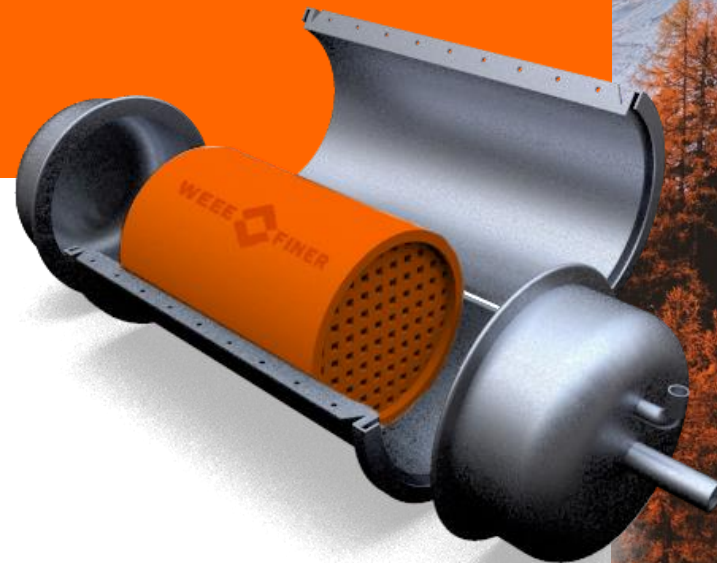


Leave nothing  
behind



# Recycling today

## Solid waste material



EU: 87.3 %  
recycling rate

## Liquid waste material





### The missing link in upcycling

We help our customers achieve next level circular processes. Our unique innovation is easily adaptable to any industrial side stream to turn it into a sustainable and profitable business.



Commercializing cutting-edge research



Innovative problem solving fueled by new technology



Versatile personnel with broad expertise

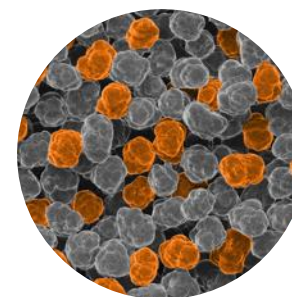
Innovative solution

## 4D Scavenger

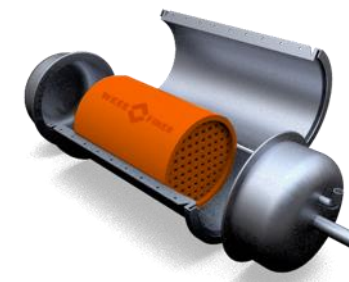
State-of-the-art technology assembly with unprecedented recovery performance, coupled with unlimited structural and functional design options



Quick and convenient customization

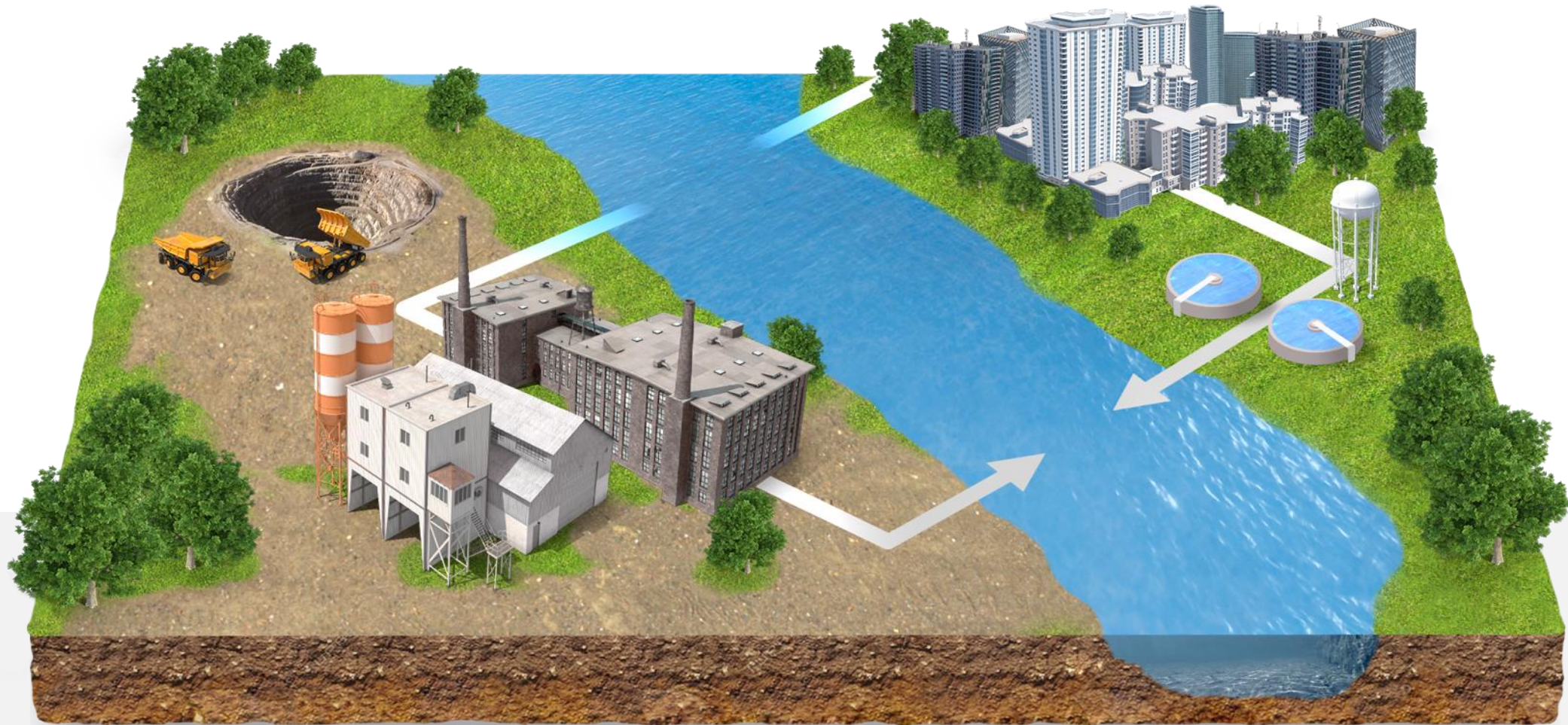


Selective recovery or removal of dissolved ion or molecules



Ideal for low metal concentration solutions

# A new era of industrial processes



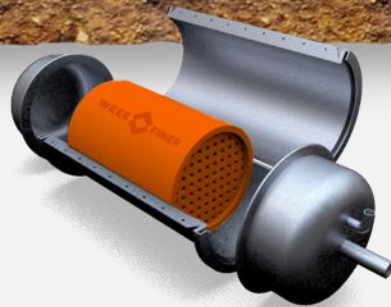
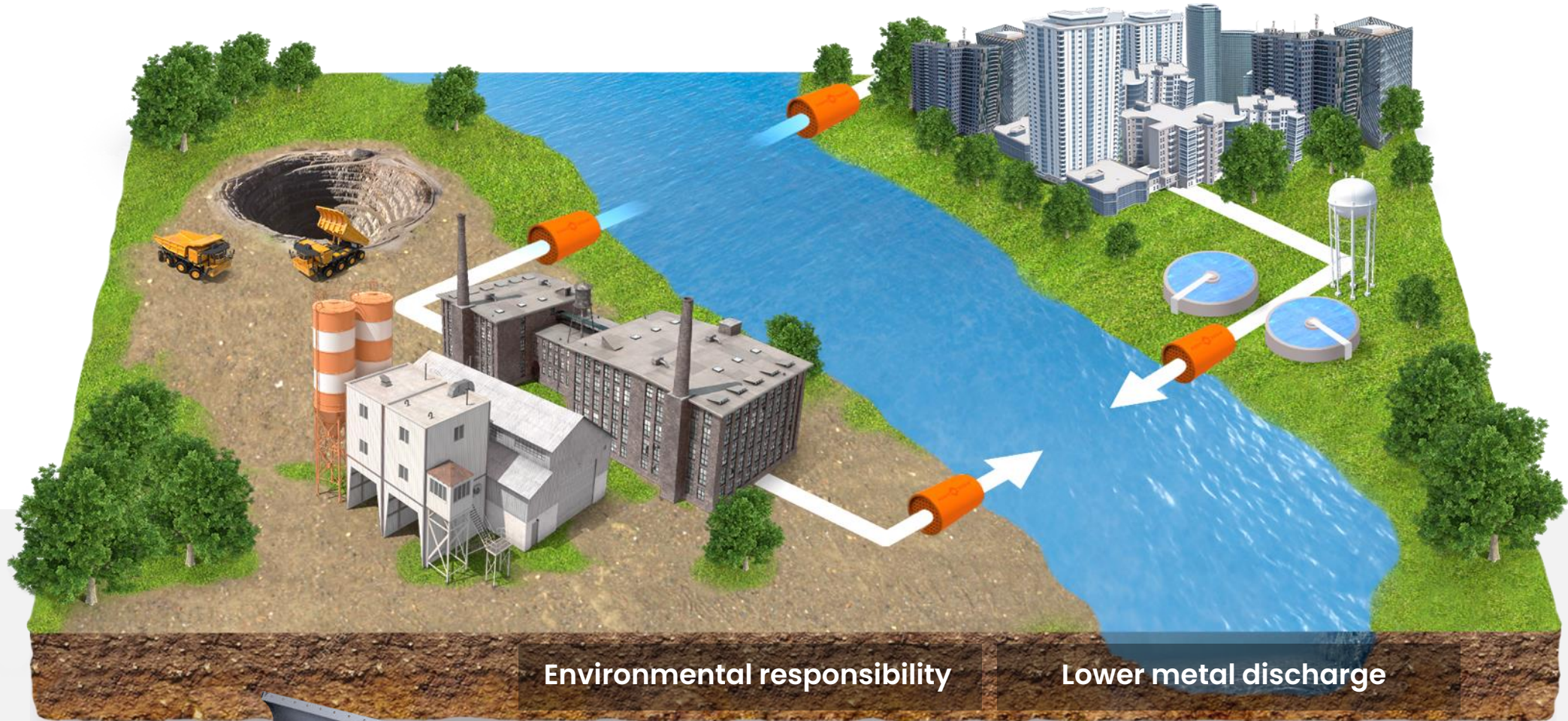
## → Significance of efficiency

Complete utilization of raw materials in circular processes require adaptation of new and innovative technologies

## → Stringent environmental requirements

Regulatory limits, increasing treatment costs and zero-waste targets present unforeseen challenges for water treatment

# Solution for industrial processes



## Performance increase

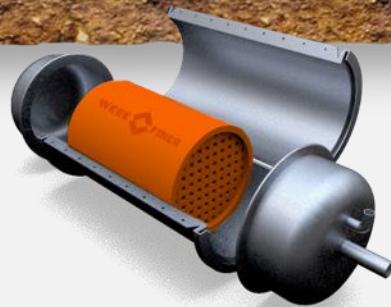
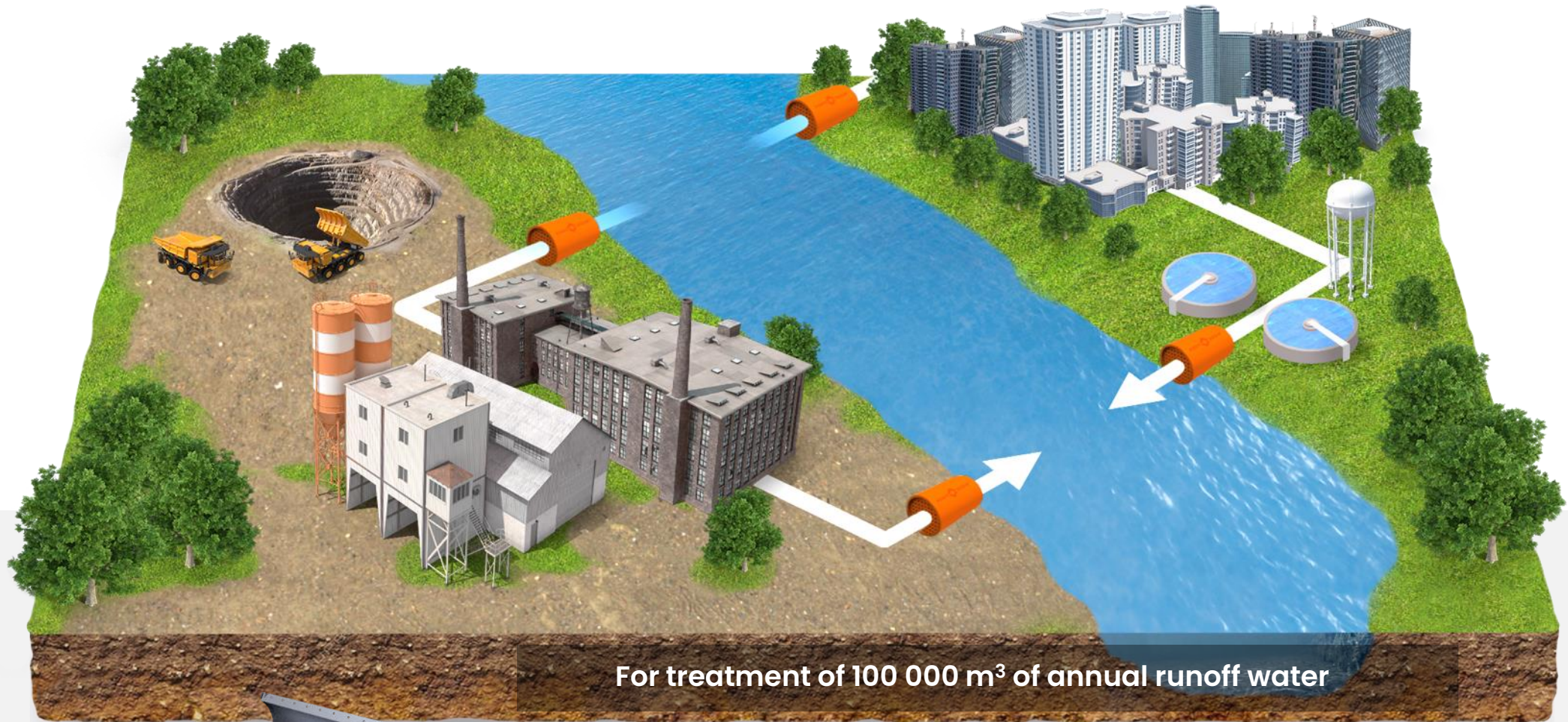
- Versatile
- Efficient
- Tailored



## Cost decrease

- Convenient
- Compact
- Cost-effective

# Solution for industrial processes



↑ Recovery up to  
**100 %**

↓ Operating expenses as low as  
**0,05 € /m<sup>3</sup>**

## Features and advantages

### → Based on innovative research

Scientific work enable a combination of renowned technologies into a modern product with unique functionality

### → Proven technology

Thorough technical validation has demonstrated the numerous pathways for improved performance and efficiency

### → Easy startup and maintenance

Compact and modular design coupled with customized process ensures scalability, straightforward installation and optimized capital and operation expenses

### Applicable for

INDUSTRIAL PROCESSES / MINING / RUNOFF WATER / WASTEWATER



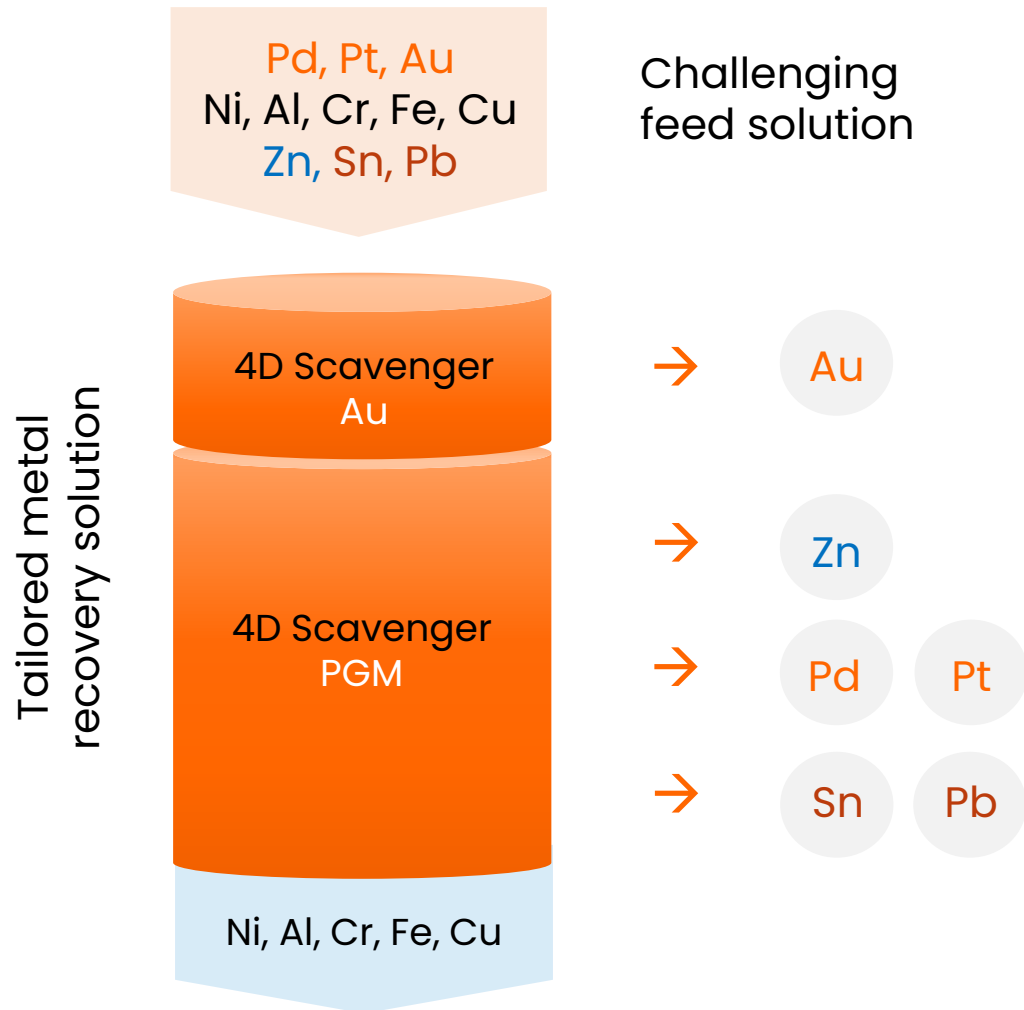
Case Study

# Valuable Metals from Dissolved Electronic Waste

The hybrid arrangement provides unprecedented selectivity

- 4DS Au for gold recovery
- 4DS PGM for Pd and Pt and other anionic metals

Further separation through gradual elution





# Thank you for your attention.



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