



# Game Changers

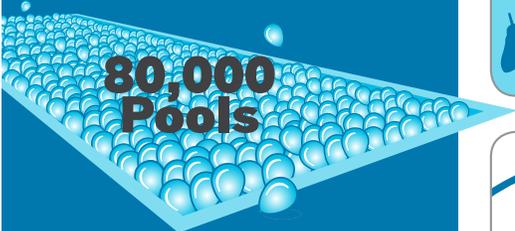
## Measuring the Challenge and Making a Difference



### How much is a ton of CO<sub>2</sub>?



A single balloon 10 meters in diameter, filled with CO<sub>2</sub>, weighs one ton



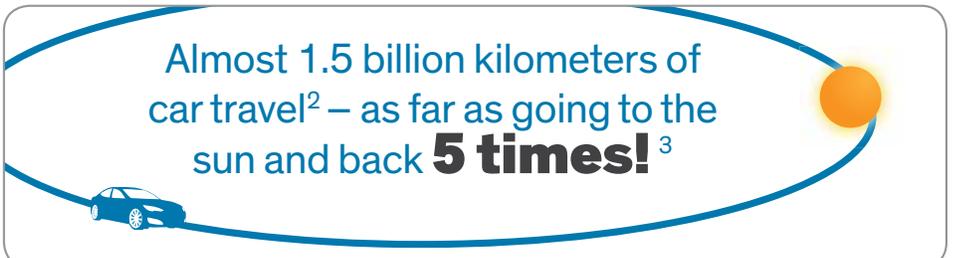
360,000 metric tons of CO<sub>2</sub> would inflate enough party balloons to fill 80,000 Olympic sized swimming pools

Chemistry is part of everything that surrounds us, from soap to plastic, from food to building materials. Using the right chemistry solutions can help reduce our environmental impact.

The same is true for the Olympic Games. Dow, as the Official Carbon Partner of the Sochi 2014 Olympic Winter Games, is helping out by providing solutions to help the XXII Olympic Winter Games and XI Paralympic Winter Games of 2014 in the city of Sochi (the Games) have a minimal impact on the environment.

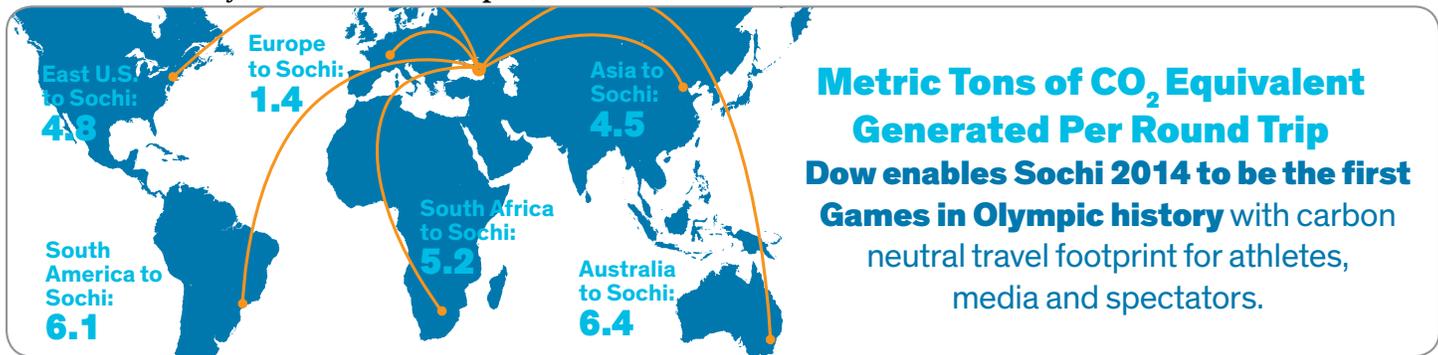
The direct carbon footprint of the Games\* – about 360,000 metric tons of CO<sub>2</sub> emissions – is being mitigated through the implementation of energy-efficient and low carbon technologies throughout Russia.

### What else can generate 360,000 tons of CO<sub>2</sub> emissions?



\*Includes emissions associated with the travel and accommodation of athletes, staff and volunteers, as well as the operation of the sports venues during the Games, and the Sochi 2014 Organizing Committee's activities from 2007 when Russia received the right to host the Games, until the Paralympic Games' Closing Ceremony

**Emissions Caused by Travel to Sochi Add Up<sup>2</sup>**



**Metric Tons of CO<sub>2</sub> Equivalent Generated Per Round Trip**  
**Dow enables Sochi 2014 to be the first Games in Olympic history** with carbon neutral travel footprint for athletes, media and spectators.

**We're Doing Something About Emissions**

**Challenge:** 6 percent of Russian greenhouse emissions are generated in agriculture, mostly due to soil erosion<sup>4</sup>

**Solution:** Implemented sustainable farming practices along with using corn, sunflower and canola seeds from Dow Seeds

**Challenge:** By implementing energy efficient measures in building and construction sectors, Russia has the potential to cut emissions by 205 million metric tons of CO<sub>2</sub> equivalents by 2030<sup>4</sup>

**Solution:** 100,000 cans of one-component foam distributed during an awareness campaign can help reduce the carbon footprint by about 300,000 metric tons of CO<sub>2</sub> equivalents over 10 years<sup>5</sup>

**Challenge:** Address the fact that buildings account for 36 percent of energy use and 30 percent of greenhouse gas emissions in Russia<sup>4</sup>

**Solution:** Dow expanded application of carbon fiber-based composites to offer a more sustainable alternative for renovation and new infrastructure projects in Russia

<sup>1</sup> Based on data from the World Bank (2009)  
<sup>2</sup> Based on data from US EPA  
<sup>3</sup> Based on data from NASA  
<sup>4</sup> Based on data from McKinsey  
<sup>5</sup> Based on survey conducted by Dow

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