

Overview	
Country	Italy
Type of organization	SME
Number of employees	100+
Type of practice	Best
Level of investment	High
Activity type	Processing waste
Key words	Recycling

Summary

www.guidettisrl.com/en/

Guidetti Srl is a leading Italian SME in the production of recycling systems for non-ferrous metals, wires, and plastics. Founded over 30 years ago, it has developed compact and efficient machinery for recovering valuable resources from waste. Its innovative recycling solutions make copper, aluminum, and plastic separable and recoverable from complex waste streams such as electric cables, radiators, and electronic boards (WEEE).

The best practice focuses on the design and use of new generation separation technologies with minimum environmental impact, waste, and promoting circular economy. Their small-size units are utilized intensively by SMEs and big recycling operators across the globe, helping businesses to reduce waste disposal costs and maximize material recovery. What is most distinct about Guidetti's practice is the integration of air separation, granulation, and electrostatic separation technologies that provide high purity rates and quality of the recovered material.

Their modular solutions are made to be environmentally friendly, adaptable, and easy to use, as well as energy-efficient. In addition, Guidetti's machinery is manufactured in Italy with care for innovation, safety, and EU regulation, thereby becoming a reference point in recycling.

Background and origin

Founded in 1986, Guidetti Srl was established to meet mounting demands for efficient recycling technologies. The relevance of their activities has grown with the global drive towards a circular economy, EU Green Deal targets, and landfill waste reduction. Their solutions facilitate recovery of high-value plastics and metals, reducing dependence on virgin material.

Relevance to the craft sector

While not directly associated with conventional handicrafts, Guidetti technology enables artisans and small producers pursuing sustainable design and circular manufacturing. Their small-sized recycling solutions give micro and small businesses the means to better manage their waste flows, recover and reuse materials, and practice upcycling operations. For example, artists or carpenters using recycled copper, aluminum, or plastic in their products have clean, sorted materials because of Guidetti's systems. The practice encourages innovation and sustainability even in the creative sector.

Target groups

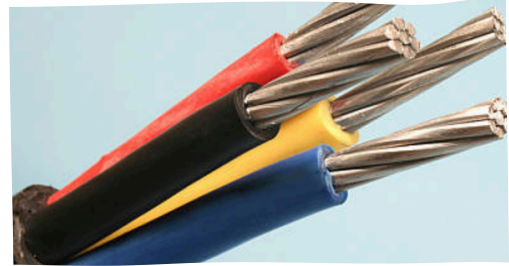
- SMEs and recyclers
- Metal and plastic processors
- Waste management companies
- Eco-designers and creative recyclers
- Target groups benefit from modular systems tailored to different processing capacities.



Source: Canva

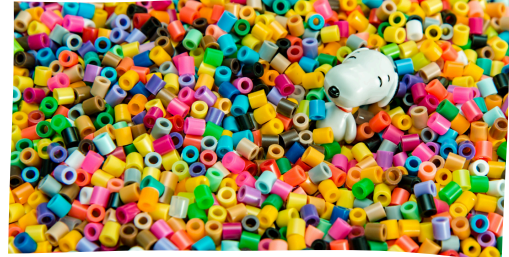
Material focus - type of waste material involved

- Electric and electronic cables
- Waste electrical and electronic equipment (WEEE)
- Radiators
- Plastics (mixed, contaminated)



Stakeholders involved

- Guidetti Srl (Technology provider)
- Recycling operators and SMEs (End users)
- Distributors and agents (Marketing and technical support)
- Engineers and technicians (Development and training)



Professionals involved and their roles

- Engineers (product development and technical support)
- Technicians (installation and maintenance)
- Trainers (end-user education)



Source: Canva

Connection of the practice with the project-identified needs

Knowledge of Waste Materials

- The machines and Systems cleanly separate and process mixed plastics and metals
- Effective handling of contaminated materials

Green Entrepreneurial Skills

- Modular systems, which might be scalable as for small/medium businesses, as for large enterprises
- Help navigate regulatory compliance
- Support circular economy models

Creativity and Innovative Solutions

- Enable repurposing of recovered plastics into new products, through the collaboration with local companies
- Support sustainable design applications

Methodological approach to implement the practice

Process description - step by step instructions for implementing the practice

- Analyze client needs and waste types
- Propose tailored modular solution
- Install and calibrate machinery
- Train staff on operation and maintenance
- Provide ongoing technical support
- Time to implement: From 4 to 12 weeks

Related Resources that have been developed

- Technical manuals and videos
- Training sessions
- Digital tools for monitoring system performance

End product

Cleanly separated copper, aluminum, and plastic granules ready for reuse or resale.

Sources of funding for this intervention

Not publicly disclosed

Innovation, novel methods or technologies used

- Guidetti's process integrates granulation, air separation, and electrostatic separation into a single, modular unit. Multi-stage assures very high purity levels on recovered material—up to 99.9% for metals like aluminium and copper. Traditional systems typically are comprised of large, separate machinery or by-hand processes, but Guidetti encapsulates the stages within an uninterrupted automated process, reducing both space and manpower needs.
- Among the most sophisticated is the state-of-the-art electrostatic separator, which makes possible the efficient recovery of ultra-fine metal and plastic particles lost in normal mechanical separation processes. This ensures nearly perfect recovery of material, including even complex or dirty waste streams, e.g., WEEE or car shredder residues.
- Most conventional recycling systems are large-scale and centralised, requiring significant space and investment. Guidetti's innovation lies in miniaturising industrial-grade processes, making it feasible for small and medium enterprises—or even localised cooperatives—to engage in high-quality recycling, fostering circular economy models at a local level.



Source: Foto di Mumtahina Tanni:
<https://www.pexels.com/it-it/foto/persona-che-raccoglie-rifiuti-in-discardica-3230539/>

Obstacles and challenges faced

- Initial cost barriers for SMEs

Key impacts - environmental, economic & social

Environmental

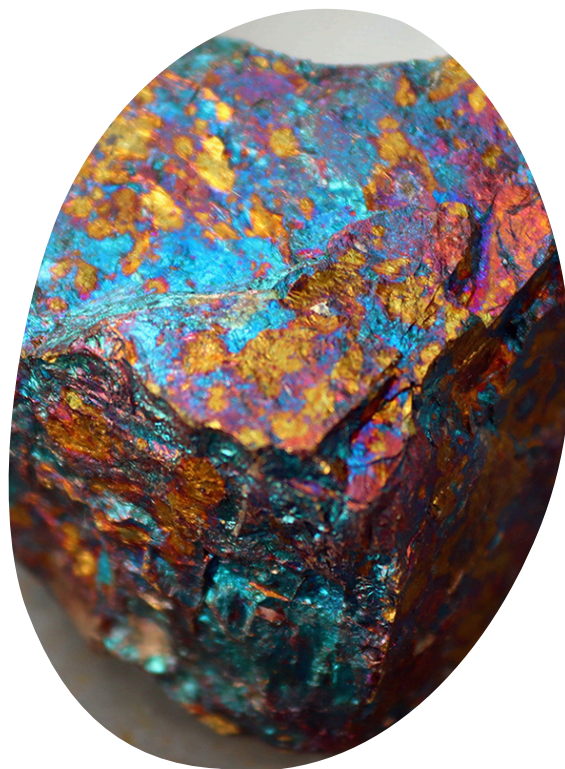
- Waste reduction
- Material reuse
- Reduced landfill use

Economic

- Cost savings
- New business models

Social

- Green job creation
- Empowerment of SMEs, in the recycling processes



Source: Canva

Qualities	
Effectiveness: How well does the practice achieve its goals?	The process provides very good outcomes in material recovery, with purity levels of up to 99.9% for both metals and plastics.
Efficiency: Does the practice minimize resources while maximizing outputs?	It is modular in design and can be adapted to any size of business, from small workshops to industrial plants
Sustainability: Does the practice contribute to environmental protection, social equality and long-term viability?	The equipment is built to withstand, with durable, EU-standard materials that enable long-term use. Through enabling high-quality recycling, they contribute to environmental protection and foster circular economy approaches.
Transferability: Are the methods transferable in different contexts?	While the systems are not plug-and-play in every case, Guidetti provides comprehensive training and technical support. The practice is adaptable and already has been successfully implemented across Europe, the Americas, and Asia through strategic partnerships and collaborations.

Required Competences for the best practice implementation

Activities-to-competences mapping

Associated competences	
Knowledge	Recycling processes, circular economy, EU regulations
Skills	Technical and digital (machinery handling, system monitoring)
Attitudes	Sustainability mindset, adaptability, innovation-oriented

Lessons learned

- Advanced technology must be user-friendly and accessible, so that it converts into actual use and effect, especially with SMEs.
- Comprehensive training and technical support are the foundations of long-term success and customer satisfaction.
- Scalable and modular systems allow firms to start small and expand as they expand, reducing upfront costs.
- Small-scale recycling facilities enable circularity even in smaller communities, supporting broader environmental goals.
- High-consistency material recovery reaffirms trust, contributes to reputation, and builds a strong client foundation.
- Good partnerships and a willingness to share solutions between nations and markets increases reach and strength.

References / links

- <https://www.guidettisrl.com/en/>



Source: Canva