



## Transforming Science Education: The *Transforma* Program in Brazil



### Objective

Disseminate science and sustainability concepts through the lens of sport and Olympic and Paralympic values, reaching more than 7 million people in Brazil

### Challenge

Strengthen science education in Brazil by offering engaging and compelling scientific content

### Solution

Leverage Rio 2016's *Transforma* education platform to expand sports-inspired education in Brazil, while promoting Olympic and Paralympic values among educators and students

Education is a core component of the Olympic Games in the modern era, and implementing an educational program is a commitment made by all host cities to ensure the event's social legacy. To fulfill this pledge, the Organizing Committee for the Rio 2016 Olympic and Paralympic Games has developed *Transforma*, an educational program designed to disseminate Olympic and Paralympic values and introduce students to sports beyond Brazil's "big four": football, basketball, volleyball and handball.

Since the program launched in 2013, *Transforma* has reached more than 15,000 schools in over 2,500 cities across all 27 Brazilian states, benefiting more than 7 million students. *Transforma* offers free tutorials and training for educators as well as curricula and materials, sports training, school challenges, easy-to-follow

instructions on sports-related science experiments, and content for classrooms.

Dow, the Official Chemistry Company of the Olympic Games and Official Carbon Partner of Rio 2016, has become the premier corporate partner of *Transforma*. In that role, Dow has provided programming and content focused on science and sports, benefiting all educators and students participating in the program. Through the Company's support, *Transforma* has expanded to seven new cities, training educators in more than 420 schools and reaching more than 181,000 students through diverse activities. These cities, in which Dow has offices and manufacturing operations, include: Guarujá, Jacareí, Pindamonhangaba, Franco da Rocha, Jundiaí (in the State of São Paulo), Salvador and Candeias (in the State of Bahia).

In addition, Dow has introduced nine digital classes with lessons in physics, chemistry, biology and environmental studies. These classes are taught through the lens of the Olympic Games to inspire and motivate future generations of scientists across Brazil.

To broaden the implementation of *Transforma*, Dow and Rio 2016 provided on-site training and activities to teachers, physical education instructors and tutors. These efforts are supported by town councils, as well as by state and municipal secretaries of education and sports, within the seven cities where Dow operates.

**Delivering Tangible Results**

As the Official Carbon Partner of the first Olympic Games in South America, Dow has committed to delivering third-party-verified primary climate benefits of 500,000 tons of CO<sub>2</sub>e by 2026 to address the owned emissions of the Organizing Committee. Together, we are using the Olympic Games as an opportunity to implement energy-efficient and low-carbon technologies across major sectors of the Brazilian economy, demonstrating the power of innovation to reduce carbon emissions.

Working with NatureBank as our carbon consultant, we developed the Dow Climate Solutions Framework, quantified the emission reductions associated with our projects and demonstrated how

these emission reductions are beyond business as usual. NatureBank specializes in advisory, technology and project investment services with a primary focus on carbon.

We selected Environmental Resources Management (ERM) to provide third-party validation of the Project Plans against the Dow Climate Solutions Framework and verify GHG emission reductions. In addition, ERM conducts an assessment of forecasted generation of climate benefits based on verified evidences.

**Leaving a Lasting Legacy**

Through a comprehensive portfolio of solutions and our deep heritage and relationships in the region, we are working with customers in food packaging, construction, agriculture and industrial processes to increase awareness and adoption of energy-efficient and low-carbon technologies. Ultimately, the portfolio is designed to impact key sectors in Brazil and Latin America and will enable industries to do more with less, switch to lower-carbon energy sources and conserve energy through efficient solutions. These projects push beyond normal operations to

achieve more innovation, overcome real or perceived barriers and catalyze long-term change in market practices.

**Commitment to the Future**

Dow and Rio 2016 are also collaborating to enable an additional 1.5 million tons of CO<sub>2</sub>e in climate benefits to compensate for emissions beyond the direct control and influence of the Organizing Committee, such as those caused by travel, lodging and other activities.

To broaden awareness of climate change and related issues, we are also partnering

with Rio 2016 through the *Transforma* program to reach more than 7 million students in Brazil with science, technology, engineering and math (STEM) curricula in 2016. This program uses the Games to demonstrate the applicability and relevance of the sciences, and as an opportunity to teach sustainable practices that students can use in their everyday lives.

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**To Learn More**

Go to [dow.com/carbonmitigation](http://dow.com/carbonmitigation) to learn more about Dow's carbon mitigation program with the Rio 2016 Organizing Committee and to view its results.

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