

# Biggest opportunity of our age

**T**he importance of the agreement reached at the Paris climate Conference of Parties (COP21) last month cannot be overstated. It is a major step toward preventing some of the worst risks that climate change presents to the global economy and security. Now is the time to seize the opportunity that this moment represents. We must transform world economies away from fossil fuels toward a more sustainable low-carbon future.

Research and innovation have a critical role in this transformation. Advances in renewable energy generation, smart energy storage, smart grids, and improved energy efficiency will help countries meet the targets they have signed up to in Paris for reducing greenhouse gas emissions. But crucially, these advances will enable countries to increase their emission reduction targets, which are set to be reviewed every 5 years under the United Nations Framework Convention on Climate Change system. Indeed, nations must increase their targets if we are to achieve a safe and stable climate in which temperature rise is limited to less than 2°C. The Paris agreement sets out a distinct long-term goal of net zero emissions in the second half of the century, showing that the world is committed to decarbonizing the economy. This sends a strong signal to industry and investors that the shift is global, irreversible, and transformational, and provides confidence that will clear a path for the private sector to drive a long-term solution.

Many companies are considering signing up to 100% renewable energy pledges. The dynamic has changed—previously, the cost-benefit analysis was more finely balanced; now, it is a higher-risk strategy not to invest in renewable energy and sustainability.

There is already more investment in renewable energy globally than there is in conventional energy. This trend is expected to increase to meet the enormous new demand resulting from the Paris agreement. Although there is currently a shortage of good investable green projects, an increase in finance to meet the new demands for clean energy will create more business opportunities for such projects, such as cheap and large rechargeable batteries and solar- and battery-powered airships for transport.

“Mission Innovation,” the initiative announced in Paris, will see 20 countries, including the United Kingdom and the United States, double their public sector budgets for clean energy research and development. In addition, the Breakthrough Energy Coalition, a global group of private investors including Bill Gates, will provide investment flows of potentially \$20 billion in its early stages, for the most promising new clean energy technologies that can be streamlined into the marketplace.

Backed by the U.S. and UK governments, the Energy Africa initiative aims to ensure that every home in Africa has clean, afford-

able energy by 2030. A huge challenge, indeed, but renewable clean energy is already growing faster in many developing nations than it is in richer countries because it makes economic sense and is the right choice for environmental and health reasons, too.

So the direction is set: decarbonization. The target: to reduce greenhouse gas emissions fast enough to prevent the worst impacts of climate change from hitting all of us, particularly the world's poorest and most vulnerable. The opportunity: immense. The question that remains: What part are you going to play?

— Sir David King



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