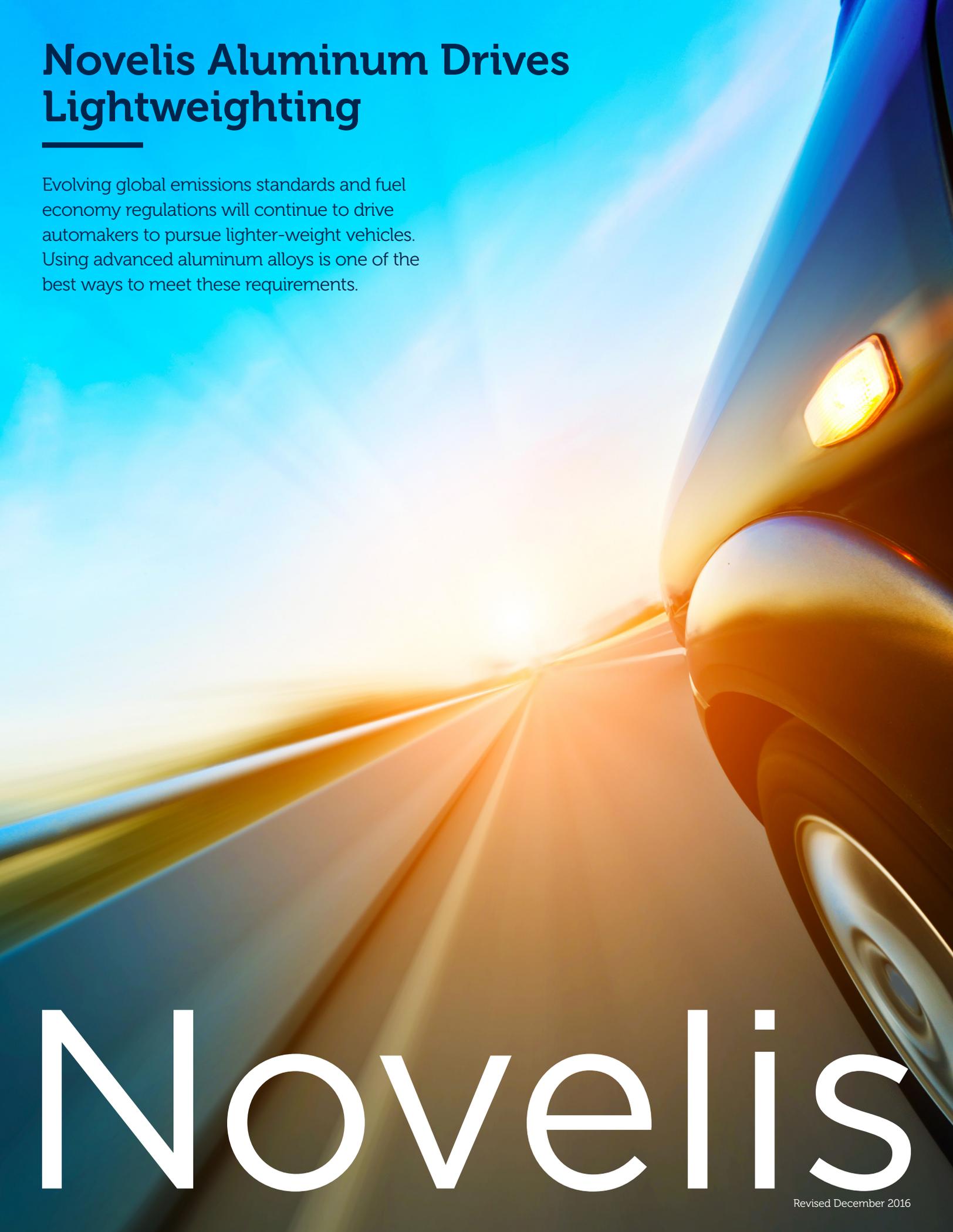


Novelis Aluminum Drives Lightweighting

Evolving global emissions standards and fuel economy regulations will continue to drive automakers to pursue lighter-weight vehicles. Using advanced aluminum alloys is one of the best ways to meet these requirements.



Novelis

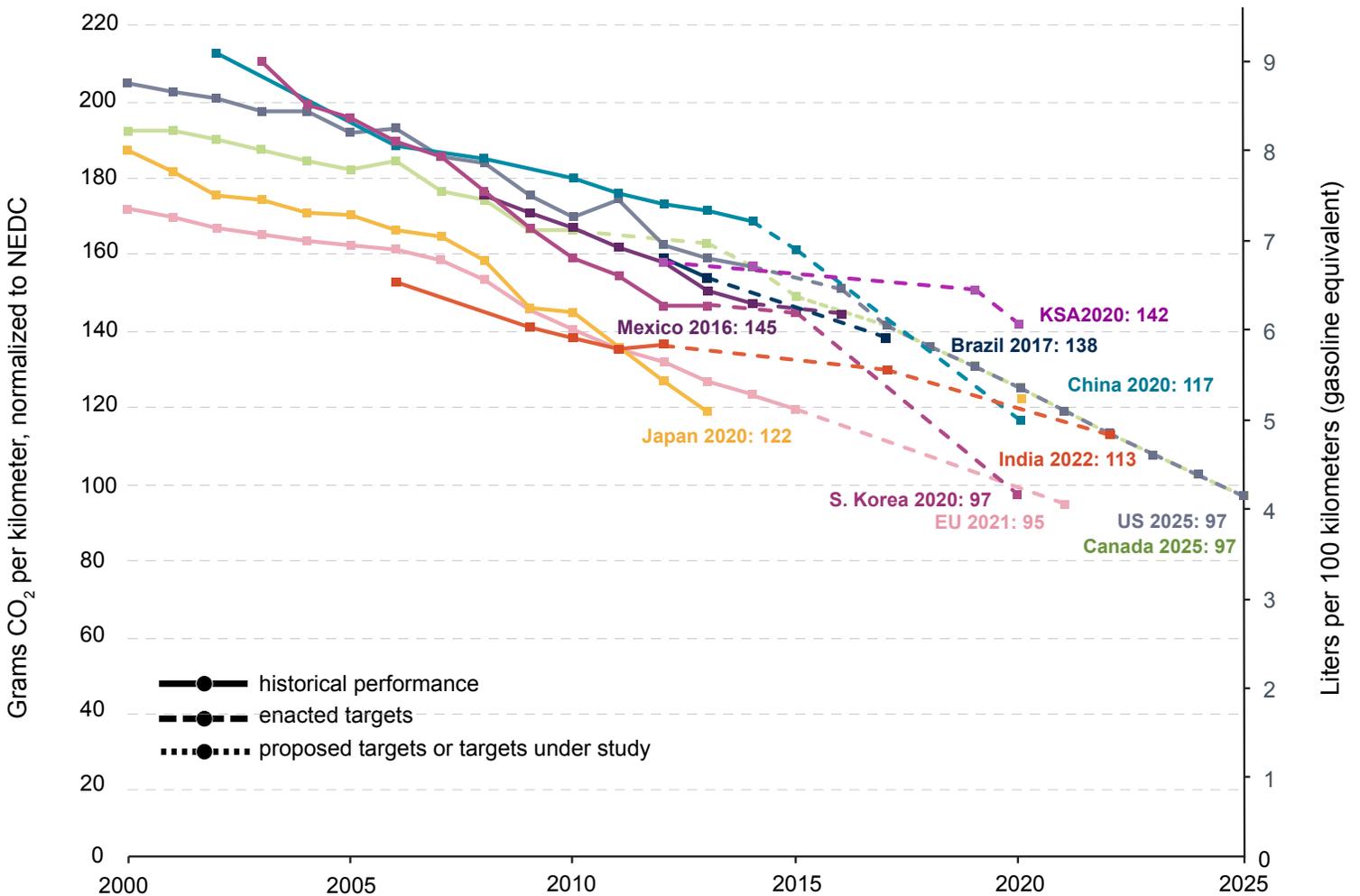
Revised December 2016

The Sustainable Choice

Using lightweight aluminum has been automakers' choice for more than a century. Given its unique ability to help meet stricter fuel efficiency and emissions standards, aluminum will continue to be a vital material for the auto industry in the years to come.

A new World Energy Council study reports that by 2020, one out of every six cars sold in the world will have to be electric in order to meet evolving emissions standards. Using Novelis aluminum to lightweight EVs allows them to run farther on a single charge. This helps ease concern about range anxiety, a primary barrier for customers considering an EV.

Passenger car CO₂ emissions and fuel consumption



*Note that Japan has already exceeded its 2020 statutory target, as of 2013.

Lightweighting Solutions

Integrating aluminum reduces the weight of a vehicle without compromising its safety and strength. Aluminum has a clear advantage in strength-to-weight ratio compared to other materials.

Lighter-weight vehicles deliver enhanced performance for vehicle owners and consistently meet fuel economy and emissions standards.

With an EV weight reduced by 20%, the car can go farther on a single charge. Novelis is working with top EV producers around the world to shed weight on their vehicles, which will help address range anxiety – the top customer purchase barrier.

**Ford
F-150**

The aluminum-intensive Ford F-150 is more than 700 pounds lighter than previous models and achieved the truck's first-ever 5-star safety rating from NHTSA.

JLR

Novelis' aluminum reduced weight on Jaguar Land Rover's Range Rover and Range Rover Sport models by more than 400 kg.

Hyundai

Hyundai chose a combination of Novelis aluminum and advanced high-strength steel for its Ioniq all-electric, hybrid and plug-in models, giving the vehicles an extremely light and rigid body structure.

Using 100 kg of aluminum in a car reduces CO₂ emissions by up to eight grams per kilometer traveled.

Contact Novelis

Novelis Global Automotive

novelis.com/automotive

automotive@novelis.com



novelis.com

Not just aluminum, Novelis Aluminum.™

