

Small steps, *Big impact.*  
Rethink anode use  
and precious metal  
recycling



Discover the hidden value

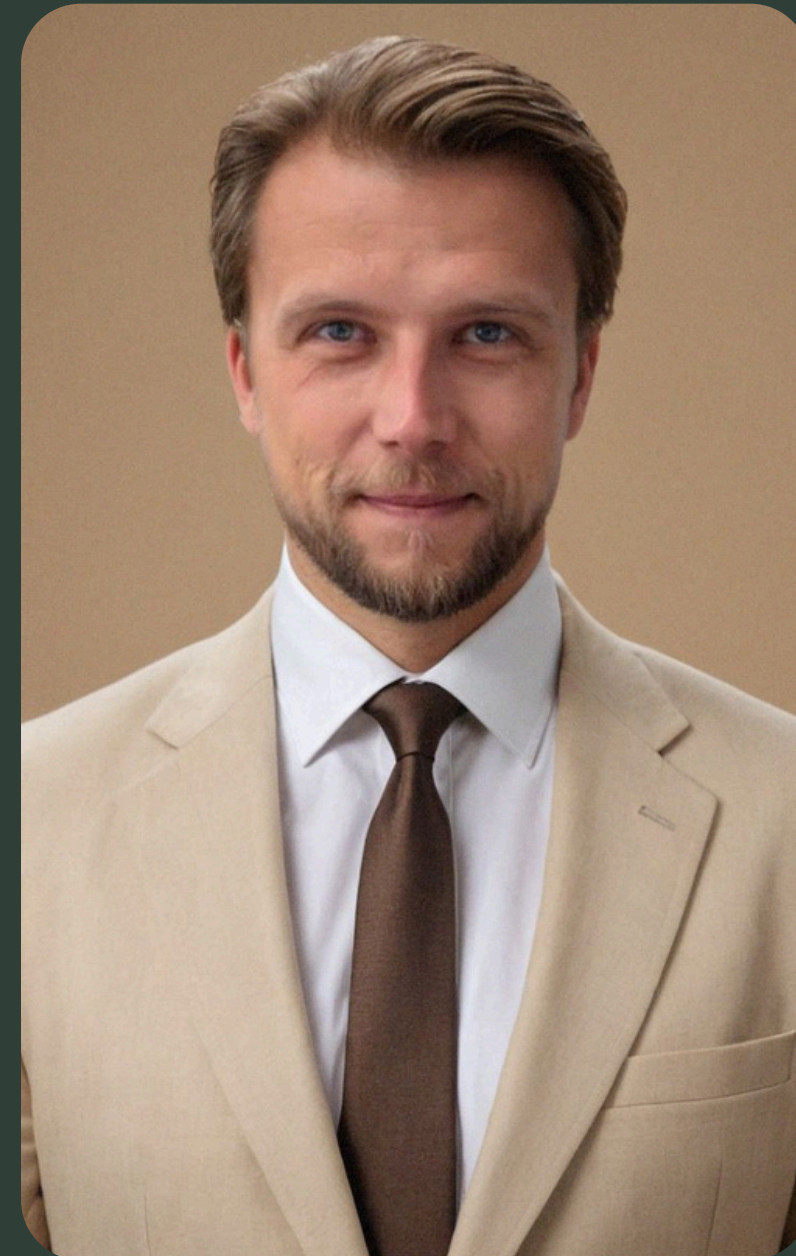


— INTRODUCTION

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The urgency is  
*availabillity*



— MARKET DYNAMICS

01



The demand for recycled metals is increasing.

Increasing world population  
Energy transition  
Political (physical) positions taken by governments

02



Technological advancements in recycling

Innovations like IA, new recovery methods and improved analytical techniques are transforming the recycling industry

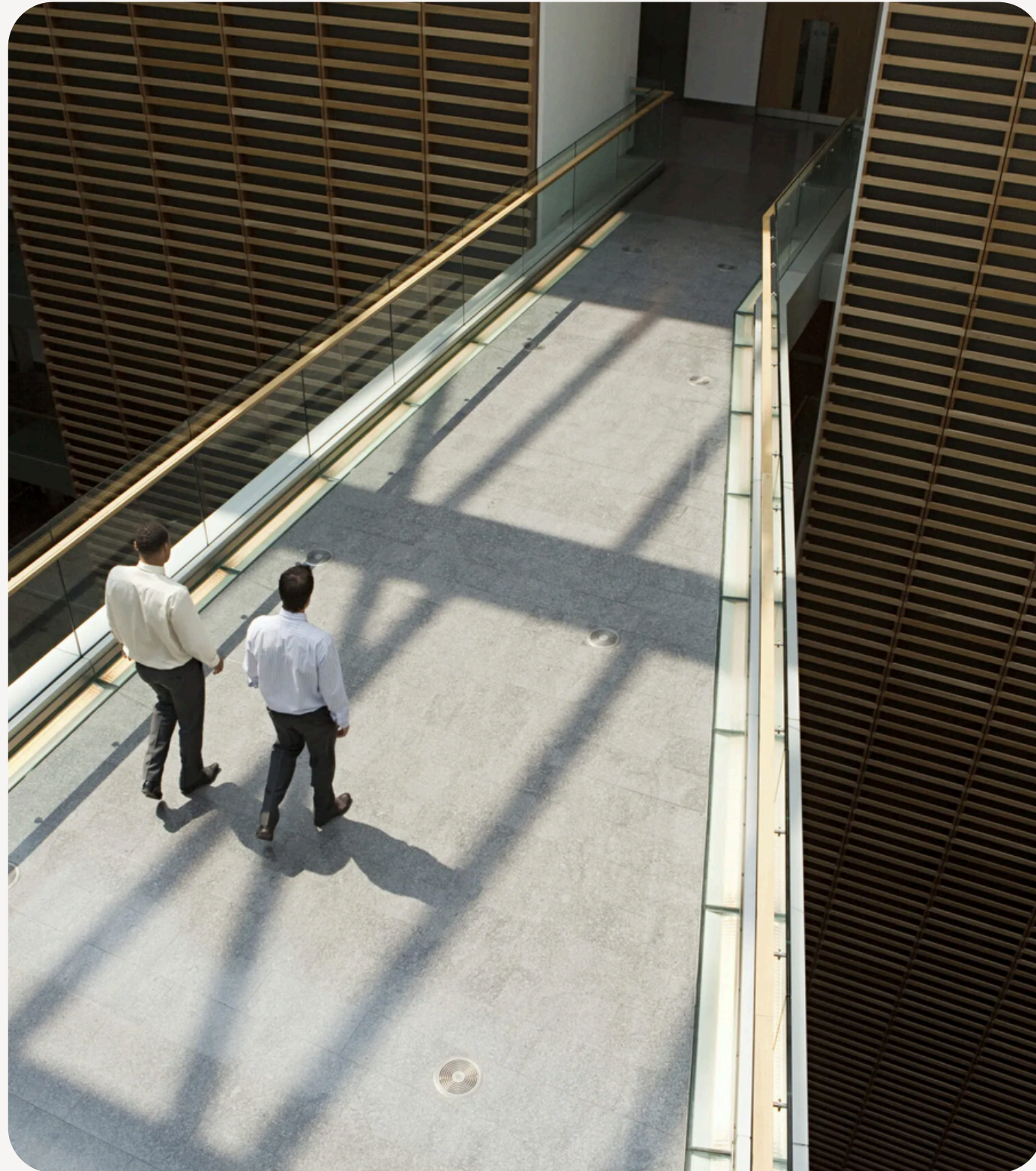
03



Sustainable, future proof solution

Value chain integration – more control and certainty on availability





## — GEOPOLITICAL & ESG PRESSURE

- Regional power blocs and the buildup of strategic reserves
- Legislation and regulations *European & global*
- What this means for the impact on businesses



# What exactly happens to *spent anodes?*



History is written as we go; from not to long ago where the titanium electrodes were sold off as ferro titanium scrap, not caring about the coating, but a “quick buck” was more important

To full sustainable, non-chemical, recovery methods with full value for money. Closing the precious metal loop.

Feels like a lifetime ago, but *change is here*

→ No recycling at all (no shame)

→ Base metal recycling yesterday

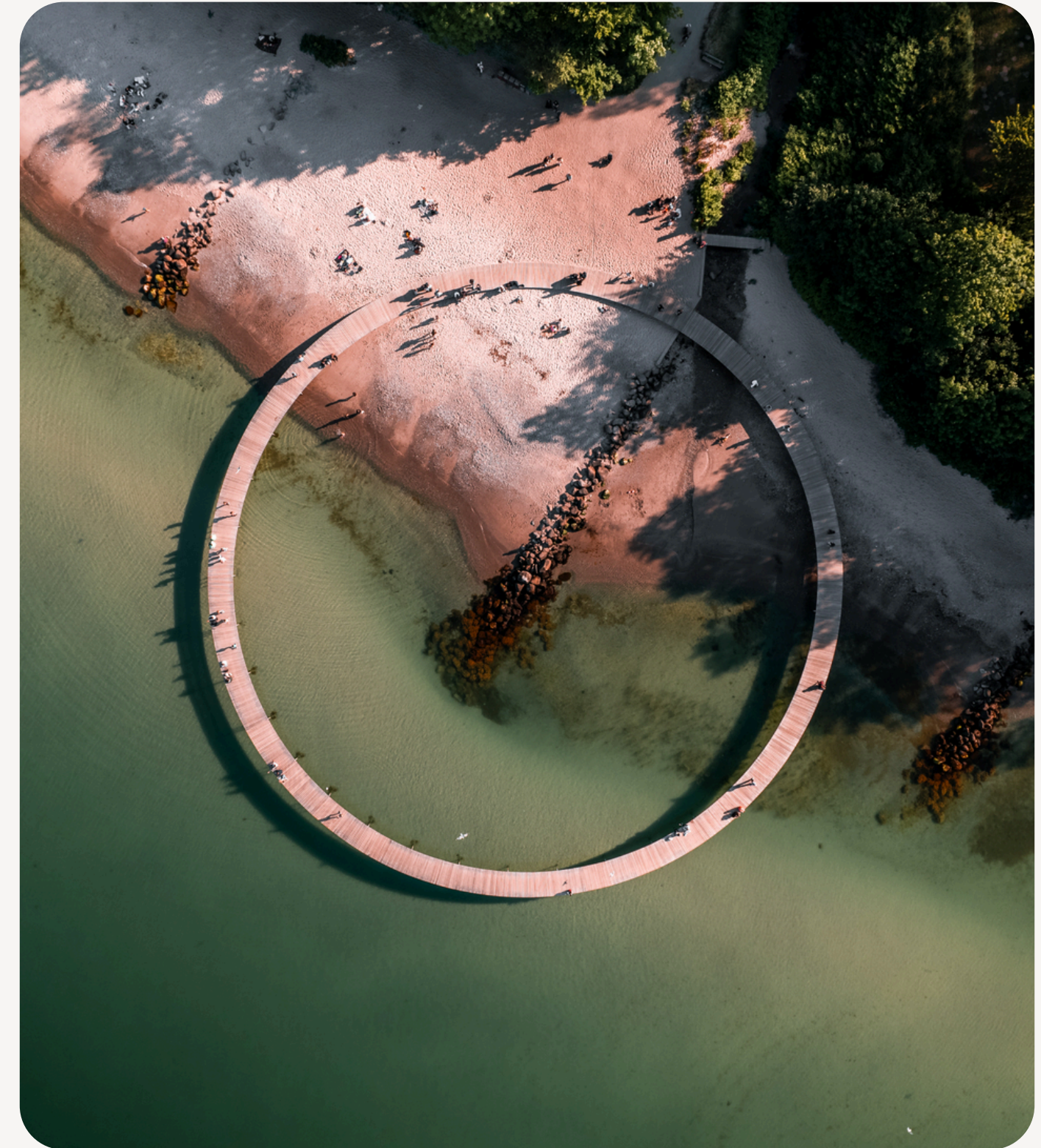
VS

full value recovery today

→ Is the true technological potential of your **metals** being returned to you?

## CIRCULAR MODEL APPROACH

- Collect, Recover, Refine, Reuse
  - *Leaving morphology and structure intact*
  - *Lower volume residue*
    - *higher concentration*
    - *improved recovery yield*
- Specific roles - ownership in the supply chain
- Closed-loop solutions





# What is the direct effect of implementing *closed loop*



Partially mitigate  
price volatility



Hidden costs of  
*coating loss*



Endless ownership of  
your metals -  
improving your TCU

# Rethink circular precious *metal use*

- What could OEMs do right now
- Modular design
- Pay for output - not the product

*Circle PGM vision*

## Electrolysis as a service



# We have the power to make a difference *together.*



## Global impact of strategical metal positions

Large global economical blocks are impacting the volatility of critical precious metals heavily.

Processing locally (EU mainland) mitigates the risk of lose of ownership and price volatility.

Keep ownership helps solve the availability issue on the short term.

## Technical and economic chances - EU processing

More control over your end-of-life material:

- cost savings
- circular impact

## Resambly design

Circular thinking has oppotunities in the redesing of RESAMBLY design.  
Reduction of costs, more control over wear and tear.

Pay for output, not for ownership. This concept has the potential to chance the economical model of usage.

## Value chain (in)- corporation crucial

ESG - CSRD are putting a lot of strain on the value chain. Close integrated corporation throughout the whole value chain will create long term impact.

Ownership - roles and responsibilities, will ave large contributions to the long terms (technological) issues.



— READY FOR THE NEXT STEP?

- Let's close the loop together
- Your first step starts tomorrow

*We can help you*

Collaborating on the next  
generation of sustainable cell  
technology





— THANK YOU

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conversation.



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