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Understanding global mega-trends is crucial. We live in times of multiple, evolving and mutually-reinforcing shifts. These dynamics, of geopolitical, demographic, climatic, technological, social and economic nature, enhance threats and opportunities on an unprecedented scale. Globalization and technological progress fostered extraordinary economic growth and created conditions for unparalleled reduction of extreme poverty and generalized improvement of living standards. But their unbalanced nature led to high income concentration and extreme inequality, and made exclusion even more intolerable. Exclusion, competition over dwindling resources and shortcomings in governance undermine social cohesion and institutional robustness, further contributing to the eruption of violent conflicts.

In addition to traditional threats to international peace and security, the nature of conflict is changing, with a multiplicity of armed actors, many employing asymmetric methods. Terrorism, international organized crime and illicit trafficking pose real threats. Devastating epidemics loom persistently on the horizon. Climate change affects economies and peoples, their lands, oceans and seas. More and more States are turning to the oceans as a source of economic and social development, while realizing that their resources have to be developed in a sustainable manner.

Against this background, the UN faces new challenges in ensuring peace and security, promoting sustainable development, protecting human rights and delivering humanitarian aid. The UN is uniquely placed to connect the dots to overcome these challenges. To succeed, it must further strengthen the nexus between peace and security, sustainable development and human rights policies – a holistic approach to the mutually-reinforcing linkages between its three pillars.

The 2015 landmark agreements on sustainable development, notably the Agenda 2030, the Paris Climate Agreement and the Addis Ababa Action Agenda layout a clear strategy for action. They represent a unique opportunity that must be seized. Achieving these important goals has direct implications for peace and the realization of human needs and fundamental rights. For many it means survival.

Now that we know what, we must work on how. With clear priorities, tangible benchmarks and the power to mobilize all stakeholders, promoting national ownership and ensuring no one is left behind. The reform and fine tuning of the UN Development System should be pursued to deliver full support to member States. With the horizon of 2030 the focus is on action and the watchword is implementation, implementation, implementation.
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Vaisala
In the opening essay, Elmer Lenzen, publisher of the Global Compact International Yearbook, takes a critical look at the relationship between democracy and globalization. For decades this combination was a formula for success. Now both are experiencing troubled times. Georg Kell and Larry Diamond, who are well-known figures in this field, explain some of the reasons why in a profound interview. One reason is that today’s world is becoming more fragmented. So how can sustainability work in these times? It can work if we focus on the needs of the present without compromising the abilities of the future, says Global Compact Action Platform fellow Richard Roberts, and by utilizing the advantages of tomorrow. But doing the right thing in critical times is also a question of attitude. The entrepreneur Richard Branson and the actor Colin Firth both show in their own ways that sustainability means authenticity.
More and more young people in Great Britain and the United States are expecting less of their futures. So says a study by British economist Noreena Hertz, who calls the successors of Generation Y not Z, as we might suspect, but K: K for Katniss Everdeen, from The Hunger Games novels and films. Hertz has argued in interviews that life in Panem reflects essential aspects of the reality these young people are experiencing.

The historian and journalist John F. Jungclaussen has written on this as well: "Katniss Everdeen lives in a world that has gone off the rails and is unjust at its core. Generation K experiences reality in a similar way, and this has something to do with the global economy. From the euro crisis to the American election campaign, Generation K sees poverty and social inequality as the norm." In fact, many people — not
just the kids of Generation K — are experiencing the world now as a period of great insecurity. Old certainties and social partnerships between state, society, and economy are disappearing. The dramatic effect: Democracy as a value is becoming blurred. Only half of young Europeans regard democracy as the best form of government, according to a recent YouGov study. Young people see Europe as a mere economic area and not as a community of values with common cultural threads.

It has not always been this way.

When Francis Fukuyama proclaimed the end of history with the collapse of the Eastern Bloc in 1989, he struck a nerve: free markets, open societies, no ideological competition — these were the rules that would move our world for years and would become known as “globalization.”

A quarter-century after Fukuyama, we look with apprehension at the situation in many countries. Around the world, this dull throb of nationalism and populism has begun thudding. It is almost like a pendulum swinging back, a countermove following the auspicious opening of the world and its markets in 1989. It has no control and no purpose. But we can recognize common patterns.

**Stress test for democracy**

Has the promise of participation in the free markets really been kept, or does the same group of people keep winning? What about the promise of a free society? Some people feel overwhelmed by so much freedom. Never has the longing been greater for authoritarian leaders who say what's what.

Not too long ago, the aggressiveness with which populists are appearing would have been regarded with a certain equanimity: the last gasp of the uneducated, the atavism of an eternal yesterday. But there is no reason for equanimity. Parliamentary elections today are also a vote on populism, democracy, and globalization.

Populism must be categorized. It is not the cause of the current crisis, but a symptom: The trigger is more akin to a kind of recession of democracy. Bad government creates self-service mentalities, what Stanford sociologist Larry Diamond refers to as “predatory societies.” The problem seems to be that the success formula of recent decades — namely, linking our democracy concept inseparably to market liberalism — is taking its revenge: The crisis in one will inevitably lead to a crisis in the other, taking us into a downward spiral.

**Globalization as a substitute for discomfort with modernity**

But why do so many people feel like they have been downgraded? How is it that fears of globalization are becoming fears of homogenization? Where is this yearning for the “good old days” coming from? The losers in globalization — and this is often how they see themselves — are often not even those who have been disadvantaged economically. Precarity is not a prerequisite; the feeling of being unable to meet expectations — for one’s family or oneself — is enough. Also, in many jobs around the world, the gap between expectations and opportunities is growing. This is why some see a threat in open markets and the implied increase in competition. Open societies and their wealth of possible lifestyles awaken a desire for the world as it was: smaller, more manageable, and more predictable.

The basis of all of these worries is the absence of a positive concept of the future. Fukuyama’s “end of history” is being experienced as the end of any sort of malleable future, if the future is even something worth shaping anymore. The concept of “mission accomplished” — the idea of the future as a task to make society different, and better — has become outdated. “There is no alternative” to this reality, a message popularized by Margaret Thatcher, and now used by Angela Merkel.

**Our children deserve better**

How did we get to this point, anyway? Where does our response even start? Perhaps with a diagnosis.

Our children deserve better. The sentence is probably as old as humanity itself. It is at once a promise and an obligation. The statement is normative and does not allow for exceptions. This is exactly where our problem begins, says Parag Khanna, an Indian-American political scientist, sought-after strategy consultant, and CNN expert on globalization and geopolitics. The future will not be as comfortable as before, promises Khanna, and this is especially true for the children of industrialized nations. France’s new president, Emmanuel Macron, agrees: “Politics must think more radically,” he says in an interview with Germany’s Die Zeit. “We live in a time of great economic restructuring. We can no longer promise our citizens that we can preserve our present standard of
living while maintaining our old models of production; we need to encourage and supervise a renovation. Everything is changing: our consumption habits, how we move on, how we work. Politics must see it as an opportunity and not a threat.”

This means that our children will not automatically have it better; such a sentence is not without consequences. For decades, the Western democracies were held together by a promise: prosperity for all. What if that promise cannot be kept? This is a real stress test for democracy, something McKinsey has pointed at with its study “Poorer Than Their Parents? A New Perspective on Income Inequality.” The authors warn that “the real incomes of about two-thirds of households in 25 advanced economies were flat or fell between 2005 and 2014. Without action, this phenomenon could have corrosive economic and social consequences.”

The study indicates a conspicuous correlation: the higher the percentage of stagnating or sinking incomes, the more present the populists. This applies, for example, to Italy, France, the United States, and Great Britain. Traditionally, and especially in Western Europe, the government tends to make a helpful appearance at this point; it cushions the risks with a welfare state. It takes care of things. But the limits of such a state can be foreseen. Amid weak economic growth, mountains of public debt, and stressed state budgets, the possibilities for redistribution are more than constrained.

Anyone wanting to watch this unfold live can take a look at Greece, where the welfare state model worked successfully for a long time because growth in prosperity went hand in hand with growth in productivity. For many years, economic participation was ensured for broad swaths of the population because employees contributed more added value per working hour, so increasing wages made sense as well. More investment in machines, people, and markets meant more revenue. This formula worked for several generations.

Statistics from US authorities show that productivity, the employment rate, the average income of private households, and gross domestic product have been largely in sync over the years. Swings in individual indicators could be counteracted with direct measures, such as wage increases. The positive developments have completely disintegrated since the 1990s. Productivity, labor, and income are no longer necessarily causally linked. For many, the only chance to improve their incomes is by having multiple jobs at the same time.

One crucial reason for this is digitization and disruptive innovations: Although productivity and efficiency are increasing...
continuously, this is being achieved with ever fewer employees. The reason for this is not solely that Artificial Intelligence (AI) is competing for jobs, but also that a transformation in added value is occurring. US economists Erik Brynjolfsson and Andrew McAfee demonstrate two trends in their book, *The Second Machine Age*. First, digitization leads to marginal costs, and therefore prices begin approaching zero — flat rates as far as the eye can see. This sounds very good from the consumer’s point of view, but it then forces producers to adopt aggressive wage policies. The large platform operators do business with the raw material data, whereas the actual content producers are marginalized when the prices of their services trend toward zero. Finding any job in this environment — let alone one that pays more than one’s parents’ wages — is becoming an impossible task for many young people, even though they are better educated than their parents. It is frustrating: Welcome to Generation Katniss. The parents suffer with them, and their common search for blame begins. Populists and critics of democracy offer them simple and catchy slogans for their projections.

**Globalization is more than world trade**

The second observation, which is worth taking a deeper look at, is how globalization is changing. But to use globalization in its singular form is an oversimplification because we are simultaneously experiencing many globalizations — in music, ideas, the financial world, and even brands. They are all interdependent in some way, and “globalization” has established itself as the term, since what most of these goods have in common is that they are traded across the world. But these classic forms of foreign trade are stagnating. Prosperity continues to grow, but not the exchange of goods, as the current KOF Globalization Index of ETH Zurich university confirms. Thomas Straubhaar, former director of the Hamburg Institute of International Economics (HWWI) has said that “bigger, broader, further is a concept from yesterday, not tomorrow.”

Digitization is the reason here too: Before, goods had to be transported around the world in shipping containers in order to reach consumers. In the future, they will be produced locally to meet demand, with production data and capacity being reserved for this purpose. In its advertising, the robot manufacturing company Kuka notes that one hour of robot labor costs €5, whereas one worker hour in China is €10. Adidas recently presented a sneaker created by a special 3-D printing process; digitization affects even low-wage segments such as the textile and shoe industries. As Straubhaar wrote in Germany’s *ZEIT* weekly paper, “It used to be that records or CDs were sold — today people use sharing platforms.” But this sales volume no longer shows up in the trade balance. Does that mean it did not happen? The problem is more methodological in nature, since these new forms of globalization are not represented by existing instruments.

**A crisis in political confidence**

Our third point is to trace how globalization opponents become critics of democracy. Nobel Prize laureate in economics Joseph Stiglitz always points to this close association, warning that too steep of a gradient between globalization winners and losers will derail democracy. A loss of political legitimacy of this type is a dramatic event for the economy specifically: An economy requires the countervailing factor of the state to foster peace in social relations. No one does good business in failed states.

Sergio Fabbrini, Director of the prestigious Luiss School of Government in Rome, has shown convincingly that globalization is first and foremost a political construct. It sets the rules of the game for the other players. Politics is then the driver of globalization rather than its passenger. As Fabbrini puts it: “There is a general consensus that the 2008 financial crisis has been more than a physiological economic downturn. However, the political side of the crisis is regularly neglected. Nevertheless, globalization was also guided by a political strategy, justified by a precise political paradigm. From a political point of view, it was assumed that economic deregulation might be governable by an international state system hierarchically controlled by the United States (US), the winner of the Cold War; The two George W. Bush presidencies (2001 – 2008) epitomized such intermingling between the (neoliberal) economic paradigm of market deregulation and the (neoconservative) political paradigm of Westphalization of the international system.”

**Kofi Annan’s wise words**

What responses can we give to these developments? Moreover, how do sustainability issues come into play here? Former UN Secretary-General Kofi Annan has made the clearest and most trenchant point: “If we cannot make globalization work for all, in the end it will work for none.” There is a lot of wisdom in this sentence, which for a long time was a kind of mission
statement for the UN Global Compact. With it, Kofi Annan links globalization to the issue of participation; the latter is a very democratic aspect. Furthermore, his sentence resonates as an invitation to a cooperative solution.

With these words, Kofi Annan created a bridge between democratic processes on the one hand and market mechanisms on the other — a package deal. This is precisely the reason for his historical power: Not only is there an invitation resonant in his words, but a criticism as well. The market economy, as Annan describes it, carries the stain of a defect from the start: He is inviting us to make a change.

If we consider Kofi Annan’s sentence further, globalization implies the proliferation, intensification, and stabilization of interdependent contacts. It sounds complicated, but it is important for additional argumentation. Proliferation means that more and more people around the world are becoming involved or affected. Intensification means that this process is becoming more and more effective, and hardly any space remains that is untouched by globalization. Stabilization is the most important term here: It means that globalization leads to the formation of rules and institutions that are more or less permanent, so that the whole construct works in everyday life.

What are globalized institutions? A transnational organization such as the United Nations is an example of one such non-partisan umbrella that does not serve the interests of strong states alone. These types of institutions work according to more than just the rules and instruments of national power politics. However, the United Nations also has narrow operational limits. “Geopolitics does not have to be a zero-sum game. But great powers must recognize and defend vital interests,” Larry Diamond reminds us. Considering the weakness of the UN today, the belief in global governance is surely obsolete. But problems of maximal scope, such as global warming or the global goals of the Sustainable Development Goals (SDGs), can only be solved with maximal participation and maximal goodwill. We need multilateralism for states to work together.

We need the active involvement of stakeholders. We need a willingness for dialogue. All of these are instruments that have been particularly developed and tested within the corporate social responsibility landscape.

There are hardly any alternatives to this process of stabilizing global rules. As former German Foreign Minister Joschka Fischer reminds us, “Political and economic orders, especially on a global scale, do not arise simply from the voluntaristic act of a powerful state or a large national economy; they are and have always been the result of a sometimes brutal and bloody qualifying contest between rival powers.” Every country has interests and the sharp elbows to enforce them. So Fischer goes on: “The necessary costs of maintaining a global order will overwhelm even that single global power. A globalized world that furthermore is increasingly closing its ranks communicatively, technically, and very specifically geographically (the refugees coming to Europe from the Middle East lately make this expressly clear), with its various regional and global centers of excellence, is withdrawing from such an order.”

And now?

Klaus Schwab, thought leader and founder of the World Economic Forum, adds a term to the discussion that has potential: “We are now living in an era of post-globalization. Globalization has become a reality,” he says. Things will not become much
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more global — they cannot. This is a correct and therefore good observation. Now we must draw conclusions from it.

What does post-globalization mean, then?

1. Our children should have a better future, yes. But what does “better” mean? The promise of prosperity cannot permanently be coupled to constant increases in productivity: The mantra of eternal growth — more sales, more products, more jobs, more demand — cannot carry on forever. We must develop new, qualitative growth models. On this, Parag Khanna speaks of devolution, of a return to smaller structures. Indications of how things could go differently are the cradle-to-cradle movement of Braungart and McDonough and the de-growth and sufficiency formulated by Serge Latouche and, of course, the Club of Rome. In this context, then, post-globalization is about work on innovative, sustainable business models for a post-growth economy. The SDGs of the 2030 Agenda for Sustainable Development are bringing forth incredible ideas and approaches around the world. They can create a better world.

2. Globalization is a placeholder for discomfort with the here and now. In this respect, it resembles criticism of modernity. We can draw important insights from this parallel: The great narratives often end in postmodernism, says Jean-François Lyotard, the father of the concept. The great narrative here is of having the Western world order and Weltanschauung as the exclusive model: Seeing the West as the sole measure of all things has become passé. The launch of the ISO 26000 Sustainability Standard was an excellent demonstration that the West no longer sets rules alone. For the first time, individual Asian states clearly positioned themselves to set the standard. New narratives must take the place of the great Eurocentric story. This is important because both policymakers and businesses need to explain what they are doing. Together, legality and legitimacy form a “license to operate.”

This is why the American philosopher R. Edward Freeman has claimed that “a new narrative about business is badly needed, in light of the changes that have taken place in the last generation of business models.” The SDGs could provide this new narrative: They tell a tale of a positive design for the future, how the world could look in 2030 if we wanted it that way.

Now, how does all this fit together?

Democracy and globalization are interrelated in both respects: The point is to create a level playing field. To do this, we need fair trade as well as free trade. A world where one party plays fair and the other does not can work, but it creates so many dysfunctions, frustrations, and mistakes that it will end up pushing the whole model into collapse. As has already been said, populists are not the cause of the current crisis, but only a symptom. Fair trade rules are sustainable simply because they ensure that things will work in the long term. No more — but no less, either. So if democracies want sustainability as a fairness model of this kind, and resolutions such as the UN’s SDGs and the Paris climate accord (COP 21) promise this assumption, then they must make the corresponding restrictions through robust legislation and requirements. Sustainable and fair new business models can only emerge with these clear coordinates. Otherwise, the ones who do not play fair will always maintain the upper hand. In practice, this means that due diligence in supply chains must be significantly improved. It must go beyond the immediate contractual relationship (TIER 1) and penetrate much more deeply into the production processes.

Implementing this, both politically and economically, will be a Herculean task indeed. Much work awaits us in the future. We can take hope from the research of Noreena Hertz quoted in the beginning: She shows that moral values such as justice and tolerance are more important to Generation K than ambition and personal success. The Hunger Games’ Katniss Everdeen lives at the end of history, in modest circumstances. But she is satisfied in a world where people treat each other with forgiveness.

"We are not asking corporations to do something different from their normal business; we are asking them to do their normal business differently.”

Kofi Annan, UN Secretary-General (1997 – 2006) and founder of the UN Global Compact

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We are facing big disruptions that are making it increasingly difficult to govern. Totally new business models and innovations, deindustrialization, and the pace of immigration in the search for a better future are examples of a rapidly changing world. Some of these trends undermine horizontal integration and move the world toward vertical rivalry. In this interview Georg Kell and Larry Diamond talk about the rise of cynicism, the dilemmas of today’s decision-makers, and why the private sector has a historic opportunity to play a constructive role.
Elmer Lenzen: Isn’t it a bit like the story “The Sorcerer’s Apprentice” by Goethe? All of us were told for years that the world is complex. Sustainability topics mean taking into account numerous aspects, and now people realize that they live in a hyper-complex world and many are afraid of this. The result is that they are longing for simpler solutions and simplifiers. Can you understand these fears and the desire for a less complicated world?

Georg Kell: Yes, there are moments when I dream of retreating to a farm in Upstate New York to grow apple trees! The pace of change has definitely accelerated, and technology seems to be the driving force behind it. As a tool of the human brain, technology can be used for good and for bad, and the big challenge ahead is to learn how to use it for the betterment of the human condition while avoiding its dark side. For example, many countries are facing a governance crisis because people no longer trust in institutions and conventional forms of governance.

Elmer Lenzen: The solution could be for elites to give people hope, safety, and confidence that they can solve the problems, but trust in our elites these days is a rare thing. In fact, elite-bashing is very popular. What happened?

Larry Diamond: Trust has been declining in advanced industrial democracies for a long time. I think there is growing evidence that digital media has promoted and facilitated the rise of cynicism and the potential for manipulation by external malevolent forces, as happened in 2016 in the US presidential election. Georg Kell identified an extremely powerful one in terms of technological disruption. Let me just build on that. In particular in advanced industrial democracies, we are facing three big disruptions that are making it increasingly difficult for elites — and elected government officials and career civil servants, in particular — to govern. One is technological disruption — everything is changing at a stunningly rapid pace that is unprecedented in human history.

But there are two more dimensions of globalization that are also very disruptive and feeding the populist, anti-elite mobilization: The fierce logic of transnational markets is disrupting work and patterns of economic exchange, and there is a lot of deindustrialization in Britain, France, and the United States. I think Germany has probably managed it a little better, but even China is facing economic production becoming uncompetitive with lower wage labor, as in Vietnam. This is raw material for populists to say that trade is a bad thing, trade is our enemy, let’s close our borders.

Third, we have the disruptive movement of people, cultures, and even of religions. The pace of immigration, in particular into Europe, which has not been historically a nation of immigrants, is unprecedented. People feel they are losing their countries and losing their cultures. So this also has given raw material to populists.

The summary point is that economies are slowing down, people feel like they are losing control of their countries or their cultures, the world is changing faster than they can comprehend. Elites have been saying, “Don’t worry about it, we will all be better off in the end.” But many people are using the vote to say, “Stop, we don’t like the way this is going.”
George Kell: I want to add another dimension to this—international affairs. Yes, people have been more empowered than ever before in history in terms of access to information, selection, and self-designed eco chambers. But today’s world is becoming more fragmented and rivalries between countries and regions are a strategic reality. In the past 70 years, we have had a more consensus-driven and rules-based concept toward global integration. Today, political and technological disruption and rising populism undermine horizontal integration, and parts of the world are moving toward vertical rivalry. The liberal order created on the ashes of World War II is being hollowed out, the principles of international cooperation have been called into question, and the practice of multilateralism is coming under strain. As power is fragmenting and new economic centers of gravity are emerging, we are running the risk of destroying the very foundation that has brought prosperity and peace without having put in place alternative safeguards. Reinventing democratic renewal at national levels is now key to avoid repeating the mistakes of the past. People power and bottom-up processes matter more than ever today, and the private sector has a historical opportunity to play a constructive role.

Elmer Lenzen: Both of you describe disruptions and the speed of change in a very critical way. It sounds a little bit like an unwanted side-effect. But if we look at the world from a sustainability point of view, we must change. The way we work, the way industrialization goes on, the way we exploit our planetary resources has no future. And we have no time, either. Disruptive changes are necessary. How can we better communicate that the world must change toward a more sustainable pathway?

Larry Diamond: The biggest change that must happen in order to preserve our planet is the switch from fossil fuels to renewable energy. It’s not happening nearly fast enough, and that is where policy is needed. I am afraid the United States is not doing nearly enough, but California is. As a result, it is leading the way on decarbonization. Now even in Texas, which has been historically one of the leading fossil-fuel-generating states in the United States, we see a rapid rise of wind power just because it makes such eminent economic sense now. No matter if Donald Trump tries to revive the US coal industry, it isn’t going to happen because it’s becoming increasingly uncompetitive. My problem, particularly with respect to the United States, is that far too many people live in information bubbles, in a post-fact world. There is no rational mobilization to persuade a large swath of the public about the urgency and gravity of the problems that we are confronting in terms of sustainability, and that’s very scary.

George Kell: Yes, the clock is ticking and there are dark clouds gathering on the horizon. It would be useful to step back and take a look at some of the long-term trends that are propelling humanity forward. Human progress and technological change...
have been synonymous, and technology opens up huge new opportunities. We have all the tools to end hunger and all the technologies to deal with climate change. But in order to accelerate the diffusion of these solutions, we need to create better visions that are attractive to people. New narratives are called for and a new level of awareness is required to embrace “the brave new world” that is both socially inclusive and powered by clean energy. Efforts such as the UN Global Compact’s showcasing of best practices and breakthroughs that deliver improvements at the local level should be implemented everywhere. In the end, what is needed is a new level of awareness that drives demand for clean technology and a new valuation that fully accounts for externalities. Many corporations see the writing on the wall and are changing their strategies and operations to be fit for the future. And more recently a huge breakthrough has rattled the industry — investors are beginning to understand that sustainability and financial returns go hand-in-hand. An unprecedented data revolution allows investors to assess risks and opportunities with big data and machine-learning by including extra financial information. My firm’s “S Ray”, for example, has the potential to connect the sustainable investment movement with the corporate responsibility movement. This may greatly reshuffle the value chain in favour of companies that deliver cleaner and greener products and services. Finance — next to technology — may well become a huge force for good. For that to happen it is now key that citizens demand that their savings are put to good use. Bringing sustainable investing into the retail market will act as a huge catalyst to drive clean technology and good ethics. Far too many people live in information bubbles, in a post-fact world.

Dr. Larry Diamond

Georg Kell is the Founding Director of the UN Global Compact. Leading the UN’s private-sector engagement for nearly two decades, he also was responsible for the launch of the Principles for Responsible Investment (PRI) and several other initiatives. Since retirement from the UN he has joined the Anglo-German asset management firm Arabesque, which uses machine learning and extra financial information to mainstream sustainable investing.
Elmer Lenzen: Challenges are global, but solutions seem to be at the national level. Isn’t this a bit of the problem we have here? Are we really living in a globalized world, or rather in transnational zones such as the G7, the G20, the EU, NAFTA, etc.?

Georg Kell: In the meantime global politics will need to form new alliances to ensure that the emerging frameworks for international cooperation carry forward the most important lessons we should have learned from the past, while providing incentives and offsets for climate solutions and impacts. At the core this is not an issue about money but a question of political leadership and about realizing that we all rise or fall together. Climate change may well become the big unifying force for societies to work together and maybe, just maybe, by doing so we will at last understand that peace and prosperity can be managed successfully on the basis of interdependence and cooperation.

Currently we face very daunting challenges. Climate change does not respect national boundaries, nor do other challenges such as migration and health. The need for cooperation is obvious and growing in our interdependent world. Yet, our international systems are ever more divided and some countries are turning away. The gap between the need for cooperation and nation states’ willingness is widening. Filling this void as soon as possible is critical. For that to happen, we need the private sector to step up their actions, and we need local renewal processes that help to rebuild consensus around basic truths.

Larry Diamond: There are a lot of contradictions, and now we are starting to get into some of the ones that involve governance more explicitly. We need more coordinated and authoritative governance on a global level to deal with challenges. Without question, the biggest challenge that human civilization has ever faced is climate change. But our political systems have barely grown beyond the national level. The biggest transnational experiment is the European Union, and it’s in serious danger of unraveling. Nations do matter still in terms of what people care about and what they want to hang on to. National identity is a very important part of people’s overall identity. There are very few people in the world who identify first and foremost as global citizens or as members of one common humanity.

Related to that is the second contradiction: If we were to have more global bureaucracies such as the UN system as true global governance systems, maybe we could get more coordinated action, but we would also have more accountability problems. People want to be able to see where their money is going. They want to be able to hold government accountable. There is increasingly a demand for more local control, not just control over national governments but more devolution of power and resources to the subnational and local levels. So global governance rubs against that imperative. Therefore, I see no alternative to coordinated action among nation-states, and what we need is political leadership to make that happen. The Paris Climate Accords were such a promising indication of what could happen with the right leadership.

Elmer Lenzen: People blame globalization as a reason for everything that is going wrong these days. This also leads to a crisis of democracy. Globalization and democracy seem to be two sides of the same coin. Could this imply that democracy is in danger of being reduced to just the decision-making model for financial markets or for markets and globalization?

Larry Diamond: I think what voters are saying in some of the recent election outcomes is that they want more of a voice, they want more control, and they are voting against all kinds of elites, including financial elites. People have not forgotten the 2008/2009 financial crisis and what financial elites did through their greed and recklessness. It becomes fashionable to call it a crisis of democracy. But it’s nothing like the crisis of the 1930s, neither in scale or intensity, and certainly not in consequence. It is rather the scale of the crisis that was confronting the advanced industrial democracies in the late 1960s and early 1970s.
It’s good to have this historical perspective because this is not the first time when people felt that democracy was losing its momentum. But democracies in the advanced industrial world are more rooted, more institutionally resilient than before. So I think we have the potential to manage these challenges, reflect upon them, and improve our institutions. If elected elites and career civil servants are not responsive, we are going to see more political populism. But we have a lot of tools and resilient structures in terms of democratic frameworks to respond and do better. We also see European countries doing that, so I think that we shouldn’t lose faith in the promise of democracy and the adaptability of democracy.

Georg Kell: We have been complacent, assuming that the benefits of globalization will trickle down to every level of society, but in many instances national politics have failed to ensure this. Greed and complacency are capturing policymaking in many countries, and some governments have failed to keep up with technology and to ensure broad access to it. The relative neglect of public education in the United States and the fact that the wealth of parents determines the quality of their children’s education is symptomatic of this policy failure, which in the end undermines the democratic process and the ability to govern with reason.

Elmer Lenzen: A leitmotiv of the UN Global Compact are Kofi Annan’s words, “If globalization is not good for all, it’s not good for anyone.” But what does it mean “good” in this context? Many companies have to act in legal gray zones, and they try to manage it with self-commitments and voluntary standards such as the Global Compact or the Global Reporting Initiative. Are such soft laws the only – or even the best – instrument we have in the present global situation?

Georg Kell: I think soft laws can only be a partial answer. They can never fully substitute for domestic policy failures or failing states. I know firsthand that many companies have enormously contributed to the spread of human rights or environmental stewardship in the past thirty years. Yes, you always find bad apples in the basket but by and large corporations have played a very positive role, although much more needs to be done. For example, in the United States we see companies stepping up actions on climate change in response to Washington’s failure to make this a priority issue. Companies are recognizing long-term trends, and they are making decisions independent of short-term cyclical politics. All these initiatives are important. They help to prepare the ground, they can at times give impetus to positive changes, they can — and do — create islands of better treatment and hope, but they will never be a substitute for policies.

Elmer Lenzen: Thanks to both of you for this sound discussion!

Dr. Elmer Lenzen is founder and CEO of macondo publishing GmbH, and publisher of the Global Compact International Yearbook. He is also member of the GRI Stakeholder Council representing the business community in Europe and Central Asia.
GLOBALIZATION in Figures

Imagine the extent of globalization: All the produced goods that were transported on ships in Europe in 1800 would today fit into 5 container ships.
### Top 10 export nations in $ billions

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<td>18</td>
<td>62</td>
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<td>185</td>
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The **Currencies** of Tomorrow’s Capitalism
2017 marks 30 years since the publication of the Brundtland Commission report, *Our Common Future*, which was a landmark moment in the history of sustainable development. “Humanity has the ability to make development sustainable,” the report says, “to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs.”

By Richard Roberts

This year also marks the 30th anniversary of a rather different kind: 1987 was the year that Oliver Stone’s film *Wall Street* came out, introducing to the world the iconic anti-hero, Gordon Gekko — a ruthless, morally unscrupulous (and ultimately criminal) financier. Gekko’s dictum — “greed is good” — captured the spirit of the times. Financiers were — to borrow a term from Tom Wolfe’s novel *The Bonfire of the Vanities* (also published in 1987) — “masters of the universe.”

To a significant extent, they still are. Nine years on from the collapse of Lehman Brothers, we are still living in the Gordon Gekko paradigm of financial capitalism. Having emerged just as what economists call “financialization” began to take hold, this is the only reality the sustainable development movement has ever known.

However, it will not always be like this. Zoom out and it becomes clear that the financialization of recent decades is part of a cyclical pattern we have seen many times before. Back in the 1920s, the Russian economist Nikolai Kondratiev was the first to popularize the idea of long-wave economic cycles. These cycles, he argued, are largely driven by technological innovations and their gradual diffusion through entire societies and economies.

In the intervening century, many others have built on Kondratiev’s work — notably, in recent times, Carlota Perez. Perez argues that since the Industrial Revolution began in the late 18th century, there have been five waves, or “great surges of development.” Each wave has an “installation period,” during which bubbles, manias, and a decoupling of finance from the real economy are a recurrent phenomenon. Then economies undergo an often painful transition before entering into a “deployment period,” characterized by more inclusive growth.

According to Perez, we are currently at the mid-point of the fifth wave since the Industrial Revolution. Though there is nothing predetermined about how the next few years will play out, historically, at this point in the cycle, a “recoupling” of finance and the real economy takes place. Finance, in other words, is restored to its rightful place as the servant of other enterprises.

We are on the brink of a paradigm shift: from a world where there is only one currency that matters (money), to one in which we will need to be able to create and capture value across multiple currencies.

Money, needless to say, is not going away. Our ability to better align global financial flows with sustainable development is both a huge challenge and a huge opportunity. The challenge: channeling $5–7 trillion of annual investment toward enterprises and initiatives that help progress sustainable development. The opportunity: addressing the Sustainable Development Goals will open up potential revenues and savings worth an estimated $12 trillion a year by 2030.

However, as we approach 2030, expect our capacity to optimize a number of other flows that will become increasingly critical to success. In what follows, I will spotlight three in particular — data, carbon, and genes — though, clearly, this is not an exhaustive list.

1. Data

“The world’s most valuable resource is no longer oil, but data,” wrote *The Economist* in May 2017. From Alphabet and Amazon to Facebook and Uber, data flows are the lifeblood of today’s largest, fastest-growing companies. In April 2017, Tesla surpassed GM to become the most valuable carmaker in the United States, despite having sold just 25,000 cars — to GM’s 2.3 million — in the first quarter of the year. What explains this seemingly absurd story? Data. Tesla has accumulated mountains of the stuff — 1.3 billion miles-worth of driving data by the end of 2016 — enabling it to improve its self-driving algorithms faster than any competitor.
Unlike with oil, the value of data is not tied to scarcity. Already we are surrounded by an abundance of data — and yet we are still in the early stages of an exponential takeoff.

Two fast-developing technological trends will make data both massively more abundant and massively more valuable over the next 10–15 years. The first of these is the growth of the “internet of things” — as ever-more connected devices with more smart sensors embedded in them come online, today’s data flows will come to look like a mere trickle.

The second important technological trend is the growth of Artificial Intelligence (AI). Not only does the development of AI increase the value of the data deluge — all of a sudden companies are able to process it, analyze it, and mine it for insights. There is also a positive feedback loop at work: The more data that self-learning algorithms get fed, the better they perform.

There are tremendous potential upsides to this data revolution. Think, for example, of what DeepMind — the British AI venture acquired by Google — has shown is possible in terms of energy efficiency. It has enabled Google to reduce the amount of energy used to cool its data centers by 40 percent. Already the company is looking to replicate such savings elsewhere: In March 2017, it was reported that DeepMind had entered talks with the United Kingdom’s National Grid about reducing energy consumption across the whole country.

What is more, real-time data flows are a key enabler of new business models that have the potential to shift us toward a more sustainable model of consumption — an absolutely critical challenge, given that another 3 billion people are expected to join the global middle class over the next two decades. Peer-to-peer asset-sharing and closed-loop, product-as-service models — such as Philips Lighting’s “pay-per-lux” system and HP’s Instant Ink — all rely on a data-rich environment.

Needless to say, the data revolution brings profound risks, too. Concerns are growing about control and privacy. Vast troves of personal data combined with insights from behavioral psychology have opened the door to the unprecedented manipulation of people — influencing not just our behavior as

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**THE HISTORICAL RECORD:**
**BUBBLE PROSPERITIES, RECESSIONS, AND GOLDEN AGES**

<table>
<thead>
<tr>
<th>No., date, revolution, core country</th>
<th>INSTALLATION PERIOD</th>
<th>TURNING POINT</th>
<th>DEPLOYMENT PERIOD</th>
<th>Maturity/decline</th>
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<tr>
<td>1&lt;sup&gt;st&lt;/sup&gt; 1771 The Industrial Revolution Britain</td>
<td>‘Gilded Age’ Bubbles Canal mania UK</td>
<td>1793-1799</td>
<td>Great British Leap</td>
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<tr>
<td>2&lt;sup&gt;nd&lt;/sup&gt; 1829 Age of Steam and Railways Britain</td>
<td>Railway mania UK</td>
<td>1846-1850</td>
<td>The Victorian Boom</td>
<td></td>
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<tr>
<td>3&lt;sup&gt;rd&lt;/sup&gt; 1875 Age of Steel and Heavy Engineering Britain / USA</td>
<td>London funded global market infrastructure build-up (Argentina, Australia, USA)</td>
<td>1890-1895</td>
<td>Belle Époque (Europe)(*)</td>
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<tr>
<td>4&lt;sup&gt;th&lt;/sup&gt; 1908 Age of Oil, Autos and Mass Production / USA</td>
<td>The roaring twenties USA Autos, housing, radio, aviation, electricity</td>
<td>1920-1923</td>
<td>‘Progressive Era’ (USA)</td>
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(*) Note an overlap of more than a decade between Deployment 3 and Installation when the USA forges ahead.

We are here
consumers but, more troublingly, also our behavior as voters. Then there are those — Stephen Hawking, Bill Gates, and Elon Musk, among others — who worry that AI poses an existential threat to humanity.

2. Carbon

“Unburnable carbon is likely the single biggest obstacle to progress on climate change.” So wrote Mark Mykleby, Patrick Doherty, and Joel Makower in their 2016 book, *The New Grand Strategy*. “Unburnable carbon” is a reference to the roughly 80 percent of proven oil and gas reserves worldwide that, according to International Energy Agency estimates, cannot be burned if we are to keep atmospheric warming to under 2°C.

That unburnable carbon is currently worth roughly $20 trillion — more than America’s annual GDP. Simply writing the whole lot off is not a viable option: It would not just hurt Big Oil; it would shake the whole global economy, likely triggering a severe global recession.

So what do we do with all this unburnable carbon? Mykleby, Doherty, and Makower’s answer is simple. We need to effect what they call a “feedstock shift.” Rather than burning the lion’s share of oil and gas as we do today, we should use more of it in materials — plastics, carbon fiber, 3-D printing “ink,” and advanced textiles — where the carbon content is stored, often for very long periods of time, rather than released into the atmosphere.

In many cases, these hydrocarbon-based materials have the added benefit of being higher-performing than existing alternatives. For example, plastics reinforced by carbon fiber are replacing steel in cars, creating energy savings both up (steel production is very energy-intensive) and down the value chain (lighter-weight vehicles consume less fuel).

Some oil and chemical giants — including Royal Dutch Shell, Saudi Aramco, and Dow Chemical — have already started to shift, tentatively, toward a future in which advanced materials are a larger part of their business. In addition, in the materials space, the likes of Interface with its “Climate Take Back” initiative and Covestro (formerly Bayer MaterialScience), which is championing the idea of “Carbon Productivity,” are pioneering new ways of thinking about carbon. (Disclaimer: Volans is working alongside Covestro as part of a wider Carbon Productivity consortium.)

At the core of this new mindset is a shift from seeing carbon as the enemy to seeing it as a valuable asset that needs to be managed accordingly. In the same way as businesses today look to optimize their return on capital employed, tomorrow’s market leaders will need to optimize what Covestro CEO Patrick Thomas calls “return on carbon employed.”

3. Genes

In March 2017, it was reported that scientists working in the small village of Bana in Burkina Faso were preparing to harness gene-editing technology to practically eradicate the species of mosquito that carries malaria. It may be years before mosquitoes equipped with so-called gene drives — a technology that effectively overrides the chance element of heredity, thereby making it possible to wipe out certain traits — are released into the wild, but it seems increasingly inevitable that the day will come ... and soon.

Eradicating diseases such as malaria — which killed an estimated 438,000 people worldwide in 2015 — would be a spectacular breakthrough for global health. However, there are huge risks attached to genetic editing, too (not to mention ethical concerns about potential uses). In February 2016, the US Intelligence Community’s annual *Worldwide Threat Assessment* report included gene editing in its list of “weapons of mass destruction and proliferation” for the first time. “Given the broad distribution, low cost, and accelerated pace of development of this dual-use technology,” the report warns, “[gene editing’s] deliberate or unintentional misuse might lead to far-reaching economic and national security implications.”

Preparing for the future

We are in the midst of a shift from a single-currency form of capitalism to a multi-currency form of capitalism. By the time we reach the 50th anniversary of the Brundtland Commission, we should expect the world to look profoundly different.

There is nothing inherent in the three emerging currencies I have highlighted that guarantees they will change the world for the better. That depends on how skilled we become at creating social, economic, and environmental value across multiple currencies. However, one thing at least is certain: If money is the only currency your company trades in, do not expect to thrive in tomorrow’s capitalism.

Richard Roberts is Project Breakthrough Lead at Volans, a London-based sustainability think tank. Project Breakthrough is a collaboration between Volans and the UN Global Compact. It aims to spotlight the best thinking and practice in sustainable innovation and harness the power of business to accelerate delivery of the SDGs.
The Benefits of “Disruptive” Technologies

Numerous technologies currently conquering the market offer considerable potential for more sustainability, say top managers from around the world. If properly deployed, they could make a noticeable difference in mitigating climate change in cities, protecting soil, and improving economic prospects for the poor. More than a hundred of these “disruptive” technologies are now being presented by the UN Global Compact and DNV-GL in a joint study.

By Thomas Wischniewski

The study can be consulted in the Global Opportunity Report 2017, which was published at the end of January and the result of a survey of some 5,500 economic, political, and social leaders. Researchers interviewed them online, asking for their assessments of 15 social and environmental opportunities and risks. The results of the survey were then ranked in a list that includes five global risks that managers consider to be particularly challenging. The current top risks — according to those taking the survey — are the political destabilization of whole regions, the increasing levels of socioeconomic inequality around the world, and the possible consequences of attacks on digital infrastructures. A large number of the managers surveyed also expressed concerns about the “dangerous mix of urbanization and climate change,” as well as the fact that a large amount of agricultural land in the world is being unduly exploited and losing its ability to regenerate and produce food.

Lots of good news

The first piece of good news: There are already technological solutions for each of the top-five risks identified that can, at the very least, alleviate their effects. The second piece of good news: The technologies described in the study as “disruptive” offer many business opportunities for resourceful companies. The third piece of good news: These business opportunities are not pie-in-the-sky ideas. Many of them are already making money; the study documents 120 projects from across the globe that are doing just that.

For example, a number of companies are eager to research technologies that can be used to revitalize depleted soil or cultivate food in the absence of arable land. The British social enterprise GroCycle has devised a process by which anyone can grow mushrooms in their own kitchen using a simple cardboard box with coffee grounds in lieu of soil. AeroFarms, a company in the United States, operates three large indoor cultivation areas near New York, where it grows lettuce and herbs without any sunlight, soil, or fertilizer.

Referred to in technical terms such as “aquaponics,” such resource-friendly procedures for cultivating crops are becoming more and more popular. At their core, they rely on closed water and nutrient cycles. It is estimated that by the year 2020, aquaponics alone will generate sales of $1 billion. The study estimates that the global market for no-soil solutions amounts to more than $24 billion — just for next year. These methods are becoming a real business opportunity, according to the Global Opportunity Report.
Cities brace themselves for climate change with micronetworks and “prosumers”

The study’s authors also describe many technologies that can be used to prepare cities for global warming and its consequences, for instance in energy and water management. The report focuses on microgrids to supply electricity, which connect decentralized (small) power generators to one another at the level of individual municipalities. The hope is that these micronetworks will prove to be more resistant to failures, such as those that can occur after a storm. According to the report, in 2015 these networks were already generating around $163 million worldwide. Sales volume is expected to rise rapidly — to $1.4 billion by the year 2024.

This market has picked up momentum in many countries recently. In Belgium, for example, 12 percent of all households fall into the “prosumer” category by consuming and producing energy at the same time, such as through the use of photovoltaics. The sonnenCommunity social network in Germany connects people who produce their own electricity. The company behind it, the sonnen Group, was recently selected by US economic magazine Fast Company as one of the world’s top 10 most innovative energy companies.

New access to financial services

The report also suggests digital tools to fight the increasing levels of socioeconomic inequality in the world. These advances could make societies more inclusive and productive, making them good business opportunities for companies.

One example is the potential in so-called blockchain technology, which enables people to clearly identify themselves through digital terminals, opening up their access to banking or insurance services, among other things. The market is huge: The study asserts that, right now, some two billion people have no bank account of their own.

Blockchain technology can also help to document ownership situations without ambiguity. In Ghana, the BitLand organization is working to reduce disputes and corruption around the registration of land and property. In many parts of Africa, many money transactions are now being processed via mobile phones. Systems like BitPesa also rely on blockchains.

This is part of the reason that the leaders surveyed from sub-Saharan Africa considered this technology to be the most important of all “disruptive” technologies identified.
The founder of Virgin, Richard Branson, has made it his business to use, realign, and reconfigure his own wealth for the purpose of tackling some of society’s biggest problems. From campaigns against inequality to a determined effort to preserve our environment, the pioneering entrepreneur is a force for change whose work spans continents and corporations.
Within the world of British entrepreneurs, Sir Richard Branson clearly catches the eye. The mogul is a throwback of sorts to an era of eccentric innovators who, although not removed entirely, find themselves surrounded by stereotypical CEOs. With his trademark flowing locks and hatred of ties, Branson openly admits to being as comfortable kitesurfing as he is in the boardroom. Even though he is recognizable the world over, courtesy of the multi-branched Virgin corporation brand, Branson’s business acumen has him ranked among the globe’s wealthiest individuals.

But for Branson, the privileges he is afforded by his company’s success and longevity — including his own private island, Necker, in the aptly named British Virgin Islands — come with a responsibility to give back to the planet. And the buccaneering billionaire does so in no small way.

“It seems entirely straightforward to me that we should take from the planet and give back,” he says. “For me, it’s a choice to do that, of course, but more than that, it feels a real responsibility.”

One of the more lasting — and unusual — global initiatives that Branson had a hand in setting up was an organization known as The Elders, which was formed in 2007 after the entrepreneur held discussions with rocker and fellow Brit Peter Gabriel, plus former South African Head of State Nelson Mandela. The Elders call themselves “independent global leaders working together for peace and human rights” who look to use their prominence to find solutions to a host of the world’s biggest problems — from climate change to poverty and HIV/AIDS.

Over its 10-year lifespan, this group has included among its members some of the world’s most famous statesmen and activists, such as former UN Secretary-General Kofi Annan, former Director General of the World Health Organization Gro Harlem Brundtland, and former Archbishop of Cape Town Desmond Tutu.

Branson said of the initiative, “There will always be skeptics of any positive initiatives, but these are people giving up their time for nothing. Most individuals in the world would welcome a group of people who are above ego, and that’s what we will be.”

His guiding role in The Elders’ origins is indicative of the businessman’s hunger to surround himself with the great and the good of geopolitics, and to feed from their collective experiences as world leaders.

“I’m learning all the time,” agrees the 66-year-old. “I love to learn. For me, it’s all about broadening your horizons, discovering different new things, and finding people who are better than you to do the things that you’re not good at. Then that frees you up to do the things you are good at. It also helps keep your mind active. And I suspect that’s why Virgin’s gone into so many different areas — it’s my inquisitiveness and my desire to learn.”

Around the same time as The Elders began, the Virgin founder had already capitalized on his brand’s standing by launching Virgin Unite — the corporation’s charitable arm.

“I now spend the majority of my time working with Virgin Unite to make a positive difference in the world. From supporting projects that I’m passionate about, such as being an advocate for gay rights, to drug policy reform, to using my voice and that of the Virgin Group to shine a spotlight on issues that I believe are unacceptable, such as poaching and the death penalty.”

Another issue that Branson is keen to remind us affects every living person on Earth is climate change. In 2006, he made a high-profile pledge to invest $3 billion in the fight to combat global warming, committing the entire profit margin of all of Virgin’s travel firms — from airplanes to trains — over 10 years. This was followed by Branson creating Virgin Fuels, a dedicated wing of the Virgin brand that invested $400 million in developing biofuels.

As someone who lives on a Caribbean island susceptible to the dangers of increasing sea levels and marine pollution, there is, of course, a personal reason behind Branson’s championing of ecological causes. But on a wider scale, the business leader has long made it his mission to pass on the best world possible to future generations.

“I’ve long been involved in ocean conservation and species preservation work. My travels have allowed me to see some beautiful parts of the world that have been ruined by ocean pollution, drilling, irresponsible fishing practices, and cruel practices such as shark finning. Much of this can be stopped with education and advocacy, which is why you’ll see me swimming with sharks and whales and supporting organizations such as Greenpeace and WildAid. OceanElders was formed in 2010 by Dr. Sylvia Earle to bring together people (such as Jean-Michel Cousteau, Queen Noor, Neil Young) to raise awareness and support organizations that protect the ocean,” Bransons said recently in an interview with the Real Leaders magazine.

“I’m passionate about life, and so I’m as interested as I was 30 years ago,” he says of his attempts to support charitable causes across the globe. “I always think that with anything that has been successful — not just things that I have been involved with — there’s an obvious labor of love for those involved. I am passionate about all my projects because if I’m not passionate about it, why would anyone else be positive about it?”

By Dan Bowman

By Dan Bowman

By Dan Bowman

By Dan Bowman

By Dan Bowman

By Dan Bowman
Charismatic, compassionate, and intelligent, Colin Firth is far more than your average thespian, as he strives to bring about real change on an environmental and human level. In our rapidly changing time, the world needs types like Colin Firth to exemplify decency.

By Karen Anne Overton

It seems that since the early days of Tinseltown, philanthropy and celebrity have linked arms. From glamorous benefit galas to well-documented trips to desperate war-torn regions, it is a fundamental part of the media machine to “give back” and, more to the point, to be seen to be giving back.

Very often, this form of charity campaigning is hooked on PR, where a subtext for a new film, global music tour, or fashion range provides a more believable platform for seeing an A-lister meandering around a village in Africa or exploring the rugged slums of Chennai. So what is it about Colin Firth’s particular brand of humanitarianism that sets him apart? Perhaps it is the vim and vigor with which he promotes his various endeavors, or the self-confessed activist’s brazen outspokenness, even when risking unpopularity. Or — in a time of social media and lip service where actions speak considerably louder than words — his continued grassroots devotion to projects in his own country, rather than just the big attention grabbers of the developing world.

“I’ve always felt a need to engage in the world in some way,” he begins. “My parents taught me those kinds of principles and, in my own way, I’ve tried to take a critical attitude toward society and not simply accept things blindly,” explains the 56-year-old. “My mother often campaigned for the rights of political prisoners and refugees, and I believe it’s important to support those people. It’s important that we listen to different voices who speak all kinds of experiences in the way...
we shape our opinions about things. I’m not a natural rebel, but I think we need to take a very critical stance at how our society functions.”

It transpires that Firth’s philanthropic fervor is inherent. Two of his grandparents were missionaries, and both his mother, Shirley Rolles, and father, David Firth — British academics — were raised in India. The actor spent his infancy growing up in Nigeria, where his parents were working together, and at the age of four he and his family moved to Winchester, England, although he also lived briefly in St. Louis, Missouri, in 1972. This worldliness, he explains, offered a rare perspective, and his mother’s regular dinner invitations to refugees ensured that he and his siblings, Jonathan and Kate, saw the people chiefly affected by the “political problem.”

A long-standing supporter of Survival International — a human rights organization formed in 1969 that campaigns for the rights of indigenous tribal peoples and uncontacted peoples — Firth broke protocol during the promotion of ensemble rom-com Love Actually in 2003 to condemn the Botswana government’s eviction of the Gana and Gwi Bushmen from the Central Kalahari Game Reserve. “There is now what can only be described as an intimidation campaign to get the Bushmen off their land — land which they have lived on for millennia. Their water supply has been destroyed and they’ve been shifted off to relocation camps where the lives they’ve known are basically over,” he told the press at a London preview of the film.

“These people are not the remnants of a past era who need to be brought up to date. Those who are able to continue to live on the land that is rightfully theirs are facing the 21st century
with a confidence that many of us in the so-called developed world can only envy.”

Firth refers to this need to stand up for those more vulnerable as “adolescent indignation.” He recalls his time living briefly in the States when his father — then a lecturer in American history — took his 12-year-old son to hear Senator McGovern speak during the infamous Watergate hearings, and also out canvassing in his role as chairman of the local Liberals.

In terms of the actor’s support network, it appears true that behind every great man is a great woman. Having married film producer and director Livia Giuggioli, 47, in 1997, the couple now split their time between Chiswick, London, and Umbria, Italy, with their two sons Luca, 16, and Matteo, 14. Firth also has a 26-year-old son, Will, from his relationship with actress Meg Tilly — and the actor cannot help but beam at the mention of his Italian spouse. “Meeting Livia has made me a much happier man. I can’t imagine what my life would have been like without her. We’ve been able to enjoy a wonderful life together with our children, and spending time in Italy has been incredibly stimulating and fascinating for me. Italy is a country and culture that you embrace immediately,” he enthuses.

“There’s a warmth and charm that overwhelms and takes me out of my more subdued English personality. Italians love their food, their wine, their way of looking at the world, and it’s very infectious. Even the language, which I am still to master, makes you feel more exuberant.”

Alongside her work in film, Livia is an advocate for sustainability and ethical practice in the fashion industry, a cause which came to the forefront of our global consciousness in 2013 when the eight-storey Rana Plaza garment factory in Bangladesh collapsed and killed more than 1,100 people — mostly women. Livia was familiar with the factory, having visited the garment workers four years previously as an Oxfam global ambassador, and was shocked by the dangerous work conditions: stifling heat with no ventilation, bars on windows, and seemingly constant work demands.

Devoted to raising awareness of the underpaid and overworked millions who toil to supply us in the West with cheap, disposable fashion, the stylish and stunning brunette has used the couple’s joint celebrity to promote the cause via various creative tactics. At the Paris premiere of The King’s Speech — in which Firth played King George VI — Livia eschewed the dazzling couture gowns usually worn to grace the red carpet, donning instead her husband’s discarded moth-eaten suit, recycled as a patchwork dress. She has also pioneered the “Green Carpet Challenge,” which has seen the likes of Stella McCartney, Tom Ford, and Academy Award-winning costume designer Jacqueline Durran (who recently created Emma Watson’s responsibly-sourced Beauty and the Beast Belle costumes) clamoring to get the green seal of approval.

In 2007, she and Firth founded Eco-Age on Chiswick High Road. A veritable mecca for the environmentally-aware, this three-story green boutique has everything from organic face cream to recycled stationery, wool-knit toys to lampshades made from the shaved wood of fallen Norwegian trees. It also boasts a team of on-site consultants who can advise customers on how to make their homes more energy-efficient, and a corporate arm for companies that wish to improve their sustainability record — with Gucci, Net-A-Porter, and Marks and Spencer among their ranks.

With so many passion projects between them, not to mention high-profile careers and two teenage children, it is a true wonder the Firths have time for the glamorous soirees at which they are often snapped. The secret, according to Firth, is the indefatigable Livia. “My wife is firmly in charge,” he says with a wry smile. “She is always one step ahead of me, ruthlessly efficient, energetic, and tireless. She knows my weaknesses and my tendency to be rather too lackadaisical at times. I lead a lot of things out but she is pushing me from behind and clearing the path in front; that much is certainly true. There is always work to be done; the world is always evolving quicker than we realize, and certainly quicker than we can possibly be expected to respond to it. So uniting for shared, good causes, pooling resources, and sharing knowledge is the only way we can correct some of the world’s ills.”

"I’ve always felt a need to engage in the world in some way."  

Colin Firth, actor
Post-Paris Climate Accord:

**WHAT’S NEXT?**

The Paris Climate Accord was one of the biggest diplomatic breakthroughs of the United Nations in the last years. It stands for the vision of multilateralism and the ability of the global community to set ambitious goals for itself. Therefore, the direction that the new US administration has taken is irritating, mainly because there is no way back – the global momentum must be continued, as CDP head Paul Simpson explains in his introductory review. Many new trends in financing climate change underpin this. The old fossil-fuels industry is losing ground because renewables have become competitive. Companies can substantially benefit from this, as the new Science Based Targets initiative of the Global Compact and others shows.
Global Compact International Yearbook 2017

The Paris Agreement and the Sustainable Development Goals (SDGs) have provided a new framework for the low-carbon transformation as governments, cities, companies, and investors drive changes in moving toward a truly sustainable economy. These international agreements — unprecedented though they were — are now behind us. The year 2017, the time for ambitious Paris commitments to be put into practice, has brought its own turbulence.

There is significant global action on tackling climate change, and the transition to a sustainable economy is inevitable, irreversible, and underway. We must keep this momentum. Curtailing climate change needs urgent, consistent implementation of policies and practices that will keep the temperature rise well below 2°C. We know the risks and we have the goals. We must continue unabated the unprecedented collaboration between governments and non-state actors that has made these achievements possible.

**Policy state of play and next steps**

In agreeing to limit the temperature rise to well below 2°C and entrenching climate action, clean energy, and sustainable economies in the 2030 Agenda, policymakers have set an essential agenda that governments, cities, companies, and investors must meet to keep global warming below dangerous levels. Those agreements have advanced international discussions in 2017 on climate and energy and laid the foundation for further collaboration. Policymakers cannot rest, though.

Although Paris and the SDGs mark the beginning of a new strategy, and global business has demonstrable potential to help drive this transition, the future requires both sustained international collaboration as well as national and sub-national policymaking on practical emissions management.

Consistency and clarity are key. World leaders’ policies must unambiguously support climate goals, give clear long-term direction, and stimulate meaningful action across the board. To mobilize the private sector at the scale needed to achieve their nationally determined contributions, effective state-level policy measures are urgently needed.

Effective climate and energy plans, aligned with the Paris Agreement’s goals, must quickly be developed to drive investment into low-carbon assets and technologies.

Investors and business groups have, likewise, called on national governments to lead in developing more meaningful carbon-pricing platforms and phasing out fossil fuel subsidies. In launching the world’s largest scheme, China will put a carbon price somewhere in all major corporations’ supply.
chains. However, the progress that has been made so far is not enough to keep the global temperature rise below 2°C. More work from governments — particularly Western leaders — is needed to reach a carbon price that will spur decarbonization at the required pace and scale.

China, Europe, and other countries are in the process of making the shift to a low-carbon economy because they see it as being in their national and economic interests, and this transformation cannot be ignored by any country on the world stage.

Implementing and advancing climate-related financial reporting frameworks is another imperative. Building on the CDP’s long-standing work in making disclosure a global business norm, the Financial Stability Board’s Task Force on Climate-related Financial Disclosures (TCFD) has the potential to be game-changing. The recommendations that companies should include climate information within mainstream financial reporting, disclose their climate change governance, and conduct scenario analysis to link strategy with a 2°C pathway bring “future” climate risk firmly into the present-day boardroom.

It is unsurprising that the TCFD recommendations, being fully integrated into the CDP platform, are publicly supported by leading businesses, which fully understand that climate risks are financial risks. This X-ray vision is critical for investors to fully understand climate risk throughout the many layers of their portfolios.

The private sector must play its part. However, leading governments — particularly the G20 nations, which are responsible for 80 percent of global energy use and emissions — need to champion these reporting standards and build concretely on this progress. The urgency and the scale of transformation required to safeguard the future of business and society demands it.

To truly move the needle, investors need a full set of high-quality, comparable information portfolios that come from universal disclosure. With the TCFD providing an unprecedented tool, policymakers from the world’s leading states should take the reins and translate the recommendations into regulatory levers to ensure universal, high-quality environmental disclosure by companies.
Company actions and practical climate management

Companies and investors face a simple choice. Do they seize the opportunities from driving the transition to a low-carbon, sustainable global economy? Or do they take the risks — regulatory, technological, consumerist, and physical — that a business-as-usual approach brings? Facing unprecedented natural capital challenges such as climate change, deforestation, and water insecurity, companies must view disclosure as a vital first step toward managing and reducing their impacts. With the Paris Agreement and the SDGs, a new compass for business that measures, manages, and reduces climate-related risks has never been more important to the corporate world as it seeks to embrace the low-carbon transformation.

For many companies, a fundamental shift is needed to meet these targets — and it may wholly change the way they do business. The leaders are already seizing the opportunities and are deep into practical climate management; more than 560 companies have made nearly 1,000 proactive, public commitments to take climate action through the We Mean Business coalition.

The world’s largest corporations, such as Nestlé and Google, are moving to 100 percent renewable power through the RE100 initiative, a collaboration between CDP and The Climate Group. Fifty-four companies have publicly committed, by 2020, to removing commodity-driven deforestation from their supply chains. CDP’s Carbon Action initiative, in which investors engage high-emitting companies, has achieved a reduction of more than 500 million tons of CO₂ — the equivalent to shutting down 150 coal power stations — in one year. In addition, more than 280 major multinationals, including PepsiCo and Walmart, have committed to setting Science Based Targets (SBTs), that is, targets aligned with the Paris Agreement pledge to limit the global temperature rise to well below 2°C.

Through this collaborative initiative between CDP, the UN Global Compact, WWF, and the World Resources Institute, leading companies’ engagement with SBTs shows the readiness and enthusiasm of the private sector about serious, targeted climate action. With Paris in force and the 2030 SDG targets looming, more companies must set ambitious targets aligned with science and show low-carbon leadership. CDP will continue to focus on driving consistent and tangible progress toward these goals.

Prudent companies — well over 1,000 of them — are now using, or planning to use, an internal carbon price to prepare for a carbon-constrained future. These companies are using the tool to test business strategies against future scenarios, reveal hidden risks and opportunities, and to drive investment toward new low-carbon products and corporate goals. Momentum is rapidly growing. Carbon pricing will soon be the new norm across global markets, and this year CDP launched the first industry-led initiative aimed at defining the realistic carbon prices needed to meet the Paris Agreement.

When CDP started engaging companies, climate disclosure was non-existent in capital markets. Fifteen years later, companies...
representing 60 percent of global market capitalization make such disclosures through CDP.

Why do they do so? Because environmental disclosure is a business opportunity, with bottom-line benefits such as saving an average of $1.2 million in interest on debt, attracting investment, improving valuations, and opening up a $5.5 trillion market in low-carbon goods and services. Companies who show investors and owners that they take this issue seriously and have a plan in place to tackle it will enjoy a lower cost of capital in the future against those that do not. The bottom line is that disclosing helps companies build resilient businesses — and these businesses make money from the opportunities in the low-carbon economy.

Companies from every industry now include climate-related targets in their business strategies, incentivize their employees to meet them, and employ experts on their boards to deliver them. Many, though, like much of the energy sector, have work to do to align their businesses with the goals of the Paris Agreement.

Investor perspective

Investors, too, are waiting to capitalize on these opportunities. With trillions of dollars at risk, they know that limiting global temperature rise to well below 2°C is critical for safeguarding investment. They are focused on better understanding the transition’s winners and losers, and information is fundamental to their decisions. When CDP began 15 years ago, some investors responded that climate risk was simply not a major issue for them or their clients. Now, access to data and insights has fundamentally changed how investors understand natural capital risks in their portfolios.

Investors representing assets worth more than $100 trillion now ask companies to disclose their management of climate, water, and deforestation risk. The biggest global index providers — including S&P and STOXX — today have low-carbon indices to drive investment to the sustainable companies of the present and the future. Using CDP data, Goldman Sachs has worked with the New York State Pension Fund — the third largest in the United States — to build a $2 billion low-carbon index, which is soon to be doubled to $4 billion. In July a collaboration between CDP and others launched the world’s first climate-impact rating for investment funds — Climetrics — assessing the low-carbon transition at the fund-level.

We are at a critical point in the journey toward a thriving economy that works for people and the planet in the long term. Some of the most challenging work is behind us, and governments, cities, companies, and investors have the frameworks they need to take the next steps. However, there is still far to go, and it is vital that progress is not interrupted. As governments implement the Paris Agreement and global business seizes the opportunities of aligning with its low-carbon vision, CDP will track how far business delivers, giving investors the information they need to keep score. It is critical that all actors in this transition continue to implement and innovate — using all practical means, including effective carbon pricing, science-based targets, and scenario-planning — to ensure global momentum is continued.

Paul Simpson, Chief Executive Officer, has been at the forefront of CDP’s expansion since its inception in 2000 and has led CDP from a climate-specific focus into other environmental areas.
Governments across the world are working to help achieve the UN’s Sustainable Development Goals, but efforts to adapt to climate change and develop cleaner energy will only succeed if private investment can also be brought into the mix. However, so far, the record of financial markets in supporting sustainability has been patchy.

By Andrea Kirkby and Dr. Elmer Lenzen
Early leadership in sustainable investing was established by a few pension funds, mainly in the public sector or funds associated with progressive churches as well as sovereign wealth funds. Some have simply divested their fossil fuel interests, whereas others have adopted a policy of engagement. The Norwegian Sovereign Fund, for instance, has put pressure on US utilities to drop coal as a power source and replace it with lower-carbon alternatives, whereas Danish pension funds were early disinvestors from coal, tar sands, and deepwater oil production. Calpers, the California state employees’ pension fund, has been another early leader.

However, “carbon-aware” investing has not yet become truly mainstream; retail investors are invited to choose “environment” as a special interest alongside “technology” and “frontier markets,” whereas most institutional investors still appear to see sustainable investing as a luxury rather than a necessity.

There are various paths to carbon-aware investing. The earliest, and perhaps easiest, is simple divestment from companies that produce fossil fuels. However, this does not automatically lead to investment in more sustainable technologies such as renewables. Therefore, some investors have decided instead to concentrate on engagement — trying to persuade companies in which they have stakes to adopt low-carbon strategies — or have prioritized investing in low-carbon leaders.

Although climate-related activism gets a lot of press, law firm Sullivan & Cromwell’s figures show that it is still making a limited impact. In 2016, US companies saw only 66 shareholder resolutions on environmental issues and another 15 on sustainability reporting, with less than a third of votes in favor. Only two resolutions were passed, and the firm comments that “successful proposals were likely tapping into a particular company-specific concern.” It is also notable that the number of resolutions appears to have plateaued since 2015.

However, recent votes may mark a turning point. In May 2017 shareholders of ExxonMobil voted to instruct the company to report on the impact of climate change on its business, with 62.3 percent of shareholders voting in favor. Similar resolutions were adopted at Occidental Petroleum and at utility PPL, despite management opposition.

BlackRock, the world’s largest asset manager, has now identified environmental issues as a major engagement priority, and has publicly urged Exxon to enhance its climate change disclosures. That appears to be a change of heart since the 2016 annual general meeting, at which (according to the Asset Owners Disclosure Project) it voted against an identical resolution.

However, the fact that shareholders have had to fight company management to get adequate disclosure of climate change-related risks shows the urgent need for more reporting. Whereas the EU Directive on Disclosure of Non-Financial Information requires companies with more than 500 employees to report on sustainability issues in their annual reports, US companies are not obliged to report on environmental issues (other than their use of conflict minerals).

A further problem is the fact that no single standardized framework or set of metrics exists for sustainability reporting. The Financial Stability Board’s Task Force on Climate-Related Financial Disclosures has now developed common standards, but they will be voluntary — so shareholders may still be battling to get information from some companies in a decade’s time. Several major companies and investors (including Royal Dutch Shell as a sole representative of the oil sector) have already committed to the standards, which go a long way past the “materiality” tests usually applied to financial disclosure and mandate companies to make public the results of scenario analyses as well as historical data. The sponsor list is very eurocentric, though, so US adoption could be patchy.
Another aspect of the basic nuts and bolts of the market that hindered carbon-aware finance for some years was the absence of relevant stock market indices. Standard stock indices such as the FTSE 100, Dow Jones Industrial Average, or CAC-40 are overweight in fossil fuels and internal combustion autos, but underweight in renewable energy and clean tech. Funds that adopted “clean” policies early on struggled with a market that could only assess their performance compared to the existing benchmarks. Some funds, such as the Dutch pension fund PGGM, were forced to create their own indices; PGGM launched its ESG Index in 2013.

Over the past few years, a number of new indices have been developed. As with sustainable investment, there are different approaches to sustainable indices: Some simply try to exclude fossil fuel and other high-carbon stocks; others use a carbon weighting to adjust market capitalizations; some focus entirely on cleantech. Investment-based firms MSCI and STOXX both offer a family of differently weighted low-carbon indices, allowing investors to choose which model of investment they prefer to use.

Although most indices are based on historic data, STOXX bases its Low Carbon — Climate Impact indices on the Carbon Disclosure Project’s scoring methodology, which takes forward-looking data into account. This rewards companies with ambitious carbon-reduction plans and could ultimately prove an incentive for companies to reduce their carbon footprints. The Cleantech Index, on the other hand, was designed to index the highest-quality companies in a number of sectors, including renewables, water treatment, agriculture, and transportation, and has now been joined by others, including the NASDAQ Clean Edge Green Energy Index.

However, the ambiguity of disclosure standards makes calculating such indices difficult. MSCI estimates the carbon exposure of companies that do not report sustainability criteria by simply using the average emissions per dollar market capitalization for their sector — that could be inaccurate, and perhaps does not penalize companies enough for non-disclosure. At the same time, the methodology behind some indices has conflicting results — ExxonMobil has a higher weighting in the MSCI Low Carbon Leaders than it does in the “unadjusted” MSCI World Index.

Still, as more funds come to use the adjusted benchmarks, carbon-aware investing is likely to become more common — and much easier to assess in terms of performance. There is another bonus to low-carbon indices, though, which is that they make the creation of Exchange Traded Funds possible.

Low-carbon Exchange Traded Funds provide a way for retail investors to invest at low cost in a “clean” portfolio, but they also give institutional investors an easy way to build a carbon-aware component into a conventionally structured portfolio. That might ease the first step into “greening” an entire fund, or simply allow a manager focused mainly on the top 200 stocks to add a clean tech segment.

The latest actor is Clometrics — the world’s first climate rating for funds. Symbolized by green leaves “issued” on a scale of one to five, it will enable investors to gauge and compare the climate impact of investments in funds and potentially encourage growth in climate-responsible fund products. The equity fund market — worth more than €3 trillion in Europe — could be a significant lever for mitigating climate change. However, despite fast-growing institutional and customer demand for climate-conscious investing, to date, no ratings system has allowed investors to compare funds’ climate-related impacts. Clometrics bridges this gap, uniquely rating each fund on the climate change impact of its portfolio holdings, as well as on the asset manager’s own application of climate impact as an investment and governance factor.
One of the difficulties facing carbon-aware investment has been that companies which have established leadership in carbon management and clean energy have not always been rewarded by the stock market, particularly when ambitious green plans failed to create short-term profit.

Clean tech also has not been helped by government flip-flops on subsidies, such as Australia’s repeal of the carbon tax, which destroyed the business models for many renewable energy companies.

In addition, investors should know that impact analysis is still in its infancy, especially since CO₂ is not the only measure for climate effects. An inefficient paper producer may generate fewer emissions than an efficient producer, destroying rainforest and thus CO₂ storage and releasing methane gases. The criterion should also be whether firms protect biodiversity. Various stakeholders are looking for appropriate cross-sectoral or specific indicators.

Therefore, right now the International Organization for Standardization (ISO) is working on climate-finance standards. The organization brings together investors and stakeholders to develop the first internationally recognized certification standard for climate performance. The aim is an ISO Standard 14097, which would make it easier for investors worldwide to report on climate data in their reporting. The ISO is collaborating with the think tank “2°C Investing Initiative.”

However, the risk perception is beginning to change. Instead of looking at the risk of new clean technology businesses, many investors are now looking at the risk of a “business as usual” strategy. In particular, they are considering the potential cost of stranded assets — reserves that may never be able to be used, whether because of government action or competition from cheaper renewables. However, an expansion of carbon pricing could also knock a big hole in the profits of many industrials. It is clear that if carbon change is not factored in, these assets are mispriced.

That is one reason the Bank of England Governor, Mark Carney, speaking to Lloyds of London back in 2015, said a sweeping reallocation of resources was needed. “Green finance,” he warned, “cannot remain a niche interest over the medium term.”

Green finance is still struggling to gain traction. However, “traditional” investors such as BlackRock, State Street, and Vanguard are now advocating a carbon-aware approach, and they are surely not doing so purely for ethical reasons. Their analysts are surely telling them that the cost of climate change and stranded assets could hit the market value of their investments if action is not taken soon. If nothing else will change investors’ behavior, hitting them in their wallets certainly will.

DESPITE SETBACKS, THERE IS ALSO CAUSE FOR OPTIMISM

The Paris Agreement has activated an unstoppable momentum for climate action, with an essential role spelled out for responsible business. At the United Nations Global Compact, we have built a coalition of businesses taking action on climate. We are seeing private-sector engagement on climate change grow exponentially across the board, with businesses everywhere committing to a suite of effective policies, including pricing carbon and setting science-based targets.

At the same time, investors are increasingly demanding climate information, while consumers are demonstrating a willingness to pay a premium for environmentally-friendly products. There is a clear and growing market opportunity for climate-compatible products, services, and investments.

In the case of an absence by a Member State to take climate action, sub-national governments can continue to support the shift to a green, resilient economy. Individual states and cities can lead the charge and advance the goals of the Paris Agreement in the service of the health and economic prosperity of their constituents.

We believe the Paris Agreement sends the right market signals to provide predictability, unlock capital, drive innovation, and reward responsible companies. The UN Global Compact is committed to working with businesses large and small to mainstream today’s leadership standards on climate. We will continue to challenge companies to go further in transforming their business models and adopting policies that reduce their emissions and transition to a sustainable future.

Though setbacks may try to impede climate progress, we will push onwards in the spirit of solidarity and unity that first brought the world together in support of the Paris Agreement. The business community can and must rise to meet the climate change challenge. Together with governments and civil society, the UN Global Compact stands ready to mobilize a global movement of responsible companies and stakeholders to create the world we want.

Lise Kingo, CEO & Executive Director, UN Global Compact
The Paris summit promised us a decarbonization strategy that would help address the problems of climate change – a bold step for the world taken by major nations acting together. However, just two years later, the United States has withdrawn from the Paris Agreement, President Donald Trump is supporting renewed growth in fossil fuels, and the whole structure seems to have been weakened. Does the fossil empire strike back?

By Andrea Kirkby

At first sight, the answer seems to be yes. Trump’s “America First” energy plan has already greenlighted the Keystone XL and Dakota Access pipelines, which deliver crude from oil sands and shale oil fields. He has cut EPA staff by nearly 20 percent, taken $100 million out of spending on climate change research, removed a number of regulatory constraints, and instructed the EPA to rescind the Clean Power Plan. He says he will also bring back jobs in coal as well as oil and gas. Fossil fuel companies are enthusiastic. Exxon Mobil has said it will invest $20 billion over 10 years to expand its chemical and oil refining plants on the US Gulf Coast — though these plans were apparently begun four years ago and are not a result of Trump’s policies.

Look beneath the surface, though, and it seems fossil fuels have their problems,
whoever is in power. For instance, although Trump made “coal jobs” a major plank of his campaign, it is not regulation but automation that has been making miners redundant. Strip mining needs far fewer workers than deep shaft mining, and the introduction of further automation, such as self-driving vehicles, could take another 40—80 percent of existing jobs. Robert Murray, CEO of the largest coal producer in the United States, warns: “It cannot be brought back to what it was.” Trump’s backing for oil and gas is likely to bring about more effective change, particularly in the development of reserves of oil shale and sands.

However, again, basic economics are not as positive as they seem; the cheapest reserves have now been extracted, and the cost of oil extraction is rising as fields mature. Oil firms are struggling to maintain their profit margins as they are forced into ever more capital-intensive extraction processes, such as fracking and deepwater drilling, or to low-quality resources, such as oil tar sands.

“Peak oil” seemed to be a failed hypothesis but is now being talked about again. David Hughes of the Post Carbon Institute points out that when you disaggregate the figures, oil production has flatlined over the past dozen years; nearly all the increase in overall production has come from tar sands and tight oil, plus some new deepwater production. However, since shale depletes much more quickly than conventional reserves, additional resources are quickly being used up, and at the same time, the cost of developing tar sands and oil shales will rise, once current “high-grading” (concentrating on sweet spots where the oil is easy and cheap to extract) exhausts the best prospects. Hughes disputes the assertion of the Energy Information Administration that tight oil can continue to increase US oil production till 2040 at low cost, pointing to the fact that average productivity in the Bakken and Eagle Ford fields is already declining.

Evidence from within the industry appears to bear out his argument: Apex Consulting says the oil majors have seen development costs per barrel (which account for roughly half their total costs) rise an average of 66 percent since 2011, despite cost cuts over the past three years; BP says it needs oil prices at $60 a barrel before it makes any money.

So Trump’s influence on the American energy sector may be more limited than he thinks. Even the Executive Order telling the EPA to terminate the Clean Power Plan only starts a long and tedious process of consultation and rule-making that can take years; and several states, such as California, are making their own rules and targeting zero emissions by 2050. Mark Parfitt, an analyst with KBR and Hardman & Co, says “The Federal
system may trump Trump, with California explicitly remaining the vanguard of clean-tec.”

Meanwhile in Europe, green energy seems to be forging ahead. New French President Emmanuel Macron plans to “make science great again” by providing a home in exile for climate scientists who feel sidelined in the United States, and has banned new shale oil extraction as well as oil and gas exploration. Britain has taken the decision to close all its coal-fired power plants by 2025, replacing them with cleaner (and cheaper) gas-fired stations. Austrian energy firm Verbund has even targeted 100 percent renewable generation by 2020 — a remarkably rapid deployment.

China: Reducing coal use as quickly as possible

EY’s May 2017 Renewable Energy Country Attractiveness Index shows the United States falling to third place behind China and India, with European countries strung out among the top 20. Both China and India still depend heavily on coal, but are now making huge strides to replace it with renewables. A report from Greenpeace, the Sierra Club, and CoalSwarm shows that construction is frozen on more than 100 coal project sites in India and China, representing 68 GW of power, while coal starts have fallen 62 percent.

China now owns five of the six largest solar manufacturing firms, is the largest turbine manufacturer, and is investing aggressively in renewables, both within China and abroad. A $780 billion investment from now till 2030 should see the country get 15 percent of its energy from renewables by 2020, with renewables representing half of all new electricity generation from then onwards. Though coal still accounts for half of all Chinese power generation, it is rapidly being downpedalled — China’s massive air pollution problem (estimated to be responsible for 1.1 million deaths a year) has forced the government to focus on reducing coal use as quickly as possible. 2016 saw coal’s share of power generation fall for the third year in a row — that now seems to be a stable trend.

China’s big problem — as in many other countries — is the grid. Greenpeace reckons 8 percent of Chinese wind power was wasted in 2014, and this rose to 17 percent last year, with solar curtailment as high as 30 percent. A grid designed for huge hydro plants is not flexible enough for the varying output of solar plants, and China will have to invest in the grid as well as in production capability for renewables to make their full impact.

India reached the inflection point

India, too, is now adding renewable energy capacity at a rate of knots — renewables already account for almost 50 percent of all new generation, and 17 percent of total power generation. There is a strong pipeline of new projects — 10 GW of solar capacity planned for 2017–2018 compares with a total US installed base of 40 GW, which gives a good idea of the size of India’s potential contribution to battling climate change — with a target of 40 percent renewables by 2030.

Indian Prime Minister Narendra Modi seems almost to be the opposite of Trump with his commitment to renewables. At Paris 2015 he announced 160 GW of wind and solar investment by 2022, while at the Vienna Energy Forum, Energy Minister Piyush Goyal advocated greater investment in renewables and warned “Every moment counts.” Even on a detailed level, India is making changes — a program to switch town lighting to energy-saving LEDs began in 2015 and should be finished by 2019.

Yet, 300 million Indians do not have electricity at all. Unlike the United States, India has to meet climate change goals while progressing toward universal access to affordable energy — squaring Sustainable Development Goals 7 and 13. But, in fact, micro-solar can make the provision of affordable energy to remote districts easier to achieve.

India has now reached the inflection point; huge investments have forced down the price of renewables so that solar energy is now cheaper than coal. In May this year, the state of Gujarat cancelled a proposed 4 GW coal-fired power project, and further cancellations are expected nationally. Coal imports are being cut — a 22 percent fall in January alone — and India should be able to overachieve its Paris Agreement commitments.

Energy storage problem left to solve

A decade ago, when Europe and the United States were leading the drive for renewables, subsidies were needed to support the high costs of renewable technologies. Fossil fuels were much cheaper. Now, better tech, together with economies of scale, is pushing down the price of renewables. In China, large solar projects have seen a fall of more than 40 percent in cost per MW since 2010. Fossil fuels were unlovable but cheap — now they are unlovable and expensive. Moreover, while renewables are becoming cheaper, fossil fuels are becoming more difficult and costly to extract. Even in terms of jobs, Trump has got things wrong. In China, renewables employ 13 million, whereas in the United States, wind plant manufacturing is the highest-growth job sector, and solar already accounts for twice as many jobs as fossil fuels. It seems that we have now reached the point at which renewable energy is self-sustaining.

However, there is one problem left to solve. As Mark Parfitt, an analyst at Hardman & Co, points out, “Energy storage is still a real issue. If you can’t store excess solar production, it’s wasted. The nascent hydrogen economy may be the key here, both to grid-load balancing and to transport fuel systems. If the engineers can solve that, then fossil fuel’s days are numbered.”
Many businesses profess to their customers — and their investors — that they are “green.” But until recently, there was no way of telling whether such initiatives represented real change or were just “greenwash.” For instance, the Strata SE1 building in London featured built-in wind turbines, which is a great use of sustainable technology, but they are rarely in operation, so it is unlikely that they will deliver the originally estimated 8 percent of the building’s energy needs.

Science-based targets give organizations the chance to test their sustainability strategies and find out if they are doing enough. The initiative has credible backers, including the World Wildlife Fund, the World Resources Institute, and the UN Global Compact. By comparing an organization’s carbon footprint to relevant indices — whether that is based on a percentage of global GDP or on totals for the industry sector — science-based targets allow a company to see whether it is helping or hindering the response to climate change, and keeping global temperature increases to below 2°C.
The take-up is already considerable. Only 12 companies had signed up at the start of 2016 — by mid-2017, 286 companies had signed up, and 54 of them had already had their targets approved. Nearly half of the largest US corporations have now set targets. In many cases, science-based targets have vastly increased companies' ambitions; Owens Corning upped its target from 20 to 50 percent improvement, and it now uses internal carbon pricing to ensure that all managers understand the true cost of energy consumption.

Backing up the UN's Sustainable Development Goals on climate change action and clean energy is not a short-term target like quarterly earnings, though many companies are now including details of their progress in their annual reports. It will take 30 – 50 years to align the businesses according to the plans, particularly where long-term assets such as power plants, furnaces, or production lines are involved.

For instance, British property investor Land Securities is looking at a reduction in carbon intensity of 40 percent by 2030, and 80 percent by 2050. It has built sustainability into its criteria for acquiring new buildings, as well as into its development plans. But it has also balanced the need for quick payoffs and cost efficiency with its decarbonization plans in terms of retrofitting existing buildings for better energy efficiency — focusing on assets that already need replacement or improvement, and choosing the most energy-efficient way to achieve that. Although that may make only a small difference each year, over time the entire portfolio will be improved and decarbonized.

Currently, the campaign for science-based targets is focused on major corporations, and it is gaining traction around the world. But while the program does not include the public sector, it has made several open-source methodologies available, which local governments can use, for instance, in setting out the targets for sustainable cities. At the same time, companies that have started reducing their direct carbon emissions are now engaging with their contractors and suppliers to reduce emissions in the entire supply chain, and this will vastly increase the reach of science-based targets.

However, "science" seems to have become a dirty word for many in the bright new world of “alternative facts.” Donald Trump’s presidency has put an anti-environmentalist in charge of the Environmental Protection Agency, and Breitbart columnist James Delingpole has said that proponents of peer-reviewed science should be threatened with a gun. (Peer review may not always work as well as it is intended to do, but what are the alternatives? You cannot put a scientific hypothesis to a vote on reality TV.)

Rachel Cleetus, Climate Policy Manager at the Union of Concerned Scientists (UCS), says of the new climate of public discourse: "It’s unprecedented, shocking, and damaging to public policy-making. It’s shaken scientists to the core; there’s so much at stake that sitting on the sidelines is not an option anymore." UCS was founded in 1969, but now, she says, its task of science advocacy has become more important than ever.

Take the idea that there are “uncertainties” about climate change science, she says. That is often used to suggest that climate change itself might not be happening, whereas, in fact, the scientific consensus is that yes, it definitely is. In fact, "when a scientist admits that there is some uncertainty, it means being transparent about the fact that there are some unknowns, not that climate change itself isn't happening.” For instance, climate change models make assumptions about future population growth — a change in birth or mortality rates could change the outcome, but that does not alter the validity of the model itself.

Usually, models present a number of scenarios assessing the probability of different impacts. Typically, climate change
Mapping a company’s carbon footprint, or the emissions it produces, and measuring its progress in this area is an important and growing part of our portfolio analysis. Over the long-term, investors are saying to these companies that we want them to align their business strategy with the Paris Agreement.

Anne Simpson, Investment Director, Sustainability at California Public Employees’ Retirement System

THE “DEBATE”

Climate change “debates” in the media often give the impression that the basic science behind climate change is still in doubt. It is not – there is a 90 percent plus consensus that climate change is happening. But every time a climate change scientist is made to debate the issue with someone who denies the whole principle of climate change, the public gets the impression that we are still not sure. That is not about science or “alternative facts” – it is about framing the issue in a way that gives a misleading impression.

Two-thirds of news media also fail to identify the source of climate contrarian reports. Often these do not come from universities or scientific research institutes but from politically committed think tanks or front organizations. News media also fail to report on the funding of these organizations, which often comes from vested interests. According to UCS figures, Fox News was wrong on climate change 72 percent of the time in 2013.

deniers engage only with the extreme scenario, refusing to discuss the most probable (and least contentious) scenario, or focus on individual data points that seem at odds with the overall message. Cleetus points to the fossil fuel industry as a source of a great deal of misinformation. “Fossil fuel wields huge political power in the US,” she says, “and it’s all to do with money.” Like the tobacco industry, fossil fuel companies have tried to cast doubt on scientific research that does not suit their purpose; they use the same techniques and tactics, and sometimes the same “front” organizations.

Cleetus’ worry is that though we have the solutions — “They’re before us, it’s not as if we have to cut them out of whole cloth” — a different political climate may prevent them from being rolled out adequately. “What’s lacking is our ability to scale them up,” she says, “and that comes down to political will.” In India and China, political decisions to promote renewable energy have now borne fruit in a huge price reduction thanks to economies of scale — but the first step of writing carbon reduction into the political agenda was crucial.

Many American cities, states, and companies have said they will stick to their climate change action plans, even though President Trump has taken the United States out of the Paris Agreement. However, there is still some concern that the new “anti-science” trend in public discourse could slow down action to combat global warming. “We can’t afford to slow down,” Cleetus says. “In fact, we need to accelerate.”

We also need to link science-based action with social action. Climate change is one Sustainable Development Goal, but it needs to be put in the context of others, such as eradicating poverty and reducing inequality. The big question, she says, is: “Are we going to invest in a fair and just transition to a low-carbon economy?” For instance, can we support financing for householders in low-income communities to install solar panels, removing an economic barrier to sustainable energy for their homes? Can we put the new jobs being created by clean technology into former mining communities?

“Next time round,” she says, “our policies won’t just be about cutting fossil fuels, they’ll be about creating a low-carbon economy that works for everyone.”
FIVE STEPS
Toward a Comprehensive Climate Management
Climate change impacts all regions of the world and how businesses operate. A strategic and holistic corporate approach to climate action is of increasing relevance for long-term competitiveness, value growth, and the exploitation of market opportunities. The climate agreement adopted by 195 countries in Paris at COP 21 has put climate action on the agenda of more and more companies. Despite the US administration’s intent to withdraw from the Paris Agreement, 19 of the 20 leaders reinforced their commitment to the Paris Agreement at the G20 summit in Hamburg this year and emphasized that it is irreversible. The attention is now on the implementation of the multilateral agreement at national and corporate levels.

Already now, 58 companies have explicitly taken into account the below 2°C goal in their climate strategies by setting a science-based target for greenhouse gas (GHG) emission reductions. Almost 300 additional companies have publicly committed to setting a science-based climate target within the next two years. The Science Based Targets initiative — a collaboration between the United Nations Global Compact, the CDP, the World Resources Institute (WRI), and the World Wide Fund for Nature (WWF) — provides methods for target-setting in line with the <2°C goal, independently assesses and approves companies’ targets, and provides a communication platform. The initiative wants to achieve that, by 2020, science-based target-setting are standard business practice.

In addition, investors are demanding more transparency on climate-related risks and opportunities in order to make better-informed investment decisions. In June of this year, the Task Force on Climate-related Financial Disclosures — set up by the G20’s Finance Stability Board and chaired by Michael R. Bloomberg — published recommendations for consistent, voluntary climate-related financial risk disclosure. One of the core recommendations is that companies should describe the resilience of their corporate strategies and take into consideration different scenarios, including a 2°C or lower scenario. A holistic and comprehensive approach to climate change represents an important step to identify also longer-term risks and opportunities and react accordingly.

**Important steps for corporate climate action**

The Global Compact Network Germany has recently published a handbook with concrete steps companies should follow in order to continuously improve their climate performance. The publication focuses on climate mitigation. It includes recommendations on how to measure, manage, and reduce corporate GHG emissions in accordance with the GHG Protocol, which is a widely used global accounting and reporting standard.
Throughout the different steps, companies should not only consider their Scope 1 emissions (direct emissions from sources a company owns or controls) and Scope 2 emissions (indirect emissions from the generation of purchased energy that is consumed by the company) but also their Scope 3 emissions (indirect emissions that occur along the value chain). In most sectors, the sum of a company’s Scope 3 emissions significantly exceeds the sum of Scope 1 and 2 emissions. Hence, companies should identify their hotspots (relevant Scope 3 categories) and act accordingly.

In the following, the different steps of corporate climate action are described in more detail.

Initial considerations before the start

Pursuing a structured approach to the management of climate change impacts requires an adequate organizational structure and a clear definition of responsibilities and processes. The integration into the general business strategy and governance structure should hereby be ensured. Different subsidiaries, business divisions, and production sites need to be involved in data collection, data management, strategy development, and the implementation of adequate measures. It is recommendable to define a climate manager who coordinates corporate climate action, sets up the required structures, and serves as an interface between the general management and those employees and units involved across the company. The design of a suitable climate governance depends on the corporate structure. In any case, there need to be employees in charge with data collection and data provision at the operational level of production sites or products and services. These should be complemented with managers at the level of subsidiaries, business units, or production sites that aggregate data and check the plausibility of results.

Development of greenhouse gas accounting

Solid accounting of GHG emissions is the basis for corporate climate action and the development of a climate strategy. A consistent and transparent calculation of the corporate carbon footprint enables the identification of emission hotspots along the value chain and allows for the tracking of progress in reducing emissions. The GHG Protocol provides useful guidance in the process of defining system boundaries, identifying emission hotspots, gathering activity data, and calculating emissions. The accounting and reporting of Scope 1 and 2 emissions serve hereby as minimum requirements. Based on a first rough estimation of emission hotspots and correspondent risks and opportunities, a company should also take into account relevant categories of Scope 3 emissions. Generally, GHG emissions are calculated by multiplying activity data such as energy and fuel consumption with corresponding emission factors and then provided in commercial or publicly available databases. The calculation of Scope 3 emissions can be more challenging. The technical guidance from the GHG Protocol has proved to be helpful in this regard.
Introduction of data and process management

Depending on the corporate structure, companies make use of simple excel-based tools for data collection or use professional software solutions, which can be helpful in structuring data-gathering processes. Successful data management requires a clear definition of the data points to be collected and the corresponding timeframes for data collection in combination with the transparent documentation of data quality, data sources, and the people in charge of the collection of the respective data points. A project plan with responsibilities and milestones helps to structure the accounting and reporting process.

Development of a climate strategy

A climate strategy serves as a compass for corporate climate action. It is the framework for mitigating corporate GHG emissions, coping with risks, and seizing opportunities in the context of climate change. The development of a climate strategy requires a clear definition of organizational and operational boundaries, as these decide whether individual production sites and emission sources are to be covered. A meaningful strategy should also address a company’s relevant Scope 3 emissions. Targets for GHG emission reductions are the core of the strategy. There are two types of climate targets at the corporate level: intensity targets and absolute targets. Whereas intensity targets are expressed as a reduction in the ratio of GHG emissions relative to another business metric (e.g., metric ton CO₂e per metric ton product, per kWh, per metric ton mileage), absolute targets refer to an absolute reduction in GHG emissions. Furthermore, target-setting requires the definition of a representative base year and a target year, which sets the timeframe for the implementation of the strategy. In light of alarming scientific insights about climate change and the Paris Agreement, there is an increasing expectation by stakeholders for companies to set longer-term climate targets that are in line with < 2°C scenarios. The abovementioned Science Based Targets initiative provides guidance in science-based target-setting.

Management with key performance indicators

Key performance indicators (KPIs) are instruments for implementing the strategy. The challenge lies in the definition of adequate indicators that help to track progress and manage target attainment. Depending on the corporate structure, not only can the absolute or intensity-based development of CO₂ emissions and energy consumption be useful, but also other technical, structural, or economic indicators. A meaningful complementary indicator for reducing fleet emissions could, for instance, be the share of electric vehicles. Core criteria for the selection of KPIs are their comparability across different business units, their informative value regarding climate performance, and their steering effect.

Communication

A successful internal communication should involve all relevant units and secure the awareness and contribution of employees. It should also provide the general management with concise information for decision-making based on a meaningful database and inform about progress in target attainment. External climate change reporting informs stakeholders about companies’ impacts on climate change, correspondent risks and opportunities, and companies’ strategies in coping with climate change and reducing climate impacts. Reporting standards such as CDP and GRI and accounting standards such as the GHG Protocol ensure the comparability of corporate reporting and disclosed carbon footprints.

Sophie von Gagern manages the environmental workstream of the Global Compact Network Germany and supports companies in improving their environmental and climate strategies.

Johannes Erhard works as a consultant for sustainable AG in Munich, where he develops climate and sustainability strategies in cooperation with corporate customers.
I AM A CLIMATE DEFENDER
Kooky, kind, and somehow a little supernatural, Marion Cotillard exudes that classic confidence one associates with the French. Directors adore her chameleon-like mystery while audiences love the charisma and beauty that floats around her. However, the biggest secret to Cotillard’s success is her devotion to her craft — embodying characters to the point where she cannot shake them.

Winning an Oscar, for instance, for her heartbreaking and unforgettable performance as French singer and actress Edith Piaf in *La Vie en Rose*, it was a role she found herself deeply invested in. Playing Piaf, Cotillard says she became almost possessed until she realized that the spirit of the tragic chanteuse clung to her — Piaf herself was abandoned as a child and her biggest fear was being left alone.

Indeed, although outwardly Cotillard seems to have everything “together,” the actress disarmingly makes no secret of her emotional struggles. “It’s very complicated, but I was extremely vulnerable growing up. I expected other people to behave kindly and rationally and I discovered that the world isn’t like that,” she reveals.

Although the Gallic sweetheart has confronted her vulnerabilities — and gone on to become one of the highest-paid non-American actors in Hollywood — Cotillard finds herself put off by the trappings of fame and fortune. “I’m not someone who really enjoys the glamour and the red carpets and all of that,” explains the 41-year-old. “I’m still very shy, although I don’t panic when people approach me and I can speak more easily in those situations compared to how nervous and uncomfortable I would have been earlier in my career. I still have a hard time seeing myself on magazine covers or on film posters though.”

A defender of the vulnerable, Marion Cotillard is a staunch environmentalist and spokesperson for Greenpeace. In 2005 she was among the artists involved in *Dessins pour le climat*.
It’s important to support people who are trying to raise awareness for what’s happening in the world.

Marion Cotillard, actress

(Drawings for the Climate), a book of sketches that was published to raise money for the environmental activist group.

In 2013, she shocked the world’s media when she joined a controversial protest held near the Louvre Museum in Paris, demanding the release of “the Arctic 30” — 30 Greenpeace activists who were imprisoned in Russia after authorities seized their ship during a protest against Arctic oil production. All prisoners were eventually released following two months in prison.

During the symbolic protest, the actress entered a specially erected cage along with other protesters and defiantly held a sign declaring: “I am a climate defender.” The translation from her native tongue was clear: “The cause for Greenpeace should be a cause for all of us. Today we’re well aware that global warming is something terribly real and dangerous, but we continue to allow actions that in the end are damaging to nature. It’s important to support people who are trying to raise awareness for what’s happening in the world. In particular, what’s happening in the Arctic, which is something that could be disastrous if the oil companies continue to drill there.”

For some in the spotlight, philanthropy is an afterthought, like the hiring of a stylist or the perfecting of autographs. Although it is very likely that Cotillard would have been present at the protest even were it not for her fame. Born in Paris and raised in Orléans to bourgeois bohemian parents — her father, Jean-Claude Cotillard, is an actor, teacher, and former mime; her mother, Niseema Theillaud, is a drama teacher and actress — Cotillard showed an interest in theater from a very young age. Although one of her first roles was in one of her father’s plays — and she had often said that she never seriously considered any other career — as a teenager she developed a strong interest in the environment. The more she read and researched, the more she felt the urge to make a difference. After all, what could be more vital a cause than preserving and protecting our planet?

As she began working with Greenpeace in her twenties, simultaneously Cotillard was landing roles in French cinema, such as in Luc Besson’s action comedy franchise Taxi and the romantic drama Furia. Soon, however, she grew frustrated, longing to work with someone who made her “desire to be
an actress.” Indeed, by the turn of the century, she had grown so tired with the situation that she considered quitting acting for good to become a full-time activist. However, celebrated director Tim Burton had other ideas, casting her in a supporting role in his fantastical comedy drama *Big Fish*. The young actress accepted what would be her first American role.

“It was around 2002,” Cotillard recalls. “I went to see my agent and I said: You know what — I thought about it and there’s no way I’m going to change my mind. So thank you very much; I’m going to do something else. Maybe I’ll come back. I don’t know, but I really need to do something else that allows me to be active all the time. And he said, ‘Okay, just so you know, you just have to take one meeting and I know you’re going to be happy with this meeting. And if that doesn’t work, then you do what you want to do.’ And that was Tim Burton…”

Although the power of celebrity has been proven time and time again to enhance the effectiveness of activism, raising the profile of charities and adding a certain sheen to what is generally unglamorous work, Cotillard argues that her status can, in fact, be counterproductive, as she is unable to commit fully to the cause. “I’ve come to believe that I need to refocus my energies and spend more time working to protect the environment and not spend as much time working on film sets,” she reveals. “I’ve been working a lot in recent years and, of course, I’ve enjoyed that part of my life and I cherish that time, but I think I should make more room for my passions with respect to the ecology and my engagement with that. It has been frustrating for me not to be able to give as much of myself to working with Greenpeace, for example.”

More fulfilling for her, she says, is the life she shares with Canet, whom she married in 2007 and with whom she has two children: six-year-old Marcel and Louise, who was born in March. She has found the experience of motherhood stabilizing and credits it with bringing her a profound sense of calm. “I take things more philosophically than I did before,” she says. “I also feel the comfort and love that comes with having my own family and being a mother. There’s less pressure to prove myself and I think that makes my life much simpler and calmer, but sometimes I still wish I could be as confident as I am when I’m playing a character!”

Meanwhile, Cotillard continues in a career that fails to pigeonhole an actress of great and diverse range. Having starred in two big US blockbusters last year — *Assassin’s Creed* and *Allied* — we now see her returning her energy back to French cinema in the serious drama *Ismael’s Ghosts* and the more light-hearted *Rock’n Roll*, which is written and directed by Canet, and in which she will play herself.

The actress admits that Hollywood and environmentalism are at odds and she will eventually relinquish the former, but for now she is content with her lot. Most importantly, Cotillard has come to a happier place inside. “I think of myself as a girl who has been lucky enough to realize all her dreams, even after spending many years feeling lost and not believing in myself anymore,” she smiles. “I’m very much at peace with myself now.”
PLASTIC POLLUTION BY THE NUMBERS

35 billion
Thrown away: 35 billion plastic water bottles a year in the US

500 billion
Approximately 500 billion plastic bags used annually worldwide

40 percent
Over 40 percent of plastic usage is in packaging

8 percent
Plastics are estimated to account for 8 percent of world’s oil production

250 species
Over 250 species known to have ingested or become tangled in plastic

$7 trillion
A 2002 UN study estimated $7 trillion a year of economic risk from plastic pollution

Source: Plastic Oceans
Worldwide plastic pollution is overwhelming our planet. Up to 12.7 million metric tons of plastic ends up in the ocean every year—threatening precious ecosystems and endangering human health. But it does not have to be this way. A growing number of companies are pledging to reduce their plastic consumption.
The international community has thus far pursued an approach based mostly on voluntary action, but this is by no means sufficient. It is time to tackle the plastic avalanche on land, and thus at its origin, with clear and internationally binding rules. Not least, it seems also economically necessary that the international community negotiate an international legal treaty, argue Nils Simon and Maro Luisa Schulte of the Berlin think tank adelphi in their recent study “Stopping Global Plastic Pollution: The Case for an International Convention” for the Heinrich Böll Foundation.

For most of us, it is almost impossible to imagine everyday life without plastic. It is used for the packaging of foods and other goods, for clothing, toys, smartphones, and cars. Plastic manufacturers have been constantly recording strong growth for decades. They currently generate annual turnover of $750 billion, and investors can count on an ongoing boom.

Plastic is cheap, versatile, and durable – and thus a problem for centuries to come

But this success has a downside: Of the 322 million metric tons of plastic produced in 2015, between 5 and 13 million tons per year end up in the world’s oceans. Many people are familiar with the haunting images of birds and turtles that had confused plastic for food, or became caught in packaging or nets, and died. Researchers estimate that more than 1,390 species are threatened by marine litter. Since plastics are not biodegradable, they disintegrate into smaller and smaller pieces. Fish and crustaceans confuse this microplastic for food, meaning that it can find its way into the food chain and end up on people’s plates.

However, the problems go even further: The production of plastic from fossil resources releases some 400 million metric tons of CO₂ per year, the European Commission estimates. Last but not least, the excess of plastic packaging, especially in

Up to 13 million metric tons of plastic find their way into the world’s oceans every year. The waste threatens more than 1,390 species, covers beaches in rubbish, and costs the tourism industry hundreds of millions of dollars a year. This problem cannot be solved at the national level because it does not matter where plastic waste enters the sea. Once there, ocean currents spread it around the entire globe.
developing countries, leads to very practical problems: The non-decaying plastic waste clogs sewage systems, which makes floods more likely during heavy rainfall.

Europe considers itself a frontrunner in sustainable development, but as usual it is not that simple. There is a trend in Europe toward a more responsible use of plastics. In the United Kingdom, the use of plastic bags for shopping fell sharply after a 5 pence fee was introduced. In Germany, an increasing number of retailers are banning plastic bags altogether. However, European waste disposal systems are far from perfect. In the North Sea and the Baltic Sea, fishers pull tons of plastic waste from the water each year, and less than 30 percent of the plastic waste collected in the EU is recycled — an unutilized economic potential worth billions.

An international legally binding agreement is needed, not voluntary action plans

Thus far, the international community has been trying to stem the problem mainly via voluntary measures, which often concentrate on the oceans. They have issued non-binding guidelines (ironically through otherwise binding conventions), established multi-stakeholder partnerships on waste management, or promoted other forms of voluntary commitments. Most recently at the UN Oceans Conference in June 2017 in New York, 180 voluntary commitments dealing with plastic were issued, out of 1,393 overall pledges to safeguard the seas. However, to take on the flood of rubbish efficiently, we have to tackle it at its sources, and these are mostly to be found on land. Plastic must be designed and produced more sustainably, used more sparingly, applied more purposefully, and finally, be collected without exception and reused as much as possible. This will not happen on its own. It requires a common and binding global framework of action.

In our study “Stopping Global Plastic Pollution: The Case for an International Convention,” we recommend that the international community quickly commence negotiations on an international agreement on the use of plastic. Such an internationally binding treaty should include the objective of completely preventing the entry of plastics into the world’s oceans. As the conditions in different countries vary greatly, the participating countries could choose from a wide range of proven measures, selecting those that are implementable and effective for them. In detailed implementation plans, governments should make public how they intend to achieve their commitments. A review mechanism should test these plans for plausibility, uncover weaknesses, and suggest improvements.

A sustainable plastics economy pays off

The international community would have to provide sufficient funding to help emerging and developing countries improve their waste collection systems. The largest portion of the funds would still have to come from the countries themselves, however. This is achievable because an agreement on plastics makes economic sense in the first place. A sustainable plastics economy can help to avoid millions of dollars worth of damages and save billions in resources. The Ellen MacArthur Foundation estimates that up to $120 billion are currently lost annually when packaging is only used once and then thrown away. Therefore, all stakeholders have a personal interest in using plastics sustainably.

Industry and civil society must be present at the negotiating table

All actors must be included in the treaty right from the start of negotiations: In addition to politicians, manufacturers, and retailers, these should include waste management companies and organizations active in environmental protection and development.

Stakeholders from developing countries, in particular, stressed in the course of the study’s expert interviews how urgent large-scale international measures against the plastic flood are. Even industry representatives were positive about a multilateral approach, as long as it creates a level playing field. At least some of them have obviously recognized the scale of the problem they have created: As long as the flood of rubbish is not stopped, their business is threatened by a considerable reputational risk. Investing in more sustainable plastics is only worthwhile, however, if everyone takes their share of responsibility. This can only be achieved if the international community agrees upon a common, binding framework.

To be clear: A plastics convention will have its gaps and weaknesses, and it will take time to be negotiated, enter into force, and become implemented. It is only one of several instruments, and thus a convention will not in itself solve the problem of global plastic pollution. But at the same time, we will not be able to solve the problem of plastic pollution without a convention based on strong goals that embodies clear rules and brings everyone on board. An international treaty is the key element lacking from global plastics governance today, and it is time to create the binding framework that is needed to make a sustainable plastics economy possible.

Dr. Nils Simon, Senior Project Manager, adelphi
There are an estimated 150 million tons of plastic burdening the world’s oceans, including crushed plastic waste as well as primary microplastics from the manufacturing industry. It is already foreseeable that by 2050 there will be more plastic particles floating in the sea than fish. A third of it is concentrated in the infamous “Great Pacific Garbage Patch,” a maritime area larger than Texas. Plastic remains for hundreds of years in the environment. As a result of its spread into the environment, microplastics also end up in the food chain and therefore on our dinner plates. Additionally, plastic pollution creates at least $13 billion in damage every year to industries such as fishing, shipping, and tourism, as reported by the United Nations Environment Programme.

The threats posed by this development are numerous.

**Danger from the wardrobe**

Functional clothing is popular all over the world, but its environmental impact is not harmless.

The outdoor textile producer Patagonia set up a study in 2016 to check its own output of plastic from clothing. The result: By washing a synthetic jacket, an average of 1.7 grams of microplastics pollute the wastewater. A large portion of this cannot be filtered because the particles are too small.
How packaging makes us fat

Many foods are packed in soft, pliable, and stretchy plastic. The softener DEHP is often used for this purpose. If softeners come into our bodies via skin contact or through the food, they affect our hormone systems, and thus our weight. In this case, they make us fat, as researchers have found.

Cosmetics use microplastics

Shower gels, peelings, lipsticks: Microplastics are used in many cosmetic products. The tiny plastic particles enter the environment through wastewater and cause irreparable damage. For many plastics, so-called additives are added that are intended to give them certain characteristics, such as softness. Many of them, such as BPA (Bisphenol A), are potentially harmful to our health or have not yet been adequately researched. However, the danger is evident: Scientists from the University of Oldenburg (Germany) were also able to detect microplastic parts from cosmetics in drinking water, milk, beer, soft drinks, and even honey.

However, there are some promising developments.

Training of supply chains

The BEPI is an initiative of the Foreign Trade Association, the leading economic association for European and international trade. The objective of the BEPI is to promote environmental protection in supply chains, including the chemical production processes in the countries of production. In addition to a regular international exchange, the initiative offers its members a variety of modules and training courses in order to develop more suppliers with specialized knowledge, and thus to improve the overall management of chemicals in the long term.

Plastic-eating caterpillar discovered

Is this the solution to the global waste problem? An Italian researcher, Federica Bertocchini, has discovered a caterpillar that eats plastic. In tests, she found out that about 100 larvae of the wax moth eat about 92 milligrams of a normal plastic bag in 12 hours. After 40 minutes, holes in the bag can already be seen. “This is a very fast degradation, faster than anything that has been scientifically published on this topic,” she says. And food is plentiful: Every year, around one trillion bags are produced worldwide.

The Ocean Cleanup project

Startups have discovered the garbage of the sea: 23-year-old Bojan Slat, for example, has launched the Ocean Cleanup project. He has developed feasible methods to rid the oceans of plastic. The goal is to extract, prevent, and intercept plastic pollution by initiating the largest cleanup in history. Many companies have shown an interest in using the harvested plastic.

Recycling as a business case

Revenue with plastic waste? Yes, the brand Interface, for example, has the biggest and most diverse choice of carpet tiles, which are made with 100 percent recycled yarn. Their goal for 2020 is to only use recycled or bio-based materials, to cut their dependence on virgin petro-chemical raw materials. Its German competitor, Desso, has received a Cradle-to-Cradle Gold certificate for using 100 percent recycled yarn.
The New Plastics Economy

A vision of a more effective system, in line with the principles of the circular economy.

In January 2016, the World Economic Forum, the Ellen MacArthur Foundation and McKinsey & Company published the report *The New Plastics Economy – Rethinking the future of plastics*. It was produced as part of MainStream—a multi-industry, global initiative that aims to accelerate business-driven innovations and help scale the circular economy. For the first time, the report provided transparency on global plastics material flows and associated economics.

The New Plastics Economy offers a much-needed fundamental rethink for plastics and plastic packaging. It presents an ambitious target, enhancing system effectiveness to achieve better economic and environmental outcomes while continuing to harness the many benefits of plastic packaging. This bold vision builds on and aligns with the principles of the circular economy, an economic model that is restorative and regenerative by design.

THE NEW PLASTICS ECONOMY AND ITS THREE AMBITIONS

1. CREATE AN EFFECTIVE AFTER-USE PLASTICS ECONOMY

   Radically improved economics & quality

2. DRASTICALLY REDUCE THE LEAKAGE OF PLASTICS INTO NATURAL SYSTEMS & OTHER NEGATIVE EXTERNALITIES

3. DECOUPLE PLASTICS FROM FOSSIL FEEDSTOCKS

   energy recovery
   ad and/or composting
THE CASE FOR RETHINKING PLASTICS STARTS WITH PACKAGING...

Implementing four areas of packaging design changes could have a positive impact on recycling economics amounting to $95-$140 per tonne collected ($1.1 – $1.6 billion in OECD countries).

**FORMAT DESIGN**  **$50 - $70 PER TONNE**

Examples include design choices relating to: labels; sleeves; inks and direct printing; glues; closures and closure liners; (silicone) valves, pumps, and triggers; attachments and tear-offs; and the form or shape of the packaging.

**POLYMER CHOICE**  **$25 - $40 PER TONNE**

Replacing PVC in packaging applications with more common polymers would remove a source of contamination in the PET recycling process and thus positively impact the yield and recycled PET price.

**PIGMENT CHOICE**  **$15 - $20 PER TONNE**

Coloring plastics using pigments reduces the value of the recycled materials. Therefore, moving a greater share of plastic packaging from colored or opaque materials to clear or light-colored translucent materials would create substantial value in the after-use system.

**ADDITIVE CHOICE**  **AT LEAST $5 PER TONNE**

Certain additives used in plastic packaging have a negative impact on recycling, even though the precise extent is unclear. For example, PET bottle-to-bottle recyclers have reported discoloration of the recycled material due to certain additives, leading to an estimated 30 percent decrease in revenues.

*Source (left and right): The New Plastics Economy – Rethinking the Future of Plastics*
GOOD PRACTICE SECTION 1: LIST OF ATTENDEES (FROM A - E)

Companies are listed in alphabetic order

ACCIÓN A
Adecco Group
Alcantara
Armacell
Athens International Airport
Audi
Banca Popolare di Sondrio
BASF
BONWS Seguros
Bosch
CCC
Central Romana Corporation
Danfoss
Danish Energy Management & Esbensen
Deutsche Post DHL Group
Deutsche Telekom
Eclipse Microfinance Limited
EDF Group

Egyptian Junior Business Association
Eurofinsa
EY
FEDA
Green Delta Insurance
Harburg-Freudenberger
HOCHTIEF
Inditex
INSPIRIT Intern. Communication
MAN
Manila Doctors Hospital
MAX ENERGY
Merck
Nestlé
Philip Morris International
Rogers
Sakhalin Energy
Sanofi
Vaisala

Solely responsible for the editorial contributions under the heading “Good Practice” are the companies themselves. Named articles do not reflect the opinions of the publisher.
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ACCIONA Microenergía Foundation

Created in 2008, the ACCIONA Microenergía Foundation has mainly focused on providing electricity to 11,500 households in isolated rural communities in Mexico and Peru that have no prospect of being served by the conventional distribution grid. It does this by arranging economically sustainable programs centered around "social microenterprises" that use solar home systems to provide a basic electricity supply that is affordable for very-low-income users.

Under the social microenterprise approach, users receive electricity from a solar home system, making it affordable in relation to their incomes. The goal is for the electricity supply system to be sustainable on a free-standing basis by reinvesting economic surpluses.

The Foundation has been working in Peru since 2009 and in Mexico since 2012. Work in Peru is concentrated in the Cajamarca region, where electricity is supplied to close to 4,000 homes as well as community buildings (schools, churches, health centers, and other community centers).

In addition, a pilot project is being developed now in the Loreto region in order to test a new electricity delivery model for Amazonian communities. In Mexico, it has implemented the “Luz en Casa Oaxaca” program through a public-private partnership for development with the Oaxaca government, the Spanish Agency for International Development Cooperation (AECID), and its Mexican counterpart, thereby bringing electricity to more than 7,500 families.

The Foundation is the ACCIONA Group’s vehicle to channel cooperation initiatives to provide underserved communities with access to basic services. ACCIONA is a Spanish leader in implementing renewable energy and social infrastructure as well as water management. It falls under the scope of the UN’s Sustainable Development Goals, which include ensuring “access to affordable, reliable, sustainable and modern energy for all.”
“Centros Luz en Casa”

The ACCIONA Microenergía Foundation has already trained more than 40 entrepreneurs and promoted 18 “Centros Luz en Casa” as microenterprises to sell and maintain electrical equipment designed specifically for isolated off-grid locations.

In line with its search for formulas for environmentally sustainable economic cooperation, the ACCIONA Microenergía Foundation has developed a model for promoting local entrepreneurship based on setting up franchises devoted to maintenance services and the sale of energy-efficient electric appliances in isolated rural communities in Cajamarca (Peru) and Oaxaca (Mexico). The “Centros Luz en Casa” serve 11,500 homes, to which the Foundation provided access to electricity for the first time through solar home systems in villages with no grid connections.

These inclusive businesses operate as micro-franchises, which are managed by local entrepreneurs. ACCIONA Microenergía acts as franchisor, providing technical and business training to the entrepreneurs and supplying equipment to enable them to sell small electrical appliances and provide repair and maintenance services. The items for sale are vetted and tested beforehand to ensure a high degree of energy efficiency, good quality, and an affordable price.

This network of entrepreneurs completes the Foundation’s vision of “acting at the base of the pyramid, generating development by enhancing living standards through access to electricity, and by dynamizing local economies,” says Julio Eisman, Director of the ACCIONA Microenergía Foundation.

In order to ensure access to electricity, the “Centros Luz en Casa” handle maintenance of the solar home systems supplied by the Foundation and offer additional applications for electricity by providing equipment and appliances adapted to users’ needs and the system’s capacity. From a social standpoint, these centers help to create jobs and generate a local business fabric, with professionals trained by the Foundation to manage businesses in an economically sustainable manner.

This initiative was first implemented in Peru through a project developed together with the Technical University of Madrid and the ICAF Engineers for Development Foundation. It was cofinanced by AECID through a competition for innovative ideas and is currently being rolled out in Mexico. To date, the ACCIONA Microenergía Foundation has trained about 40 users working at the 18 “Centros Luz en Casa” in operation at present: 12 in Peru and the remainder in Mexico.
Youth unemployment is a problem that just will not go away. Worldwide, more than 200 million people are without work, and almost 40 percent of them are 25 or younger. Issues such as skills mismatches and a lack of experience combined, create a virtual discriminatory barrier to employment.

Recognizing the scale of the problem, The Adecco Group — the world’s leading provider of workforce solutions — established the Way to Work initiative to tackle youth unemployment and indirect discrimination against young people in the job market. The initiative involves a range of activities and opportunities for young people of all levels of ability, education, and experience.

Overcoming barriers to employment

While trying to address some of the entry-level barriers that hamper access to employment for young people through its Street Day (pop-up career workshops), the 2017 Experience Work Day, and internship opportunities, Way to Work is helping to shape a new generation of young, educated talent through ‘CEO for One Month’ in an innovative manner. The goal is to equip participants with the insights, understanding, and first-hand experiences of how to become principled, responsible business leaders.

“A lack of skills and experience are often the main barrier to entry or career progress for young people. Through Way to Work, we help break down those barriers. It’s heartening to see how ‘CEO for One Month’ — now entering its fourth year — is helping to forge responsible leaders of the future,” says Alain Dehaze, CEO of The Adecco Group.

‘CEO for One Month’ attracted more than 54,000 applications in 2016, with 50 becoming an Adecco ‘CEO for One Month’ in their countries. From this group, ten were then shortlisted to run for the global ‘CEO for One Month,’ with the successful candidate — 22-year-old Camille Clément from France — working alongside Alain Dehaze in October 2016.

“Before applying for ‘CEO for One Month,’ I thought it was only charities and NGOs that were interested in making a difference and operating sustainably,” says Camille. “But being part of this initiative helped me understand the opportunity you can give — and — the duty you have as a corporate leader to act responsibly and make a difference.”

CREATING A CULTURE OF RESPONSIBLE LEADERSHIP

“‘CEO for One Month’ has had a huge impact on my career. It has helped me understand that, as a leader, you have an impact on the world. And you should do all you can to make sure the impact is a positive one. It’s not about one person making decisions in isolation, otherwise you live in your own bubble and things will never truly change.”

Joël Cleopatre, ‘CEO for One Month,’ Mauritius
Camille is now putting this understanding to good use, working for Humando, an Adecco Group subsidiary in France, on a pilot project called ‘Horizon’, helping 48 refugees in the Paris area to access employment opportunities.

"Seeing major global businesses like The Adecco Group commit to doing something to improve the lives of thousands of young people had a big impact on me. It was so inspiring to see that leaders can run successful businesses, while also acting responsibly by focusing on people, not only profit," says Camille.

Making a positive impact

It is a sentiment that Jan Hupkens, ‘CEO for One Month’ at DIS AG in Germany, shares, too. Each ‘CEO for One Month’ has to develop an innovation project. Jan’s idea was a refugee integration project in Düsseldorf, Germany. Since his ‘CEO for One Month’ assignment, he has been hired by The Adecco Group Germany and is continuing to work on the project, which is called ‘RefugeesWork.’

"I saw first-hand that The Adecco Group was striving to play a leading role in progressing the Global Compact goals in the workplace. I have seen the empowerment of minority groups. I have seen a strong focus on responsibility, equality, and diversity, and policies that can be traced back to the UN Global Compact goals. Professionally, I want to keep engaging with projects like this that have a positive impact on people’s lives," says Jan.

Sera Kazmi, ‘CEO for One Month’ in the United Arab Emirates and now doing her Masters Degree at Tata University, says the experience helped redefine her concept of responsible leadership, and acted as a “bridge” between her interest in business and her passion for positive social action. “It’s where my whole definition of responsible leadership comes from. Don’t only look at profitability, but also focus on the wider perspective — the impact on all stakeholders: your customers, your employees, and most importantly, society as a whole,” she says.

Combining responsibility with flexibility

The US ‘CEO for One Month,’ Savannah Graybill, managed to fit her month as ‘CEO’ into her training schedule as a member of the US national skeleton and bobsled team, aiming for a place at the 2018 Winter Olympics in Pyeongchang, South Korea. She was also working on her MBA, which she finished earlier this year.

Since completing her stint as CEO, Savannah has been working part-time on the marketing team at The Adecco Group USA. Perhaps not surprisingly for someone who is simultaneously developing careers as both an elite athlete and a successful professional, she says one of the biggest responsible leadership lessons the program taught her was about flexibility.

“It taught me that being a responsible leader can differ depending on your specific circumstances. It’s not responsible to give people things they don’t need, or services they won’t use. You need to understand how those needs are different and act accordingly. It’s about being flexible to best respond to different environments,” says Savannah.

Over the past three years, ‘CEO for One Month’ has been growing continuously, with a record of close to 120,000 applicants in 2017. As part of The Adecco Group’s Way to Work, ‘CEO for One Month’ is helping to ensure that tomorrow’s business leaders share the same passion, ambition, and commitment that make the UN Global Compact Principles such a powerful framework for progress.
SUSTAINABILITY: VALUE BEYOND COSTS

The registered trademark Alcantara® is the result of the unique and proprietary technology of Alcantara S.p.A., founded in 1972. Alcantara is a highly innovative material applied in various fields: fashion and accessories, automotive, interior design and home décor, as well as consumer electronics. Since the very beginning, the approach of Alcantara to sustainability has been “value beyond costs.”

By Alcantara S.p.A.

Alcantara started its strong commitment to sustainability in 2009, following the Lehman shock. At that time, the company clearly understood that the world was facing an important economic challenge. Alcantara thought it was necessary to introduce a structural change to its offerings, and assumed that the demand for sustainable products, services, and behavior would grow all over the world. Thanks to the strategy of offering exclusive and highly customized solutions in a responsible and sustainable way, the company’s turnover grew from €64.3 million in 2009 to €187.2 million in 2016 without any setbacks, Alcantara has exported the values of “Made in Italy” through its extraordinary ability to combine technology and craftsmanship, relying on continuous research and innovation. This process is amplified through extremely constructive relationships with leaders in international design thanks to partnerships with well-established designers, creative avant-gardes, and the most prestigious museum institutions.

Being sustainable

Sustainability is a value that Alcantara has been translating into concrete actions for more than eight years. Starting in 2009, the company began publishing its annual Sustainability Report in accordance with the Global Reporting Initiative standards. It was one of the first European companies to be certified as “carbon neutral” by TÜV SÜD, having measured and reduced the CO₂ emissions resulting from its operations, and thus compensating for those that cannot be eliminated.

The carbon neutrality goal, which required enormous efforts throughout the company, was reached thanks to the coordinated implementation of a series of targeted actions: scrupulous measurement of overall CO₂ contributions; drastic reduction in CO₂ emissions (through plant modernization, process rationalization, technical equipment upgrading, energy sourcing, and waste water treatment); and offsetting residual emissions by joining the UN-coordinated international compensation program. All of these activities are certified by TÜV
SÜD, one of the most strict international certifying bodies.

Besides environmental protection, these projects also have a strong social meaning aimed at improving people’s conditions, creating job opportunities, and promoting the use of renewable energies. In the past, the following territories have been involved: Honduras, Turkey, China, Kenya, Taiwan, New Zealand, Thailand, Vietnam, Chile, India, Indonesia, Brazil, Ghana, Uganda, and New Caledonia, for a total of more than 20 projects. By supporting these projects, Alcantara has offset its residual emissions, thereby achieving a zero greenhouse gas emissions footprint.

In 2016, Alcantara became a member of the Clinton Global Initiative, a project of the Clinton Foundation, which involves global leaders in innovative solutions for the most significant global issues and challenges in the field of sustainability.

Furthermore, in November 2016, Alcantara began to officially participate in the United Nations Global Compact, whose Ten Principles the company draws inspiration from to manage an ethical and sustainable business that creates value for its shareholders. As a participant in the Global Compact, Alcantara has committed itself to respecting and promoting the Ten Principles of the Global Compact by integrating them into the company’s values and businesses all over the world.

**Stakeholder engagement**

Alcantara is also committed to a strong focus on stakeholder engagement. It carries out actions and initiatives aimed at involving its principal partners in its sustainability program in a manner that affects a broad cross-section of actors: customers, partners, suppliers, agencies, institutions, associations, nongovernmental organizations, universities, press, influencers, and opinion leaders.

Some of the activities included “Alcantara Dialogues. Connect4Climate” in 2013 and “Alcantara Magic Garden @ Earth Day” in 2015. There were also three international symposiums: the “International Symposium on Sustainability in the Global Automotive Industry: Sustainability and the New Automotive Value Chain” in 2014; the “International Symposium on Sustainability in the Global Automotive Industry: The Automotive Ecosystem on the Global Road to Sustainability. The Asian Perspective” in 2015 (both with Venice International University and the support of the Center for Automotive and Mobility Innovation); and the “International Symposium on Sustainability and Corporate Value” in 2016, in partnership with Nikkei, the Venice International University, and Waseda University, with support from the Society of Global Business.

**Sustainability report: An act of transparency**

The Sustainability Report expressly indicates the results achieved, new targets, as well as unmet objectives within all dimensions of sustainability: economic, social, and environmental. In this sense, it confirms Alcantara’s strong desire for transparency and reliability with respect to its stakeholders by making the report available through the company’s website. Alcantara believes that a commitment to society and the environment represents a fundamental pillar of the culture and politics of any company, industry, country, or community, and that it is becoming less and less voluntary or optional.

For Alcantara, the Sustainability Report (based on GRI methodology) measures in a transparent and correct manner the carbon neutrality, the strengthening of responsible procurement, a new extension of stakeholder engagement initiatives, and continuous investment and research toward the development and implementation on an industrial scale of products and processes of biological origin with lower environmental impacts. All of this is included within a context of growth, not only financial but also of employment and brand reputation.

**What’s next?**

Alcantara started production in 2016/2017 of polymers that partially use renewable sources thanks to the monitoring of state-of-the-art raw materials from renewable sources. The target is to have an Alcantara material that is totally bio-based by 2020 along with many other sustainability objectives consistent with the UN Sustainable Development Goals.
THE ARMACELL PET STORY – TURNING BOTTLES INTO GREEN FOAM

The UN climate conference in Paris marked a turning point in global climate and energy policy: For the first time, all 195 member states of the UN Framework Convention on Climate Change committed themselves to protecting the climate and agreed to limit global warming to below 2 degrees Celsius. In order to build a low-carbon economy by 2050, the European Union aims to progressively reduce its greenhouse gas emissions by 80 percent compared to 1990.

By Judith Altenau, Armacell

This ambitious target can only be achieved if directives on increasing energy efficiency are implemented rigorously. All of us have to set the course for shaping these developments to ensure that they are sustainable — environmentally friendly, socially fair, and economically efficient. Embracing responsibility for future generations means taking energy and resource savings into account when making decisions today. Buildings are good examples: Today, they are responsible for more than 40 percent of global energy consumption and account for one-third of the greenhouse gas emissions into our planet’s atmosphere.

Armacell and its green plastic – a contradiction?

In 2006, Armacell was the first manufacturer globally to successfully qualify Polyethylene Terephthalate (PET) — commonly known as the rigid and indestructible material of plastic beverage bottles — as a core material for the composite industry. Today, Armacell is one of only a few companies worldwide offering PET foam cores and the only manufacturer able to produce this material 100 percent made of post-consumer (recycled) PET material with consistent, reliable qualities. A “green” plastic? What sounds like a contradiction in terms is in fact a cutting-edge technology that took the Armacell global R&D team several years to develop. The green foam core meets not only stringent technical requirements for composites but also follows the guidelines for the circular economy and helps to preserve and enhance the human environment.

What ArmaFORM® PET achieved in 2016 (based on Armacell-internal calculations)

80 mil. PET bottles got a new home – that is 2.5 bottles every second!

CO₂ emissions were cut by 119,999 tons, equaling 8,130 flights around the Earth and ...

... enough energy was saved to light more than 50,000 60-watt lightbulbs for a year!

Made from 100 percent recycled PET: ArmaFORM® PET

PET foam core — made from 100 percent recycled PET — is innovative and unique in the world. It presents a real “green alternative” for decision-makers who are increasingly being confronted with a deciding factor: “What is the environmental impact of the product I am using?” Armacell’s PET product ArmaFORM® PET is made from 100 percent post-consumer PET packaging materials and is fully recyclable. In the production process, no ozone-depleting HFC or CFC
blowing agents are used, and all of the material loss is reused in internal recycling. Making post-consumer PET resin out of recycled PET requires 70 percent less energy and produces 80 percent less CO₂ per unit than virgin PET resin. Using it for the foaming process of our ArmaFORM® PET foam core leads to excellent ecological results: The global warming potential (CO₂ emission) can be reduced by 33 percent and the ozone depletion potential by 34 percent.

How green is it? The life cycle assessment

The environmental impact of ArmaFORM® PET has been evaluated by the life cycle assessment (LCA), which is the most commonly used tool to evaluate how green a product is, that is, what its real environmental impact is. The LCA systematically investigates the environmental impact of industrial goods by tracking their complete lifecycle from cradle to grave. All of the data represented in the Life Cycle Inventory are translated into potential human health and environmental impacts and expressed as factors such as global warming potential.

In the data collection for the LCA, the following life stages are considered:

- raw material supply
- transport of materials to the production facility
- granulation of PET flakes
- foaming process
- post-operations
- transport from factory gate to customer site

The LCA has shown that ArmaFORM® PET outperforms any other foam core currently available on the composite market. It has much lower impacts on human health and the environment than virgin PET and is much more environmentally friendly than any other foam core available on the market. Instead of being land-filled or incinerated, the recycled PET returns to the system and, thanks to Armacell’s patented technology, is remanufactured into a full-value product.

Based on these results, ArmaFORM® PET contributes to a more sustainable future and supports the guidelines of the circular economy, in which being environmentally and socially responsible goes hand in hand with running a profitable business.

It is also green in use!

In the majority of applications, ArmaFORM® PET core generates even more environmental savings. Since its introduction, one of the biggest markets for ArmaFORM® PET is wind energy, where it is used in sandwich constructions for rotor blades, nacelles, and spinners of windmills and, thus, supports the production of green energy. As of today, more than 40,000 rotor blades worldwide have been built using ArmaFORM® PET foam cores. In the final application in such turbines, energy is generated over a period of 20 years without creating emissions. The energy used in the production of raw materials and in construction is usually recovered within nine months.

For more information, please visit: www.armacell.com
Throughout the years, Athens International Airport S.A. (AIA) has consistently responded to growing sustainability challenges by practicing effective corporate governance and implementing adaptable and innovative entrepreneurial solutions. AIA has effectively responded to emerging adversities and adjusted its strategy in order to continue delivering solid financial and non-financial value to its stakeholders.

AIA approaches corporate responsibility (CR) in an integrated way that aims at promoting the sustainability of all aspects of its operations and development. CR is implemented as a structured governance system, embedding international best practices with respect to planning, implementing, measuring, and transparently reporting on its non-financial performance.

AIA’s Policy for Corporate Responsibility is deployed as a cross-departmental effort through a contemporary three-level CR governance structure: CR Strategy (Materiality Analysis and CR Action Plan), CR Integration (alignment with standards and reporting), CR Implementation (embedding across AIA units and departments).

In line with keeping the company’s commitment to the United Nations Global Compact since 2008, AIA has adopted and upheld the related sustainability principles for human rights, labor relations, environmental impacts, and anti-corruption.

AIA has issued its Corporate Responsibility Report annually since 2003. The report conforms to contemporary international sustainability reporting guidelines such as the Global Reporting Initiative Standards (2016), including the GRI G4 “Airport Operators Sector Disclosures,” for which AIA was a major contributor during a two-year international project. Furthermore, the CR report fulfills ongoing commitments made toward the United Nations Global Compact for Communication on Progress.

In order to maximize the added value of the CR reporting process, AIA engages in external assurance by an independent auditing firm for ensuring accuracy and completeness of disclosures as well as adherence to applicable standards.

AIA’s materiality

The development and continuous updating of AIA’s CR strategy is based on the regular redefinition and prioritization of material issues, namely those with a significant impact on the company and its stakeholders.

The Materiality Analysis is an essential corporate practice that identifies sustainability priorities, structures the related CR Action Plan, determines the content of the CR report and constitutes the focus of the independent CR assurance processes. The Materiality Analysis incorporates the input from airport community stakeholders with respect to their perceived influence on material issues.
Linking AIA’s business objectives with the SDGs

AIA acknowledges the SDGs and the United Nations’ Agenda 2030 for contributing to the collective effort of addressing the world’s most pressing social, economic, and environmental challenges. We are fully aware that the SDG agenda cannot be realized without meaningful engagement by the business sector. We are also mindful of our core SDG responsibilities and seek to ensure that our operations do not hinder this agenda and that we address our social and environmental impacts in a coordinated and effective manner.

Hence, the 17 Sustainable Development Goals can be directly correlated with business activities. This is also the case for AIA, as the company’s sustainability approach has a direct impact on most of the Goals. Specifically, for the material issues derived from AIA’s Materiality Analysis, the correlation is mapped in the figure below:

Engaging for the Goals

Our membership in business associations and our presence in various sustainability networking events enable us to demonstrate our practices and share expertise. AIA is an active member of numerous sustainability-related associations, including the local UN Global Compact Network.

AIA recognizes that neither business nor government actions alone will be enough to deliver the transformation toward a sustainable future. We can only realize our joint goals of long-term growth and shared prosperity by collaborating across society. For that matter, AIA has been particularly active in pursuing the critical SDG 17 by exerting its networking leverage to revitalize cooperation for sustainable development. In that respect, AIA contributes to the discussion of aligning the public and private sectors for a common approach to SDGs by hosting relevant roundtable discussions (such as the discussion during the Athens Democracy Forum, organized by the NY Times in September 2016) and by joining the forum for addressing SDGs in the public sector (organized by the Greek Ministry of Foreign Affairs in May 2016). AIA also supports business conferences on the SDGs, such as the one organized jointly by CSR Hellas and the Greek Business Council for Sustainable Development in March 2017.

In conclusion

We at Athens International Airport believe that there is a strong argument for corporate responsibility and accountability and for respecting globally recognized principles as part of our day-to-day operations. This belief is strengthened further when considering how our activities impact the global sustainability agenda. By aligning our sustainability commitments with the “big picture,” we maintain our corporate reputation of being a prudent, respectful, and responsible operator that nurtures employee loyalty, secures our dependability with our business partners, and raises the public’s confidence in us.
AUDI’S CONTRIBUTION TO INTEGRATING REFUGEES

In response to the refugee crisis in Europe, AUDI AG provided €1 million in September 2015 to offer immediate support for projects at the production sites in Brussels, Győr, Ingolstadt, and Neckarsulm. The initial focus was to provide immediate help to the many people coming to Europe at the time. To open up new opportunities for refugees in Germany, aid projects today focus primarily on speech acquisition, professional training, and cultural integration.

Audi employees who are already involved as volunteers with a community service organization that is helping refugees, can quickly and efficiently access financial support from the company. Due to their regular contact with the organizations at their respective locations, they know best which regional projects need support.

On the Audi intranet Audi employees can read reports and stories about the social engagement of their colleagues. Moreover, they can directly register to volunteer in a refugee aid project that is financially supported by Audi. A committee decides on the amount of the donation based on the defined guidelines of the AUDI AG.

In Ingolstadt and surrounding districts

More than 30 refugee projects around the Audi headquarters in Ingolstadt have already been submitted by employees and supported financially by the company from its donation funds as well as organizationally through the Corporate Citizenship department.

The subject of education is given high priority. Audi brought together relevant stakeholders involved in initiatives regarding refugees to identify existing needs and initiate joint projects.

The talks resulted in a major education project in cooperation with the city of Ingolstadt, the adult education center, and Vocational School 1: Since January 2016, 24 refugees ranging from 18 to 26 years old have been taking a class at the vocational school in Ingolstadt. They are receiving instruction in German, math, and cultural studies, among other things, with the goal of achieving the B1 level of language proficiency. The project has been continued in 2016/2017. Since the need for this kind of education program for those over 21 years old is still strong, the project will continue with a new class in the 2017/2018 school year. Volunteer advisors, partly made up of Audi employees, assist the young adults throughout their classes and beyond.

GUIDELINES: AUDI DONATION GUIDELINES FOR CORPORATE CITIZENSHIP

In the course of its corporate responsibility activities, AUDI AG enacted guidelines for corporate citizenship in 2012. These apply to all Audi production sites around the world and, thanks to specific eligibility criteria, they ensure clear processes for community service in the areas of education, technology, and disaster relief. As one corporate citizenship activity among many, Audi’s refugee aid is also carried out along the lines of the same guidelines.
From an early stage on, it was clear that, due to cultural differences, refugee women have special needs for support. For this reason, further classes were launched specifically for female refugees aged 18 to 30 in September 2016 and March 2017 at Vocational School 1 in Ingolstadt. Audi finances 10 hours a week of instruction in social education as well as additional tutoring.

Audi is also working with regional partners to promote safety: In June 2016 the class sponsored by Audi successfully participated in the “traffic education day” pilot project in cooperation with Ingolstadt Traffic Watch. The project can also be offered to other groups of refugees when needed.

**Audi production site Neckarsulm**

Audi has also already supported about 20 projects at the Neckarsulm site. For example, the company made language courses available for asylum seekers in the Heilbronn area in the summer of 2015 and continued them in 2016.

In the Office of Participation and Integration in Heilbronn, young migrants in the VAB/O classes (the year of working prior to obtaining qualification) at Heilbronn vocational schools receive financial support from Audi. The language courses are aimed at refugees aged 16 to 21 who have no knowledge of German.

In cooperation with the Bad Rappenau Refugee Initiative and Youth Services of the city of Bad Rappenau, Audi employees repaired donated bikes, provided bicycle helmets and locks, and offered bicycle lessons. Audi apprentices made efforts too: They built a barbecue area for unaccompanied refugee minors for the Johannes Diakonie community outreach program in Mosbach. Material for benches, tables, and the grill were financed by Audi.

**Audi production site Brussels**

The Audi plant in the municipality of Forêt (Forest) in the Brussels-Capital Region of Belgium worked with the European “think & do tank” Pour la solidarité (PLS) to develop a comprehensive project to assist refugees. Various needs of the refugees were identified and the existing community service facilities capable of fulfilling these needs were supported financially.

**Audi production site Gyor**

The situation for refugees in Hungary was especially acute in the late summer of 2015. With the help of funding from the Audi emergency aid, the refugee camp near Győr at Vámoszabadi was readied for winter. To supply the refugees with warm beverages, a vehicle was converted for the Hungarian Order of Malta and used as a tea wagon. In addition, Audi financed an ambulance including equipment for the Red Cross and supported a community service organization in its cultural and therapeutic integration work for women and children.

**Online volunteer exchange**

As part of the “Wir zusammen” initiative (an integration initiative of more than 90 German companies), Audi is represented as a brand on the internet platform of the Volkswagen Group at www.audi-hilft.de. The platform provides information about numerous refugee assistance projects with articles, photos, and videos. In addition, requests for volunteer support or in-kind donations are regularly posted. The open platform thus offers a no-strings-attached opportunity to gather information about the needs in the regions around the company plants in Ingolstadt and Neckarsulm, and to contact the people listed. Interested persons outside of the company can also gather information and are invited to become involved in community service projects.
The expansion and intensification of the network of branches have been key tools through which the bank has fueled significant progress in dimensional and operational growth. For Banca Popolare di Sondrio, its rootedness in individual local entities is not a passing fad but the result of a conscious decision that has helped to forge its corporate nature and determine its organizational strategy. In summary, it can be said to be a bank of the territory and a bank on the territory.

Its focus on the territory is expressed not only through the range of banking and financial products that meet the needs of the customers living there, but also in its close proximity to the local populations as well as its social, charitable, mutual, and environmental initiatives.

In recent years, the continuous opening of branches, which has currently led to more than 340 branches with approximately 2,700 employees, has gone hand in hand with the bank’s increasing focus on environmental and ecological issues — being well-aware of the impact that banks can have on their surrounding environments.

Its energy-efficiency and energy-production policy from renewable sources has been specifically developed through the following major activities:

- **Buying energy from renewable sources (with Certificate of Origin):** A total of 12,475 GWh of 100 percent renewable-certified electricity with guarantees of origin and 1,420 GWh of electricity derived from renewable sources (average renewable share equal to 35 percent of the energy mix) have been purchased on the free market.

  - Total purchase of 100 percent green energy in 2016: 13,895,000 kWh of electricity — resulting in 6,947,500 kg of CO₂ saved per year.
  - **Self-production of electricity from its photovoltaic systems:** At the branches of Berbenno di Valtellina (SO) and Verdellino (BG), systems have been installed that, in 2016, produced a total of 243,180 kWh — equivalent to 121,590 kg of CO₂ being saved that year.
  - **Internal lighting – re-lamping of neon lighting fixtures with LEDs:** Approximately 200 neon lamps were replaced with LED lamps at the branches. Estimated savings: 21,120 kWh/year, which is approximately 10,560 kg of CO₂ saved per year.
  - **Advertising media – LED replacement of neon signs:** 28 external neon signs were replaced with new LED lamps.
Estimated savings: 28 fixtures x 2.0 kW/fixture x 8 h/d x 365 days/year = 163,520 kWh/year, equal to 81,870 kg of CO₂ saved per year.

- **Installation of temperature control systems in multi-purpose buildings:** Installation of approximately 350 thermostatic valves for temperature control of existing radiators within 60 mixed-use properties (residential/commercial). Estimated savings: 8 to 10 percent in savings on annual consumption by properties.

- **Installation of indirect/direct meters for measuring heat:** Installation of seven indirect metering systems, 126 direct calorie meters and 90 hot water meters at 31 mixed-use properties (commercial and residential). Estimated savings: reduced consumption due to the sharing of heat expenditure based on the metering quota of consumption for heating/hot water.

- **Re-vamping procedures – replacement of frigor systems for heat pumps and condensing boilers:** Replacement of 20 frigor systems for heat pumps and three gas boilers to serve branches. Estimated average savings: 188,740 kWh of electricity and 10,000 cubic meters of natural gas per year.

- **Operational control of electricity consumption monitoring systems:** Installation of 10 new data-loggers for monitoring consumption in branches (10 agencies in the Rome area), in addition to 19 existing active monitoring systems. Estimated savings per new installation: 10 percent savings in consumption, totaling 80,000 kWh/year.

- **Control and management of air conditioning systems:** Installation of remote control systems and management of air conditioning systems in new branches.

- **Control and analysis of consumption based on data read from gas/energy meters and supplier statements:** Implementation of a new energy-consumption monitoring platform (gas, electricity) on the corporate Intranet, with the aim of assessing the indices and parameters of actual consumption (actually measured by the devices); comparing the data readings with those for consumption accounted for by our electricity/gas suppliers; highlight anomalies in terms of consumption and/or billing (including the application of taxes).

The FSC (Forest Stewardship Council) is an independent and non-profit international NGO that works to certify the quality and respect of certain standards in forest management. Therefore, it includes among its members environmental and social groups, indigenous communities, industries that process and trade wood, and scientists to improve forest management worldwide.

This label guarantees the quality of the product and the origin of the paper. It is a “third-party” certification, in that the organization defines the standards while certain accredited certification bodies issue the certificate to guarantee transparency, impartiality, and credibility.

The FSC wording therefore ensures that the wood used to produce this paper comes from responsibly managed forests, in compliance with certain environmental standards: It is not, therefore, recycled paper, but paper made with respect for the environment.

These are just the most significant “green” activities that have been implemented in recent years by Banca Popolare di Sondrio, with the aim of contributing to the maintenance and improvement of the environment in which it operates while staying true to the bank’s mission and to Principles 7, 8, and 9 of the UN Global Compact.
Some progress has been made: More than one billion people have lifted themselves out of extreme poverty since 1990. In spite of this remarkable success, still more than four billion people – the majority of the world’s population – live on a low income. By 2050, this fastest-growing population segment is expected to strive for improved employment in order to be able to afford better living and hygiene conditions as well as better access to food and nutrition, both for themselves and their children.

Fighting poverty, ensuring food security and a safe water supply, as well as energy and climate change — these are some of the targets of the 17 extensive and comprehensive UN Sustainable Development Goals (SDGs). BASF has actively participated in working groups on the development of the SDGs.

As a globally operating company, BASF sees its innovations contributing to a sustainable future on crucial issues such as food; clean water and sanitation; renewable energy; employment and economic growth; innovation and infrastructure; sustainable urban development; responsible production and consumption; climate protection; and international cooperation.

The role of the corporate sector

All sectors of society play a role in alleviating these issues, but the corporate sector has a number of ways to influence and empower people at the base of the pyramid in a positive manner. Companies can create opportunities for employment and entrepreneurship as well as access to affordable products and services that meet basic needs.

Low-income populations across the world hold an immense amount of potential for businesses. By integrating them into their value chains as suppliers, distributors, and customers, companies can not only create a positive impact on their lives, but also find new sources for innovation and growth in new markets.

As a globally operating chemical company, BASF is well positioned to fulfill this role. Our broad market access and diverse and widespread portfolio help support our efforts to initiate positive change. Close cooperation with civil society, the public sector, and partners along our value chain have been key to fostering success.

For example, our Food Fortification initiative has enabled us to successfully reduce vitamin A deficiency — one of the most frequently occurring forms of malnutrition — for millions of people in developing countries. Such projects have provided a rich learning experience and helped us to move forward.

What we do

Starting Ventures is a group-wide program that focuses on creating opportunities within the company to develop business solutions that empower people with low incomes to achieve a better quality of life. The means to empower-
ment encompass, for example, skills for improved income opportunities and access to products providing affordable nutrition, hygiene, and housing. Starting Ventures focuses on new business models and cross-sector partnerships in order to access growing low-income markets. The program also acknowledges higher entry barriers such as consumer awareness, financial capabilities, and inadequate infrastructure.

Starting Ventures provides resources to our business units to pursue new means of entrepreneurship. Furthermore, the program facilitates the sharing of experiences and expertise across our entire organization.

The pilot phase for Starting Ventures was successfully launched in 2016. The project proposals from various business units were selected by the central corporate steering committee (see infobox) to reflect the diversity of our customer industries and our global market access. The selected projects received financial support through an internal corporate fund.

The project example, Espacio Inclusivo, comes from the automotive industry in South America and builds on earlier successes in Chile and has expanded to targeting unemployed young people in Argentina and Uruguay. In these countries, people with low-income family backgrounds often have limited opportunities to learn technical and other skills relevant for formal employment. At the same time, our customers in the automotive repainting and repair industry face shortages in skilled labor. Through Espacio Inclusivo, BASF has therefore started to facilitate vocational trainings for unemployed young people, empowering the graduates to find jobs with our customers. Earlier successes in Chile have shown that graduates earned at least 55 percent more than the minimum wage.

The big picture

In the context of global business today, we work to fulfill the needs and expectations of our stakeholders — and to take them into account as they change. Our role today exists under an understanding that integrates several new developments, among them the United Nations Guiding Principles on Business and Human Rights and, more recently, the Sustainable Development Goals.

For BASF, Starting Ventures is the way to include people in the economy for mutual benefit, thereby not only contributing to our long-term success, but also uplifting those working with us along the way. The marriage of these goals will consequently reinforce one another and enable us to continuously scale-up our activities: the higher the contribution to our long-term success, the greater our positive impact on society.

For more information about BASF Starting Ventures program, please visit: www.basf.com/en/starting-ventures

The project Espacio Inclusivo facilitates vocational trainings for young people in Chile, Argentina, and Uruguay.

STARTING VENTURES

The selection of project ideas by a central corporate steering committee is based on criteria in three areas: social impact, innovative business models, and business potential.

The UN Sustainable Development Goals are the basis for the criteria for social impact.
“THE ONLY CERTAINTY ABOUT THE FUTURE IS THE FACT THAT THE FUTURE IS UNCERTAIN.”

Since its inception, BONWS Seguros S.A. has been adding value by providing financial peace of mind as well as stability to its clients and ensuring that the financial consequences of their risks are handled.
By Dr. Luís Vera Pedro, BONWS Seguros

We not only support and respect the protection of human rights at BONWS Seguros, but we also ensure that our policies regarding human rights abuses are effectively enforced. Furthermore, we uphold the right of BONWS Seguros’s employees to freedom of association as well as their right to collective bargaining, thus ensuring that their human rights are not violated. In conjunction with the local authorities, we have led campaigns denouncing forced labor and child exploitation in our communities. We have a well-balanced workforce comprised of experienced Angolan nationals as well as expatriates. Furthermore, we abide by Angola’s labor laws as well as the International Labour Organization’s Code of Conduct. We treat all our employees fairly, irrespective of their gender, race, or nationality, in order to effectively eradicate employee discrimination and social prejudice at work.

At BONWS Seguros, we are environmentally conscious. Through our policies, we have created a culture of saving electricity, using recycled materials, and sponsoring the planting of trees in our communities to minimize the negative effects of global warming. We also create awareness campaigns to educate our communities with issues relating to environmental protection and sustainability, thus ensuring that we preserve our environment for the next generations as well. BONWS Seguros is all about simplicity, transparency, creativity, credibility, and social responsibility.

**Transparent reporting**

We are committed to transparency when reporting on progress, which is a “must have” for BONWS Seguros. We comply with anti-money-laundering laws by informing and reporting to our relevant authorities about suspicious transactions, ensuring that whistleblowers are safe and that they are motivated to continue their hard work.

BONWS Seguros has an impeccable record, and our daily activities are transparent and aligned with the purpose of our business. Our certification with ARSEG, the insurance regulatory body, as well as our licenses with the Ministry of Petroleum and with the reputable Angolan Centre for Entrepreneurial Development, have boosted our image and credibility within the insurance industry.

By targeting the corporate sector jointly with our strategic partners, we are able to address the variety of institutional as well as individual insurance needs of our clients. Furthermore, our strong organizational culture enables decision-makers to create policies and procedures that are aligned with their strategic purposes.

Our leadership style has contributed significantly to the motivation and creative thinking of our employees and collaborators. In addition, BONWS Seguros endeavors to deliver and sustain itself through the often volatile and competitive insurance market. This is evidenced through its engagement with strategic partners, stakeholders, as well as employees who have been able not only to adapt to the changing business environment but also to the evolving insurance needs of clients. We continuously adapt our business tactics to address other business segments with the aim of increasing our market share in these areas.

At BONWS Seguros, we value our employees and their families. Thus, we contribute to the uplifting of communities by offering sponsorships, education, and training, as well as by supporting environmental and medical projects. Becoming a participant of the UN Global Compact has strengthened our policies concerning social responsibility and our ideals that a society is a mutual project aimed toward working and achieving better results for a common purpose.
SUSTAINABLE NETWORKS

In a digitized environment, people, objects, and machines are connected to one another. These networks also open up new areas of application that promote sustainability. They make household appliances and vehicles more efficient, and make it easier to use renewable sources of energy reliably. Bosch is making an active contribution to shaping this development with innovative solutions in all of its business sectors. These allow value creation while at the same time conserving natural resources.

By Bernhard Schwager, Bosch

Digital technologies are already changing our everyday lives. Internet connectivity enables a multitude of innovative products and services that bring forth opportunities and challenges alike. Bosch aims to contribute to actively shaping the transition to a connected world and harness its potential in the best possible manner. To this end, the company draws on its decades of expertise in the automotive, energy, building, and industrial technology sectors. Today, Bosch is one of a handful of technology companies around the world that are capable of offering connected solutions from a single source.

With its engines, household appliances, or heating systems, the company not only provides traditional hardware, but also offers its customers the very sensors and software that make the internet of things (IoT) possible. What is more, Bosch has launched its own cloud for IoT solutions that will soon also be available to its customers, and the company is consistently expanding its portfolio of networked services with the aim of improving the quality of life of current and future generations. It is doing this in every sphere, from day-to-day life and road traffic to a climate-friendly energy supply.

Growth through integration

Creating the right service package for every product opens up myriad growth opportunities in every field of business. Of some 59,000 Bosch researchers working around the world, about a third are active in software development, and more than 3,000 focus their efforts on the internet of things. Since this dynamic market shows great promise for the future, Bosch has set up agile business units to respond to its fast-changing requirements. For instance, at the beginning of 2016, the company...
created a subsidiary for smart home solutions. As a leading full-range provider of innovative technologies, Bosch has secured its long-term growth while at the same time creating attractive jobs for highly qualified specialists. Here, too, connected products and services are the basis of the company’s activities. The following three examples illustrate how Bosch is contributing toward achieving major sustainability goals.

**Saving energy with smart homes**

Bosch is working flat out to drive the development of the smart connected house forward. By 2020, 230 million households around the world are expected to be equipped with smart building technology — representing a market share of 15 percent. With a smart home system, users can connect lighting, smoke detectors, and household appliances to one another via a central control system, which they can then manage remotely using their smartphones or tablets. In the morning, a self-regulating heating thermostat ensures a comfortable room temperature while reducing energy consumption at night or when homeowners are away. What is more, via the HomeCom Pro web portal, Bosch technicians can connect directly to their customers’ heating systems to gain a quick overview of status, give advice in the event of a malfunction, or prevent unnecessarily high energy consumption.

**Connected mobility: More comfort, less fuel consumption**

Studies have shown that the search for a parking spot accounts for a third of urban traffic. Looking for parking is not only nerve-wracking, it also leads to higher fuel consumption. Against this backdrop, in 2016 Bosch launched a pilot project in metropolitan Stuttgart. To reduce road traffic and protect the environment, the company monitors 15 park-and-ride facilities with sensors to assess whether parking spots are vacant or occupied. The data is then transmitted to the internet via the IoT cloud, where a map of free parking spots is created in real time. All information can be accessed via an app or the website of the Stuttgart public transit authority (VVS). Bosch is also currently working with partners to put another connected mobility concept into practice: With a digital mobility assistant, users can determine their optimal route with different modes of transport — including transfers to e-bikes, buses, and trains. The aim is to reduce traffic jams and CO₂ emissions and increase users’ willingness to leave their cars at home more often. With this joint project, the participating companies won the Baden-Württemberg Ministry of Transport and Infrastructure’s “moveBW” competition.

**Smart energy networks: Flexible use of wind and sun**

Intelligent energy management is gaining significance. The large power stations of the past are giving way to many smaller, decentralized facilities. Many of these use wind or solar power. The challenge lies in integrating these small power stations into the grid in such a manner that the power supply is consistently reliable regardless of weather fluctuations. Bosch has developed the technology required to do this, and networking plays a central role here as well. The company provides energy suppliers with software that can be used to create virtual power stations out of a combination of various power generation and storage facilities.

Among other things, these examples clearly show that connected products and services help conserve finite resources — and thus also contribute to achieving important sustainability targets.
We recognize that CCC's long-term success is directly linked with the existence of a prosperous global society and a greener environment. Therefore, we are committed to understanding how our growth can better interact with the welfare and development of the communities, ecologies, and economies in which we operate. We aim to increasingly embed the principles of sustainable development into our business. We go about this by incorporating sustainability values into strategic planning, training, and stakeholder engagement as well as by intensifying the implementation of sustainability measures.

**Sustainability reporting**

Recognizing the corporate value and the increased public attention associated with sustainability disclosures, CCC has established procedures to monitor and disclose sustainability performance. We have been diligently tracking our sustainability impacts and contributions since 2012. At CCC, we place particular significance on assessing our environmental data, such as energy use, carbon emissions, water consumption, and waste production. Our system for grasping CCC’s sustainability-related data is grounded upon internationally recognized standards (Global Reporting Initiative (GRI), UN Global Compact). Specifically for capturing carbon emissions, our approach also follows the greenhouse gas protocol standards for the Carbon Footprint Inventory.

CCC’s sustainability activities, measurements, and progress in achieving targets are published in our standardized sustainability reports. Following the launch of the Sustainable Development Goals (SDGs) and the call for stronger engagement from corporations, we wanted to understand how CCC could push the sustainable development agenda forward. Guided by the SDG Compass (the tool developed by the UN Global Compact, the World Business Council for Sustainable Development, and the GRI) our latest sustainability report reflects how CCC’s operations contribute to the achievement of the global goals. Our report was certified by the GRI for aligning content with the SDGs.
CCC’s positive impacts are most prominently targeted toward the following SDGs:

- SDG 6 — Clean Water and Sanitation
- SDG 7 — Affordable and Clean Energy
- SDG 8 — Decent Work and Economic Growth
- SDG 12 — Responsible Consumption and Production
- SDG 13 — Climate Action

Managing environmental impacts

CCC emphasizes environmental excellence as being an integral part of our construction operations. One of the ways to achieve this is by applying initiatives to mitigate our environmental impact and promote climate protection. Our projects, camps, and offices follow a meticulous sustainability strategy that is underpinned by detailed practices in the fields of energy efficiency, water conservation, waste management, and overall environmental responsibility. Some of our applied measures include: solar power plants, photovoltaic lighting systems, wastewater treatment plants, and recycling construction materials.

We are honored by the external recognition our efforts have received. CCC has participated in many open international sustainability competitions and been awarded the following prestigious awards:

1. "IPLOCA Environmental Award 2016 on Portable Green Technologies" for reducing environmental impacts of pipeline construction projects.
2. "Sustainable Project of the Year" at the Construction Week Oman Awards 2016 for CCC’s LEED-certified new Corporate Head Office in Muscat.

Promoting sustainable construction

As a leading contractor, we are increasingly concentrating on the principles of sustainable construction. Our business strategy is to provide holistic solutions covering the entire lifecycle of infrastructure projects, promote human and environmental health, and drive resource-efficiency.

CCC has established a strong track record in the execution of green building projects. Examples of projects already achieved or currently targeting a green building certification (such as LEED, ESTIDAMA, GSAS, or the Dubai Green Building Standard) are:

- CCC’s Corporate Head Office in Oman
- Lusail Multipurpose Hall in Qatar
- Palestinian Museum in Palestine
- Abu Dhabi International Airport: Midfield Terminal Building in Abu Dhabi, UAE
- Opera Grand in Dubai, UAE
- City Centre Almaza in Egypt

Raising corporate awareness

We are fostering a knowledge framework to promote greater sustainability understanding, drive behavior change among CCC employees, and provide them with valuable skills. For instance, we frequently organize webinars featuring market-leading experts who share with us their insights on sustainable solutions related to the construction industry. Other examples include: toolbox talks, sustainability induction videos, and posters (the latter emphasize the popular slogan of the Paris Climate Change Summit 2015 “There is no Planet B” and cover themes such as energy, water, and waste).

Additionally, since 2008 CCC’s branch in Greece has been developing CSR-themed calendars to fuel awareness on emerging issues, encourage personal responsibility, and sometimes show CSR activities. Our calendar for 2017 was dedicated to sustainable development and extends a strong message: “Let’s transform our World.” It has been designed to raise awareness about the SDGs across CCC and offers practical tips and doable advice that we all can adopt into our daily routines to contribute toward achieving the SDGs.

Community investment

In all areas of operation, CCC’s CSR commitment manifests itself through programs of corporate citizenship, ensuring that business decisions are balanced between contributing to company growth and improving the quality of life for employees, their families, communities, and society at large. Committed to enhancing the quality of life for everyone in these communities, we engage with them to address issues such as education, health, and social development. We also understand civil society to be a partner of paramount importance and have formed mutually beneficial partnerships with NGOs that guide us and increase the impact of our initiatives.
INVESTING IN THE COMMUNITY

Moving forward with firm steps toward its commitments on corporate social responsibility, Central Romana Corporation, Ltd., has concluded its work of reorganizing and improving Batey Cacata, one of many agricultural communities in the Dominican Republic that harvests sugarcane. These measures involved an investment of more than $5 million and are part of a model pilot program that will be extended to all the bateys within the agricultural division of the company.

By Jorge Sturla, Central Romana Corporation

As a first step, Central Romana’s engineers designed a complete sanitary infrastructure that included a permanent supply of potable water, a new sewer system, and also wastewater management for all the housing projects in the rural community of Batey Cacata. To achieve this goal, the company built an aqueduct with a pumping station that can provide potable drinking water from two wells and fill a 100,000-gallon stainless steel tank as fast as 100 gallons per minute.

All of the families that live in Batey Cacata, which was improved and expanded with new housing facilities, have access to water taps for drinking, cooking, and personal hygiene. Water distribution is available for interior use as well as common shared access, including latrines with continuous water discharge, shower heads, and sinks. The new sewer system re-collects all of the generated wastewater to ensure the welfare and health of the population. It operates with gravity, channeling and discharging the wastewater into an open treatment plant. The water in the aqueduct is purified by the oxygen produced through photosynthesis. This type of natural treatment under controlled conditions is the most appropriate technology for rural areas where large extensions of land are available.

At the same time, existing green areas in the Batey Cacata were upgraded and new ones were created with the planting of fruit trees such as the breadfruit, avocado, Dominican cherry, soursop, and mango trees as well as others such as palm, dove, and neem trees. The inhabitants of the bateys also have the option to farm a small piece of terrain near the houses they occupy, where they can harvest short-cycle vegetables and other plants.
Over the course of 5 to 10 years, Central Romana will rehabilitate and improve the properties of the sugarcane communities, taking as its model the investment made in the new Batey Cacata and replicating it in each batey according to need.

In another important step toward its corporate social responsibility program, Central Romana has managed to reduce the level of emissions of solid particles into the atmosphere by more than 90 percent with the installation of electrostatic precipitators in their boiler systems during the production of sugarcane from the mills. Its goal is to filter the tiny particles more efficiently through a process of ionization that significantly reduces pollution.

The company has stated publicly that it has invested more than 2.5 billion pesos into this operation over a period of three years. With these measures, they are advancing in their commitment to protect the environment, in accordance with the laws established by the Dominican government. This important investment made by the company seeks to reduce the environmental impact of industrial processes and, at the same time, is a significant advance in technical progress that has been achieved by the plant engineers.

In terms of human development, and in response to their human resources, Central Romana continues to strengthen benefits for its personnel by providing healthcare, quality schools for the children of employees, and labor agreements through its United Workers Union. In that regard, a new collective agreement on work conditions was signed in 2016 between Central Romana and its United Workers Union that includes a wage increase of 18 percent over the course of three years. The new agreement runs until 2019. It has a similar proportion of increases in benefits regarding annual bonuses, Christmas bonuses, holiday incentives, as well as increases of between 15 and 23 percent in the payment of allowances for workers, improvements in training and staff development plans, as well as educational programs for the children of employees. In this new pact, programs for accident prevention and occupational diseases are being strengthened. There have been increases of more than 30 percent for social programs that favor workers, for example the death of family members, and wage increases of between 25 and 66 percent for marriages and the birth of children.

For more than 50 years, Central Romana has promoted the freedom of association of its workers and employees, thereby achieving an effective work environment as well as important mutual benefits for both workers and the company.

The signing of the agreement with the Workers Union will guarantee rights for more than 15,000 thousand workers.
PUTTING ENERGY EFFICIENCY FIRST

In a world challenged by a growing population, booming urbanization, and the clear issues surrounding climate change, energy-efficient solutions – doing more with less – are a ready-to-use answer.

By Flemming Lynge Nielsen and Lene Faurskov, Danfoss

Our future rests on a force invisible to the naked eye. It is there when Mr. Kuzmich turns up the heat in his Moscow apartment on a chilly January morning, and when Ms. Rossi in São Paolo pushes up the office air conditioning a few notches as the sun comes blazing in. It is there in Shanghai, where Mr. and Mrs. Wang are going about their daily business, together with 14 million fellow Shanghainese.

The force is energy, of course — if we use it efficiently, there will be enough for everybody in this generation, and many more to come. The technologies that can ensure the sustainable use and development of our energy resources are already in place and ready to be used.

Today, there are more than 7 billion global citizens — just one generation from now, there will be an additional 2 billion mouths to feed. Regrettably, one-third of the food produced today is lost or goes to waste. At the same time, the food sector accounts for one-third of the world’s energy consumption. So, by addressing food waste and energy waste, the food sector can literally help feed the world, and the solutions to accomplish this are already available.

Danfoss technologies can help unlock the huge potential to make better use of food supplies while saving energy at the same time. For example, our hydraulic motors make farm machines more efficient and optimize a farm’s harvest to bring more food to the table. Our refrigeration control systems save one-fifth of the energy consumed in food production while minimizing food waste. This supports Sustainable Development Goal 12, which calls for cutting global per capita food waste in half by 2030.

Energy efficiency to avoid climate change

Using energy efficiently not only helps us accomplish more with less, it also does our climate a favor. According to estimates provided by the International Energy Agency (IEA), energy efficiency can deliver as much as 38 percent of the emission reductions needed by 2050 to keep the planet within the 2 degrees Celsius limit necessary to address global warming.

Political action is needed to achieve this: The IEA figures also indicate that only one-third of the global energy-efficiency potential can be reached through current policies. However, with the right policies in place, Danfoss has the technologies to help deliver on this potential, thereby supporting Sustainable Development Goal 7, which calls for ensuring access to affordable, reliable, sustainable, and modern energy for all.

The Marselisborg wastewater treatment plant has transformed its focus from minimizing energy consumed to maximizing net energy surplus. The facility has net production of both electricity and heat, supplying the district heating system in Denmark’s second-largest city, Aarhus. The carbon footprint has been reduced by 35 percent accordingly. Danfoss has supplied its “Drives” products to the wastewater facility.
Urban efficiency is key

Energy efficiency also plays a key role in our cities. Urban neighborhoods are about to boom across the world. Today, half of us live in cities, but by 2050, two-thirds of the world’s population will have settled in these metropolises, even though more than half of the urban areas that will house this population have not yet been built.

This means that visionary mayors and city developers across the world have the opportunity to get it right from the beginning by establishing new city areas and upgrading systems in old neighborhoods. A lot can be achieved, for example, by looking at supermarkets as the backbones of smart cities.

Danfoss technologies can connect supermarkets to electricity and heating networks, enabling better use of both. For example, at a local supermarket near Danfoss headquarters in Denmark, excess heat from the refrigeration system is used for hot water and space heating within the store. The addition of a district heating connection also allows the supermarket to sell surplus heat to the local district heating company, thereby supplying heat to 16 homes every year. This “win-win” solution utilizes existing energy that would otherwise have been wasted, and incorporates district heating as a two-way energy infrastructure.

Addressing the cities of the future

With cities accounting for more than 80 percent of our economic output and 70 percent of the energy consumed around the world, the benefits of creating energy-efficient cities are numerous.

Danfoss has been working together with ambitious cities and mayors for many years to create more livable cities. A great example is the 632-meter-high Shanghai Tower in China, which is one of the world’s greenest buildings and on most Top 5 lists that rank energy-efficient buildings. Due to growing Chinese urbanization, special demands are being placed on construction projects to reduce energy consumption and pollution.

The Danfoss control valves in Shanghai Tower automatically ensure the precise control and balancing of the water flow in the pipe work. This also means that people on the top floor quickly get the temperature they want, regardless of the temperatures preferred on the lower floors. Energy efficiency in the air-conditioning system is further boosted by pressure transmitters and filter driers from Danfoss. More than 50 percent of the building’s energy consumption is due to the heating, ventilation, and air-conditioning system, and 20 percent of this can be saved by using Danfoss control valves. For the heating and cooling systems, Danfoss variable-speed drives ensure that the pumps, compressors, and fans never run faster than is necessary to deliver the right temperature. This contributes to additional savings of 20—40 percent when compared to running these components without this technology.

Any city can copy this by improving both new and existing buildings; introducing district energy networks; cleaning water and producing energy at the same time; increasing the uptake of energy efficiency in the industrial sector; and by investing in efficient food infrastructure to feed the growing population. However, we need more scale, more speed, and more acceleration.

To accelerate urban efficiency, Danfoss works with allied stakeholders such as Sustainable Energy for All. As a partner in the District Energy in Cities Initiative from the United Nations Environment Programme, Danfoss has established a team of district energy experts to support cities in developing, retrofitting, or scaling-up district energy systems. The team will assist more than 30 cities chosen in an extensive consultation process to identify municipalities with high district heating or cooling potential.

Danfoss engineers technologies that enable the world of tomorrow to do more with less. We meet the growing need for infrastructure, food supply, energy efficiency, and climate-friendly solutions.
ACHIVING, MEASURING, AND TRACKING SUSTAINABLE IMPACT

The business case for sustainability is well established, with sustainable business leaders citing growth and new business opportunities as reasons for tackling sustainability challenges.

By Heather Louise Madsen, Danish Energy Management & Esbensen

Achieving the Sustainable Development Goals (SDGs) is projected to create market opportunities worth up to 12 trillion USD a year for the private sector by 2030. Like ISO standards, the SDGs provide the opportunity for a robust compliance framework for sustainability, where impact is able to be measured easily and often, in a transparent way. Danish Energy Management & Esbensen has developed tools for sustainability management and measurement, which are used to track and report on progress towards the SDGs following UN standards.

This journey started over 30 years ago with design, planning and implementation projects in Denmark. The focus was then, as it is now, on sustainability, which led to a number of monitoring and evaluation projects. These projects provided the creation of indicators and IT systems, value chain monitoring and risk mitigation, and policy planning. These services eventually led to the monitoring of all EU projects in all sectors, and the establishment of the sister company Danish Management. Today both companies work side-by-side in a continuous effort to develop innovative consulting tools that enhance both energy and sustainability objectives. This experience has led to the creation of a new range of sustainability management and measurement services.

Working actively with the SDGs is regarded as a business opportunity for any business making a sustainable impact through their products and services. Outcomes achieved by these services are, among others: strengthening foresight management and anticipating compliance standards, stimulating product innovation, developing new market segments, increasing sales, improving operational efficiency and reducing employee turnover.

Services that contribute to these objectives start with a materiality assessment, mapping key Sustainable Development Goals and Targets. Once high impact SDGs and Targets are identified, individualized SMART indicators can be established, which are easily measured and based on international standards. These indicators can form the basis for impact tracking reports, and can also be reported into an online SDG Reporting System, providing a consistent and easy-to-use reporting mechanism that can create reports and be used for frequent reporting purposes.

Danish Energy Management & Esbensen now produces its own Impact Tracking Reports on a quarterly basis, offering the service world wide, and highlighting individual cases such as Energy Screening for the Danish Ministry of Defense, and Energy Efficiency for State Owned Buildings in Melaka, Malaysia.

»Our values are aligned with the United Nations Sustainable Development Goals and the European Union’s 2030 and 2050 targets to reduce greenhouse gas emissions by at least 80 percent below 1990 levels by 2050.«

Jørn Lykou, CEO, Danish Energy Management & Esbensen
Energy Efficiency

Services provided
- Energy audit and development of baselines and Energy Performance Indicators (EnPIs) at building level
- Analysis of technical and financial energy savings
- Energy management

Initiatives
- Indoor climate assessment
- Energy screening

ENERGY SCREENING FOR THE DANISH MINISTRY OF DEFENSE

Danish Energy Management & Esbensen provided an energy audit and review for one of the establishments under the Danish Ministry of Defense which consumes particularly high amounts of energy due to e.g. large open hangers and buildings with large ventilation demand. This work provides the foundation for the Ministry to become more sustainable and save energy-related costs.

Energy audits were carried out with a particular focus on significant energy use, e.g. with relation to equipment and workflow. All audits were carried out with the guidance of a local employee who had detailed knowledge of the building, installations & workflow. An energy audit report was provided for each building individually, with Energy Performance Indicators (EnPIs) and an action list identifying proposed energy efficiency measures to be taken.

ENERGY EFFICIENCY FOR STATE OWNED BUILDINGS IN MELAKA, MALAYSIA

For the Melaka State Government, Danish Energy Management & Esbensen has been contracted to screen and analyze 9 State Buildings covering a total area of 155,000 m². The Project is a pilot project to demonstrate the ESCO model for public buildings in practice. Based on the screenings done of the 9 buildings, a 20% savings is expected, with a total investment of app. 8 million USD.

In partnership with the Danish Climate Investment Fund, investment, finance and implementation for the project is covered under an Energy Performance Contract, where the Melaka State Government will repay the investment through the energy cost savings achieved. As such, there is no net cost for the state or the building occupants – it is all paid by the savings.
Deutsche Post DHL Group is the world’s leading mail and logistics company. The Group is focused on being the first choice of customers, employees, and investors in its core business activities worldwide. As a longstanding partner of the United Nations (UN), Deutsche Post DHL Group strongly supports all Sustainable Development Goals (SDGs), and we have set the course for sustainable development across our family of divisions.

Deutsche Post DHL Group supports all 17 Sustainable Development Goals of the United Nations and commits to the needs of our stakeholders and our planet. Many aspects of the SDGs have already been incorporated into our corporate activities and programs.

To showcase how Deutsche Post DHL Group makes a contribution to society in numerous areas, we have developed the Impact Wheel. The circular infographic depicts a wheel that turns with a vast range of socially significant products and services serving as its spokes. Every time the wheel turns, it not only supports our corporate strategy goals, but also highlights how our core business activities — especially in the areas of environment, health, and logistics infrastructure — deliver on behalf of sustainable development worldwide.

One visible proof point of the company’s efforts is the StreetScooter. The StreetScooter is a leading-edge electric vehicle developed by Deutsche Post DHL Group for environmentally friendly

By Christof Ehrhart, Deutsche Post DHL Group
urban delivery. Following a successful pilot project in Bonn, parcel delivery in six major German cities has now been transitioned to the purely electrically powered StreetScooter. For the coming year, the company plans to produce and bring 10,000 of these vehicles into operation. Urban delivery with electric vehicles reduces emissions of greenhouse gases in residential areas.

Minimizing business’ impact on the environment

The StreetScooter is situated in the environmental protection area of the Impact Wheel. Deutsche Post DHL Group is a pioneer in this area. With its Group-wide environmental protection program GoGreen, the company has improved its CO₂ efficiency compared to the baseline 2007 by 30 percent already — four years ahead of schedule. The company’s new climate protection target announced in March 2017 is groundbreaking for the transport sector: By the year 2050, we intend to reduce all logistics-related emissions to zero. We will achieve this goal with the help of new technologies, the dedication and expertise of our employees, and through collaboration with our customers and partners. In this way, the
Making quality education accessible for all

As one of the world’s largest employers, we rely on people. It is our employees who connect with people and improve their lives. This is why a future-oriented and sustainable human resources development is key to ensuring our long-term business success. We provide lifelong development opportunities to our employees and training programs to potential future employees. We also provide vocational trainings for individuals with disabilities, as part of our inclusive and equitable quality education.

With our GoTeach program we are committed to improving educational opportunities and the employability of young people. Our partnership with Teach For All aims to unleash young people’s potential. The educational network — committed to addressing the worldwide problem of educational inequity — is driven by the idea that every child, regardless of their parents’ socioeconomic status, should have access to quality education.

Through our strategic partnership with SOS Children’s Villages as part of the GoTeach program, we foster the empowerment and employability of young people from challenged socioeconomic backgrounds.

Supporting growth by facilitating global trade

Logistics is the backbone of economic development and prosperity. As a global
logistics provider, we facilitate global trade to support economic growth. In doing so, we create jobs for our 510,000 employees as well as our partners and suppliers. In everything that we do, we follow our principles for a responsible business practice.

Our employees are our company’s biggest asset. We act as a responsible employer based on our Code of Conduct. This includes protecting human rights, offering reasonable working conditions within the local context, and engaging our diverse employees.

**Collaborating with partners to ensure sustainable impact**

Entering new and fostering existing strategic partnerships is one of Deutsche Post DHL Group’s core strategic pillars when it comes to tackling global challenges. With our corporate responsibility programs, we build on trusted and global partners such as the UN’s Office for the Coordination of Humanitarian Affairs and the United Nations Development Programme for our GoHelp activities.

Beyond that, Deutsche Post DHL Group relies on an open dialog with our internal and external stakeholders to ensure a responsible and sustainable business. The exchange that ensues from these alliances has a significant impact on the success of our efforts in the area of corporate responsibility. We build on the social commitment through the global volunteering of our employees. By helping solve problems in their local communities, they not only make a contribution to society, but also create a sense of community and teamwork that carries over into the workplace.

**Value contribution is important**

Deutsche Post DHL Group is dedicated to being actively involved in achieving all of the 17 SDGs, with a particular focus on quality education; decent work and economic growth; sustainable cities and communities; as well as climate action and partnerships for the Goals. Corporate responsibility is embedded in the company’s strategy to become the benchmark for responsible business practice: Customers benefit from the fact that the company helps them to implement their own environmental and sustainability goals. Employees feel motivated by Deutsche Post DHL Group’s sustainable management approach. Investors can choose a company with strong corporate responsibility credentials and thus lower investment risks.

This is how Deutsche Post DHL Group not only meets its operations requirements but also adds value for its stakeholders as well as for society and the environment.

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From now until 2050, our mission will be to drive our business toward zero emissions logistics. We are setting the standard for the future of the transport sector and doing our part to help the world community reach its goal of limiting global warming to less than 2 degrees Celsius.”

Frank Appel, Chief Executive Officer, Deutsche Post DHL Group

DHL volunteers support after natural disasters in Latin America.
“SEA HERO QUEST”

The world’s first mobile game that empowers people around the world to game for good and help scientists fight dementia.

By Katja Brösse and Stavros Mouroutsos, Deutsche Telekom

Dementia is a global threat

The World Health Organization predicts that by 2050, one in three people is likely to develop dementia at some point in their lives. The effects of this debilitating condition are wide-ranging — from impacting an individual’s ability to form
and access memories to performing simple navigation-based tasks — and cause untold anguish and frustration for sufferers and caretakers alike.

One of the key barriers to developing new, effective diagnostic tests and treatments for dementia is the lack of data available to researchers — to find treatments to slow or even stop the progress of the diseases that cause dementia, scientists require data that is simply not available. As an ICT company, Deutsche Telekom has unique leverage to help researchers tackle this exact challenge.

Gaming provides research data

The success of mobile games — global citizens spend an average of 3 billion hours a week playing games, increasingly on mobile platforms — inspired a simple, yet revolutionary approach: Integrate gaming with brain science, so that helping researchers fight dementia might become something attractive and entertaining.

Deutsche Telekom, having created one of Europe’s largest mobile networks, considered it as part of its digital responsibility to leverage its expertise, insights, and infrastructure to address this challenge. Its ambition was to revolutionize the way research data is collected, by getting people around the world to volunteer their data and time. Deutsche Telekom had the power and scale to give dementia research a radical shakeup, harnessing the influence of its network for good by creating the world’s first mobile game in which anyone can help scientists fight dementia.

The game concept

A critical success factor for the “Sea Hero Quest” game was to ensure that the science and gaming elements were seamlessly integrated. The answer was navigation. Navigational skills are among the first cognitive functions dementia sufferers lose. At the same time navigation is a popular gaming element.

The game challenges and records navigational skills of players around the world. Through their play, the gamers provide anonymous data to create a human benchmark for spatial navigation, against which dementia can be measured in the future. The development of this benchmark is widely acknowledged to be one of the key steps toward developing new diagnostic tests for the diseases that cause dementia.

The backstory of the game involves a son and his aging explorer father, who is slowly losing his memories of his past sea voyages. Within the game, users retrace the Sea Hero father’s adventures by navigating their boat through five different themed areas. This simple, yet powerful tale of a son trying to save his father’s memories is a fitting metaphor for what people are doing in real life by playing the game.

In search of big data

For “Sea Hero Quest,” the objective was to build the world’s largest and most diverse dataset for dementia researchers. The largest previous study in this field consisted of only 499 volunteers.

To help achieve this outcome, the launch of the game was accompanied by a detailed international marketing and communications campaign, ensuring that the game would create an emotional connection with audiences and make it possible to empower people around the world to get involved and, for the first time, help to advance dementia research in a different way than by just making monetary donations. The launch activities took place across multiple markets and multiple media to embed “Sea Hero Quest” in the mainstream culture and conversation. This helped generate a positive buzz among casual gamers and ensured the engagement of our audience at scale over a sustained period of time.

Outcome and results

The game’s story went on to inspire millions of people around the world and has resulted in the creation of the largest crowdsourced dataset of its kind — and the biggest dementia study in human history. By the beginning of March 2017, the app had been downloaded almost 2.8 million times. Collectively, “Sea Hero Quest” has been played for the equivalent of more than 75 years, generating the equivalent of 11,000 years of traditional lab-based research.

At the Neuroscience Conference 2016 in San Diego, the preliminary findings of the data analysis were presented to the global medical community, and the tangible impact the game has had on global dementia research was demonstrated for the first time. The analysis of the data collected by the game has uncovered exciting new scientific findings.

The game is now being tested in a clinical setting, paving the way for its use as a global diagnostic tool for dementia — one that crosses the boundaries of language and culture, harnessing mobile game play to help diagnose and effectively treat dementia around the globe. In addition to communicating the human impact of the condition, the campaign has provided a tantalizing glimpse of the innovation that games like “Sea Hero Quest” can offer, highlighting the potential of big data to help solve real-world issues and cementing the legacy of Deutsche Telekom’s “game for good” initiative.

For more information please visit: www.seaheroquest.com
PUTTING THE TEN PRINCIPLES INTO PRACTICE

Eclipse Microfinance Limited (EML) was set up with a mandate from the Central Bank of Ghana to give credit to micro and small-scale businesses and individuals as well as offer investment opportunities to the public at large. Four years on, the company has touched many more lives than businesses through its social intervention strategy.

By Henry Ephson, Eclipse Microfinance Limited

The case of Kekeli Klagbon

Kekeli Klagbon, a member of a family of five, lived in the southern part of Ghana. Being a somewhat precocious child, he had always admired doctors with their white lab coats and stethoscopes hanging around their necks. His one wish in life was to be a doctor so as to be able to look after the scores of deprived people in his community, who lived very decent and hardworking lives.

His goal was almost permanently derailed when his father died during his last year in junior high school and his mother became unemployed as a result of a massive retrenchment policy at her workplace. Faced with an almost hopeless situation, Kekeli had no one to turn to and clung to his very passionate desire to do something significant with his life. Prior to his death, his father had put away some savings into EML’s Educational Investment Plan.

Kekeli’s mother walked into the company’s office with the intention of withdrawing whatever funds there were in her late husband’s account and use it for subsistence for her needy family. Her small hope for a few days of happiness was jolted when she was informed by the company that, in order to access her husband’s trust account, Letters of Administration were required by law and policy. With no hope of receiving help to access funds or procure Letters of Administration to administer the late husband’s estate, she cried and attracted the attention of the bank’s senior management members, who were meeting for a strategic review of their budget figures. The Head of Marketing was dispatched to intervene. Management members were immediately notified about the woman’s

Simeone Bansah receiving the citation of our Social Investment Fund
situation and a decision was arrived at: The woman was given a reasonable amount of money. This would enable her to take care of her children. Her late husband’s contribution into the Education Investment Plan was converted into a scholarship for Kekeli to complete junior high school and continue with his dreams.

Kekeli is now a senior in high school studying sciences, making excellent grades, and keeping his dream of becoming a community doctor alive. As his mother puts it: “Fate and nature gave EML the opportunity to bring light and hope to myself and my son Kekeli.”

The case of Simeone Bansah and his wife

Simeone Bansah and his wife, Love Bansah, are micro-scale traders dealing in the distribution of everyday provisions. Their flagship product is purified water. Simeone and Love decided to expand their product line to meet the demands of their growing customer base. They had gone to several banks for money and been given the same answer: “You are a start-up and do not have the requisite collateral.” When they had almost given up and consigned themselves to their “micro” business with no help from any quarter, they happened to meet an EML mobile banker who was visiting their neighborhood. A brief interaction revealed that EML was in a position to make their expansion dream come true.

Simeone and Love came to EML with their proposal, but they lacked the necessary collateralization for their loan. (EML policy states that loan amounts must be secured with collateral worth at least 110 percent of the loan amount). Their collateral could only secure 25 percent of their facility. Simeone turned to go but Love requested to speak with the CEO. This proved decisive. On learning about the case and being moved by their will and zeal to move on in spite of the odds, their loan was approved. They both left EML in tears that day – tears of relief.

It has been 2.5 years since then, and Simeone and Love have gone on to become the major distributors for four major brands of purified water within their Adentan locality. They recently received awards from two of the companies for outstanding service. Simeone and Love have employed four extra hands to help in their shop, and the demand for their products is increasing daily. They have also set up six people in the same business lines to help them grow.

Social intervention strategies

EML, in collaboration with the Social Investment Fund, has disbursed loans to more than 1,500 clients with a view toward reducing urban poverty levels. These loans were given at a concessionary rate of 19 percent per annum (the going industry rate is 36 percent per annum). This initiative has been most beneficial to clients, and management intends to provide low-cost funds in the short term so that the initiative can be extended.

Corporate social responsibility

In line with the UN Global Compact Principles and the Sustainable Development Goals, EML has adopted four needy but brilliant girls in the Adentan West Community and is sponsoring their elementary education for the 2016/2017 academic year. All expenses regarding their tuition and daily costs have been provided by the company.

EML has also donated some trophies and cash prizes to the La Nkwantanang Municipal Education office. The West Adentan cluster of schools will compete for these, in line with the UN policy of using sports to foster unity among schools.

EML is committed to ensuring that the underprivileged and very poor but hardworking Ghanaians in the municipalities are able to participate financially in their communities.
SIX AMBITIONS BASED ON THE UN’S SDGs AND INCLUDED IN OUR STRATEGIC PROGRAM

In 2016, we decided on six corporate responsibility goals. They mark out the path we have set for ourselves to achieve our CAP 2030 strategy and take into account the 17 Sustainable Development Goals (SDGs) laid down by the United Nations. Although the SDGs are not aimed directly at companies, we firmly believe that these goals cannot be met without the active contribution of business organizations. We fully embrace the global approach of the SDGs, while remaining aware that we are but one of the many actors in this movement.

Three of the major topics that we have chosen concern the environment and natural resources: climate change, as we must drastically reduce our CO₂ emissions; biodiversity, as we want to better integrate biodiversity issues into all our projects; and energy efficiency, as the digital transformation brings us fresh potential to innovate.

Two topics underpin our community involvement, by supporting the most vulnerable in our society and by systematically implementing a consultation process for our major projects around the world.

The sixth goal focuses on people and aims to develop human resources to guarantee safety and equal opportunity for our employees.

- **Drastically reduce our CO₂ emissions**

  We aim to surpass the 2 degrees Celsius trajectory set by the COP21 Paris Agreement. Despite being one of the undisputed leaders in low-carbon electricity generation in Europe and probably worldwide, we are also, in absolute terms, a high emitter in France.

  Our goal is to continue reducing our CO₂ emissions, both in France and across the world. But things are not that simple! It is not so easy to continue scaling-back our emissions, currently at about 15 g of CO₂/kWh in France, while we are doing 20 times better than the other electricity companies in Europe. It is not so easy when the consolidation of our subsidiary Dalkia, which generates heat using renewables as well as natural gas, has doubled our CO₂ emissions in France.

  By 2030, we want to double our renewable generation capacity worldwide to reach 50 GW.

  It is not so easy when our Group’s CO₂ emissions totaled 77 g/kWh in 2016, six times lower than the industry’s global average. It is not so easy when international expansion often comes up against the demand for coal. We are following a CO₂ emissions trajectory in line with both our objective and the reality of our industry.

- **Adopt best practices in health and safety, gender diversity, and social advancement**

  The health and safety of employees and subcontractors is not just a goal, it is an obligation. Our figures have improved, but that is not enough. We must work faster to make sure that employees and subcontractors follow life-saving rules applicable to all subsidiaries to avoid serious accidents, and to protect themselves and their colleagues. Diversity is a strength. We have no doubt about that. However, gender diversity remains a deep concern at a company dealing in high technical expertise, a company made up of engineers. Today, the proportion of women in leadership positions and senior management is still lower than the percentage of women employees. So we must support and encourage women in taking on leadership and technical positions.

  Upward social mobility is one of the noblest values at our company. In France, 35 percent of our managers worked their way up to reach their
position, often combining a bold personality, personal dedication, and expertise. Now that is a winning formula. We have reiterated our commitment to eradicate fatal workplace accidents.

- **Offer all vulnerable people information and support**

The transformations taking place in today’s world leave some people behind. They become marginalized from our society. Vulnerability and exposure to this situation are growing. We have been working hard to combat fuel poverty for nearly 30 years, alongside public authorities, social services available through local governments, and non-profit organizations. Digital technology has opened up the opportunity to redefine our relationship with vulnerable customers and reach wider audiences, while engaging in close-knit ties with local organizations. Now, we want to support all vulnerable people, to help them use energy more wisely and understand their rights (access to various forms of aid, information about payment methods, energy savings, and so on).

*In the United Kingdom, Priority Services enables EDF Energy’s vulnerable customers to access personalized advice and useful information about the solutions provided by the company and public authorities.*

- **Innovate through digital energy-efficiency solutions**

The planet is finite. It is crucial that we reduce our consumption of natural resources. This also applies to electricity generation. Even renewable energy draws on rare raw materials, as do storage solutions. Instead of reducing consumption, we need to use the least amount of energy possible, and at the right time. That is where the digital revolution, replete with all its applications and new technologies, comes into play. Digital technology will enable each customer to take an active role in their energy use, and even produce their own electricity. Sensors create “smart” devices that measure temperature, brightness, and CO₂ in our homes. By controlling these devices in all-new ways, such as from smartphones, anyone can understand and manage the way they use energy. We believe that electricity will play a unique role and is the future of energy intelligence. This also brings us the opportunity to develop and design new products and services. We can take a whole new approach to support customers who play an active role in their energy consumption.

**OUR SIX CORPORATE SOCIAL RESPONSIBILITY AMBITIONS**

- **Go beyond the requirements of the 2 degrees Celsius trajectory set by COP 21 by drastically reducing our CO₂ emissions**

- **Adopt industrial Groups’ best practices in people development: health and safety, gender diversity, and social advancement**

- **Offer all vulnerable people information about, and support with, energy use and energy benefits**

- **Innovate through digital energy-efficiency solutions to enable all customers to use energy better**

- **Systematically organize a process of transparent and open dialogue and consultation for every new project around the world**

- **Launch a positive approach to biodiversity**, not limited to understanding and reducing the impacts of our activities in the long run but having a positive effect on biodiversity

**Systematically apply a process of dialogue and consultation for our major projects around the world**

Over time, industrial projects shape regions and landscapes. They transform them. They create jobs, activity, and value. Talking about it and listening to those concerned, as early as possible in the process, is not a waste of time. It helps us better understand the issues that impact an area to make the industrial project a positive step forward for the region. It is about learning to live with the surrounding region. Our Group is keen to renew and systematically apply its dialogue practices to take better account of the expectations of regions and their communities. We want this dialogue with stakeholders to be transparent, challenging, constructive, and open. We do not want to co-build projects but to foster the sustainable development of regions.

*In 2017, this will involve new projects worth more than €50 million, which will have a significant impact on their relevant regions and environments. In 2030, the Group aims to lower this financial amount to €30 million.*

- **Launch a positive approach to biodiversity**

All our facilities and projects deal with biodiversity issues. Our industrial facilities are complex and often located outside cities. In France, we own large amounts of land (41,000 hectares) and manage vast natural resources (75 percent of artificial water reservoirs). We want to reach further than simply better understanding this natural wealth and reducing the impact of our business activities; we also work to enhance local biodiversity. To do that, we need to build and develop alongside competent partners, NGOs, and top scientific institutions. With the support of these organizations, we can take bold steps to develop biodiversity without affecting the industrial business at our sites.

*We returned more than 100 hectares of Ile du Rhin in eastern France to its natural state, restoring the original function of this ecosystem, made up primarily of wetlands.*
GOOD PRACTICE SECTION 2: LIST OF ATTENDEES (FROM E - Z)

Companies are listed in alphabetic order

Solely responsible for the editorial contributions under the heading “Good Practice” are the companies themselves. Named articles do not reflect the opinions of the publisher.

Acciona
Adecco Group
Alcantara
Armacell
Athens International Airport
Audi
Banca Popolare di Sondrio
BASF
BONWS Seguros
Bosch
CCC
Central Romana Corporation
Danfoss
Danish Energy Management & Esbensen
Deutsche Post DHL Group
Deutsche Telekom
Eclipse Microfinance Limited
EDF Group

Egyptian Junior Business Association
Eurofinsa
EY
FEDA
Green Delta Insurance
Harburg-Freudenberger
HOCHTIEF
Inditex
INSPRIT Intern. Communication
MAN
Manila Doctors Hospital
MAX ENERGY
Merck
Nestlé
Philip Morris International
Rogers
Sakhalin Energy
Sanofi
Vaisala

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Egyptian Junior Business Association

Eurofinsa

EY

FEDA

Green Delta Insurance

Harburg-Freudenberger
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SMEs – cornerstone of the initiative

The initiative aims to use collective action to tackle pressing corruption challenges and have an impact on creating a cleaner business environment in Egypt in general. However, due to the crucial importance of SMEs to the Egyptian economy, and their often underdeveloped capacity to tackle corruption challenges, they were designated as the cornerstone of the initiative. According to research conducted at Cairo University, SMEs represent 75 percent of the employed workforce and 99 percent of non-agricultural private businesses, a fact alluding to their importance to the Egyptian economy. However, they also face some particular challenges when it comes to countering corruption — challenges they are often insufficiently equipped to tackle individually. SMEs are thus the core beneficiaries of the initiative's capacity-building and training efforts. The initiative gears its resources toward providing training and support to help SMEs in implementing anti-corruption policies and practices within their organizations. It further incorporates other relevant stakeholders, such as larger companies, civil society, and public-sector stakeholders, to provide a platform for the initiative as well as incentives and support for SMEs.

Approach

1. The Integrity Network Initiative has established a tailored anti-corruption standard in the form of a 10-step “Integrity Pledge.” The standard is complemented by a capacity-building program for SMEs to train the management and the compliance focal points on implementing the standard.

2. The initiative continues to build a surrounding “multi-stakeholder” network of partners that provides a platform and support structure for SMEs.

The power of the group

Since its launch in 2014, a number of highly committed members have contributed tremendously to the initiative’s success. Today, the initiative has grown to include a larger number of SMEs, large corporations, and civil society stakeholders that jointly contribute toward its efforts. As more companies join the effort, the initiative aims to create a “lighthouse” that will allow members to benefit from each other’s experiences while showing to others that integrity can be a viable business option, even under challenging conditions. Thus, through collective action, advancing integrity becomes possible where individual action may be unfeasible. Especially for SMEs, being part of a group can help to strengthen their positions when withstanding corruption, benefiting from the experiences of others, as well as receiving support and incentives (material and immaterial) from larger members to encourage their commitment.
Creative innovation strategy for human rights, climate change, and the fight against corruption

By Tuuli Sauren, INSPIRIT

Our team at INSPIRIT International Communication GmbH is working on creating solutions for the most pressing issues concerning big businesses violations of human rights and their detrimental impacts on the climate and environment. In December 2016, we made a decision to transform our own business model to include an innovation for Social Impact to our services in our branch in Berlin. Without immediate and concrete actions, human rights abuses, inequalities, and climate change cannot be stopped. The world needs a creative strategy to survive.

With rapidly growing populations and the speed with which the Arctic is melting, it is causing irreversible catastrophe. The change has to start today. What INSPIRIT is offering is a creative business strategy, through design thinking and innovation that supports small local communities to become self-sufficient and resilient to exploitation. Our solution is to shift from global business back to local commerce.

By empowering the local communities, especially women and youth, we are starting a new era in rural regions. Our solution has positive impacts on youth unemployment rates, gender inequalities, and the overall happiness and unity of communities. It also has a direct impact on climate change, as there will be less export/import between countries.

Value creation is not in financial profits. We are here to help businesses find a new path, without exploiting our finite natural resources or taking lands from indigenous peoples. We have hunger in areas that are used to grow crops, such as palm oil, to feed developed countries. At the moment, we are depleting the natural resources of developing countries instead of empowering them. This can be changed through our creative strategy.

We have developed, with our international design partners, a tool that measures the impact of our design industry on a community’s environmental, social, cultural, and financial sustainability. Our industry is one of the few that is still badly exploited by customers asking for free labor before eventually paying for the designs. We have mandatory criteria, such as prohibiting the pitching of projects for free. Only projects meeting the highest professional standards are validated to receive an SDStandard number (Sustainable Design Standard (SDS), which is a project-based sustainability measuring tool. By raising the bar for best practices in our own industry, we set an example for others.
At Eurofinsa, we are committed to a social environment in which our projects are carried out for society’s most vulnerable groups. We are committed to including persons with disabilities in our workforce as one way of putting our corporate values and social responsibility policy into practice. We are convinced that favoring vulnerable persons by integrating them into the workforce contributes to the economic and social development of both the individual and society as a whole.

IBT Group job placement

Our American subsidiary, IBT Group, has headed our first project for including persons with disabilities into our workforce, which is constantly growing and evolving. It is enabling us to set out a progressively more integrative personnel management model that provides opportunities for people seeking to develop their professional potential and contribute to the success of our business with their talent.

In April 2014, the first two Hospital Complexes in Peru were officially opened under the Public-Private Association model. They were built, equipped, and managed by the IBT Group to serve 500,000 people covered by the Peruvian Social Insurance System (ESSALUD). The General Administration and Corporate Social Responsibility Area decided to integrate persons with disabilities from the very start as part of the management model for both of these hospitals and contacted the Fundación DKV Integralia to seek their advice. The Foundation is a Spanish social entity that has 17 years of experience in placing persons with disabilities into the workforces of developing countries. It collaborates toward getting integration projects under way with companies and is closely aware of the needs of the population with disabilities within the local environment.

In August 2014, this collaboration started as an agreement between the Foundation and the IBT Group to provide the human resources area with advice on the processes of screening persons with disabilities, specialized training for the selected candidates; we supported the employees through the placement process for the initial two-month period; hold open conferences aimed at increasing awareness within the company concerning persons with disabilities for the executive management, middle management, and those...
directly responsible for these employees; hold the training and transfer of knowledge of an individual designated by the company as a Mentor.

The Mentor is the person who has been trained in all phases of the integration process and has the know-how necessary to keep the project in full swing. It is also important to mention the support from public agencies and their job exchanges in the process of seeking candidates with disabilities.

*This project is one example of social value being generated on the part of the private sector in conjunction with a not-for-profit entity and the collaboration of the public sector.*

**From placement to inclusion**

This project started off with the incorporation of six persons into the Contact Center Area. Two and a half years later, there are 14 in Admissions dealing directly with customers, and 1 in each of the following areas: Homecare, Nursing, Occupational Safety and Health, and Physical Medicine and Rehabilitation. Because we believe that persons with disabilities can work on equal terms, we keep expanding the scope of the inclusion model in the different areas in which our workers are performing their duties, fully integrating them into teams in which diversity is a reality and enriching for all. Similarly, in coherence with our values, we at IBT consider all our workers to have the same rights and obligations, equivalent job positions, and, of course, equal pay.

One of the challenges of hiring persons with disabilities is finding progressively more qualified professionals, especially in countries where access to a full, quality education is not readily available. One of the positive aspects we would like to highlight is that gaining access to decent, formal employment means greater self-dependence, economic independence, personal and family stability, personal growth, and higher self-esteem for them.

It enables them to be an active part of their family environment in particular, and of society in general. At the company level, they have shown themselves to be committed, responsible, efficient, productive, punctual professionals with a great willingness to learn and grow within the organization as well as maintain a low absentee rate. Also worthy of special mention is that it is important to invest in a little awareness-raising among fellow workers who have no disabilities in order to achieve true integration into the workforce.

Our experience is that including persons with disabilities on the different teams has a major impact at the human level, creating a sense of pride and belonging among all, which also contributes to the positive view the workers have of the company.

**Impact analysis**

In 2017, we conducted a job impact study in which 81% of the employees with disabilities took part:

- A total of 67% have dependent minors or older persons under their responsibility.
- A total of 68% have never received any support from a public agency or from private institutions as a result of their disability. In the cases in which some support had been provided, the aid in question was in the form of academic scholarships or wheelchairs.
- Over 70% stated having encountered employment-related discrimination due to their disability.
- In 27% of the cases, their salary is their household’s only income.
- In more than 40% of the cases, their salary sustains more than three of their immediate family members.
- A total of 63% have previously had more informal than formal jobs.

**DISABILITY IN PERU, THE STATUS QUO**

According to data from the Peruvian National Institute for Statistics taken from the first and latest National Specialized Survey conducted in 2012, a total of 5.2% of the population, meaning 1.6 million inhabitants, have some disability:

- A total of 64% have no schooling or have an elementary education at the most; only 6.9 percent have studied at the college level.
- A total of 21.7% of the working-age population are economically active, meaning they are either gainfully employed or seeking employment.
- A total of 40% have no access to any type of health insurance, making them twice as vulnerable.
- A total of 88% are not undergoing any rehabilitation therapy or treatment.
- A total of 58% are independent workers, meaning they do not have an employment contract.

The difficulty of gaining access to formal jobs and their scant occupational qualifications also means less access to health and pension systems. Combined with the country’s lack of inclusive educational policies, this diminishes the prospects for improvement of the poverty situation of many persons with disabilities.

*It helps me fend for myself as an individual, to be responsible and not depend on anyone.*

(Freddy del Valle)

*This job makes me feel able and happy because I can take care of my family.*

(Carina Gago)
HELPING ENTREPRENEURS ACCELERATE PROGRESS TOWARD THE SDGs

By Steve Krouskos, EY

At EY, we believe everyone should be able to contribute toward and share in the benefits of economic growth. With billions of people still living without affordable access to essential goods and services, that may feel a long way from reality. We are proud to be working with a new breed of impact investors and entrepreneurs who are making it their business to tackle this inequality, driving inclusive growth by generating better answers to some of society’s toughest challenges. When these businesses work better, the world works better, which is why helping to accelerate their growth and impact is a vital part of fulfilling our purpose of building a better working world.

In many ways, our economies have been geared to the needs of the few, not the many. Billions of people have been left behind without electricity, safe water and sanitation, decent education and healthcare, or the opportunity of fulfilling work. With the global Sustainable Development Goals (SDGs), the UN has given us a common language to describe these challenges and a framework for collaboration to tackle them.

Helping impact entrepreneurs change lives

Business has a pivotal role to play and impact entrepreneurs are at the forefront. Fusing the social mission of a nonprof-

it with the market-driven approach of business, they are critical engines for powering inclusive growth, human dignity, and potential. That is why a key area of focus for EY is to bring the knowledge, skills, and experience of our global organization within the reach of early-stage impact entrepreneurs, including those pioneering new business models for bringing essential goods and services — and a better quality of life — to millions.

We are sending experienced EY people to work with them on a not-for-profit basis, helping to improve their businesses’ resilience, productivity, and capacity for sustainable growth. In so doing, we are not only extending valuable support to people and places we might not otherwise reach, we are also offering inspirational development experiences for our people.

Doing what we do every day

These not-for-profit engagements are run using the same methodologies and
project management techniques as EY member firms employ with mainstream government and large commercial clients.

By using those techniques, EY people have helped tackle a wide variety of issues – from designing the business models and operating structures needed to set up new enterprises, to helping more established enterprises put in place the systems and processes they need to better manage their people finances, customers, and data as they scale.

Accelerating progress toward the Sustainable Development Goals

To date, EY teams have provided approximately 60,000 hours of consulting support to nearly 60 clients in more than 25 different countries across sub-Saharan Africa, South Asia, and Central and Latin America. The following are just a tiny sample of the legacy builders EY has supported recently, illustrating how their growth will contribute to the achievement of the SDGs:

• Improving access to export markets for smallholder farmers in Sudan
  Africorp provides a route to global markets for more than 4,000 smallholder farmers in some of the world’s poorest and most marginalized communities. Working capital and processing constraints mean the company is unable to meet the demand for its products, which include sesame, hibiscus, and Arabica gum. EY was engaged by a consortium of impact investors to develop the robust business plan needed to attract growth capital.

• Extending access to safe drinking water in East Africa
  With an ingenious business model that uses advanced solar-powered equipment to purify locally sourced water and make it available for a fraction of the price of other bottled waters, Jibu aims to bring clean, safe drinking water to a million people by 2020. EY helped them establish the robust financial and operational controls needed to support rapid expansion.

• Advancing container-based sanitation (CBS) as a viable answer to the global sanitation crisis
  With one in three people on Earth still without healthy, dignified sanitation, the world cannot wait for sewers. EY worked with Water & Sanitation for the Urban Poor and its Clean Team business in Ghana to identify means by which Clean Team could achieve profitability and position itself to scale, including assessing the viability of its CBS model in other markets.

• Reducing use of dangerous, polluting kerosene in rural India
  Frontier Markets is tackling the problem of access to clean energy by building a last-mile distribution and maintenance network for reliable, affordable solar products. EY worked with Acumen’s Lean Data Services team to help them build scalable, cost-effective means to continually gather customer feedback and use that insight to strengthen every aspect of their strategy and operations.

• Providing employment and sustainable development in Bolivia
  Chalalan is a community-owned ecotourism company located in the heart of the Madidi National Park on the Bolivian Amazon. It is the main source of employment for the 630 inhabitants, and any profits are redistributed to this community. EY helped Chalalan develop the business infrastructure and credible growth plan it needed to attract impact investors.

» EY teams treat each project with an Acumen business with the same level of professionalism as any major corporate EY engagement, consistently delivering high-quality work. «

Justus Kilian,
Post Investment Manager, Acumen

» EY filled a skillset and experience gap that was crippling our ability to scale. For the first time, we’re able to make management and business model decisions that we were previously making blindly. «

Galen Welsch,
Co-founder and Africa CEO, Jibu

» It’s been an inspiration and a privilege to work with such a genuinely purpose-driven business — one that’s literally changing people’s lives. «

Elisabeth Wallis, Senior Manager,
People Advisory Services,
Ernst & Young Incorporated
Andorra’s Challenges: A More Open and More Competitive Country

By Jennifer Dobarró Boyer, FEDA

For 2017, Andorra has set itself the objective of consolidating the country’s efforts to open up beyond its borders, renew the Andorran educational system, and improve its communication infrastructure with the construction of a national heliport.

However, one major challenge that stands out within the environmental arena is the commitment to energy diversification and sustainability. The major global challenges in this matter are also of concern to Andorra. Problems such as climatic change and global warming can have a direct impact in a country where the economy is very closely linked to snow and mountain tourism.

In 2015, Andorra was one of the first countries to present its national contribution to the agreement to fight climatic change (COP21). In 2016 it was present at the signing of the New York Agreement, which envisages a 37 percent reduction in emissions up to 2030, and emissions neutrality by 2050.

In Andorra, the main sources of gas emissions with a greenhouse effect are transport and heating.

Andorra ranks second in the world for the number of electric cars

In transport matters, the country has a program in place to encourage the use
of electric vehicles, with public monies covering up to 50 percent of the vehicle cost. The Principality now ranks second in the world for the number of electric cars, and in 2016 electric vehicles accounted for 6 percent of registrations. Andorra has achieved this feat in just a month and a half, when the initial target was to reach this level over a period of three years. This shows that citizens believe in this new mode of mobility.

FEDA will play a very important role in this change of mobility model by deploying a network of charging stations throughout the country. The network currently has eight charging points, each with two charging points, and it covers all of the country’s parishes. These charging points will provide extra support for domestic systems, and this deployment will continue in 2017.

FEDA promotes the use of electric vehicles, subsidizing the first two hours at charging points on public roads as well as 50 percent of the rental cost of domestic charges. Together with the Automobile Club of Andorra, it also organizes “Electric Mobility Days,” during which the public can try out various electric mobility solutions: vehicles, motorcycles, scooters, bicycles, and Segways.

In other mobility-related matters, FEDA wants to be a pioneer in the introduction of hydrogen-battery-powered vehicles in the Principality and in the production of local hydrogen through water electrolysis using photovoltaic solar energy. To make this implementation possible, a trans-Pyrenean project team has been created with the participation of Andorra, Catalonia, Aragon, and France. A hydrogen corridor will be created, and this will help to increase the network of European corridors using this technology. This corridor is formed by the three Pyrenean states, and specifically by the zones of Rodez, Albi, Pamiers, Andorra, Fraga, Tarragona, Huesca, and Zaragoza. These regions will have several hydrogen recharging stations with different technologies and 16 hydrogen-battery-powered vehicles to demonstrate their viability.

2016 – the year that the country’s first cogeneration plant commenced operations

Within the second area, heating, FEDA brought Andorra’s first cogeneration plant and heat network into operation under the FEDAE COTERM brand. In addition to producing electricity, the new infrastructure also supplies urban heating to major consumers in the town of Soldeu, and 70 percent of potential customers have been connected to the heat network since it started operating in December 2016. The fuel used to produce hot water and electricity is liquefied natural gas. This is the fossil fuel with the lowest environmental impact.

The plant represents the first cornerstone of the new national energy policy, which is aimed at increasing domestic production and moving toward a more sustainable energy model that is less dependent on external suppliers. Accordingly, the objective of producing 30 percent of the energy that we consume, which was already established in Andorra’s White Paper on Energy, is now a little closer, thanks to this new plant. It will be able to increase the electricity produced in Andorra by more than 10 percent, which is the equivalent of approximately 2 percent of overall electricity consumption.

Another similar project will soon see the light in the years to come. This is the Waste Treatment Plant of Andorra, situated in the capital, Andorra la Vella. The main aim of the project is to take advantage of the residual heat from the waste treatment plant by increasing its efficiency, currently 60 percent, to more than 80 percent, in order to heat water and distribute it through an urban heat network that will pass through a large area of the capital. This project will help to improve the value of waste treatment, and it will lead to a reduction in CO₂ emissions, thanks to the fact that gasoil heating will be substituted by the residual heat generated at the center.

FEDA is leading a very ambitious 10-year investment plan with the aim of encouraging domestic production and promoting renewable energies as well as making Andorra a more sustainable and competitive country through attractive energy costs.

RELEVANT DATA 2016

Population of Andorra: 73,105 inhabitants

Electrical energy demand: 583.5 GWh

Electrical energy production: 98.5 GWh (17% of demand)

Electrical network of 705 km (83% underground)

33,559 FEDA customers

SAIDI: 4.92 min
A PROMISE OF SECURITY

Although CSR has become a part of operations for a growing number of firms in Bangladesh, Green Delta Insurance Company has taken it a step further through its innovative approach. What started with the launch of the Ami Achi (“I’m here”) campaign on December 16, 2016, is now being developed into a full-scale philanthropic movement. Aligning with the Principles of the United Nations Global Compact as well as the Sustainable Development Goals (SDGs), Ami Achi aims to better the lives of people living below the poverty line while especially focusing on underprivileged children. Sadly, more often than not, these people are ignored, when in reality they need the most attention and care. This groundbreaking innovation of Green Delta plans to change that by working for unfortunate people and providing them with the help and guidance they deserve as human beings.

By Md. Moniruzzaman Khan, Green Delta Insurance

The name Ami Achi (“I’m here”) itself promises reassurance. It gives us the feeling that our security is not just our personal responsibility, but that it is also a matter of concern for those around us. We are the same people, the guardians of the same land, and the future of the same nation. Although we are divided due to our individual lives, we are also united under the flag of green and red. In unison, as one, we stand when Amar Shonar Bangla (the national anthem) is played; as a nation, we weep when the calendar marks the night of March 25. It was this sense of unity, this attachment to our people, that inspired the freedom fighters of our nation to fight to make our lives safer. It is that level of duty — of protecting the lives and best interests of our people — that has been the benchmark for Green Delta Insurance.

As a leading insurance provider, Green Delta constantly aims to help people protect those near and dear to them. The name of the campaign reflects the devotion behind this duty, which Green Delta extends beyond its clients to include all people of Bangladesh. Green Delta strives to follow in the footsteps of our freedom fighters and bring both glory and prosperity to our nation by always being there to safeguard their future. After the company started its mission, the first step was to familiarize all stakeholders with the banner name of Ami Achi.

The campaign was launched on Victory Day 2016 as a tribute to the inspiration behind the project itself. A small program was arranged involving all the employees of the organization, who were then familiarized with Ami Achi through the event. The employees acted as ambassadors, customizing their social media display pictures with a filter reading #AmiAchi, thereby effectively informing all of their social media contacts about the campaign.

Recognizing the importance of the web in generating awareness, Green Delta further organized a competition on its homepage. The participants had to provide answers to the question “What’s the most valuable thing in life and how...
The top five submissions won special gifts from the company.

As the program was launched in winter, the first social issue it aimed to tackle was the one relating to exposure to cold weather. It is common knowledge that deaths from extremely low temperatures are still occurring in the country, as many people cannot afford sufficient clothing to keep warm in winter. The ones who do survive, barely, and usually have to struggle through untold physical agony during the cold months with biting winds and freezing nights, making their lives miserable. It is beyond unfair for people to have to suffer so painfully just because they have low or no purchasing capacity. Green Delta Insurance recognizes that it is morally wrong to deprive these unfortunate souls from basic human rights. So, to restore the balance, Choriye Din Ushnota (“Spread the Warmth”) was organized through the Ami Achi campaign.

Under this initiative, the employees of Green Delta donated thousands of articles of winter clothing at each of their 40 branches throughout the country. These clothes were collected in boxes and taken to Dinajpur, where the temperature drops to the lowest levels in the country, and then distributed among the underprivileged.

It will be initiatives such as the ones mentioned above — helping to directly better the lives of the needy — that the campaign will undertake. Being a developing country, our society has a staggering rate of "have not's” who require direct assistance regarding basic human privileges. The campaign will work to ensure that people are not deprived of their fundamental rights. Over the upcoming years, the campaign will organize further projects intended to improve facilities for the underprivileged.

Green Delta aims to contribute to the fulfillment of the SDGs by aligning its vision for a better tomorrow with that of the wider world. Although the upcoming programs and events of the Ami Achi campaign will use the basic principles of the Global Compact as a guide, what Green Delta hopes to achieve is not just CSR success, but a better and brighter Bangladesh for all. Ami Achi symbolizes unity. It is a promise that Green Delta stands with the afflicted and the unheard.

Ami Achi is a comprehensive plan that will tackle the issue of fundamental rights being deprived from the poverty-stricken. Restoring the dignity of the poor carries a civilization into actual development. Using the framework presented by the United Nations, Green Delta, through Ami Achi, plans to bring prosperity to all Bangladeshis.
Against that complex background, the responsibility for the CSR project of Harburg-Freudenberger (HF) was assigned to the HF quality manager. The aim of the project was to use a sophisticated questionnaire to acquire truthful answers to questions concerning the four main topics of environment, work practices, fair business relationships, and sustainable procurement, in addition to a few general aspects. As a company, we were simply not prepared for these kinds of questions. The list of questions was available on a data cloud offered by a service provider, and an account for HF was set up. It soon became clear that HF had already been complying with many of the requirements for several years. How was that possible? Because those procedures had proven themselves to be effective, and because they are efficient and serve to maintain or enhance quality. However, this had not been documented, which was precisely one of the core elements of the audit. There was no point in searching for any records.

The situation was both simple and commonplace: Information that has not been documented cannot be found. Even the detailed knowledge of experienced employees revealed no hidden information.

Meticulous preparation and thorough procedures were the order of the day. To understand what that really means, it is helpful to glance through the shelf of over-stuffed ring binders in the quality manager’s office. They contain background information, standards, and regulations, as well as explanations for hundreds of acronyms and abbreviations encountered in connection with the certification requests. Working in highly exacting detail, the employees started from the basics to develop the required skills and knowledge.

One positive effect is that audits like this one play a significant role in enabling companies such as HF to assume overall corporate responsibility. Corporate social responsibility is the term used in professional circles. It encompasses trading on the market, ecological aspects, employee relations (workplace), and interactions with relevant stakeholders and interest groups.

Transposed to the list of questions compiled by the service provider, these thematic elements are categorized under environment, work practices, fair business practices, and sustainable procurement. Questionnaires like this one are primarily used by automotive groups and their suppliers to scrutinize service providers and companies involved in the value creation chain in order to ensure consistent compliance in the four thematic areas. The required depth in terms of content goes well beyond quality assurance. HF had to indicate whether it pursues an active policy relating to work practices and human rights, for example, and whether it has implemented measures to prevent discrimination, child labor, and forced labor. These measures are documented in, among other places, the sustainabili-
ity report and a code of conduct, which regulates the areas of ethics and integrity. In the meantime, many other things have also been established for the record and are now subject to continuous documentation. This applies to the area of health management, for example, and to the social commitment of HF. The volume of information required surprised even veteran HF employees. As a result, it was soon clear that a crack team was needed to perform this complex task. A team of six employees took on the job. Together they brought the project to a successful conclusion. According to comparative data from the service provider, our results placed us in the top ranks among the other suppliers in all categories, and we led the pack in the environment category. All that effort has paid off and we have become a more effective company. The service provider’s seemingly unquenchable thirst for information often stretched the team to its limits. In the environment category, for example, more detailed data about CO₂ emissions at the HF Group’s Freudenberg site was available, but not in the required form. The same was true regarding the consumption of fossil fuel-based energies. We knew how much heating oil, electricity, and gas we consume, of course. However, as is so often the case, the devil was in the details. No one knew exactly which users were consuming how much of that energy. That has changed. As a result of the customer audit, HF is now able to list energy consumption by user.

Certification according to ISO 50001 documents the changes in the company. The energy management system records and evaluates the energy-related processes. That helps the company track down the savings potential, which then leads to concrete measures for reducing energy consumption. The new requirements are now implemented so consistently that even the consumption of individual radiators will be recorded in the future. In combination with the sustainable reinforcement of our employees’ energy awareness, the energy management system has become a key component of our effort to improve competitiveness. Parallel to this, HF has enhanced its corporate sustainability through the implementation of its environmental management system according to ISO 14001. It obliges the company to engage in active environmental protection, the conservation of resources, and continuous improvement processes using the “plan – do – check – act” method.

Things that some might presume to be self-evident are also regulated. The code of conduct takes a clear position regarding fair business practices. Corruption, fraud, money laundering, and other anticompetitive practices are unequivocally rejected. It requires employees to protect the privacy of individuals, as well as the data of consumers and customers. Room for interpretation? None.

The cumulative experience with CSR — and especially the far-reaching effects of customer certification — continue to have an impact. Already during the 2015 financial year, HF decided to issue an informal request and encourage its suppliers to undertake CSR activities of their own. This was to determine which activities have already been implemented in the respective companies, and where they have outperformed minimum statutory requirements. Our aim is to establish uniform standards along the entire value creation chain.
Mr. von Matuschka, what is the significance of sustainability at HOCHTIEF?

Sustainability is part of our guiding principles and thus influences all of our economic activities. The spectrum ranges from ethical conduct to fair working conditions to the responsible handling of resources and active contributions to society. This means accepting responsibility and thinking holistically. For us, sustainability is a value driver.

Can you describe that in more detail?

As a construction group, HOCHTIEF creates lasting values: Our buildings and transportation projects are built for the future. They are designed to be well-manageable, to meet all user requirements, and to conserve resources. We are creating something new while at the same time preserving what already exists, thus also serving future generations. We can only do this, however, as a profitable group with a market-oriented service spectrum that offers attractive jobs and makes economic and social contributions.
What does this mean for sustainability in practice?

Sustainability requires continuous work on a variety of topics. We therefore are constantly reviewing and improving our processes. It is important to ensure that sustainability is measurable. For example, data on the recycling rate (74.3 percent), the lost time injury frequency rate (1.32), or diversity in the Group provide a specific picture of our performance. Our success in these fields is also reflected in the current listings in the Dow Jones Sustainability Index and the Carbon Disclosure Product. Currently, we are working in particular on further improving data quality in terms of transparency and comparability.

Current initiatives that contribute to sustainability spectrum from our Energy Efficiency and Innovation Awards to work safety days, health training, and compliance training — a very wide spectrum of approaches. In order to ensure that we keep an eye on the relevant topics of sustainability that are important to HOCHTIEF, we are actively seeking dialog with internal and external stakeholders.

Is sustainability a value in itself?

We are convinced that our financial success is only possible if economics, ecology, and social issues are considered equally — with every project, in every respect. This is the only way to achieve long-term success — and that is HOCHTIEF’s goal. Preserving, creating, and increasing value are all directly interrelated.
BRINGING SUSTAINABLE CHANGE TO THE GARMENT SUPPLY CHAIN

The global presence of Inditex gives us a real opportunity to bring positive and lasting change to the garment supply chain in a way that fully aligns with our commitment to the UN Guiding Principles on Business and Human Rights. We work with more than 1,700 suppliers and more than 6,000 factories globally, each supplying to one or more of our eight brands, which include Zara, Massimo Dutti, and Bershka. This presence places us close to the heart of communities in numerous different countries.

By Félix Pozo Peña, Inditex

It is this reach that motivates us to bring sustainable improvements to working conditions and the lives of the more than one million workers employed at these factories. It also provides an important opportunity to recognize our role in supporting the United Nations’ Sustainable Development Goals by ensuring decent work for all alongside economic development and responsible production.

We recognize that we cannot achieve sustainable progress in the supply chain alone, and that we need to work in partnership — partnerships with other organizations and, crucially, with workers themselves. These partnerships are vital to creating new models and new approaches to improve standards. It is this philosophy that laid the foundation for our global framework agreement with IndustriALL Global Union, signed 10 years ago. This was to become the first agreement of its kind to encompass a retailer’s entire garment supply chain. It protects the interests of all workers throughout the supply chain, whether the factory they are working for is supplying directly to Inditex or further down the chain. It marked a radical step in the industry by creating a space where there can be a free exchange of ideas on workers’ rights and collective bargaining as a way to improve conditions and wages.

“I feel proud of getting nominated to be a worker representative and to be able to express the needs of my colleagues to the management team. We have learned how to hold a dialogue with the management, knowing what our rights are as workers, and in which areas we need to raise awareness. This has helped me feel proud and accom-
make clear that we must have freedom of association for our supply chain to function effectively.

There are a number of factors that will shape how we manage our supply chain in the years to come. Customers are engaging more and more with the provenance of what they wear and have the right to know the conditions in which their clothes were made. Furthermore, the Sustainable Development Goals are pointing toward more proactive and inclusive approaches, with a distinct focus on human rights at every level of the supply chain — be it a direct supplier, dye house, or laundry. We see our partnership with IndustriALL as the foundation on which to continue working toward lasting improvement in the supply chain. After all, sustainable change can only be achieved if we establish the conditions that engage and empower the workers themselves.

The collaboration has developed only as a result of completely open communication between Inditex and IndustriALL, allowing the latter full access to our supply chain. Only with this level of transparency are we able to realize the improvements. We have worked with IndustriALL to deliver training to factories on workers’ rights along with worker-management dialogues and on how to run fair election processes. The latest update was signed last year when we agreed to place union experts directly in our supplier clusters — each of our main supplier regions. These union experts are able to directly manage the implementation of mature industrial relations to foster union activity throughout the factories and units supplying directly or indirectly to Inditex.

The collaboration is central to the management of Inditex’s supply chain because we firmly believe that the people best able to protect workers’ rights are the workers themselves. This is why it is essential that workers first know their rights and then establish meaningful social dialogue through the democratic election of representatives for collective bargaining. The work of trade unions is an essential part of establishing these processes, making our cooperation with IndustriALL key. We have further strengthened our agreement over the past decade to accelerate its implementation by facilitating union activity and the oversight of working conditions in our supply chain.

We are running joint initiatives with IndustriALL in many of our supplier regions, irrespective of where they are in the world. In some cases, this has also involved other brands working collectively to drive increases in workers’ wages. Our collaboration with IndustriALL has also been integral in addressing any disruptions in social dialogue in countries such as Cambodia and Bangladesh. It has allowed for a strong and united voice to...
"When we’re hot, sweaty and dirty down in the engine room, we sometimes lose track of what’s happening on the upper decks," admits Mick Dunne, the Second Engineer on Africa Mercy. "Mostly, though, we’re acutely aware that the medical teams rely on us. They need us to provide oxygen and power as they carry out life-changing operations and procedures." The engineers may have seemingly normal maritime routines and duties, but the Africa Mercy is no ordinary vessel. Not anymore. In her previous life, as Dronning Ingrid, the ship ferried rail carriages around the Danish Straits for the Danish State Railways. Today, she is the world’s largest civilian hospital ship. Dedicated to the continent of Africa, since 2007 she has brought state-of-the-art healthcare to the poorest of the poor — thanks to the Christian aid organization Mercy Ships, and the committed efforts of a unique crew.

With more than 450 crew members on board at one time, between 1,500 and 2,000 people from up to 40 nations serve on the floating hospital each year. Many spend anything between a few weeks to several years on the ship, often many times over many years. It is this long-term commitment to Africa Mercy that makes it work. It requires substantial sacrifice, too, as most crew members are volunteers, even those who stay for years. As such, they are required to raise enough funds to pay for their own travel costs, crew accommodation, and food on board during their service, while at the same time losing out on any income.

Sacrifices for a common goal

Dr. Itegré Ouédraogo, who is originally from Burkina Faso and normally works as the Chief Medical Officer in a mission hospital in Niger, has served several times on board Africa Mercy. Motivated by a desire to be useful to others and his strong faith, Ouédraogo has provided surgery to women who have sustained traumatic childbirth injuries. In much of the developing world, basic obstetric care is not available, so women must live with, or die from, the effects of unattended childbirth. Moreover, they are often treated as outcasts by their families or villages. In an average week on Africa Mercy, Ouédraogo operates on more than 10 patients and feels he is able to repair their broken homes. "I’ve seen women who came without hope to the ship, and left it with a smile and a feeling of thanksgiving," he says.

As in any hospital, the nurses play a key role in providing the necessary healthcare on Africa Mercy. Maryke du Preez, from Pretoria, South Africa, served as the leader of the maxillofacial team for an 18-month stint funded by friends, family, and sponsors, and has witnessed heartbreaking conditions. "Some patients brought me to tears more than once," she says. "It’s impossible to imagine
their suffering before they reached us.” Nonetheless, it was still the most rewarding experience for her, emotionally and spiritually. “To me, there is nothing more beautiful than desperate people receiving hope.” Elisabeth Rostved, a Danish surgical nurse, has served three times, taking care of patients before and after surgery. For her, contributing to the stories of personal transformation, especially of children, remains special. “To be part of the healing, knowing that they can grow up to have a normal life, is truly a privilege,” she adds.

Remote areas need expert support

Back down below, Mick Dunne, who served 23 years in the Royal Australian Navy as a Marine Engineer Officer, is keeping the power supply running. The four MAN 21/31 GenSets — installed at favorable conditions in 2010 to power the floating hospital’s medical equipment — make his life much easier, he says. As the person who is responsible for operations and maintenance in the engine room, he is grateful that he has modern machinery in such a remote part of the world. “It’s a real challenge working in areas without proper infrastructure, without sufficient resources, which is why the close partnership with MAN is crucial for us, particularly for rapid technical support,” he explains. Dunne has lived on board with his wife and three sons since 2013, and will probably stay another four years. The family has given up a lot, but they feel more satisfied by their choice.

Since installing the GenSets, MAN has been committed to offering support as well as providing spare parts, equipment, and servicing at greatly reduced rates, and also with comprehensive crew training sessions with MAN PrimeServ engineers. Over the years, the commitment has grown. Recently, MAN’s ongoing engagement and support for Africa Mercy was formalized as a proper sponsorship agreement and covers spare parts with an annual cost of €250,000. “Such a partnership is essential to the ship, and also for us to uphold our company’s values and sense of social responsibility,” says Poul Knudsgaard, Vice President MAN Diesel & Turbo (Denmark). Having been on board, Knudsgaard has felt the crew’s commitment firsthand. “It was a most humbling experience,” he says. “Our direct involvement makes me extremely proud.”

Dunne is also appreciative of the partnership, and especially of the fast turnaround of technical queries. He highlights a recent case where he e-mailed a photo of the equipment to MAN PrimeServ one evening, only to have the solution in his inbox the next morning. “It’s a blessing to have the support of such a large company worldwide that helps us keep the operations afloat and running smoothly,” he says. The partnership with MAN not only supports the engineers, but it also means that expenses that would otherwise be necessary for maintenance can instead be spent on patient care.

Long-term commitment

Since her transformation in 2007 into the largest civilian hospital ship in the world, Africa Mercy has cruised along the coast of Africa. Currently, she is docked in the port of Cotonou, Benin, for the fifth time, for a 10-month field service until June 2017. By then, the team of medical volunteers is expected to perform 1,700 surgeries on board, as well as treat more than 8,000 people at a dental clinic on land. In Benin, a country with a population of 10.6 million, but only six physicians for every 100,000 citizens, access to adequate medical care is beyond the reach of many. With the average life expectancy a mere 59 years, the region has a dire need for the skills of the crew.

Although most of the volunteer crew members are only on board for short stints, their passion for helping and healing gels them quickly together into a team. This tight community is bringing first-world, cutting-edge healthcare to the people of Africa.
Since the inception and launching of its Social Vision in 2012, Manila Doctors Hospital has proven that profitability and investing significantly in social responsibility programs can be done harmoniously and productively.

By Corporate Social Responsibility Office, Manila Doctors Hospital

2016 was definitely a breakthrough year for Manila Doctors Hospital in terms of business expansion as well as quantifiable actions for responsible corporate citizenship. Its 60th anniversary was celebrated by inaugurating a new tower designed to accommodate more patients and increase the number of technologically advanced medical and wellness services. This is one of the biggest expansions the organization has undertaken.

Continuous improvement is one of our tools in ensuring excellence in service delivery. Manila Doctors Hospital successfully became the first private hospital in the Philippines to upgrade its ISO Accreditation from ISO 9001:2008 to 9001:2015. This signals a more focused risk-management system, effectively increasing safety levels implemented for the whole hospital, especially for its patients.

Combining consistent action toward the fulfillment of our Social Vision with the unceasing commitment for improvement, Manila Doctors Hospital was able to accomplish its 2016 targets for the Sustainable Development Goals (SDGs), which it has been supporting since 2015.

**SDG 3: Good Health and Well-Being**

Continuing our promise to implement inclusive health care programs, Manila Doctors Hospital extended quality medical services to twenty-four thousand four hundred fifty-one (24,451) financially challenged patients. The CSR Office implements seven health programs: (1) outpatient services, (2) in-patient services, (3) four in-house surgical projects, (4) external medical and surgical missions, (5) Community Health, (6) School Health, and (7) the Safe Mommy Project, which specifically focuses on maternal health.

Consultations, surgeries, diagnostic tests, and medicines were provided in collaboration with the whole internal community and in partnership with the members of our Corporate Social Responsibility Circle of Partners (CSRO Circle of Partners). Areas where access to quality healthcare is hard to reach or unavailable are identified by partners and prioritized in terms of fund-
ing and service provision. Persons with disabilities and indigenous peoples are organized to ensure that they are able to access the services being provided in every community where we implement the various health programs.

SDG 5: Gender Equality

We have continued our Men Caring for Women (MCW) resource-generation and advocacy program. Internally, the Human Resource Division, in collaboration with the Corporate Social Responsibility Office, has continued with its “Engendering the Workplace” efforts. In partnership with the Child Justice League — a nonprofit organization composed of volunteer lawyers who provide free legal services to abused women and children — a series of seminar workshops have been conducted in support of preventing sexual harassment in the workplace. Unlike in 2015, when the main focus of the engendering effort was the officers of the hospital, this time it was the non-supervisory staff. The goal is to capacitate the entire internal community in identifying inappropriate actions that are gender related. This is also part of our commitment to implement rights-based company policies. Manila Doctors Hospital considers itself a member of a bigger community and joined the 16 days of worldwide activism against gender-based violence through the “Orange the World” campaign. The internal community “went orange” and contributed to the social media drive.

SDG 13: Climate Action

One of our biggest CSR undertakings is our environmental commitment. For more than 10 years now, Manila Doctors Hospital has taken steps to reduce its carbon footprint, starting with energy utilization. Renewable energy is also being integrated into the hospital facility’s framework. The implementation of the hospital-wide recyclables program has already yielded millions of pesos for the various CSR programs of the hospital. In 2016, funds earned from hospital recyclables were allotted for two special projects. The first provides an alternative livelihood to augment the daily food sustenance of fisherfolk families in the province of Bohol, which has been affected by climate change. Bohol is located in the southern region of the country, where poverty and natural disasters are quite prevalent. The second project was to immediately send relief packages to victims of the two most destructive typhoons to hit the Philippine countryside. The devastation compelled the national government to declare a state of calamity in the provinces of Batanes and Kalinga. Solar lamps, food packs, blankets, medicines, and hygiene kits were immediately dispatched through our partners, who were stationed on site.

SDG 17: Partnerships for the Goals

Partnerships are vital for Manila Doctors Hospital CSR Office to go beyond its immediate community and serve those who are in far-flung areas in need of medical care. They enable us to tackle the challenge of creating clean and green spaces in urban areas and execute our advocacy platform of educating the public about eliminating violence against women and children as well as human trafficking. The vigorous and consistent participation of volunteers from both our internal community and external partners has allowed us to expand our reach.

Our CSRO Circle of Partners is composed of companies with strong CSR programs; international and local humanitarian and development organizations; national agencies; and churches. The harmonization of collective actions leads to maximization of resources, resulting in an increase in service provision, the promotion of a higher level of accountability, and the avoidance of program replication.

Recognition from peers

For two consecutive years, Hospital Management Asia has recognized the collective efforts of the hospital and its partners by conferring the CSR Excellence award to Manila Doctors Hospital. In addition, Manila Doctors Hospital won its first International Hospital Federation award for Corporate Social Responsibility Excellence during the 40th World Hospital Congress in November 2016.
When talking about Max Energy, it is necessary to also talk about Max Myanmar Holding Co., Ltd. One of the reasons is the founder, U Zaw Zaw, who not only has an interest in developing the capacity-building capabilities of the country but also in moving Myanmar forward.
The journey began with Max Trading Co., Ltd., in 1993. Since then, the company has expanded into the construction sector as well as start a rubber plantation company, Shwe Yaung Pya, in 2005. In 2008, it diversified into the country’s infrastructure through Max Highway to ensure that the public has access to good roads and is able to travel in remote areas, which was not imaginable previously. In 2010, the gas filling station chain Max Energy was established to serve energy demands. Max Myanmar had a joint venture with Novotel in 2015 and successfully opened the first Novotel Max Hotel in Yangon. As Myanmar is in need of raw building materials, Max Myanmar strategically established Max Cement in 2016.

In a nutshell, Max Myanmar has had consistent growth and is making an impact on society by providing job opportunities to local people, mainly by creating skilled labor for the country and contributing to the country’s GDP. The company also emphasizes capacity-building for those who are required to acquire new skills and upgrade their skills in today’s competitive globalized market.

**Responsible business**

The Myanmar Centre for Responsible Business is an initiative to encourage responsible business activities throughout Myanmar. The Centre is a joint initiative of the Institute for Human Rights and Business and the Danish Institute for Human Rights (see table right).

It has launched its third Transparency in Myanmar Enterprises (TiME) / Pwint Thit Sa report, in which the Max Myanmar Group is consistently recognized among the top three companies. Principle 10 of the UN Global Compact states: “Businesses should work against corruption in all its forms, including extortion and bribery.” The TiME Index has committed to this Principle, and the Max Myanmar Group has been highly regarded by ranking first in anti-corruption programming in the 2016 report.
Max Energy and the Ayeyarwady Foundation

Through the Ayeyarwady Foundation, Max Energy has actively been supporting the development of Myanmar during the company’s 20-year history and has given back its best in gratitude to the country. Foundation activities include initiatives in the health sector, the education sector, youth development and support programs, responsible business practice programs, and disaster management.

As per the famous Myanmar proverb “health is wealth,” having good health is a blessing. On the other hand, if one is in bad health, it will have a huge impact. Only citizens who are physically and mentally fit are able to contribute their best to the political, economic, and social sectors so that the country can prosper in the long run. In order to achieve these goals, the Ayeyarwady Foundation is donating medical funds and providing medical aid and assistance to impoverished people as well as building medical facilities, such as a 550-person-capacity pediatric hospital in Yangon.

The education sector is imperative for advancement in every country, and especially so in developing countries such as Myanmar. The Foundation has contributed to the education sector by constructing Basic Education High Schools for the Pyay and Yekyi townships and more than 10 primary schools across the country.

In addition, it offers several scholarship programs. These include scholarships to children who are at a tender age but who, primarily for economic reasons, are not able to continue their basic education. It also provides scholarships for academic excellence to students who have passed the matriculation exams but who could not afford to pursue a university education. Furthermore, Max Myanmar was among the forerunners to rush to the natural disaster areas during the Nargis Cyclone and provided emergency relief such as medicine, food, and clothes.

Women in power

One of the UN Global Compact’s Sustainable Development Goals is gender equality. It is focused on achieving gender equality and the empower of all women and girls, at work and in society. Max Energy has done very well in this area because it has established high-level corporate leadership for gender equality (Principle 1) by recruiting women for the top jobs of Chief Financial Officer (CFO) and Head of Marketing (HOM).

Following are excerpts of interviews with the CFO, Daw Nu Nu Wai, and the HOM, Daw Khin Pyi Sone Oo.

“What do you think are the challenges facing women when climbing the corporate ladder?”

CFO: “I don’t think women have more challenges than men. It is a mindset all women must have that we are as capable as men in every situation as long as we are focusing on capacity-building (Principle 4: Promote education, training and professional development for women).”

HOM: “Being a woman is already a challenge in society as well as at work in Asian countries. However, Max Energy has given me an opportunity to learn, grow, and lead the team with compassion, which includes younger generations (Principle 2: Treat all women and men fairly at work — respect and support human rights and nondiscrimination). Nevertheless, women have to work as hard as men in order to stay competitive, such as in technical matters, and create work-life balance.”
"How can women be successful in life?"

CFO: “Women have to empower themselves in order to empower other people, their communities, and the world (Principle 6: Promote equality through community).”

HOM: “Have clear objectives, don’t be ambiguous, use your Emotional Intelligence wisely and be strong!”

Empower younger generations

According to the World Bank, Myanmar’s unemployment rate in 2014 was 3.3 percent. One of the reasons for unemployment could be a lack of skills, knowledge, and/or experience. To resolve this, having internship programs and vocational training is imperative.

Max Energy’s internship program allows young and mature students to gain valuable work experience and the necessary training. Following are excerpts of interviews with MBA students from the Yangon University of Economics:

“Why did you apply for an internship at Max Energy?”

“As women, we need to have more experience and qualifications in order to be ahead of others.”
(Ma Ei Mon Oo and Ma Aye Ma Ma Phyo)

“I believe that I would be able to apply the knowledge I have learned during my MBA.”
(Ko Swe Nyein)

ABOUT MAX ENERGY

Max Energy is a private-owned chain of gas stations operating in Myanmar with more than 900 employees. As the slogan “Max Energy for Your Satisfaction” reveals, we are 100 percent committed to achieving the highest levels of customer satisfaction while maintaining our position as one of the market leaders in Myanmar in the gas station business.

Prior to 2010, all gas stations in Myanmar were nationally owned and the economy was not free-market. Consumers were given quotas for the amount of gas they could purchase at the designated gas stations, which made it extremely inconvenient for consumers.

In 2010, Myanmar’s political reform process was initiated and the government introduced national privatization programs to revitalize the country’s economy. Since then, Max Energy has expanded the gas station business throughout the country with the aim of achieving the highest levels of customer satisfaction by providing high-quality products with accurate quantities at reasonable prices.

Max Energy was therefore awarded with the ISO 9001:2008 – Quality Management Certificate.
MICA SUPPLY CHAIN: NO PLACE FOR CHILD LABOR

The mineral mica often lends products their alluring sheen, whether it is lipstick, eye shadows, or automotive coatings. The coveted raw material is mined in various locations, including the states of Jharkhand and Bihar in northern India, a region marked by political instability and poverty and where child labor is widespread. Merck also uses mica as the main raw material for its effect pigments. The science and technology company flatly rejects child labor and advocates for safe working conditions of the mine workers. In addition, Merck supports educational and health projects that improve the lives of families in the mining areas.

Zero tolerance for child labor
Merck has been fighting child labor in mica mining in India since 2008. The catalyst was an internal company investigation, which revealed that the inhabitants of the Jharkhand region were gathering mica in abandoned mines or from the ground – in isolated cases, together with their children. This practice was a clear violation of company values and the principles of Merck’s Human Rights Charter.

“Compliance with fundamental labor standards by our suppliers is one of our top priorities. We therefore took measures to fully rule out child labor immediately after we learned of the incidents,” explains Friedhelm Felten, Head of the Pigments & Functional Materials business unit at Merck.

The company completely reorganized its supply chain and now advocates for the improvement of working conditions of mine workers in India. “Since then, we maintain direct business relationships with mica mines and the mica processing companies. Unlike in the informal gatherer environment, in this formal work environment we have considerably more influence,” says Felten. Moreover, Merck has introduced control mechanisms that provide a comprehensive overview of the entire supply chain.

Socioeconomic background
Merck has intentionally decided to maintain its business relationships in northern India. The company has taken on responsibility for the region in an effort to preserve jobs.

The social conditions in Jharkhand and Bihar show just how important this approach is. They offer the ideal breeding ground for child labor, as the two states are among the poorest regions in India. The literacy rates and the number of children who attend school are far below the national average of India, according to a 2016 study by Terre des Hommes and the Centre for Research on Multinational Corporations (SOMO).
Investments in education and healthcare

In order to improve families’ living conditions, Merck has not only reorganized its mica supply chain, but also joined forces with its local partner, IGEP, to initiate social projects for the regional population. The mutual goals are to improve access to healthcare and to provide children with prospects for school and a career:

• In the villages of Tisri, Barkitand, and Saphi, Merck runs schools with affiliated daycare centers attended by more than 500 pupils. The lesson plan also includes education on hygiene and health. In Tisri, adolescents can also receive training to become carpenters or tailors. Furthermore, Merck supports a fourth school in Koderma with scholarships for 150 pupils.

• In Saphi, Merck has established a health center, employing two physicians and a nurse who also provide medical care at the schools. In addition, these staff visit the schools and villages in the vicinity.

Merck’s commitment has received a great deal of recognition from civil society. According to the SOMO study, the company has implemented by far the best measures — compared with other mica importers — to eliminate child labor from the supply chain and to improve the conditions of the people living in the mining regions.

Merck is also participating in multi-stakeholder dialogues and initiatives to improve living and working conditions in the mica region. Merck is one of the founding members of the Responsible Mica Initiative, through which companies and nongovernmental organizations are combining their expertise and strengths to improve labor conditions in the mica mining industry of India and to prevent child labor.

For more Information about CR at Merck, please visit: www.merckgroup.com

HIGH SUPPLY CHAIN STANDARDS

Merck has taken various measures to safeguard the implementation of social standards:

• Merck procures mica exclusively from controlled mines: Only a formal working environment ensures compliance with global standards. If mica is gathered in publicly accessible areas, child labor cannot be ruled out.

• With the help of a tracking system, Merck ensures that the supplied mica comes exclusively from mines and not from uncontrolled sources: The mine owners record the daily extraction volume of a mine in a logbook. The license fees that the mine owners must pay to the government are based on these documented amounts of mica. If mica from uncontrolled sources have also been used, the mine owners would also have to pay license fees for these volumes. This does not make economic sense because the mica would be more expensive for the mine owner than the mica extracted from the mine. Merck examines the volumes reported in the logbook and supplied to the processing companies on a monthly basis.

• By means of audits, Merck monitors the compliant behavior of its partners. For example, the audits include the ages of the workers, working hours, and paid wages, as well as performed health checks and safety drills. In addition, local Merck employees inspect the suppliers at regular intervals. Moreover, Environmental Resource Management (ERM) and IGEP perform their own audits as independent third parties. Whereas IGEP monitors compliance with work standards once a month, ERM examines the working conditions and compliance with environmental, safety, and health standards annually.
Driven by our purpose of enhancing quality of life and contributing to a healthier future, we are launching Nestlé’s Global Youth Initiative, a group-wide scheme comprising our entire value chain to help young people forge a better future for themselves and their communities. Our ambition by 2030 is to help develop economic opportunities for 10 million youth around the world in the communities in which we operate by promoting professional agriculture, innovation, entrepreneurship in our upstream supply chain, as well as apprenticeships, traineeships, vocational training and dual education systems. This helps alleviate poverty, promote social stability and secure a better future for all. For our company, it lines up a diverse and inclusive future talent pipeline, ensures the long-term sustain-
ability of our supply chains, and helps the company enhance its innovation culture and entrepreneurial spirit.

Youth unemployment is a serious issue across the world, with the International Labour Organization estimating that the global youth unemployment rate will reach 71 million (13.1 percent) in 2017. In the EU-28 youth unemployment is 18.4 percent, whilst in Latin American and the Caribbean stands at 17.1 percent and in Northern Africa at 29 percent. Moreover, the food sector is facing huge challenges and opportunities related to developing a more sustainable food system to nutritious feed 8 billion people by 2030. This coincides with the digital revolution and the skills required to harness the power of innovation technologies to generate positive change. We are calling young people to join the Global Youth Initiative and embrace this journey together with Nestlé.

This is why we are boosting youth competitiveness and employability by providing training opportunities, and developing skills for them across our operations. Since the Youth Employability Initiative was launched in Europe in 2014, Nestlé has transferred its experience with the on-the-job and Swiss dual education system to 16 countries and offered 20,517 job opportunities and 12,385 traineeships or apprenticeships. From 2015 to 2016, we provided 16,185 jobs and 7,601 traineeship and apprenticeship opportunities in the Americas. Similar schemes are now available in the rest of the world to facilitate the development of professional competencies matching company needs whilst reducing school dropouts, reducing the risk of social marginalisation and furthering non-academic education.

Our activities in the upstream supply chain are empowering young people and women to become agripreneurs and leaders in the sector. We assist younger farmers and farm workers to improve the economic returns from their crops and to help their communities become more resilient and successful thereby addressing the pressures on the supply of high-quality raw materials amidst arable land limitations, climate change, and rural-urban migration. In the downstream supply chain, we support entrepreneurs with basic business skills and training on cooking, nutrition, and food safety so they can start and expand their businesses, increase their income and help us reach more consumers.

The future is bright. We are thrilled to continue to help youth contribute to the resilience and dynamism of their communities. In the last ten years, we have prepared hundreds of thousands of youth for work; trained and supported 4 million farmers; empowered 2 million women with business skills and alternative livelihoods; promoted innovation through our internal and external platforms and our Creating Shared Value prize; and devised reverse mentorship programmes to close the generational digital divide in our workforce. We look forward to working with others and youth itself to offer those under 30 the skills they need to thrive in a world they are increasingly shaping.

Left: Nestlé Germany is offering internships, traineeships, and apprenticeships to more than 1,000 young people, including additional offers dedicated to young refugees to help them integrate into their new society. 
Above left: Nescafé promotes entrepreneurship in its distribution network.
Above right: We are supporting young farmers become leaders in agriculture.

Global Youth Initiative
CREATING A SMOKE-FREE WORLD

Philip Morris International (PMI) has built the world's most popular and iconic cigarette brands. Now we've made a dramatic decision: We're building our future on smoke-free products that we believe are a much better choice than cigarettes for adult smokers.

By Miguel Coleta, Philip Morris International
Smoking causes serious diseases, and the harm it causes is top-of-mind when society looks at our business. Despite tobacco control efforts, the WHO estimates that 1.1 billion people currently smoke cigarettes and this number is projected to remain largely unchanged until 2025.

Addressing this challenge is where we can make our greatest contribution to society and toward the Sustainable Development Goals — notably, Goal 3 (Ensure healthy lives and promote well-being for all at all ages). For PMI, this translates into a significant shift toward potentially less harmful products that smokers find satisfying. Our vision is to create a smoke-free future by leading a full-scale effort to ensure that smoke-free products ultimately replace cigarettes — to the benefit of adult smokers and society, our company and shareholders.

This decision has set us on a new path, placing the reduction of harm associated with our products at the core of our efforts to completely transform our business. Today’s advances in science and technology finally make it possible to develop innovative products that have the potential to reduce the risks associated with continued smoking and that consumers are willing to adopt and switch to. These advances are transforming our industry — and for commercial, ethical, and public health reasons, PMI is transforming itself. With more than 2 million smokers already converted to the first of our smoke-free products, this is just the beginning.

The opportunity: Be part of the solution

PMI manufactures and sells more than 800 billion cigarettes per year to an estimated 150 million adult consumers in more than 180 countries. Smoking cigarettes causes serious diseases and the best way to avoid or reduce the risk of smoking-related diseases is never to start or to quit. Smoking is also addictive, and it can be difficult to quit. Although there is no substitute for quitting, we believe we can have a positive impact on public health by promoting better alternatives to help reduce the health risks of the world’s 1.1 billion smokers.

Support for the role of innovation for public health

The adoption of sound regulations can significantly accelerate the rate at which adult smokers switch from cigarettes to smoke-free alternatives, while minimizing any unintended consequences.

First of all, measures to encourage smokers to switch should complement, not replace, regulatory efforts to reduce the prevalence of smoking.

Second, because these alternative products for smokers are addictive and not risk-free, measures should be taken to ensure that smokers are accurately informed about the health risks and that youth does not consume nicotine in any form.

Last but not least, we believe governments can play a critical role in reviewing the science related to these products and in giving smokers confidence that any reduced-risk or reduced-harm claim is scientifically substantiated and accurate.

The power of technology

Many people will wonder why we are only doing this now. For more than a century, the basic design and use of cigarettes has not changed. Shredded tobacco leaves are burned which produces smoke. The cigarette smoker inhales nicotine and flavors along with various other substances — a number of which are toxic — contained in that smoke. Although nicotine is addictive and not risk-free, experts agree that the primary cause of smoking-related diseases is found in a number of toxicants generated by combustion and in cigarette smoke. Several attempts have been made in the past to develop better alternatives to smoking, but drawbacks in the technological capabilities or the lack of consumer acceptance have meant they were unsuccessful. Technological developments now allow us to avoid combustion while still meeting consumer expectations.

Better alternatives for smokers

At PMI we are investing in resources, time, money, and people to develop and assess the risk-reduction potential of these new smoke-free products. With more than $3 billion invested in R&D to date to apply, develop, and assess new
technologies, we have now developed a suite of non-combustible nicotine products — including e-cigarettes and heated tobacco products — that have the potential to significantly reduce individual risk and population harm compared to continued cigarette smoking.

Heated tobacco products are a relatively new category of product, releasing a nicotine-containing tobacco vapor without burning the tobacco. PMI currently commercializes one such product: IQOS.

Developing and assessing potentially less harmful alternatives for smokers requires rigor and time. We are led by standards and practices adopted long ago by the pharmaceutical industry, and our scientific assessment program is in line with guidance issued by the US Food and Drug Administration’s (FDA) Center for Tobacco Products.

Our research includes laboratory and clinical studies in accordance with internationally accepted Good Laboratory Practices and Good Clinical Practices. It also includes research to verify if consumers accurately understand risk communications and studies on product use in real-life conditions.

We have compiled a substantial amount of scientific evidence on our electronically heated tobacco products. The results so far clearly indicate that IQOS is likely to reduce the risk of harm compared to cigarette smoking. In December 2016, PMI submitted a Modified Risk Tobacco Product application for IQOS to the FDA. Today, IQOS is available in key cities in more than 25 countries worldwide, with plans to reach 30 to 35 by the end of 2017.

External validation
We are committed to the transparency of our scientific methods, protocols, and results, and we invite public scrutiny. As part of this process, we invite independent verification of the data on our smoke-free products, based on several key components, including: publication in peer-reviewed scientific literature; an in-depth analysis of study reports by independent experts; verification of research methods and study results; and our Investigator-Initiated-Studies program, which supports external scientists in conducting independent research related to our products (e.g., through the provision of products, equipment, and/or financial and technical support).

Reaching the tipping point among consumers
We can only achieve a significant public health benefit when a critical mass of cigarette smokers switch to better alternatives that are scientifically substantiated, ultimately leading to population harm reduction (see The harm reduction equation above — Figure 1). That means that smoke-free products must appeal to smokers by delivering a taste and sensory experience that leads consumers, who would otherwise continue to smoke, to switch to them. As such, all manufacturers should be encouraged to develop, scientifically assess and commercialize a range of better alternatives for smokers to satisfy varied consumer preferences in all countries where they operate.

The business case: A new social contract with society
Some will question our motives and our vision to replace cigarettes with smoke-free alternatives based on the distrust surrounding our industry; others will wonder why we would completely change our existing, very profitable business model.

By developing and assessing better products through science and innovation, and prioritizing their commercialization, we want to address the negative health impact of our combustible cigarette business head-on. This sets our company on a new course, but it also offers a new social contract with society as we bring our expertise, resources, and solutions to the table to contribute toward reducing the risks of smoking-
related non-communicable diseases and achieving SDG Goal 3 on health.

Moreover, our success in the cigarette business gives us the resources to pursue our ambitious vision of a smoke-free future. This decision is also completely aligned with the expectations of adult smokers (who want satisfying alternatives to cigarettes but with less risk of harm), society, and our shareholders as part of achieving long-term business growth.

Achieving our vision

Already more than 2 million smokers have converted to our new smoke-free product, IQOS, and we are rapidly building new manufacturing facilities and converting existing ones to be able to meet growing adult smoker demand.

Later this year, we will publish a set of transformation metrics reporting on the resource commitment we are putting in place toward achieving our smoke-free vision in addition to supporting the creation of an independent foundation that will focus on accelerating progress toward a smoke-free future.

We will regularly publish our progress against these metrics so that the public can monitor our efforts and check whether we are progressing in the right direction.

We will also set out how we plan to transform our company from the inside out, including how we work, our culture, and our facilities to make our smoke-free future a reality.

We recognize the challenges ahead in meeting our ambition and that a collaborative approach is key to success. Today, we have an opportunity to be part of the solution in addressing the harm associated with cigarette smoking, both in dialogue and in partnership with civil society and governments.

Go to www.pmi.com and www.pmiscience.com for updates on our progress toward a smoke-free future.

Below: PMI’s R+D Innovation Cube, Neuchâtel, Switzerland
The national dialogue on “Sustainable Mauritius” was aimed at setting a vision in 2007 for this small-island developing state covering the five “E’s: energy, environment, education, employment, and equity. In line with this enterprise of national interest, Rogers started an internal dialogue.

Through this exchange of ideas, the environment and the protection of the coastal landscape, which is intimately bound up with the Group’s activities, surfaced as critical issues. The presence of Rogers in various levels of the tourism value chain, including hospitality, aviation, and leisure, warranted the need to preserve the coastline as a vital asset.

**Awareness, education, training, and action**

The launch in 2013 of the “Respect Our Coast” program was a first concrete step toward the conservation of coastal and marine ecosystems. The multi-sectoral approach adopted by Rogers involved the public and private sectors as well as NGOs and volunteer groups. The entire initiative is anchored on the key pillars of awareness, education, training, and action and focused on reducing the negative human impacts on the coastal areas of Mauritius.

Prior to deciding on the most suitable course of action, a baseline survey was conducted in 2014 to understand and assess the level of knowledge, attitudes, perceptions, and behaviors of a sample of the Mauritian population on environmental issues to measure progress. A mid-term survey was subsequently carried out last year. Among the main findings, we noticed that: Responsibility is increasingly seen as resting on individuals versus industries and government; a greater number of respondents are aware and concerned about global warming; they also better understand that the onus is on us all.

**Key projects in the program**

The flagship project of the program is “Bis Lamer,” a Mobile Marine Education Unit run in partnership with the NGO Reef...
Conservation. This class-in-a-bus, which is fitted with interactive tools and laboratory equipment, has already reached out in its first two and a half years of operation to nearly 15,000 children as well as youth and adults in schools, on beaches, and in various public places. This outreach effort to bring education about marine and environmental issues closer to the people has enlisted the support of the NGO’s team of professional marine biologists, project coordinators, and educators. More than half of the Group’s personnel have also received training on marine and lagoon life.

Other highlights of the “Respect Our Coast” program include such projects as:

• the protection of endangered sea turtles within a concerted network of government and private-sector actors as well as NGOs to safeguard the nesting sites, including the publication of a handbook to educate and raise awareness among local communities;

• the Plankton Recycling Co-operative Society, a facility for the recycling of glass collected from hotels in the Bel Ombre region, which has been operating as a local cooperative since 2015;

• support to the Eco Schools Indian Ocean Program, coordinated by Reef Conservation. It aims at empowering students to be the change our sustainable world needs;

• Tikoulou, la légende de Bel Ombre, a comic book launched in March 2017 to provide children with a playful and educational introduction to the rich ecosystems and biodiversity of the Bel Ombre region in the pristine south of Mauritius. The book is distributed for free through the “Bis Lamer” project;

• the Seabird translocation project, a unique scientific project by the Mauritius Wildlife Foundation to preserve and regenerate the local seabird population on the nature preserve of Ile aux Aigrettes, an island southeast of Mauritius;

• regular beach cleanups with the Group’s personnel and volunteers to promote environmental awareness and preservation;

• annual closure of octopus fishing using the “Bis Lamer” project to educate fishermen on the importance of cooperating with this national project.

Assessing and planning for the future

Feeling that it would be difficult to predict the effectiveness and sustainability of its strategy without measurable and observable data, Rogers commissioned an assessment of the ecosystems contained within the Domaine de Bel Ombre. This 2,500-hectare nature sanctuary is a high-end tourism, leisure, and cultural destination rich in biodiversity. It houses representations of all of the Island’s ecosystems: river, forests, savanna, beaches, lagoon, wetlands, and mangrove ecosystems, among other attractions. The protective and restorative measures suggested include the development and implementation of a lagoon management plan, a directory for responsible use of the lagoon by hotel guests, and a biodiversity corridor.

At the heart of Rogers’ roadmap for developing the Bel Ombre region is the setting up of an Interactive Land and Marine Research Centre, targeted to open at the end of 2019. The Centre will deliver high-quality interactive experiences and learning opportunities to visitors. It will use a participatory approach to discovery, education, research, and ultimately empower visitors — schoolchildren, tourists, local communities, and the public at large — to help conserve our ecosystems. This state-of-the-art facility will also serve as a research platform for marine biology students from different national, regional, and international institutions.

Sustainability, a philosophy of life

The different business sectors of Rogers and the Rogers Foundation have been focusing their efforts on the delivery of projects premised on the following Sustainable Development Goals: poverty eradication in the Bel Ombre, developing a sustainable region and coastal communities, and regenerating life below water as well as life on land. Rogers places a high value on meaningful stakeholder dialogue and concerted action as part of the process of developing a balanced economic, environmental, social, and cultural future for the Domaine de Bel Ombre. The Group has promoted the socioeconomic integration of local populations, which account for half of the 1,500-people-strong workforce within the region’s agriculture, tourism, and property sectors. The program is expected to provide additional opportunities, with a special emphasis on generating as many “green” jobs as possible. For instance, environmental consultants specialized in permaculture and community involvement have been contracted to take on board the input of the inhabitants of Bel Ombre. As suggested by the locals themselves, a typical Mauritian village will also be recreated to showcase local savoir-faire. The Rogers Group is a listed international services and investment company founded in 1899 with expertise in fintech, hospitality, logistics, and property.
TRANSFORMERS:
AGE OF DEVELOPMENT

When the new global strategy Transforming Our World: The 2030 Agenda for Sustainable Development was introduced to the world in 2015, it quickly became clear to the business community that the time for tacit support was over: Companies are expected to play a significant role in meeting and advancing the Fab 17 – the 17 SDGs. They now face a choice: Either they can sail along or show courage and join efforts with other players to end poverty, protect the planet, and drive peace and prosperity for all.

By Natalia Gonchar and Marina Ee, Sakhalin Energy

Sakhalin Energy faced the same dilemma. Before making landmark decisions, we needed to answer the questions What?, Where?, and Why?

First we analyzed what relevance the SDGs had to our activities. We really appreciated the efforts of the Global Compact — in collaboration with leading CSR/SD organizations — to promote and explain the SDGs to business (SDG Industry Matrix, Compass, etc.); we realized that many of the Goals were directly relevant to the activities of one oil and gas company operating in the Russian Far East. Having a good grasp of the relation and importance of the SDGs to our business, we decided to make a public commitment.

In 2016, through management decision, we updated our Sustainable Development Policy — the key document on sustainable development. One of the fundamentally new provisions was the adoption of commitments to the SDGs: “Sakhalin Energy strives to be a leader in the field of sustainable development, taking into account the Sustainable Development Goals set out in the 2030 Agenda for Sustainable Development.”

The second step was to identify where we were on the sustainability journey and what our priorities were.

While developing the annual Sustainable Development Report 2016, all the divisions of the company analyzed the data through the lens of the SDGs. According to the Global Reporting Initiative guidelines — and while trying to identify the material aspects of our business activities — Sakhalin Energy arranged open public dialogues with external stakeholders to share ideas on the ways the company could achieve the SDGs. Their prioritization confirmed that not all the SDGs were equally related to our business. Major areas are highlighted below.

• **Ethical behavior and strong institutions (mainly reflected in SDG 16)**

Respect, support, and promotion of human rights are our core principles and considered fundamental to success. By following the principles of the Code of Conduct — an integral part of our corporate governance and culture — we strive to be an honest and responsible business entity. The company provides employees, communities, and all other stakeholders with safe and confidential settings (grievance mechanisms, hotlines) for raising any concerns and reporting non-compliance. The company’s experiences with implementation of its grievance mechanisms are recognized...
highly on national and international levels. Sakhalin Energy became one of five companies worldwide to test the UN Guiding Principles on Business and Human Rights related to corporate grievance mechanisms and participated in the development of the Oil and Gas Sector Guide on implementing these Principles.

• Employees and sustainable healthcare (mainly reflected in SDGs 1, 2, 3, 4, 5, 8, 10)

The company does its best to ensure labor safety by protecting the health of its personnel and community health; personnel development; and the attractiveness and competitiveness of its compensation and benefits package. In 2016 about 84 percent of the company’s employees participated in the general opinion survey. The majority of personnel continue to point out how seriously the company is committed to safety and work quality; occupational and environmental safety; equipment reliability; and process safety, which is remarkably good, since one of the company’s priorities in the field of safety is Goal Zero. According to employees, the company’s remuneration and benefits package remains competitive, and employees willingly recommend the company as a good employer.

• Responsible production and environmental impact assessment (mainly reflected in SDGs 6, 7, 12, 13, 14, 15)

While planning and implementing any production activities, Sakhalin Energy has always paid special attention to environment protection. Being the operator of a global-scale oil and gas project, the company realizes how important it is to monitor any impact on the environment. Sakhalin Energy carries out regular industrial environmental control and implements a number of local environmental monitoring and biodiversity conservation programmes, as per national and international standards. The Gray Whale Monitoring Programme has been one of the most successful. In 2016, the company again received recognition at the highest national level. It became the first in the environmental responsibility ranking — conducted by the WWF of Russia — among the country’s oil and gas companies. It also won the national contest of the Russian Union of Industrialists and Entrepreneurs – Russian Business Leaders: Dynamics and Responsibility in the Environmental Responsibility category.

• Community investments and partnerships (mainly reflected in SDGs 4, 10, 11, 17)

Since the start, the company has paid close attention to the implementation of social and community investments in a host territory — Sakhalin Island. Significant and consistent investments in the social sphere as well as long-term policies focused on addressing social issues are the core of Sakhalin Energy’s commitment to sustainable development principles. In the area of social investments, Sakhalin Energy focuses on implementing strategic, long-term partnership projects with external stakeholders. In 2016, Sakhalin Energy was the first in the Russian ranking of the Corporate Philanthropy Leaders project. It is a joint project supporting, developing, and promoting corporate philanthropy led by the Donors Forum NGO, PricewaterhouseCoopers, and the Vedomosti business newspaper. The Sakhalin Indigenous Minorities Development Plan is a globally recognized success story, given its strong partnership approach and implementation of the free, prior, and informed consent principle.

The joint work of internal and external stakeholders has resulted in the Sakhalin Energy Sustainable Development Report, which focuses on the SDGs, and specifically on ecology. The company has also taken a decision to disclose SDG-related information via our annual Sustainable Development Reports, at least until 2030.

In 2016 Sakhalin Energy made a public report, Sustainable Development Goals: Business Role and Opportunities, at the extended meeting of the Russian Union of Industrialists and Entrepreneurs Committee on Corporate Social Responsibility and Demographic Policy, with the participation of the Steering Committee of the UN Global Compact Network Russia and the Public Chamber of the Russian Federation.

Last but not least: Why? Because we care. We feel responsible. We want to be involved. We are strongly committed to continue our internal work on SDGs and their support externally, and serve as a promoter of the SDGs where and when we can, especially in remote regions such as Sakhalin Island. As for transformation being successful, it needs to be universal, no matter where you live and what you do. The transformation has started.
In 2017, Sanofi launched the Access Accelerated Initiative (AAI) together with 21 companies, the World Bank, and the Union for International Cancer Control (UICC). The new coalition’s aim is to address the burden of NCDs in low- and lower-middle-income countries and to reduce premature deaths from NCDs by one-third by 2030 in order to achieve one of the Sustainable Development Goals of the United Nations. The initiative runs as an initial three-year commitment to develop, measure, and replicate sustainable programs. By building on longstanding individual company programs in global health, AAI will address a variety of access barriers to the prevention, treatment, and care of NCDs.

Sanofi is proud to be a founding partner of the Access Accelerated Initiative. Our active participation in the AAI is rooted in our longstanding efforts to help ensure that appropriate and innovative treatments are made accessible to all those who need them.

Sanofi’s initial commitment includes programs spanning cancer prevention and treatment, diabetes prevention, as well as raising awareness and building capacity about mental health. These projects are part of a wider network that includes more than 20 other projects from all the partner companies, each playing a role to advance the fight against NCDs.

My Child Matters – fighting childhood cancer

Each year, nearly 300,000 children and adolescents are diagnosed with cancer. About 80 percent of them live in countries with limited resources and where cure rates hover around 40 percent — and as low as 10 – 20 percent in some sub-Saharan African countries — compared to more than 80 percent in developed countries.

Due to this dramatic situation, the Sanofi Espoir Foundation set up the “My Child Matters” program 11 years ago in order to fight childhood cancers.

In partnership with the UICC, the St. Jude Children’s Research Hospital, the International Society of Pediatric Oncology, the GFAOP (Franco-African Pediatric Oncology Group), and the Alliance Mondiale Contre le Cancer. “My Child Matters” fuses financial support, the expertise of cancer specialists from the world over, and contributes to building capacity at the local level in different ways, among others:

- training healthcare professionals
- creating and disseminating relevant information about childhood cancer (including cancer registries and epidemiologic data)
- encouraging earlier detection
- improving access to treatment and care

Non-communicable diseases (NCDs) such as cancer, cardiovascular diseases, chronic respiratory diseases, diabetes, and mental disorders are the leading causes of death and disability worldwide. NCDs have emerged as a major public health threat over the last few decades and are now at a crisis point. It is estimated that these diseases are responsible for as many as 36 million premature deaths each year. According to the World Health Organization, almost three-quarters of NCD-related deaths occur in low- and middle-income countries, where access to healthcare is limited.
Cancer is a prime example of a non communicable disease for which disease awareness, screenings, and early diagnoses are key to treatment. As we know, childhood cancers may be successfully cured because of two conditions: early diagnoses and the right treatments. Yet, this is not true everywhere. Although in the world’s richest countries, eight out of ten children get better, only two out of ten manage to overcome the disease in the poorest countries. Dr. Anne Gagnepain-Lacheteau, Medical Director of the Sanofi Espoir Foundation, explains: “This program exists for a simple reason: to give the same chance, to all children around the world, to have access to care and to be cured (give children around the world the same chance of getting treatment).” In 11 years, we have achieved tangible results, including decentralizing and harmonizing care in Paraguay, establishing a childhood cancer registry in Colombia, training and graduating new pediatric oncologists in French speaking Africa and establishing a retinoblastoma (a rare form of cancer in the eyes) network in sub-Saharan Africa. In total, 42 countries have been involved since the inception of the “My child Matters” program, enabling treatment access for 50,000 children and training for 15,000 healthcare professionals.

FAST – Fight Against Stigma

Nearly 450 million people worldwide suffer from mental disorders, but the majority of patients in developing countries do not receive any treatment. The reasons are multiple and among them
are the lack of trained healthcare professionals, poor access to medicines, but also prejudices and beliefs surrounding these diseases. Patients are often marginalized by society, rejected, and excluded.

This is why the “FAST — Fight Against STigma” initiative was launched. Since 2008, it has been helping to educate communities, train healthcare professionals, and better manage patients with mental disorders. It was developed by Sanofi in cooperation with the World Association of Social Psychiatry to improve access to mental healthcare in low- and middle-income countries.

Dr. François Bompart, Head of the Access to Medicines department, says: “Sanofi is strongly committed to improving access to quality care for patients suffering from mental disorders in developing countries. Little attention is paid to these patients, who are neglected in too many parts of the world, and we are proud to be innovators in this field. Our actions are aimed at combating discrimination against these patients and ensuring they are integrated in the healthcare system.”

Initiated in Morocco and Mauritania, and in partnership with local authorities, health professionals, patient organizations, and NGOs, these programs are now implemented in countries such as Armenia, Cameroon, Bolivia, Myanmar, and Madagascar. They combine the training of local healthcare personnel with the fight against stigma regarding mental disorders among communities and efforts for more availability to needed medicines.

**KiDS and diabetes in schools**

People living with diabetes constantly need to balance medication, food, and physical activity every day to maintain long-term health. This is no different for children with diabetes. Yet, the school environment, where these children spend a significant portion of their time, can pose significant challenges, ranging from difficulties to receiving treatment to exclusion from certain activities. The number of children and young people with type 1 and type 2 diabetes is increasing worldwide. To date, every 6 minutes a child is diagnosed with diabetes. Evidence has highlighted that a lack of diabetes knowledge within the school environment leads to poor support, isolation, stigma, and discrimination for the concerned children. Physical activity and good diet reduces the risk of type 2 diabetes, including in the school environment. Only a limited number of school programs exist that address these health challenges.

Sanofi has co-created the Kids and Diabetes in Schools (KiD’s) initiative — a partnership with the International Diabetes Federation and the International Society for Paediatric and Adolescent Diabetes — which aims to support children with type 1 diabetes in managing their disease and avoiding discrimination in a school setting as well as raising awareness about the benefits of a healthy lifestyle among all schoolchildren. This educational program is primarily targeted at teachers, school nurses and other staff, school children (6 – 14 years old), and their parents. The ultimate goal is to achieve sustainable change in those countries by working closely with partners and policymakers to introduce education centered around diabetes and healthy living habits in the national teachers’ curriculum.

Antonio Tataranni, Head of the Medical Affairs Diabetes and Cardiovascular Business Unit at Sanofi, says: “Sanofi is committed to sustainable solutions that improve the lives of people with diabetes everywhere — children included. We believe that initiatives such as KiD’s are also essential for promoting healthy living at an early age, potentially helping in the prevention of type 2 diabetes.”

The KiD’s initiative has been launched in India, Brazil, United Arab Emirates, and Pakistan, and the toolkit is currently available in nine languages.

For decades, Sanofi has been collaborating with governments, public authorities, and local communities to improve access to healthcare in some of the poorest countries. Sanofi has a longstanding commitment to supporting low- and middle-income countries with building sustainable healthcare access and delivery systems through programs that focus on capacity-building for vaccines, neglected tropical diseases, rare diseases, and infectious diseases. Sanofi is convinced that the Access Accelerated Initiative is well-placed to bring us closer to reducing the burden of non-communicable diseases in low- and lower-middle-income countries.
Today, air quality is a matter of life and death. In 2014, the World Health Organization reported that an estimated seven million people died in 2012 as a result of air pollution exposure. Even though developed countries are not immune to these problems, developing countries fare much worse. According to The Cost of Air Pollution report by the World Bank and the Institute for Health Metrics and Evaluation at the University of Washington, in 2013, about 93 percent of deaths and nonfatal illnesses attributed to air pollution occurred in developing countries.

Incurring high costs

The same study found that, in 2013, premature deaths due to air pollution cost the global economy about $225 billion in lost labor income, or about $5.1 trillion in welfare losses worldwide.

The treatment of diseases related to poor air quality, such as lung cancer, heart disease, and chronic bronchitis, are a drain on resources. The loss of productive labor also reduces incomes, so air pollution is a drag on growth and development.

Productivity can also be stunted in agriculture, with air pollution cutting crop yields and changing the conditions in the natural environment. Air pollution affects businesses relying on tourism, and it has a direct impact on the use of solar power.

Governments are taking action to improve air quality through legislation on cleaner fuels, more efficient vehicles, and industrial emissions, but in emerging countries, in particular, this will take time.

Understanding through observation

To be able to decrease the impact of air pollution, we need to understand its components and their interactions better. To achieve this understanding, we need to measure what is going on in the atmosphere.

In today’s world, air quality is monitored using stations that measure about 10—20 parameters and cost a few hundred thousand dollars. A megacity may have a few dozens of these stations scattered...
around its area; a smaller city might have two or three.

These stations are good at providing information over the long term, but their monitoring is limited to too few parameters to give a good picture of the atmosphere, and they are too far apart to provide local air-quality information. Another factor is that pollution in cities is highly local and made worse by traffic, weather phenomena, and buildings.

Ideally, large stations would measure hundreds of parameters and be supported by a great number of smaller units to provide information locally. This would help in finding the real hotspots, making it possible to warn residents of air-quality problems and to start taking measures to mitigate the situation.

Naturally, the smaller units do not need to be as sophisticated or accurate; their power lies in their numbers and locality. This is the market Vaisala serves with its new products.

**Decision-making support**

When a network of air-quality observation devices is dense enough, it can provide relevant information for decision-makers. Even right now, data on local conditions could be used to redirect traffic, temporarily close polluting manufacturing plants, or switch from coal to other sources of electricity.

Over the long term, observations help to achieve a more thorough understanding of the atmosphere and the interplay between the weather and air pollution.

It is widely known that weather affects air quality. Rain, for instance, can wash away air pollutants and improve air quality momentarily. Wind can either bring in pollutants or remove them, depending on the source and its location. What is less understood is air quality’s impact on the weather.

**Weather can intensify pollution**

Air pollutants are mostly created and spread in the planetary boundary layer, whose height varies with location, season, time of day, weather — and pollutants. The thinner the boundary layer is, the higher the concentration of pollutants, which, of course, intensifies their impact.

Usually, the air near the ground is warmer than the air above it, which is heated by solar radiation, directly and indirectly, when the Earth’s warm surface heats the air above it. However, when the air has high concentrations of pollutants, they will reflect some of the sun’s radiation, which leads to a cooling of the ground, and hence the air near it.

This creates a warmer layer — or even inversion — that consequently cools down the Earth’s surface and traps the pollutants in the boundary layer, raising their concentration.

So, weather phenomena should be monitored alongside air quality to determine their interaction, locally and in general. This understanding is essential if we are to solve air-quality problems and mitigate their impact.

**First metropolitan monitoring system being built**

In the Helsinki region, steps are being taken to increase this understanding. A new air-quality measurement network will be built in 2017 and 2018 by the Smart & Clean project parties — Vaisala, the Finnish Meteorological Institute, the Helsinki Region Environmental Services Authority HSY, the University of Helsinki, Pegasor, and the Helsinki Metropolitan Smart & Clean Foundation.

The network will be the first air-quality monitoring system of such accuracy in the world to cover a whole city.

Even in Finland, where air quality is generally good, 40 percent of city dwellers get symptoms from street dust, and air pollution is estimated to cause about 1,600 premature deaths per year.

The new monitoring network will help compile much more comprehensive information about the air quality in different parts of the Helsinki region. The Smart & Clean project aims at improving air quality in the region as well as creating new, innovative applications, and piloting solutions suitable for export.

With the help of Vaisala’s new instruments, it is possible to significantly improve local coverage of the measurements for a very reasonable cost.
A critical aspect of the Sustainable Development Goals (SDGs) is to leave no one behind. Cooperation between governments and the private sector that goes beyond geographical borders is imperative for achieving this goal. The global mission to propel the world a step closer to achieving the SDGs is one that intermittently intertwines business and individuals from various walks of life. However, it seems Japan and her people are too shy to transmit such efforts to the world. As a leader in technological innovation – a critical driving force in achieving the SDGs – Japan has great potential to also be a leader in bringing the world together to move forward with this collective goal. Introducing pieces by the Japanese Ministry of Economy, Professor Jeffrey D. Sachs of Columbia University, and a joint report by IGES and GCNJ, this yearbook is the first attempt to offer an overview of the key players within Japan and the cross-country collaboration necessary for the country to grow into this role.
In May 2016, the Japanese government established a cabinet body, the Sustainable Development Goals (SDGs) Promotion Headquarters, to promote the SDGs. The Headquarters is composed of the Prime Minister as the Chief; the Chief Cabinet Secretary and Foreign Minister as the Deputy Chiefs; and all other ministers as the members. The SDGs Promotion Roundtable was established under the control of the Promotion Headquarters. At the roundtable meetings, a wide range of relevant people (e.g., administrative agency personnel, NGO and nonprofit personnel, experts, private-sector personnel, international organization officials, and various other organization members) exchange their opinions.

After the public comments and opinions of people in various sectors were sought at the meetings, the SDGs Implementation Guiding Principles were set in December 2016 in a manner that reflected these opinions and comments. The basic concept underlying the Implementation Guiding Principles is: “Aim to become a leader toward a future where sustainable and resilient improvement of the economy, society, and environment is attained in an integrated manner while leaving no one behind.” To enable the mobilization of extensive measures and resources in an effective and consistent manner in cooperation with all stakeholders, the government worked together with all relevant ministries and government agencies and set out matters such as the vision, priority issues (the core of efforts), implementation principles, promotion framework, follow-ups, reviews, and individual measures. In addition, by using indicators simultaneously disclosed publicly to understand the progress, the government is scheduled to conduct the first follow-up by the end of 2019.

The Implementation Guiding Principles clearly stipulate the following contents regarding the cooperation with private-sector companies.

- Technologies and resources of private-sector companies are indispensable for sustainable development. Some companies
have already started to incorporate the SDGs into their core businesses and contribute to solutions to social issues through their business activities. The government welcomes this trend and aims to strengthen cooperation with private-sector companies in connection with the implementation of the 2030 Agenda by sharing the good practices of companies taking advanced measures and considering giving incentives, etc.

- Among other things, a variety of sustainability-oriented measures (e.g., ESG investment and social contribution bonds) taken by private-sector companies from the standpoint of business and human rights are important when the private sector is actively involved in solving public problems related to environmental, social, governance, and human rights issues. Furthermore, these measures are extremely important for Japanese companies to maintain their competitiveness in global markets without falling behind in meeting the evaluation criteria used by global investors because these investors are beginning to focus more on activities in these areas. The government will implement its policies to create the necessary environment and support the relevant activities of the private sector.

As described above, the private sector’s sustainability-oriented measures have received special attention.

**Japan’s policy for CSR**

With increased global business expansion, Japanese companies are now facing various challenges such as business and human rights, responsible supply chains, bribery, and so on. Taking a look at the domestic business environment, an aging society and a shrinking labor force are also significant issues for Japanese companies.

So, companies are trying to transform social challenges into management challenges to create sustainable corporate value and get ahead of the international competition. There are two important things to describe Japan’s strategic CSR policy. Firstly, the government put an emphasis on understanding the social challenges that companies are tackling. Secondly, companies’ activities for transforming social challenges into management challenges it encouraged. Two representative CSR policies in Japan are introduced below.

First, an initiative called CSR Forum Japan (the “Forum”) was introduced. The Forum is a unique business initiative that began in 2004 and is supported by the Ministry of Economy, Trade and Industry (METI). Consisting of leading multinational companies and relevant organizations, the Forum is regarded as one of the most outstanding networks in Japan.

The Forum fosters communication and cooperation with international organizations as well as implementing annual research projects. Last year, the research project focused on the cooperation between companies and stakeholders, including NGOs and nonprofit organizations and governments, for achieving the SDGs.

More specifically, the Forum conducted questionnaires and interview surveys with Japanese and European companies and analyzed the status of their activities in relation to corpo-
rate social issues, mainly the SDGs. The Global Compact Network Japan’s cooperation is highly appreciated. The surveys revealed outstanding characteristics commonly seen among advanced companies such as: “Under remarkable leadership by the top management, activities to solve social issues have been included in management plans,” “Activities to solve social issues have been mainly conducted by not only the CSR Division but also other business divisions,” and “PDCA-based management is conducted when partnerships with stakeholders are built.” Based on these analyses, the CSR Forum Japan gathers propositions submitted to companies, governments, etc., and leads CSR discussions in Japan.

Next, the EU-Japan Working Group on Corporate Social Responsibility will be introduced. While the globalization of business activities has been advancing, it has become indispensable to establish cooperative relationships on a global scale and to improve mutual understanding. Being aware of such issues, Japan and the EU agreed upon the establishment of the EU-Japan Working Group on Corporate Social Responsibility at the 16th EU-Japan Industrial Policy Dialogue, held in January 2013, and officially inaugurated this working group in October 2013. Last year, it was held in Brussels in November. Under the framework of the EU-Japan Corporate Social Responsibility Working Group, the Japan Business Council in Europe, CSR Europe, and the Council for Better Corporate Citizenship jointly held an EU-Japan Business Dialogue, bringing together around 70 people, including CSR personnel from companies in Japan and the EU and officials from DG GROW and METI. At the dialogue, participants had discussions focusing on the subject of “Contributing to global sustainability through collaboration and innovation.”

Some companies in Japan and the EU that have been deploying business worldwide made presentations about best practices of their contribution to the SDGs and general activities in the field of CSR. Participants exchanged views on the expected necessary efforts and related challenges. It was pointed out by participants the importance of promoting collaboration between governments, companies, and industries for the maximization of innovation; the need to create a dialogue platform composed of multistakeholders; the significance of convening business dialogues under the framework of the EU-Japan Corporate Social Responsibility Working Group on a continual basis; and other issues.

Although the globalization of business activities has been advancing, societies have been affected by companies in a more complex manner. Through the stated policies, we will push forward with our CSR initiatives in Japan by accurately recognizing the criteria that companies must comply with and that stakeholder expectations have significantly changed, and by maintaining close communication with stakeholders.
Green Innovations

What are Japan’s responsibilities and opportunities in this new era? There are three major places in the world where patents are being achieved, and these are the big innovation centers for the world economy. One is northeast Asia — Japan, South Korea, and China — the second is Western Europe, and the third is the United States. Japan is one of the most important scientific and technical centers of the world, so Japanese businesses need to lead the technologies for sustainable development.

For example, Toyota pioneered hybrid vehicles, and now it is pioneering fuel-cell vehicles and zero-emission electric vehicles. This can be part of a strategy for deep decarbonization, but it is also part of a strategy for prosperity, because if Toyota gets there first with the best cars, that will mean more prosperity for Japan. Being innovative for sustainable development will thus be the most important competitive strategy in the coming generation. The countries that achieve the green technologies, the green transport, the low-carbon energy, the low-energy buildings, the energy-efficient appliances, the green materials, and the waste-recycling systems will be the winners of the new world economy. Any country that continues as they are doing right now will lose in the end. We are all going to have to change directions.

We need to think seriously about the next 20 years, because that is when the future is going to be either made or lost. As Figure 1 shows, East Asia will be the key to success. The blue line is the European Union’s share of the world economy, and the green line is the US share. The rising red line is the share of Japan, China, and Korea combined.

East Asia is now the world’s largest economic grouping, and it will be the most successful if there is good cooperation in this region. It is one thing to add the GDPs of the three countries together, and another for the three to cooperate closely to achieve sustainable development. I believe that if Japan, China, and Korea cooperate closely for sustainable development, the whole world can achieve success, so the region will have an extremely important role.


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The Current Status of Actions for SDG Implementation by Japanese Private Companies

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What types of initiatives are being carried out, and to what extent is implementation advancing at the project level among Japanese corporations that have already begun putting the Sustainable Development Goals (SDGs) at the core of their businesses? IGES (Institute for Global Environmental Strategies) partnered with the Global Compact Network Japan (GCNJ) in an effort to identify the current situation that businesses are in, in terms of incorporating SDGs into their business strategies. This article examines the various factors that shape this process, such as the different priorities of businesses and the common obstacles that businesses face in implementing the SDGs.

In line with the 5 Steps (Figure 1) presented in the “SDG Compass,” the following sections evaluate the status of SDG implementation being led by major companies in Japan. More than half (54%) of the 99 companies and groups that responded are still on Step 1 (“Understanding the SDGs”), with 22 percent on Step 2 (“Defining priorities”), and around 10 percent on Steps 3 (“Setting goals”) and 4 (“Integrating”).
**Step 1: Understanding the SDGs**

Although expectations for the role of business in delivering on the SDGs are high, it is pertinent to examine the actual perceptions of corporations on the SDGs. The GCNJ members most often replied (79%) that they perceive SDG implementation to be an “improvement of corporate value related to sustainability,” followed by the responses “stronger relationships with stakeholders” (57%) and “new business opportunities” (57%). Compared to responses from non-members, GCNJ members are companies and groups committed to the UN Global Compact’s Ten Principles. The efforts of the GCNJ in carrying out promotional activities are also a factor, and the reality that many corporations consider the SDGs to be linked to improving corporate value is also evident. Considering that, in many cases, CSR was discussed from the view of risk management, it seems apparent that companies in Japan consider this to be an incentive to engage with activities to implement the SDGs.

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**Step 2: Defining priorities**

The SDGs, made up of 17 goals and 169 targets, aim to address an extremely broad range of social, economic, and environmental issues. Business action on the SDGs is becoming more necessary than ever. As of September 2016, most Japanese companies cited climate change (Goal 13), energy (Goal 7), and sustainable consumption and production (Goal 12) — goals closely related to Japan’s domestic issues — as priority issues. The official adoption of the Paris Agreement at COP 21 in December following the 2015 survey is thought to have had a major impact with regard to this response. Furthermore, the rise of Goal 8 (Decent Work and Economic Growth) to fifth place exhibits a change in awareness on the corporate side, communicated in the recent “work-style reforms” put forth by the government and private sector.

Table 2 shows the top three goals that received the largest number of responses and were said to have the greatest impact for the top industry sectors. Of interest is the fact that the number one goal, Goal 13, did not necessarily make it into the top three goals by industry sector. For instance, the top goal for the electronics industry was Goal 3 (Good Health and Well-being), and the top goal for the construction industry was Goal 11 (Sustainable Cities and Communities). As outlined in Step 2 of the SDG Compass (“Defining priorities”), it appears that many companies are identifying the sphere of influence of SDG-related risks and opportunities throughout the value chain, then defining priority issues for engagement on the SDGs in line with existing business practices. However, it should be noted that important issues such as Goal 14 (Conservation of Marine Resources), Goal 15 (Conservation of Biodiversity), Goal 16 (Peace and Justice), and also Goal 17 (Partnerships), were not prioritized.

---

**Table 1:** Perceived awareness of SDGs within each company / organization according to its leaders / CEOs

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mainly established among CSR staff</td>
<td>61</td>
<td>84</td>
</tr>
<tr>
<td>Established among top management</td>
<td>20</td>
<td>28</td>
</tr>
<tr>
<td>Established among middle managers</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Established among stakeholders such as affiliated companies</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Others</td>
<td>15</td>
<td>12</td>
</tr>
</tbody>
</table>

n=134 n=193

**Table 2:** Goals with the greatest economic, environmental, and social impact in the top industries (multiple responses acceptable)

<table>
<thead>
<tr>
<th>Top industries</th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronics manufacturer (23)</td>
<td>3 (10)</td>
<td>7 (9)</td>
<td>9 (9)</td>
</tr>
<tr>
<td>Service industry (17)</td>
<td>9 (6)</td>
<td>12 (6)</td>
<td>3 (5)</td>
</tr>
<tr>
<td>Chemical (13)</td>
<td>13 (9)</td>
<td>12 (8)</td>
<td>3 (7)</td>
</tr>
<tr>
<td>Wholesale and retail trade (11)</td>
<td>7 (5)</td>
<td>8 (5)</td>
<td>9 (5)</td>
</tr>
<tr>
<td>Other products (8)</td>
<td>8 (4)</td>
<td>7 (3)</td>
<td>12 (3)</td>
</tr>
<tr>
<td>Finance / Insurance (8)</td>
<td>4 (4)</td>
<td>5 (4)</td>
<td>7 (4)</td>
</tr>
<tr>
<td>Machinery manufacturers (7)</td>
<td>9 (5)</td>
<td>7 (4)</td>
<td>3 (3)</td>
</tr>
<tr>
<td>Food (6)</td>
<td>6 (3)</td>
<td>3 (2)</td>
<td>12 (2)</td>
</tr>
<tr>
<td>Construction industry (5)</td>
<td>11 (5)</td>
<td>13 (5)</td>
<td>7 (4)</td>
</tr>
<tr>
<td>Information and telecommunications (5)</td>
<td>3 (3)</td>
<td>4 (3)</td>
<td>7 (3)</td>
</tr>
<tr>
<td>Glass and earth products (5)</td>
<td>13 (3)</td>
<td>6 (2)</td>
<td>7 (2)</td>
</tr>
</tbody>
</table>
Step 3: Setting goals

Mapping is carried out on the relevance of the SDGs to existing businesses, and as soon as the company’s materiality is identified, goal-setting becomes the basis for moving through the PDCA (plan-do-check-act) cycle. Table 3 shows the level to which SDGs have been incorporated into business plans. Although companies integrating the SDGs into short-term (annually, 1–2 years) and mid-term (3–5 years) plans have reached a certain level (26% and 33%, respectively), plans for initiatives up to 2030 or over the long term (5–10 years) remain below 10 percent. Furthermore, 26 percent of companies provided “Not sure” responses, revealing that there is still great variance when it comes to progress on the incorporation of the SDGs into business plans as well as the development of concrete business goals within these plans. However, a portion of leading Japanese companies have already linked their company’s business priorities with individual SDG goals and are deliberating on the establishment of KPIs (key performance indicators). Some companies have plans to release results in the near future, if they have not already released them publicly within their CSR reports.

<table>
<thead>
<tr>
<th>Q: What plans do you have for future SDGs efforts?</th>
</tr>
</thead>
<tbody>
<tr>
<td>There are short-term plans (annually, 1–2 years) 26</td>
</tr>
<tr>
<td>There are mid-term plans (3–5 years) 33</td>
</tr>
<tr>
<td>There are long-term plans (5–10 years) 10</td>
</tr>
<tr>
<td>There are plans for 2030 5</td>
</tr>
<tr>
<td>Not sure                                         26</td>
</tr>
<tr>
<td>n=147</td>
</tr>
</tbody>
</table>

Table 3: Status of SDG efforts (multiple choice)

Step 4: Integrating

In order to encourage action on the SDGs, the level of implementation among all companies is illustrated in Table 4. It is evident that, first, persons in charge of promoting the SDGs carry out initiatives aimed at diffusing knowledge throughout the company, such as via trainings and company newsletters. In addition, importance is attached to messages from top management. As can be read in Table 4, a distinguishing characteristic of Japanese companies is that SDGs are first initiated and implemented by relevant persons in charge within the company across the organization through a so-called bottom-up approach. It is only when awareness is raised at the executive level and implemented straight from the top — revolving around the PDCA cycle — that SDGs are disseminated to other members of staff, including middle managers and external stakeholders, including affiliated companies.

<table>
<thead>
<tr>
<th>Q: What kind of activities are you doing to improve awareness of SDGs within your company/organization?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training (including e-Learning) 16</td>
</tr>
<tr>
<td>Dissemination by website 16</td>
</tr>
<tr>
<td>Dissemination by corporate magazine (paper) 17</td>
</tr>
<tr>
<td>Top priority message 17</td>
</tr>
<tr>
<td>Establishment of dedicated organization 1</td>
</tr>
<tr>
<td>Others (in specific) 13</td>
</tr>
<tr>
<td>Nothing in particular 20</td>
</tr>
<tr>
<td>n=229</td>
</tr>
</tbody>
</table>

Table 4: Status of efforts to establish SDGs in your company / organization (multiple choice)
Step 5: Reporting & communicating

Even interviewed companies that are very advanced in their incorporation of SDGs in their business methodologies often noted the difficulties that top management faces in communicating the significance of SDGs and their related actions to employees via internal newsletters and other means. A primary factor mentioned was that SDGs are seen as an extension of the Millennium Development Goals and are often communicated in the context of international development. Thus, the fact that they are international goals that include addressing local issues in Japan is not accurately communicated. Furthermore, many shared the opinion that companies do not know how to contribute to the Japanese government’s Guidelines for Implementation, and that they would like to see visualization of an implementation scheme that Japanese companies can participate in as well as guidelines to boost corporate actions. Accordingly, CSR staff could more easily explain the significance and merits of engaging in SDGs to top management and employees.

Although some have pointed out that cherry-picking of corporate SDG initiatives is taking place, there are increasing expectations for cooperation with corporate partners. A major difference from the previous survey is that, although responses about the “company itself” engaging in initiatives decreased considerably, there was a rapid rise in the number of responses about “customers,” “suppliers and buyers,” “consumers,” and “stockholders / investors.” Furthermore, the ratio of responses on “NGOs / NPOs” remained high. The context for stockholders and investors appearing this fiscal year is the fact that companies which incorporate responsible environmental, social, and governance business practices have been attracting attention. Additionally, it could be interpreted as a heartfelt appeal to stockholders and investors from CSR departments that are aspiring to improve corporate value by integrating CSR and management.

<table>
<thead>
<tr>
<th>Q: What are the main issues while working on the SDGs? (multiple choice)</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low social recognition</td>
<td>70</td>
<td>63</td>
</tr>
<tr>
<td>Low understanding inside a company</td>
<td>62</td>
<td>66</td>
</tr>
<tr>
<td>Undefined method for internal deployment</td>
<td>46</td>
<td>66</td>
</tr>
<tr>
<td>Weak top commitment</td>
<td>26</td>
<td>31</td>
</tr>
<tr>
<td>Unclear evaluation methods such as quantitative indicators</td>
<td>49</td>
<td>52</td>
</tr>
<tr>
<td>Lack of resources (fund, capability, technology, etc.)</td>
<td>0</td>
<td>33</td>
</tr>
<tr>
<td>Unclear government policy, lack of government’s involvement</td>
<td>0</td>
<td>30</td>
</tr>
<tr>
<td>Appropriate partners cannot be found out</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Others (in specific)</td>
<td>7</td>
<td>5</td>
</tr>
</tbody>
</table>

N= 362  N= 521

Table 5: Major challenges in promoting the SDGs

ABOUT:
The Global Compact Network Japan (GCNJ), together with IGES (Institute for Global Environmental Strategies), conducted a survey of 233 GCNJ member companies and organizations, as well as face-to-face interviews with 17 companies (including one non-member company) and external organizations.
Global Compact Network Japan

As a Sustainability Leader in Japan

By Keisuke Ota, Representative Global Compact Network Japan

The Global Compact Network Japan (GCNJ) started in 2003 within the United Nations Information Centre (UNIC) with the participation of 11 companies. To implement activities led by member companies, the GCNJ became independent of the UNIC in 2008. Then, in 2011, the GCNJ became a general incorporated association to strengthen its organizational governance. During this process, more companies steadily joined the GCNJ as members. As of April 2017, the number of member companies and organizations was 241 (membership fees are charged). The member composition is characterized by large companies, which comprise 75 percent of all members. Other members are small- and medium-sized companies, schools, industry groups, NGOs, etc.

Mission

The GCNJ’s mission is to realize a sustainable world by providing a platform for learning, collaboration, and communication to member companies and organizations aiming to integrate sustainability strategies into corporate management through practices based on the UN Global Compact’s Ten Principles.

Activities and impacts

The GCNJ conducts a variety of activities. Some distinctive activities are explained below.

1. Working Group

We started this activity in early 2008 by setting up three working groups: “Supply Chain in Asia,” “Global Warming,” and “Case Studies.” The number of working groups has reached 14 in 2017. They are “Supply Chain,” “Environment Management,” “GC Internal Promotion,” “Reporting,” “Kansai Area,” “Human...
Rights Due Diligence," “Human Rights Education,” “Collective Business Actions for Tomorrow,” “Anti-corruption,” “Disaster Risk Reduction,” “SDGs,” “SRI/ESG,” “CSV,” and “WEPs.” A cumulative total of 168 companies have participated in these working groups so far. Working group activities are planned and operated voluntarily by members. Working groups are the places for the learning, cooperation, and communication of output information. Output information created through these activities includes "A Vision of Desirable CSR Activity in the Supply Chain," “Business and Human Rights — Corporate Japan Rises to the Challenge,” and “Sustainable CSR Procurement Self-assessment Tool” and is disclosed not only to GCNJ members but also via our website so that it becomes useful to society.

2. Training for Tomorrow’s Management

This conference started in 2008 to help executive officers and general managers of member companies to consider “tomorrow’s management,” in which sustainability is integrated into management. It has gained popularity as a year-long training program, and a cumulative total of 70 companies have participated in it so far. Some of the program participants have actually become presidents after completing the program and put what they have learned at the seminar into management practice.

3. China-Japan-Korea roundtable

Three countries in East Asia have taken turns hosting the roundtable since 2009. Discussions on sustainability are held with annual themes from the respective perspectives of youths, academia, and businesses, and messages unique to East Asia are dispatched through strengthened economic cooperation between the three countries. In 2017, we held the roundtable in Tokyo under the theme of “Transform Our World with SDGs — Roles of East Asia.”

4. Sustainable Development Goals

Since launching the Sustainable Development Goals (SDGs) Task Force, which comprises voluntary members, in 2015, we have planned and promoted various activities related to the SDGs. More specifically, we have held seminars, symposiums, media briefings, etc., as education and dissemination measures for SDGs in Japan. We have also cooperated in preparing the SDGs Implementation Guiding Principles by various means, such as via a joint announcement with civil society regarding the propositions submitted to the government, proposals made for the G7 Ise-Shima Summit, and opinions expressed at the SDGs Promotion Roundtable sponsored by the Japanese government. We have also conducted activities in cooperation with multistakeholders such as ministries, government agencies, NGOs, academia, and specialized organizations so that we can function as an engine to help more companies implement the SDGs. In addition, we conducted an annual questionnaire survey on actual conditions of member companies, and we issued the SDGs and Business in Practice: Early Actions by Japanese Private Companies, a report introducing the survey results and actual examples from companies. The Japanese translation of SDG Compass and SDG Industry Matrix was well accepted by member companies. We received a comment saying that it was helpful for the preparation of management plans.

Commitment for the sustainable future

The UN Global Compact has also prepared the Global Strategy 2017 — 2020. As a result, the cooperation between the UN Global Compact and Local Networks will become stronger. Taking this opportunity, we are considering reviewing the significance of the Global Compact and the value of Network Japan. We need to inherit strong points that are unique to Japan and actively participate in activities if global cooperation is necessary. To this end, we must motivate member companies and organizations to understand the value. To “transform our world,” as required by the SDGs, we need to “transform our organizations.”

As a legacy of sustainability, a long-standing concept known as “Good for the seller, Good for the buyer, and Good for society (Good for all three sides)” exists in Japan. In the Edo period, a circulation-type society (e.g. a reuse-based/recycling-based society) had been formed. We have many things we can boast to the world. For example, 26,000 companies were founded more than 100 years ago. We will strive to inform the UN Global Compact and overseas Local Networks of these strong points while dispatching information from Japan and keeping in communication so that we can exert positive effects through cooperation toward the realization of the SDGs.
From just 11 participants in 2003 the Global Compact Network Japan (GCNJ) has grown to more than 240 companies (April 2017). 75 percent of all members are large companies. Therefore, having 1,000 or more employees is the norm. The GCNJ represents a huge variety of industry sectors with a focus on industrial manufacturing businesses.

Participants of the Global Compact Network Japan

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate</td>
<td>184</td>
<td>76.3</td>
</tr>
<tr>
<td>SME</td>
<td>39</td>
<td>16.2</td>
</tr>
<tr>
<td>Non-Profit</td>
<td>9</td>
<td>3.7</td>
</tr>
<tr>
<td>Academia</td>
<td>8</td>
<td>3.3</td>
</tr>
<tr>
<td>Business Assn.</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>241</strong></td>
<td><strong>99.9</strong></td>
</tr>
</tbody>
</table>
Number of Employees consolidated

- 1 - 100: 10%
- 100 - 1,000: 4%
- 1,000 - 10,000: 12%
- 10,000 - 50,000: 32%
- 50,000+: 30%
- Unknown: 12%

Sectors

- Industrial Manufacturing: 30%
- Other Manufacturing: 20%
- Services: 12%
- Finance & Insurance: 12%
- Food: 4%
- Other: 12%
- Precision Instruments: 3%
- Bulk Goods: 3%
- Information & Communication: 4%
- Construction: 4%
- Transportation: 3%
- Infrastructure: 2%
- Academia, Business Assoc., Non-Profit: 8%

Source: GCNJ, May 2, 2017

Number of Participants

- 2000: 1
- 2002: 6
- 2004: 11
- 2006: 27
- 2008: 39
- 2010: 47
- 2012: 57
- 2014: 76
- 2016: 108
- 2018: 133
- 2020: 155
- 2022: 170
- 2024: 183
- 2026: 196
- 2028: 211
- 2030: 241

Source: GCNJ, May 2, 2017
This year’s Forum focused on eradicating poverty and promoting prosperity in a changing world. A set of goals — Goal 1 on poverty, Goal 2 on hunger, Goal 3 on health, Goal 5 on gender equality, Goal 9 on infrastructure and industrialization, and Goal 14 on the oceans — were reviewed in depth, as was Goal 17 on the means of implementing the Goals, which will be considered each year.

Noting that there were more global challenges that any country could solve on its own, United Nations Secretary-General António Guterres, in his remarks to the Forum, said, “We need global answers and we need multilateral governance forms. And we need to be able to overcome this deficit of trust, and that, in my opinion is the enormous potential of the Agenda 2030 — because the Agenda 2030 is an agenda aiming at a fair globalisation. It’s an agenda aiming at not leaving anyone behind, eradicating poverty and creating conditions for people to trust again — in not only political systems, but also in multilateral forms of governance and in international organizations like the UN.”

The Goals, as part of the unanimously adopted 2030 Agenda for Sustainable Development, have prompted governments to rethink their priorities and align policies and budgets to achieve the 17 Goals by 2030. The process also mobilized the unprecedented engagement from civil society and the business sector. The annual Forum follows-up and reviews the implementation of the Goals.

The Forum allows countries to demonstrate how they are meeting their commitments to achieve the 17 Goals and ensure that “no one is left behind.” At the Forum, during the ministerial meeting, 43 countries, both developed and developing, presented their Voluntary National Reviews on how they are implementing the SDGs. The reviews consisted of presentations by high-level officials on the progress in achieving the SDGs followed by questions from other countries and from civil society representatives.

They were: Afghanistan, Argentina, Azerbaijan, Bangladesh, Belarus, Belgium, Belize, Benin, Botswana, Brazil, Chile, Costa Rica, Cyprus, Czech Republic, Denmark, El Salvador, Ethiopia, Guatemala, Honduras, India, Indonesia, Italy, Japan, Jordan, Kenya, Luxembourg, Malaysia, Maldives, Monaco, Nepal, Netherlands, Nigeria, Panama, Peru, Portugal, Qatar, Slovenia, Sweden, Tajikistan, Thailand, Togo, Uruguay, and Zimbabwe.

Frederick Musiwa Makamure Shava, President of the UN Economic and Social Council (ECOSOC), noted that the Forum provides space for inclusive multistakeholder dialogue and opportunities for peer-learning and exchange.

Wu Hongbo, UN Under-Secretary-General for Social and Economic Affairs, stressed that going forward, the SDGs had to be owned by all of society, not just the government.

“Having heard 43 Voluntary National Reviews, I am truly impressed with the political leadership and national commitments. And I am equally encouraged by the integration of the SDGs into national legislation, national plans and indeed national conscience,” he said as the Forum concluded. “Not only does this all show political will at the highest level, but also national ownership and engagement of all stakeholders.”

The more than 1,000 business leaders attending the SDG Business Forum also issued a declaration stating that business supports the SDGs as a framework of universally applicable goals to tackle the world’s most pressing social, economic, and environmental challenges, and vowed to step up action.

“Business drives innovation, provides a source of finance, and constitutes an engine for economic development and employment. Strong and visionary business leadership is therefore essential to achieving the transformation required by the SDGs.”
#HLPF 2017

- **8 Days**
- **43 Voluntary National Reviews**
- **77 Ministers, Cabinet Secretaries, Deputy Ministers**
- **2458 Registered Stakeholder Representatives**

- **7 SDGs under Review**
- **36 Meetings**
- **147 Side Events**
- **3 Special Events**
- **10 Learning Courses, Workshops**

Voluntary National Reviews to be presented (2017)

- **12 Europe**
- **11 Latin America and Caribbean**
- **7 Africa**
- **13 Asia Pacific**

#HLPF Timeline

- **2013**: Building the future we want: from Rio+20 to the post-2015 development agenda
- **2014**: Achieving the MDGs and charting the way for an ambitious post-2015 agenda
- **2015**: Strengthening integration, implementation, and review – the HLPF after 2015
- **2016**: Ensuring that no one is left behind
- **2017**: Eradicating poverty and promoting prosperity in changing world
- **2018**: Transformation towards sustainable and resilient societies
- **2019**: Empowering people and ensuring inclusiveness and equality

Source: sustainabledevelopment.un.org/hlpf
### Action Platforms:

#### UN Business Action Hub

The UN Business Action Hub is a platform where the UN and business can engage in dialogue, share information, and take action to advance UN objectives and the Sustainable Development Goals (SDGs). On this platform, business can learn more about UN entities, their mandates, specific needs, and offer programmatic support, in-kind and financial donations, while UN entities can learn more about the specific interests of companies, available resources, and engagement opportunities desired by business. Additionally, both the UN and business can post projects and use the platform to search for — and interact with — potential partners to scale the impact of their projects.

► [business.un.org](http://business.un.org)

#### Reporting on the SDGs

The UN Global Compact and Global Reporting Initiative (GRI) have formed a groundbreaking initiative, Reporting on the SDGs, to address this challenge. The Reporting on the SDGs Action Platform aims to leverage the GRI Standards — the world’s most widely used sustainability reporting standards — and the Ten Principles of the UN Global Compact to enable businesses to incorporate SDG reporting into their existing processes, empowering them to act and make the achievements of the SDGs a reality. A special emphasis of the Platform is on making reporting more accessible to small and medium-sized enterprises. Furthermore, the Principles for Responsible Investment is a partner of the Platform, to increase the value of corporate sustainability disclosures for the financial community.

► [globalreporting.org/information/SDGs/Pages/SDGs.aspx](http://globalreporting.org/information/SDGs/Pages/SDGs.aspx)

#### Breakthrough Innovation for the SDGs

Achieving the Sustainable Development Goals is a global imperative. It will also open up $12 trillion in economic growth, 50 percent of which is in developing nations. Achieving this ambition, however, is not going to come easily. It is going to require a change from “business as usual” and a commitment to truly breakthrough innovation that challenges current mindsets as well as unprecedented collaboration across all sectors in society. The UN Global Compact’s Breakthrough Innovation for the SDGs Action Platform connects forward-thinking companies with some of the world’s leading exponential thinkers and innovators to explore how disruptive technologies, such as Artificial Intelligence, Big Data, the Internet of Things, and the sharing and circular economies, can help create the sustainable business models of the future.

► [breakthrough.unglobalcompact.org](http://breakthrough.unglobalcompact.org)
GUIDELINES:

The SDG Compass

Guides companies on how they can align their strategies as well as measure and manage their contribution to the realization of the SDGs. The SDG Compass presents five steps that assist companies in maximizing their contribution to the SDGs: understanding the SDGs, defining priorities, goal setting, integrating sustainability and reporting.

Developed by GRI, the UN Global Compact and the World Business Council for Sustainable Development (WBCSD), the SDG Compass incorporates feedback received through three consultation periods from companies, government agencies, academic institutions and civil society organizations worldwide.

SDG Industry Matrix

Showcases industry-specific examples and ideas for corporate action related to the SDGs. Presented in a series of publications, each matrix highlights bold pursuits and decisions made by diverse companies for each SDG.

Sector Supplements available:
- Financial Services
- Food, Beverage & Consumer Goods
- Climate Extract
- Healthcare & Life Sciences
- Industrial Manufacturing
- Transportation
- Energy, Natural Resources, Chemicals

Poverty Footprint

An assessment tool that enables companies and civil society partners to understand corporate impacts on multi-dimensional poverty. As a tool to help implement the SDGs, the Poverty Footprint provides a comprehensive overview of factors that influence poverty, and it emphasizes stakeholder engagement and partnership between companies and civil society as a means for establishing pro-poor business strategies.

Authors: OXFAM and United Nations Global Compact
Note:
Vision statement by António Guterres, Secretary-General of the United Nations

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Solely responsible for the editorial contributions under the heading “Good Practice” are the companies themselves. Named articles do not reflect the opinions of the publisher.
THE TEN PRINCIPLES OF THE UNITED NATIONS GLOBAL COMPACT

HUMAN RIGHTS
1. Businesses should support and respect the protection of internationally proclaimed human rights; and
2. make sure that they are not complicit in human rights abuses.

ENVIRONMENT
7. Businesses should support a precautionary approach to environmental challenges; 8. undertake initiatives to promote greater environmental responsibility; and 9. encourage the development and diffusion of environmentally friendly technologies.

LABOUR STANDARDS
3. Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
4. the elimination of all forms of forced and compulsory labour;
5. the effective abolition of child labour; and
6. the elimination of discrimination in respect of employment and occupation.

ANTI-CORRUPTION
10. Businesses should work against corruption in all its forms, including extortion and bribery.

At the core of the Global Compact initiative are 10 principles for human rights, labour standards, the environment and eliminating corruption.

The Global Compact calls upon all companies to recognise these principles and to take steps to put them into effect.
GLOBAL COMPACT INTERNATIONAL YEARBOOK
EDITIONS 2009 – 2016

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"Understanding global mega-trends is crucial. We live in times of multiple, evolving and mutually-reinforcing shifts. These dynamics, of geopolitical, demographic, climatic, technological, social and economic nature, enhance threats and opportunities on an unprecedented scale.

António Guterres, UN Secretary-General