

May 8, 2014

Driving to a Closed Loop Business Model & Zero Waste

Zero Waste Business Council
Conference

John Gardner, Chief Sustainability Officer



Novelis

World's Largest Aluminum Roller

Novelis



World's Largest Aluminum Recycler

Novelis

Working Closely With Our Customers On Next-Generation Products

Beverage Cans

ANHEUSER BUSCH

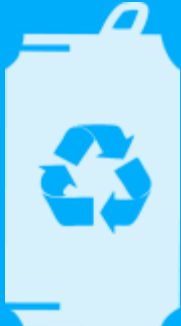
CROWN CORK & SEAL



Coca-Cola

REXAM

Ball



High-End Specialties



PACTIV



LG



VELUX®



Automotive



Audi



JAGUAR



HYUNDAI



LAND-ROVER

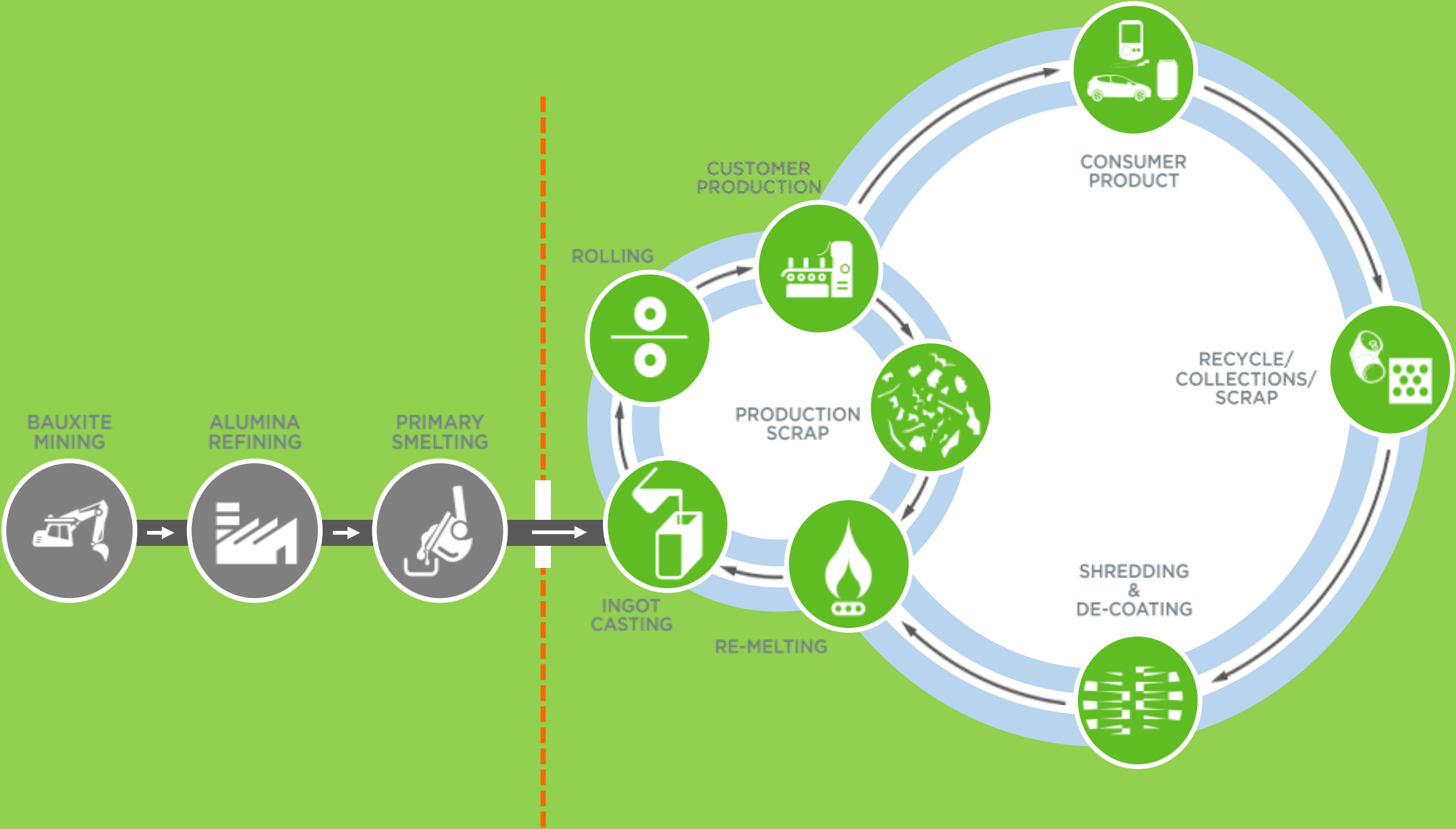


Mercedes-Benz



Long-term annual growth rate (CY10-15)

Creating a Closed Loop Circular Economy



A Lifecycle Approach

Half Absolute GHG Emissions

Work with Customers to design for improved Life Cycle & Recycling

Zero Waste-to-Landfill
2020 Goal at Novelis Operations

Improve Energy Efficiency by 39% & Water by 25% by 2020

Increasing Consumer Recycling Rates



Our Focus On Recycling

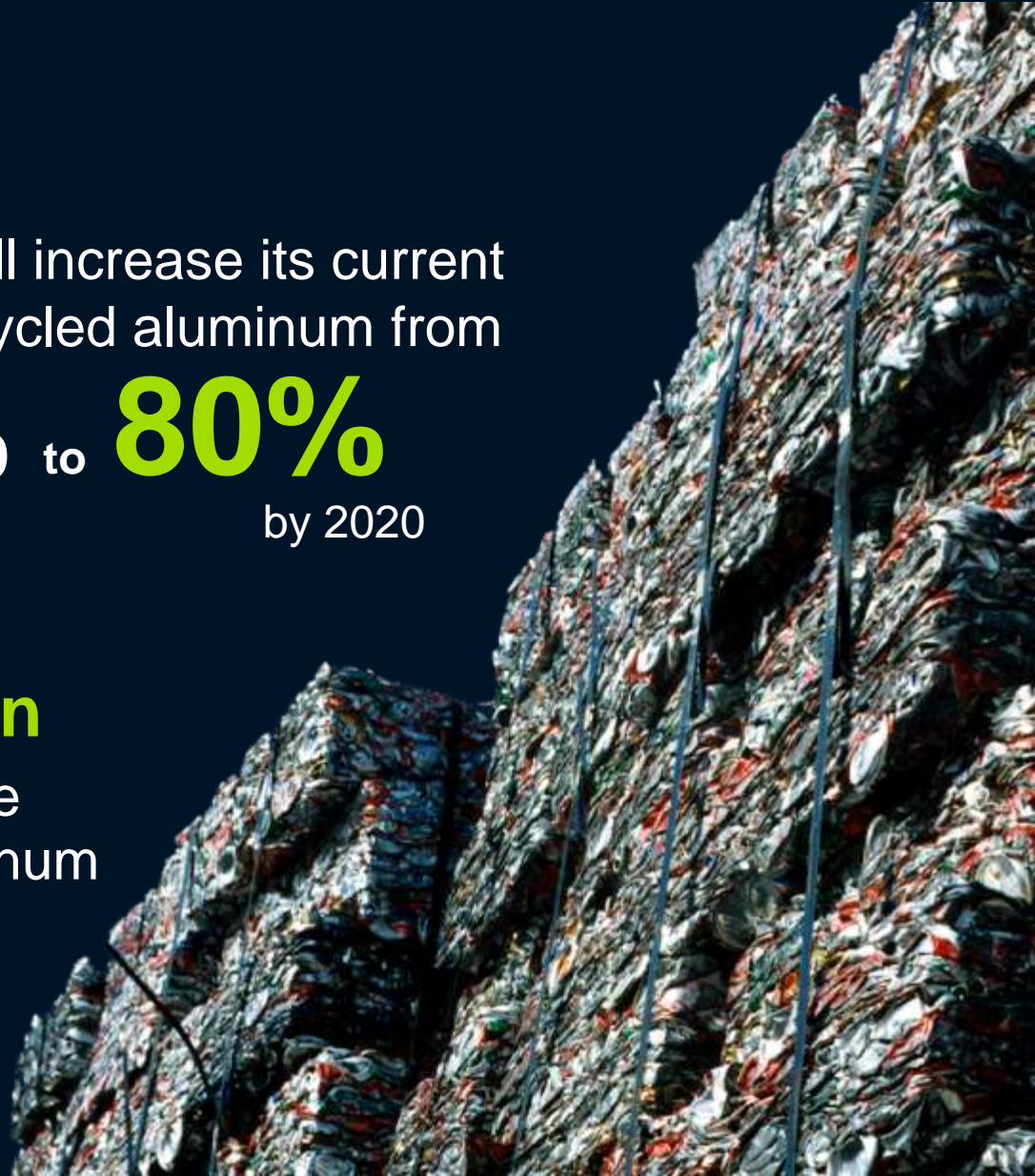


Novelis will increase its current use of recycled aluminum from

33% to **80%**

by 2020

This will remove **10 million metric tons** of greenhouse gas emissions from the aluminum product value chain annually.



Primary Aluminum & Waste



Aluminum is 3rd most abundant element
It is refined from the raw material
bauxite

Refining bauxite produces 2 tones of
“red mud” waste for every tone of
aluminum



This past year, Novelis recycling prevented the production of
2.5 million metric tones of red mud waste

Novelis Operations

Our Waste Profile

Landfilled Material By Type (%)



Many different waste products

Waste By Process Method (FY13)



We currently recycle 75% of our waste

Our Waste Challenges

- Increasing global footprint and growing recycling operations



- Increased volumes of waste

- More types and less clean scrap



- More impurities and thus more waste

- Unique waste profile, & new wastes coming with new processes



- Difficult to find end-use markets for our waste

Novelis Operations



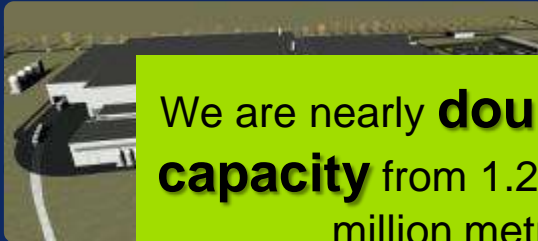
Our Actions

- Created a Global Environmental Waste network to share best practices & develop strategic plans to meet Zero Waste goal
- Using research & development to find solutions to both increase the efficiency of our processes and reduce waste
- Seeking markets & partners that can use our waste products as feedstock, such as the cement industry

As of FY14, Novelis had 4 plants that were zero waste

Building The World's Largest Aluminum Recycling System

NORTH AMERICA



Nachterstedt, Germany

EUROPE

Latchford, UK
Dachau, Germany
Pieve, Italy



Yeongju, Korea

We are nearly **doubling our recycling capacity** from 1.2 million metric tons to 2.1 million metric tons by 2015



ASIA

Yeongju, Korea
Ulsan, Korea

SOUTH AMERICA

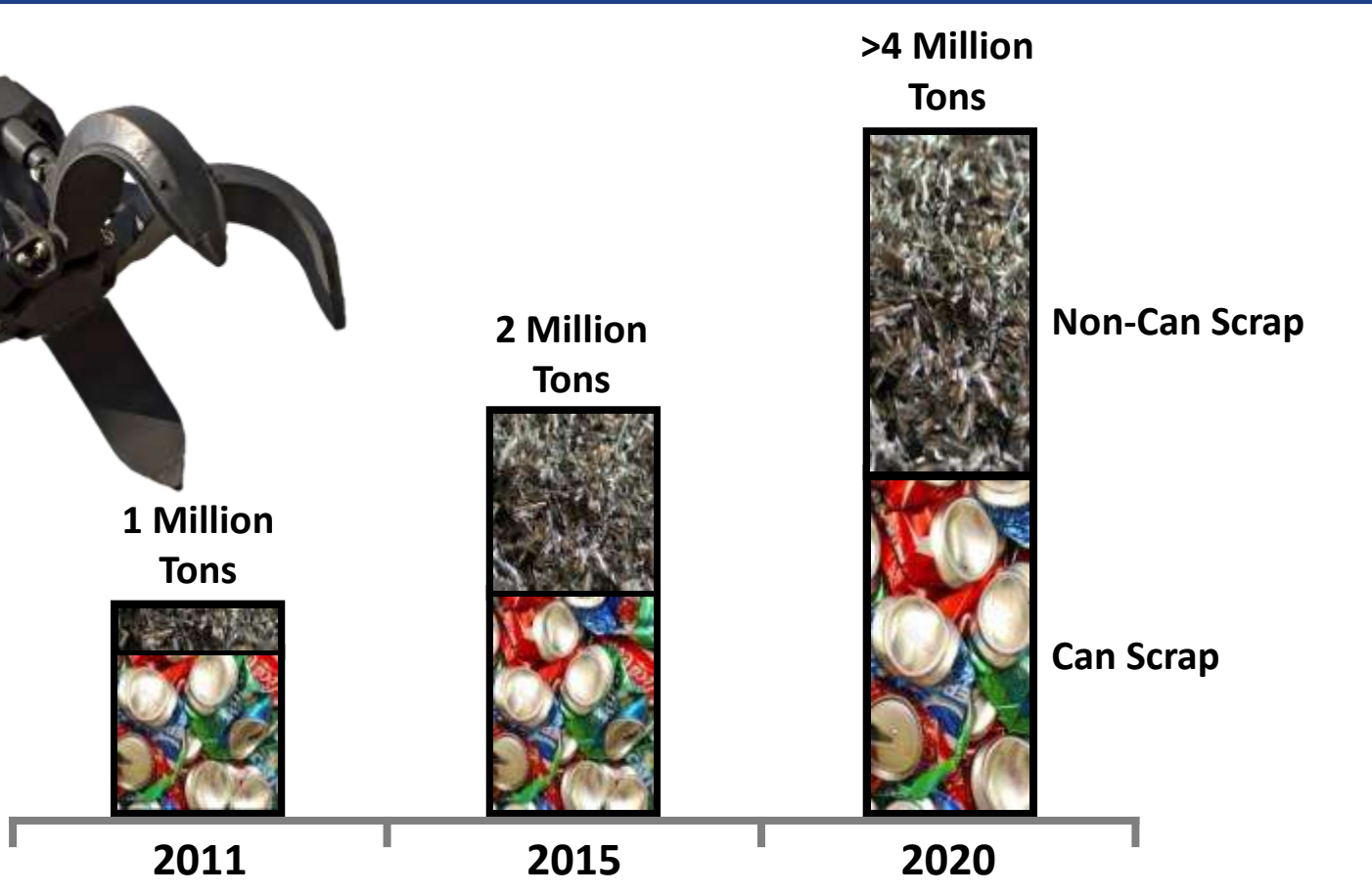
Pinda, Brazil



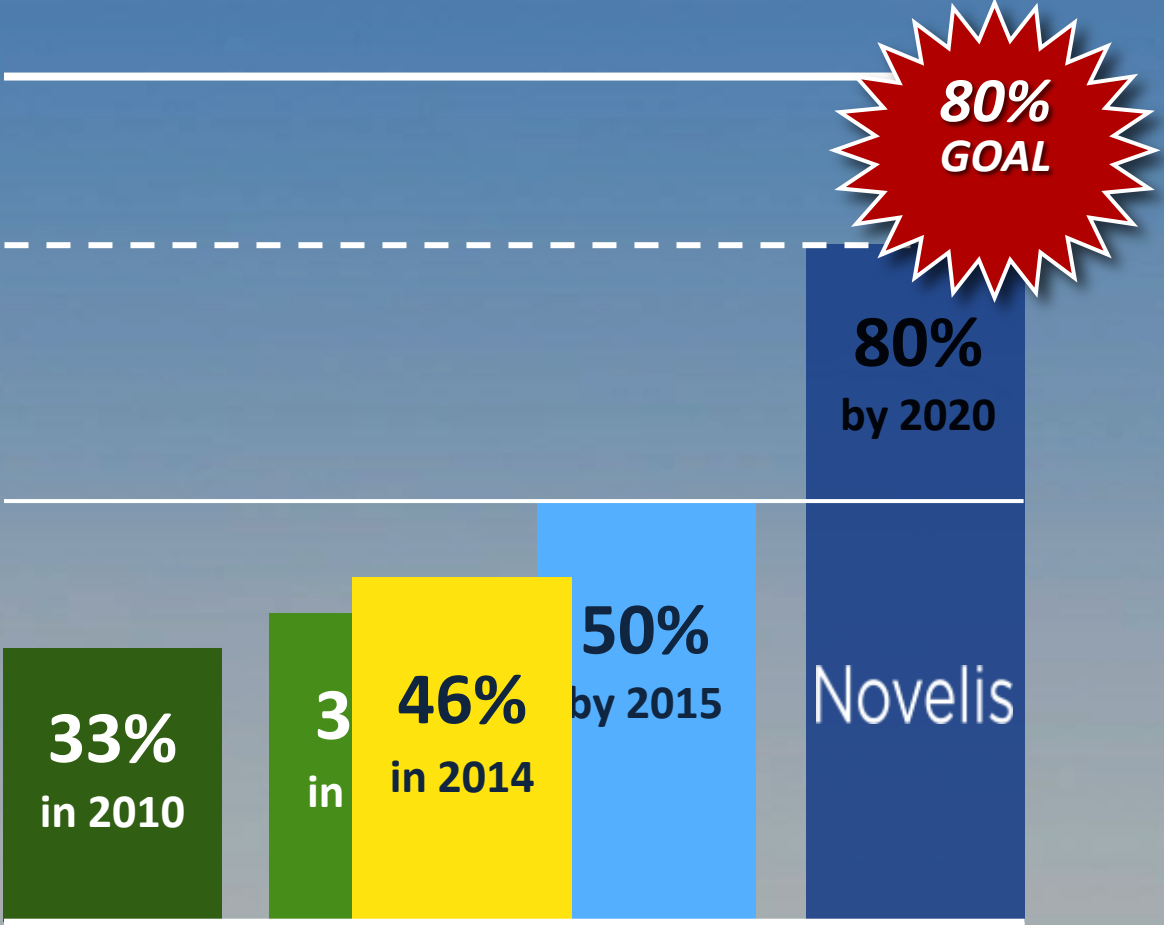
Pinda, Brazil

Not just aluminum, Novelis Aluminum.™

Growing & Diversifying our Scrap Inputs



So how is the 80% progressing?



Not just aluminum, Novelis Aluminum.

Working Closely With Our Customers On Next-Generation Products

Driving research and innovation to:

- find ways for products to be more sustainable, use more recycled content
- develop products that are more easily recycled recycling process technology



evercan™

New Standard of Sustainability for Beverage Packaging

We aim to change our “whole business model from a traditional linear one to a closed-loop one”.

- **World’s first independently certified high recycled content can body sheet**
- **Now commercially available in Asia, Europe, North America & South America**



Not just aluminum, Novelis Aluminum.

Novelis is a Catalyst for Sustainable Innovation



2014 Range Rover: 100% Novelis Aluminum

Weight Loss

700 lbs saved from Aluminum unibody and hang-ons

Performance

"...light-weighted Range Rover feels likewise transformed"



Economy

9% improvement in mpg while cutting 0 to 60 mph by one second

Awards

"...the cycle of burgeoning weight and engine power has ended"



Not just aluminum, Novelis Aluminum.™

Thank you for Recycling

Novelis

Not just aluminum, Novelis Aluminum.™