

D I A L O G U E

# ELI 2020 CORPORATE FORUM: REIMAGINING SUPPLY CHAINS

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## SUMMARY

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The coronavirus pandemic, the push for racial justice, and continued efforts to mitigate climate change have emerged as key challenges for corporations. At the center of this trifecta of change are supply chains; one-quarter of the global supply chain, approximately \$4.5 trillion, could shift by 2025. Leading companies are rebuilding supply chains more resilient to the disruptions caused by climate change and more cognizant of environmental, social, and governance expectations, while prioritizing suppliers that promote racial justice and companies owned by people of color. On October 13, 2020, the Environmental Law Institute convened an expert panel that explored these issues. Below, we present a transcript of the discussion, which has been edited for style, clarity, and space considerations.

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**Scott Fulton** is President of ELI.

**Jessica Bowman** is Executive Director of the Plant Based Products Council.

**Catharine de Lacy** is an Independent Director and Chair of the Environment, Health, Safety, and Sustainability Committee at TORC Oil & Gas Ltd., and Co-Founder and Managing Director at Riar Associates LLC.

**Sally Fisk** is Assistant General Counsel, EHS & Global Supply Compliance Leader at Pfizer Inc.

**Katherine Neebe** is Chief Sustainability Officer and Vice President of National Engagement and Strategy at Duke Energy, and President of the Duke Energy Foundation.

**Yolanda Pagano** is the former Senior Manager of Global Sustainability at Tyson Foods.

**Caitlin McCarthy:** Welcome to the Environmental Law Institute's (ELI's) 2020 Corporate Forum. I would like to introduce the president of ELI, Scott Fulton. Previously, Scott was a partner of Beveridge & Diamond after having served as general counsel of the U.S. Environmental Protection Agency. He also served as the assistant chief of the Environmental Enforcement Section of the U.S. Department of Justice in the Environment and Natural Resources Division.

**Scott Fulton:** We stand on the brink of an incredibly important election that will greatly influence the government's approach to the work that we do, with fairly diametrically opposed notions on display on either side of the political fault line. Indeed, government behavior has become less and less stable and certain over time in the environmental space, and more and more variable depend-

ing on who's in charge. This instability in the government approach, difficult though we may find it in our own country, can be calamitous in other countries, especially developing and transitioning economies where lack of resources for the work of government or lack of government integrity insurance mechanisms can make a government an inherently unreliable actor and a major risk factor for companies doing business there.

Wouldn't it be great if there were a system of governance aimed at reinforcing environmentally responsible behaviors that was not prone to change with the shifting winds of politics, which continued to point toward true north no matter who was in political office? Well, I'm among those who believe that such a system has in fact emerged in the private sector and is growing in strength and in reach. That system has both a normative dimension and a delivery mechanism. The normative dimension is the sustainability ideal that has taken hold in responsible businesses around the world, given expression through the environmental, social, and governance (ESG) norms and expectations embraced by companies along with their own internal compliance ideals and expectations.

Because these norms are increasingly more about the expectations of employees, shareholders, investors, and customers, they're not as dependent on or especially vulnerable to government signals. The delivery mechanism that associates with this includes self-accountability against ESG norms, but also pushes these normative expectations outward, to suppliers and service providers. This is a system that we commonly refer to as supply chain management. This is an unusually powerful delivery mechanism and the costs of not aligning with the normative expectations are potentially quite significant. The exercise of choice about by whom to be serviced or provisioned—or in the most severe form deselection—is as potent a lever as can be found in

the environmental tool kit, since it determines ultimately access to markets, the very lifeblood of business.

Today, we're going to talk about supply chain management as something of a politically transcendent phenomenon, and consider its reach as a transformative ingredient in the recipe for a sustainable future, particularly as we face new imperatives like the coronavirus pandemic, the push for racial justice, and continued efforts connected with the changing climate.

ELI has invested in this space because we see it as the key new governance lane for environmentally responsible behavior. We see it as a cause for hope and a path to progress even in these difficult times. We see it as a place where we hope to contribute through our programs, research scholarship, and convenings to what companies are trying to accomplish in this area. Our discussants today are all pros in this space.

We have Jessica Bowman, who serves as the executive director of the Plant Based Products Council, where she leads the council's efforts in advocating for more renewable plant-based materials and ensuring they become part of the bio-circular economy or the circular bioeconomy. Jessica also serves as the Corn Refiners Association's vice president of advanced bioproducts, overseeing and executing legislative and regulatory priorities for policies related to those.

Catharine de Lacy is an independent director for TORC Oil & Gas Ltd., and chairs the Environment, Health, Safety, and Sustainability Committee. She has served previously as a board member or trustee for a number of nonprofits, educational institutions, and major trade associations, and was also previously president and a member of the board of a captive insurer for a Fortune 500 specialty materials producer.

Sally Fisk is assistant general counsel and chief compliance counsel for Pfizer's global manufacturing and supply division and companywide environmental, health, and safety program. In this role, Sally works with Pfizer's executive team to develop programs to ensure a robust compliance and strategic environmental sustainability strategy and initiatives. Sally is also a very involved member of the ELI board of directors, and I'm very thankful for that.

Katherine Neebe is the president of Duke Energy Foundation and chief sustainability officer and vice president of national engagement and strategy at Duke Energy, where she oversees the company's sustainability, advocacy, and stakeholder engagement teams. She previously served in multiple roles in sustainability at Walmart, where she was most recently senior director of ESG trust and transparency on the global responsibility team.

Yolanda Pagano previously served as a senior manager of global sustainability for Tyson Foods. Yolanda has extensive experience in the financial, energy, food, and consulting sectors. She has held various project and program management, policy and strategy development, and sustainability and corporate responsibility and leadership roles.

What a wealth of expertise we have with us today to learn from and to share thoughts with. This is, we believe, our first all-women panel for the ELI Corporate Forum, and how wonderful is that?

**Jessica Bowman:** I'm excited to be joining this esteemed panel of women as we're bringing our different perspectives together to talk about how we can use this historic time that we're in as an opportunity to rethink our supply chains. We can think about how to put sustainability at the fore, how to promote racial justice, how to prioritize resilience—resilient to a future health or economic crisis, resilient to ever-changing political leadership and priorities, and resilient to the impacts of climate change.

We're all navigating in uncertain times right now, but we want to talk today about how companies can work across the supply chain and what some of the challenges may be to doing so to reset our systems to create what I think is a new normal that's focused on the environment and social welfare and good governance.

As Scott mentioned, I'm the executive director of the Plant Based Products Council. Our objective is to promote the broader adoption of more sustainable products that are derived from nature. Many of the products and materials that we use every day can be made from renewable resources. We can use a wide variety of plant-based feedstocks, such as corn and soy and algae and hemp and even agricultural residue, to manufacture chemicals and plastics and other materials. It's everything from shoes to straws to car parts to 3D printer ink.

We represent more than 100 companies across multiple supply chains, from companies that are providing the feedstock like cornstarch or hemp fiber, to companies that are turning that feedstock into a resin or an ingredient like a bioplastic or a bio-based chemical, to companies that are turning those ingredients or materials into a product like a shirt or a cup or a coffee pod, and to companies that are selling or using those products in the marketplace. We really view plant-based products as a critical component of the circular economy, but also the circular bioeconomy. So, while we're advocating for a broader adoption of these products, we want to ensure that they're truly part of the circular bioeconomy.

The fact is that our current economic system, while it provides profit and wealth and jobs and the many benefits that go along with those values, it's also led to exacerbated social inequalities and significant threats to nature from soil degradation to deforestation to threatened species. But we have an opportunity now to reset and to rethink how we operate and how we value our resources and nature by moving to a more circular bioeconomy.

When I talk about "circular bioeconomy," I'm talking about the marriage of two key sustainability concepts. First, is using more renewable resources to make energy and chemicals and materials like products made from plants. Second, is the circular economy or the concept of keeping those sustainable materials and products in use longer instead of throwing them away, because we know there really is no "away" and they go somewhere. Maybe it's a landfill or maybe they end up in the environment. They don't go away though.

So, how can we continue to get value and use out of those products? To put that concept into practice, I'll walk you through an example using a compostable plant-

based product like the coffee pod I mentioned a minute ago. We start with a low-value agricultural crop or residue as a feedstock—so here, cornstarch and skins from coffee beans. That feedstock is then processed and converted into a higher value plant-based resin. That resin is then used to manufacture plant-based products and packaging—here a coffee pod—which is then delivered to the consumer or the end-user.

Now, rather than throwing that coffee pod in the trash and sending it to a landfill after it's used, these compostable materials can be sent to a compost facility to be composted along with the coffee grounds that they contain. This allows these products to retain value as compost, the soil amendment that can be then used to grow healthier feedstocks. That's sort of completing that circular loop. But I want to touch on some of the challenges that we may be facing to connect all of the links in that circular loop.

I also want to provide some context around the bioeconomy here in the United States. In general, the bioeconomy encompasses a broad range of innovation and technologies and products that can benefit our safety and our security and environment while also creating quality green manufacturing jobs. Bio- or plant-based products are just one sector of the bioeconomy; others of course include biotechnology and biofuels.

According to the U.S. Department of Agriculture (USDA), the bio-based products industry contributed about \$459 billion to economic activity in 2016.<sup>1</sup> That's the most recent year for which we have data available. And it provided 4.6 million jobs.<sup>2</sup> It's also been expanding at the annual rate of more than 10%.<sup>3</sup> That sounds great, but our overall U.S. bioeconomy currently accounts for less than 5% of American economic activity.<sup>4</sup> So we're really just scratching the surface.

I think we're really at a watershed moment where we have this opportunity to accelerate expansion of the U.S. bioeconomy and along with it technologies and innovations that harness the power of agriculture and nature. So, again, playing out an example of the opportunity here, about 1% of the plastic that's manufactured today is bioplastic.<sup>5</sup> But it's been estimated that more than 60% of traditional plastic could be replaced with bioplastic.<sup>6</sup> I think we could have an entire webinar on plastic and the projected increases in need and whether that's sustainable from an environmental standpoint, but I don't think the need for plastic is going away. We have the opportunity now to rethink how we make that plastic using renewable rather than finite resources.

The reasons for transitioning to a circular bioeconomy are multifold. One is jobs and business opportunities. The circular bioeconomy empowers rural communities through new business opportunities through investment that's based on the biomass that they produce. So, with net farm incomes and commodity prices in free fall, and bankruptcy filings and farm real estate debt skyrocketing, farmers' sentiment levels are approaching record lows. The bioeconomy is offering new markets and opportunities for American farmers. And because the biomass that's used to make these products generally needs to be processed near where it's grown and harvested, we're putting those quality jobs associated with those processing facilities right there in our rural communities, helping to combat the brain drain that they've been seeing for decades.

The second is environmental benefits. Coupled with the advancement in sustainable agricultural production practices, development of the bioeconomy can lead to substantially reduced greenhouse gas emissions, improved water quality, diversion of waste from landfills, and augmented soil health. Let me go back to that compostable coffee pod to illustrate some of these benefits.

When farmers grow the crops that are used to make plant-based materials in that coffee pod, they capture carbon dioxide from the atmosphere. When those crops are processed, that carbon dioxide simply returns to the atmosphere in the natural biogenic cycle. USDA has looked into the impact that's made by using plant-based alternatives versus petroleum-based products. Looking at 2016 data, they found there was a reduction of 12.7 million metric tons of carbon dioxide equivalents.<sup>7</sup> That's equal to taking about 2.7 million cars off the road for a year.<sup>8</sup>

When we're getting that coffee pod and the coffee grounds to a compost facility, we're also diverting food waste from a landfill where that food waste would otherwise be creating methane emissions. Landfills are the third largest source of human-related methane emissions in the United States.<sup>9</sup> We're also reducing the overall amount of solid waste going to a landfill. And that compost we're creating, it's rich in organic matter and nutrients, so that benefits the overall health and physical characteristics of our soil, which also leads to improved water quality.

Then, there's consumer demand. We're seeing a growing demand from consumers for more sustainable products, more sustainable packaging. I'm sure we've all seen survey after survey showing us that this is what consumers want and we're seeing data showing that consumers are willing to pay more for sustainable products.

I want to spend some time talking about some of the challenges across the supply chain. One not insignificant challenge is cost. Moving away from, say, a traditional plas-

1. JESSE DAYSTAR ET AL., AN ECONOMIC IMPACT ANALYSIS OF THE U.S. BIO-BASED PRODUCTS INDUSTRY (2018), <https://www.biopreferrred.gov/BPRResources/files/BiobasedProductsEconomicAnalysis2018.pdf>.

2. *Id.*

3. *Id.*

4. *Id.*

5. EUROPEAN BIOPLASTICS, BIOPLASTICS MARKET DEVELOPMENT UPDATE 2020 (2020), [https://docs.european-bioplastics.org/conference/Report\\_Bioplastics\\_Market\\_Data\\_2020\\_short\\_version.pdf](https://docs.european-bioplastics.org/conference/Report_Bioplastics_Market_Data_2020_short_version.pdf).

6. ELLEN MACARTHUR FOUNDATION, THE NEW PLASTICS ECONOMY: RE-THINKING THE FUTURE OF PLASTICS 93 (2016), <https://www.ellenmacarthurfoundation.org/our-work/activities/new-plastics-economy/reports>.

7. See DAYSTAR ET AL., *supra* note 1.

8. Calculation made using EPA Greenhouse Gas Equivalencies Calculator. U.S. EPA, *Greenhouse Gas Equivalencies Calculator*, <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator> (last updated Mar. 2020).

9. See U.S. Environmental Protection Agency, *Basic Information About Landfill Gas*, [https://www.epa.gov/lmop/basic-information-about-landfill-gas#:~:text=Municipal%20solid%20waste%20\(MSW\)%20landfills,of%20these%20emissions%20in%202018](https://www.epa.gov/lmop/basic-information-about-landfill-gas#:~:text=Municipal%20solid%20waste%20(MSW)%20landfills,of%20these%20emissions%20in%202018) (last visited Dec. 10, 2020).

tic product to an alternative that's made from nature generally has a cost impact. These plant-based products are often new, innovative products and materials. How can we make these plant-based products competitive from a price standpoint with the petroleum industry that's benefited from decades of both technological and market optimizations? That's led to an economic advantage over newer technologies like plant-based products.

This leads us to questions that we need to ask across the supply chain. What is that cost differential? What's the intended use of the product? What's the target customer or consumer? And is that user or consumer willing to pay for the added costs? I've also heard of packaging converters that don't even offer plant-based materials to their customers because they've so heavily leveraged their business around the suppliers of petroleum-based plastics. So unless a brand owner is asking for it, they're not even offering it as an option.

One of the other challenges we face, let's say a perceived challenge, is around performance. I think some have expressed concern about whether plant-based materials meet the performance needs that they're looking for. Again, we have to ask, what's the intended use? How does its performance compare to what's already in use? Will this product negatively impact existing manufacturing or packaging processes? While some plant-based alternatives are a one-for-one substitute—like you can use bio-based polyethylene terephthalate (PET) to make your soda or water bottles, and it performs exactly the same—there are also some plant-based products or chemicals that provide really unique, often enhanced properties. I think it's important to understand how you want that product or material to perform and to really consider all your options for getting that performance.

Another challenge we face is education and awareness. Some stakeholders, including consumers, simply aren't aware of these products. We're wrapping up some consumer polling we conducted this summer. It showed us about one in five consumers were familiar with plant-based products, but well over one-half of consumers were very interested in these products when they had more knowledge about them. So there's a real opportunity to raise the overall knowledge base, which could then send a signal to companies about what types of products consumers want to see on the shelf.

We need to think about where this product or packaging or material will go when its useful life is over. That's a question that really needs to be considered upfront, as well as how it's going to get there. Consumer disposal habits are a real challenge. If consumers don't know how to properly dispose of a product or they don't have access to the necessary end-of-life system, we aren't making any progress. Where will this product be used—at home, in an office, in the road, in a stadium? Will the user have access to the intended end-of-life disposal system? And related to that, do we have the needed end-of-life infrastructure?

Our recycling systems are really challenged and just because an item is labeled as recyclable, it doesn't mean it's getting recycled. In fact, less than 10% of plastic is recycled.<sup>10</sup>

Take polylactic acid (PLA) for example; it's a corn-based plastic. It's used in those coffee pods I keep talking about. It's technically recyclable, but there's simply not enough of it in use to make it worth the effort to collect it and sort it. That means it's essentially a contaminant in the recycling stream today. But PLA is also compostable, yet we don't have a robust composting infrastructure in this country.

Related to that for a number of reasons, even those items that are compostable are not always accepted by compost facilities. They often look just like a non-compostable plastic, so there's a need for standard labeling. In fact, the Biodegradable Products Institute, which is the premier organization that certifies products as compostable here in the United States, just in the past couple of weeks issued guidance around labeling of compostable products to help really move the needle on this issue.<sup>11</sup>

There are also concerns about whether they break down fast enough in compost. Frankly, if it's not bringing food waste with it, composters definitely don't want it—so sorry, compostable shoes. As a result, many composters screen compostable plastics out as contaminants, sending them to a landfill.

While we have all these challenges, I think it's also important to understand we have a lot of stakeholders, including the Plant Based Products Council, that are working to tackle these challenges because we really see the benefits that could be realized on the other side, the benefits of a circular bioeconomy.

Of course, we're not unique to this vision. There are many companies and industries and entire economies that are embracing the concept of both the circular economy and the circular bioeconomy. The Ellen MacArthur Foundation, based in the United Kingdom, has really been leading the way and accelerating the transition to a circular economy, working with stakeholders across the globe, across different industries from fashion to higher education to plastics. Just in the past couple weeks, investors announced the first closing of €82 million of the European Circular Bioeconomy Fund.<sup>12</sup> This is the first equity fund focused on the bioeconomy and the circular bioeconomy in Europe. The target size for that is €250 million. And, of course, we're seeing company after company making commitments and joining partnerships and really inserting themselves into the circular economy and the circular bioeconomy.

10. U.N. Environment, *Our Planet Is Drowning in Plastic Pollution*, <https://www.unenvironment.org/interactive/beat-plastic-pollution/> (last visited Dec. 10, 2020).

11. BIODEGRADABLE PRODUCTS INSTITUTE, GUIDELINES FOR THE LABELING AND IDENTIFICATION OF COMPOSTABLE PRODUCTS AND PACKAGING (2020), [https://bpiworld.org/resources/Documents/BPI\\_Labeling-Guidelines-2020.pdf](https://bpiworld.org/resources/Documents/BPI_Labeling-Guidelines-2020.pdf).

12. Press Release, European Investment Bank, Joint Action for Bio-Based Industries: EIB, European Commission and ECBF Management GmbH Launch Circular Bioeconomy Fund With a Target Size of €250 Million (Oct. 1, 2020), [https://www.eib.org/en/press/all/2020-255-joint-action-for-bio-based-industries-eib-european-commission-and-ecbf-management-gmbh-launch-circular-bioeconomy-fund-with-a-target-size-of-eur250-million#:~:text=The%20European%20Investment%20Bank%20\(EIB,and%20Horizon%202020%20Associated%20Countries.](https://www.eib.org/en/press/all/2020-255-joint-action-for-bio-based-industries-eib-european-commission-and-ecbf-management-gmbh-launch-circular-bioeconomy-fund-with-a-target-size-of-eur250-million#:~:text=The%20European%20Investment%20Bank%20(EIB,and%20Horizon%202020%20Associated%20Countries.)

I want to close by thinking about this valley we're in right now. We're fighting this global pandemic. The economy has been battered. We're facing racial injustices that have gone unaddressed for too long. Political tensions are high. The effects of climate change are devastating our environment and communities across the country. I want us to think about the path that we're taking to work our way out of that valley. Let's not let it be the path that we took to get here, the path back to how things used to be. We need to work together across our companies and our supply chains and our industries to forge a new path to a better, more sustainable future that's based on a circular bioeconomy, or rethinking how we make products, how we use them, and how we can continue their useful life.

**Yolanda Pagano:** I know the focus today is on supply chains, but picking up on something that Jessica just said, I hope to highlight, too, that a resilient and just future is based on the power of recognizing and leveraging existing relationships, identifying sustainability priorities, meaning all three prongs—environmental, social, and economic—and defining mutually beneficial outcomes in pre-competitive spaces.

As Scott mentioned, I previously was in the food and beverage sector, so a lot of what I'll talk about has to do with my previous employer, Tyson Foods. As they are my previous employer, a lot of what I say will be from publicly available information. In no way am I speaking on behalf of the company. I'm just highlighting some of the things that the food and beverage sector in particular encountered with respect to some of the challenges and how Tyson Foods addressed them.

In light of the challenges related to the pandemic, many food and beverage companies experienced higher costs in the form of production costs and also lower productivity levels. This was due to both an unprecedented shift in demand from what traditionally had been food service needs to retail needs. There were additional costs associated with that. Clearly, there were costs also associated with employee health and safety. Those costs added to and caused challenges in the sector. However, the sector was largely able to address those costs, including providing bonuses to essential frontline employees in many instances, some of which were offset by CARES Act<sup>13</sup> credits that were provided by the government. On the plus side, most of the industry was able to maintain liquidity such that they could continue operations, meet their obligations as they became due, and in fact continue if not expand their sustainability programs.

I see four key stakeholder groups in the challenges that we're facing. Those stakeholders are highlighted by the COVID-19 issues, and they are employees, or team members as they are known at Tyson, as well as communities, suppliers, and finally, customers and consumers. Tyson is both a business-to-business business as well as a business-to-consumer business, so they serve in some

instances other companies, and as such, are suppliers in other companies' supply chains, as well as being a direct-to-consumer supplier: you likely see Tyson products on the shelves in your supermarkets.

Turning my attention first to team members, Tyson launched an industry-leading COVID-19 monitoring program to help maximize employee health. It followed Centers for Disease Control and Prevention (CDC) guidelines. We worked with one of our suppliers, a consultant called Matrix Medical Network, to develop advanced testing protocols. These testing protocols were implemented in our facilities. They were science-based. They were focused on strategic and always-on monitoring, symptomatic testing, and close contact testing. These enabled our facility and medical personnel at our facilities to identify infections and control spread. In addition, during this time, Tyson created a new position, a chief medical officer, as well as expanded occupational health staff. These are beneficial things that other companies may be doing as well.

In addition, we interacted with governmental leaders, providing plant tours to members of the CDC, as well as interacting with organizations important to our employee populations. For example, an organization called the League of United Latin American Citizens (LULAC), which is the nation's largest and oldest Hispanic organization, visited our sites. Representatives of our employees, the United Food and Commercial Workers International Union, also reviewed what we were doing. Both of these organizations supported the efforts.

The company also convened an occupational safety scientific working group to discuss a wide range of subjects focused on the critical areas of testing and tracing, social distancing in the workplace, airflow and personal protective equipment (PPE), and the promise and potential limitations of the vaccine. The company recently issued a brief report, *Promoting Workplace Safety in the Era of COVID-19: Keeping Employees, Their Families, and Communities Healthy and Safe*, which I would recommend to everyone.<sup>14</sup>

One of the points mentioned in the report that I think corresponds to some of the comments Scott made, and in light of administrative changes and governmental regulation, is the need for preparedness efforts, which would include establishing memorandums of understanding regarding roles and responsibilities, ensuring that corporate resources can be put at the disposal of cash-strapped local health departments, and establishing shared, detailed goals to achieve an effective response. And then, maintaining this state of readiness with annual reviews and tabletop drills, something that's standard in a preparedness effort. The company believes that such a coordinated effort could help alleviate challenges that large corporations face when implementing programs across multiple jurisdictions where each may have different requirements.

13. Coronavirus Aid, Relief, and Economic Security (CARES) Act, H.R. 748, 116th Cong. (2020).

14. TYSON FOODS, *PROMOTING WORKPLACE SAFETY IN THE ERA OF COVID-19: KEEPING EMPLOYEES, THEIR FAMILIES, AND COMMUNITIES HEALTHY AND SAFE* (2020), <https://www.tysonfoods.com/sites/default/files/2020-10/Scientific%20Working%20Group%20-%20Promoting%20Workplace%20Safety.pdf>.

Tyson Foods does have a diverse work force with many team members who are recent immigrants to the United States. Numerous languages are spoken across processing facilities, with as many as 11 languages being spoken within a single plant. Tyson believes that this diversity in the work force is a source of strength leading to more innovation, better supplier and customer relationships, and competitive advantages in the marketplace. The company also has six business resource groups focused on different interests, including ability and disability, the LGBTQ+ community, women, veterans, multigenerational, and multicultural groups.

The company extends this focus to the supply chain through work with minority-owned, service-disabled veteran-owned, and women-owned businesses, as well as small businesses. Tyson's work with suppliers doesn't stop there. Tyson also works with the largest suppliers in the agricultural sector. There are the farmers who grow the animals that are used in the products that Tyson sells, as well as those who grow greens, grains, and other plant matter that are used in products directly or are used as animal feed.

Tyson made a corporate commitment, a 30-by-30 greenhouse gas reduction commitment, which is a science-based target to reduce emissions by 30% by 2030.<sup>15</sup> In pursuing this target, Tyson is working to establish a road map to reduce emissions, including how to begin to switch to renewable energy resources. Some of those efforts include addressing not only activities within its own operations, but also in the supply chain. Tyson has made investments in renewable resources, including covering wastewater treatment lagoons at some production locations to capture renewable biogas that it uses as a fuel in its facilities.

In addition, Tyson buys from contract farmers who grow chickens that are used in the company's products. Tyson invested in a pilot by building the world's largest stand-alone solar-powered poultry house.<sup>16</sup> It is identical to a house that is being run on conventional grid energy. The idea is that, after a year, they would compare the results of those efforts and, hopefully, identify ways that solar housing could improve farmer profitability while also increasing efficiency in the poultry industry.

In addition, Tyson does not own grain farms. It is the largest purchaser of feed corn in the industry. This corn is used to feed the animals raised by independent farmers and ranchers. The meat industry has made great strides in reducing the number of acres and the pounds of grain required to produce a pound of meat, which means reducing environmental impacts.<sup>17</sup> But to continue to advance this effort, Tyson implemented a land stewardship com-

mitment, the largest ever by a U.S. protein company.<sup>18</sup> It is designed to help U.S. row crop farmers maximize profitability while benefiting soil health, water resources, nutrient stewardship, and wildlife habitat on two million acres of row crop in the company's supply chain.

Finally, the company expanded through acquisitions in 2018 and 2019, including the acquisition of my former employer Keystone Foods, as well as the acquisition of BRF's poultry businesses in Thailand and Europe. Through these acquisitions, the company's international presence grew from two countries to nine countries.

Recognizing that increased international exposure might also increase the company's deforestation risk, the company conducted a deforestation risk assessment.<sup>19</sup> Tyson worked with Proforest, again, another consultant or supplier to the company, to conduct this deforestation risk assessment, focusing on four key commodities that contribute to global deforestation—beef and cattle, palm oil, soy, and pulp paper and packaging. The findings are leading to the development of a Tyson Foods forest protection standard, which will be supported by commodity action plans. The standard is expected to be released in the coming weeks.<sup>20</sup>

In efforts to address deforestation risk in the supply chain, Tyson is a member of the Round Table on Responsible Soy, as well as the Roundtable on Sustainable Palm Oil. Through both of those organizations, Tyson has been buying credits or sustainable products to meet customer requirements. In addition, the company buys Sustainable Forestry Initiative (SFI)- and/or Forest Stewardship Council (FSC)-certified packaging material, which also includes recycled content. Those are the efforts Tyson is making in their own operations.

With respect to consumers, their taste continues to evolve. Tyson has been evolving with them. Alternative protein plays an important role in the "future of food" agenda at Tyson.<sup>21</sup> Looking at the data, there has been a fundamental change in eating patterns among meat eaters across demographic groups. So for Tyson, alternative proteins is an "and" proposition, not an "or" proposition. In 2019, Tyson named its first head of alternative protein, who was the former chief sustainability officer, Justin Whitmore, and introduced the Raised & Rooted brand, the company's first brand of plant-based and blended, meaning it's made of both meat and plant-based products.

Tyson sees the alternative protein space growing through extraordinary culinary advances. Tyson feels that

15. TYSON FOODS, 2019 SUSTAINABILITY REPORT (2019), <https://www.tyson.com/sustainability/environment/energy-emissions#:~:text=Tyson%20Food%20is%20committed%20to,against%20a%202016%20baseline%20year>.

16. Paul Hollis, *Tyson Foods and Auburn University Partner to Build First Stand-Alone Solar-Powered Poultry House*, AUBURN UNIV., June 5, 2019, [https://ocm.auburn.edu/newsroom/news\\_articles/2019/06/050955-solar-poultry-house.php](https://ocm.auburn.edu/newsroom/news_articles/2019/06/050955-solar-poultry-house.php).

17. Hannah van Zanten et al., *Global Food Supply: Land Use Efficiency of Livestock Systems*, 21 INT'L J. LIFE CYCLE ASSESSMENT 747 (2016), available at <https://link.springer.com/article/10.1007/s11367-015-0944-1>.

18. Press Release, Tyson Foods, Tyson Foods Sets Two Million Acre Land Stewardship Target (Apr. 3, 2018), [https://www.tysonfoods.com/news/news-releases/2018/4/tyson-foods-sets-two-million-acre-land-stewardship-target#:~:text=\(NYSE%3A%20TSN\)%20has%20committed,emissions%2030%20percent%20by%202030](https://www.tysonfoods.com/news/news-releases/2018/4/tyson-foods-sets-two-million-acre-land-stewardship-target#:~:text=(NYSE%3A%20TSN)%20has%20committed,emissions%2030%20percent%20by%202030).

19. Press Release, Tyson Foods, Tyson Foods Partners With Proforest to Conduct Deforestation Risk Assessment (Oct. 29, 2019), <https://www.tysonfoods.com/news/news-releases/2019/10/tyson-foods-partners-proforest-conduct-deforestation-risk-assessment>.

20. TYSON FOODS, TYSON FOODS' FOREST PROTECTION STANDARD (2020), [https://www.tyson.com/sustainability/downloads/Tyson\\_Foods\\_Forest\\_Protection\\_Standard.pdf](https://www.tyson.com/sustainability/downloads/Tyson_Foods_Forest_Protection_Standard.pdf).

21. Tyson Foods, *Pointing Forward*, <https://www.tysonfoods.com/innovation/pointing-forward> (last visited Dec. 10, 2020).

there are four things that position it to be successful in this space: a great supply chain being first among them, great-tasting products, healthy products, and consumer and customer relationships built on trust. Tyson, in this instance, hasn't changed its supply chain; rather, it finds new plant-based protein such as pea protein isolate or concentrate, fava beans, wheat, or soy from vendors with which it is already engaging.

The alternative protein business demonstrates another element, which is that all businesses must operate as sustainably as possible. For example, on topics like deforestation, which can also affect plant-based protein. So rather than thinking about sustainability and protein as one is good and one is not, Tyson feels the need to think about creating the right supply chain in the most sustainable way possible across proteins.

Finally, Tyson's efforts also addressed the needs of our communities in response to both the health crisis that COVID-19 presented as well as the racial injustice that was highlighted in several events over recent months. With respect to communities, Tyson initiated a COVID-19 rapid response grant program where plant managers invited local nonprofits to apply for grants. They also announced a \$1.8 million grant to enable teachers to purchase classroom supplies, mostly supporting distance learning in Tyson plant communities. They donated product equivalent to 68 million meals to team members, as well as to Tyson communities, community pantry partners, and priority food banks, and also provided team members with emergency assistance grants related to COVID-19.

In light of the social injustices, the company made a commitment to local organizations. Prompted by national events and the tragic injustice, the company took a hard look recently at how to further enhance equity, inclusion, and diversity in the workplace. Discussions were held at all levels of the company culminating in several actions, including a pause in production at all facilities on June 9 for eight minutes and 46 seconds to mark the funeral of George Floyd.

The company also committed to corporate donations totaling \$5 million given to organizations that are advancing the cause of lasting change for our society. They allowed team members to pick one of the grant recipients, and that recipient is an organization called Immigrant Connection. The other grant recipients included the Equal Justice Initiative, the National Museum of African American History and Culture, the National Urban League, and the Executive Leadership Council.

I really do believe that the efforts that Tyson is taking with respect to these issues demonstrate the path forward—and a path, realistically, that all organizations should be on with respect to sustainability—which is looking for opportunities to leverage relationships to further outcomes that are sustainable across all dimensions. We must truly be pursuing win-win-win, triple bottom-line outcomes when addressing any of the issues because of the interrelated nature of the issues and the interrelated nature of our businesses in the world we live in today.

**Katherine Neebe:** I'm particularly honored to be included in this panel in part because I'm really new at Duke Energy. I want to talk a little bit about why I moved over to Duke Energy from Walmart. But I really want to dive into how we, at Duke Energy, are thinking about supply chain resiliency now and in the future, including the role of diversity, equity, and inclusion, which, of course, runs across but is deeply embedded in the supply chain and our ways of working. And finally, it's something that Jessica alluded to, which is in my personal language I refer to as "build back better." Once we put this COVID-19 pandemic behind us, how do we think about getting to an upward swoosh return to normal recovery instead of a K recovery curve. I think we're using slightly different words but trying to convey this in the same end state.

In short, I have worked in sustainability stakeholder engagement and ESG for around 20 years. I got my official start actually working on hog farms in eastern North Carolina and with energy-efficiency programs. Then, I moved to the World Wildlife Fund, where we worked with Coca-Cola on the PlantBottle, which is their PET mixed with plant-based material. So far, the conversations have really resonated with some of my history and familiarity with the issue.

So, I was at Walmart, loved my job, was heading up ESG for the company. This is a field that is really taking off and getting a lot of attention from the investor community, which is really exciting and rewarding to see. Then, Duke Energy called and I learned more about what they're doing and what they're trying to do. Essentially, I had the opportunity to go to one of the United States' largest utilities, a company that has an ambitious agenda to provide reliable and affordable power, which of course, right now, when we're in dire economic straits, is really an essential service. Also, as I think about other things like climate change, we've got a zero net goal by 2050.<sup>22</sup> When I hear our chief executive officer (CEO) and leadership speak and diversity is front and center as an issue, I thought, what an opportunity to go to a large company and have an impact on two issues that I'm personally very passionate about.

Again, supply chain and sustainability is something that I've been working on for many, many years. This past year in particular has been really fascinating to observe COVID-19. I was at Walmart when COVID-19 really hit. Being able to see how large companies have really tried to pivot and respond to an unprecedented event that's playing out in enormous scale across the globe was an awesome opportunity. And, I would say, a lot of the best practices that I saw Walmart display I'm also finding at Duke Energy, which is really about having strong, close ties with your suppliers and really understanding the issues that they're facing so that you can respond with the nimbleness and the speed to provide, for example in our case, PPE for our workers. We are an essential service, so we need to be up and running

22. Duke Energy, *Global Climate Change*, <https://www.duke-energy.com/Our-Company/Environment/Global-Climate-Change#:~:text=We're%20striving%20for%20net%2Dzero%20carbon%20emissions%20by%202050.&text=Duke%20Energy%20is%20committed%20to,and%20investing%20in%20resilient%20infrastructure> (last visited Dec. 10, 2020).

and providing reliable and affordable power. We need to do that at the same time that we're assuring the safety of our employees, our customers, and our communities.

A fun story that I heard earlier was that as we were sourcing some of our PPE, one of the things that was in short supply—and I can say this from having been on the other side at Walmart—was hand sanitizer. Apparently, our scientist at Duke Energy did the magic of chemistry. Essentially, the scientist tried to figure out how to put all of the different ingredients together so that we could provide something like hand sanitizer to our employee base. I just love that ingenuity and that creativity and the rapid problem solving.

Setting aside COVID-19, when I think about supply chain best practices overall, I think of it as in concentric circles. What is the company doing today? What are their needs? And then how do we want to cascade that out across the supply chain, be it through stakeholder engagement, through collaborative effort, through market signaling? There's a lot of opportunity there to think about really accelerating the kind of change you want to see in the supply chain.

There are two relatively recent examples in Duke Energy's history that I think speak to this lens of how we are thinking about our own business and the issues that we're trying to solve for, but also how we are getting the supply chain to join us in this journey, and participating in that journey in an innovative, forward-leaning way. One would be an announcement that we made late last week on methane. The company has committed to zero net methane emissions by 2030 in our own operations.<sup>23</sup>

The thing that I think is really powerful about this commitment is that we didn't just stop there. We joined the ONE Future Coalition, which is working to accelerate emissions reductions on methane across the entire supply chain. As part of our commitment, we have also agreed to procure natural gas from suppliers that are reducing their emissions on methane, but who are doing it in ways that are affordable for our customers. We're able to really use our market signal to suggest what we want out there from the supply chain and to ensure that we're all kind of pointing in the right direction.

The good news is that this is an issue that the oil and gas sector is already embracing. When we're able to complement good work that is already underway with our own market signal and say, yes, we see you, we hear you, we support that, and we will act accordingly, I think we're able to see a lot more significant change by working together.

The other example that I would highlight is the work that we're doing on electric vehicles. We have a commitment internally at Duke Energy looking at our entire 10,000-vehicle fleet to get the majority of them to either electric or zero-carbon alternatives by 2030.<sup>24</sup> At the same

time, we're trying to build the ecosystem and the environment for our customers and others who also would like to see the rapid electrification of the vehicle sector through things like increased access to charging stations. We're doing some research into how electric charging is potentially impacting the grid and other things to try to figure out how we take this newish and innovative technology and really see it accelerate and scale over time.

Shifting over to diversity, equity, and inclusion, this is another one of the concentric circles of influence I mentioned, really starting with our own business. As an aside, as someone who has been an environmentalist and practitioner in the environment for many, many years, I am so excited that we are really leaning in meaningfully to diversity, equity, and inclusion as a community. I think this has been, speaking for myself, a bit of a miss for the environmental community these past several years, and I think a real need, obligation, and opportunity for us moving forward. So, I'm excited to see the momentum and the difficult conversations that we're having that I think are really needed.

One of the reasons I came over to Duke Energy was because this is not a new issue to them. They have been leaning into it over time, looking, of course, at our own operational footprint. I have a few things to highlight for you. Forty percent of our board of directors is diverse through the lens of race, gender, or ethnicity. We also agreed, and I'm super excited about it, next year to publish our Equal Employment Opportunity Commission data so that others out there can chart our progress and see the steps that we're taking, and, candidly, where we have more opportunity as a business in our own enterprise to advance.

Looking at the supply chain side of the equation, we've spent well north of a billion dollars a year over the past four or five years in diverse spend. And we also have recently announced, which I think as a bit of foreshadowing on the "build back better," a program called Hire North Carolina. We're trying to maximize the use of locally owned and diverse contractors in the state where we happen to be headquartered.

As part of thinking about building back better, how are we using our supply chain and our supplier purchasing power to not only look to diverse spend, but also perhaps put more of that focus on locally owned and diverse suppliers? We need to do more and cannot rest and cannot accept what the world looked like a couple of years ago or even several months ago. There's a huge opportunity here for us to really lean in and do things a bit differently and I think better.

Finally, on this notion of "build back better," this is, of course, probably not a new idea to anyone participating in this webinar. But I think specifically about the role of a utility, that we're providing reliable and affordable power. It's something that may have been taken for granted in the past, but I do think that fundamentally we're addressing a massive societal need right now, allowing people to

23. Sasha Weintraub, *Net-Zero Methane Emissions Is Possible*, DUKE ENERGY, Oct. 9, 2020, <https://news.duke-energy.com/our-perspective/net-zero-methane-emissions-is-possible>.

24. Press Release, Duke Energy, Duke Energy Advances Climate Strategy With Aggressive Pledge to Electrify Vehicle Fleet by 2030 (Sept. 8, 2020), <https://news.duke-energy.com/releases/duke-energy-advances-climate-strategy>

[with-aggressive-pledge-to-electrify-vehicle-fleet-by-2030?\\_ga=2.149858997.2044721639.1607623115-1688681874.1607623115](https://news.duke-energy.com/our-perspective/net-zero-methane-emissions-is-possible).

access that power reliably and affordably. Also, in thinking through building back, the companies that are going to power those small businesses—really, you can't even apply for a job anymore without access to power and the Internet.

How are we thinking about the role that Duke Energy and other power providers are playing as we start to come back and bring the economy back? How are we thinking about lifting up all communities and all ships? That we're really being responsive to the realities that many people are facing, and at the same time, delivering against our bold ambitions on addressing climate change and diversity and inclusion. How do we optimize? How do we strike the right balance? At the same time, that ship, I think, is going to be a huge body of work for us moving forward and I imagine for many people.

Of course, all of this work is being informed by the lessons that we're learning today, the best practices in place today, so that we can think through how to strengthen our policies and procedures, and so on, over time.

**Sally Fisk:** I am with Pfizer, and for those of you who are not familiar with us, we're a large, multinational biopharmaceutical company. We are a purpose-driven, science-based company and our purpose is to bring breakthroughs that change patients' lives. We have research and development (R&D), commercial, manufacturing, and supply operations around the world. I'm sure you won't be surprised to know that our supply chain includes thousands of suppliers who are similarly global in composition. We serve patients in markets around the world as well.

Right at the outset, the challenge for implementing sustainability across our value chain is one of scale. But we know that the integration of ESG considerations in the global supply chain is fundamentally critical to addressing global challenges. It's now a fundamental part of corporate performance. More and more, our stakeholders, be they investors or our own employees or our customers, want to know how we're performing in these areas. And we are in a position to really affect incredible change when we listen to those stakeholders and the direction that they are pulling us. Also we work with them to educate them about the issues that are most important to our company, and where we think we can make the biggest impact and have that push-and-pull dynamic with those external stakeholders.

I am a lawyer who does a lot of risk management, and I'll give you my view of it from that perspective. I think more and more companies are recognizing that not only can they make meaningful contributions to addressing global challenges by improving their own performance, but those contributions can really be amplified when they catalyze the performance of business partners and suppliers. Even beyond that, when companies look at customers and market, there are opportunities for us to shape those markets and drive customer behavior in a direction that is more sustainable, and that can create a positive feedback loop for a company's own operation. Like other companies, at Pfizer, we're increasingly referring to this as our value chain and recognizing that the value chain not only

brings us monetary value, but also is this enormous potential driver of environmental and societal value.

At its foundation, our value chain needs to be compliant with laws and we need incredible business resiliency so that our business is not interrupted. We are all globally experiencing disruption because of the COVID-19 pandemic and we now know how important resilience is. But we also know that laws don't always address the positive outcomes that we need as a global society. Laws alone are failing to address climate change. They're failing to address the emerging pollutants. They're failing to address plastic waste. They're failing to preserve biodiversity, and they're failing to address equity, inclusion, and adequately protect vulnerable people from human rights abuses.

Legal compliance alone is just not enough. Companies are then left to develop their own performance standards, sometimes as individual companies but more often and increasingly as coalitions. Through these coalitions and individual corporate actions, we're starting to be able to drive the change that we want to see and that our stakeholders expect from us in a faster and, arguably, more efficient manner.

As Scott mentioned at the outset, this is referred to as private governance. But these private governance standards come with a caveat because self-regulation is often met with public skepticism and lack of trust. That is something that we, as sustainability practitioners, need to contend with. How can we convince our stakeholders and the general public that the actions we are taking are truly meaningful?

There are probably a lot of different solutions to that. One way around the issue could be to include reputable and independent third-party conveners and overseers as part of our private governance strategies. They can help us give that objective view that's needed to drive that positive environmental and social performance.

For a company like Pfizer—to give you an example of some of the types of issues we face and where we have found private governance mechanisms to be useful—one is around the global health challenge of antimicrobial resistance. Antimicrobial resistance is the risk that certain infectious diseases become resistant to our arsenal of anti-infective medicines and, therefore, cannot be controlled and ultimately can lead to illness, death, and even pandemics.

Pfizer is part of something called the AMR Industry Alliance, which is a coalition of more than 100 biotech and other pharma companies who are working to drive sustainable solutions in four areas: investing in R&D to help meet the public health needs; improving access to high-quality antibiotics and ensuring that new ones are available to all, so ensuring that we have equity; working to reduce the development of resistance at the outset (through prescription practices and patient adherence); and supporting measures to reduce environmental impacts from the production of antibiotics.

The last element speaks to the environmental component of our supply chain—how pharmaceutical manufacturing facilities are able to control the discharge of antibiotics in wastewater across the supply chain. To address AMR, our

company is working across a spectrum from R&D to colleagues who focus on access strategies all the way to our environmental team.

This idea of private governance also speaks directly to one of the questions that was posed in the description of this program, which is how are corporations maintaining good governance in light of the ongoing priority shifts from the Administration? For me, one answer to that is by being purpose-driven. More and more companies are establishing at their core a purpose that incorporates social and environmental value and considers the interest of stakeholders and shareholders and customers—beyond just looking at shareholders and investors.

Companies, especially public companies, have historically been very focused on their quarter-to-quarter performance and what investors think of them. But when you start to broaden that lens across a more diverse group of stakeholders, then your purpose starts to shift. This was seen in 2019 when the Business Roundtable published a CEO statement on corporate purpose,<sup>25</sup> which really indicated that the companies who signed onto it—full disclosure, Pfizer was among them—would consider their purpose to be one that also enhances value to society, and that their stakeholders would include employees, communities, and the environment.

I believe that companies that have established a purpose are able to use it as a beacon for good governance and ethical decisionmaking. It can help guide adherence to their sustainability objectives and practices when external political or other forces come to bear, or when there is a shift in government administration.

If we remain guided by our purpose and our values and we adhere to our own systems of private governance, then these kinds of external political forces shouldn't fundamentally change the direction that we're moving as a company or a society. This is very true in goal-setting. For example, Pfizer has established long-term sustainability goals, and whether it's on climate change or diversity or human rights, those goals don't change just because an administration changes. The company remains guided by its purpose, values, and goals, and remains under the watchful eye of their external stakeholders to make sure that we achieve them.

Pfizer has had three successive greenhouse gas reduction goals. Our third one comes to an end in 2020. We're getting ready to announce our fourth. None of those have changed or varied or been influenced by changes in the administration in any country. What changes and influences our goals is the advancement of scientific consensus and the speed and ambition with which we believe our targets need to be met.

We've touched on so much today: diversity and inclusion, COVID-19 impact, biodiversity, plastic, climate change, antimicrobial resistance. There are a tremendous

number of issues that companies need to wrestle with. So how do we know and how do we decide which issues we're going to tackle, because even the biggest among us can't do everything? We need to be able to focus our resources. I think there are five considerations when it comes to thinking about where we put our efforts.

First, as Pfizer does, we make sure that the issues we're focused on across our value chains are material—not necessarily in the U.S. Securities and Exchange Commission (SEC) sense of the word—but that are the most material to us in terms of the impact we can have and the importance to our external stakeholders. Then we can focus our resources and our programs to address those most critical issues.

Conducting a materiality assessment and then integrating ESG concepts into enterprise risk management frameworks are two practical steps that we can take that help our management focus on the issues where we can have the greatest influence. I say the enterprise risk management process because that can also help us adjust and adapt our materiality assessment as new issues come up.

Second, once we know what the core issues are for our value chain, we can really get into the heart of developing the standards and integrating ESG performance metrics into our operational system. What are we going to require of ourselves, what are we going to require of our partners, and how will we monitor it, measure it, and enforce it? In other words, private governance. Practically speaking for Pfizer, this involves engagement with our suppliers in a triage manner to ensure that we're working with those with whom we can have the greatest influence and impact, and then gradually working with all of them.

We have sponsored capacity-building programs through the Pharmaceutical Supply Chain Initiative on topics such as antimicrobial resistance and pharmaceuticals in the environment, among other critical issues. This helps our suppliers to understand why our expectations are what they are, and what they are, and how to achieve them.

To formalize this supplier engagement strategy, we developed contract language with appropriate incentives and enforcement provisions. We worked to establish effective data management systems so that we can manage all the information that we gather from our suppliers. Then, we audit. We audit EHS performance. We audit labor and ethics performance. And then, importantly, is what you do with your audit data.

You must ensure that you have established an internal governance mechanism so that if, for example, a business partner or supplier failed to meet your compliance or ESG expectations, you have a process set out to either exclude them by doing pre-contract due diligence, or, if their performance is flagging during the term of a contract, that there are mechanisms to help them improve that performance, and, ultimately, mechanisms to end the business relationship if they are not meeting the standards and expectations.

The third consideration is fostering an internal corporate culture of purpose, integrity, and ethical decisionmak-

25. Press Release, Business Roundtable, Business Roundtable Redefines the Purpose of a Corporation to Promote "An Economy That Serves All Americans" (Aug. 19, 2019), <https://www.businessroundtable.org/business-roundtable-redefines-the-purpose-of-a-corporation-to-promote-an-economy-that-serves-all-americans>.

ing so that your leaders are well-equipped to follow their purpose and be guided by their values around ESG when they have to make tough decisions.

Fourth, is how we partner with our customers and value chains to develop the market incentives that reward the companies that are performing the way we'd like relative to sustainability, and punish those that don't by moving business elsewhere.

The last piece of this framework is transparency, so that stakeholders understand how ESG is integrated into business strategy and the progress that is being made. Companies must contend with both mandatory and voluntary disclosure frameworks. Examples include the U.K. Modern Slavery Act, the U.S. SEC Conflict Minerals Rule, the Sustainability Accounting Standards Board (SASB), and the Task Force on Climate-Related Financial Disclosures. Companies have lots of tools in the tool kit to report on their focus areas.

And one thing about reporting I wanted to mention. The drive for increased transparency and disclosure really needs to consider whether it's structured in a way that is driving the performance and behavior that we really want to increase and incentivize. I think that's where that kind of dialogue between corporations and standard-setters is so important, to make sure that we are effectively communicating the right performance metrics on supply chain and value chain sustainability.

**Catharine de Lacy:** As Scott said in my introduction, I am now an independent director at an energy company, and I'm a co-founder of my own management consulting firm. Before that, I was an executive leading global teams and programs in the environment, health and safety, sustainability, public affairs, and product stewardship arenas. I too, like Katherine, am long in the tooth in terms of experience. What I want to share with you actually echoes something Sally said, which is that my teams and I think of things in terms of the value chain, not just the supply chain.

That background and value chain perspective is the context for what I'd like to share with you today. I've recently read a couple of reports and publications that further enhance the framing of this discussion. I think the takeaway would be the kind of messages that you have heard from all of us: circular economy, resiliency, globalization, private governance. How do you prioritize and weigh the ESG and sustainability-related criteria a company employs for assessing and addressing supply chain partner performance challenges, and the potential for ultimate deselection in addition to more traditional business criteria such as cost, quality performance, scaling, and science or technology issues?

I'd like to share with you some of the challenges and trends that I saw while partnering on supply chain teams internally in companies, as well as in my consulting practice and now, candidly, with a very different lens as an independent director for a publicly traded company. I reflect on a study that I read from Harvard Law School that identified a number of particularly key areas in the supply chain that

now need to be considered.<sup>26</sup> They identified a number of trends that companies are increasingly experiencing, and I'd like to share them with you today.

The first, as Sally pointed out, is transparency. I think there's a much broader sensitivity and a more detailed scope of inquiry and reporting. As Sally noted, there are a number of frameworks that a company can choose in its toolbox. But the groups that measure and also the rating agencies that use that data—whether it's the Global Reporting Initiative, or SASB, whomever it might be—are now capturing supply chain metrics and information and assigning them much greater weight as they craft their scoring or rating. These organizations have an expectation that management teams have much more working knowledge and executive level as well as operating level relationships with their supply chain and their strategic suppliers.

The second area where there are rapidly evolving trends is in climate change and risk. There have been corporate declarations and commitments to reduce the carbon footprint or to achieve methane reduction by a certain date. What that does, and I think you heard it as a theme from several of the presenters today, is encourage and drive an increased level of collaboration with suppliers and supply chain partners.

At the same time, we're seeing an evolving pattern of increasingly severe and more frequent climate events that are disrupting supply chains globally. As companies think about enterprise risks, they now are looking at not just climate events related to disruption in their own operations, for those who still have captive operations, but also what impacts might those climate incidents impose on their supply chains—it's adding a dimension of business risk that many companies have never before suitably considered.

The third trend is in compliance and compliance security. Companies are still continuing to adhere to and live their values related to legal obligations that focus on anti-corruption, that focus on whatever regulatory compliance requirements there are, such as fair labor practices, human rights, environmental protections, and so on. But as we look at the shift to digitization across the globe, there are now regulatory compliance requirements around data, about data privacy, about data collection and management, and the General Data Protection Regulation,<sup>27</sup> and disclosure or the inability to disclose certain private or personnel information; and that leads to an additional dimension related to cybersecurity.

This is not a panel to discuss the details of cybersecurity, nor am I equipped to do that, but I will tell you, as an independent director, we are increasingly having to pivot in responding to inquiries from the investment community regarding the traditional business performance and

26. David M. Silk et al., *The Other "S" in ESG: Building a Sustainable and Resilient Supply Chain*, HARV. L. SCH. FOR CORP. GOVERNANCE, Aug. 14, 2020, <https://corpgov.law.harvard.edu/2020/08/14/the-other-s-in-esg-building-a-sustainable-and-resilient-supply-chain/>.

27. Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the Protection of Natural Persons With Regard to the Processing of Personal Data and on the Free Movement of Such Data, and Repealing Directive 95/46/EC (General Data Protection Regulation), 2016 O.J. (L 119) 1.

strategy questions to also having them ask detailed questions regarding cybersecurity and what sort of plans the public and private companies have or are putting in place to identify and address cybersecurity risks. It is not only quite complex, it's becoming an increasingly high priority.

The next area is regulatory risk—about which I think we all spoke a bit. There are a lot of us who have been in industries with extensive regulatory regimes, myself included. I've been in the consumer products industry, energy, oil & gas, mining, specialty chemicals, petrochemicals, aerospace, automotive, and environmental services industries. Biotech, and food I think, Sally you can also attest to this; and Katherine, as a new member in the utility industry as well. All of these key industries have substantial regulatory regimes with which responsible companies operating in those sectors must comply.

Many companies are now asking how are we sourcing products, how are we sourcing services across an extended network, as company commitments, environmental initiatives, activist investors and nongovernmental organizations impose increasing pressure to ladder up what our company's obligations should also consider and how our suppliers comply with those regulatory requirements. The enterprise supply chain is no longer just an opportunity to reduce the unit cost. And Jessica, I think you spoke about the challenges of cost and performance. But now the question revolves not just around cost and business performance, but also how effectively they manage their regulatory compliance and mitigate their regulatory risks.

I recently partnered with a client on the mergers and acquisitions (M&A) and that space too, now increasingly is capturing supply chain risks as key evaluation criteria—whether you're the acquired, or potentially the acquirer. For years, I've been on M&A teams and for many executives and lawyers the focus has typically been, can we just get the deal done? More often than not, that's what happened, only for the management of the newly merged organizations to find out later that the rosy projections for synergies and benefits didn't always capture key elements such as supply chain risks, and thus meeting the numbers is a much greater challenge than anticipated.

I'm increasingly seeing companies that are looking at retaining a different type of independent third party to more closely evaluate and scrutinize these types of risks and opportunities, issues, and considerations. There now is a growing realization that there is another dimension to the deal that must be considered more closely, and the scrutiny and the scope of due diligence must now consider the potential acquired company and what their supply chain looks like vis-à-vis its risk profile on each of these fronts, particularly if it's a supply chain that's multi-tiered.

Then, there's emerging technologies. What are the emerging technologies generally and sector specific, and what will their business impacts be? We're looking at balancing efficiency and resiliency. People in the financial or banking and energy sectors, and in multiple other sectors, are looking at artificial intelligence and blockchain technologies. How are these new emerging technologies going to inform not only business decisionmaking, and

the speed of decisionmaking, but what impact will they potentially have on the employees that you don't want to have left behind because they're being replaced with digitization? How will you be able to use these tools to re-skill these people and prepare them to be successful going forward?

I think the trend of offshoring and globalization and outsourcing manufacturing has brought a new focus to what that means and the resulting disruption, whether it came from pricing, or whether it came from trade discussions, etc. There is a big challenge for companies that actually have no captive capital assets. They've outsourced manufacturing and then were held, if you will, captive to the new dimensions of risks that they were perhaps ill-prepared or equipped to effectively manage—witness the disruptions that the global COVID-19 pandemic has wrought in the medical supply chain alone, much less the impacts to the food, electronics, and just about every other economic sector. What about the impacts trade wars and sanctions have had on domestic manufacturing and agriculture? Did the companies involved in each of the impacted sectors have contingency plans in place for such business risks? Those that did likely are surviving better than those who did not.

Then, there are emerging areas of concern—from my view as a board member, it's clear that the investor community is broadening its focus. They're going well beyond such issues as your carbon footprint, what your waste reduction is, or what your goals are for water management usage, and they're looking at the compliance and performance of suppliers. The board of the company I sit on is headquartered in Canada, and the role that the Canadian pension fund has with regard to laddering up, if you will, the level of information and disclosure is quite impressive and quite powerful. So, companies' values, companies' purposes are all part of that same concentric circle, to which Katherine referred.

As the pandemic and its impact on the world economies has played out, companies have started to focus inward, and there's an internal focus on such issues as costs, agility and resiliency, and operating cash flow. But they are also increasingly focused on such issues as what the evolving training and capability needs are that we have within the community where people operate, and so on, because when the pandemic subsides, companies need to be prepared to emerge operating efficiently and effectively. I would summarize that a supply chain is no longer just a collection of suppliers that produce things your company uses; and it's not just an avenue to exact cost savings. I think we are now seeing that it really is an integral network that can impact companies' reputations, their operating models, their ESG performance and ratings, the perceptions of the investment community, and how companies manage business risk and create potential opportunities.

**Caitlin McCarthy:** We have time for one question for everybody. If you could have your wish in one sentence or less, what one change would you make in a global supply chain tomorrow without hesitation?

**Yolanda Pagano:** I think transparency is the dilemma that we're all facing at this point. Catharine spoke about blockchain technology. I spoke about deforestation, for example. And there is a need to really understand through the multiple layers within our supply chains; what is happening at each of those stages is really the crux of the issue and I think the challenge that we'll all be working through in the next several years.

**Catharine de Lacy:** Transparency, I agree 100%.

**Jessica Bowman:** I think transparency as well, but I also think taking a holistic view and not only looking piece-by-piece, but looking across the whole system at where changes can be made.

**Katherine Neebe:** Transparency is the hot ticket. I do think part of that is access to good data and information.

In some cases, companies don't even know what they don't know. For example, when I was at Walmart, we didn't even know where the prevalence was for human trafficking associated with the seafood sector. So, understanding where the problem is and the nature of the problem. Then, kind of creating the ecosystem so we can collectively come together and solve it, though there's almost a weird, perverse disincentive to understand what's actually playing out. I think it would be really helpful in actually addressing the issue and solving the problem.

**Sally Fisk:** If it's the dream wish, then I would like it to be that our value chains perform always with the highest level of integrity relative to sustainability and are all carbon-neutral in terms of absolute emission reduction. That there are no more carbon emissions tomorrow; if that would be okay, let's do that. But barring that, I'll take transparency.