



**Themis**  
Biotechnology & Life Science



# Innovative system for the drastic reduction and valorization of waste

Sustainable innovation for the treatment of **wastewater and industrial sludge**

The industrial sector faces significant challenges in managing wastewater and waste sludge. **These residues, often contaminated and complex to treat, result in high disposal costs and substantial environmental impacts.** Efficient solutions are needed to transform these effluents into resources, promoting sustainability and reducing waste.

## THE SOLUTION: FROM WASTE TO RESOURCE

### Transforming industrial effluents into value

The **advanced Themis WRT technology** enables the treatment of both industrial wastewater and processing sludge. For wastewater, **the system removes contaminants and recovers clean water for reuse in production processes.** For sludge, **the treatment drastically reduces volume, ensuring a dry residue of over 80%.** This approach promotes a circular economy, minimizing waste and maximizing the value of recovered resources.

### "Less waste, more value"

With **Themis WRT technology**, industrial wastewater and sludge are managed responsibly, reducing environmental impact and transforming them into valuable resources. Every stage of the process is designed to optimize the sustainability of the entire production cycle, contributing to a cleaner environment and more efficient resource management.

*"It's not just recycling:  
It's value transformation!"*

The Themis WRT technology transforms liquid and solid waste into **valuable resources**, promoting a circular economy model. Treated water can be **reused in industrial processes**, reducing the consumption of primary water, while dewatered sludge can be **repurposed for alternative uses**, minimizing volume and disposal costs. Every output of the process is carefully evaluated to maximize its circularity and sustainability.



\*Dry Matter



## Advantages of WRT Technology

**WRT technology** represents an effective and adaptable innovation for the treatment of industrial wastewater and sludge:

- ✓ **Removal of contaminants from wastewater:** enables the recovery of clean water that can be reused in production processes, reducing environmental impact and supply costs.
- ✓ **Drastic reduction of sludge volume:** optimizes waste management by reducing disposal costs, thanks to a dry residue of over 80%.
- ✓ **"Zero-Waste" technology:** a sustainable approach that minimizes disposal volumes and promotes the circularity of the products obtained.
- ✓ **Tailor-made design:** customized solutions for each client, optimizing costs and benefits

### Why choose WRT technology?

Choosing **Themis WRT** means taking a concrete step towards a sustainable future by significantly reducing waste volume, disposal costs, and environmental impact. Our technology makes wastewater and sludge treatment more efficient and cost-effective, transforming waste into new opportunities for the industry.



## How does the WRT System work?

- 1 **Sludge and wastewater** derived from processing and production processes
- 2 **Themis WRT 'Waste Recovery Technology'** for the removal of contaminants and advanced dewatering
- 3 **Thermal carriers for energy recovery**
- 4 **Distilled water** for reuse in production processes
- 5 **Dehydrated granules** for the recovery of high-value-added products
- 6 **Drastic reduction of waste to be disposed**

### Themis S.p.A.

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