Fournisseurs actifs





## PROPOSITION DE VALEUR

Ose Group développe des lignes d'assemblage industrielles ultra flexibles et modulables destinées à la production de biens industriels.

📍 Ponts-de-Cé (49), France

👤 220+

💡 1986

🌐 <https://ose-group.com>

### Présentation

Né du rachat en 2009 d'une société spécialisée dans la fabrication de machines industrielles spéciales, Ose Group conçoit, assemble, démonte et livre des **lignes d'assemblage technologiques** pour des clients, principalement sur le **secteur automobile**.

Son **offre sur mesure** lui permet de se positionner sur des segments à **haute valeur ajoutée**.

Le groupe développe plusieurs solutions pour améliorer sa rentabilité en amont de la production (modélisation virtuelle, simulation de l'usure) et en aval (reconfiguration d'une ligne montée).

Ose Group souhaite axer son développement autour du marché de l'**électromobilité** et de son **outil innovant Prolynk** (lignes d'assemblage matricielle).

### Historique de croissance



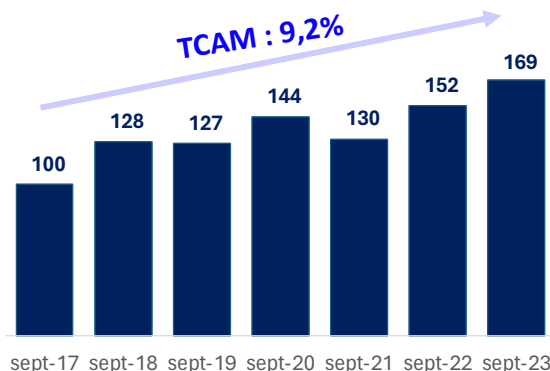
### Portrait du dirigeant



**Olivier Seyeux**  
Président

- Acheteur et Président du groupe depuis 2009
- 13 ans d'expérience dans l'industrie (Ex-SMI, Mitsubishi, Allia France...)

### Croissance du groupe (CA, base 100)







## Forces et opportunités

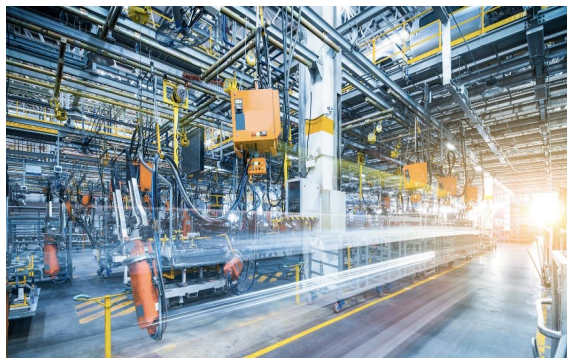
Un savoir-faire reconnu auprès de clients historiques et récurrents.

Une capacité à diversifier son portefeuille d'activité pour proposer une offre complète.

Un accompagnement de qualité des clients lors de leur développement à l'international, notamment grâce à son implantation en Chine et en Allemagne.

Une équipe de management ambitieuse et expérimentée (12 ans d'expérience dans l'industrie automobile en moyenne).

Des services supports de qualité (formation, services de pièces de rechange, assistance, diagnostic...)



### CHIFFRES CLES



**> 40 m€**

CA consolidé 2023



**220+**

Salariés



**40**

Pays de commercialisation



**+9,2 %**

TCAM 2017-2023



**jusqu'à 15 m€**

CA par projet



**80 %**

Produits exportés



## PROPOSITION DE VALEUR

Le groupe Lepape est spécialisé dans la distribution d'équipements dédiés à la pratique du running, du fitness et du vélo.

📍 Paris, France

👤 150+

💡 1996

🌐 <https://www.lepape.com>

### Présentation

Fondé en 1996, le groupe Lepape est un des leaders français de la **distribution d'équipements sportifs**.

Les équipements vont des vélos, aux chaussures et montres connectées, jusqu'au matériel de musculation et textiles.

La commercialisation se fait **en ligne** ou en **boutique**, situées en centre-ville de Paris, Lyon et Bordeaux.

En 2017, le groupe se diversifie en rachetant l'enseigne **En Selle Marcel**, enseigne novatrice sur le marché de la mobilité douce.

Le groupe a entamé une stratégie de déploiement intense de boutiques à l'échelle nationale couplée à une stratégie de conquête commerciale sur le BtoB.

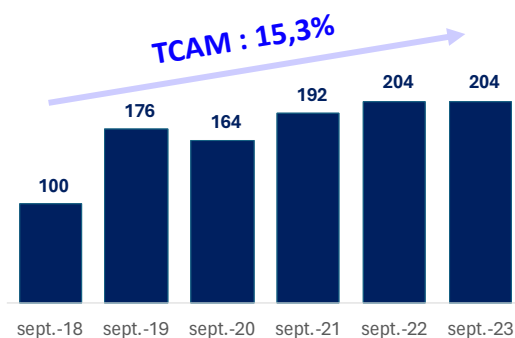
### Portrait du fondateur



**Claude Lepape**  
Fondateur & CEO

- Président et fondateur du groupe Lepape en 1996
- Actionnaire majoritaire de la société
- Autodidacte

### Croissance du groupe (CA, base 100)



### Historique du groupe





## Forces et opportunités

Un groupe porté par les enjeux sociétaux majeurs : la transformation digitale (augmentation des ventes e-commerce), la transition écologique (essor de la mobilité douce) et la santé par le sport.

Une expertise particulière sur le métier du digital qui a permis au groupe de contenir l'impact de crises, le site e-commerce étant l'activité historique de la société.

Une diversification de la gamme de produits, grâce à l'acquisition d'En Selle Marcel permettant la pénétration du marché de la mobilité douce.

Le groupe bénéficie d'une image d'expert ancrée dans l'imaginaire collectif, expertise de plus en plus recherchée par les sportifs.

Une diversification réussie, le groupe a signé 4 contrats avec l'armée française en 2019.



### CHIFFRES CLES



**> 50 m€**

CA consolidé 2023



**150+**

Collaborateurs



**17**

Boutiques en France



**50 000+**

Références en stock



**5 villes**

Présence nationale



**300 000+**

Visites par mois sur le site



## PROPOSITION DE VALEUR

Maison franco-japonaise offrant un univers et une expérience unique à ses clients, où la tendance et l'originalité habitent les magasins de prêt-à-porter et les cafés-restaurant du groupe.

📍 Paris, France

👤 150+

💡 2002

🌐 <https://maisonkitsune.com>

### Présentation

Fondé en 2002, le groupe Maison Kitsuné évolue majoritairement sur le secteur du **prêt-à-porter** luxe accessible, des **cafés** et de la **musique**.

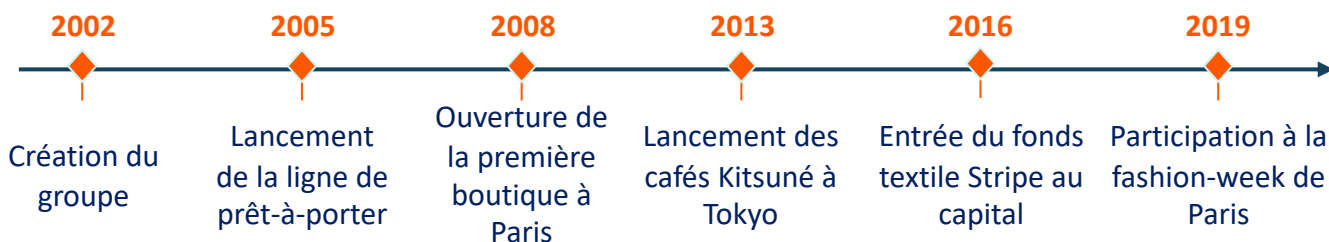
Bénéficiant d'une forte image de marque, le groupe est implanté en **France** (23% du CA), aux **États-Unis** (14% du CA) et en **Asie** (63% du CA), via des établissements exploités en propre, le wholesale et la franchise.

La marque cible une clientèle branchée et affiche un **positionnement prix moyen/haut de gamme**.

La production textile est réalisée au Portugal mais aussi au Maroc et en Europe.

Le groupe a axé sa stratégie sur la **diversification de ses activités** et l'entrée sur le marché asiatique pour créer un univers de marque unique et distingué.

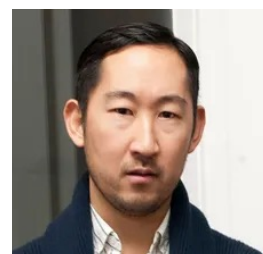
### Historique du groupe



### Portrait des fondateurs

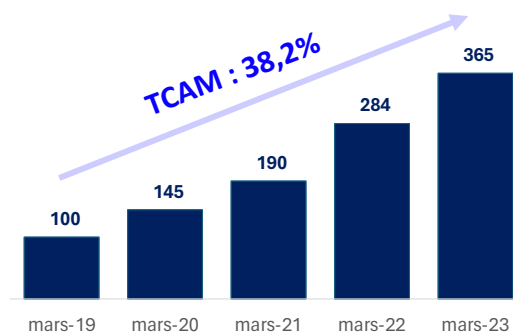


**Gildas Loaec**  
Co-fondateur



**Masaya Kuroki**  
Co-fondateur

### Croissance du groupe (CA, base 100)





## Forces et opportunités

Une attractivité mondiale portée par une présence internationale dans les grandes capitales de la mode à travers un réseau de points de vente en propre et de wholesalers.

Un modèle unique porté par trois activités (prêt-à-porter / musique / café) qui incarnent l'image de marque « lifestyle » du groupe.

Des lignes de métiers qui se complètent et qui constituent une forte notoriété à travers une clientèle éclectique.

Un mélange parfait entre l'élégance à la française et le minimalisme japonais, la marque est le reflet de l'art de vivre simple et élégant.

Une notoriété forte en partie due aux deux fondateurs, Gildas Loaec ayant baigné dans l'univers de la mode et de la musique était l'ancien manager des Daft Punk.



### CHIFFRES CLES



**> 100 m€**

CA consolidé 2023



**150+**

Collaborateurs



**88% du CA**

Réalisé à l'export



**20**

Points de vente textile



**20**

Café Kitsuné



**18+**

Collaborations textiles





## PROPOSITION DE VALEUR

Le groupe Vanessa Bruno conçoit des articles de prêt-à-porter, d'accessoires et de chaussures dédiées à l'univers de la femme et positionnées sur le segment du luxe accessible.

📍 Paris, France

👤 230+

💡 1996

🌐 <https://www.vanessabruno.fr>

## Présentation

Vanessa Bruno est une marque française de **prêt-à-porter** pour femme, fondée en 1988 par la designer éponyme.

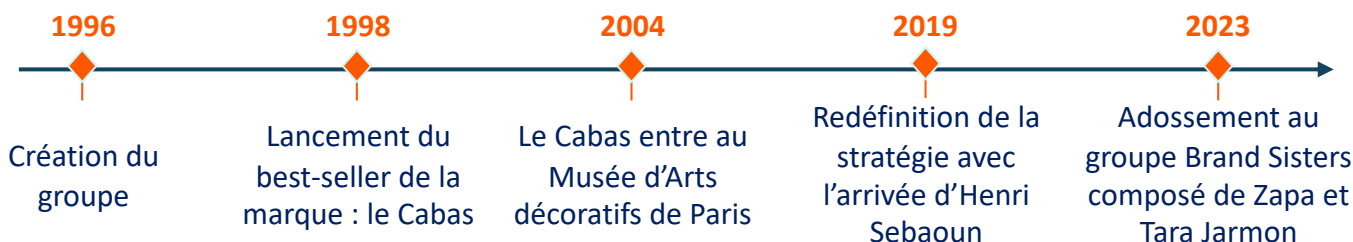
Historiquement positionnée sur le segment du prêt-à-porter avec son **sac phare cabas**, la marque s'est diversifiée et dispose d'une gamme d'accessoires et chaussures.

La commercialisation des produits est réalisée via le **réseau de boutiques et corners**, en **wholesale** en France et à l'**international** et **en ligne** via le site de la marque et les plateformes de revente.

L'arrivée de l'ex-PDG de Carmen, Henri Sebaoun, à la direction de la société marque un **tournant stratégique** fructueux.

Depuis 4 ans, la société mise notamment sur une stratégie de commercialisation en corners.

## Historique du groupe



## Portrait des dirigeants

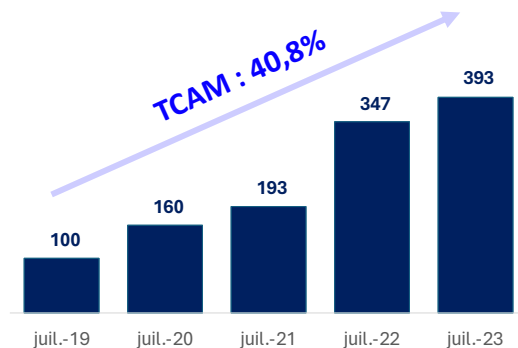


**Vanessa Bruno**  
Fondatrice & CEO



**Henri Sebaoun**  
Directeur Général

## Croissance du groupe (CA, base 100)





## Forces et opportunités

Un réseau de distribution en pleine progression et adapté à la nouvelle stratégie du groupe depuis l'arrivée du nouveau directeur général en 2019.

Un fort développement du groupe porté par une stratégie de repositionnement pertinente dont les effets commencent à être visibles.

Une nouvelle équipe de direction solide présidée par H. Sebaoun (ex-PDG de Carmen).

De nouvelles opportunités commerciales, rapprochement stratégique avec le groupe Brand Sisters (soutenu par le fonds Mirabaud Patrimoine Vivant).

Un maillage national avec des points de vente dans les plus grandes villes françaises.

Une gamme intemporelle de produits, le sac Cabas est notamment décrit comme un incontournable par la presse féminine.



### CHIFFRES CLES



**> 50 m€**  
CA 2023



**230+**  
Collaborateurs



**100-500€**  
Gamme de prix



**25**  
Ans d'existence



**60+**  
Boutiques officielles



**120+**  
Magasins revendeurs





## PROPOSITION DE VALEUR

Maison Logeril produit et distribue des vins rouges, blancs et rosés du Languedoc et du Roussillon, avec un objectif de montée en gamme.

📍 Pennautier (11), France

👤 35+

💡 1620

🌐 <https://www.lorgeril.wine>

### Présentation

Reprise en 1987 par Nicolas et Miren de Logeril, Maison Logeril est une **maison familiale** qui cultive des domaines, possède des sites de vinification et élève des vins en s'approvisionnant auprès de vignerons et de coopératives externes au groupe.

Le groupe vend sa production en France et dans une **trentaine de pays**.

Les **40 références** de vins s'articulent en différentes gammes (de 5€ à 70€).

Le groupe axe son développement autour de l'investissement dans les outils de notoriété pour **améliorer son image de marque**, du développement de l'activité de négoce et de la **montée en gamme des vins** pour augmenter la part des produits premiums dans le mix.

### Portrait du dirigeant



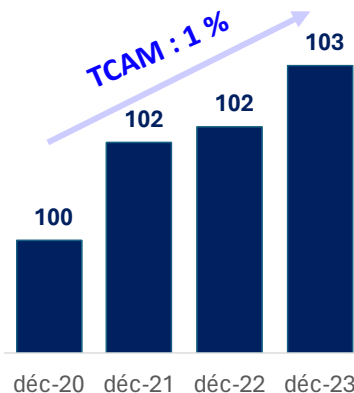
- Acheteurs du groupe Maison Logeril en 1987

- Ancienne Présidente du Comité Interprofessionnel des vins du Languedoc et actuel DG d'ETI Finance

#### Miren et Nicolas de Logeril

Présidente et Directeur Général

### Croissance du groupe (CA, base 100)



### Historique de croissance







## Forces et opportunités

Une capacité démontrée à augmenter régulièrement les prix grâce à la notoriété grandissante du groupe, l'amélioration du positionnement des vins du Languedoc, la stratégie de montée en gamme.

Un partenariat depuis 2019 avec Stéphane Deroncourt, œnologue réputé, afin d'améliorer la qualité du vin.

Un réseau de distribution diversifié (différents canaux et maillage géographique étendu).

Des vins primés dont les notations internationales progressent chaque année.

Un développement des ventes sur le marché asiatique, marché à fort potentiel.

Une concurrence faible sur l'activité de négoce dans le Languedoc et le Roussillon, activité en cours de développement par Lorgeril.



### CHIFFRES CLES



**> 5 m€**  
CA 2023



**+1 %**  
TCAM 2020-2023



**6**  
Domaines



**5 à 70 €**  
Gamme de prix



**30**  
Pays de commercialisation



**250 ha**  
Surface de vignes



## PROPOSITION DE VALEUR

Historiquement basée en Île-de-France, la Maison Landemaine opère 24 points de vente boulangeries-pâtisseries-snacking en France et au Japon.

📍 Paris, France

👤 300+

💡 2007

🌐 <https://maisonlandemaine.com>

### Présentation

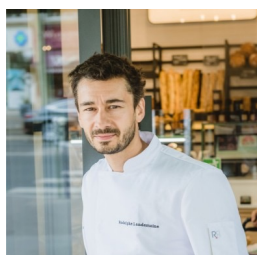
Fondée en 2007 par Rodolphe et Yoshimi Landemaine, la Maison Landemaine est une entreprise exploitant des **boulangeries**.

L'activité historique du groupe consiste en une **offre artisanale** de boulangeries-pâtisseries et s'est diversifiée au fil du temps dans le **snacking** pour suivre les évolutions dans les modes de consommation.

La maison propose également un service de **traiteur** à destination de **professionnels** et fournit certaines enseignes de restauration en pain (Frichti).

Le groupe s'est développé via **l'acquisition de multiples fonds de commerce** dans le monde entier, en diversifiant son offre de boulangeries et en élargissant ses canaux de vente avec le service **BtoB**.

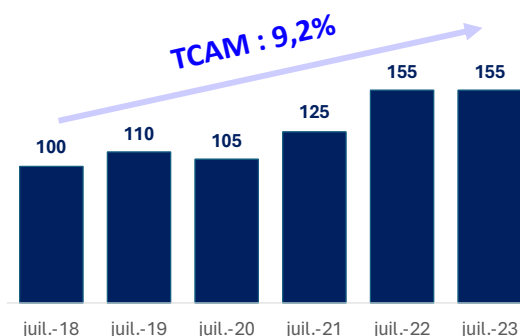
### Portrait des fondateurs



**Rodolphe Landemaine**  
Co-fondateur

**Yoshimi Landemaine**  
Co-fondatrice

### Croissance du groupe (CA, base 100)



### Historique du groupe





## Forces et opportunités

Une activité résiliente portée par des dynamiques positives au sein du secteur, la demande pour les produits hauts de gamme ne tarissant pas.

Une digitalisation croissante du processus de vente (présence sur Deliveroo).

Un maillage territorial important, avec une présence en France et au Japon.

Une valorisation des invendus, produits commercialisés sur la plateforme Phénix.

Un savoir-faire artisanal couplé à une production Made in France permettant de rendre les produits qualitatifs et responsables.

Des fondateurs boulangers de formation, l'un étant un ancien de grandes maisons du secteur (Pierre Hermé et Paul Bocuse).



### CHIFFRES CLES



**> 30 m€**  
CA 2023



**300+**  
Collaborateurs



**2 pays**  
Présence géographique



**15+**  
Ans d'existence



**24**  
Boutiques dans le monde



**2**  
Hubs de production



## PROPOSITION DE VALEUR

Loulou Group est un acteur reconnu de la restauration festive à thème et de l'événementiel haut-de-gamme qui ambitionne un développement international.

📍 Paris, France

👤 130+

💡 2016

🌐 <https://www.loulou-groupe.com>

### Présentation

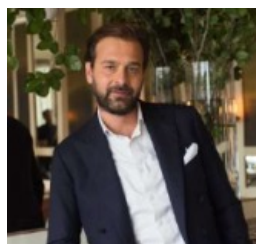
Créée en 2016 par Gilles Malafosse, Loulou Group est un groupe de restauration qui possède **5 restaurants** en concession, localisés dans des lieux emblématiques du patrimoine culturel français.

Implantés à Paris, à Val d'Isère, à Roquebrune-Cap-Martin et à Ramatuelle, les établissements du groupe proposent une cuisine méditerranéenne et incarnent **le chic à la française**.

Le groupe présente un positionnement haut-de-gamme avec un ticket moyen de **70€ à 190€** selon le restaurant.

Le groupe ambitionne l'ouverture de nouveaux restaurants en Europe, notamment au Royaume-Uni et en Espagne.

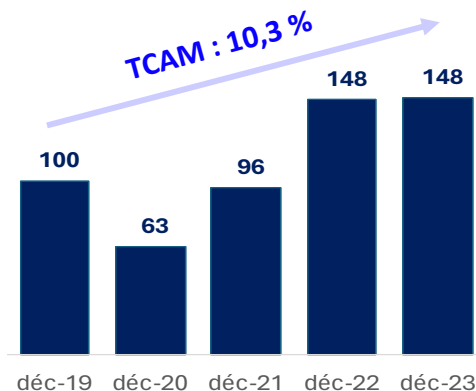
### Portrait du dirigeant



**Gilles Malafosse**  
Président

- Fondateur du groupe Loulou en 2016
- Ouverture de Petrus, son premier restaurant, en 2004

### Croissance du groupe (CA, base 100)



### Historique de croissance





## Forces et opportunités

Une capacité à remporter régulièrement des appels d'offres et à être sollicité sur des opportunités, notamment à l'international.

Un modèle facilement répliquable et une centralisation des fonctions supports, présageant un déploiement futur rapide et maîtrisé.

Un acteur de la restauration festive haut de gamme présentant une très forte notoriété en France et à l'étranger, reconnaissable à sa décoration élégante et ses vues pittoresques.

Une clientèle au pouvoir d'achat conséquent, qu'elle soit d'affaires, touristique, festive et/ou composée de personnalités françaises ou internationales.

Un concept unique et éprouvé de restauration franco-italienne, épicurienne, élégante et décontractée.



### CHIFFRES CLES



**> 20 m€**  
CA 2023



**5**  
Restaurants



**4,6/5**  
Note moyenne internet



**+10,3 %**  
TCAM 2020-2023



**> 110 €**  
Ticket moyen



**3**  
Ouvertures à venir



## PROPOSITION DE VALEUR

La Bonbonnière exploite dans toute la France des restaurants moyenne gamme et au modèle facilement duplicable.

 Paris, France

 230+

 2009

 <https://labonbonniere.eu>

### Présentation

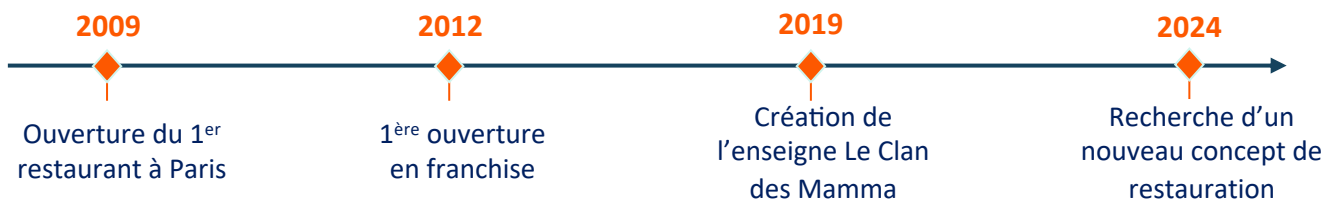
Fondé en 2009, La Bonbonnière est un groupe de restauration exploitant **37 restaurants en propre** et **3 en franchise** sous les enseignes *Les Fils à Maman* (cuisine traditionnelle comme à la maison) et *Le Clan des Mamma* (cuisine traditionnelle italienne).

Implantés à Paris et dans la plupart des grandes villes françaises, les établissements conservent une **identité de restaurants** de quartier indépendants.

Le groupe présente un positionnement moyenne gamme avec un ticket moyen de **19€ à 27€** selon l'enseigne.

Le groupe ambitionne l'ouverture de **nouveaux franchisés** en France, notamment sur la côte Ouest dans des lieux de taille significative.

### Historique de croissance



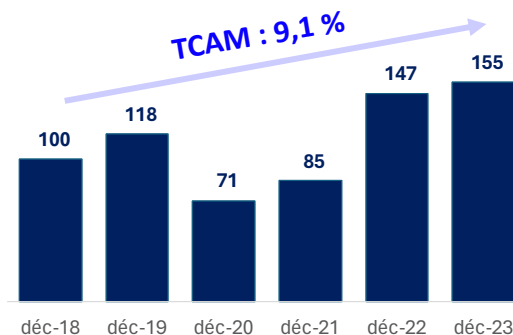
### Portrait du dirigeant



**Julien Hemmerdinger**  
CEO

- Fondateur de la Bonbonnière en 2009 avec Laurent Guarrera et Alban Binoche et CEO depuis
- INSEEC : MBA en marketing

### Croissance du groupe (CA, base 100)





## Forces et opportunités

Une architecture intérieure industrielle teinté d'une ambiance bistrot qui rend chaque restaurant unique.

Un modèle facilement répliquable, permettant l'ouverture d'établissements en masse, en limitant les coûts de tests de concept et d'ouverture.

Un développement territorial national concentré en implantant plusieurs restaurants dans une même zone afin de capitaliser sur la connaissance des territoires et sur la zone de chalandise.

Une carte simple, diversifiée et bien exécutée.



### CHIFFRES CLES



**> 20 m€**

CA consolidé 2023



**230+**

Salariés



**650 k€**

CA moyen par restaurant



**+9,1 %**

TCAM 2018-2023



**37 et 3**

Succursales et franchisés



**4/5**

Note moyenne internet



## PROPOSITION DE VALEUR

Delpharm développe et fabrique des médicaments en sous-traitance et ambitionne de devenir un acteur international incontournable.

📍 Boulogne-Billancourt, France

👤 6500+

💡 1988

🌐 <https://www.delpharm.com>

### Présentation

Fondé en 1988, Delpharm est un sous-traitant pharmaceutique de premier plan (**1<sup>er</sup> en France** et **5<sup>ème</sup> dans le monde**).

Grâce à l'acquisition de **21 sites de production** en Europe auprès de grands groupes pharmaceutiques, l'entreprise développe et fabrique une **large gamme de médicaments** et de services connexes (conditionnement et distribution).

L'entreprise se différencie de la concurrence, très implantée, par sa taille, sa capacité à produire de grands volumes et ses **sites à la pointe de la technologie**.

Delpharm ambitionne de devenir **une des références mondiales** de son secteur en améliorant ses capacités de production via l'ouverture de nouveaux sites de production et via des investissements massifs en R&D.

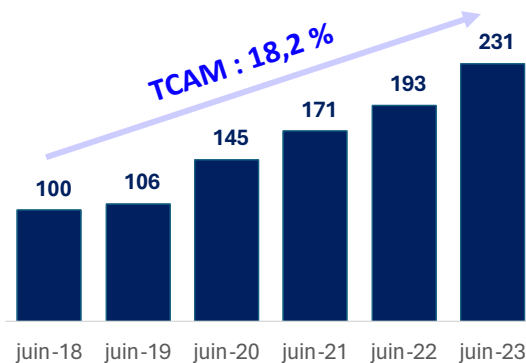
### Portrait du dirigeant



**Sébastien Aguetant**  
CEO

- Président de Delpharm depuis 2010 (EX-CEO de 2004 à 2010)
- Président de Laboratoire Aguettant depuis 2010

### Croissance du groupe (CA, base 100)



### Historique de croissance







## Forces et opportunités

Une capacité à intégrer de nouveaux sites de production.

Une capacité à aller chercher de nouveaux clients et à entretenir des relations fortes avec ses clients historiques.

Un marché de la sous-traitance pharmaceutique en pleine croissance (5,7 % de CAGR attendue entre 2022 et 2028), tiré par le fort niveau d'activité des grands groupes pharma.

Une diversification géographique de ses sites de production permettant une implantation mondiale.

Un positionnement technologique avant-gardiste et novateur (développement en 2023 de seringues préremplies, dans l'usine de Tours permettant un gain de temps précieux aux hôpitaux).



### CHIFFRES CLES



**1 080 m€**

CA consolidé 2023



**8 000**

Références produit



**1er**

CDMO en France



**+18,2 %**

TCAM 2018-2023



**21**

Sites de production



**Top 5**

CDMO dans le monde



## PROPOSITION DE VALEUR

Acuitis propose des solutions optiques (lunettes) et auditives (audioprothèses) tendances et abordables.

📍 Paris, France

👤 90+

💡 2010

🌐 <https://fr.acuitis.com>

### Présentation

Créée en 2010 et entité du groupe Héron Optique & Audition, Acuitis exploite des centres de **solutions optiques et auditives**.

La société est une centrale d'achat pour le compte de franchisés et d'autres enseignes du groupe (Grand Audition principalement).

Regroupant **144 établissements** implantés dans **7 pays** en 2024, la société développe ses enseignes principalement en franchise.

Acuitis conçoit et assemble des lunettes et audioprothèses à un **prix inférieur de 30% par rapport à la concurrence**.

La singularité d'Acuitis réside dans son **double concept** vente de lunettes en marque propre/vente de solutions auditives, quasiment unique sur le marché.

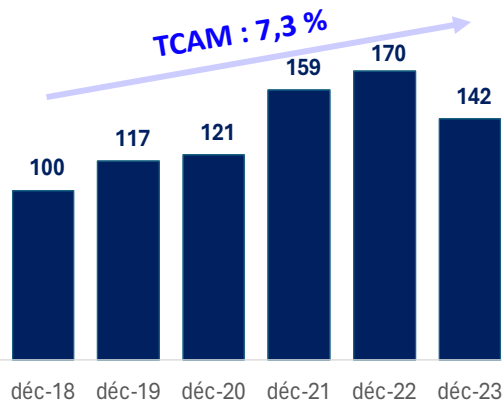
### Portrait du dirigeant



**Daniel Abittan**  
Fondateur & Président

- Fondateur d'Acuitis en 2010 et Président depuis
- Fondateur des sociétés Photoservice (1981) et Grand Optical (1989)

### Croissance du groupe (CA, base 100)



### Historique de croissance





## Forces et opportunités

Des solutions alliant créativité et belles matières, technologie et éthique, et prix abordable.

Un modèle de développement à 80% en franchise générant des revenus récurrents nécessitant peu d'investissements.

Un modèle vertueux qui permet d'approvisionner les franchisés et les enseignes du groupe.

Une équipe dirigeante expérimentée, Daniel Abittan étant le créateur de Photoservice (1981) et de Grand Optical (1989).

Un marché de l'optique plutôt stable mais résilient.

Un rapport qualité/prix en lien avec la dynamique de marché, jusque-là peu abordable (la réforme 100% santé prend en charge le remboursement des solutions auditives).



### CHIFFRES CLES



**> 40 m€**

CA 2023



**7**

Pays distribués



**650 k€**

CA moyen par boutique



**+7,3 %**

TCAM 2018-2023



**144**

Boutiques en 2024



**4,8/5**

Note moyenne internet





## PROPOSITION DE VALEUR

Grand Audition propose des aides auditives premium, sur mesure et 100% pris en charge.

📍 Paris, France

👤 100+

💡 2005

🌐 <https://www.grandaudition.com>

### Présentation

Fondée en 2005, Grand Audition est une société qui propose des **solutions de protection auditives** (musique, bruit, travaux) et de dispositifs d'amélioration de l'écoute (système intra-auriculaire, lunettes auditives...).

Regroupant plus de **60 centres** en 2024, la société exploite les établissements situés en France et s'est principalement développée en propre via le rachat de fonds de commerce existants ou de petits réseaux.

L'entreprise est positionnée sur une **offre haut de gamme**, la société met en avant ses capacités de conseil, d'appareillage sur mesure et les innovations technologiques de la gamme proposée.

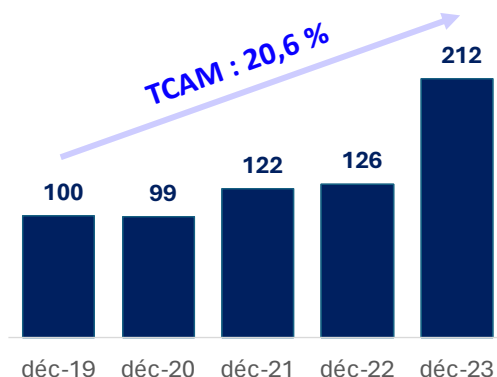
### Portrait du dirigeant



**Daniel Abittan**  
Fondateur & Président

- Fondateur de Grand Audition en 2005 et Président
- Fondateur des sociétés Photoservice (1981) et Grand Optical (1989)

### Croissance du groupe (CA, base 100)



### Historique de croissance





## Forces et opportunités

Une large gamme de produits (appareil conventionnel, appareil adapté aux surdités, traitement des acouphènes).

Un marché de l'audition caractérisé par un taux d'appareillage faible et des appareils souvent de faible qualité, qui est une véritable opportunité pour la société.

Des initiatives publiques, comme la réforme 100 % santé qui prend intégralement en charge le coût des dispositifs auditifs, et des progrès technologiques favorisant la demande.

Un modèle de développement à 73% en succursale permettant de conserver le contrôle du concept et de la qualité des services, en lien avec le positionnement haut-de-gamme de la société.

Une stratégie de croissance externe, permettant de sécuriser les audioprothésistes.



Mini-contours



Prothèses à encrege osseux



Prothèses implantables



Prothèses semi-implantables



### CHIFFRES CLES



**> 30 m€**  
CA 2023



**100+**  
Salariés



**73 %**  
Succursales



**13,3 %**  
TCAM 2019-2023



**60+**  
Centres en France



**4,7/5**  
Note moyenne internet

# CAPITAL DÉVELOPPEMENT BOOKLET RECAP

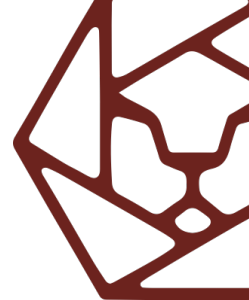
Investir dans les PME et ETI  
françaises de croissance

Investir au sein de l'économie  
réelle

Investir au sein d'entreprises  
familiales et valoriser le  
patrimoine local

Faire émerger des futures ETI

Participer au renouveau du tissu  
économique français



## Fonds Pépites

Véhicule de club deals (par SCR avec  
actions traçantes)

Maturité = 7 ans

Ticket Investisseur = 400 k€

Objectif multiple brut = 2,5x

Ticket d'investissement = 3-15 m€

## Constellation

150 0 b ter (emploi de plus-value)

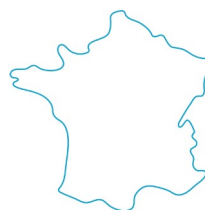
Maturité = 8 ans

Ticket investisseur > 100 k€

Objectif multiple brut = 2,5x

## Scope géographique

Basé à Paris, investissements  
dans la France entière





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