Sustainability on a Smarter Planet
Something profound is happening

**INSTRUMENTED**
Measure, sense and see the exact condition of practically everything in near real-time.

**INTERCONNECTED**
People, buildings, processes, cities, systems are now interacting in entirely new ways.

**INTELLIGENT**
Harness information to make optimal decisions based on historical trends and predicted events.
Enterprise sustainability requires an end-to-end focus

INTEGRATED ENERGY MANAGEMENT
Monitor and actively manage energy use across all assets, shift power, move workloads out of the data center, etc.

ENERGY & GRID
Aggressively participate in demand response systems; anticipate power shortages; sell excess energy capacity back to the grid

TRAFFIC & PUBLIC WORKS
Understand traffic & public works to maximize employee productivity and routing of vehicles to minimize fuel consumption and delays

WEATHER
Anticipate and be aware of current and future weather conditions; heating & cooling requirements; targeted truck rolls

RESOURCES OPTIMIZATION
Maximize real estate portfolio and assets based on anticipated use
IBM is working with organizations worldwide to leverage Technology Innovation, Business Analytics & Optimization, and Deep Industry Insight.
In order to build **sustainable**

**Infrastructure**
Lower cost, increase efficiency/utilization & reduce environmental impact of assets

**Operations**
Optimize for energy, carbon, water & waste across all aspects of the business & value chain

**Systems**
Gather, synthesize & apply information to change the way entire industries/societies operate
This systems approach requires a rich ecosystem of partners.
## To deliver substantive results

**UK’s Defra**
Used statistical modeling to determine energy usage and calculate CO₂ reductions.

Plans to decrease carbon emissions by more than 2,000 metric tons of CO₂ per year, and cut ICT energy costs by more than 30 percent—roughly US$500,000 in operational savings annually.

**COSCO**
Consolidating distribution centers to reduce emissions by 15% and fuel costs by 25%.

After analyzing its operations across product development, sourcing, production, warehousing and distribution, the Chinese shipping giant consolidated its distribution centers from 100 to 40 to prevent 100,000 tons of emissions each year.

**Singapore**
Lowering congestion and carbon emissions by influencing traffic patterns on a city scale.

Developing one of the world’s most sophisticated, smart transportation systems leveraging road pricing; integrated fare management; and deep analytics to predict and avoid traffic congestion up to an hour in advance with 85% accuracy.
www.ibm.com/smarterplanet/sustainability