

By joining the J-Bridge initiative, **PySENSE aims to increase its brand awareness and gain greater international exposure. PySENSE is also open to exploring potential R&D partnerships and other collaborative opportunities that may arise through the J-Bridge initiative. The company acknowledges Japan's reputation as a leader in innovation across various technological fields. While not actively seeking investment, PySENSE remains open to potential capital ventures if a compelling opportunity arises in connection with such collaborations.**

PRODUCT OVERVIEW

PySENSE's three main business verticals are:

- ✓ **OEM partnerships:** This vertical focuses on the implementation of smart metering, cooperating with various meter vendors in Poland, Germany and the Czech Republic and supplying them with communication modules in different communication technologies.
- ✓ **R&D services:** This vertical is dedicated to the development of innovative devices specifically designed for wireless communication in the energy sector. It focuses on tailor-made work, addressing the specific needs of customers.
- ✓ **New Energy Solutions:** This is PySENSE's fastest-growing vertical. The company positions itself as both a device vendor and an integrator on the market. It works with technologies such as inverters, energy storage systems and smart metering within the new energy sector.

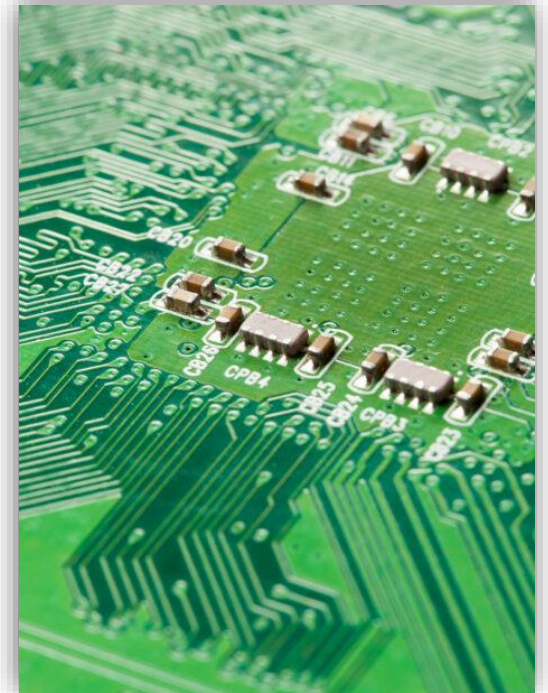
Main competitive advantages:

- ✓ **Quality and Flexibility:** PySENSE has demonstrated an exceptional ability to maintain product delivery and quality, even during supply chain disruptions like those experienced during the COVID-19 pandemic.
- ✓ **Unique Data Acquisition Capabilities:** In Poland, PySENSE is uniquely positioned to collect data directly from the meters owned by the distribution network operators without any additional investment by the customer.
- ✓ **Hardware Agnostic Integration:** PySENSE integrates seamlessly with various major inverter and energy storage vendors and is independent of specific hardware brands or technologies.
- ✓ **Advanced Cloud Platform:** PySENSE offers a unique Amazon cloud-based platform that integrates a vast array of communication protocols, devices and solutions. This hardware and software solution with the deep market expertise brings the new possibilities to the market and is aligned with the regulatory framework.

COMPANY DETAILS

PySENSE is a technology company based in Warsaw, **specializing in the Internet of Things (IoT) with a strong focus on wireless communication technologies in the energy sector.** The company was established in 2017. Its mission is **to provide groundbreaking IoT solutions that enable energy transformation, based on data and artificial intelligence.** The company's first goal for this year is to **enter the Scandinavian market with its new energy business.** Moreover, PySENSE wants to **increase its cloud platform user base in Poland to over 5,000 clients.** Another objective is to **successfully complete ongoing hardware production and implementation projects** with EON and ZPA in the Czech Republic and Warsaw, Poland.

PySENSE is a **fully private company** with 5 different shareholders, **generating high profitability** due to its deep expertise in a specific technology. **It has annual revenue of around 10 million euros and expect a profit of 2 million euros this year.** In the case of OEM modems, the company charges customers on a unit cost basis. PySENSE also uses a Software-as-a-Service model for its cloud platform and charges its customers an additional fee for the hardware. **PySENSE has been recognised by organisations such as Deloitte and the Financial Times.**



Source: [Delivering smart Internet of Things solutions \(py-sense.com\)](https://www.py-sense.com/)

QNA has a local sales representative in Tokyo and this year signed its first non-exclusive distribution agreement in Japan to simplify logistics and interaction with Japanese companies. QNA has started working with a Japanese marketing agency and has become present in the Japanese press e.g. Newsweek Japan and others. QNA has already started R&D sales in Japan and its materials are already being evaluated by Japanese companies. **However, QNA is still looking for more support to reach more companies and work faster and smarter in Japan. Therefore, QNA is looking for long-term and strategic industrial partnerships in Japan. QNA Technology's completion of its first pilot production line this year, which will enable larger scale operations, opens the door to licensing its technology and strategic joint ventures with Japanese companies.**

PRODUCT OVERVIEW

QNA Technology is developing technology (infrastructure), nanomaterials, doing nanomaterials surface modification, developing own and unique purification methods and focusing on making inks based on quantum dots. Inks developed by QNA enabling printing semiconducting materials on various substrates by using various printing methods and printing systems.

- ✓ One of only a few companies worldwide developing blue light-emitting heavy metal free quantum dots
- ✓ Quantum dots (QDs) offer unique advantages by combining advantages of both semiconductors and organic materials (dyes)
- ✓ The company is developing two types of blue quantum dots:
 - ✓ Photo-luminescent quantum dots: excited by light which can be used in micro-LED displays or lighting.
 - ✓ Electro-luminescent quantum dots: dedicated for new display technology, which is under development for example by Samsung, TCL, BOE, Sharp and is expected to be commercialized in the next 2-3 years.
- ✓ QNA is also working on the formulation of quantum inks which contain quantum dots to enable customers to print semiconductors on any surface using any printing technology.

COMPANY DETAILS

Founded in late 2016 by two PhD physicists, the company initially focused on the synthesis of red and green light-emitting cadmium-based semiconducting nanomaterials called quantum dots. In the following years, **QNA switched from these nanomaterials to state-of-the-art heavy metal-free (no cadmium, no lead) blue light emitting quantum dots and became one of the world leaders in this technology.** Currently, the main market for this unique material is the display industry, including the entire value chain **from display manufacturers to chemical producers; secondary markets are LED lighting, photonics or printed electronics.**

By the beginning of 2024, QNA Technology had raised around USD 10 million from investors and grants. The company is currently listed on the Polish New Connect stock exchange and this, along with sales, is the main source of funding. **QNA holds 2 patents, has 3 pending patent applications related to the modification of QDs and more patents in the pipeline.**



Source: [QNA Technology](#)

WIDMO Spectral Technologies



The company is looking to partner with Japanese companies on a number of things. One goal is to **secure funding in terms of a Series A round planned in conjunction with the European Investment Bank. Recognizing the need for radar production, it seeks partnerships with Japanese manufacturers known for their expertise. WIDMO is also seeking partnerships in both the construction/infrastructure sector** (examples include Shimizu and Kajima) **and the mining industry.** The company sees **Japan as even more promising market than the European Union**, making participation in J-Bridge a natural choice. WIDMO is actively pursuing the Japanese market, as evidenced by its participation in events such as SusHi Tech Tokyo (last year and upcoming edition in May).

PRODUCT OVERVIEW

WIDMO Spectral Technologies offers innovative subsurface tomography solutions using spectral ground penetrating radar (SGPR) and advanced analytical software. It caters to various sectors, including mining and construction, and also specializes in detecting geohazards, city mapping for infrastructure planning and maintenance, and industrial detectors optimized for durability and low maintenance.

- ✓ WIDMO's technology delivers exceptional resolution compared to other non-invasive methods, enabling highly detailed subsurface imaging
- ✓ The application of SGPR technology allows for continuous data acquisition (in comparison to point data obtained e.g. through drillings), significantly reducing the scope of invasive work
- ✓ The technology has a very good balance of depth of penetration of subsurface, the resolution, the quality of the information, and the abundance of information
- ✓ The key applications are smart cities, infrastructure, construction, raw materials, mining, and various other applications related to the environment and geohazards

COMPANY DETAILS

WIDMO Spectral Technologies was founded at the end of 2018, and the investment process was finalised in early 2019 to launch the startup. **The company is currently in the commercial phase and is actively seeking partnerships for further growth.** WIDMO is presently using a service-based revenue model. This is a temporary strategy while they go through the certification process. Upon completion, their target model is to sell radar units alongside a Software-as-a-Service (SaaS) solution. During this transition, they will provide end-to-end solutions to large industrial customers. **Ultimately, the company aims to move towards hardware and SaaS sales.**

WIDMO has a diverse source of capital, including public sources (grants, European Commission, European Investment Bank), five or six business angels and a venture capital firm that invested at an early stage. **Since 2019, the company has raised a total of approximately €9 million. The majority of this funding, more than 95%, has been earmarked for research and development,** reflecting the R&D-intensive nature of the company's business. **WIDMO has one granted patent and two patents pending, all of which are international. In terms of certification, the company is currently in the process and expects to complete this by the middle of the year.**



Source: [WIDMO Spectral Technologies | Spectral Ground Penetrating Radar](#)

Runner - up

Envirly (Quantifier)

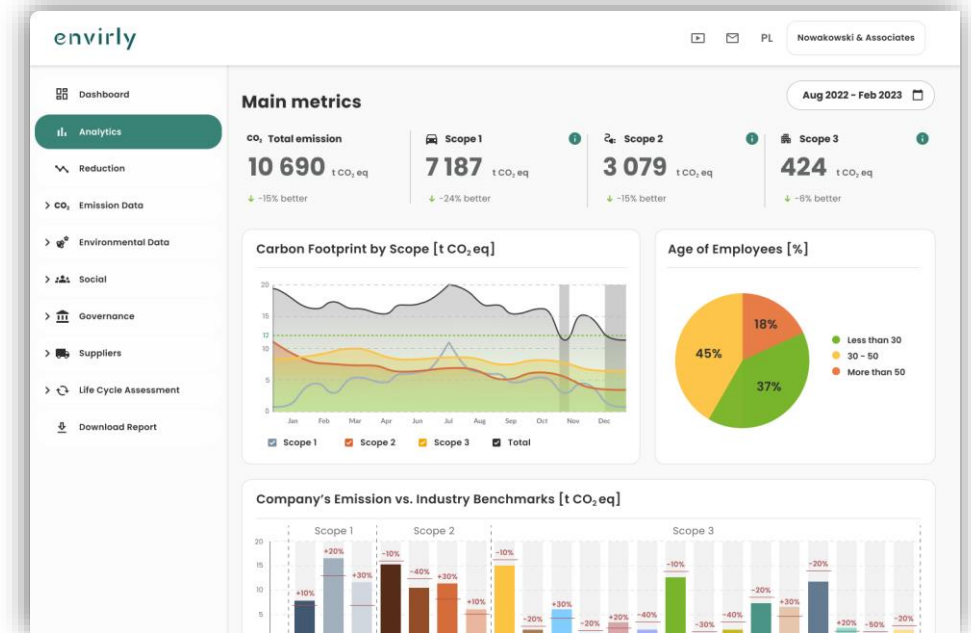


Envirly plans to start selling and setting up international sales offices in Europe soon. Later, it will expand internationally, **entering the Asian and US markets**, and are **open to a variety of collaborations**. To ensure Envirly's solutions remain at the cutting edge, **they plan to partner with Japanese universities, professors and sustainability specialists for joint research and development initiatives**. Envirly's focus is on creating tailored and comprehensive sustainability solutions, so **they are keen to explore partnerships where Envirly's platform can be integrated with or enhance the product offerings of existing Japanese companies**. **The company is able to demonstrate flexibility in partnership models, including sales cooperation, joint R&D projects and other innovative collaborations that add value for both parties.**

PRODUCT OVERVIEW

Envirly provides software as well as consulting services with regards to ESG, organizational carbon footprint and product carbon footprint. To this end, a platform has been developed to help collect data and then automatically generate sustainability reports.

- ✓ Comprehensive software that helps aggregate data and then automatically see where the client is on the road to decarbonization and sustainability reporting.
- ✓ Not only a classic consulting support for sustainability, but also assistance in aggregating data and then streamlining all processes.



Source: [Envirly - Sustainability Management Software](#)

COMPANY DETAILS

Envirly, founded in 2022, helps companies become more sustainable and support them in various sustainability endeavors, such as decarbonization, as well as meeting regulatory requirements for sustainability. They are offering an **innovative platform for managing the sustainability and carbon footprint** of organizations and products. With the platform, entrepreneurs can continuously track and analyze their company's environmental impact, create non-financial reports, and take decarbonization measures aimed at green transformation, while generating a positive economic return on investment.

Envirly has been **verified by an auditor for compliance with ISO 14064 and GHG Protocol and is currently working on additional ISO certifications**. It raised around \$2 million from various sources: investment from BNP Paribas, 2 venture capitalists, 4 business angels and EU grants. The remaining source of capital is revenue generated by sales.

More information available at: [Envirly - Sustainability Management Software](#)

SmokeD recognizes Japan's reputation for excellence in technology and reliable partnerships. It hopes to find Japanese high-tech companies to collaborate with on its wildfire detection verification and forecasting system. The company is particularly interested in exploring the potential of stratospheric aircraft for fire verification and monitoring and believes this technology could be a valuable tool for its system, offering benefits such as real-time data for verification, prediction of fire spread and continuous monitoring. SmokeD's goal is to become the **world's leading wildfire protection company, focusing not only on profit, but also on the protection of nature, people and structures**. With a team that combines IT expertise and forestry knowledge, they aim to make a significant impact on environmental protection and safety, and to expand their services worldwide.

PRODUCT OVERVIEW

At its core, SmokeD specializes in developing cutting-edge wildfire detection systems that leverage advanced algorithms and AI models to identify the earliest signs of a fire, such as smoke or flames, from significant distances.

- ✓ **Advanced Detection Capability:** SmokeD's technology enables the detection of fires and smoke from distances up to 10 miles away, even when the object in question is as small as 10x10 pixels on an image. The system can recognize the beginnings of a fire or smoke by understanding the context within which these elements appear.
- ✓ **Low False Positive Rate:** The system is designed to comprehend the entire context of the images it analyzes, reducing the likelihood of mistaking natural phenomena like clouds or fog for smoke or fire. The near elimination of false positives is a testament to the system's sophistication and is a key differentiator when compared to other technology-based solutions in the market.
- ✓ **Accessibility and User-Friendliness:** Unlike competitors who focus on serving institutional customers such as forestry departments or large agencies, SmokeD has designed a solution that is accessible also to a much wider audience. The company offers a plug-in unit that can be easily installed by anyone, anywhere. This inclusivity is reinforced by the integration of mobile and web applications, making the system adaptable and easy to use for a wide range of customers.
- ✓ **Diverse Customer Base:** By not limiting their technology to traditional sectors like forestry or fire management, they have opened their services to a wide array of clients, including those in non-traditional sectors who may have previously been overlooked by other companies in the field.

COMPANY DETAILS

SmokeD is a dynamic and innovative technology company dedicated to enhancing wildfire detection and response capabilities globally. Launched in 2020, SmokeD has rapidly evolved from a startup into a burgeoning scale-up with a footprint extending across **Poland, Italy, France, Indonesia, Macedonia, Albania, Australia, Brazil, and the United States**.

The company generates revenue through **direct sales**, where customers purchase detection hardware and software licences in a one-off transaction, and through **service subscriptions**, offering monthly monitoring services to a wider audience by leveraging partnerships for hardware installation on existing infrastructure. **The company has already completed a pre-seed round and a seed round, and now has two VC firms from Poland as shareholders. Negotiations are underway with potential investors from Poland, France and the United States, with the aim of closing this round by the end of June. SmokeD's technology is patented in the United States.**



Source: [Wildfire Detection Systems - Forest Fire & Smoke Automatic Detection - SmokeD \(smokedsystem.com\)](https://smokedsystem.com)