

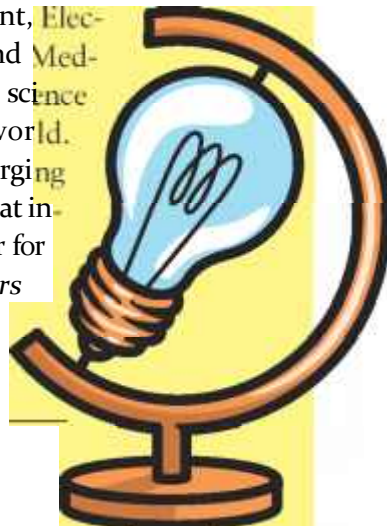
INNOVATION

# World Changing Ideas

**20** ways to build a  
cleaner, healthier,  
smarter world

What would happen if solar panels were free? What if it were possible to know everything about the world—not the Internet, but the living, physical world—in real time? What if doctors could forecast a disease years before it strikes? This is the promise of the World Changing Idea: a vision so simple yet so ambitious that its full impact is impossible to predict. *Scientific American's* editorial and advisory boards have chosen projects in five general categories—Energy, Transportation, Environment, Electronics and Robotics, and Health and Medicine—that highlight the power of science and technology to improve the world. Some are in use now; others are emerging from the lab. But all of them show that innovation is the most promising elixir for what ails us.

—The Editors



## WIND POWER FROM THE STRATOSPHERE

According to a Stanford University study released in July, the high-altitude winds that constantly blow tens of thousands of feet above the earth hold enough energy to supply all of human civilization 100 times over. California's Sky WindPower has proposed harvesting this energy by building fleets of giant, airborne, ground-tethered windmills (*below*), while Italy's Kite Gen proposes to accomplish the same feat using kites.

