Innovative automated recycling solutions for photovoltaic panels: seeking strategic partnerships, investment and research collaborations, to enhance resource recovery and sustainability in the solar industry

Summary

Profile type	Company's country	POD reference
Technology offer	**Italy**	**TOIT20250704026**
Profile status	**Type of partnership**	**Targeted countries**
PUBLISHED	**Investment agreement** **Commercial agreement with technical assistance** **Research and development cooperation agreement**	**• World**
Contact Person	**Term of validity**	**Last update**
Enrico FRANZIN	**4 Jul 2025** **4 Jul 2026**	**4 Jul 2025**

General Information

Short summary

An Italian startup, is transforming photovoltaic panel recycling with innovative automated robotic processes. They developed an innovative solution for the recycling of photovoltaic panels focused on enhancing material recovery, reducing waste, and improving circularity. They seek strategic partners to expand their sustainable recycling solutions in the solar industry through commercial agreement with technical assistance, investment agreement or research and development cooperation agreement.

Full description

An Italian forward-thinking company is revolutionizing the recycling of photovoltaic (PV) panels through the use of innovative automated robotic processes. Their mission is to create sustainable solutions for the end-of-life management of solar panels, addressing key environmental challenges like material scarcity and waste disposal.
They have developed cutting-edge filtration and process that maximize material recovery, optimize resource efficiency, and reduce the environmental impact of recycling operations. By reintegrating recovered materials into new production cycles, tehy are helping to close the loop in the circular economy of the solar energy sector.
Their technology integrates robotic systems and AI-driven solutions to automate the disassembly and sorting of

photovoltaic panels, significantly improving the, accuracy, and scalability of the recycling process. This approach not only boosts the efficiency of material recovery but also minimizes the risk of contamination and maximizes the reuse of valuable resources such as silicon, glass, plastics and metals.
Company's vision is to establish a fully automated, environmentally responsible recycling system that can be adopted widely across the photovoltaic industry. This solution will support the growth of a more sustainable energy sector while addressing the growing issue of waste disposal and the need for more sustainable sourcing of materials.
They are currently looking for strategic partnerships to further expand their recycling technology. Specifically, they seek research institutions, industry players, and technology developers who can support them in the following areas:
1. Technology Collaboration: they welcome partners with expertise in robotics, AI, and sensor integration who can help enhance the efficiency and accuracy of their automated recycling processes.
2. Strategic Partnerships: they are interested in collaborations with manufacturers, distributors, or solar energy companies who are committed to sustainable practices and who wish to integrate their recycling solutions into their operations.
3. Technical Collaboration: partners who can offer technical expertise in optimizing recycling systems, improving material recovery, or ensuring compliance with environmental regulations and sustainability standards.
4. Investment: they are looking for people or companies interested in investing in their technology, development and expansion of the company.

Advantages and innovations

The company is pioneering the recycling of photovoltaic (PV) panels with a focus on automation, material recovery, and sustainability. Their innovative solutions stand out in the industry by offering the following advantages:

1. Automated Recycling Technology

They integrate robotics and AI-driven solutions to automate the entire recycling process, significantly enhancing precision, and scalability. This automation reduces human error and optimizes resource recovery, ensuring higher quality outputs and reducing labor costs.

2. Enhanced Material Recovery

Their advanced filtration and processing technologies allow for the separation and recovery of valuable materials, such as silicon, glass, plastics and metals, from used photovoltaic panels. This increases the purity and efficiency of recovered resources, which can then be reintegrated into new manufacturing cycles, supporting the circular economy.

3. Environmental Sustainability

Company's approach reduces the environmental impact of photovoltaic panel waste by minimizing waste sent to landfills and lowering the demand for virgin materials. This contributes to the reduction of resource scarcity and the carbon footprint of the solar energy industry.

4. Scalability

Their system is designed to be easily scalable, offering flexibility for both small and large-scale operations. This enables they to address the growing global need for sustainable end-of-life management in the solar industry.

5. Sustainability Impact

By focusing on recovery and reuse, their technology ensures a more sustainable future for the solar industry. They actively contribute to the achievement of global sustainability goals, including waste reduction and material recycling.

In summary, the company's cutting-edge automated solutions provide significant advantages for resource recovery, sustainability, and scalability, making they a leader in solar panel recycling technology.

Technical specification or expertise sought

Stage of development

Concept stage

Sustainable Development goals

- **Goal 13: Climate Action**
- **Goal 8: Decent Work and Economic Growth**
- **Goal 12: Responsible Consumption and Production**
- **Goal 17: Partnerships to achieve the Goal**

IPR Status

Secret know-how

IPR Notes

IPR Notes

Partner Sought

Expected role of the partner

They seek research institutions, industry players, and technology developers who can collaborate with them in the following areas:

Strategic partnerships
– A partner with access to international markets for their recycling solutions, with a focus on integration into the photovoltaic industry.
– A partner who can help optimize systems, offer engineering or software expertise and providing ongoing technical assistance and updates as needed.

Investment Agreement
- An investor who can support the company in the development phases of the solution and consequent international expansion.

Type of partnership

Investment agreement

Commercial agreement with technical assistance

Research and development cooperation agreement

Type and size of the partner

- **Big company**
- **SME 50 - 249**
- **R&D Institution**
- **SME <=10**
- **University**
- **SME 11-49**

Dissemination

Technology keywords

- **02003004 - Supply chain**
- **02003006 - Prototypes, trials and pilot schemes**
- **05004006 - Other Processes**
- **04005004 - Photovoltaics**
- **10003004 - Recycling, Recovery**

Market keywords

- **08003007 - Other industrial equipment and machinery**
- **06007001 - Other energy production**
- **08005 - Other Industrial Products (not elsewhere classified)**
- **08002004 - Robotics**
- **08004004 - Other pollution and recycling related**

Targeted countries

- **World**

Sector groups involved