

STARTUP DAYS 2025

- D I G I T A L H A N D B O O K -



**THE STARTUPS YOU
CAN MATCH WITH ON
NOVEMBER 12, 2025**



STARTUP DAYS 2025

The Future of Innovation Starts Here

Startup Days 2025 are one of the key engines driving innovation and growth within the Lombardy ecosystem: an annual gathering where universities, incubators, enterprises, and institutions come together to showcase the best ideas and transform them into tangible development opportunities.

Promoted by **Regione Lombardia**, **MUSA Scarl**, and **Federated Innovation @MIND**, the Startup Days celebrate the region's ability to generate impact through **research, sustainability, and technology**.

The **2025 edition**, scheduled for **November 11–12 in Milan**, features **three major competitions** that highlight the many facets of Lombardy's innovation landscape:

- **StartCup Lombardia 2025** — the long-standing university competition, now in its 23rd edition, rewarding the most promising projects born within or connected to Lombardy's universities and incubators.
- **Sustainable and Safe Construction** — dedicated to startups innovating the construction sector with solutions focused on safety, efficiency, and sustainability.
- **Green Chemistry Lombardy for a Sustainable**

Future 2025 — promoting co-innovation between industrial companies and startups committed to the ecological transition and to developing new sustainable chemistry processes.

This **Digital Handbook** gathers concise profiles of the finalist projects from the three competitions, along with contact details for each team — **a map of emerging excellence** designed to foster new connections among startups, investors, universities, and enterprises.

Each project tells a story **of vision and initiative**: from idea to prototype, from lab to market, and through engagement with major innovation players.

Exploring these pages means discovering a Lombardy that innovates — made of young talent, applied research, and forward-looking companies shaping a **more sustainable, digital and competitive future**.

The Startup Days are not just an event — they are a **shared journey of growth and collaboration**, the meeting point between those who generate ideas and those who turn them into reality.

“Our goal has always been to ensure that anyone with an innovative idea can find in Lombardy the best conditions to develop it. Through initiatives such as ‘Start Up Days,’ we strive to support and bring successful ideas to life, turning them into economic growth and job opportunities,” said Guidesi. “We want to strengthen our leadership so we can continue to be the ‘Home of Ideas.’ Innovation and foresight will remain our winning cards, also thanks to the contribution of the new generations.”

Guido Guidesi, Regional Minister for Economic Development, Lombardy Region

“Startup Days represent a key milestone in the path through which MUSA promotes cross-pollination between research, business, and social innovation.

We believe the strength of Lombardy’s ecosystem lies in its ability to unite diverse expertise and visions to generate tangible economic and social impact.

Each finalist startup demonstrates that universities and research are not distant from the market — they are vital engines of a more sustainable, digital, and competitive future.

With Startup Days, we aim to strengthen this alliance between knowledge and action, connecting people, ideas, and opportunities to build together a new model of development.”

Giovanna Iannantuoni, President, MUSA

“Green chemistry is one of the most promising frontiers of sustainable innovation. With the second edition of Green Chemistry Lombardy for a Sustainable Future 2025, Federated Innovation renews its commitment to promoting co-innovation models between startups and industrial companies capable of generating real impact across the region.

Together with Regione Lombardia, we are building an ecosystem where chemistry becomes a strategic lever for a greener, more competitive, and responsible future. Startups and enterprises therefore have the concrete opportunity to lead chemistry’s transition toward sustainability — the true driver of competitiveness, innovation, and responsible growth.”

Fabrizio Grillo, President, Federated Innovation @MIND

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StartCup Lombardia 2025

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PeptoFarm

RENAISSANCE

CLEAR



SHORT DESCRIPTION OF THE PROJECT

CLEAR is a floating photocatalytic system that removes organic micropollutants from surface waters using sunlight.

EXTENDED DESCRIPTION OF THE PROJECT

CLEAR is a solar-powered floating photocatalytic system designed to remove persistent organic micropollutants, such as pharmaceuticals, pesticides, and endocrine disruptors, from civil and industrial surface waters. Made from recyclable and non-toxic materials, it remains stable at the air-water interface, maximizing sunlight exposure and catalytic efficiency. Autonomous, modular, and infrastructure-free, it enables on-site purification without external energy or chemical additives. CLEAR is a sustainable and scalable solution for public authorities, water utilities, and small and medium-sized enterprises that need to treat contaminated waters in a decentralized way, contributing to water resilience and environmental protection.

NEED ADDRESSED

Removal of organic micropollutants from surface waters in civil and industrial contexts using a solar, autonomous, sustainable solution.

SOLUTION PROPOSED

CLEAR is a floating, solar, modular photocatalytic system that degrades micropollutants without external energy or chemical additives.

TARGET MARKET

Public bodies and private companies managing surface waters seeking solar, modular, and sustainable solutions.

FUNDING NEEDED

< 500.000 €

- ORIGIN**
Start Cup Lombardia
- INDUSTRY**
CleanTech & Energy
- TRL**
4 - Technology Validated in Lab
- PATENT**
No, but I plan to apply for a patent

SHORT DESCRIPTION OF THE PROJECT

Geckomile estimates the environmental impact of eCommerce delivery options, guiding users toward more sustainable consumption choices.

EXTENDED DESCRIPTION OF THE PROJECT

Geckomile is a software platform that helps eCommerce merchants make the environmental impact of delivery transparent, allowing customers to choose the most sustainable option at checkout. Integrated via API with the merchant's website, the platform estimates in real time the kgCO₂e generated by different shipping methods, taking into account both transportation and logistics infrastructure. In this way, it introduces a tangible "sustainability by design" element into the shopping experience, enhancing brand reputation, increasing conversion among sustainability-conscious consumers, and supporting compliance with ESG standards.

Geckomile is accredited as a spinoff of Politecnico di Milano, which strengthens its scientific credibility and methodological reliability. The development is carried out in partnership with San Marino Mail Italia, ensuring industrial scalability and immediate applicability in the eCommerce market.

NEED ADDRESSED

The rise of eCommerce deliveries raises concerns about sustainability. Guiding consumers toward greener choices is essential.

SOLUTION PROPOSED

A tool that accurately estimates the emissions of different eCommerce delivery options and displays them at the shipping selection stage.

TARGET MARKET

The market consists of eCommerce retailers (TAM), initially in Italy (SAM), focusing on those showing a commitment to sustainability (SOM).

FUNDING NEEDED

< 500.000 €

- ORIGIN**
Start Cup Lombardia
- INDUSTRY**
CleanTech & Energy
- TRL**
9 - Actual system proved
in operational environment
- PATENT**
No, but I plan to apply for a patent

HyMotor



SHORT DESCRIPTION OF THE PROJECT

A hydrogen or gas power system using mature tech and non-critical materials for efficient, low-emission industrial or marine power.

EXTENDED DESCRIPTION OF THE PROJECT

HyMotor is a hydrogen- or gas-fueled industrial and commercial power system that uses a novel internal combustion reciprocating expander in a recuperated cycle, delivering high efficiency and ultra-low emissions with mature, accessible technologies and non-critical raw materials.

HyMotor combines features of a recuperated Brayton cycle and a split-cycle engine. Its combustor includes a piston–crank mechanism enabling near-constant volume combustion while acting as an internal combustion expander.

A thermodynamic model predicts efficiencies higher than 50%, with power output between 500 kW and 2 MW—suitable for marine gensets, stationary generators, and heavy-duty off-road vehicles. This innovative configuration targets multi-billion-dollar markets. The core component, the internal combustion reciprocating expander, is under experimental testing in a scaled version to validate the concept. The technology's application was also developed during the 2025 Switch2Product program.

NEED ADDRESSED

Highly efficient, low polluting power for industrial and marine applications with a cheap and scalable technology.

SOLUTION PROPOSED

HyMotor: a turbocharged recuperative internal combustion expander in a novel thermodynamic cycle with extremely promising performances.

TARGET MARKET

MW-scale industrial power production systems and marine gensets in EU.

FUNDING NEEDED

BETWEEN 500.000 € AND 2.000.000 €

- ORIGIN**
Start Cup Lombardia
- INDUSTRY**
CleanTech & Energy
- TRL**
3 - Experimental Proof of Concept
- PATENT**
No, but the patent application has been filed

SHORT DESCRIPTION OF THE PROJECT

We're building the next generation of smart cities by creating a 3D real-time digital twin, unlocking superior services.

EXTENDED DESCRIPTION OF THE PROJECT

NEWERA revolutionizes urban management with a paradigm shift: no more fragmented systems for lighting, traffic, and security — but one intelligent, connected network.

We transform streetlights into smart nodes equipped with AI and computer vision, creating a real-time digital twin of the city that enables advanced, high-impact services:

1. Light Dynamic: predictive wave-based public lighting that anticipates movement, ensures optimal visibility, and reduces energy consumption by an average of 60%.
2. Traffic Intelligence: dynamic traffic management with smart lights, green corridors for emergency vehicles, and priority for public transportation.
3. Urban Security: real-time video analysis that detects critical events and improves urban safety.

Other services include: parking availability apps, mobility data for autonomous vehicles, and urban flow analytics platforms.

The system follows a privacy-by-design approach: no personal data is stored, and all processing occurs locally on-device.

NEED ADDRESSED

Cities are inefficient: they waste energy, time, and money due to fragmented systems and a lack of truly smart infrastructure.

SOLUTION PROPOSED

We transform streetlights into AI intelligent nodes, creating a real time digital twin that enables high-impact, next generation services.

TARGET MARKET

European municipalities with more than 50.000 inhabitants seeking to digitalize public infrastructure at low cost.

FUNDING NEEDED

BETWEEN 500.000 € AND 2.000.000 €

- ORIGIN**
Start Cup Lombardia
- INDUSTRY**
Smart Cities
- TRL**
5 - Technology validated in industrially relevant environment
- PATENT**
No, but the patent application has been filed

Ainana



SHORT DESCRIPTION OF THE PROJECT

Ainana is the first platform that combines human expertise and artificial intelligence to strengthen nutritional support.

EXTENDED DESCRIPTION OF THE PROJECT

In a world where millions rely on AI for dietary advice, the role of nutritionists is losing centrality. Yet what makes a dietary journey truly effective is not the diet itself, but the ongoing human support.

Ainana is the first AI platform that empowers, not replaces, nutritionists.

The professional uploads the diet, which is then digitized and made interactive: the patient receives it through the app, complete with personalized recipes, guidance, and support. The AI generates suggestions consistent with the prescription and the patient's preferences, which the nutritionist reviews and adapts. When in doubt, the patient can rely on an intelligent AI assistant that provides instant answers.

The result is higher adherence, actionable insights, and a stronger, long-lasting relationship. Ainana was built by listening to professionals, validated with them, and aims to scale toward integrated services to make nutritional support accessible to everyone, without economic barriers.

NEED ADDRESSED

8.2M Italians visit a nutritionist, but half drop out early. It's not the will that's missing; it's the continuous support.

SOLUTION PROPOSED

Scale the nutritionist's method with an AI-driven platform that automates support and adapts to the patient's real needs.

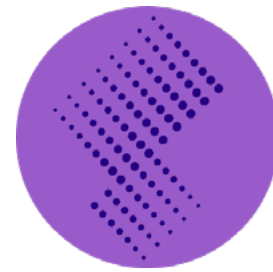
TARGET MARKET

Ainana begins with nutritionists, reaches their patients (current and potential) and then scales to Health and Food & Beverage companies.

FUNDING NEEDED

BETWEEN 500.000 € AND 2.000.000 €

- ORIGIN**
Start Cup Lombardia
- INDUSTRY**
ICT & Services
- TRL**
5 - Technology validated in industrially relevant environment
- PATENT**
No



SHORT DESCRIPTION OF THE PROJECT

Refinea is an AI agent that helps companies monitor and optimize their visibility on generative search engines such as ChatGPT.

EXTENDED DESCRIPTION OF THE PROJECT

As users shift from Google to generative engines like ChatGPT, Gemini, and Perplexity, online discovery is being rewritten.

Refinea is the first Generative Engine Optimization AI agent, helping brands and marketing agencies monitor and improve their visibility inside LLM-based search engines.

Our SaaS platform tracks how brands appear in generative answers, identifies which content gets surfaced, and suggests actions to optimize presence and ranking within AI results.

We're building the layer that enables companies to measure, control, and grow their visibility across generative ecosystems, a shift expected to redirect 50–80% of search traffic from traditional channels.

NEED ADDRESSED

Brands are losing online visibility on Google as LLMs answer directly; they need measurement and optimization for generative search.

SOLUTION PROPOSED

Refinea is an AI agent that monitors and optimizes how brands appear in generative engines like ChatGPT and Gemini.

TARGET MARKET

Digital marketing agencies offering SEO solutions and brands already investing in SEO are our early adopters.

FUNDING NEEDED

< 500.000 €

- ORIGIN**
Start Cup Lombardia
- INDUSTRY**
ICT & Services
- TRL**
5 - Technology validated in industrially relevant environment
- PATENT**
No



Voice Shield by Realynx

SHORT DESCRIPTION OF THE PROJECT

VoiceShield detects deepfake and cloned voices in real time, protecting calls and media with on-device, privacy-first AI.

EXTENDED DESCRIPTION OF THE PROJECT

Voice Shield is an AI-powered solution for real-time deepfake audio detection that protects users from synthetic voice fraud during live conversations. As sophisticated speech synthesis tools become widely accessible, Voice Shield provides an essential defense against voice-based deception in calls, meetings, and messaging platforms.

Voice Shield operates through a three-step process: continuous audio monitoring across all communication channels; an advanced AI detection engine to distinguish authentic from synthetic speech; and instant security alerts delivered within seconds.

Key technical features include privacy-preserving on-device processing, standalone architecture that works across different communication platforms (Zoom, Teams, etc.), and native support for Italian voices. The AI agent runs continuously in the background, providing real-time protection without requiring user intervention - an antivirus for your ears.

NEED ADDRESSED

Real-time protection against deepfake voice fraud in calls, preventing scams, blackmail, and disinformation in digital communications.

SOLUTION PROPOSED

Voice Shield is an application that analyzes voice calls with on-device AI in real-time to detect deepfake speech and alert users.

TARGET MARKET

Financial institutions, corporate security teams, and privacy-conscious individuals vulnerable to AI voice cloning fraud and scams.

FUNDING NEEDED

< 500.000 €

ORIGIN

Start Cup Lombardia

INDUSTRY

ICT & Services

TRL

4 - Technology Validated in Lab

PATENT

No, but I plan to apply for a patent



SHORT DESCRIPTION OF THE PROJECT

AI-driven cybersecurity solution that finds real code vulnerabilities, fixes them automatically and monitor them with intuitive reporting.

EXTENDED DESCRIPTION OF THE PROJECT

With 10,000 cyberattacks per second and an average breach cost of \$4.8 million, companies face a growing crisis caused by slow, outdated, and error-prone processes. Traditional tools produce over 25% false positives, require manual fixes, and generate fragmented reports that delay response.

White Bison automates and strengthens vulnerability management: it securely scans source code, applies AI-generated fixes, and delivers clear, comprehensive reports for faster decisions and compliance.

The competitive advantage is in every step of the process: in the scan phase we reduce false positives, then we speed-up the remediation phase thanks to a Gen-AI framework automatically suggesting the remediation patch for each vulnerability identified and in the reporting phase we deliver clear and complete view through intuitive reports and dashboard. The business model includes tiered subscriptions based on scans and AI remediations, with additional training and consulting services.

NEED ADDRESSED

- Weaknesses identified in the source code require manual remediation
- Traditional scan output contains false positives
- Dispersive UI/UX

SOLUTION PROPOSED

- Automate the remediation phase thanks to GenAI framework implementation
- False positives output handling
- Simple and intuitive UI/UX

TARGET MARKET

Software houses & companies with internally developed softwares. Initial target market is Italy, then we plan to reach other EU Countries.

FUNDING NEEDED

BETWEEN 500.000 € AND 2.000.000€

- ORIGIN**
Start Cup Lombardia
- INDUSTRY**
ICT & Services
- TRL**
4 - Technology Validated in Lab
- PATENT**
No, but I plan to apply for a patent

CELLMETS



SHORT DESCRIPTION OF THE PROJECT

Advanced materials for safer and customized helmets through 3D printing and biomechanical modeling.

EXTENDED DESCRIPTION OF THE PROJECT

CELLMETS develops innovative cellular materials for head protection, replacing traditional EPS with microstructures optimized through numerical modeling and 3D printing. Based on real accident data and advanced FEM models of the skull and brain, the project aims to improve safety for motorcyclists, cyclists, and workers by enhancing energy absorption performance in helmets and reducing the risk of brain injury in the most common impacts.

CELLMETS was born in the crash laboratory of Politecnico di Milano (DAER), with two patent applications filed, in collaboration with surgeons from Niguarda Hospital and the University of Milano-Bicocca.

The technology is highly scalable and applicable to various fields, from personal protective equipment to sports, with the goal of innovating safety and comfort in helmets and protective gear.

NEED ADDRESSED

Current helmets and PPE use technology that is ineffective at preventing brain injuries.

SOLUTION PROPOSED

Optimized 3D microstructures with higher performances with respect to traditional EPS, enhancing brain protection.

TARGET MARKET

Helmet and PPE industries for urban mobility, sports, and workplace; manufacturers interested in smart materials.

FUNDING NEEDED

< 500.000 €

- ORIGIN**
Start Cup Lombardia
- INDUSTRY**
Industrial Technologies
- TRL**
4 - Technology Validated in Lab
- PATENT**
No, but the patent application has been filed

SHORT DESCRIPTION OF THE PROJECT

GraphiCore develops patented technologies for nuclear decommissioning and robotic handling in extreme environments.

EXTENDED DESCRIPTION OF THE PROJECT

GraphiCore is an innovative startup born as a spin-off of Politecnico di Milano, with the goal of revolutionizing the decommissioning of graphite-moderated nuclear reactors. Our patented vacuum gripping technology, validated at TRL 6, enables the safe removal of irradiated and potentially damaged blocks, preventing fractures and the release of radioactive dust. The system integrates computer vision algorithms that allow automatic recognition of the blocks and optimized trajectory planning. In collaboration with industrial and institutional partners, we are now targeting TRL 7, with demonstration in real facilities and the start of European commercialization. In parallel, we are developing a second technology line for robotic handling in extreme environments (-200 °C to +1200 °C, resistant to radiation and acidic conditions), currently at TRL 4. For this line, we are seeking PoC with companies to advance development according to their specific needs.

NEED ADDRESSED

Need for safe removal of irradiated graphite from reactors and robotic handling in extreme conditions where current methods fail.

SOLUTION PROPOSED

Vacuum-based robotic system enabling nuclear graphite removal and development of new tech for materials in extreme environments.

TARGET MARKET

Nuclear decommissioning agencies and contractors, and industries needing robotic handling in high-risk or extreme environments.

FUNDING NEEDED

< 500.000 €

- ORIGIN**
Start Cup Lombardia
- INDUSTRY**
Industrial Technologies
- TRL**
6 - Technology demonstrated in industrially relevant environment
- PATENT**
Yes

SatEnlight



SHORT DESCRIPTION OF THE PROJECT

Advanced optical communications using light vortices to boost data rate and security in data transmission.

EXTENDED DESCRIPTION OF THE PROJECT

SatEnlight develops innovative solutions for optical communications based on the use of light vortices (Orbital Angular Momentum, OAM). Its patented technology enables a significant increase in data transmission capacity and enhances communication security. By multiplexing multiple optical vortices onto a single light beam, SatEnlight's technology overcomes the limitations of current communication infrastructures, delivering superior performance in terms of data rate, efficiency, and resilience to noise. With a TRL of 5, SatEnlight has already validated its technology in representative environments and is preparing for industrialization. The team, composed of physicists with expertise in optics and telecommunications, combines cutting-edge scientific knowledge with strong entrepreneurial vision, aiming to revolutionize the way data is transmitted through light and to set a new standard in the field of telecommunications.

NEED ADDRESSED

Enhancing the capacity, efficiency, and security of communications — overcoming the limitations of current technologies.

SOLUTION PROPOSED

Patented technology based on light vortices (OAM) for high-speed optical multiplexing and advanced security.

TARGET MARKET

TelCo operators, satellite and ground station providers, space agencies, and defense organizations seeking faster and more secure optical communications.

FUNDING NEEDED

BETWEEN 500.000 € AND 2.000.000 €

- ORIGIN**
Start Cup Lombardia
- INDUSTRY**
Telecommunications and SatCom
- TRL**
5 - Technology validated in industrially relevant environment
- PATENT**
Yes

SHORT DESCRIPTION OF THE PROJECT

We develop advanced optical devices that integrate 3D reconstruction and physico-chemical analysis in a single high-precision scan.

EXTENDED DESCRIPTION OF THE PROJECT

THELIA develops advanced optical systems that integrate 3D LiDAR scanning and hyperspectral imaging into a single compact device. By combining geometrical reconstruction and chemical mapping in one scan, THELIA provides a comprehensive understanding of the shape and composition of materials.

The technology relies on broadband laser illumination and a synchronized detection system that simultaneously captures spectral and spatial information, generating detailed 3D point clouds enriched with spectral signatures.

In the manufacturing sector, THELIA enables automated, high-resolution inline quality control, detecting defects, contaminants, or material inhomogeneities. The result is a more accurate and reliable inspection process that reduces waste and improves yield. In the agritech sector, THELIA allows non-invasive monitoring of crop health and hydration, supporting a more efficient use of water and resources.

NEED ADDRESSED

Quality control today is slow, fragmented, and mainly manual, missing up to 40% of defects or inconsistencies, increasing waste cost.

SOLUTION PROPOSED

THELIA enables automated, detailed, high-resolution inline quality control, detecting defects, contaminants, or material inhomogeneities.

TARGET MARKET

Serving research centers, system integrators and high-value product companies needing precise, detailed quality control and R&D insights.

FUNDING NEEDED

< 500.000 €

- ORIGIN**
Start Cup Lombardia
- INDUSTRY**
Industrial Technologies
- TRL**
3 - Experimental Proof of Concept
- PATENT**
No, but the patent application has been filed

SHORT DESCRIPTION OF THE PROJECT

Our AI platform predicts the evolution of cancer in patients, enabling clinicians to improve their therapies and personalize them better.

EXTENDED DESCRIPTION OF THE PROJECT

Most cancer patients today undergo DNA sequencing (NGS) to identify tumor mutations. In recent years, the number of genes analyzed has increased by 2870%, while cancer incidence is projected to rise by 77% by 2050. As a result, genomic data are growing exponentially, yet only a small fraction is used in clinical practice, making more efficient analytical systems urgently needed. EvoClin has developed machine learning tools capable of rapidly processing these data and, through a patented system, predicting tumor evolution with 96% accuracy from a standard NGS report. Unlike current methods, which provide only a snapshot of the present, our technology anticipates disease progression. With EvoClin, laboratories can reduce reporting times and deliver more complete analyses, while clinicians can design more precise and personalized therapies.

NEED ADDRESSED

- Report lead-time hard to reach.
- Inert NGS results and low integration with clinical data
- No prediction of cancer evolution

SOLUTION PROPOSED

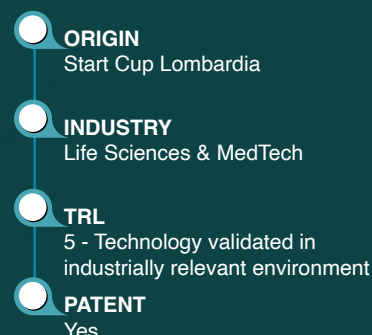
Pre-trained AI model which in few minutes provides a patient-specific report, listing probable future mutations.

TARGET MARKET

NGS sequencing in Hospitals and Molecular Labs. Possible further expansion to Pharma companies for pharma trials.

FUNDING NEEDED

BETWEEN 500.000 € AND 2.000.000 €



SHORT DESCRIPTION OF THE PROJECT

Lumnora revolutionizes precision medicine through highly accurate analysis of extracellular vesicles in biological fluids.

EXTENDED DESCRIPTION OF THE PROJECT

Lumnora is revolutionizing precision medicine by developing advanced technologies for the analysis of extracellular vesicles (EVs) in biological fluids such as blood, urine, and saliva. EVs are a valuable source of information about the physiological and pathological state of cells, yet their analysis remains complex and poorly standardized. Lumnora overcomes these limitations with an innovative AI-powered imaging flow cytometer capable of rapidly, accurately, and automatically identifying and characterizing EVs. The platform integrates microfluidics, photonics, and machine learning to extract biomarkers useful for early diagnosis, therapy monitoring, and the discovery of new molecular targets. With its scalable and user-friendly technology, Lumnora paves the way for a new generation of tools in personalized medicine, improving disease prevention, patient monitoring, and treatment outcomes.

NEED ADDRESSED

Lumnora enables a new era of precision medicine through reliable, AI-powered analysis of extracellular vesicles in body fluids.

SOLUTION PROPOSED

An AI-powered imaging flow cytometer for fast, accurate, and automated analysis of extracellular vesicles in biological fluids.

TARGET MARKET

The EV analysis market is \$250M today, growing at 30% CAGR, driven by demand for precision diagnostics and advanced research tools.

FUNDING NEEDED

BETWEEN 500.000 € AND 2.000.000 €

- ORIGIN**
Start Cup Lombardia
- INDUSTRY**
Life Sciences & MedTech
- TRL**
3 - Experimental Proof of Concept
- PATENT**
Yes

MOOVET DCX



SHORT DESCRIPTION OF THE PROJECT

Biotech innovation for animal health: digital tools that enable early diagnosis and personalized veterinary care.

EXTENDED DESCRIPTION OF THE PROJECT

Moovet DXC is a certified spin-off of the University of Milan developing biotech and digital technologies to transform animal health. Its proprietary platform, based on microRNA biomarkers and artificial intelligence, enables early disease detection and objective, non-invasive monitoring of animal welfare.

Through two product lines, precision diagnostics for companion animals and TrueWelfare solutions for livestock welfare monitoring, Moovet DXC provides innovative tools that enhance prevention, care, and transparency across the entire value chain.

Moovet's mission is clear: to redefine veterinary medicine, bringing it into the era of predictive, personalized, and sustainable healthcare, for the benefit of animals, professionals, and society.

NEED ADDRESSED

Lack of reliable tools for early diagnosis and objective welfare assessment in veterinary care and animal production.

SOLUTION PROPOSED

AI-powered microRNA platform for early, non-invasive diagnosis and objective animal welfare monitoring.

TARGET MARKET

Veterinary clinics, livestock producers, food industry, and retailers focused on animal health, welfare, and sustainability.

FUNDING NEEDED

BETWEEN 500.000 € AND 2.000.000 €

- ORIGIN**
Start Cup Lombardia
- INDUSTRY**
Life Sciences & MedTech
- TRL**
8 - System completed and qualified
- PATENT**
Yes

SHORT DESCRIPTION OF THE PROJECT

PeptoFarm aims to replace harmful chemical pesticides with sustainable peptide-based alternatives.

EXTENDED DESCRIPTION OF THE PROJECT

PeptoFarm, a newly established company founded at the University of Milan, has developed a platform capable of reducing the development time for molecules used as agricultural pesticides from years to months. Furthermore, through its pipeline, which combines biology and biotechnology, it is able to provide a complete package, from discovery to production, for peptide molecules for agricultural use. The goal is to leverage this technology to bring to market several products that will replace currently available pesticides.

NEED ADDRESSED

Counteract the hazard to the environment and humans caused by chemical pesticides, and to reduce the chemical input in the soil which is responsible for lower agricultural yields.

SOLUTION PROPOSED

A platform for the rapid identification of chemical pesticide alternatives, based on biocompatible antimicrobial peptides, that will enable PeptoFarm to develop several products.

TARGET MARKET

The target is the Agrochemicals market that accounts for > € 200 billion worldwide.

FUNDING NEEDED

> 2.000.000 €

- ORIGIN**
Start Cup Lombardia
- INDUSTRY**
AgriTech
- TRL**
5 - Technology validated in industrially relevant environment
- PATENT**
Yes

RENAISSANCE



Q SHORT DESCRIPTION OF THE PROJECT

Developing proprietary small molecules to the end of preclinical stage for effective treatment of glioblastoma and pancreatic cancer.

Q EXTENDED DESCRIPTION OF THE PROJECT

RAINASSENCE aims to establish a start-up to develop proprietary small molecules (EU patent granted; US and Canada applications pending) as novel antitumor agents for the treatment of glioblastoma (GB) and pancreatic cancer (PC). Compounds developed and patented so far have shown in vitro efficacy superior to current standards treatments. Their multitarget mechanism of action, identified through cheminformatics and biological screening, supports broad therapeutic potential. Pharmacokinetic studies in mice demonstrate brain and pancreas exposure above effective concentrations. The goal is to translate these academic results into proof-of-concept (PoC) in relevant murine models and to prepare a development plan for partnerships or licensing with pharmaceutical companies and accelerators.

Q NEED ADDRESSED

Less than 5% and 11% of glioblastoma and pancreatic cancer patients survive 5 years. Current treatments are largely palliative, with a high unmet need.

Q SOLUTION PROPOSED

Our compounds, developed via an eco-sustainable process, have proven in vitro 70x efficacy compared to gold standard (Glioblastoma).

Q TARGET MARKET

Clinical trial customers: pharma, VCs, licensing partners; post-approval: healthcare providers. TAM €12.6B, SAM (US, CAN, EU) €2.25B, SOM (1%) €22.5M.

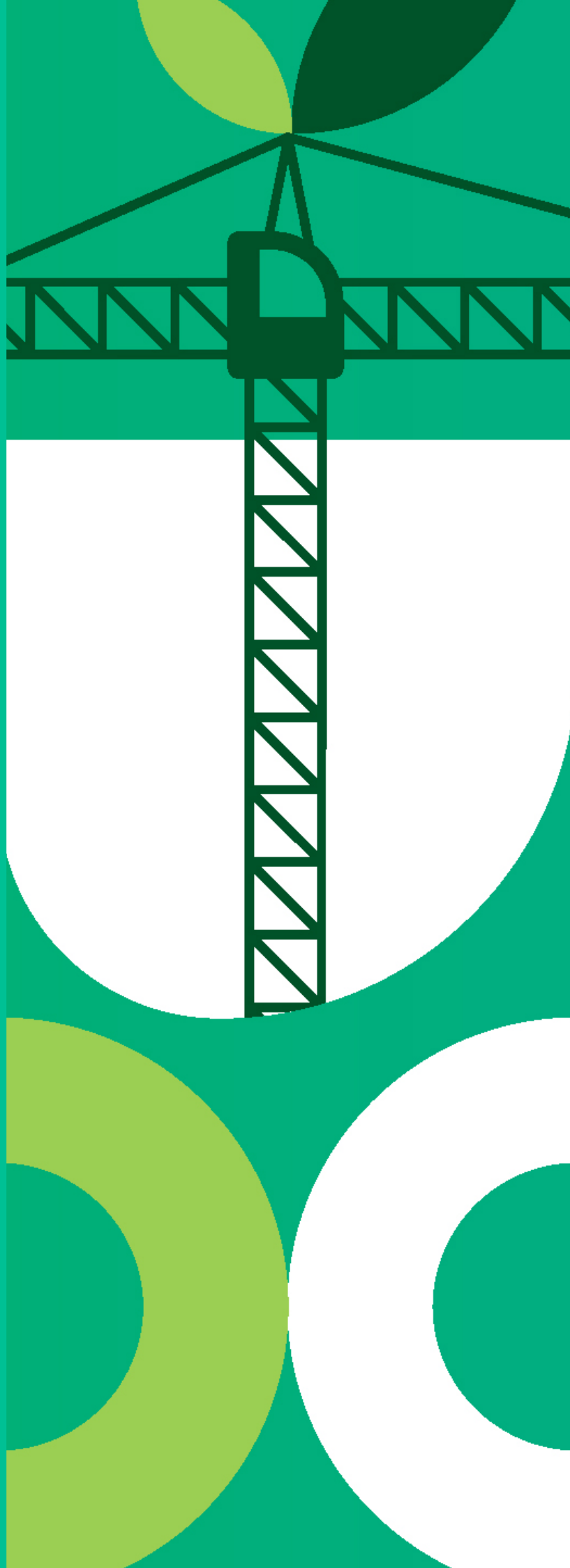
Q FUNDING NEEDED

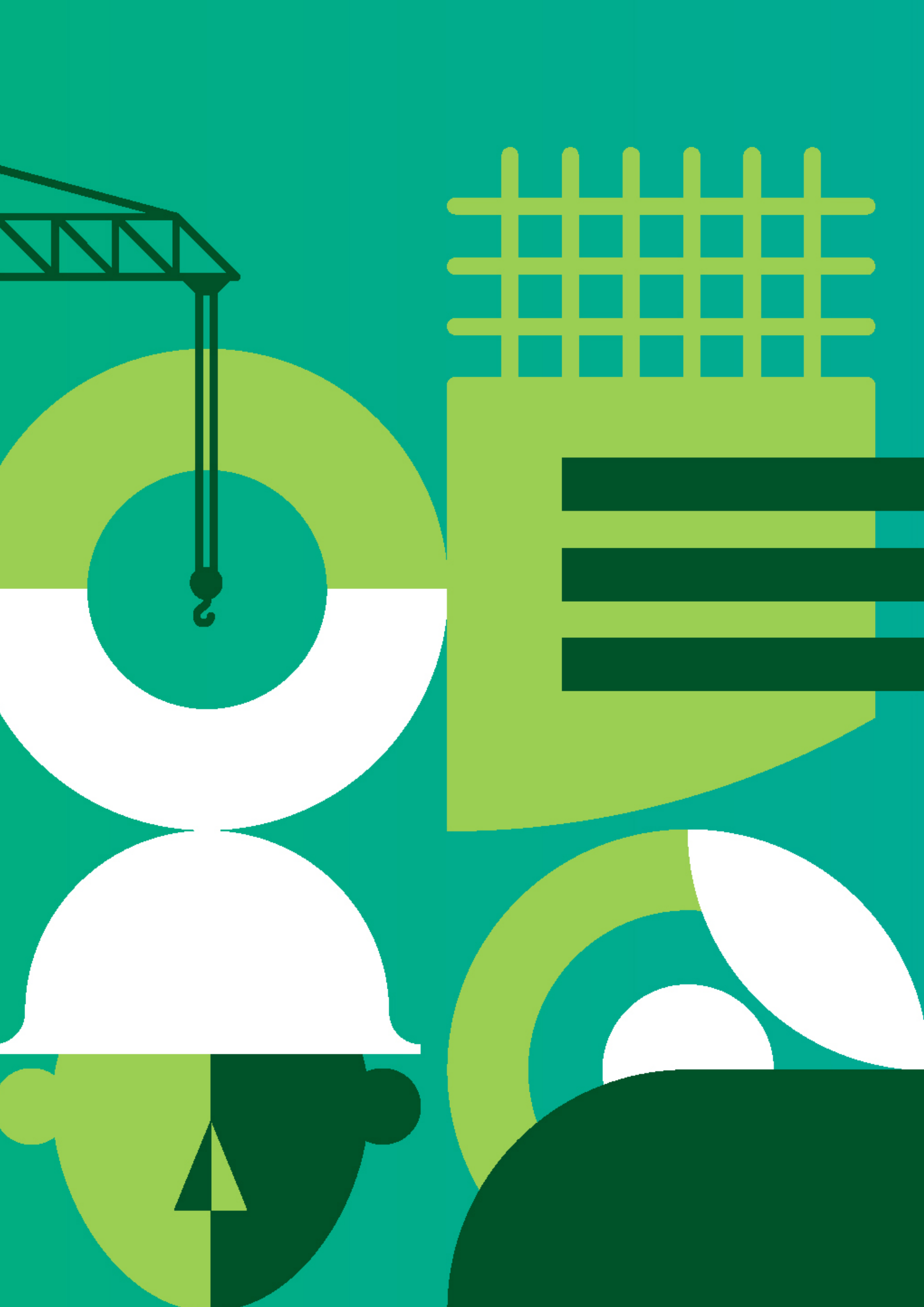
< 500.000 €

- ORIGIN**
Start Cup Lombardia
- INDUSTRY**
Life Sciences & MedTech
- TRL**
3 - Experimental Proof of Concept
- PATENT**
Yes

Edilizia sostenibile e sicura

Brix
CycleSync
DyMoND
EnPower
GRANIZZO
INNOVATION DYNAMIC
INCO
Pillar Srl
Pratify
Progetta
Proxima
QualiCity





SHORT DESCRIPTION OF THE PROJECT

Brix streamlines construction procurement with a dedicated software, enabling huge cost savings by buying more competitively.

EXTENDED DESCRIPTION OF THE PROJECT

Brix helps you find, vet, and connect with construction suppliers — from materials to subcontractors and specialised services — all near your job site. With access to a database of over 30,000 companies (including public works history, ISO and SOA certifications, financial data, and more), Brix turns sourcing into a strategic advantage.

Powered by artificial intelligence, Brix makes the procurement process 10x faster, enabling construction firms to double the number of quotes they review and unlock major cost-saving opportunities — all while staying on schedule.

With Brix, purchasing teams can easily analyze bills of quantities, share technical specifications, prequalify suppliers, send RFQs with full document packages, and manage historical data — all from one centralized, lightning-fast platform.

NEED ADDRESSED

Construction general contractors waste time and money with slow procurement processes, resulting in only 2-3 quotations viewed per purchase.

SOLUTION PROPOSED

Brix software applies AI to 10x procurement process speed, doubling number of quotations viewed.

TARGET MARKET

Construction general contractors operating in Italy; 10.000 companies buying €100Bln worth of materials and services per year.

FUNDING NEEDED

< 500.000 €

-  **ORIGIN**
Edilizia Sostenibile
-  **INDUSTRY**
ConTech
-  **TRL**
9 - Actual system proved in operational environment
-  **PATENT**
No



SHORT DESCRIPTION OF THE PROJECT

CycleSync makes sustainable design measurable — real-time, data-driven, and circular.

EXTENDED DESCRIPTION OF THE PROJECT

CycleSync is a real-time BIM–LCA platform that transforms sustainability from static reporting into design intelligence. It connects verified Environmental Product Declaration (EPD) data with building information models, allowing architects and engineers to visualize and compare environmental impacts instantly as designs evolve. By integrating all life-cycle stages—from production to end-of-life—CycleSync ensures scientifically accurate results while remaining fast and affordable to use from the earliest sketch. The platform helps users prevent costly late-stage compliance issues and supports manufacturers in showcasing verified low-impact products. Built on parametric and AI-driven analytics, CycleSync bridges the gap between design, data, and regulation, empowering truly circular, data-driven decision-making across the construction industry.

NEED ADDRESSED

The market lacks both real manufacturer data and real-time LCA tools, blocking accurate, closed-loop pathways for low-impact, circular buildings.

SOLUTION PROPOSED

Our tool connects designers with suppliers' real product data, enabling accurate impact accounting, circular choices, and stronger market visibility.

TARGET MARKET

Targeting architects & suppliers via SaaS. EU green construction SaaS market >€2B TAM; SAM €50M, with high-growth SOM in early adopter firms.

FUNDING NEEDED

BETWEEN 500.000 € AND 2.000.000 €

- ORIGIN**
Edilizia Sostenibile
- INDUSTRY**
Industrial Technologies
- TRL**
3 - Experimental Proof of Concept
- PATENT**
No, but I plan to apply for a patent



SHORT DESCRIPTION OF THE PROJECT

Software for automated structural health monitoring of infrastructures, automatically detecting and localizing anomalies in real time.

EXTENDED DESCRIPTION OF THE PROJECT

Our software is a real-time structural monitoring solution for infrastructures (e.g., bridges) and buildings. It integrates vibration analysis and statistical pattern recognition to analyze monitoring systems and automatically detect and localize structural damages. Sensors installed on the structure collect vibrational and environmental data, which the software processes automatically to detect anomalies, distinguish between sensor faults and structural issues, and localize potential damage in real time. The software can operate: (a) on a single local machine, (e.g., on devices placed at the proximity of a building); (b) across multiple machines (e.g., computers,...) for larger infrastructure networks; (c) or fully hosted in the cloud, offering centralized access and scalability.

NEED ADDRESSED

Monitoring today depends on costly, unreliable visual checks or systems that can't interpret data or distinguish structural from sensor faults.

SOLUTION PROPOSED

Software for real-time automated monitoring data analysis, enabling fast anomaly detection, localization, and cost-effective interventions.

TARGET MARKET

Regional, municipal, and provincial authorities; local healthcare authorities; large real estate management companies.

FUNDING NEEDED

< 500.000 €

- ORIGIN**
Edilizia Sostenibile
- INDUSTRY**
ICT & Services
- TRL**
5 - Technology validated in industrially relevant environment
- PATENT**
No, but I plan to apply for a patent

SHORT DESCRIPTION OF THE PROJECT

EnPower delivers plug-and-play energy management, integrating solar and batteries to optimize energy use, storage, and selling.

EXTENDED DESCRIPTION OF THE PROJECT

EnPower is a startup that provides advanced, plug-and-play energy management solutions that seamlessly integrate solar panels, battery storage, and real-time electricity usage. Designed for efficiency and simplicity, the system maximizes return on investment by deciding when to store, use, or sell energy based on live market prices. EnPower's unique value lies in its system-agnostic EMS architecture, which connects with multiple hardware suppliers and uses real-time data and future forecasts rather than historical data. This approach significantly improves energy management performance and ROI.

NEED ADDRESSED

Low return on investment from solar system investment.

SOLUTION PROPOSED

An Energy management system that controls the energy flow in order to maximize user ROI.

TARGET MARKET

Residential and commercial market who own a solar system.

FUNDING NEEDED

> 2.000.000 €

- ORIGIN**
Edilizia Sostenibile
- INDUSTRY**
CleanTech & Energy
- TRL**
4 - Technology Validated in Lab
- PATENT**
No, but I plan to apply for a patent



Q SHORT DESCRIPTION OF THE PROJECT

Transforming construction waste into AI-designed tiles that blend sustainability, innovation, and unique aesthetics.

Q EXTENDED DESCRIPTION OF THE PROJECT

GRANIZZO | AI Art Design was created to address the growing challenge of solid waste in the construction sector, transforming it into sustainable materials of high aesthetic value. Through the integration of AI in design and production processes, construction residues are scanned and analyzed to generate patterns, giving rise to unique tiles that optimize building waste according to its availability and characteristics. The goal is to reduce the environmental impact of the construction industry by enhancing waste materials as a local resource and promoting a more circular supply chain. The project targets architecture studios, designers, artisans, waste management companies, and building material producers, fostering synergies between innovation, craftsmanship, and sustainability.

Q NEED ADDRESSED

Addressing construction waste by turning discarded materials into sustainable, AI-designed surfaces.

Q SOLUTION PROPOSED

Integration of AI into traditional mosaic techniques to optimize the use of construction waste based on their quantity and characteristics.

Q TARGET MARKET

Design studios, architects, artisans and construction companies focused on circular innovation.

Q FUNDING NEEDED

BETWEEN 500.000 € AND 2.000.000 €

- ORIGIN**
Edilizia Sostenibile
- INDUSTRY**
Industrial Technologies
- TRL**
3 - Experimental Proof of Concept
- PATENT**
No, but I plan to apply for a patent



SHORT DESCRIPTION OF THE PROJECT

Smart SHM platform with AI and Digital Twin for damage diagnosis and RUL prediction on buildings and infrastructures.

EXTENDED DESCRIPTION OF THE PROJECT

End-to-end Structural Health Monitoring (SHM) platform for buildings and infrastructures. It collects multisource data from MEMS sensors, strain gauges and crack meters, processes signals and time/frequency features, and uses supervised AI for automatic damage diagnosis. A Bayesian model continuously updates the Remaining Useful Life (RUL) estimation, enabling predictive maintenance. Integration with FEM/Digital Twin models provides robustness and damage localization. The cloud dashboard displays KPIs, alerts and intervention priorities, with APIs toward CMMS/BIM systems. The platform reduces OPEX and environmental impact, increases safety, and digitizes infrastructure management.

NEED ADDRESSED

Reactive maintenance and slow inspections lead to high costs and safety risks for bridges and buildings.

SOLUTION PROPOSED

AI-based SHM platform with Bayesian/FEM models for damage diagnosis and Remaining Useful Life (RUL) prediction.

TARGET MARKET

Bridge and building owners, public authorities, engineering firms, and infrastructure concessionaires.

FUNDING NEEDED

< 500.000 €

- ORIGIN**
Edilizia Sostenibile
- INDUSTRY**
Industrial Technologies
- TRL**
4 - Technology Validated in Lab
- PATENT**
No, but I plan to apply for a patent

SHORT DESCRIPTION OF THE PROJECT

INCO generates social impact by transforming unused rooms into affordable housing solutions through intergenerational co-living.

EXTENDED DESCRIPTION OF THE PROJECT

INCO enhances existing housing stock by transforming unused rooms in seniors' homes into affordable housing solutions for students and young professionals.

Through a simple and verified process, local partnerships, and inclusive digital tools, INCO activates and supports intergenerational co-living.

Its model helps hosts feel confident opening their homes, while guests find affordable accommodation in exchange for companionship and light support.

INCO is an innovation in the PropTech sector: it not only expands housing supply and improves access to education and work but also redefines the way we live together by creating lasting social and economic value, genuine connections, and greater cohesion between generations.

NEED ADDRESSED

INCO addresses the rising housing costs for young people and social isolation among older adults living in underused homes.

SOLUTION PROPOSED

A digital platform enabling and scaling intergenerational co-living through trusted profiling, tailored matching, and constant support.

TARGET MARKET

Students and young workers seeking affordable housing; older adults with spare rooms in need of social and/or economic support.

FUNDING NEEDED

< 500.000 €

- ORIGIN**
Edilizia Sostenibile
- INDUSTRY**
PropTech
- TRL**
2 - Technology Concept Formulated
- PATENT**
No

SHORT DESCRIPTION OF THE PROJECT

Software that automates financial management for construction companies, saving time and reducing errors.

EXTENDED DESCRIPTION OF THE PROJECT

Pillar is a SaaS platform that simplifies financial management for construction companies. It automates invoice reconciliation, payment control, and cash flow forecasting, providing a real-time overview of company liquidity. Pillar helps managers and accountants make data-driven decisions quickly, improving profitability and financial sustainability across construction projects.

NEED ADDRESSED

Construction companies struggle to manage cash flow and forecast liquidity accurately.

SOLUTION PROPOSED

Automation of reconciliation, cash flow analysis, and real-time financial control dashboards.

TARGET MARKET

Construction companies with 5–100 employees in Italy and across Europe.

FUNDING NEEDED

> 2.000.000 €

-  **ORIGIN**
Edilizia Sostenibile
-  **INDUSTRY**
FinTech
-  **TRL**
9 - Actual system proved in operational environment
-  **PATENT**
No

SHORT DESCRIPTION OF THE PROJECT

The digital co-pilot for technical firms and professionals that simplifies and optimizes the management of building permits.

EXTENDED DESCRIPTION OF THE PROJECT

Pratify is a software designed for technical firms, architects, engineers, and industry professionals that simplifies and optimizes the management of building permits.

It acts as a digital co-pilot that guides and assists the professional throughout the documentation process of a construction project, helping identify the correct permits to submit and automatically managing deadlines, costs, and prerequisites.

Pratify provides the professional with a graphical roadmap of building permits, including details relevant to the project's geographical location, and sends notifications through configurable channels about upcoming deadlines and timelines.

The software does not replace the professional in filling out forms but assists them in improving productivity.

NEED ADDRESSED

Simplify and unify the management of fragmented and complex building permits, reducing errors, delays, and fines.

SOLUTION PROPOSED

Software to simplify the management of building permits, with guided processes, dynamic roadmaps, and notifications.

TARGET MARKET

Architecture and engineering firms and individual professionals in the construction sector managing building permits.

FUNDING NEEDED

< 500.000 €

- ORIGIN**
Edilizia Sostenibile
- INDUSTRY**
ICT & Services
- TRL**
5 - Technology validated in industrially relevant environment
- PATENT**
No



SHORT DESCRIPTION OF THE PROJECT

An AI-powered compliance platform that supports building design by reducing time and errors in permit management.

EXTENDED DESCRIPTION OF THE PROJECT

Progetta is a digital platform that streamlines building design processes, specializing in the automated management of minor building permits (SCIA, CILA, CIL...). Its goal is to reduce approval times and human errors while increasing profit margins, quality, and delivery speed for design professionals. Powered by an AI trained on local regulations and administrative practices, Progetta manages the entire workflow; guiding designers through structured questionnaires, identifying relevant authorities and applicable codes, and generating customized checklists and operational roadmaps. During and after project development, the platform ensures regulatory compliance, auto-fills official documentation, and produces supporting cost estimates. Finally, Progetta handles communication with local building authorities (SUE), ensuring a fully digital, consistent, and compliant project submission.

NEED ADDRESSED

The production of documents for simple building procedures is slow, manual and prone to errors, causing a waste of time and resources.

SOLUTION PROPOSED

AI-enabled assistant that simplifies the drafting of repetitive building procedures, boosting efficiency and productivity of designers.

TARGET MARKET

Design studios and designers (engineers, architects and surveyors) who handle minor building procedures such as SCIA, CILA and CIL.

FUNDING NEEDED

< 500.000 €

-  **ORIGIN**
Edilizia Sostenibile
-  **INDUSTRY**
Industrial Technologies
-  **TRL**
3 - Experimental Proof of Concept
-  **PATENT**
No

SHORT DESCRIPTION OF THE PROJECT

PROXIMA Ecosystem: a hybrid and modular architecture that evolves through plug-in technomodules, adapting to needs and functions over time.

EXTENDED DESCRIPTION OF THE PROJECT

The PROXIMA project proposes an innovative construction model based on a hybrid modular architecture, where a long-lifespan primary structure accommodates interchangeable plug-in technomodules that integrate short-lifecycle technological systems.

This configuration enables the rapid and non-invasive replacement of modules, ensuring a high degree of adaptability over time and more efficient lifecycle management of the building. The approach leverages off-site prefabrication together with an integrated digital platform, opening the way to a wide range of applications: permanent and temporary housing, social housing developments, remote healthcare units, and flexible workspaces. PROXIMA constitutes a scalable and highly adaptable ecosystem capable of reducing inefficiencies and environmental impacts, supporting urban regeneration processes, and redefining the building as a dynamic provider of services rather than a static physical asset.

NEED ADDRESSED

Inadequate industrialized construction to meet housing demand; building typologies and management models are now obsolete.

SOLUTION PROPOSED

Hybrid modular architecture with off-site tech and a digital platform for efficiency, adaptability, low environmental impact and services.

TARGET MARKET

Turnkey new residential construction in the EU and patent transfer. TAM: 1.46M housing units/year, SAM: 150k modules, initial SOM: 500 modules/year.

FUNDING NEEDED

< 500.000 €

- ORIGIN**
Edilizia Sostenibile
- INDUSTRY**
Construction
- TRL**
6 - Technology demonstrated in industrially relevant environment
- PATENT**
Yes

SHORT DESCRIPTION OF THE PROJECT

Platform that evaluates the quality and sustainability of urban projects, creates common languages with the PA, speeds up approvals, reduces costs.

EXTENDED DESCRIPTION OF THE PROJECT

QualiCity is an digital platform designed to transform the way real-estate projects are evaluated, approved and communicated. It is an integrated system for rapid assessment, demonstration and forecasting of project quality and helps developers, architects and urban planners create data-driven, transparent proposals. The platform establishes a shared and objective language between private real-estate operators and Public Authorities, fostering collaboration and mutual understanding throughout the decision-making process. Through advanced analytics and standardized quality indicators, QualiCity simplifies the approval workflow, reducing uncertainty, delays and costs. It enables stakeholders to clearly demonstrate the value and sustainability of their projects, ensuring compliance with regulatory frameworks while supporting better urban outcomes. QualiCity accelerates development timelines, enhances transparency and builds trust among all actors involved in shaping the cities.

NEED ADDRESSED

Lost opportunities for long due diligence, long PA approval times, value loss from unclear quality communication.

SOLUTION PROPOSED

QualiCity turns urban data into clear scorecards. It speeds up approvals, creates common language, and fosters more sustainable cities.

TARGET MARKET

Real Estate operators, Public Administration, and Architects needing a tool to evaluate and communicate urban project quality/sustainability.

FUNDING NEEDED

< 500.000 €

- ORIGIN**
Edilizia Sostenibile
- INDUSTRY**
CleanTech & Energy
- TRL**
6 - Technology demonstrated in industrially relevant environment
- PATENT**
No, but I plan to apply for a patent

Chimica Verde Lombardia per un futuro sostenibile 2025

**Agreenet
B-Plas
Flow Nano
Intellico
Komete
Magaldi Green Energy
Mindis
Rafla Tech
Sieve
Sinergy Flow
Wembranex**



SHORT DESCRIPTION OF THE PROJECT

Agreenet is a biotech startup that fights food waste with natural and innovative solutions designed to preserve fresh fruit better and longer, without synthetic preservatives or plastic.

EXTENDED DESCRIPTION OF THE PROJECT

Agreenet is a biotech startup developing natural and sustainable solutions to reduce food waste in the fresh produce supply chain. Its flagship product, PiFresc®, is a plant-based, food-grade treatment that extends the shelf life of fresh fruit by up to +25 days without the use of synthetic preservatives. Easy to apply, safe, and compatible with organic farming, PiFresc® helps exporters, distributors, and packers cut waste from mold and spoilage by up to 50%, improving margins and reducing customer complaints. Successfully tested on grapes, blueberries, cherries, and lemons, Agreenet aims to revolutionize food packaging with an eco-friendly approach, supporting the agri-food sector in transitioning to a more innovative, circular, and low-impact model. Less waste, more future.

NEED ADDRESSED

Agreenet reduces fresh food waste by extending shelf life naturally and without chemicals.

SOLUTION PROPOSED

PiFresc®: a natural, plant-based treatment that extends fruit shelf life by up to +25 days without synthetic chemicals.

TARGET MARKET

Fresh fruit exporters, distributors, and packers seeking natural solutions to reduce waste and extend shelf life.

FUNDING NEEDED

BETWEEN 500.000 € AND 2.000.000 €

- ORIGIN**
Chimica Verde
- INDUSTRY**
FoodTech
- TRL**
7 - System prototype demonstration in operational environment
- PATENT**
Yes



SHORT DESCRIPTION OF THE PROJECT

B-Plas offers innovative plant solutions for the management of civil, industrial, and agro-industrial wastewater sludge, reducing the amount of sludge to be disposed of and producing new high-value circular by-products, such as hydrochar and PHA-enriched biomass.

EXTENDED DESCRIPTION OF THE PROJECT

B-Plas technology converts civil, industrial, and agro-industrial wastewater sludge into high-value resources through an innovative bio-refining process. The system integrates stages of Hydrothermal Carbonization (HTC), solid/liquid filtration, and proprietary biological processes, reducing up to 80% of the sludge volume to be disposed of. The transformation yields circular by-products such as hydrochar—usable as an energy carrier or soil improver—and PHA-enriched biomass, a high-quality biodegradable biopolymer. B-Plas offers modular and scalable plant solutions adaptable to various types of wastewater treatment facilities and agro-industrial companies, with flexible business models including direct sales, technological partnerships, or turnkey supply. The goal is to reduce costs and environmental impact while promoting a sustainable and innovative circular economy in sludge treatment, recovering and valorizing organic carbon and other valuable nutrients.

NEED ADDRESSED

We provide solution for sludge treatment, upcycling the organic Carbon and other nutrients in wastewaters. Hydrochar and PHA-rich biomass are innovative byproducts (End of Waste) that enhance circularity of the WWT facilities.

SOLUTION PROPOSED

B-Plas turns wastewater sludge into hydrochar and PHA-rich biomass, cutting waste by up to 80% through innovative bio-refining.

TARGET MARKET

Public and private companies that manages civil, industrial, and agro-industrial wastewater sludge treatment plants.

FUNDING NEEDED

> 2.000.000 €

- ORIGIN**
Chimica Verde
- INDUSTRY**
CleanTech & Energy
- TRL**
8 - System completed and qualified
- PATENT**
Yes

SHORT DESCRIPTION OF THE PROJECT

We manufacture nanostructured electrodes for flow batteries and electrochemical applications to increase performance and reduce costs.

EXTENDED DESCRIPTION OF THE PROJECT

Flow-nano produces nanostructured electrodes for electrochemical applications, with flow batteries as the first target, stationary batteries used for renewable energy storage. Compared to lithium batteries, flow batteries offer many advantages: capacity and power are decoupled, they have no safety issues since the electrolyte is water-based, and they offer an extremely long life, over 20,000 cycles. The only limitation is the cost, which is about 30% higher than lithium. Our electrodes aim to solve this problem. Thanks to our electrodes, flow batteries can operate at power densities three times higher than the state of the art, which translates into a reduction in CAPEX, since smaller batteries can be made with the same power. This is possible because our electrodes are made of thin carbon fabrics coated with carbon nanoparticles, which dramatically increase their active surface area.

NEED ADDRESSED

Our goal is to increase the performance of flow batteries to make them more efficient and affordable for renewables storage and LDES market.

SOLUTION PROPOSED

Our solution is an advanced electrode which allows flow-battery operations at much higher power densities and efficiency.

TARGET MARKET

Our first target market is flow battery and our prospects are flow battery producers such as Invinity, Sumitomo, Storion.

FUNDING NEEDED

> 2.000.000 €

- ORIGIN**
Chimica Verde
- INDUSTRY**
CleanTech & Energy
- TRL**
6 - Technology demonstrated in industrially relevant environment
- PATENT**
Yes

SHORT DESCRIPTION OF THE PROJECT

MATILDE is an Explainable AI platform for R&D that optimizes the formulation process, cuts time-to-market and boosts sustainable innovation.

EXTENDED DESCRIPTION OF THE PROJECT

MATILDE is a platform designed to optimize the formulation of chemical, cosmetic, and food products, targeting Research and Development departments. Based on generative and predictive AI with an Explainable AI approach, it provides accurate and understandable results, overcoming the limitations of black-box systems. It is also designed, in the medium term, to integrate physics-informed models. The platform enables the prediction of final product properties starting from ingredients, the execution of virtual simulations, and the selection of alternative ingredients compliant with regulations. Through its smart assistant, virtual lab, and digital workflow features, it reduces time-to-market (from 7 to 2 months), raw material waste, and development costs, while ensuring transparency and collaboration across teams. The solution has already been validated in several industrial installations and serves as a key enabler for efficiency and sustainability in R&D and industrial innovation processes.

NEED ADDRESSED

R&D teams need to create formulations faster and better to respond quickly to market shifts, regulation changes and supply issues.

SOLUTION PROPOSED

Explainable AI platform that predicts and optimizes new or reformulated products faster and more efficiently.

TARGET MARKET

R&D teams in consumer packaged goods, including cosmetic, chemical, and food industries.

FUNDING NEEDED

< 500.000 €

-  **ORIGIN**
Chimica Verde
-  **INDUSTRY**
Industrial Technologies
-  **TRL**
9 - Actual system proved in operational environment
-  **PATENT**
No

SHORT DESCRIPTION OF THE PROJECT

Komete digitises and streamlines chemical and pharmaceutical production by tracking batches and materials to reduce waste and errors.

EXTENDED DESCRIPTION OF THE PROJECT

Komete is a plug-and-play platform that digitises and automates production processes in chemical and pharmaceutical companies.

Using wireless sensors attached to batches and materials, Komete tracks location, time and environmental parameters such as temperature and humidity in real time.

The data is displayed on a digital map of the plant, allowing bottlenecks, deviations and risks of non-compliance to be identified before they cause waste or rework.

The system sends predictive alerts when a batch is at risk of falling outside the operating windows and coordinates the laboratory, production and quality departments without manual reports or Excel spreadsheets.

Komete reduces non-compliant batches by up to 30%, cuts audit costs and improves productivity.

It is a simple to install and scalable solution, designed to make factories more efficient, traceable and sustainable.

NEED ADDRESSED

High waste and quality costs caused by non-conformities in material handling and batch storage processes.

SOLUTION PROPOSED

Real-time IoT monitoring of batch location and environmental variables to reduce non-conformities, waste and quality costs.

TARGET MARKET

Chemical, pharmaceutical, and cosmetic companies with batch production and multi-product plants with high variability.

FUNDING NEEDED

< 500.000 €

-  **ORIGIN**
Chimica Verde
-  **INDUSTRY**
Industrial Technologies
-  **TRL**
8 - System completed and qualified
-  **PATENT**
Yes

SHORT DESCRIPTION OF THE PROJECT

MGTES is a thermal energy storage module which delivers green renewable steam to the process industry.

EXTENDED DESCRIPTION OF THE PROJECT

Magaldi has developed and patented the MGTES (Magaldi Green Thermal Energy Storage) system, a thermal battery for long-duration energy storage and green heat generation. Based on innovative fluidized sand bed technology, the system is charged by renewable electrical energy or directly from the grid, stores clean energy for hours, days or even weeks, and releases high temperature thermal energy - typically superheated steam - on demand or continuously.

NEED ADDRESSED

Decarbonization of process heat in the industry.

SOLUTION PROPOSED

Process electrification with thermal storage, to allow a better coupling with the renewable energy generation.

TARGET MARKET

Process industry, especially needing heat 150-300°C. The major industries are: Food&Beverage, Chemicals&Pharma, Pulp&Paper. Energy demand for process heat accounts for 2/3 of the global energy consumption and is currently unaddressed.

FUNDING NEEDED

> 2.000.000 €

-  **ORIGIN**
Chimica Verde
-  **INDUSTRY**
CleanTech & Energy
-  **TRL**
8 - System completed and qualified
-  **PATENT**
Yes

SHORT DESCRIPTION OF THE PROJECT

Software platform for Augmented Reality visualization of 2D/3D data in 1:1 scale overlaid on real-world construction sites.

EXTENDED DESCRIPTION OF THE PROJECT

Mindis Srl develops a software platform for Augmented Reality to manage dynamic Digital Twins in the infrastructure sector. The solution enables real-time, 1:1 scale visualization of GIS, DWG, BIM, and 3D models overlaid on the physical reality of construction sites via Android/iOS mobile devices. By integrating technologies such as Autodesk ACC, ArcGIS by ESRI, Blockchain, SINFI, and Artificial Intelligence, Mindis supports both indoor and outdoor phases of construction and maintenance. The platform allows for the creation of georeferenced assets, field data collection, document management, BIM clash detection, and notarization of activities. Mindis is an official partner of Autodesk, Esri, TIM, Microsoft, and Leica Geosystems, and collaborates with TIM Enterprise and Microsoft sales teams on Smart City, infrastructure, and territory digitization projects.

NEED ADDRESSED

Delays, rework, poor site-office coordination, lack of geodata, and risk of damaging underground utilities.

SOLUTION PROPOSED

AR platform to view technical data onsite, detect BIM clashes, manage assets, and certify activities via blockchain.

TARGET MARKET

Oil&Gas, Industrial Plants, Utilities, Transport infrastructure, Construction, Smart Cities, Public Sector, large enterprises.

FUNDING NEEDED

> 2.000.000 €

- ORIGIN**
Chimica Verde
- INDUSTRY**
Oil&Gas, Plant produttivi, Costruzioni, Infrastrutture di Trasporto, Telco e Smart Cities
- TRL**
7 - System prototype demonstration in operational environment
- PATENT**
No, but the patent application has been filed

SHORT DESCRIPTION OF THE PROJECT

Autonomous robots and AI systems for sustainable inspections of infrastructures, plants, and logistics, reducing costs, risks, and consumption.

EXTENDED DESCRIPTION OF THE PROJECT

Rafla Tech designs and develops autonomous ground and aerial robotic systems that make inspection, monitoring, and maintenance of critical infrastructures, airports, and agricultural areas simpler, safer, and more sustainable. Our solutions integrate mobile robots, automatic docking stations, and AI-based remote platforms to analyze data and predict needs. Thanks to a modular and scalable architecture, the systems operate continuously and reliably even in complex or harsh environments, reducing costs, time, and risks for people. Through our technology, we aim to help build a future of smarter, more sustainable, and fully digital infrastructures.

NEED ADDRESSED

Improve safety, efficiency, and reduce costs in industrial and agricultural operations with autonomous and sustainable robotic solutions.

SOLUTION PROPOSED

We offer autonomous robotic solutions, like drones and rovers, to improve safety, efficiency, and reduce costs in industrial and agricultural operations.

TARGET MARKET

Industrial, energy, agricultural, and logistics sectors seeking autonomous solutions for monitoring, maintenance, and operational efficiency.

FUNDING NEEDED

< 500.000 €

- ORIGIN**
Chimica Verde
- INDUSTRY**
Industrial Technologies
- TRL**
7 - System prototype demonstration
in operational environment
- PATENT**
Yes

SHORT DESCRIPTION OF THE PROJECT

SIEVE has developed an innovative and circular filtering material for advanced wastewater treatment.

EXTENDED DESCRIPTION OF THE PROJECT

SIEVE has developed an advanced and regenerable material for the physico-chemical treatment and reuse of industrial and municipal wastewater. Made from Red Mud, a metallurgical slag transformed into a resource, the material replaces ion exchange resins and activated carbon in existing plants, reducing both costs and environmental impact. It can be regenerated directly on-site and simultaneously removes heavy metals, refractory organic compounds, and pathogens, ensuring high performance even at low concentrations. At the end of its life cycle, it can be reused as an inert filler in construction, closing the loop in a circular economy model that combines sustainability, innovation, and industrial waste reduction.

NEED ADDRESSED

Current plants must combine multiple technologies to treat different pollutants, making them complex and costly to operate.

SOLUTION PROPOSED

A single regenerable material that removes multiple pollutants, simplifying treatment and cutting costs and waste.

TARGET MARKET

Industrial and municipal plants treating wastewater contaminated with heavy metals and refractory organics.

FUNDING NEEDED

> 2.000.000 €

-  **ORIGIN**
Chimica Verde
-  **INDUSTRY**
CleanTech & Energy
-  **TRL**
5 - Technology validated in industrially relevant environment
-  **PATENT**
No, but the patent application has been filed

SHORT DESCRIPTION OF THE PROJECT

Sinergy Flow is a deep tech startup developing innovative and sustainable batteries for long-duration energy storage, (>8h).

EXTENDED DESCRIPTION OF THE PROJECT

Sinergy Flow is an innovative startup developing a next-generation stationary energy storage system based on a truly sustainable chemistry. The solution leverages sulfur-based industrial byproducts from refining, metallurgy, and chemical processes. By transforming these byproducts into active materials within the battery, Sinergy Flow turns waste into a strategic, high-value resource, embracing a fully circular approach.

Our patented technology enables energy storage from 8 to over 24 hours at a highly competitive cost, unlocking deeper renewable energy penetration and enhancing grid stability. Thanks to its unique chemistry and the use of recyclable, sustainable materials, Sinergy Flow offers a cost of less than 150 €/kWh for long-duration energy storage applications, enabling a fully sustainable energy transition and proving that high performance, circularity, and affordability can coexist.

NEED ADDRESSED

Long-duration, affordable storage is needed to balance the grid, reduce curtailment, and enable higher renewable penetration.

SOLUTION PROPOSED

A recyclable sulfur-based flow battery that stores energy 8–24+ hours at low cost, maximizing renewable use and stabilizing the grid.

TARGET MARKET

Large-scale stationary energy storage market. Primary customers: utilities, grid operators, and developers of large renewable plants.

FUNDING NEEDED

> 2.000.000 €

- ORIGIN**
Chimica Verde
- INDUSTRY**
CleanTech & Energy
- TRL**
5 - Technology validated in industrially relevant environment
- PATENT**
Yes

SHORT DESCRIPTION OF THE PROJECT

Wembranex develops sustainable and innovative membranes for high-efficiency water treatment and reuse.

EXTENDED DESCRIPTION OF THE PROJECT

Wembranex S.r.l. is an Italian start-up founded in September 2023 with the ambition to make a tangible contribution to the United Nations Sustainable Development Goal No. 6: ensuring access to clean water for all by 2030. The company aims to enhance the performance of wastewater treatment plants and industrial separation processes (from textile to pharmaceutical sectors) through a new generation of polymeric membranes developed using a patented technology (WO 2015/044335), for which it holds exclusive license rights. To this end, it has developed SAFTEK, an innovative technology that significantly reduces fouling and biofouling phenomena, improving membrane efficiency, operational lifetime, and process sustainability. SAFTEK enables optimized separation performance, reduced operating costs, and promotes a more responsible use of water resources.

NEED ADDRESSED

Membrane fouling limits efficiency and increases costs in water and industrial treatment processes.

SOLUTION PROPOSED

SAFTEK technology minimizes fouling and biofouling, enhancing membrane efficiency, durability, and sustainability.

TARGET MARKET

Water treatment and industrial separation sectors, including chemical, pharmaceutical, food and beverage and oil and gas industries.

FUNDING NEEDED

BETWEEN 500.000 € AND 2.000.000 €

ORIGIN	Chimica Verde
INDUSTRY	CleanTech & Energy
TRL	6 - Technology demonstrated in industrially relevant environment
PATENT	Yes

STARTUP DAYS 2025

The Future of Innovation Starts Here