

## Letter from Our Chief Executive Officer

This is a summary of our 2013 Sustainability Report.

To read the full report, go to www.novelis.com/sustainability





In early 2011, Novelis laid out an ambitious vision aimed at strengthening the long-term competitiveness of our business through sustainability and innovation. Our intent was to transcend the incremental approach by radically transforming our company – and, in the process, lead the way in our industry. At the heart of this vision is our unprecedented goal to use 80% recycled aluminum in our products by 2020. When we achieve it, we will cut the embedded carbon in our products in half. Working toward this goal is requiring us to embrace an entirely new way of thinking and operating. We call it the ethos of disruption.

This new approach is driving changes in the way we source inputs, structure our supply chain, make capital investments, develop our products and engage with our customers. The scale of these changes is staggering, and we recognize that they present numerous challenges and risks for our company. Nonetheless, we are convinced they will ensure the long-term success of our business and enable us to offer more value to our customers and to society. In the long run, they are less risky than a business-as-usual approach.

What does this ethos of disruption look like in practice? In a word: evercan™. In 2013, Novelis introduced this first-of-its-kind, independently certified, high-recycled content aluminum beverage can sheet. The product is a packaging breakthrough. Nonetheless, evercan will not replace the traditional can overnight. There is still much work to be done to achieve our goal to bring to market the world's first up to 100% recycled beverage can − closing the loop for the can.



In the automotive sector, it's all about "lightweighting." We are positioning ourselves to meet dramatically increased demand for aluminum, driven by the need to lightweight vehicles to improve fuel efficiency. We are also working closely with our auto customers to close the loop with them by taking back their production scrap and, in the longer term, end-of-life scrap.

We are still in the early stages of our sustainability journey, with many hurdles yet to overcome, but our efforts are already beginning to bear fruit: By the end of FY13, we had achieved 43% recycled inputs, up from 33% two years earlier. We are proud of the progress we've made – and the path to 50% recycled inputs is clear. To be candid, however, achieving the remaining 30% is less clear. It will test the limits of our company and require us to move even more aggressively toward a closed-loop model across all of our operations and products. Our success will also depend on our ability to leverage the innovative capacity of our employees and enlist the efforts of our suppliers, customers and end consumers.

I am confident that by bringing our industry-leading research and technology capabilities to bear, we will find the disruptive innovations required to get there. And, I am more firmly convinced than ever that our commitment to sustainability will be the key value driver for our company going forward. In the 21st century, there is no business as usual.

Philip R. Martens

**Phil Martens**President and Chief Executive Officer

## Our Strategy

### Embedding Sustainability Across Our Business

Rising energy costs and carbon constraints – along with government regulations and consumer preferences – are all driving demand for Novelis' products. Lightweight, recyclable and versatile, aluminum is fast becoming

integral to a global, sustainable economic system. We are determined to both capitalize on and accelerate this potential. Indeed, we believe that sustainability will drive growth in our industry – and be a competitive advantage for our company.

Our sustainability strategy is designed to significantly reduce the life cycle impacts of aluminum products. The cornerstone is our goal to increase our use of recycled inputs to 80% by 2020. Equally critical is our focus on environmental stewardship and the other foundation elements of a sustainable enterprise: operating ethically, protecting the health and safety of our people, recruiting and developing our employees, and contributing to the communities where we operate.

We know achieving our ambitious vision will require forging the way into uncharted territory and overcoming numerous challenges. But we are firmly convinced it will be the key to our long-term success.

Sourcing



We aim to:

Reduce the embedded carbon in our products by increasing recycled content Reengineer and minimize risk within our supply chain



Increase recycling capacity: Invested close to \$500 million to increase our recycling capacity by approximately 75% by 2015. In FY13, we broke ground on what will be the world's largest aluminum recycling facility.

Expand scrap purchasing system: In July 2013, opened a new scrap collection network in Vietnam and established a new scrap procurement organization in North America.

Implement a responsible sourcing program:
Developed a Supplier Code of Conduct and, in FY13, launched the first phase of implementation.

Manufacturing



We aim to:

Maintain safe, efficient operations that minimiz natural resource use Ensure an adequate supply of talent Maintain our social license to operate



Implement best practices in sustainable manufacturing: Driving improvements and increasing consistency in environment, health and safety management. In FY13, we launched a new global safety program and created global committees focused on water and waste.

Develop world-class talent development programs: Continuing to expand and strengthen our training and development programs. In FY13, we graduated our first class of Engineering Development Program participants

Strengthen community programs: Formalized community engagement programs at all of our sites and held our first Novelis Month of Service.

Customers



Ne aim to:

Provide value to our customers, in particular by helping them meet their sustainability objectives



Evolve product design specifications: Working with our customers on product design to use more recycled content and increase recyclability. In FY13, we launched evercan<sup>TM</sup>, the first certified, high-recycled content aluminum sheet for beverage cans.

## Expand capacity to serve high-value, low-carbon markets:

Invested \$300 million globally to expand finishing capacity to serve the automotive industry. In FY13, we broke ground on our first automotive sheet manufacturing facility in China.

Close the loop with our customers: Establishing scrap take-back agreements with our customers.

Consumers



We aim to:

Increase our supply of post-consumer aluminum scrap

Help our customers make sustainable products that consumers want

How?

Promote recycling awareness and infrastructure: Supporting a broad range of consumer recycling education, awareness and policy initiatives to increase recycling rates, such as Every Can Counts and the Curbside Value Partnership, and helping to develop infrastructure, such as through our collection program in Brazil and our program recently launched in Vietnam.

## Reengineering Our Supply Chain

## By Increasing Recycled Content and Sourcing Responsibly

#### **Our 80% Recycled Inputs Target**

Recycled aluminum avoids 95% of the greenhouse gas (GHG) emissions associated with primary aluminum production. When we reach our recycled inputs target, we will cut our total absolute GHG emissions in half - even with greater sales. Increasing our use of recycled aluminum also helps ensure security of supply and, over the long term, reduces costs. At the most basic level, our recycling target is a sourcing issue. However, achieving it in practice will require taking steps at all stages of the product life cycle and reengineering our entire supply chain. It has implications for nearly every part of our business.

#### **Our New Supplier Code of Conduct**

In FY13. Novelis launched a new Supplier Code of Conduct that outlines expectations for our suppliers in the areas of legal compliance, labor and human rights, abolition of child labor, health and safety, environmental protection, and promotion of the Code within their own supply chains. The Code is based on externally accepted principles, including the United Nations Global Compact, of which Novelis is a signatory. While many suppliers already have policies and practices in place consistent with our Code, we nonetheless wanted to ensure all are aware of, and adhering to, Novelis' standards.

#### Figure 1 90% minimum recycled aluminum The Pillars of Our **Evolve** in first certified Recycling Strategy high-recycled Design content beverage Specifications can body sheet 73% **Increase Increase** 2020 target: **Post-Consumer** Recycling Recycling Capacity 75% increase 73% of our FY13: 43% in our recycling scrap inputs were capacity by 2015 made up of postconsumer recycled aluminum in FY13 **Expand Scrap** Reshape Our **Product** Purchasing 50% of our 80% of our **Portfolio System** scrap inputs will shipments in be from non-FY13 went to the can, automotive can scrap by 80% and high-end 2020 - up from 33% currently specialties markets

Our Key Aims

Reduce the embedded carbon in our products by increasing recycled content

Reengineer and minimize risk within our supply chain Our Key Challenges

Increasing recycling rates to ensure a sufficient supply of scrap

Developing the technology to collect, sort and process more varied and less clean kinds of scrap

### In Action...

### Closed-Loop Recycling in Vietnam

In July 2013, Novelis opened its first recycling center in Vietnam. Using a model similar to one we are using in Brazil and the U.K., the center enables us to increase the supply of used beverage cans (UBCs) we procure by connecting us with collectors at the "street level" rather than purchasing only from large dealers. The center processes UBCs that are sent to Novelis' new recycling facility in South Korea to be recycled and re-rolled into can sheet. An equivalent amount of sheet is then sent back to Vietnam to be remade into cans - creating a closed-loop system.



## Reducing Our Environmental Impacts

## Through Sustainable Manufacturing

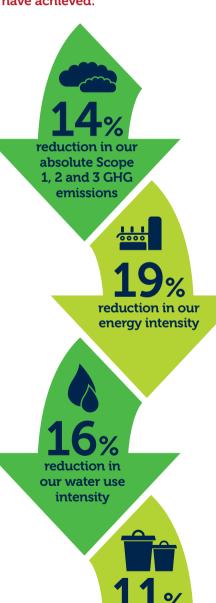
### Facilitating the Transition to a Low-Carbon Economy

At Novelis, we take the threat of climate change seriously, so we are taking a life cycle approach to GHG emissions rather than focusing only on our own operations. Specifically, we have a target to reduce absolute Scope 1, 2 and 3¹ emissions by 50% by 2020.

At the same time, we know that increasing our recycled aluminum inputs to 80% will *increase* our Scope 1 and 2 GHG emissions, due to the additional energy required to process aluminum scrap. Fortunately, using recycled – instead of primary – aluminum will significantly reduce Scope 3 emissions, thereby cutting the embedded carbon of aluminum products by 95%. And, we are also working hard to improve the energy efficiency of our manufacturing operations.

In addition to goals for GHG emissions and energy use, we have set targets for water use and waste to landfill. Progress toward our goals was mixed in FY13 (see back cover), but we have made good headway since our baseline (see at right).

Since our baseline (an average of FY07-09 performance) we have achieved:



absolute waste

sent to landfill

Scope 1 and 2 emissions are those that result from our own operations, either from burning fuels ourselves (Scope 1) or from our purchase of power (e.g., electricity) from other entities (Scope 2). Scope 3 emissions are those outside of Novelis' direct operations but within our products' life cycles, e.g., emissions related to our purchase of primary aluminum, which is made using energy-intensive processes, and emissions related to transportation to Novelis customers. Our Key
Aim
Minimize
natural

resource use

50%
GHG emissions reduction target

75% of our waste was recycled in FY13

by 2020

Our Key Challenges

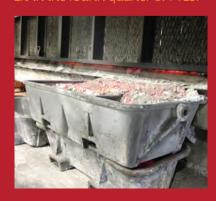
Driving energy efficiencies even as we expand our operations and evolve our product mix

Finding new ways to process the increased dross we will generate as our recycled content increases

#### In Action...

### Reducing Waste to Landfill in Pinda, Brazil

Many of our facilities have reduced their GHG emissions, energy use, water use and waste. In FY13, for example, our plant in Pinda, Brazil, shifted their business to third-party processors that recycle a higher percentage of dross, a major waste stream that results from processing recycled aluminum. (Note that we include dross-related waste sent to landfill by these external processors in our own waste data.) Through these and other efforts, the Pinda plant reduced waste to landfill from 13% in FY12 to 8% for all of FY13, with a further drop to less than 1% in the fourth guarter of FY13.



## **Engaging with Our Employees**

## And Giving Back to Our Communities

#### **Keeping Our People Safe**

Our first and most fundamental priority as a company is to protect the health and safety of our employees, contractors and visitors. We make every effort to keep our people safe, in part by "engineering out" safety hazards and implementing first-rate safety programs. Over the last few years, we have improved our recordable case rate (an aggregate measure of injuries, illnesses and fatalities), though we did not meet our internal target for FY13. Our goal for this metric is zero.

Very regrettably, during FY13 we did have one fatality, a Novelis contractor who died in a forklift accident. We are taking corrective action steps at all of our plants to help prevent these types of accidents in the future.

Figure 2
NIRS Recordable Case Rate



Complete performance data can be found at www.novelis.com/sustainability

#### **Novelis Neighbor**

All Novelis operating sites have community engagement and charitable investment initiatives in place, managed through a program we call Novelis Neighbor. Over the past two years, we have sought to better align our Novelis Neighbor strategy with our business and sustainability strategy. In so doing, we defined three areas of emphasis for the program: safety, math and science education, and recycling. In addition, we launched the Novelis Month of Service in October 2012. Our first Month of Service was a rousing success, with more than 1.600 employee volunteers from around the globe completing 54 projects. We estimate that these projects touched the lives of 55,000 people.

#### **Building Our Talent**

Developing a strong pool of talent is critical for Novelis' long-term success. To do this, we have overhauled our talent management function and now offer six leadership development programs, one of which is our Engineering Development Program (EDP). This two-year program tailored to engineering graduates and early-career engineers is a key part of our strategy to attract and develop the engineering talent that will be essential to our success. In FY13, we graduated our first class of EDP participants – 135 in total.

The EDP is designed to develop young engineers to become engineering leaders and to grow personally. Through this program, you create and maintain a global network with both your peers and Novelis leaders."

#### Kristen Fraczek,

Continuous Improvement Specialist, Oswego, NY, USA



Our Key Aims

Maintain safe, efficient operations

Ensure an adequate supply of talent

Maintain our social license to operate

Our Key Challenges

Reducing our safety case rate all the way to zero

Attracting enough qualified engineers to meet our needs

### In Action...

#### **Taking Teambuilding Literally**

In Germany in June 2013, more than 600 Novelis employees from across the globe participated in the Novelis World Cup, a friendly soccer and volleyball tournament that also raises funds for charity. The two-day event offered an opportunity for employees to get to know each other and work in teams outside of the normal work environment.

team (with players from several facilities) won the Soccer Premier League (pictured); the Norf II (Germany) team won the Soccer Fun League; and the Göttingen (Germany) team won the Volleyball League. In addition, the Novelis Asia team was recognized as the top fundraiser. All told, the event raised \$80,000 for 16 outstanding causes.



## Providing Value to Our Customers

## And Closing the Loop with Consumers

### Partnering with Our Customers for Sustainable Growth

Aluminum is lightweight, recyclable and versatile – making it a key tool for improving product sustainability in Novelis' core markets of beverage can, automotive, and high-end specialties. For example, we are partnering with our automotive customers to create the next generation of aluminum applications for lightweighting – accelerating the virtuous cycle of reduced weight enabling smaller engine size and better fuel efficiency.

And, we are collaborating with our customers across all our markets to evolve design specifications to improve the life cycle impacts of their products, including using more recycled content aluminum and making products that are more easily

to Landfill

recycled. We are also developing closed-loop arrangements in which Novelis buys back our customers' aluminum manufacturing scrap.

#### **Encouraging Consumers to Recycle**

We are working hard – in partnership with customers, municipalities and nonprofit organizations – to educate consumers about the importance of recycling and to improve recycling infrastructure, particularly in locales with lower recycling rates. In the U.S., for example, we help to fund the Curbside Value Partnership, a nonprofit that seeks to increase household participation in curbside recycling. And in the U.K., we co-sponsor a recycling awareness program called MetalMatters that has reached nearly 2 million households.

Minimize Figure 3 Primary Ingot evercan™ will help Aluminum Casting close the loop Inputs Recycling Rolling **Post-Production Scrap Take-Back** Collection Making Consumption Filling Retailing Minimize Waste

Our Key Aims

Provide value to our customers, in particular by helping them meet their sustainability objectives

Increase our supply of post-consumer aluminum scrap Our Key Challenges

Increasing post-consumer recycling rates

Developing new alloy compositions to increase recyclability

Working with customers to evolve sustainable product design

#### In Action...

### Reinventing the Aluminum Can with evercan<sup>TM</sup>

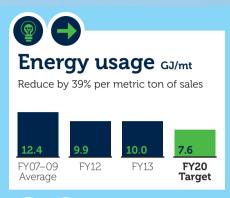
Novelis is determined to enable creation of a beverage can that can be made from up to 100% recycled aluminum. A typical can today has 54% recycled content, due to a two-alloy composition that limits the use of recycled aluminum, as well as a lack of sufficient can scrap supply. In 2013, we took a critical step with the launch of evercan<sup>TM</sup>, the first independently certified, high-recycled content aluminum sheet for the beverage can market. Novelis is initially offering body sheet guaranteed to contain at least 90% recycled content. When combined with the can end, it will enable beverage companies to market 12-ounce aluminum cans certified to contain at least 70% recycled content — a key first step to close the loop for the can.

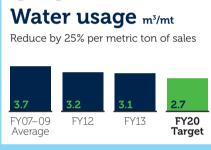
## **Performance** Summary

In 2011, we established a set of corporate-wide 2020 sustainability targets, using the average of fiscal years 2007–2009 as the baseline where relevant. The arrows in the graphics below represent our progress in FY13 compared to both our baseline and our FY12 performance.

















Community 100% of operations have implemented local community engagement process Code of Conduct Employee and supplier codes rolled out, process in place for noncompliance Key

# 10% of companies

K = thousand mt = metric tons M = million $m^3$  = cubic meters

#### Want to know more?

Visit the sustainability section of novelis.com to download our full 2013 Sustainability Report, which was prepared using Global Reporting Initiative guidelines at the 'A' application level:

www.novelis.com/sustainability

Please contact us with any ideas, feedback or questions.

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Image: The Blue Planet Aquarium in Copenhagen, Denmark, constructed using Novelis aluminum