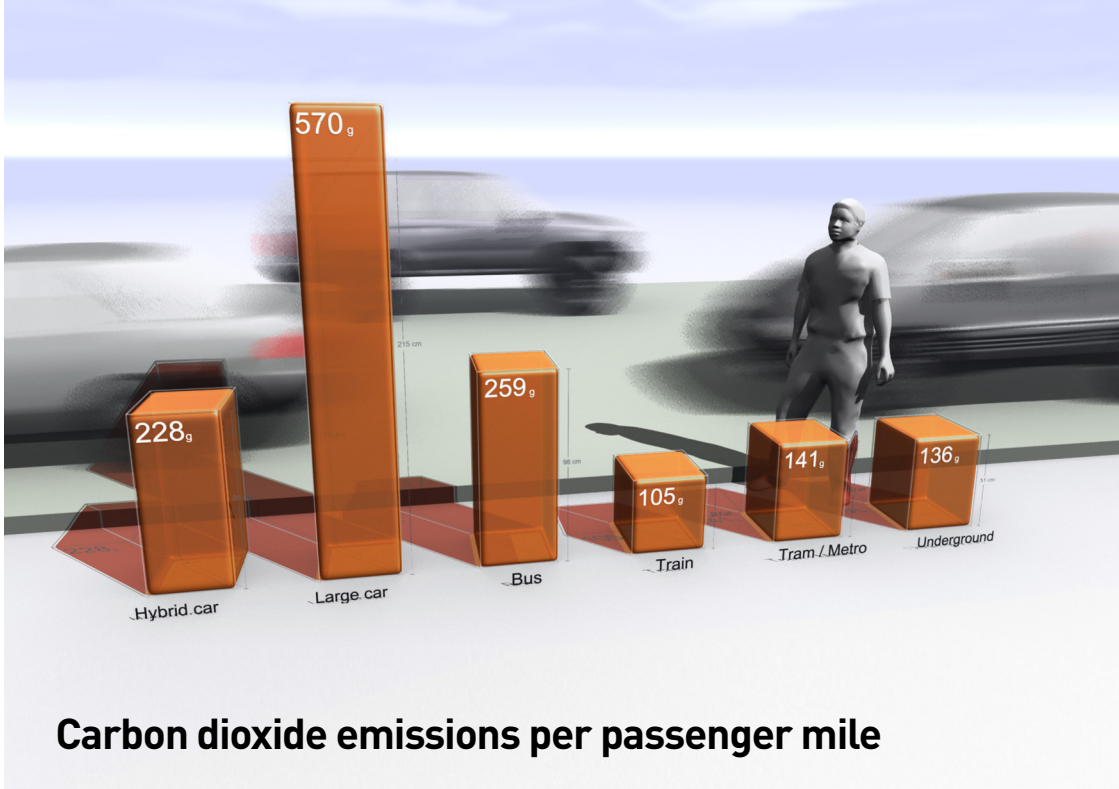


See the invisible



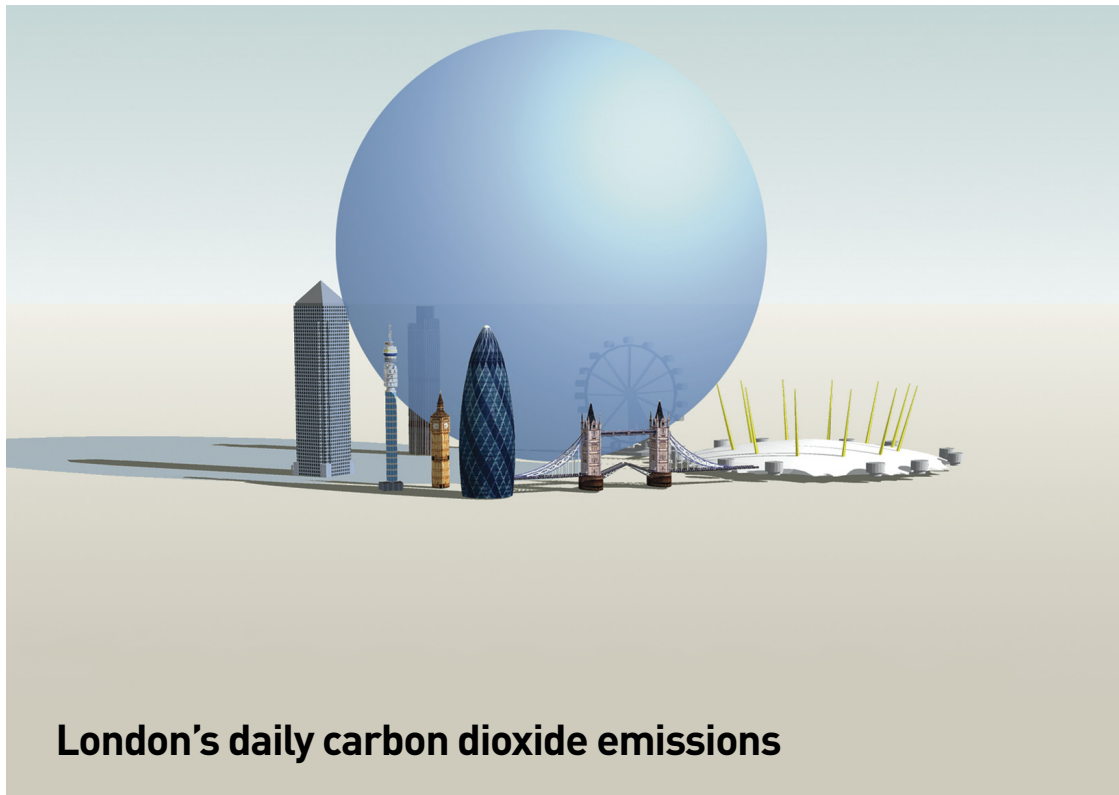
New York's daily PM 2.5
Particle pollution from building heating systems is an invisible killer in New York City, responsible for more deaths than guns. To show the scale of the problem, and engage building owners we showed the volume of air that is saturated every day to the legal limit by each of 8,000 buildings.



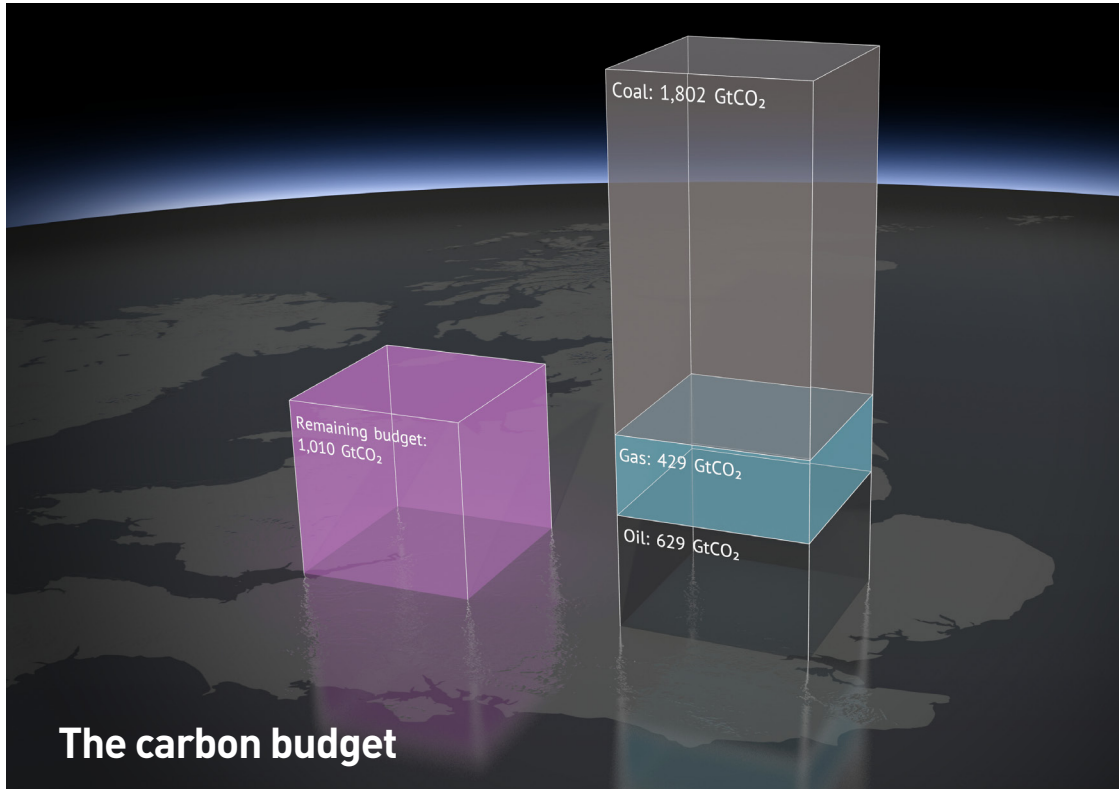
Carbon dioxide emissions per passenger mile
Actual volume of greenhouse gas emissions per passenger mile for different forms of transport, expressed in terms of CO₂(e) – carbon dioxide equivalent. (Figures for cars relate to the whole car rather than each passenger.)



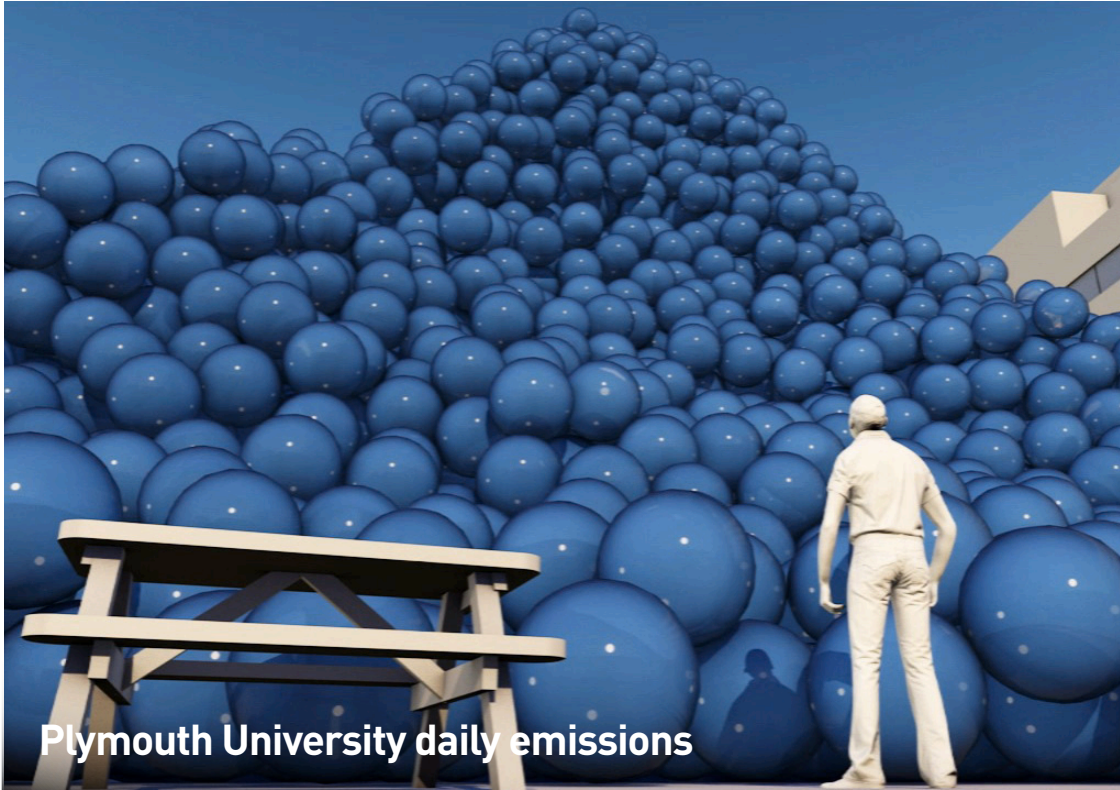
All the air in the atmosphere
All the air in the atmosphere (5,140 trillion tonnes) gathered into a sphere at sea-level density. This would measure 2,002 km across.



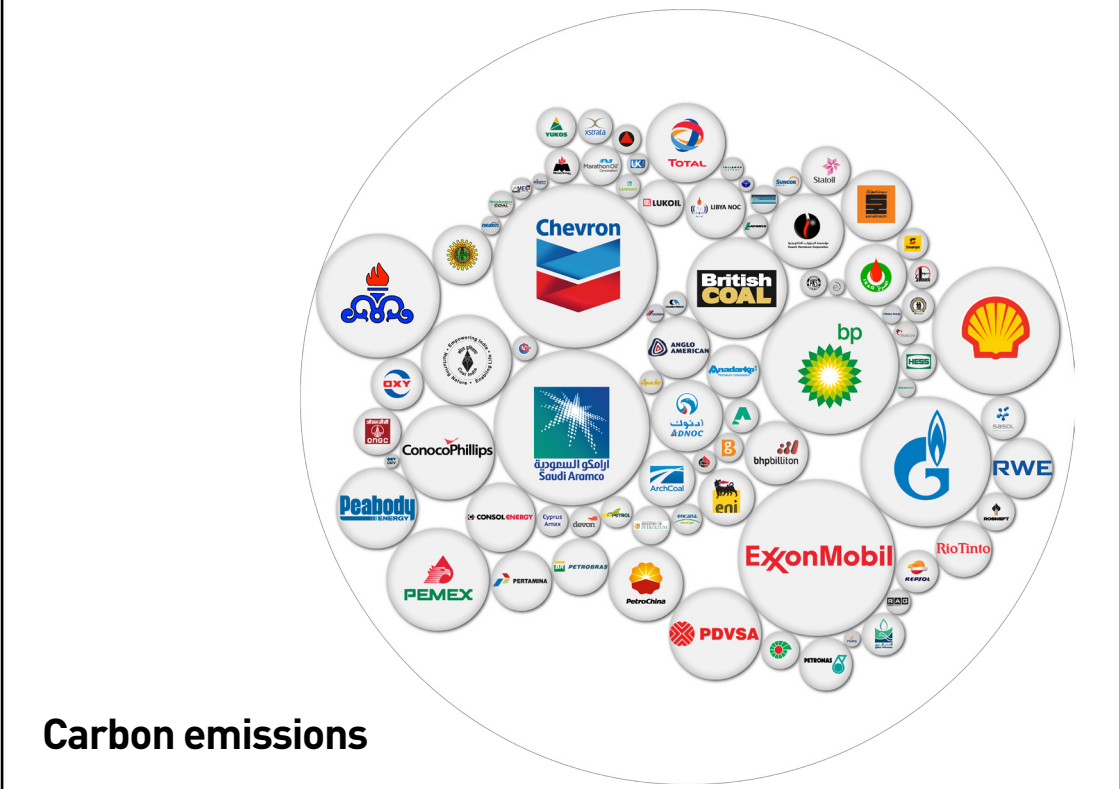
London's daily carbon dioxide emissions
139 thousand tonnes of carbon dioxide would fill a 521 m sphere.



The carbon budget
The pink cube is the actual volume of carbon dioxide gas we can emit and still have a chance of keeping global warming below 2 °C. It is 81 km high (51 miles). The other volumes are the emissions from the proven reserves of fossil fuels (according to Global Energy Outlook).



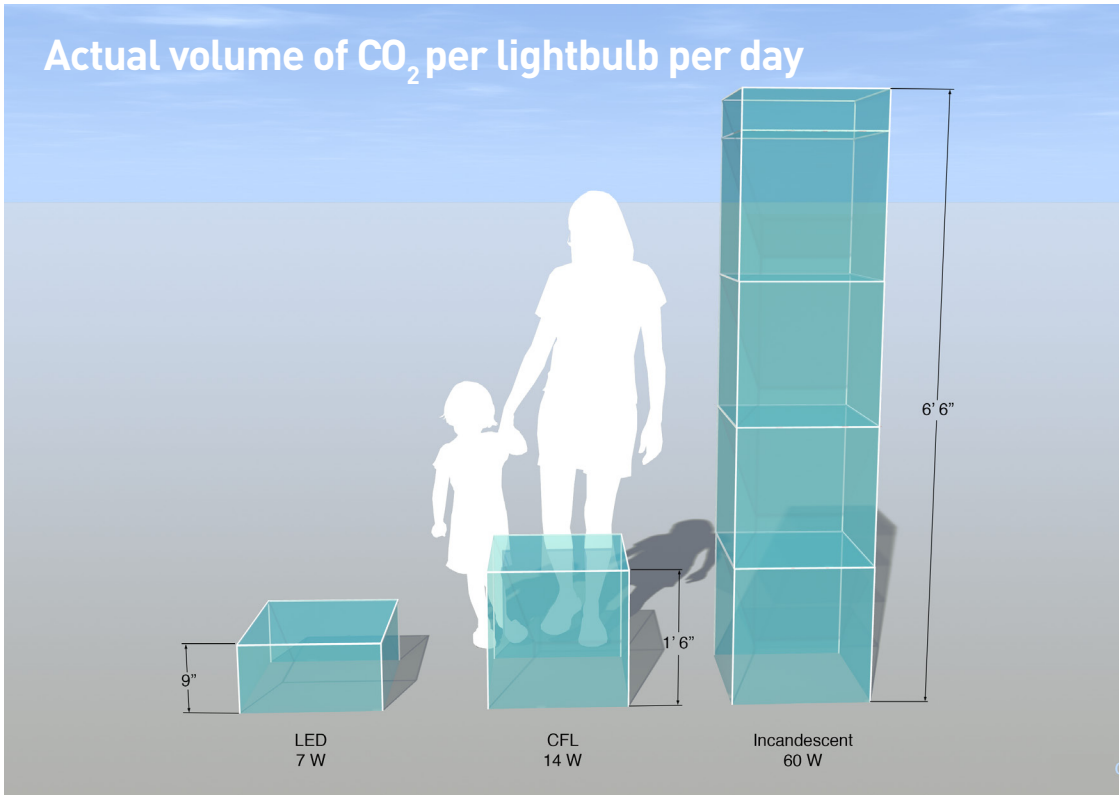
Plymouth University daily emissions
A visualisation of Plymouth University's daily carbon dioxide emissions (30 tonnes) represented as 1 kg spheres.



Carbon emissions
The Carbon Majors project attributes greenhouse gas emissions not to end-users but to producers of fossil fuels. 42% of all emissions between 1750 and 2010 are attributable to just 50 Investor-owned companies and 31 state-owned companies. The diagram shows their relative contributions. Chevron alone accounts for 3.52%.

Carbon Visuals is dedicated to helping everyone on the planet make more sense of the invisible. Images, films, animations and interactive web tools provide a fresh and visual communications approach.

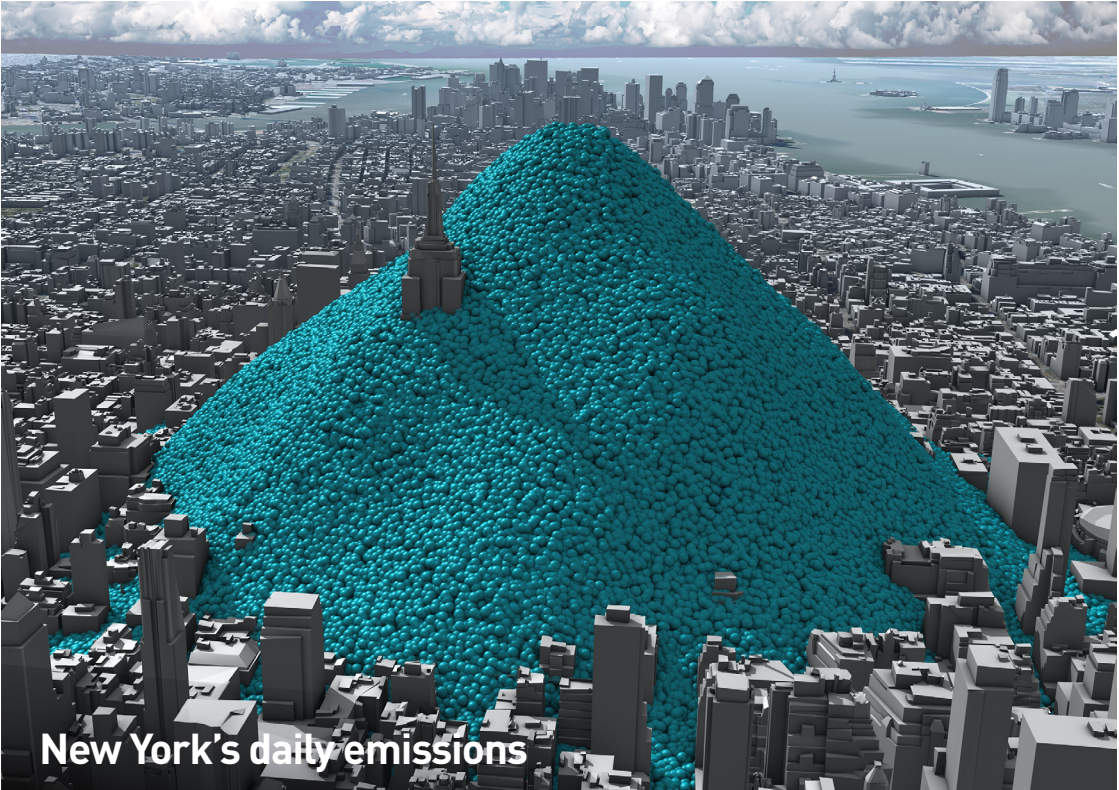
Our core expertise is in creating scientifically accurate volumetric images that help the audience make sense of the data. We call this ‘concrete visualisation’ – an approach to data visualisation that provides quantitative insight physically rather than purely numerically or geometrically.



Actual volume of CO₂ per lightbulb per day
Actual volume of carbon dioxide emissions from powering lightbulbs of equivalent brightness.



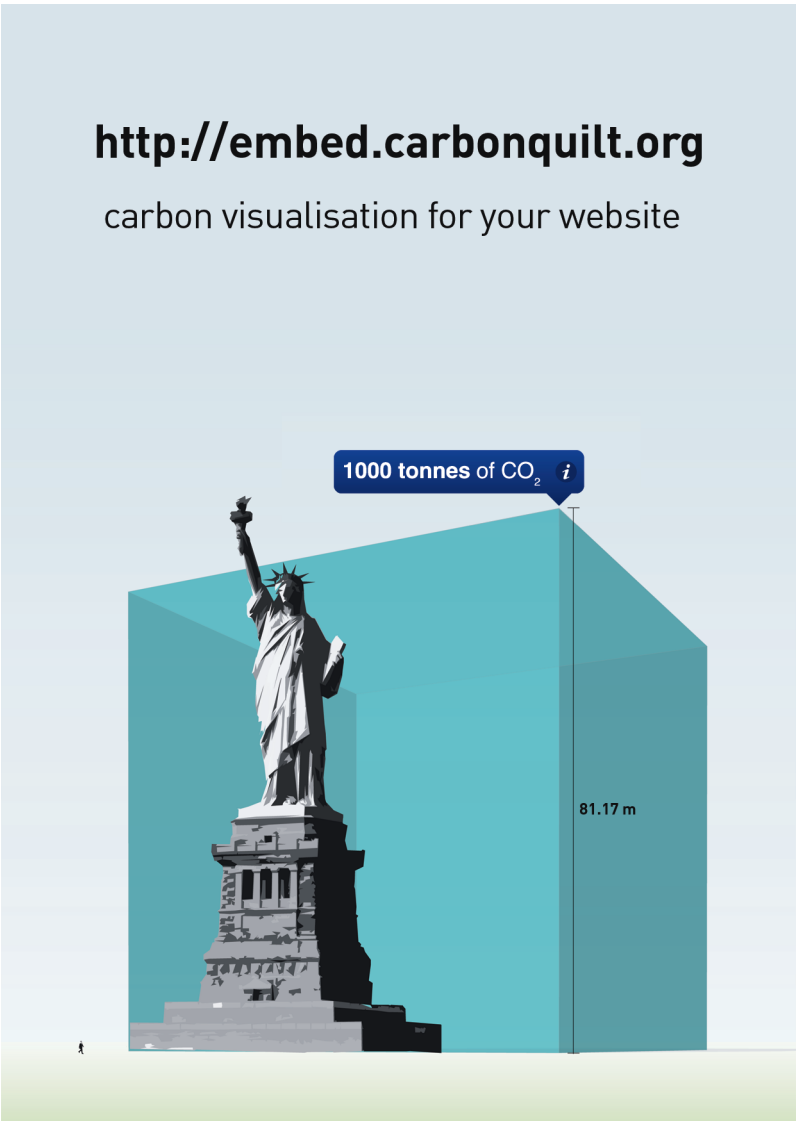
CO₂ in every room
The air in any small room with dimensions 5.4 x 5.4 x 2.7 metres (17.5 x 17.5 x 9 feet) contains 9.4 litres (2.5 gallons) of man-made carbon dioxide. Some of that gas – equal to the volume of a soda can – is attributable to Chevron.



New York's daily emissions
In 2010 New York City added 54 million tonnes of carbon dioxide to the atmosphere. That's nearly 2 tonnes a second or, as shown here, 149,903 tonnes a day. At standard pressure and 15 °C, one tonne of carbon dioxide gas would fill a 10 metre sphere.



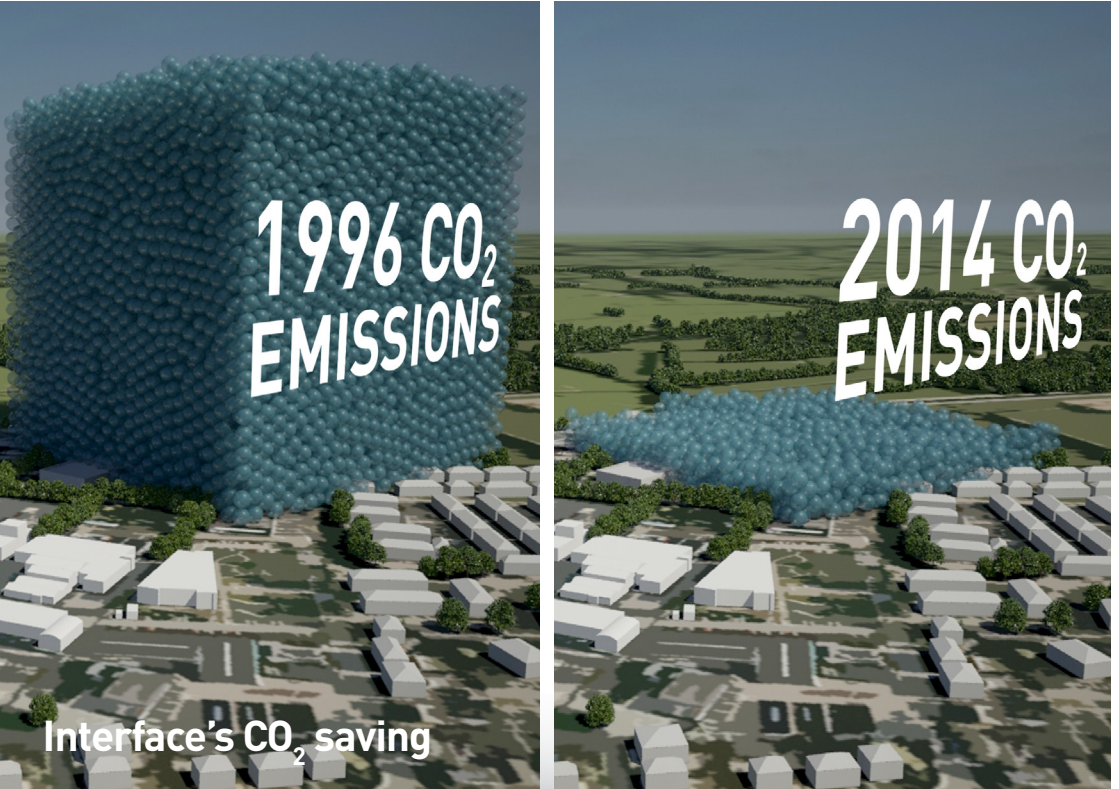
Paignton Zoo's CO₂ saving
The energy efficient design of the Coati House in Paignton Zoo saves up to 3.7kg of carbon dioxide every hour, 88.5 kg every day. This image is used in a display in the Coati House that explains the positive impact building design can have.



The Carbon Visuals widget allows users to embed custom visualisations of any carbon footprint in their own web pages and blogs: embed.carbonquilt.org



Visualising Australia's daily emissions
Australia's prime minister Tony Abbott famously dismissed carbon dioxide as an "invisible substance" so for his convenience, we have selected a view from his official residence in Sydney to make Australia's daily greenhouse gas emissions visible. The cube is 926 metres high.



Interface's CO₂ saving
Interface is a manufacturer of carpets and a pioneer of sustainable production techniques. In one factory in the Netherlands, the company has reduced emissions by 90%. Before and after are shown here as one-tonne spheres of carbon dioxide gas.