

It's been an amazing 12 months in the world of sustainable business. From climate change to inequality, the scope of humanity's biggest environmental and social challenges came into much sharper focus this year — as did the scale and range of opportunities to do something about them. And citizens, using new social media tools and old-fashioned marches, rose up to drive change. Both in response and pre-emptively, the world's leading companies continued to aggressively pivot their businesses toward more sustainable and innovative ways of operating.

To make sense of all of this activity, I made a list of the year's big themes, looking for the bigger story across multiple examples. But I also ran across a few specific company stories that were just really compelling or cool. So here is my admittedly subjective look at the top 10 sustainability stories and themes of the year, with sustainability broadly defined as encompassing people, planet, and profits:

#### 1. The bad news — climate change is now.

The subtitle of this year's summary could be “reports, reports, reports,” with important and fascinating (no, really) studies from economists, government agencies, scientific bodies, and business coalitions — all making a compelling case for action on climate change.

Over the last two years, the Intergovernmental Panel on Climate Change issued its fifth, multi-thousand-page assessment of global climate science. But some new, more layman-friendly voices are telling the science story and explaining how costly to business a hotter world already is. The American Association for the Advancement of Science (AAAS) issued the clearest document from scientists I've ever seen, a pithy report telling us that “What We Know” is the following: (1) “Climate change is happening here and now,” (2) the risks of irreversible, highly damaging impacts are high, and (3) the sooner we act, the lower the cost. Another report, the U.S. National Climate Assessment, led with the statement that climate change “has moved firmly into the present.”

Adding a business perspective, a group of heavy hitters, including billionaire Michael Bloomberg and former U.S. Treasury Secretaries Hank Paulson and Robert Rubin, issued the persuasive Risky Business Report. This short paper outlines how climate is “already costing local economies billions” and describes how hundreds of billions of property are at risk.

#### 2. The good news — tackling climate change is getting much cheaper.

Two impressive pieces of analysis made the case that moving to a clean economy is profitable — both for society and for the private sector. At the macroeconomic level, the New Climate Economy report (issued

by a group of CEOs, leading economists, and former country presidents) challenged the persistent, but incorrect, view that we have to choose between expanding prosperity for billions of people and protecting our shared asset base (that is, Earth and its climate). A key point: in a world that will spend \$90 trillion on infrastructure over the next 15 years anyway, the additional costs to shift that build-out to a low-carbon path, with technologies we already have, will be minimal.

Second, a new coalition representing many of the world's largest companies launched in September under the name We Mean Business and issued its own powerful study, offering substantial evidence of the direct business value of investing in low-carbon tech and energy efficiency.

But company coalitions aren't just issuing reports — they're making promises in line with the rapidly improving economics of renewable energy (which utilities can now obtain in many regions at prices below fossil fuels). An offshoot of We Mean Business, the RE100 group — which launched with founding members including Philips, Nestle, Mars, Swiss Re, and IKEA — committed to using 100 percent renewable power. Unilever U.S. also committed to 100 percent renewables by 2020 (Disclosure: I'm on advisory boards for both RE100 and for Unilever U.S.). A deep shift in how we generate and use power has begun.

3. The utility and energy businesses are changing fundamentally (well, some of them are).

It's hard out there if you're a utility. Distributed generation (meaning solar panels on my roof) is a direct threat to the business models of the large power plants that utilities know best. And investors are noticing: in May, Barclays bank downgraded the bonds of the entire U.S. utility sector. Seeing the writing on the wall, German utility E.On is spinning off its fossil fuel-burning assets and choosing to focus on renewables. In the U.S., the utility NRG — which gets the vast majority of its power from fossil fuels — set some remarkable public goals, committing to cut carbon emissions by 50% by 2030 and 90% by 2050.

But the old guard of the energy business made it clear that they aren't planning to change. Exxon (and Shell) issued statements to answer concerns about their assets and reserves becoming worthless or "stranded" as the world moves away from fossil fuels. Exxon's memo in particular is a thing of twisted beauty, daring the world to regulate the company and saying to investors, in essence, "nothing to worry about here, move along." But the Bank of England begs to differ, saying that the "vast majority of reserves are unburnable."

4. Serious legislation like a carbon tax — even in the U.S. — is seeming possible again.

The NGO Ceres has gotten an impressive array of companies to sign onto the Climate Declaration, which states that climate change is both a threat and a major economic opportunity. But this year, a smaller Ceres group, BICEP, which is calling for more aggressive policies like a tax on carbon, added some very mainstream companies such as General Mills, Kellogg's, and Nestle (perhaps not coincidentally, General Mills announced early this year that its earnings were reduced by extreme weather).

BICEP was joined in its call to price carbon by the institutional investors, 1,000 companies, and 70 countries that signed the World Bank Price on Carbon, and even by Goldman alum and Republican Hank Paulson, who penned a surprising op-ed comparing climate change to a financial bubble. Adding to the momentum, Google publicly cut ties with climate-change-denying lobbying group ALEC, saying that the organization was lying about the science.

Regulatory and executive branch actions also made waves this year, especially in the U.S. and China. President Obama's EPA issued new rules on carbon and coal and new ozone pollution regulations. And China took serious action, setting a cap on coal emissions by 2020, which will help it reach the goals of the carbon agreement with the U.S. (a pact that's not good enough to match what science tells us, but monumental just the same).

5. A powerful social movement on climate takes shape.

My family and I joined hundreds of thousands of people at the climate march in New York City in September. We were little cogs in a 162-country, 2,600-event public cry for global action. While the march was too anti-business to be as unifying a rallying cry as it should've been, it still signaled a major societal shift.

Another arm of this growing social movement, led by 350.org, has been the campaign to divest university and institutional funds from the fossil fuel industry. This campaign got a major symbolic boost when the Rockefeller Brothers Foundation — which can trace its money back to the original oil titan John D. Rockefeller — said it would divest from fossil fuels.

6. Strategy and mission start to gain the upper hand on short-termism.

In one of the most fascinating corporate moves in years, the big drugstore chain CVS renamed itself CVS Health and removed tobacco from its shelves. A few others, like Target, had done it years earlier, but the intensity of the shift to put health and well-being at the center of the company's strategy made it an important story. And it's a fantastic example of what I call a Big Pivot. Giving up \$2 billion in annual sales because it doesn't fit your strategy and mission of improving people's health — a core part of the "people" arm of the people/planet/profit sustainability model — is something most short-term investors would ridicule. So in this quarterly-earnings-obsessed world, it's a brave and unusual move. And it's also good business.

In another move to fight immediate pressure, Apple's CEO Tim Cook told anti-environment investors to get out of the stock if they didn't like the company's green and/or longer-term investments (all of which are in fact profitable). In his pushback, Cook made a larger point about not being a slave to ROI. These companies are taking a broader view of a company's purpose and focus.

#### 7. Rivals embrace radical collaboration.

In the wonky, trendy vocabulary of working together, "collaboration" isn't exciting enough without the now-hot modifier of "pre-competitive" (meaning: stuff fierce rivals can do collectively that doesn't diminish their ability to compete). Walmart and Target demonstrated how this works by convening a Personal Care Products Sustainability Summit. All the major players in the personal care product value chain — the giants of consumer products, chemicals, and fragrances — were there (as was I). The general topic was how this group could reduce the physical and chemical impacts of all those gels and liquids we use on our bodies, and the group will continue to work together and convene to tackle thorny issues in the value chain.

Other great joint efforts this year included a business/government pledge to eliminate deforestation by 2030, the Natural Capital Business Hub, and the new Closed Loop Fund. The latter is a \$100 million pool of money invested by Goldman Sachs, J&J, Pepsi, P&G, Unilever, Walmart and others to expand waste handling and recycling infrastructure.

#### 8. The absurd amount of food we waste gets more attention.

The food and agriculture system takes up 40% of the world's land and produces at least 30% of greenhouse gas emissions. That might not be so bad if we used it all, but the UN's Food and Agriculture Organization estimates that we waste 1.3 billion tons of edible food at a cost of \$750 billion annually. Throwing out 30-40% of our food clearly has serious impacts, and is a problem across the value chain — from the farm to our refrigerators and garbage cans.

To help address this challenge, the French supermarket chain Intermarche developed an incredibly clever campaign to sell the "ugly" fruits and vegetables that growers and stores throw out because they don't look perfect. Offering these unloved items in juices or as-is for 30% off has been a big winner for the company. This kind of innovation around food waste is part of the larger discussion going on in many sectors, from apparel to electronics and metals, about how we can build a more circular economy with zero waste.

#### 9. A teenager pressures Cola-Cola and Pepsi – and wins.

There are many reasons companies might rethink their product formulations. But when both Coca-Cola and Pepsi decided to remove brominated vegetable oil (which contains bromine, also used in flame retardants) from their drinks, the New York Times gave much of the credit to Sarah Kavanagh, a teenager from Mississippi. Starting when she was 15 years old, Sarah used change.org over a couple of years to gather a quarter million signatures pressuring the drink giants to eliminate the controversial ingredient.

New levels of transparency — What's in this? Who made it and how? — combined with the tools to do something with the information, are changing business profoundly. Citizens can use the exponentially rising levels of connectivity not just to share rides or rooms, but also to share information and demand change. It seems that social media has outgrown its “look at me and my selfie” babyhood phase and is now growing some teeth.

#### 10. The fight against inequality finds new business allies.

In January of 1914, Henry Ford doubled the daily wage of his workers. Yes, he was facing labor strife, but the strategy was also about creating a thriving middle class filled with people who could afford to buy his cars. A century later, Gap Inc. raised wages to \$9 an hour (and they'll be \$10 in 2015), and in June IKEA lifted its minimum wage by 17%. These leaders joined others like Whole Foods, Costco, Ben & Jerry's, and QuickTrip that are not waiting for legislators to ensure that workers earn a living wage.

And here's what to watch out for in 2015:

Political winds shifting. Will the change in power from the US midterm elections affect the sustainable business momentum, or the quest to tackle climate change? My gut says it won't matter too much. The forces driving change are too powerful and with all the filibustering and gridlock, Congress wasn't helping much anyway.

Business, taxes, and society. This year, a cover story in Fortune magazine called out companies that avoid taxes through financial schemes like “inversions” (the process of magically making themselves foreign companies). Will naming-and-shaming about paying a fair portion of shared infrastructure continue?

Systems thinking and the merging of issues. More companies are seeing the connections in everything. The intersection of food, energy, and water should continue to command attention (even with oil prices plummeting late in 2014).

Financing the clean economy. As the Economist said this year about the fast-growing green bonds market, sometimes “a market appears out of nowhere.” Will 2015 be a boom year for finding new ways to bring capital to clean energy?

Tough choices. I believe more companies will be challenged about how committed to fighting climate change they really are, and what they’re willing to do to make the pivot toward the clean economy. Companies as diverse as GE and Edelman faced some hard questions about their deep ties to the fossil fuel industry this year (ok, some of those questions were from me).

But as journalist Marc Gunther suggested, channeling folk singer Pete Seeger, the right question to ask companies about climate change (and, I’d argue, the role of business in society in general) might be, “Which side are you on?”