



Recycling Capturing market opportunities emerging from the green transition

12-13th of September 2025

Investor Relations site visit – St Peter and Clervaux

Content



Section	Page
1. Why Recycling?	3
2. Hydro Recycling Strategy	10
3. Recycling in Hydro today	15
4. Aluminium Metal Recycling	19
5. Scrap markets	24
6. Recycling value creation	33
7. Material Management	39
8. Hydro CIRCAL	54
9. AM Recycling Summary	61

Cautionary note

Certain statements included in this announcement contain forward-looking information, including, without limitation, information relating to (a) forecasts, projections and estimates, (b) statements of Hydro management concerning plans, objectives and strategies, such as planned expansions, investments, divestments, curtailments or other projects, (c) targeted production volumes and costs, capacities or rates, start-up costs, cost reductions and profit objectives, (d) various expectations about future developments in Hydro's markets, particularly prices, supply and demand and competition, (e) results of operations, (f) margins, (g) growth rates, (h) risk management, and (i) qualified statements such as "expected", "scheduled", "targeted", "planned", "proposed", "intended" or similar.

Although we believe that the expectations reflected in such forward-looking statements are reasonable, these forward-looking statements are based on a number of assumptions and forecasts that, by their nature, involve risk and uncertainty. Various factors could cause our actual results to differ materially from those projected in a forward-looking statement or affect the extent to which a particular projection is realized. Factors that could cause these differences include, but are not limited to: our continued ability to reposition and restructure our upstream and downstream businesses; changes in availability and cost of energy and raw materials; global supply and demand for aluminium and aluminium products; world economic growth, including rates of inflation and industrial production; changes in the relative value of currencies and the value of commodity contracts; trends in Hydro's key markets and competition; and legislative, regulatory and political factors.

No assurance can be given that such expectations will prove to have been correct. Hydro disclaims any obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

01

Why Recycling?

Martine Rambøl Hagen, Head of Investor Relations

Starting from a leading product position



Providing products with low emissions

Primary aluminium produced on renewable energy

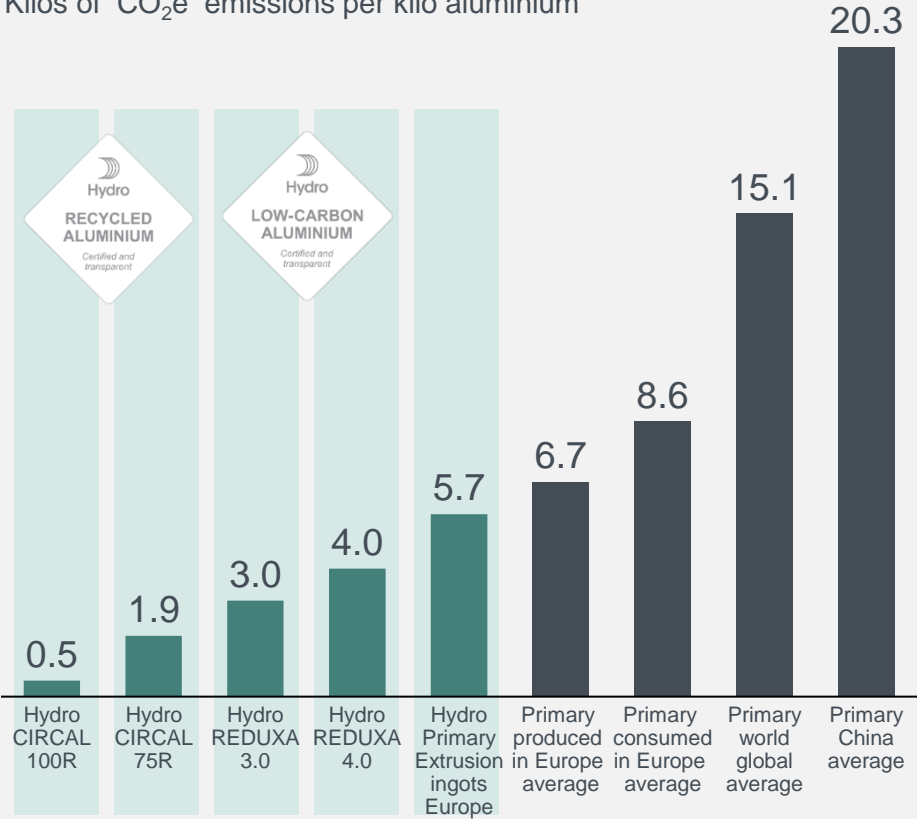


~25 percent of the world global primary average



Less than ~13 percent for 75R, and ~4 percent for 100R of the world global primary average

Kilos of CO₂e emissions per kilo aluminium

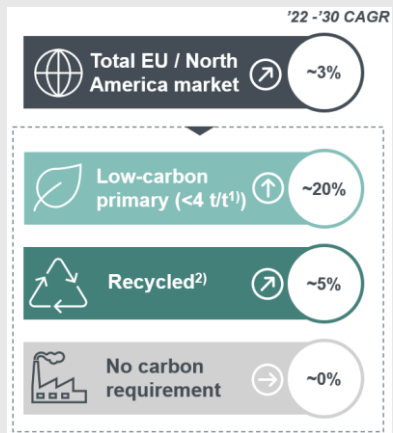


Sources: EAA, IAI, Hydro internal analysis

All signs point to recycling

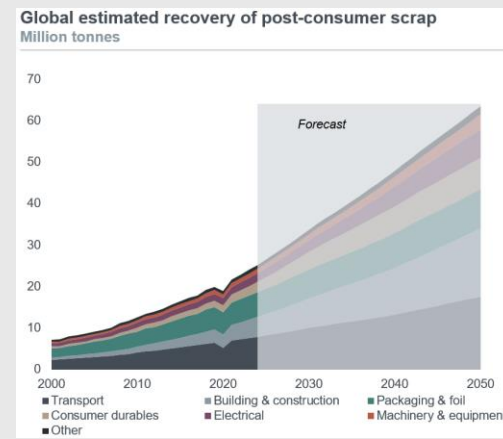
1. Clear trends in Hydro's main markets

- Low-carbon and recycled aluminium a majority of EU and North America markets by 2030
- Megatrends supporting growth: Innovate for circularity, Waste to value, Partnering with clients, Regulatory frameworks



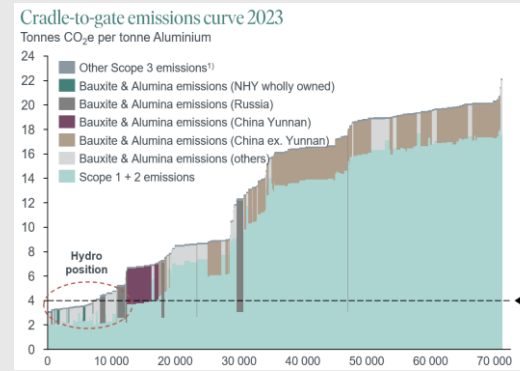
2. Recycling is becoming more important as the generation of post consumer scrap gains momentum

- Global estimated recovery of post-consumer scrap to accelerate
- Global aluminium demand set to increase >20% by 2030 – Recycled aluminium likely to be the main capacity provider



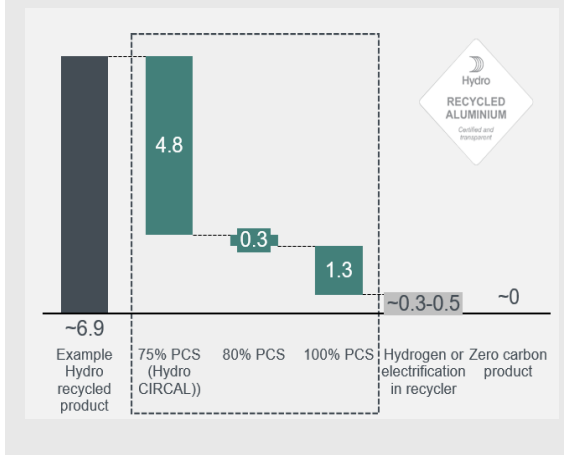
3. Global markets lacking low-carbon capacity

- Global aluminium demand set to increase >20% by 2030 – Recycled aluminium likely to be the main capacity provider
- Limited low-carbon capacity growth - Potential for tightening green markets and premium pricing potential



4. Recycling the fastest of three paths to net-zero by 2050

- Recycling and more use of post-consumer scrap necessary to reach net zero by 2050

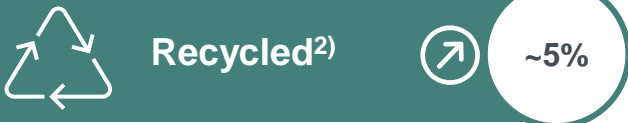
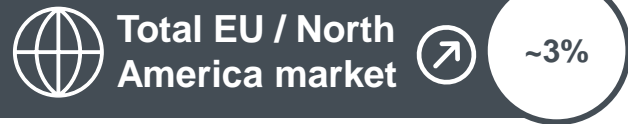


1. Clear trends in Hydro's main markets

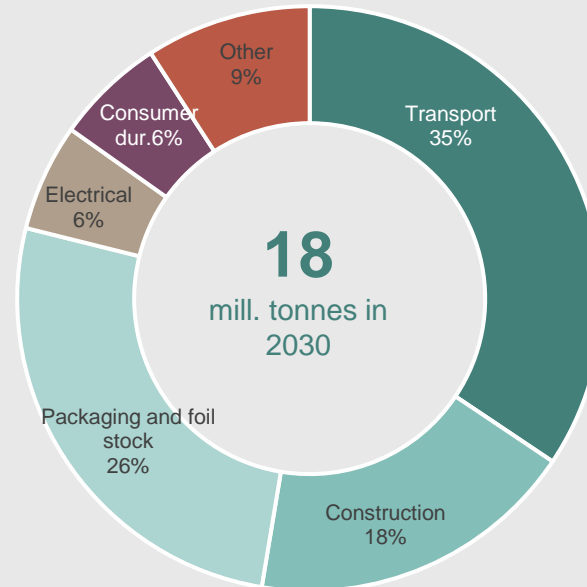
Low-carbon and recycled aluminium a majority of EU and North America markets by 2030

Greener demand growth is outpacing the rest of the market

'22 -'30 CAGR



Estimated low-carbon and recycled aluminium demand
(based on currently stated ambitions)



Europe and North America low-carbon¹⁾ and recycled aluminium demand by sector (million tonnes) - estimate

Megatrends supporting growth

Innovate for circularity ∞ From projects

- Process design – re-using materials
- Product design – lower material use
- Reuse and refurbish (second life)

Back to window
over and over again

Waste to value ↻

- Reduce waste generation
- Reuse and upcycle waste streams
- Capture and recycle at end of life

Partnering with clients 🤝

- Shaping the markets
- Enabling carbon footprint reduction
- Facilitate client branding

Regulatory frameworks 🌐

- End-of-life Directive
- EU waste shipment regulation
- Critical raw materials act
- CO₂-regulations

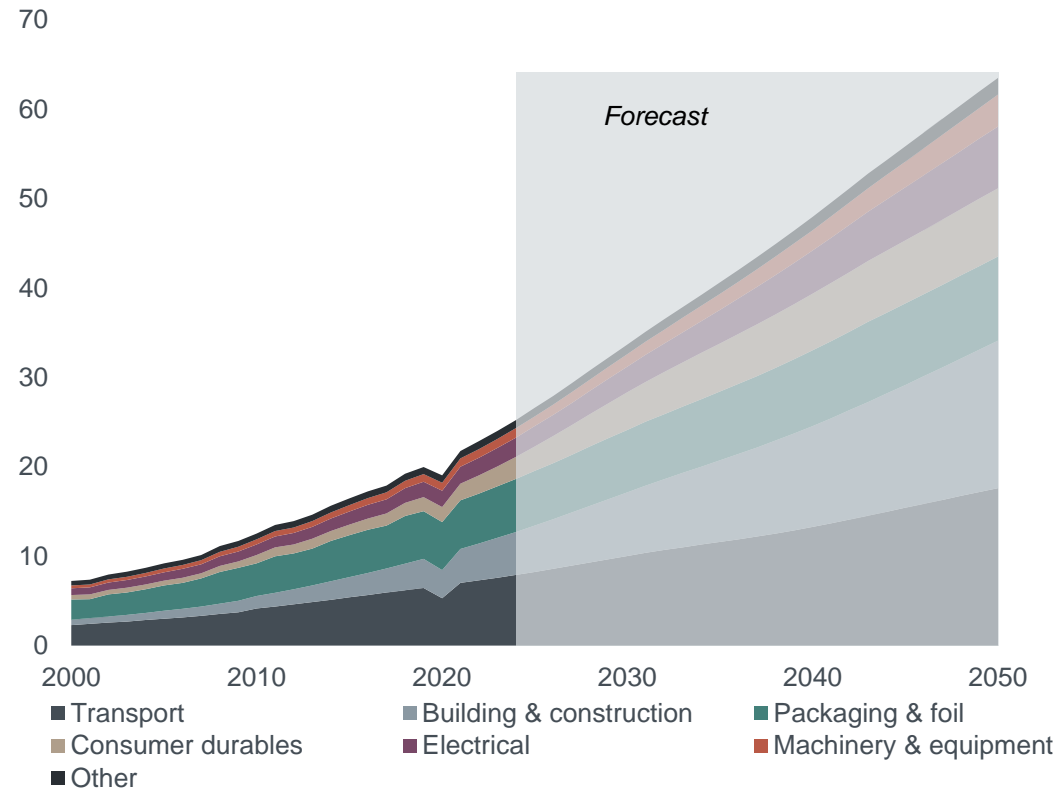
1) Tonnes of CO₂e per ton of primary aluminium produced, including full value chain emissions. 2) Does not distinguish between post-consumer scrap and process scrap

2. Recycling is becoming more important as the generation of post consumer scrap gains momentum



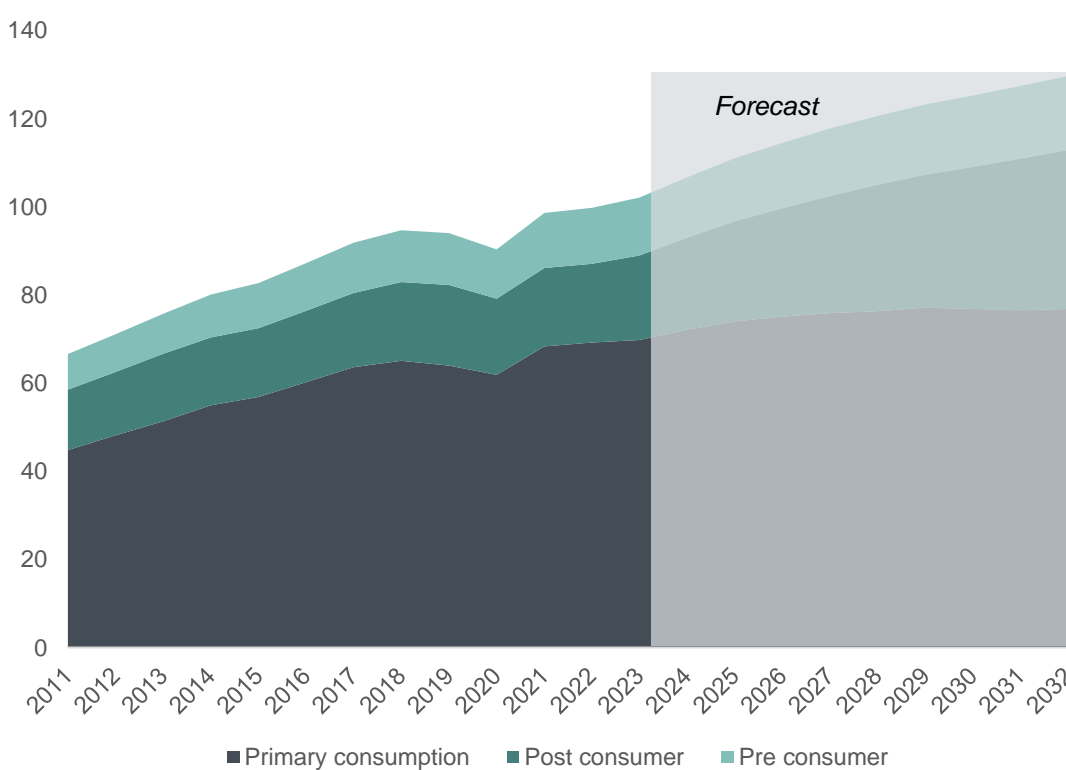
Global estimated recovery of post-consumer scrap

Million tonnes



Global estimated aluminium consumption

Million tonnes



Source: CRU, IAI, Hydro analysis
Collection rate bridges gap between CRU and IAI estimates 2024-2032

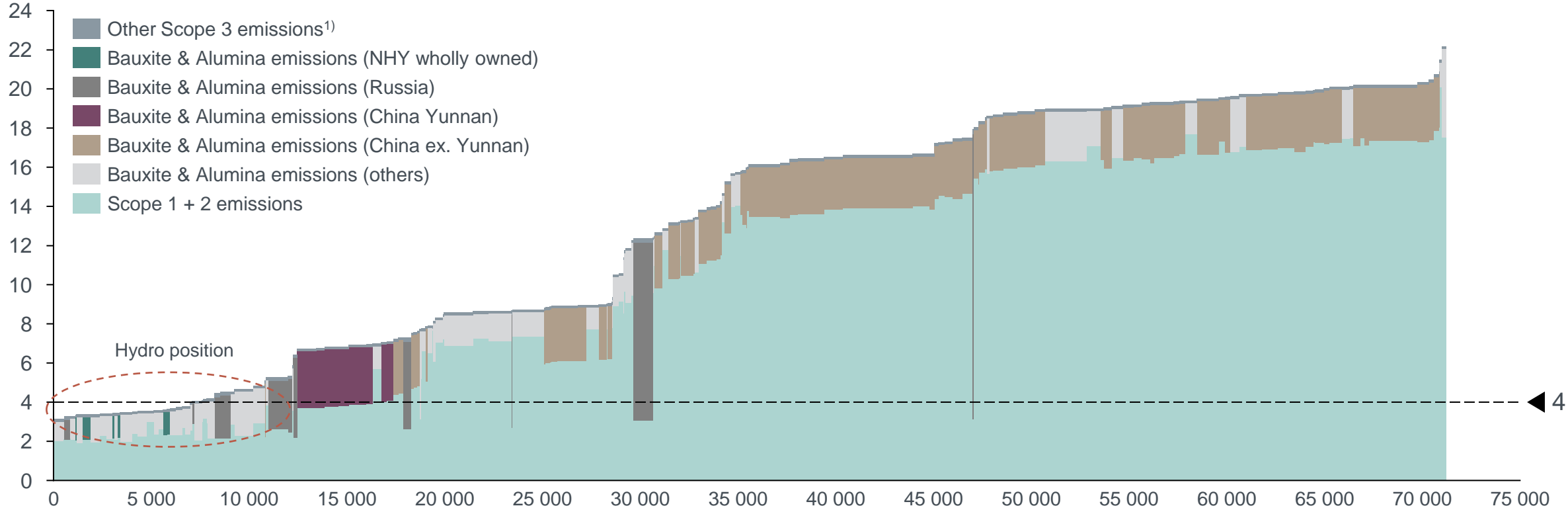
3. Global markets lacking low-carbon capacity



Emerging potential for green market tightness and premium pricing

Cradle-to-gate emissions curve 2023

Tonnes CO₂e per tonne Aluminium



Source: CRU, Hydro Analysis.
1) Transportation, casting, anode transport

4. Recycling the fastest of the three paths to net-zero by 2050

Primary aluminium

HalZero process

New process technology for decarbonizing new capacity



Carbon capture and storage

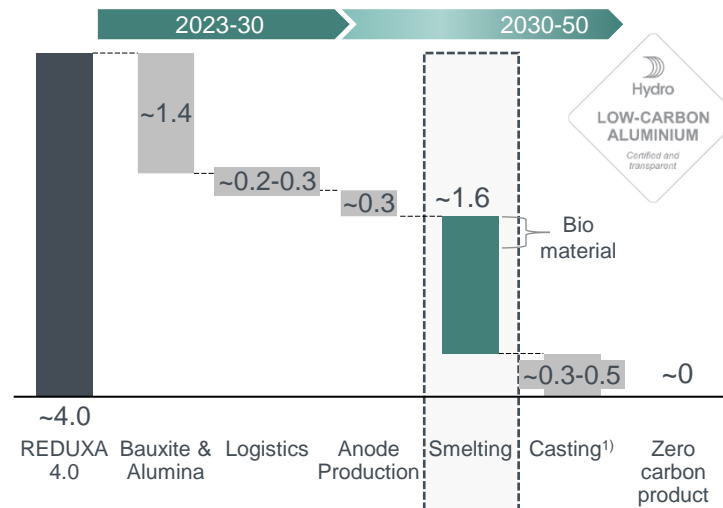
Technologies for decarbonizing existing smelters



Parallel technology development

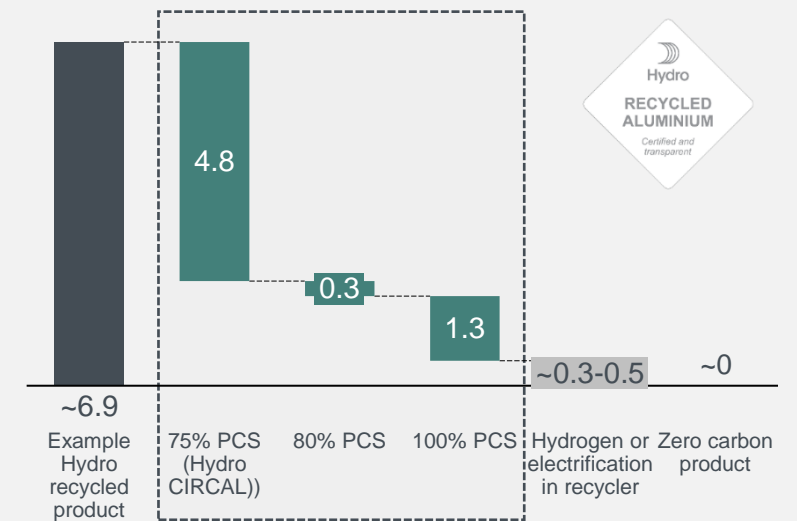
- HalZero - Hydro's proprietary technology suited for greenfield smelters - targeting industrial scale pilots by 2030
- CCS solutions can be retrofitted into aluminium plants in operation
- Suited for decarbonization and securing value of existing smelters

CO₂e emissions intensity per year



Recycling

Technologies for more PCS-use



02

Hydro recycling strategy

Martine Rambøl Hagen, Head of Investor Relations

Shifting gear to capture opportunities in a new reality

Key steps for Hydro to lead the green aluminium transition towards 2030



1

Step up growth investments in Recycling and Extrusions to take lead in the market opportunities emerging from the green transition



2

Step up ambitions within renewable power generation



3

Execute on ambitious decarbonization and technology road map and step up to contribute to nature positive and a just transition



4

Shape the market for greener aluminium in partnership with customers

Step up growth investments in Recycling



- 1
- 2
- 3
- 4



Strengthen scrap sorting capabilities; secure feedstock



Expand global asset base across the value chain

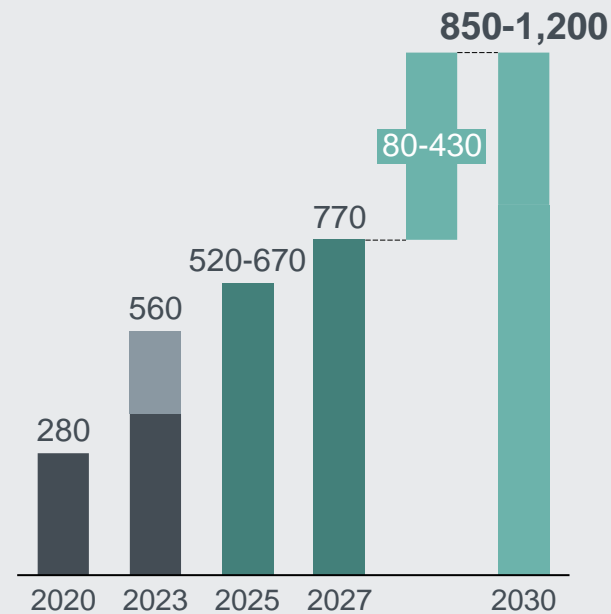


Diversify product portfolio, develop innovative solutions

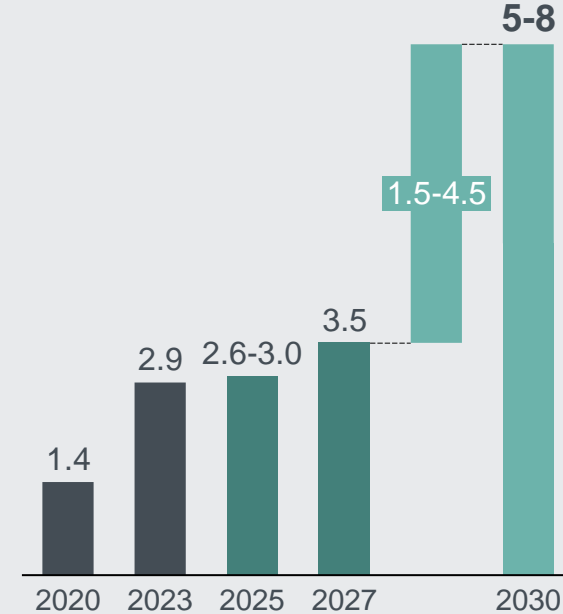


Shape market for recycled products in partnership with customers

PCS capacity¹⁾
Tonnes ('000)



Recycling EBITDA
NOK billion



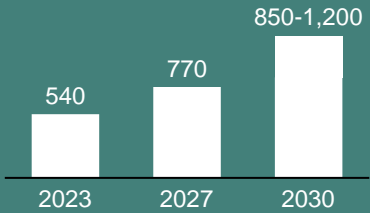
■ Realized ■ Target ■ Installed capacity ramping up

1) Range based on capex. High-range include ~70% of further potential capex given market and M&A.

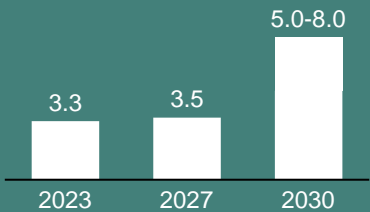
Hydro with competitive advantages in recycling



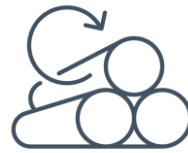
Recycling 2030 ambitions:



850-1,200
kmt PCS capacity

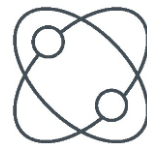


NOK 5-8 billion
EBITDA potential



Full value chain with multiple product outlets

- Large recycling asset base in Europe and North America
- Broad range of products – extrusion ingot, sheet ingot, foundry alloys, HyForge, Master alloys
- Ability to utilize and upcycle mixed scrap



Sorting & production technology

- Technical and metallurgical competence
- Production optimization know-how from scrap to product
- Patented HySort technology, in-house R&D



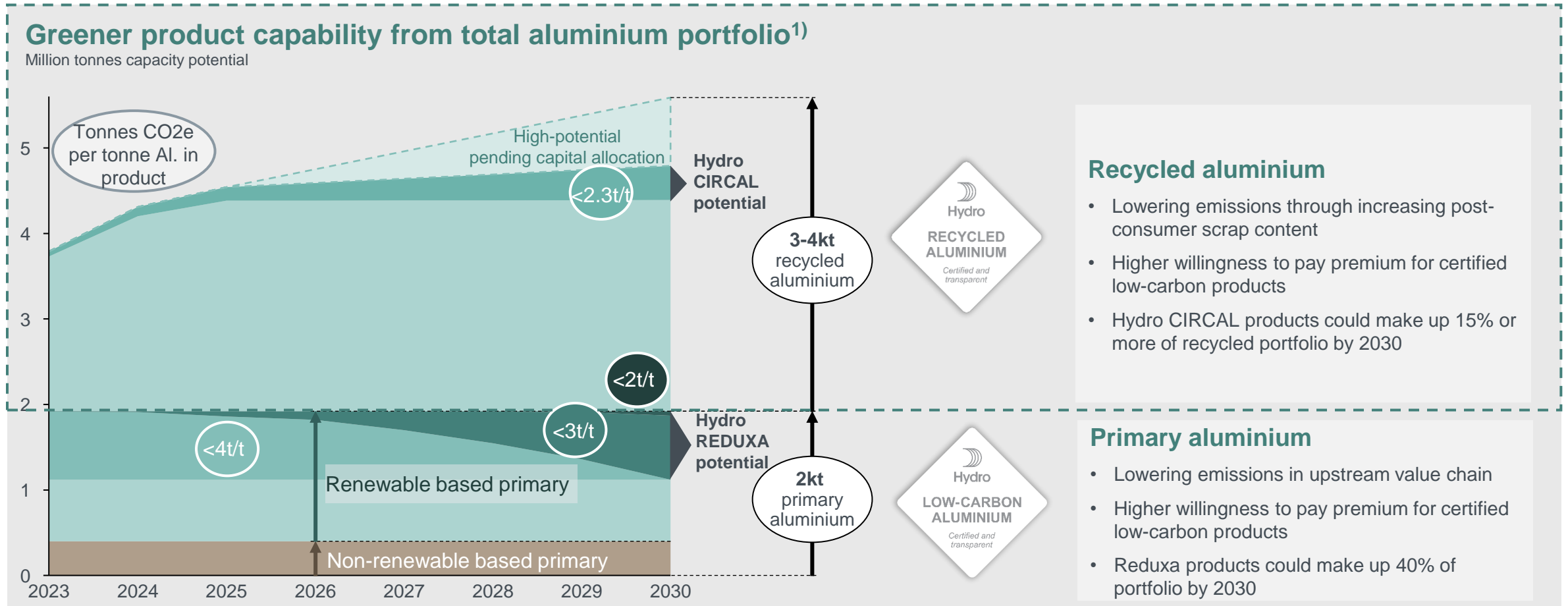
Close customer & supplier relations

- Local presence and market insight in core locations
- Established relationships with scrap suppliers
- Partnerships and close cooperation with customers
- Commercial intelligence and strong value chain positioning

Aiming to harvest green premiums



Earnings uplift potential 2030 of NOK 2 billion¹⁾



¹⁾ Based on 2030 EU ETS cost and relative CO₂ reduction vs Hydro REDUXA 4.0 at current industry traded upcharge. Hydro REDUXA and CIRCAL potential based on estimated certification capacity. Primary capacity based on equity share renewable power. Hydro CIRCAL products have post-consumer scrap content > 75%

03

Recycling in Hydro

Martine Rambøl Hagen, Head of Investor Relations

Hydro recycling operations



Metal Markets Recycling

Extrusions Recycling

Europe
5 + Alumetal

North America
3

Europe
10

North America
9

South America
2

Combined Hydro recycling capacity of ~2.4 million tones

- ~0.7 mill tons Extrusion billet production and HyForge
- ~0.3 mill tons Recycled foundry alloys production (Alumetal only)
- Standalone Recyclers serving both internal and external customers
- 2 scrap sorting plants
- Certified products such as Hydro CIRCAL 75R, 100R, LCR 3.0 and 4.0

- Recyclers in MM have unique competence and equipment to efficiently convert mixed scrap into advanced and green products (including Hydro CIRCAL) to demanding customers.
- Recyclers supply both internal and external, and provide conversion services to nearby extruders, thereby complementing primary supply **and addressing increasing customer demand for recycled material.**

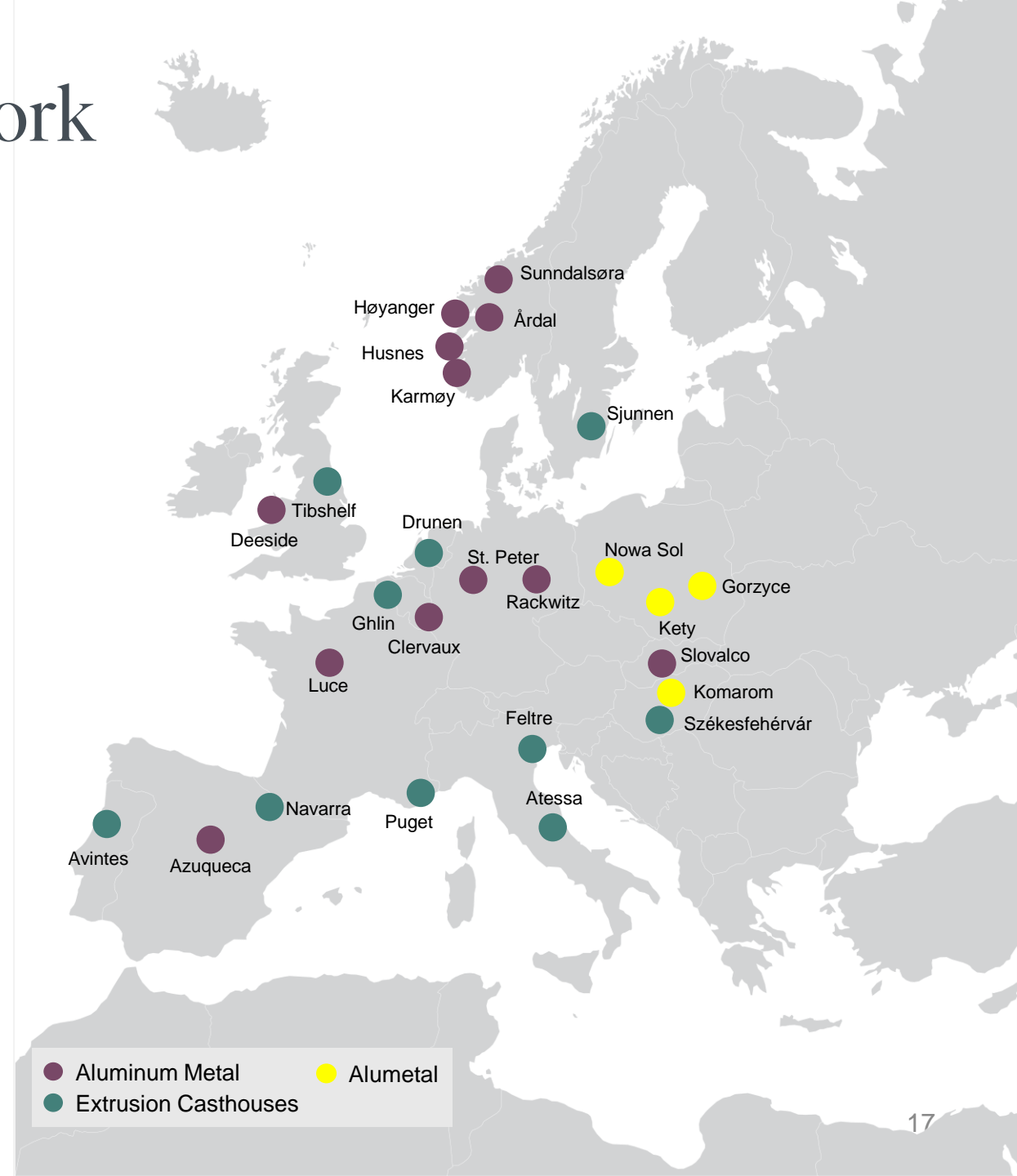
- ~1.4 million tons Extrusion billet production
- Mostly Wall to Wall Recyclers, and a few Standalone Recyclers
- Circular solutions: closed-loop recycling with customers
- Low-Carbon offerings based on EPDs

- The competition in Extrusion market put the service level and lead time as a top differentiator and value creator. In that context of very low order books recyclers provide a unique competitive advantage in enabling **flexible, cost and energy-efficient tailor-made metal supply of billets to serve extrusion customers through the large network of extrusion plants.**

Strong European recycling network

Good basis for delivering on Hydro's recycling strategy

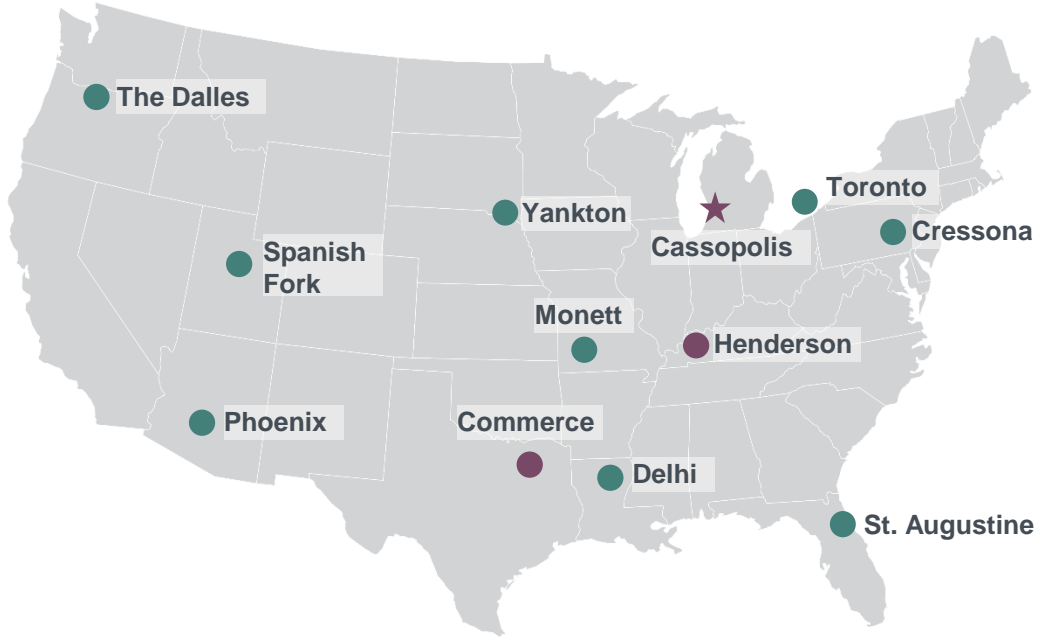
- Network of dedicated recycling plants across Europe producing billets
 - Total capacity of approx. 800 ktpy (~50%/50% split between AM and Extrusion)
 - Prior to Székesfehérvár start-up
 - Combination of conversion and full price sales business
- AM has massive primary smelter capacity at the Norwegian west coast (totally ~1.225 million mt)
 - With casting capacity into billets, slabs and foundry alloys
 - With ability to include some scrap as raw material
- AM acquired the St.Peter sorting plant in 2015
 - Main focus on sorting Post-Consumer Extrusion Profile scrap
- Acquisition of Alumetal recently completed to diversify portfolio and strengthen sorting/upgrading capacity
 - Increased demand for sorting capacity to upgrade low quality scrap
 - Outlets required for scrap qualities not suitable for consumption in current recycling network



Hydro has 12 remelters in North America

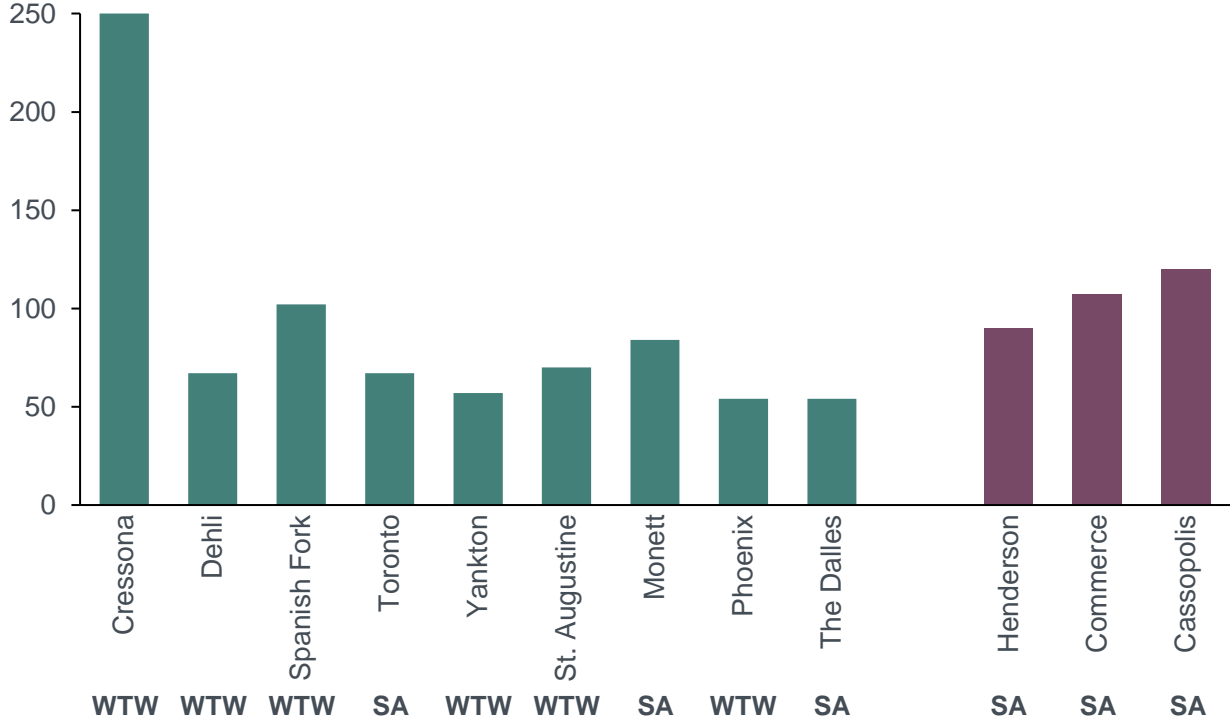


- Hydro Aluminium Metal (AM)
- Hydro Extrusion North America (ENA)



Installed capacity (kt) ¹⁾

Total installed capacity ~1.1 Mt



04

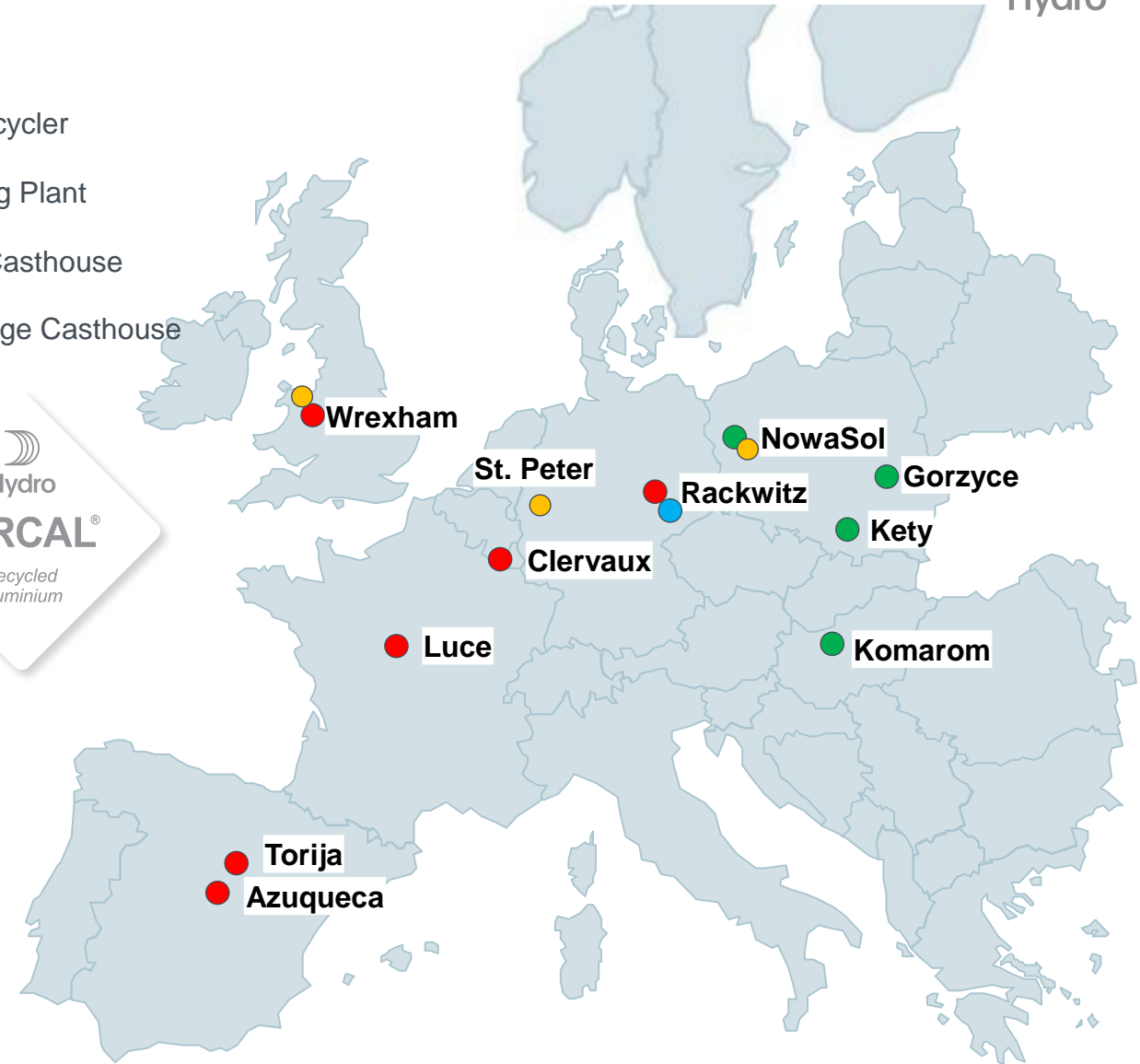
Aluminium Metal Recycling

Olena Gevoll, Head of Finance AM Recycling

Expanding AM Recycling asset base across geographies and products



- EI Recycler
- Sorting Plant
- RFA Casthouse
- HyForge Casthouse



Facts and figures, 2024

- 8 Extrusion ingot recycling plants in operation, 1 HyForge casthouse
- 4 RFA production plants in Alumetal
- 2 scrap sorting hubs
- ~1200 employees in 9 countries
- ~1 mill mt annual production capacity, 0.7 kt EI and 0.3 kt RFA
- ... and growing...

We are aiming for industry leadership in recycling



Our recycling strategy in three 'easy' steps to lift profitability and drive sustainability across the recycling value-chain



Hydro has a proven track record developing recycling capabilities

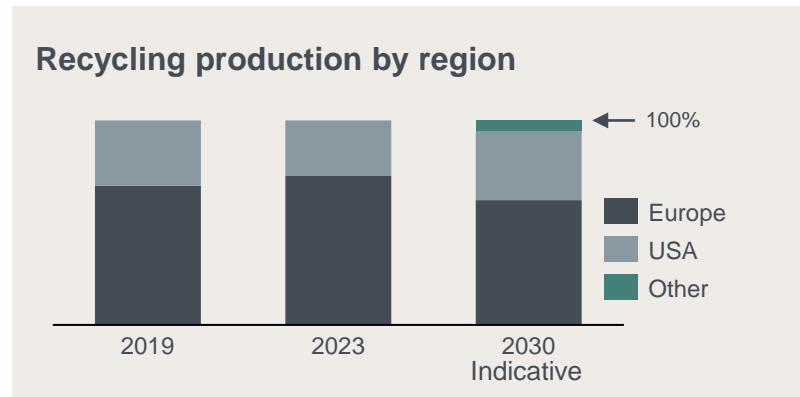
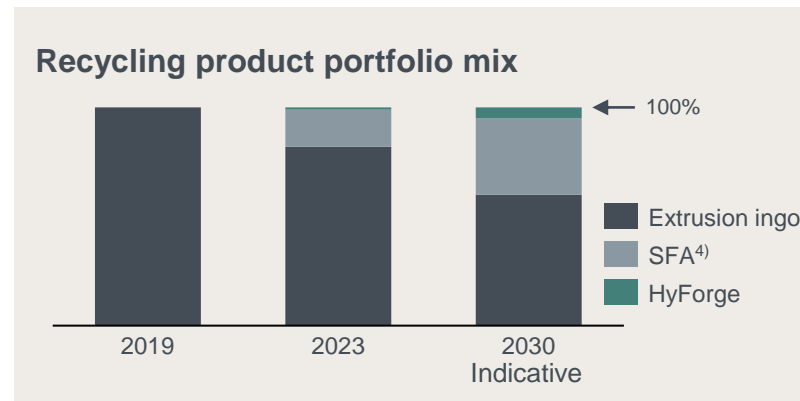


Increasing use of PCS and sorting capacity¹⁾

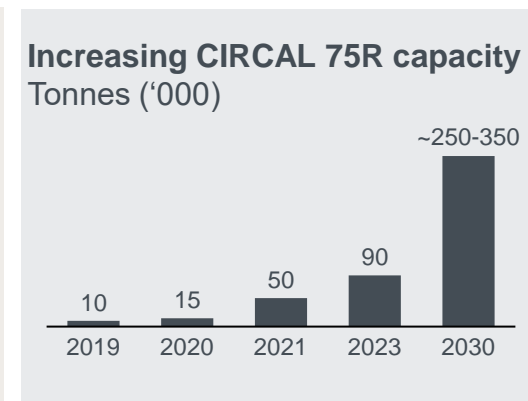
+40%
PCS use
2019 to 2023

+100 kt
Sorting capacity
2019 to 2023

Diversifying asset and product portfolio²⁾

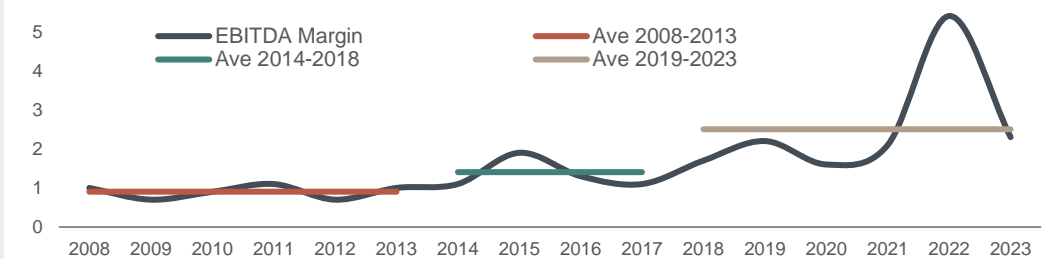


Expanding specialty and greener product offerings³⁾



Lifting profitability through the cycle

AM Recycling indexed EBITDA margin
USD/tonne (2008 set at 1)



1) Average PCS consumption in the AM extrusion ingot recycling plants. 2) AM global recycling portfolio; 2023 based on Alumetal production since July 1, 2023. 3) Extrusion ingot Hydro CIRCAL recycling in AM and HE recycling plants and remelters, Europe and US. 4) SFA = scrap-based foundry alloy

Continuing to strengthen our recycling position



Widening margins and positioning for long-term growth

- Digging deeper into the scrap pile and securing **access to scrap**
- **Diversifying** product portfolio, exposure to market segments and geographies to increase counter-cyclicality
- Promoting recycling friendly alloys to **enable higher recycled content**
- **Differentiating** with premium and specialty recycled products to secure attractive upcharges
- Pursuing strategic decarbonization **partnerships** with customers
- Continuing to ensure **competitive cost position** vs peers; leveraging scale advantages and optimizing hot metal cost

Developing and executing projects supporting our strategy



Secure access to scrap and develop advanced sorting capabilities

Wrexham sorting

Alusort JV

Alumetal HySort



Diversify and high-grade extrusion ingot portfolio – products, markets, geographies

HyForge Rackwitz

Cassopolis

HyForge Henderson

Torija recycler

Luce upgrade



Establish leading positions in the recycled foundry alloy (RFA) market

Alumetal acquisition

Kety modernization

Completed / in operations Under execution

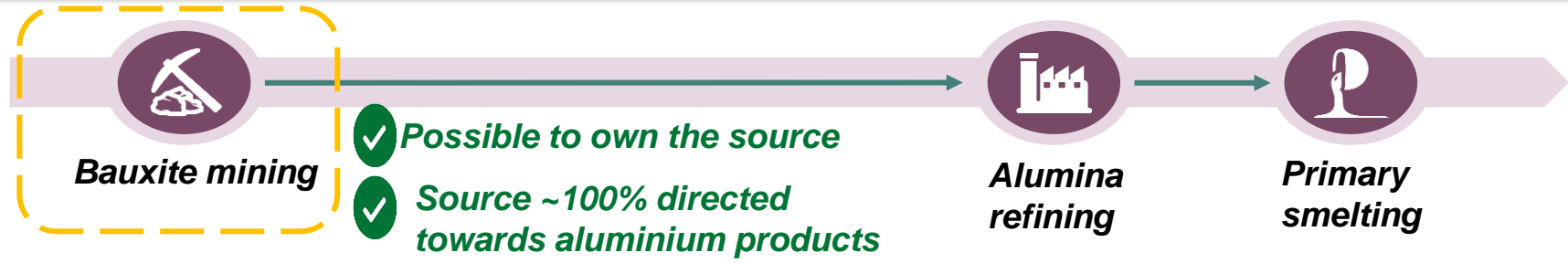
05

It's all about scrap

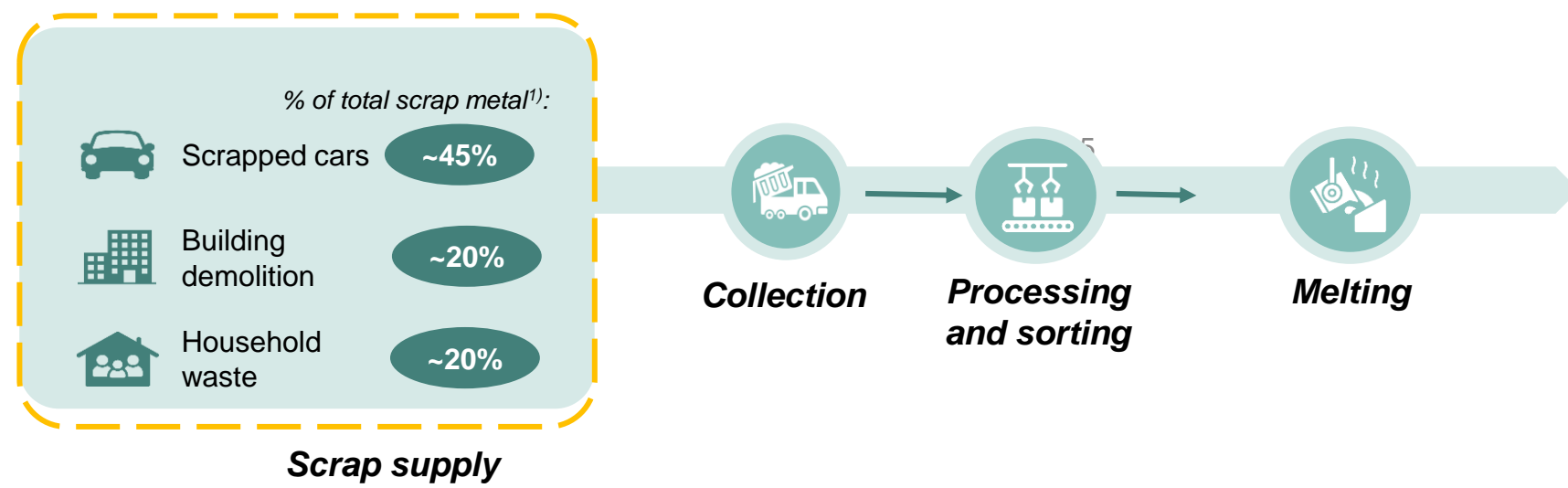
Olena Gevoll, Head of Finance AM Recycling

Primary and recycling value chains are distinctly different – impossible to own scrap source in recycling

Primary value chain



Recycling value chain



1) Rest include industrial process scrap

Scrap value chain: many steps from scrap source to melting

Scrap market value chain



- Scrap generation, primarily from automotive, demolition, households and industrials
- Value chain dynamics depending on vertical

- Collection of aluminium scrap from building/ demolition sites, containers and disposal sites
- Usually covered by scrap yard. Logistics methods include road, rail, ship and containers

- Scrap yard assess incoming material and weight and sort scrap on yard
- The metal undergoes a variety of pre-treatment, e.g. dismantling, sieving, grouping, etc.

- Shredding or shearing usually performed by scrap yard
- Shredding and shearing often on different yards
- Some players have invested in sorting technology

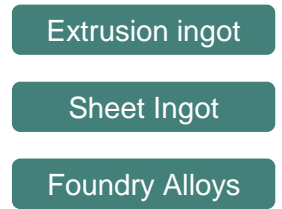
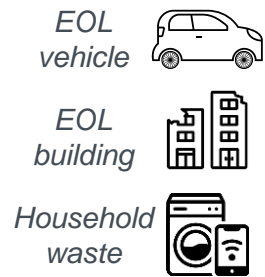
- Traditional, rougher, sorting methods such as magnet and eddy current
- Separates ferrous and non-ferrous

- X-ray scans to sort clean, shredded metal pieces based on transmission data
- Finer sorting into metal types

- Spectrum generated by laser beam to identify chemical composition of materials
- Can separate aluminium alloys

- Remelting to reuse in new products
- Sorted and unsorted post consumed scrap mixed with fabrication scrap and some prime metal to meet end customers' alloy requirement

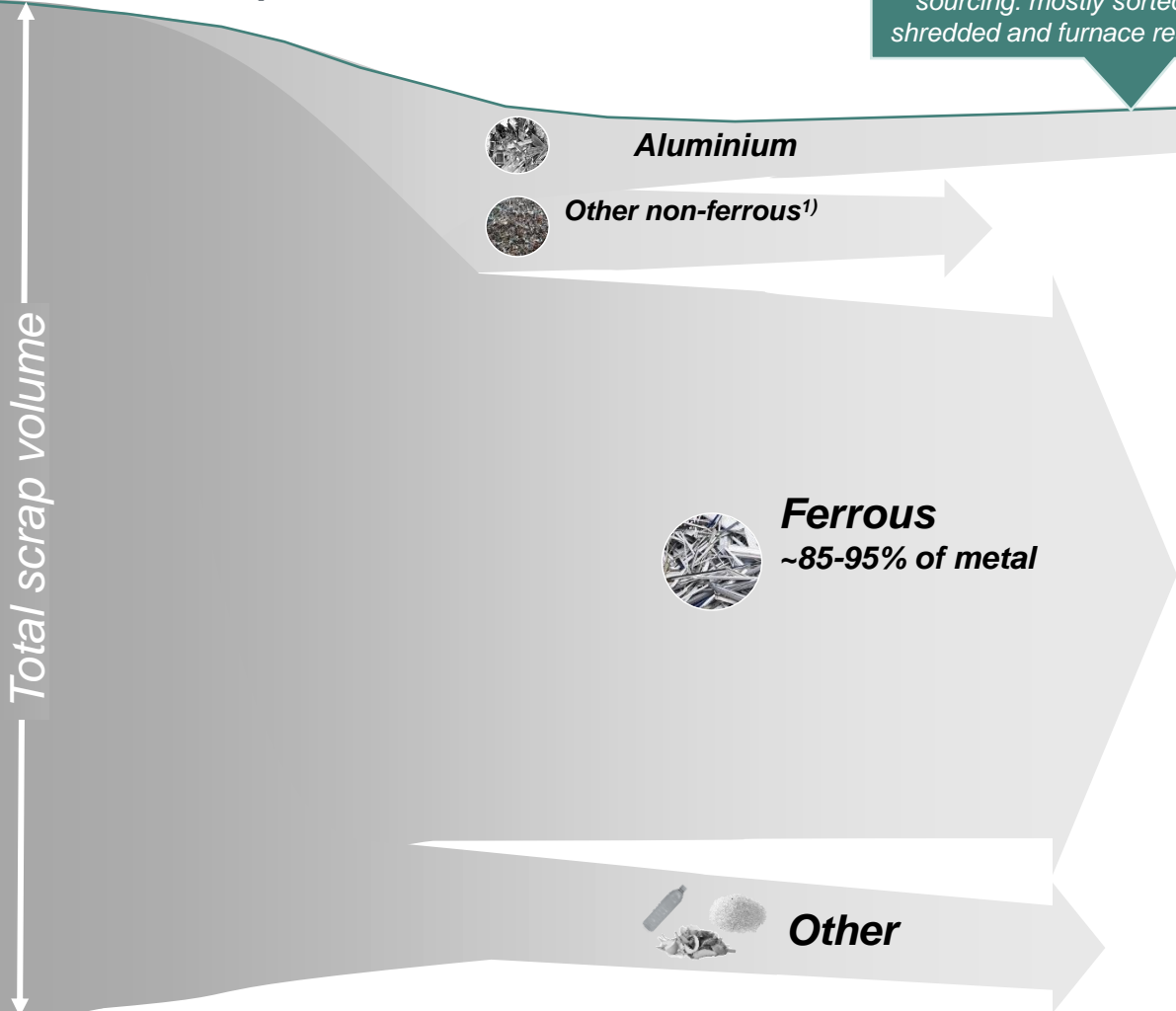
Technology varies with companies



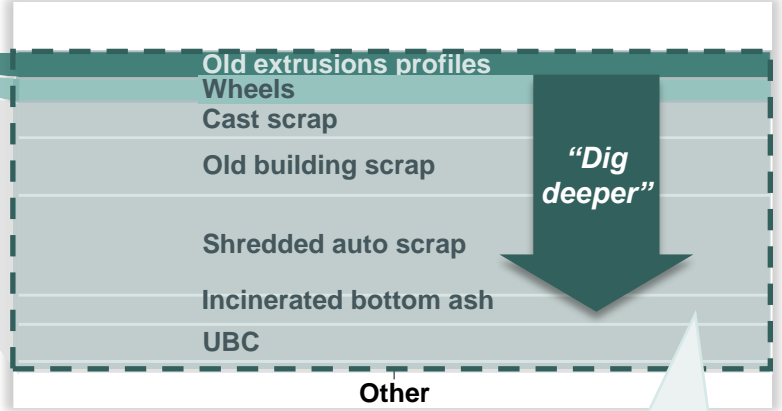
EI recycling exposed to a small share of scrap volumes. Accessing lower-grade scrap through Alumetal and sorting can unlock further potential



Scrap volumes - Illustrative



Current extrusion scrap sourcing: mostly sorted, shredded and furnace ready



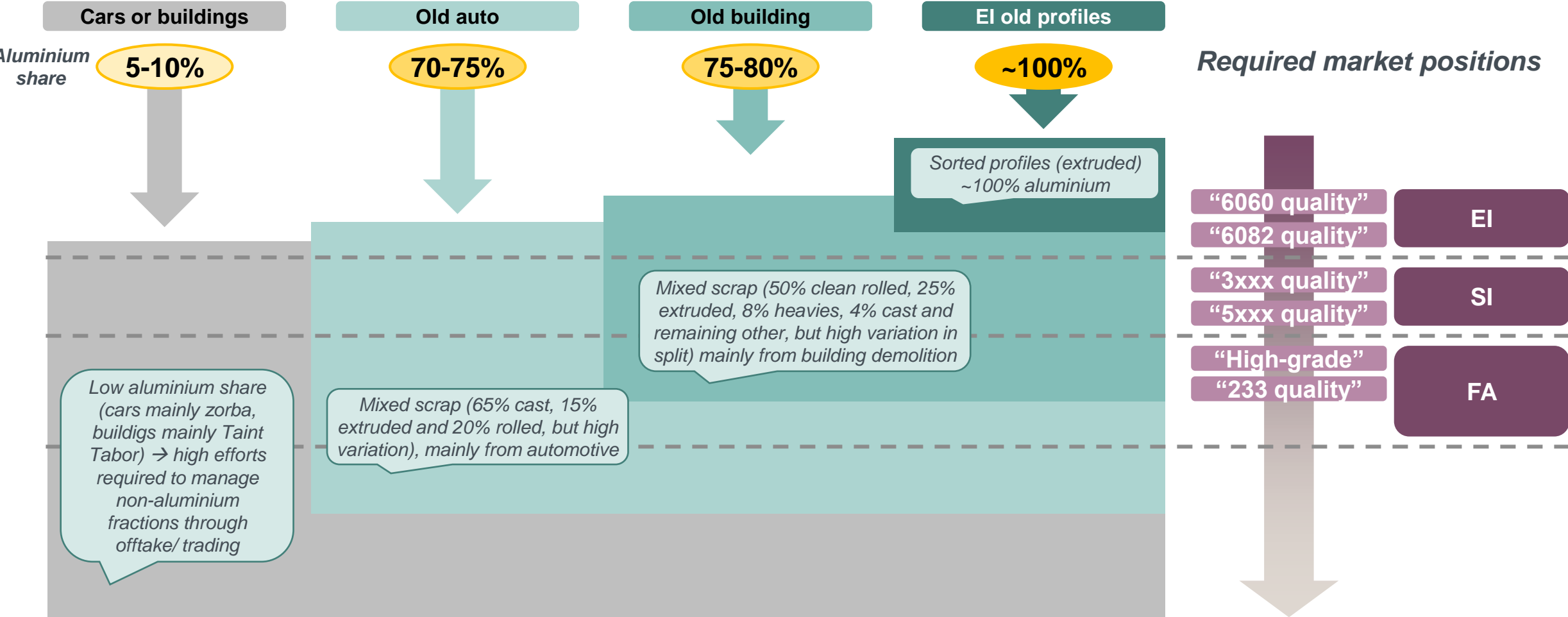
Alumetal/ RFA production can use "anything aluminium" and has significantly expanded Hydro's range of scrap utilization

27 1) Including Brass, Nickel, Copper, Lead, Zinc, etc.

Key to success in recycling is "multi sources + multi market" positions, where RFA is key

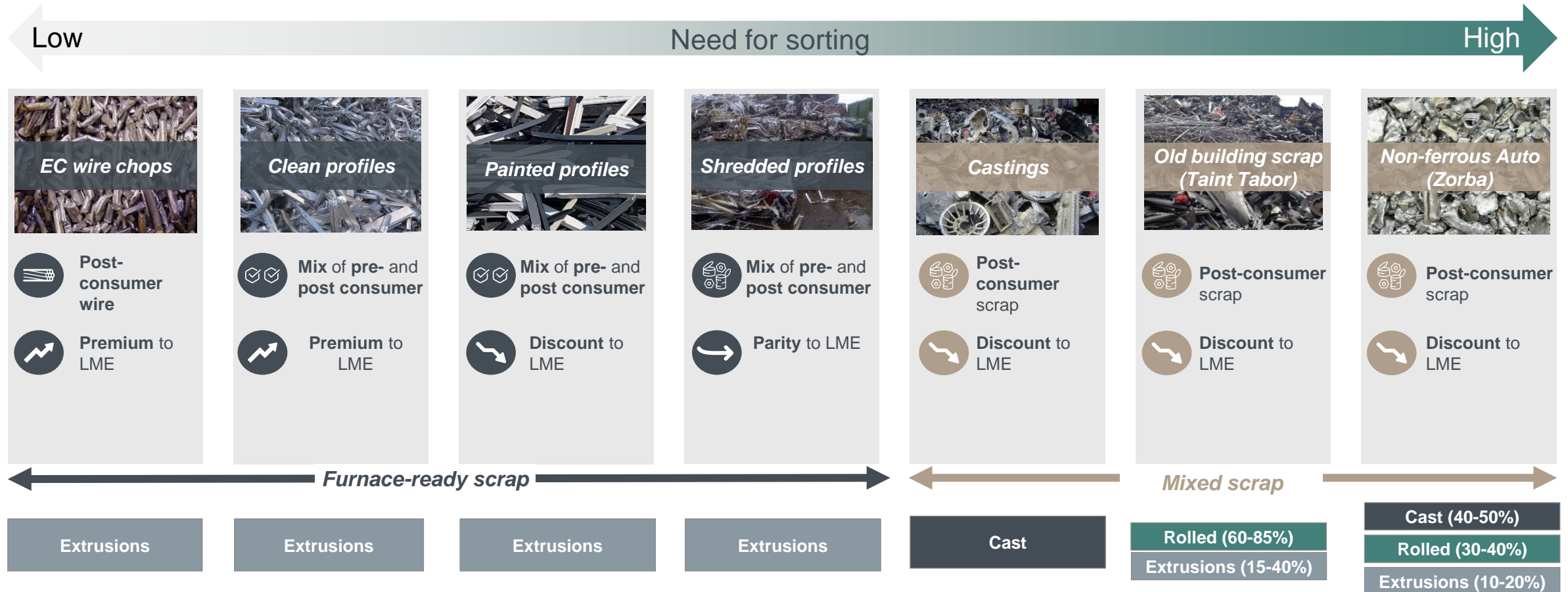


Scrap types and matching market positions



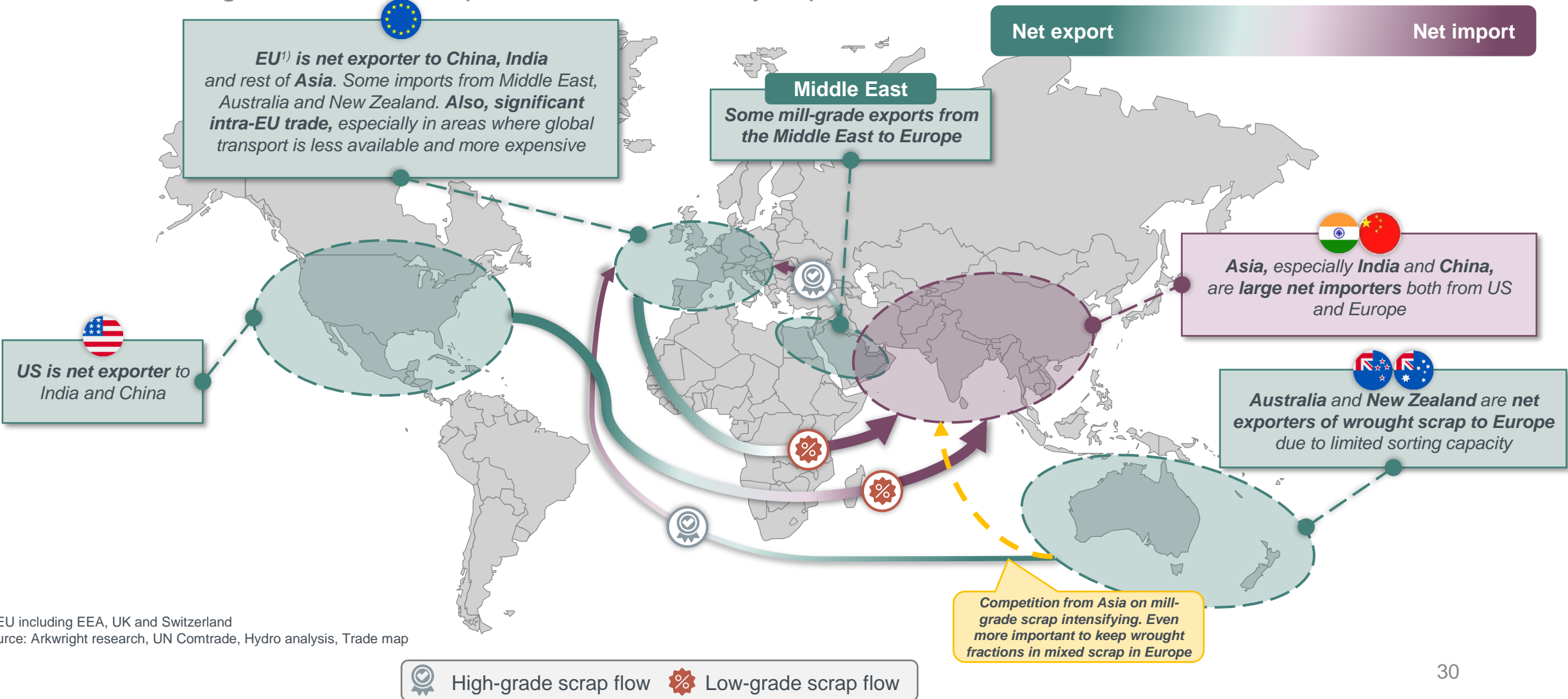
Mixed scrap types require sorting capabilities and ability to convert to various products

There is a large range of different scrap qualities differing among others from mix of aluminium qualities and share of other metals in the mix



Large scrap volumes leaving Europe and NA, predominantly low-grade mixed scrap types

~30% of PCS generated in Europe and US is currently exported

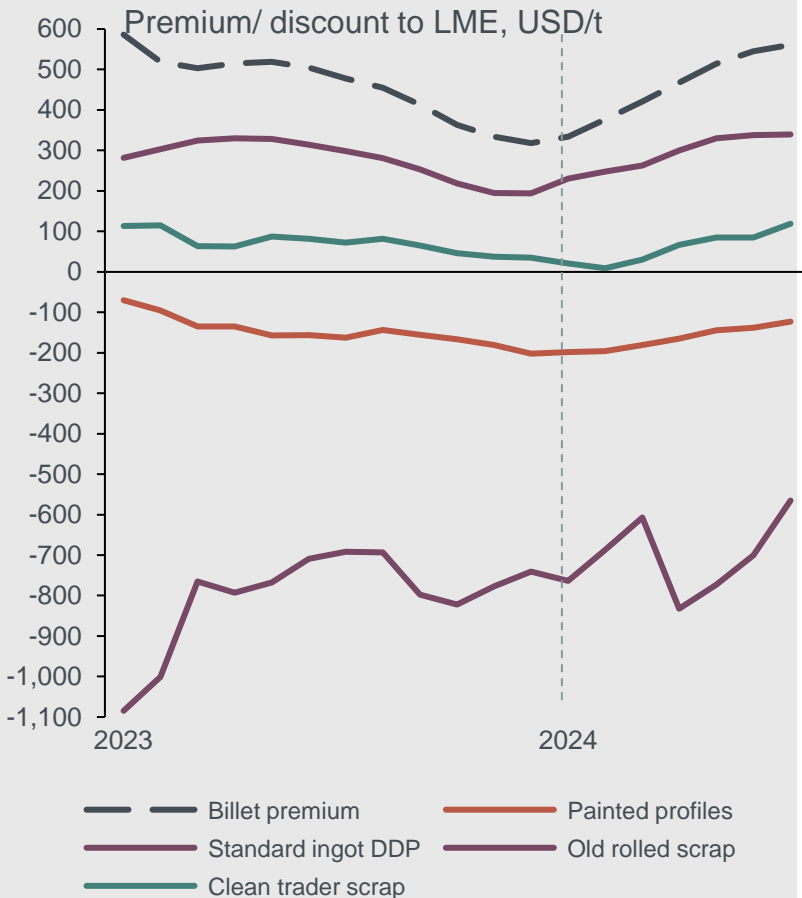


1) EU including EEA, UK and Switzerland
Source: Arkwright research, UN Comtrade, Hydro analysis, Trade map

Currently tight scrap markets on low scrap generation combined with continued high exports

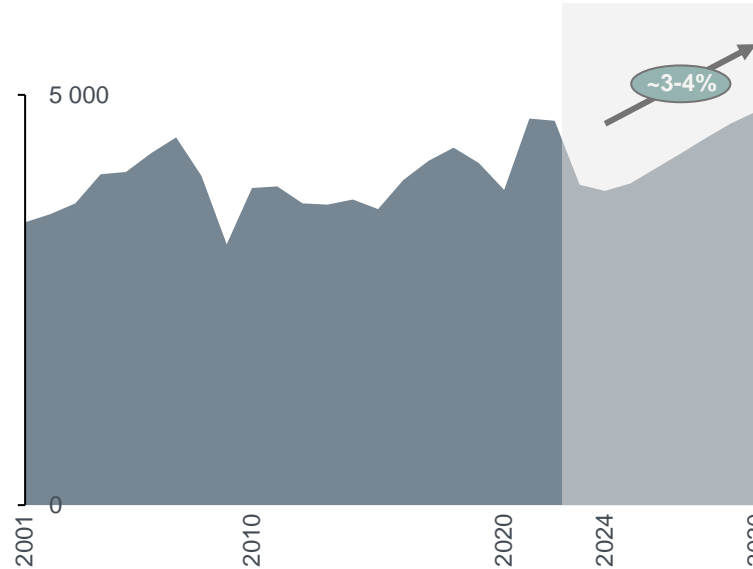
Long-term fundamentals remain intact

Narrow scrap spreads

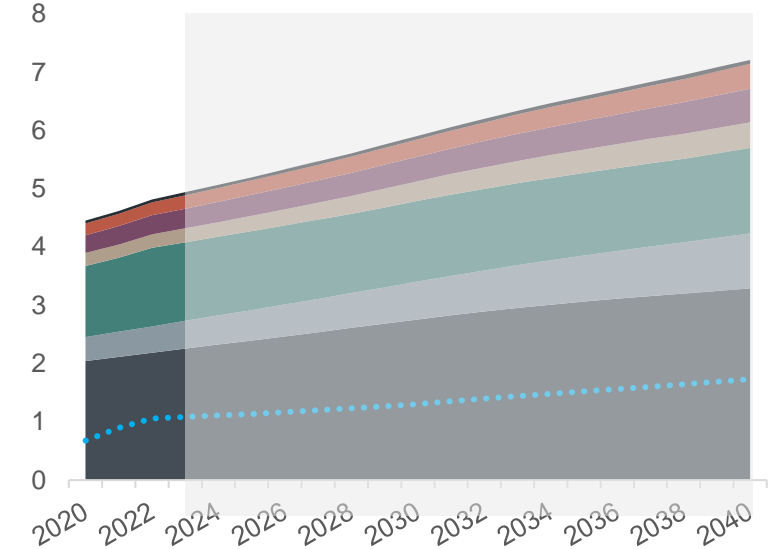


Scrap generation subject to cyclicality, but growing longer-term

European extrusions market growth, kmt



European PCS recovery and exports, kmt



- Scrap generation is driven by industrial activity and is expected to follow demand recovery with a lag
- Process scrap CAGR 2024-2030 in line with extrusion demand growth of 3-4% p.a
- PCS generation has been increasing faster overtime with higher collection and processing rates as well as technological advancements
- Export activity remains high in 2024, competing for scarcely available scrap due to reduced scrap generation

Source: Fastmarkets, CRU, Hydro analysis

Summary – key success factors in securing competitive access to scrap

Scrap procurement excellence



Advanced scrap sorting capabilities



Multiple product outlets

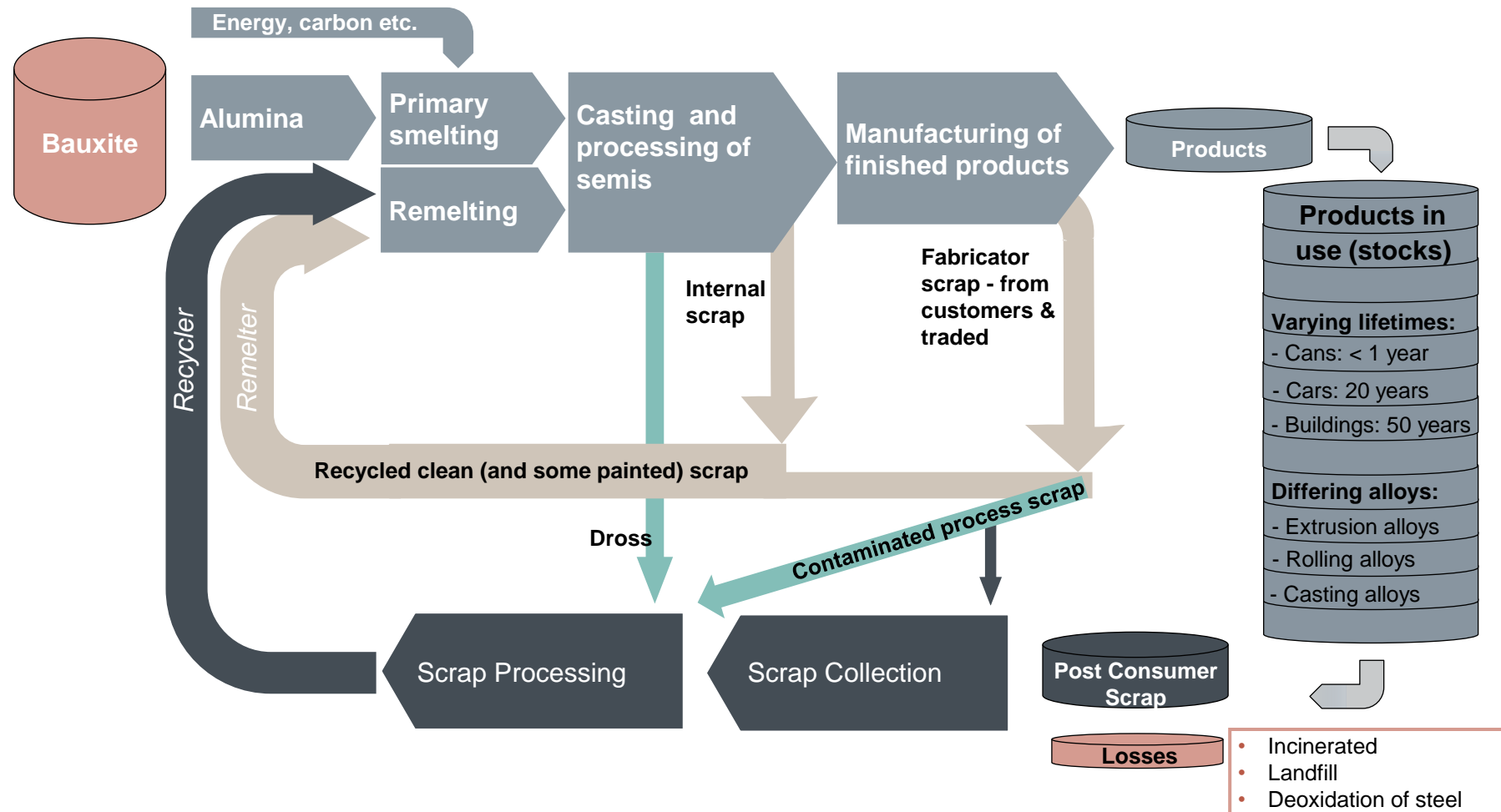


06

Recycling value creation

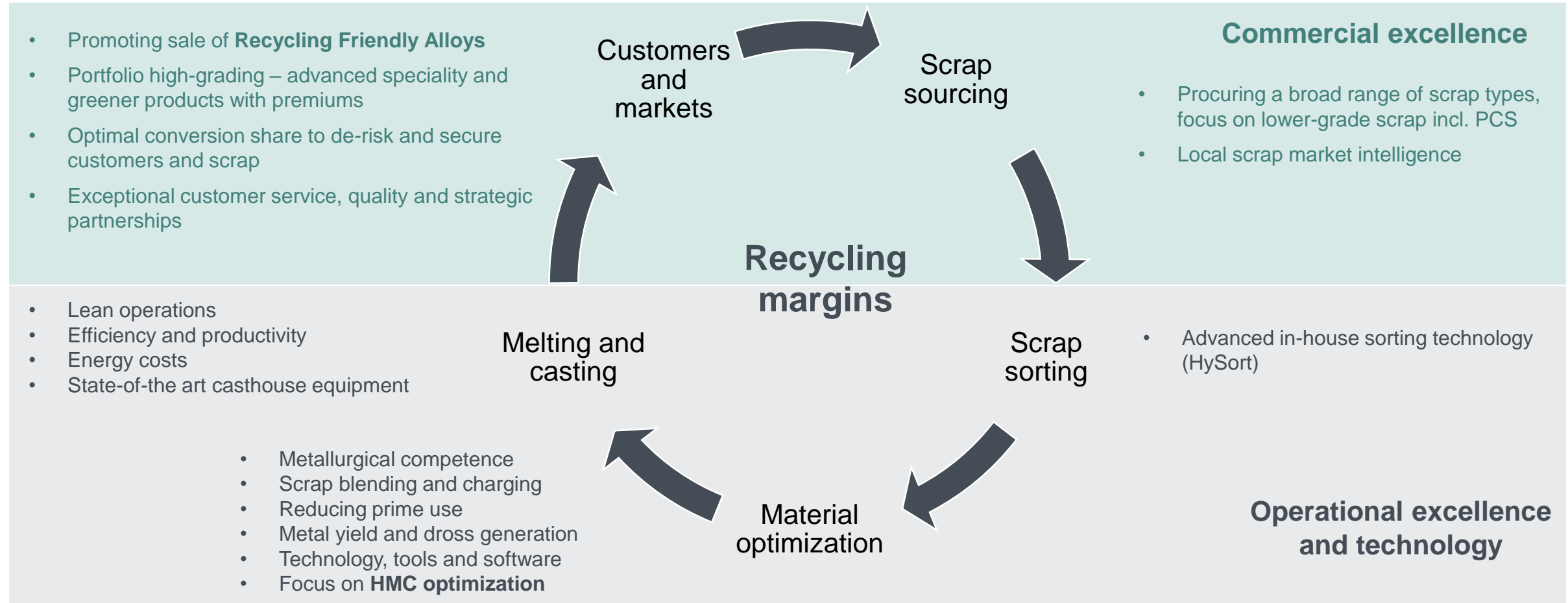
Olena Gevoll, Head of Finance AM Recycling

Aluminium recycling – a schematic overview



Bringing it all together – what can we optimize?

Within each plant and across the portfolio



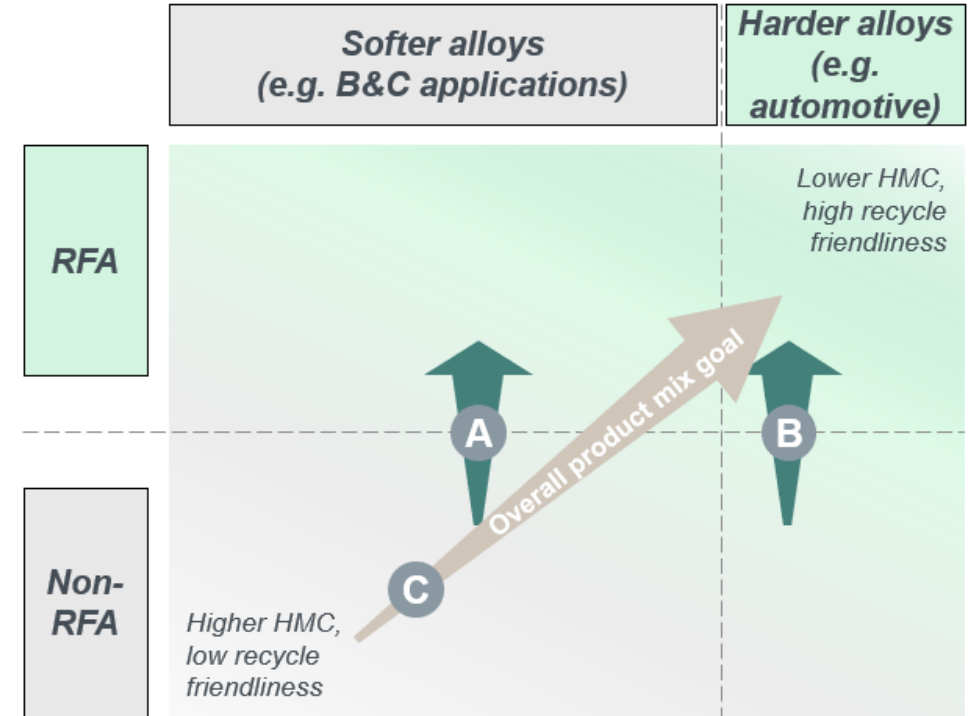
What is RFA? – Recycling-friendly alloys

Moving product mix and customer mix towards lower HMC and higher 'recyclability'

Billets look the same, but have different chemical composition

Alloy group		Fe	Cu	Zn	Mn	Cr	Ti
Soft 6060/63	Regular	0.22	0.02	0.02	0.03	0.02	0.02
	Light RFA	0.23	0.03	0.03	0.05	0.02	0.02
	Full RFA	0.24	0.04	0.05	0.06	0.03	0.03
Hard 6005	Regular	0.22		0.02		0.02	0.02
	Light RFA	0.25		0.05		0.03	0.03
	Full RFA	0.28		0.1		0.05	0.03
Hard 6082	Regular	0.22	0.03	0.02		0.02	0.02
	Light RFA	0.25	0.05	0.05		0.05	0.03
	Full RFA	0.28	0.1	0.1		0.08	0.03

Increasing max limits



What is hot metal cost?

HMC= cold metal purchase price – net metal loss

Net metal loss = burn-off + net dross generation

Cold metal

PCS

Process scrap

Primary ingot

Melting

Burn off

Output for casting

Dross

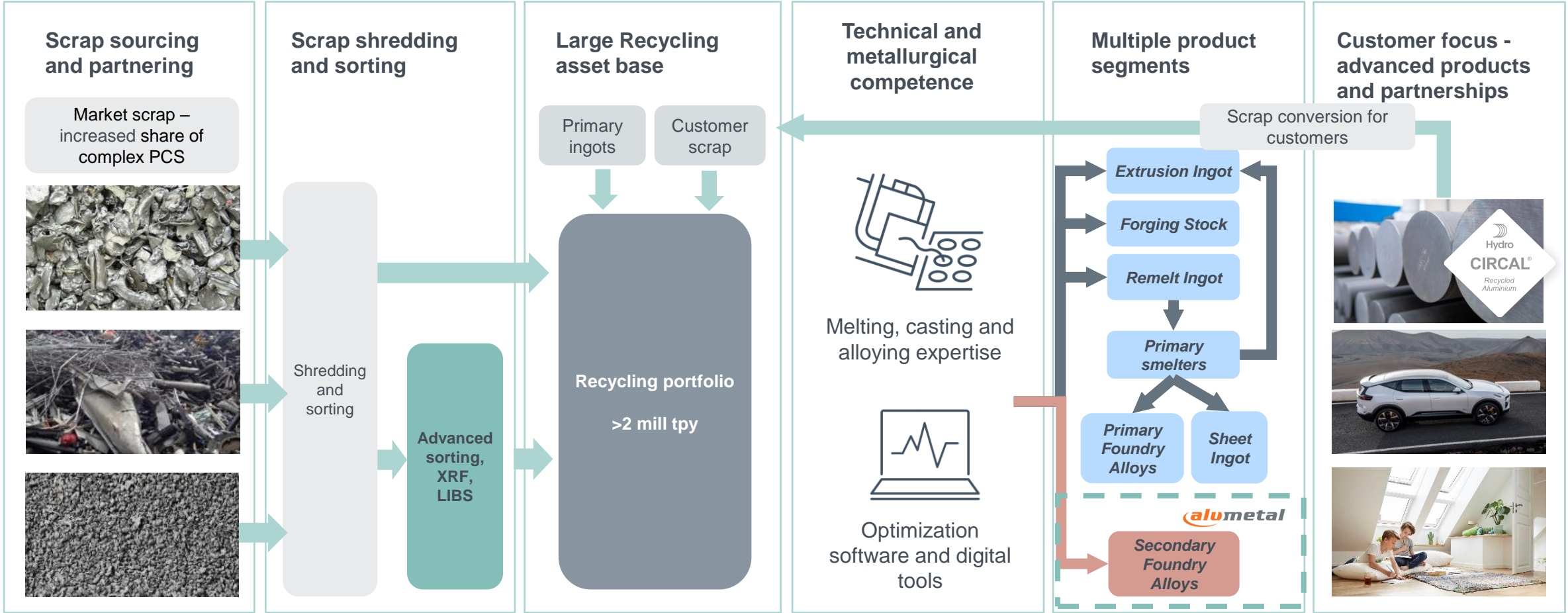
- Primary ingot has low melt loss, but is the most expensive material
- More mixed scrap types are typically priced at a discount, but have a higher melt loss



Hydro's competitive advantages in recycling are difficult to replicate



Complex value-chain optimization from A to Z



07

Material management

Helene Bøe, Material Manager AM Recycling

What is Material Management

Scrap Management and Optimization



What is Material Management

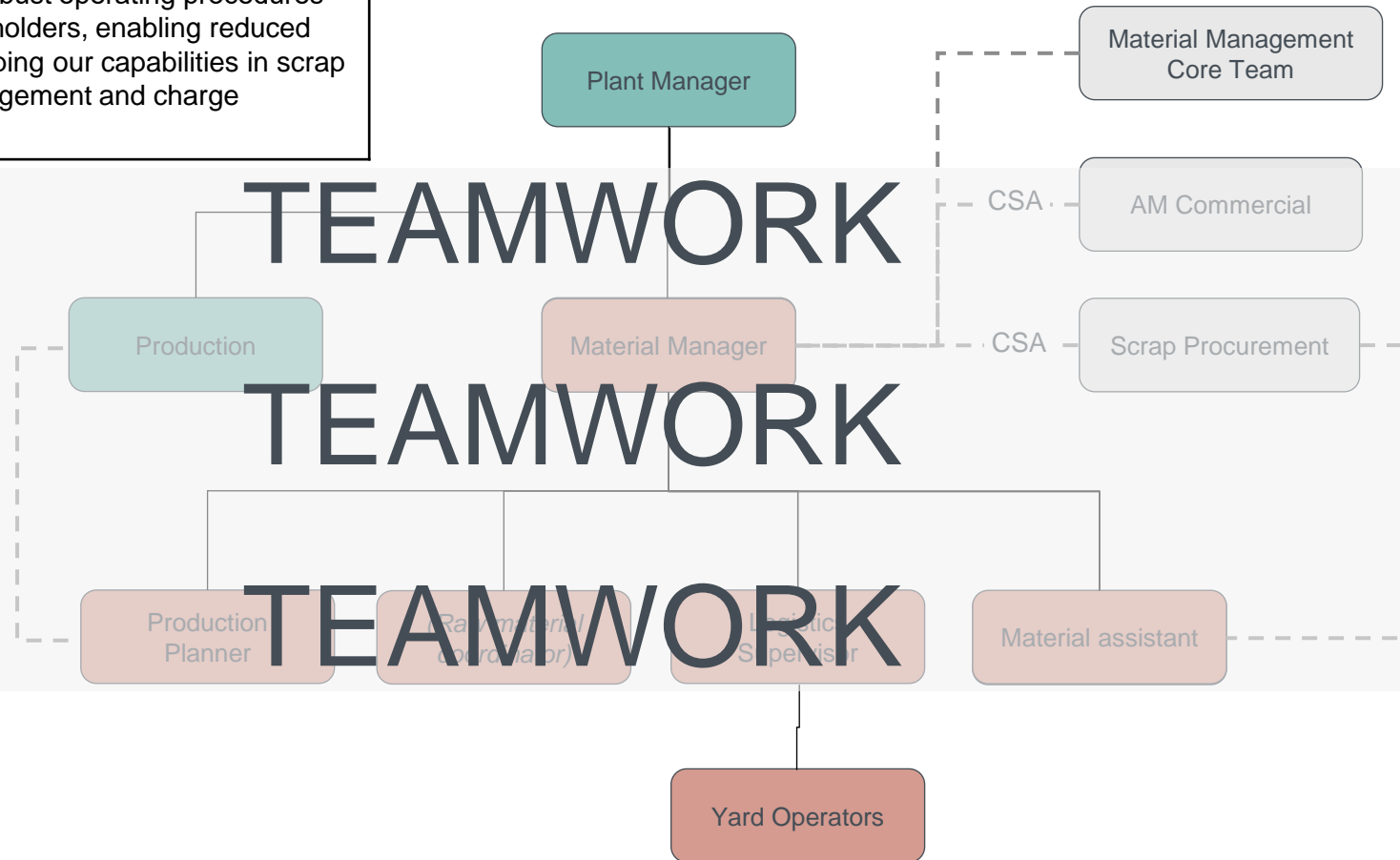
Scrap Management and Optimization



What is Material Management

Target state

Establish “fit for future” organization with robust operating procedures and communication lines to relevant stakeholders, enabling reduced HMC and increased use of PCS by developing our capabilities in scrap receipt and inspection, raw material management and charge optimization.



What can we impact





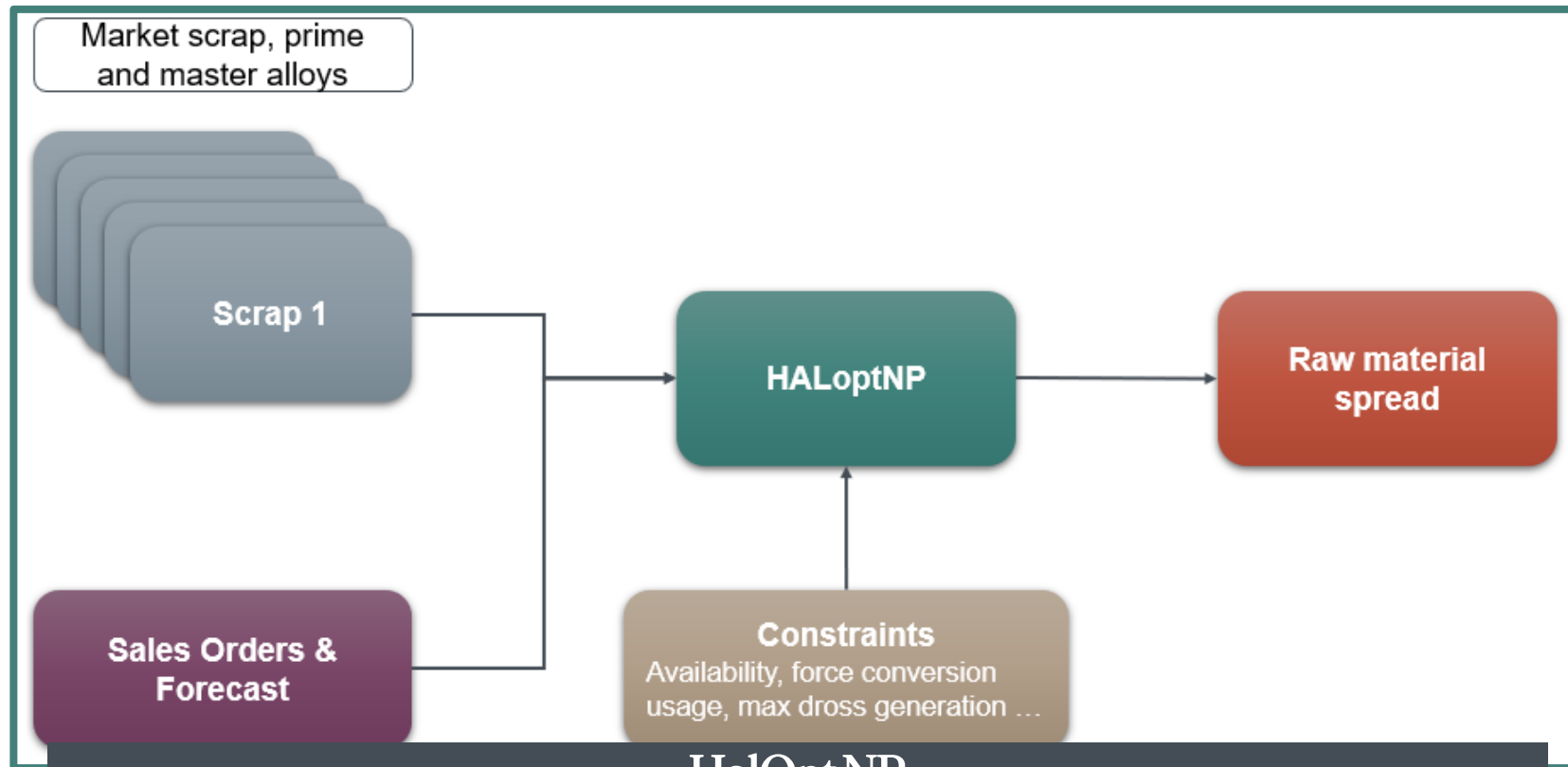
Scrap Purchase

Need

Availability

Cost

Quality



HalOptNP

High level optimisation for guidance to scrap procurement and production.

Value of aluminium metal - HMC

Hot Metal Cost

Market Price



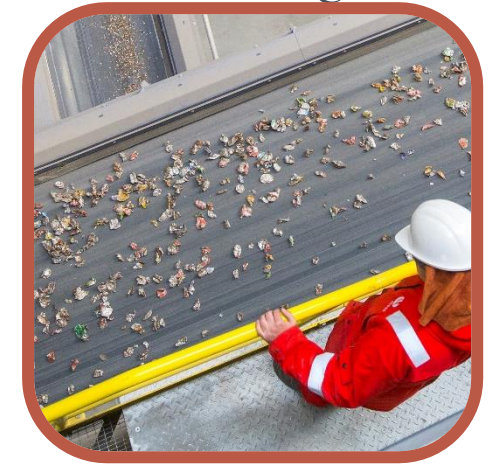
Dross



Burn-Off



Sorting

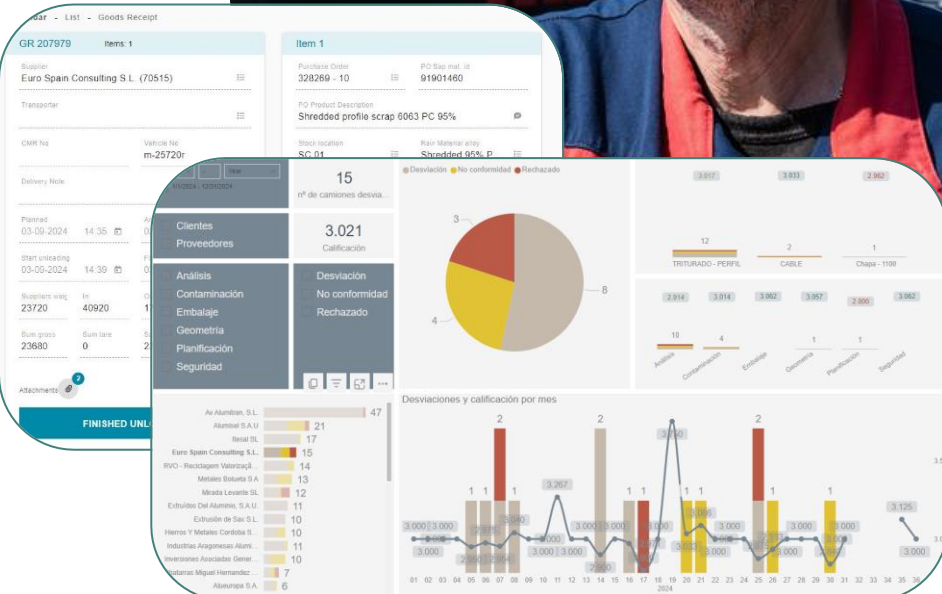
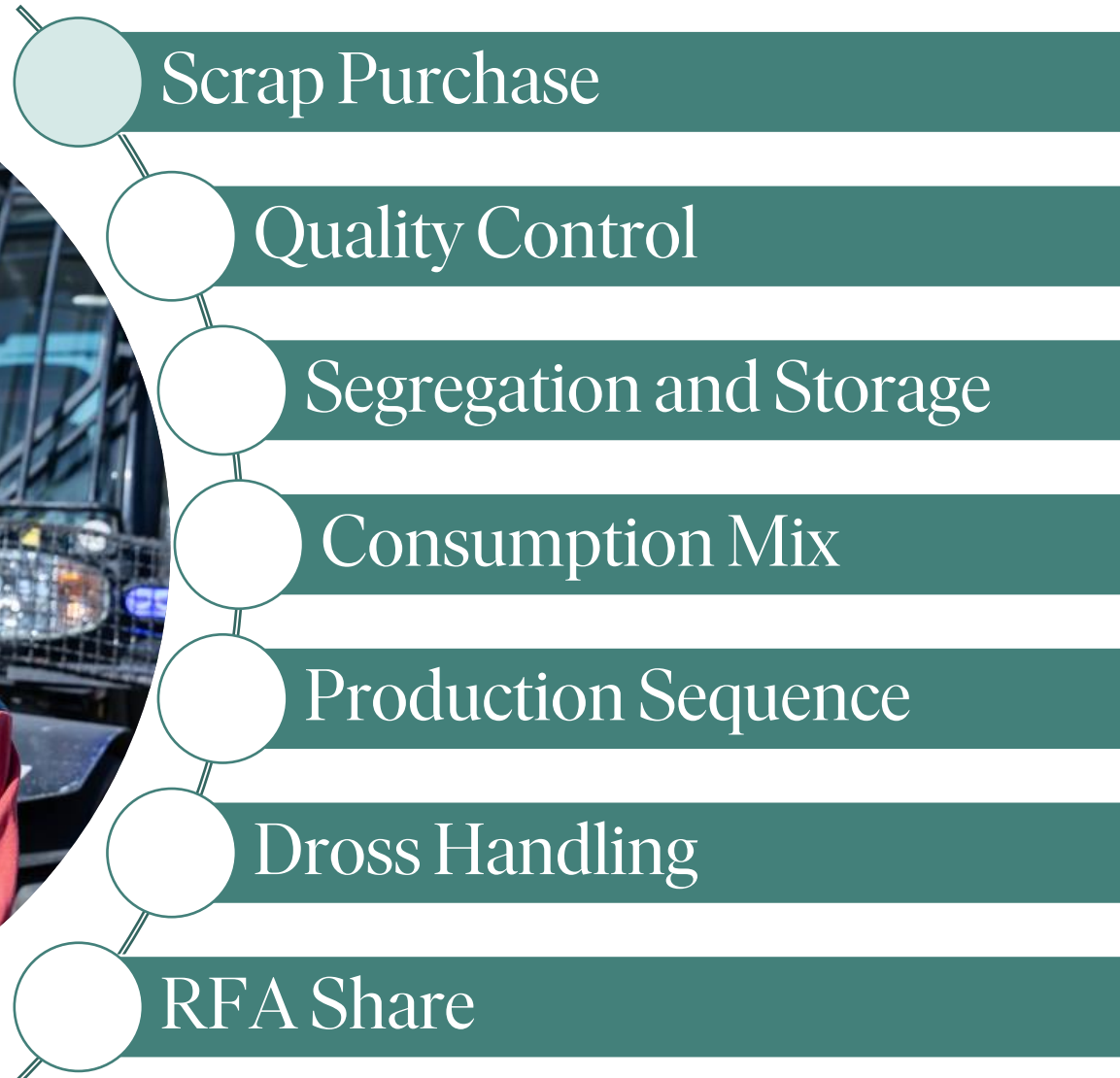


Value from Dross

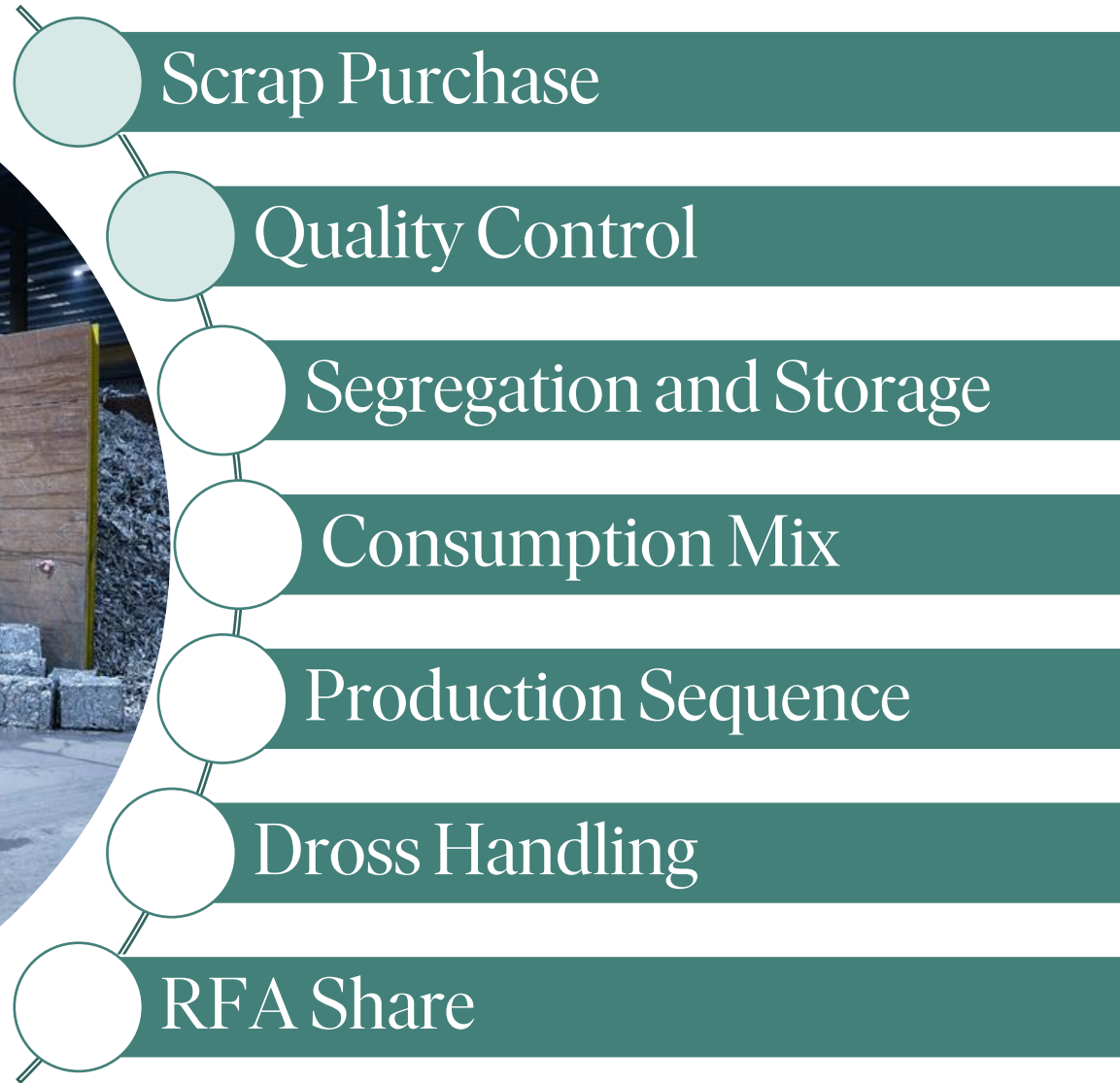


Master Alloy

What can we impact

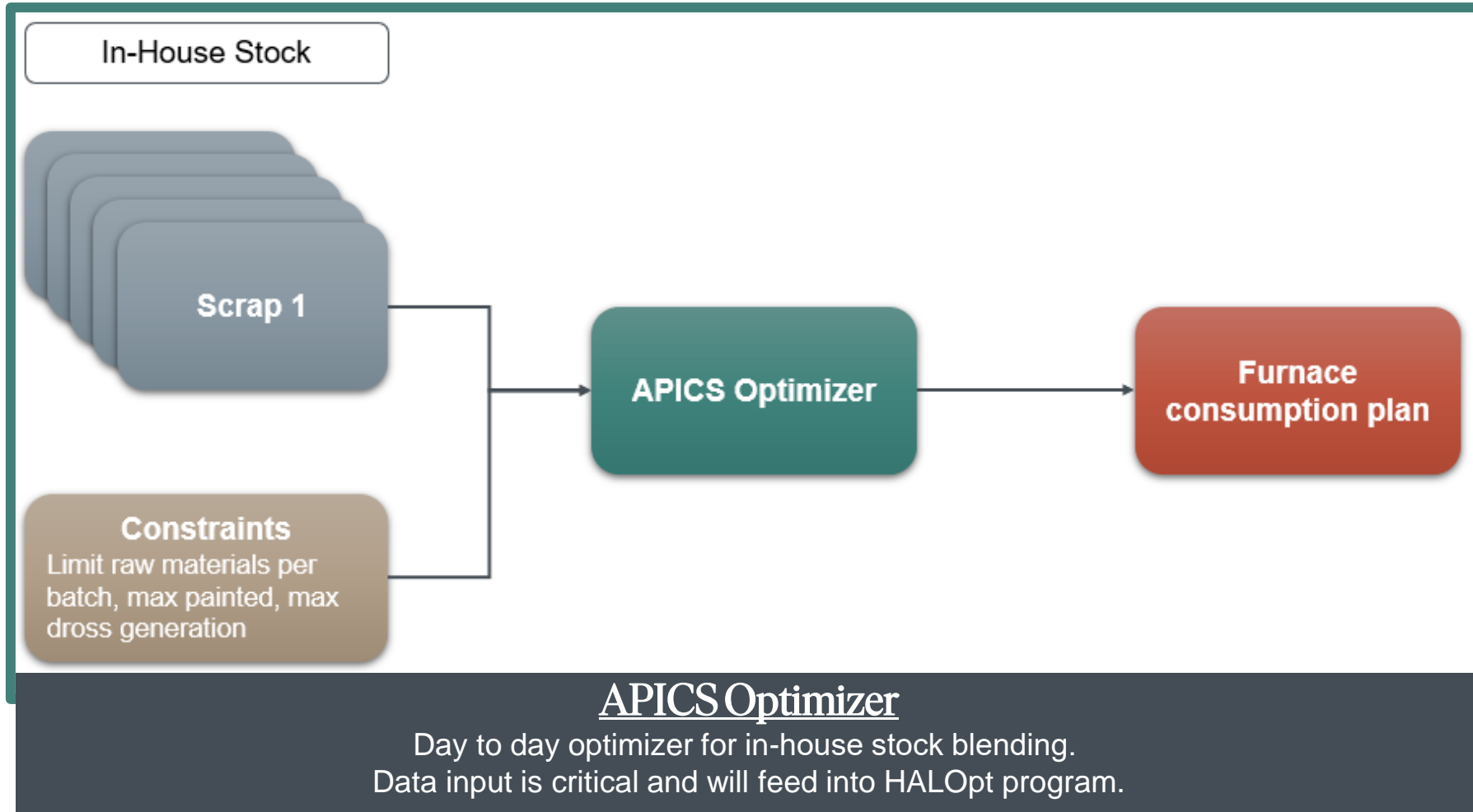


What can we impact





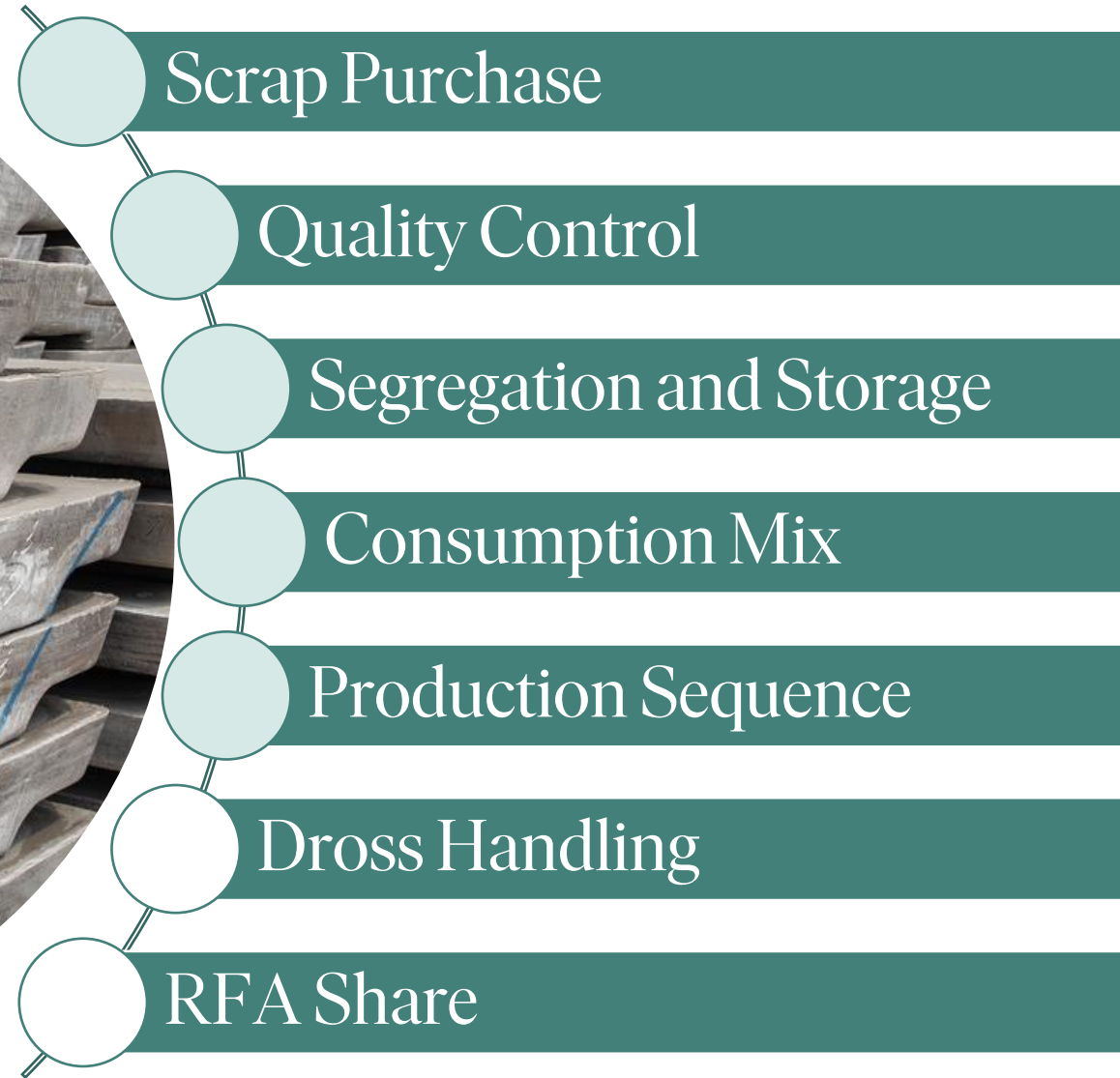
Consumption Mix



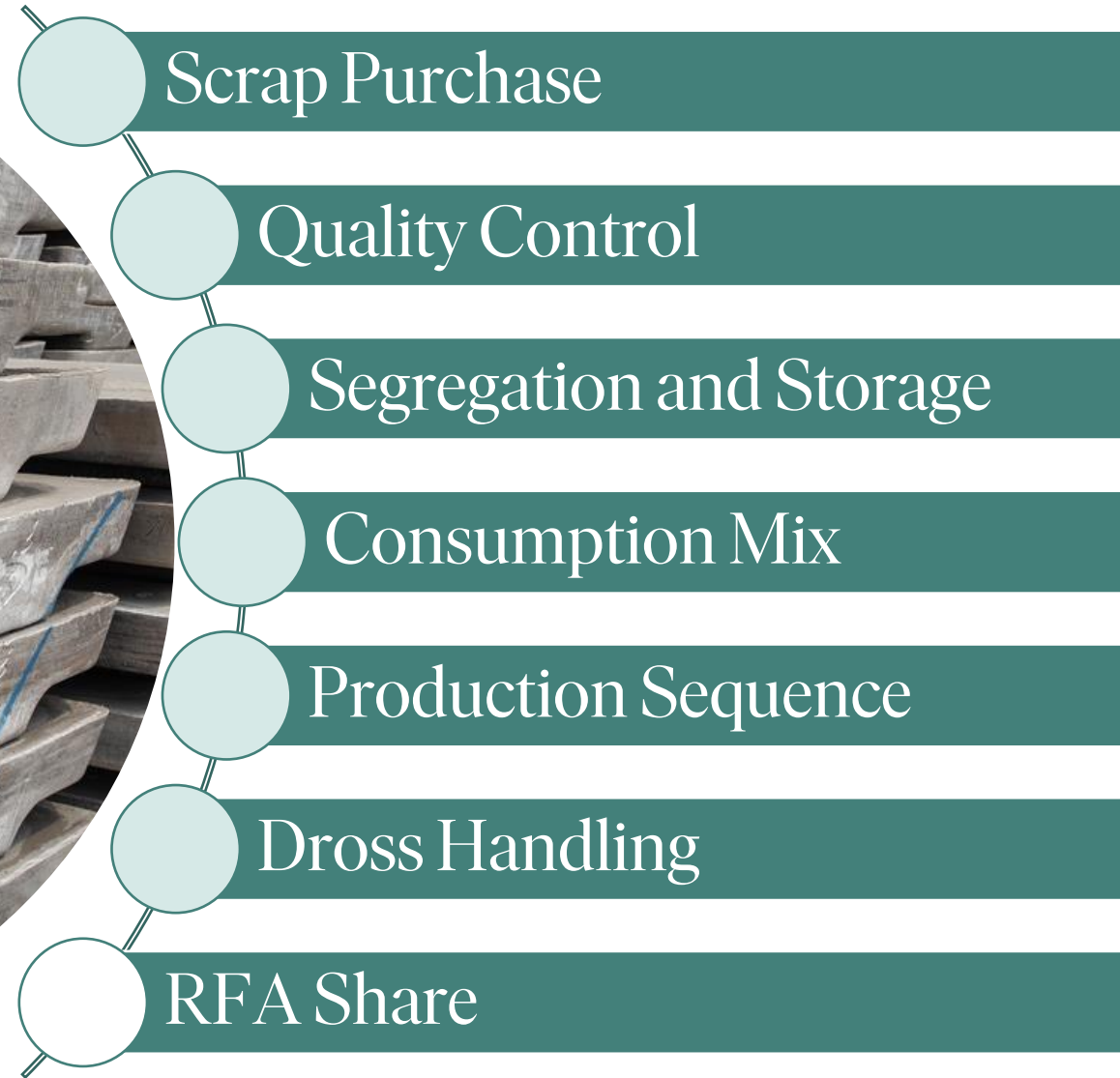
What can we impact



What can we impact



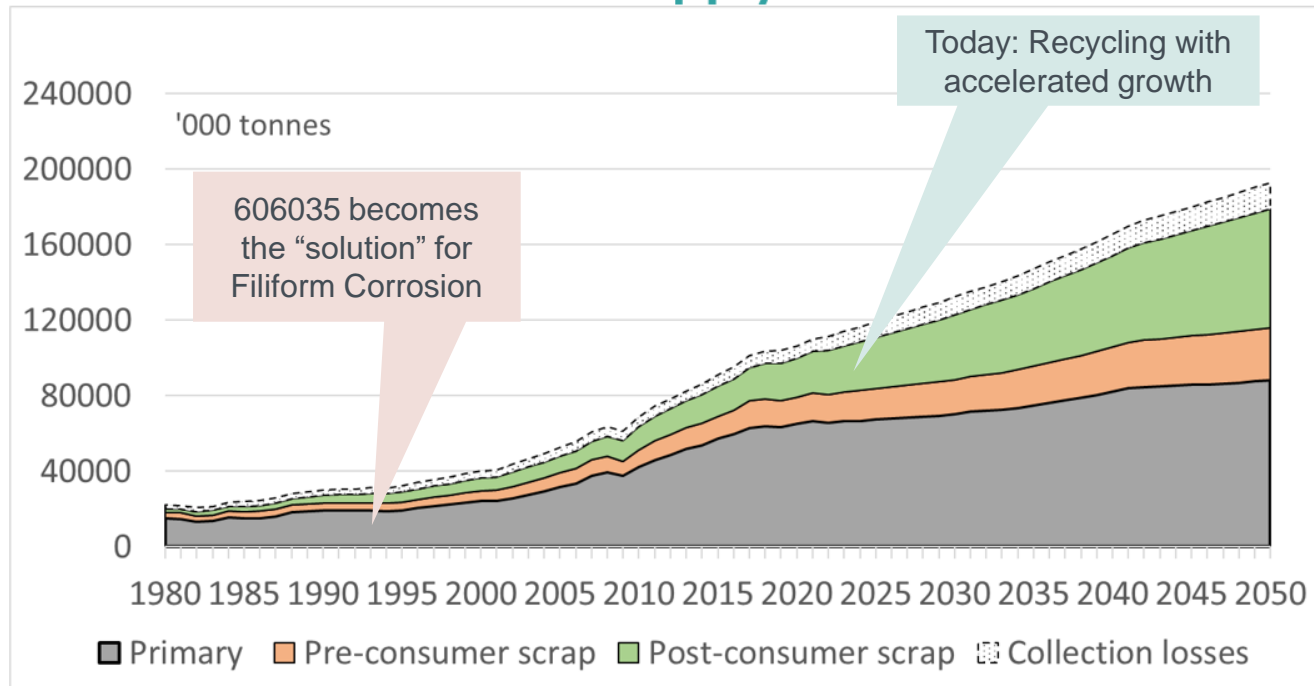
What can we impact



Introduction

Recycling in a historic perspective

Aluminium – supply & demand



A 'recycling friendly alloy (RFA) is an alloy with a chemistry specification that allows for significant EoL scrap content.

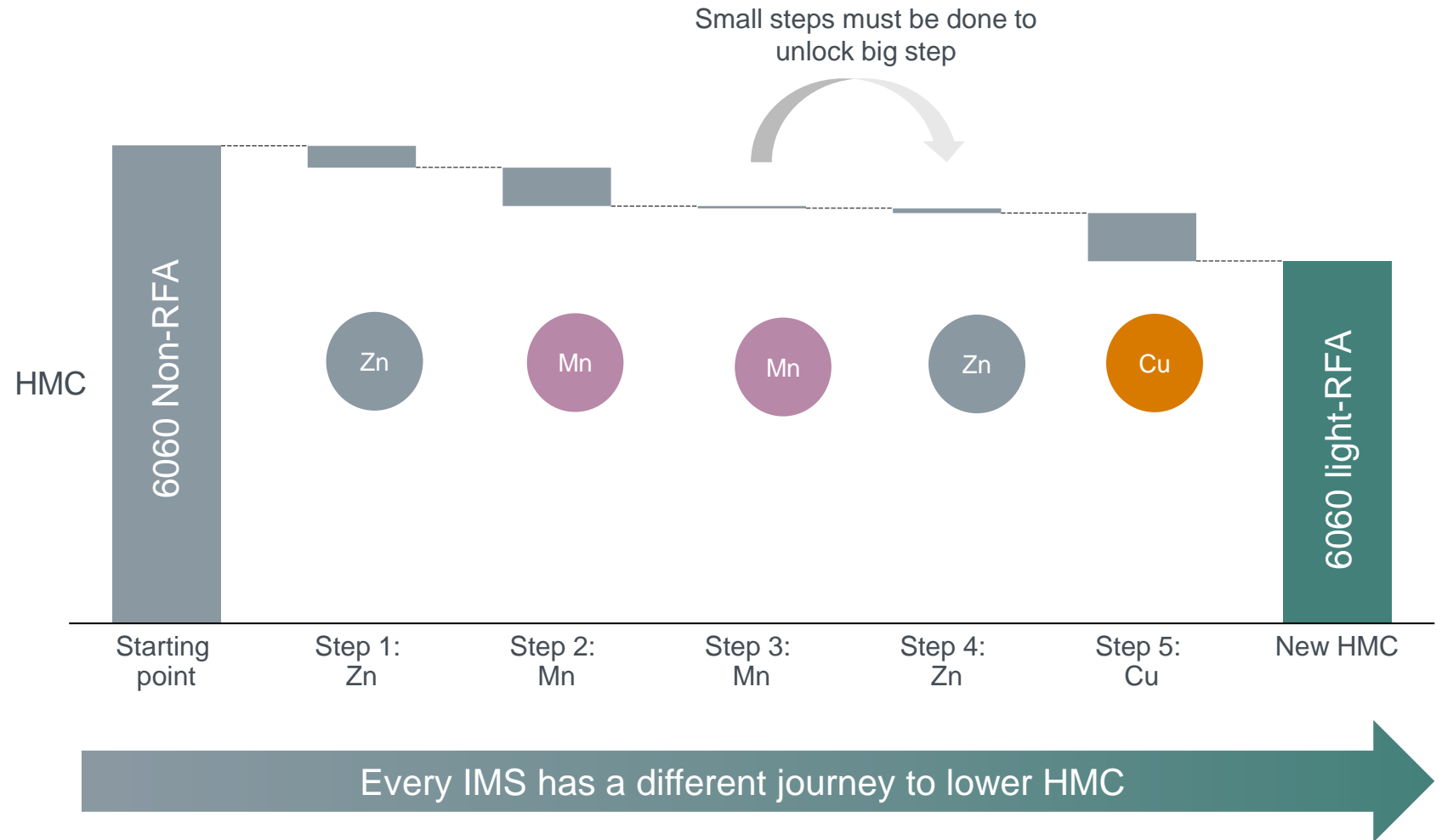
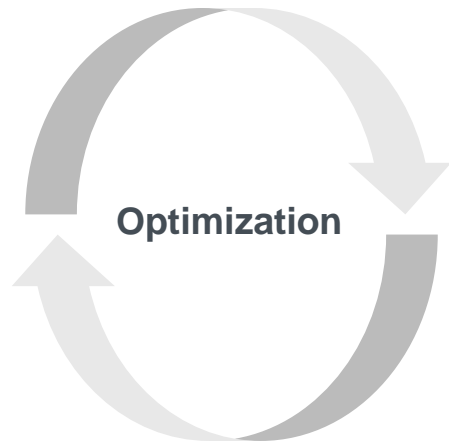
Background

- In the past most alloys were defined based on what make sense from a smelter perspective.
- Limits for trace elements (impurities) are therefore kept low.
- Recycling mostly meant process scrap conversion in WtW remelters.
- Recycling EoL was a small part of the industry and was only something the SFA industry were occupied with.

HalOpt & HMC

The impact of trace element changes is not intuitive and varies with IMS and plant

A long way to the goal





Hydro CIRCAL

Recycled post-consumer aluminium with a low carbon footprint



Hydro provides products with low emissions



Primary aluminium produced on renewable energy



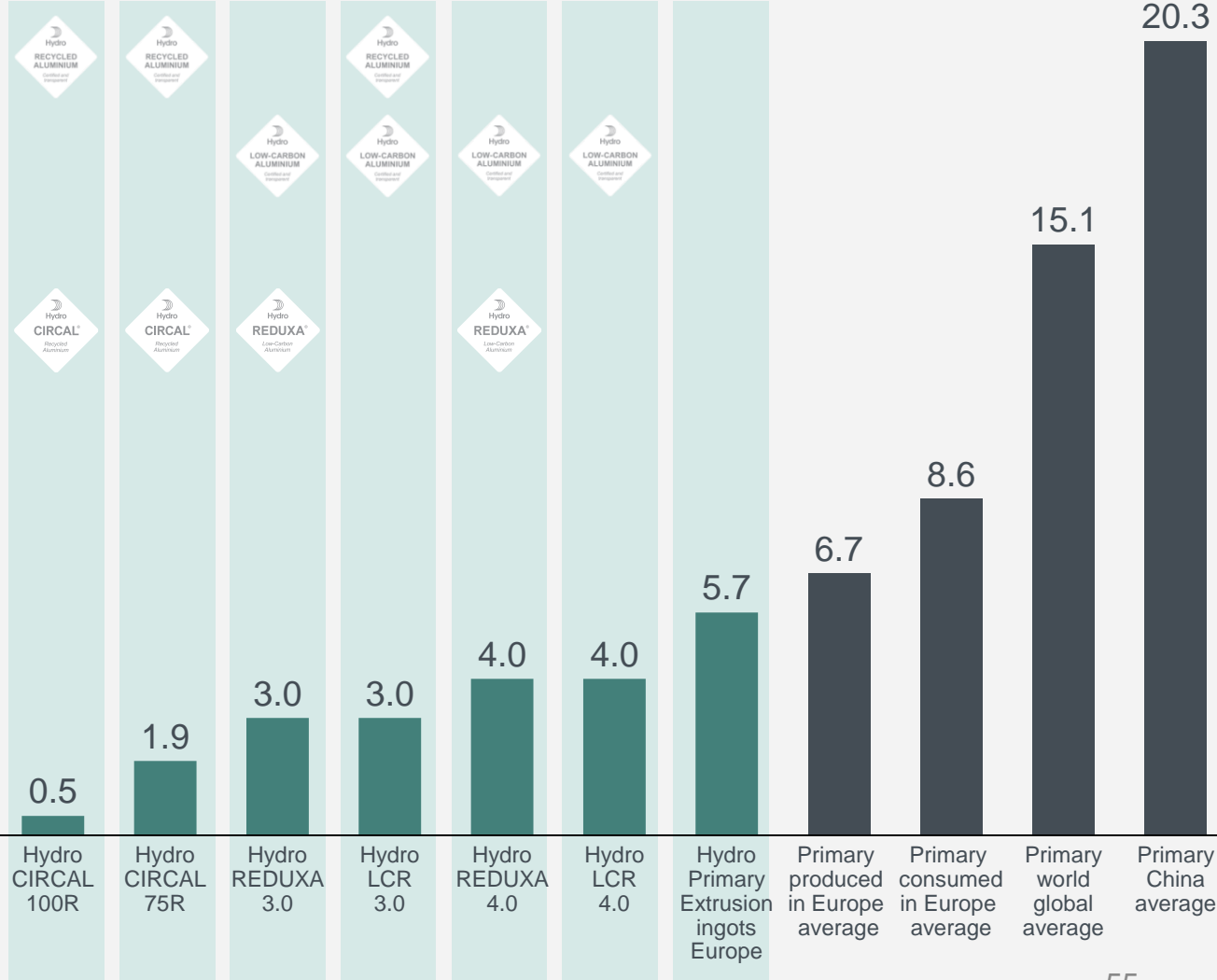
~25 percent
of the world global primary average

Recycled aluminium from Hydro



Less than
~13 percent for 75R, and
~4 percent for 100R
of the world global primary average

Kilos of CO₂e emissions per kilo aluminium



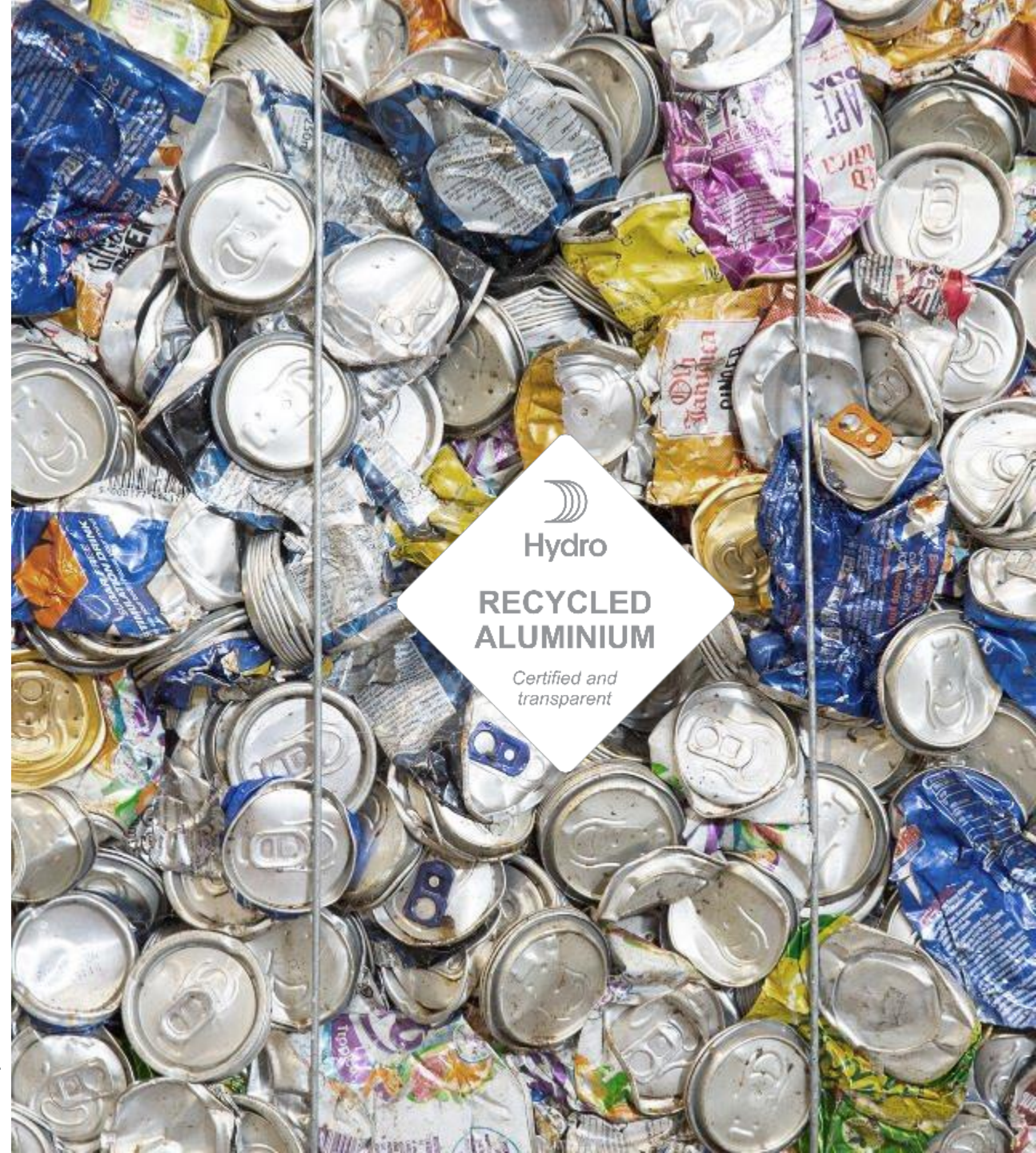
Sources: EAA, IAI, Hydro internal analysis

Hydro CIRCAL

Setting a new standard in recycled content

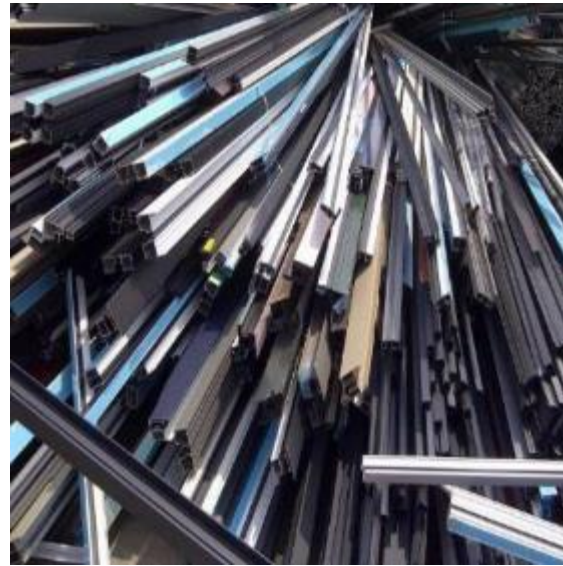
1. At least **75%** post-consumed recycled aluminium*
2. **VERIFIED** by DNV based on traceability and quality principles developed by Hydro
3. Max **1.9** kg CO₂e/kg Aluminium
4. **CONFIRMED** by an Environment Product Declaration

*Post Consumer Scrap: Scrap arising from the disposal of post-consumer products after they have been used. This type of scrap has to be collected and sorted before it can be recycled.



There are two sources of aluminium for recycling

They might look the same, but their CO2 footprint is different



Process scrap & fabrication scrap

Has **never** become
a product



Post-consumer scrap

Had a **previous**
useful life



Pre-consumer scrap
is aluminium material that has
never been used in a product



Post-consumer scrap
has been used by consumers and has already had
a useful life as a product

Where does the carbon footprint of Hydro CIRCAL come from?

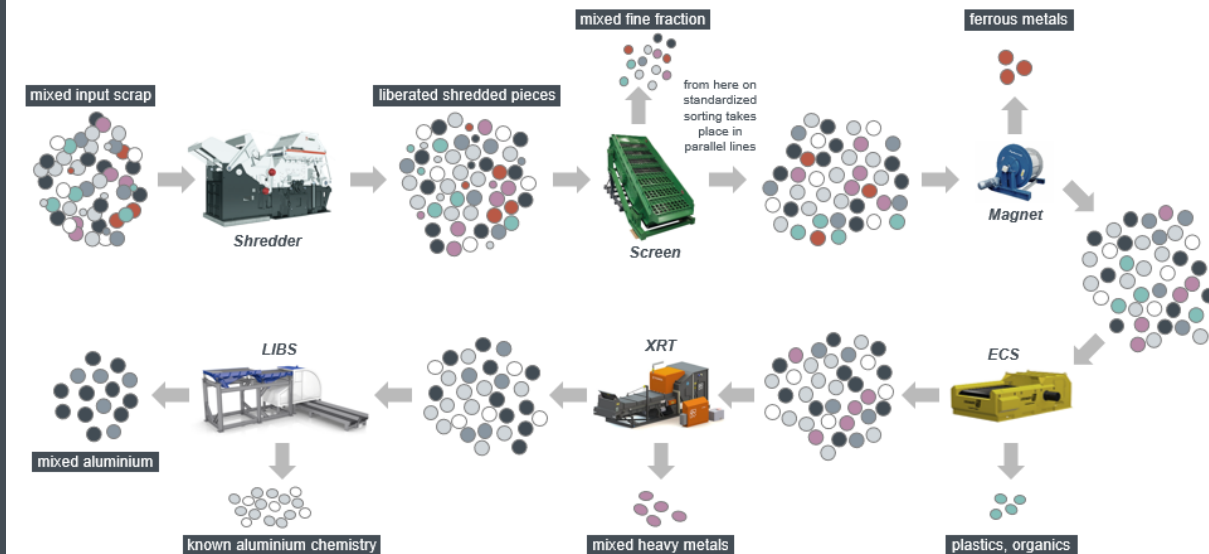
- Hydro CIRCAL is made from minimum 75% recycled post-consumer scrap
- When a material has been in use in a product, reaches the end of its life and gets recycled, it starts a second life. This material is now recycled post-consumer material
- To avoid double counting of the greenhouse gas emissions, Hydro allocates the carbon footprint from the production and manufacturing of aluminium to the first life cycle of the material
- This means that the greenhouse gas emissions of recycled post-consumer material which start its second life are coming from the energy that goes into scrap collection, transport, sorting and re-melting the material
- This is usually less than the emissions from primary aluminium and in the case of Hydro CIRCAL this amounts to 1.9 kilo CO2 per kilo aluminium



On the doorstep to implement HySort™

HySort LIBS Sorting Technology

- ✓ Can separate different aluminium alloys
- ✓ Enabler to avoid downgrading of mixed scrap
- ✓ Enabler for Hydro CIRCAL 75R and 100R
- ✓ Performance targets reached for LIBS technology pilot in Dormagen
- ✓ Evaluating scrap sources and developing cases for technology roll-out



Aluminium Metal 2030:

The leading low-carbon aluminium company with a clear path to zero

1

Preferred provider. The preferred provider of high-quality and low-carbon aluminium to customers who value transparency

2

World-class producer. A good neighbour with world-class safe, efficient, reliable and continuously improving operations

3

Innovative front-runner. The innovative front-runner that pushes technological boundaries and captures attractive opportunities for growth





Hydro

We are aluminium

