# An annual update on our 2020 Legacy of Good Plan

FY15 Corporate Social Responsibility Report

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## Letter from Michael Dell

As we prepare for a future with 9.6 billion people in it, it's imperative that we take a good, hard look at the impact we individually and collectively have on the earth we share. Doing what we've always done is no longer an option. It's time to dig deep, disrupt and innovate to create a positive future for ourselves and the generations to come.

The Dell 2020 Legacy of Good Plan is how we are doing that—21 ambitious, long-term goals that put Dell technology and expertise to work where they can do the most good in the world. Our strategy is about refining and improving our own products, processes and communities, but it's also about empowering our customers, partners and suppliers to do the same with theirs.

We're being aggressive, and our progress shows it. In fiscal year 2015, we launched our closed-loop plastics supply chain and by year-end had recycled 2.2 million pounds of those plastics back into new Dell products. We unveiled the OptiPlex™ 3030 All-in-One—the first UL Environment-certified closed-loop PC on the market.

Our global takeback programs have made us the world's largest technology recycler, offering customers takeback options in 78 countries. We've collected more than 1.4 billion pounds of e-waste since 2007. That's 71 percent of the way to our goal of recovering 2 billion pounds by 2020.

In the year since our last report, we increased the number of children benefitting from our Youth Learning program by more than 100,000. We are partnering with leaders in the field to bring solar-powered classrooms to South Africa, to bridge the digital divide in India, and to address the unique learning requirements of students with special needs, just to name a few.

As always, our 100,000-strong global team is the driving force behind our effort to create meaningful change in the world. Last year, 66 percent of our team members volunteered for a total of more than 700,000 hours to the communities and causes they are passionate about.

Our collective efforts recently earned Dell the Accenture Circular Economy Pioneer Award, the Keep America Beautiful Vision for America Award, and ISRI's Design for Recycling Award. We were also listed once again among the World's Most Ethical Companies by the Ethisphere® Institute.

We're proud of the progress we've made and truly inspired by what's possible in the years ahead. Yes, 9.6 billion people sharing the planet is daunting, but technology—the very thing we live and breathe here at Dell—is a big part of the solution. Technology is underpinning revolutionary science, healthcare, education and environmental innovations and breakthroughs, and it's just the beginning. I'm excited to see what the future holds and the important role Dell and our customers will play in it.

**Michael Dell**
**Chairman and CEO**
**Dell Inc.**

## Letter from Trisa Thompson, VP Corporate Responsibility

To borrow a line from Bob Dylan, the times they are a changin'. Last year was the hottest year on record (since 1880) and climate change is increasingly linked to the extreme weather that's happening today—not 50 years into the future. Meanwhile, all nations—rich and poor—agreed to reduce greenhouse gas emissions through the Lima Accord and multiple countries (including the U.S. and China) set emissions reduction targets.

And change wasn't just about the climate. Year-on-year giving among America's top 50 donors increased by 27.5 percent—far beyond the 4 percent increase of 2012. Philanthropists around the world united to pledge $7.5 billion in an ambitious move to vaccinate poor children from deadly diseases over the next five years.

These are examples of how governments, industry, philanthropists and nongovernmental organizations (NGOs) are stepping up, collaborating to solve the world's biggest problems with a renewed sense of urgency and purpose. I'm proud that Dell is part of this story.

This is the second progress report on our 2020 Legacy of Good Plan. We still have many challenges to overcome and no outcomes are certain, but our strategy is working. I'm excited to see measurable results creating real value for our customers, employees, and partners while driving social and environmental good in the community.

One of the keys to our efforts is the idea of taking a systems-level approach. You can see the results of this approach in our product design, our closed-loop plastics supply chain and the other ways we're helping move to a more circular economy. It applies equally well to our philanthropic efforts, working to change the learning environments with local partners in order to bridge the digital divide, or to drive paradigmatic change in the research and treatment of pediatric cancer. And by enlisting the amazing, generous support of our team members, we continue to bolster local efforts through volunteerism.

As the world continues to reshape its approaches to the big issues of the day, I believe technology will play a critical role in changing things for the better. From cloud and mobility to Big Data and the Internet of Things, technology solutions will change everything about the way we approach our future. We regularly hear from customers interested in how their technology can help them achieve their goals in ways that aren't just "less bad," but rather "more good" for people or the planet. This concept of "net positive" is the idea behind our 10x20 goal. While we are still working to understand and measure the details, we already see that technology can and should have a net positive effect.

We also know we cannot do any of this alone. Collaboration—working together on these global issues—is critical. We want to be your partner, providing the technology that helps you change the world for the better. Because the time for action is now. Lend your hand and heed the call, for these times they are a changin'.

Trisa Thompson
VP, Corporate Responsibility
Dell Inc.

Our commitment

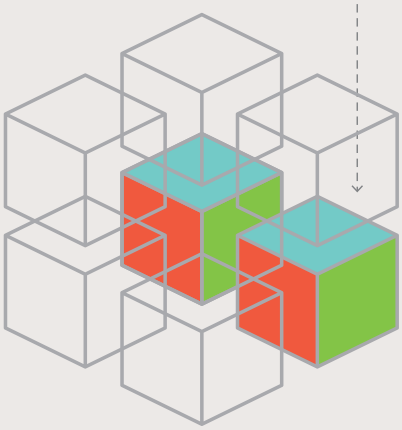
# At Dell, we are committed to putting our technology and expertise to work where it can do the most good for people and the planet.

## Looking ahead

Living up to our commitment means taking real, measurable actions. Our 2020 Legacy of Good Plan outlines our strategies and sets forth a number of goals that help us track progress. We are proud of all that we've accomplished so far in working toward these goals.

This FY15 Corporate Social Responsibility Report summarizes our annual performance against our 2020 Plan. Combined with our annual Global Reporting Initiative (GRI) G4-based online index, it provides customers and other stakeholders with a picture of how Dell is delivering on our commitment and measuring up against the goals we've set. It also presents an opportunity to celebrate our successes and address our challenges as we make our journey to 2020.

2014



2020

2020 Framework

# Action areas and our 2020 aspirations

We take action to benefit the environment, strengthen our communities, and engage our people in a diverse and inclusive workforce. Our 10 aspirations qualitatively describe what we hope to achieve as part of our overall commitment.

### Environment

Reduce the environmental impact of our operations

Drive social and environmental responsibility in the industry and our supply chain

Enable customers to reduce the environmental impact of their IT infrastructure

Promote technology's role in addressing environmental challenges

### Communities

Engage team members around the globe to use their passions in support of their communities

Use technology to improve the lives of young people

### People

Develop leaders who are committed to helping our team members be their best and do their best work in service of our customers

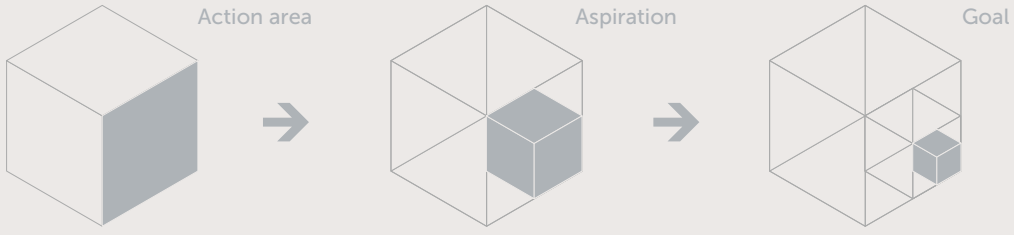
Promote a culture where team members are encouraged to take risks and feel supported, valued and proud to be a part of Dell

Be a compelling destination for our team members to thrive, achieve career aspirations and have fun

Give team members a voice that influences leadership and shapes the direction of our company

# Our multifaceted approach

Within each of our corporate responsibility action areas—environment, communities and people—our broad aspirations are supported by one or more time-bound goals.



Goals index

# How we measure our success

Our 21 ambitious goals identify how we will reach our aspirations.
All of these goals are bound by an end date of 2020.

## 10x20 Goal — A Legacy of Good

- By 2020, the good that will come from our technology will be 10x what it takes to create and use it

## Environment

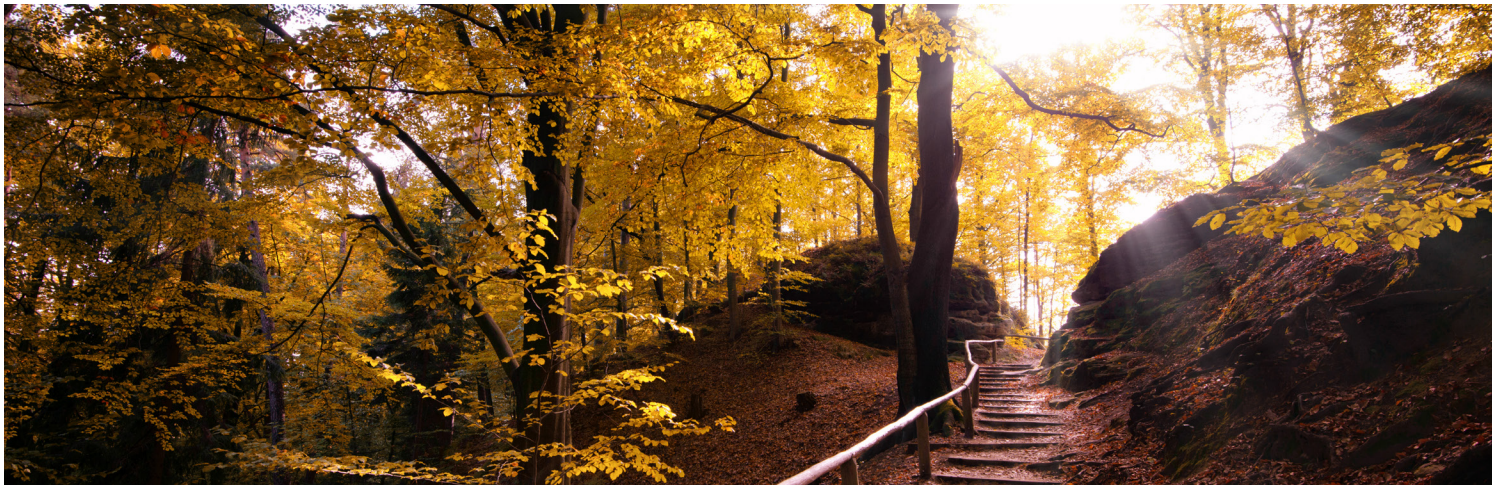
- Reduce greenhouse gas emissions from our facilities and logistics operations by 50%
- Reduce our water use in water-stressed regions by 20%
- Ensure 90% of waste generated in Dell-operated buildings is diverted from landfills
- Develop and maintain sustainability initiatives in 100% of Dell-operated buildings
- Demonstrate 100% transparency of key issues within our supply chain, working with suppliers to mitigate risks in those areas
- Ensure 100% of product packaging is sourced from sustainable materials
- Reduce the energy intensity of our product portfolio by 80%
- Use 50 million pounds of recycled-content plastic and other sustainable materials in our products
- Ensure 100% of Dell packaging is either recyclable or compostable
- Phase out environmentally sensitive materials as viable alternatives exist
- Recover 2 billion pounds of used electronics
- Identify and quantify the environmental benefits of Dell-developed solutions

## Communities

- Engage 75% of team members in community service by 2020 and provide 5 million cumulative hours of service to the communities in which we live and work
- Apply our expertise and technology in underserved communities to help 3 million youth directly and support 10 million people indirectly to grow and thrive

## People

- Increase engagement and drive inspirational leadership on Dell's strategies, priorities and goals through Dell's end-to-end Leadership Development Programs
- Engage 40% of our global Dell team in employee resource groups by 2020
- Encourage eligible team members to enroll in Dell flexible work programs, increasing global participation to 50%
- Increase university hiring to a rate of 25% of all external hiring
- Be recognized as a best-in-class Employer of Choice
- Achieve 75% favorable responses (or higher) in team member satisfaction globally as measured through the annual employee satisfaction survey



## By 2020, the good that will come from our technology will be 10x what it takes to create and use it

**Status:** In FY15, we made steady progress toward developing models to measure this goal. We are also getting closer to an accurate footprint, against which we can measure the good we do, and are beginning to work with others to align this goal with other Net Positive efforts around the world.

### Background, challenges and opportunities

This goal, which we refer to as our 10x20 goal or our Legacy of Good, is our biggest, most ambitious target for 2020. It is an aggregation of the other goals in this report—actions like reducing our operational emissions, creating a closed-loop supply chain and building a flexible work environment. These actions increase the good that comes from Dell technology while also reducing the amount of resources needed to create and use it.

But this goal is more than a mathematical exercise. It represents an opportunity to innovate new ways of doing business and measuring the results. An opportunity to help our team members see how their everyday efforts add up to make a lasting impact on the world. An opportunity to deliver value to our customers—to show them how doing business with Dell helps them meet their own social and environmental responsibility goals. And an opportunity to lead the industry toward a truly restorative economy.

We can only manage what we can measure, and one of our first and biggest challenges to meeting this goal lies in defining its parameters. We are informed by best practices gained from measuring the work outlined in this report, but for this goal we must determine how to measure "good" and "impact" across our entire business.

Our company is so large and our customer base is so diverse that it is also challenging to capture all the ways our customers generate social and environmental benefits by using Dell solutions. And it will be hard to find common denominators that allow us to compare their very different outcomes—for example, the economic benefits of educating students compared to the reduction in a population's carbon emissions.

## Background, challenges and opportunities (continued)

We know we are not alone in facing these challenges. We've found other companies that are committed to becoming Net Positive, which means an organization gives back to society and the environment more than it takes. While we have some insights to draw from, overall the Net Positive concept is still in its infancy. Because this is an unprecedented effort for us all, we believe a collaborative approach is crucial to developing globally recognized methods and best practices, and ultimately ensuring Net Positive becomes a lasting way of doing business worldwide.

In addition to helping us determine the best ways to identify and measure Net Positive efforts, teamwork is also crucial since our solutions involve an entire value chain. We need to work together with customers, partners and forward-thinking organizations to develop rigorous analytic and semantic approaches that clarify how we are doing good, what that good is, and where it fits into the overall system.

The pilot programs we conducted in FY15 helped us hone some measurement methodologies and create long-term work plans. However, the pilots also revealed the challenges of quantifying technology's social benefits and finding the right measurement units to compare them against environmental impacts.

One final challenge we have right now is simply coordinating all of our data. Some facets of Dell's business that we need to measure do not have existing methodologies established for accurate tracking. For facets that do have an established process and calculations, we still need to coordinate multiple data streams and these are not always easy to procure. Even mapping the entire measurement process is a challenge in itself. We will continue to evolve our coordination of the data, measurement and mapping as Dell's business grows and changes.

Even with these challenges, the opportunities that exist in the pursuit of a Net Positive approach are undeniable. Beyond the good we expect to see, we recognize Net Positive is a long-term business opportunity. Our customers, our employees and society generally want to see progress toward a better world and increasingly expect to see part of that progress delivered by the businesses they patronize. As an earlier adopter of this approach, we will be better positioned to respond to their evolving value-driven choices. And as the world continues to invest in social and environmental solutions, we will be there.

## Progress to goal

In FY15, we made strong progress toward our goal by continuing to form partnerships with likeminded organizations and identify opportunities to eventually bring disparate organizations together as a community. We also developed a long-term work plan, identified best practices, and established pilot programs to measure Dell-developed solutions. The pilot programs are also part of our goal to measure the environmental impact of Dell-developed solutions, the results of which feed into this 10x20 goal.

**Developing a roadmap to 2020**

In FY15, we developed a multiyear plan for reaching our 10x20 goal. We are in the midst of the initial pilot programs to measure Dell-developed solutions. We are also taking inventory of our entire value chain of solutions—Dell-developed solutions, solutions we've developed in tandem with our partners, and solutions customers have developed independently—and looking for opportunities to engage with customers on measurement.

## Progress to goal (continued)

We will then scale our efforts to cover our entire portfolio, developing measurement techniques for customers not tied to a specific solution (e.g., consumers and smaller commercial customers). We will share our progress publicly by publishing an intermediate progress report on our footprint-to-benefit ratio every two years, starting in FY17.

# Mapping the 10x20 goal

| Phase/Task | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|
| Initial pilots | ● | ● | | | | | | |
| Identify and initiate follow-ons | | ● | ● | ● | ● | ● | | |
| Value-chain customer stakeholder engagement | | ● | ● | | | | | |
| Development of measurement techniques for customers not tied to specific solution | | | ● | ● | ● | ● | | |
| Scale up non-solution-specific measurement | | | | | ● | ● | ● | |
| Intermediate 10x20 report | | | ● | | ● | | | |
| Preliminary final 10x20 report | | | | | | | ● | |
| Final 10x20 report | | | | | | | | ● |

### Understanding what to measure and how

We've embraced the challenge of innovating new measurement techniques and focused our efforts on understanding what we need to measure, benchmarking how others are approaching this type of evaluation, and putting the organizational structure in place for us to mark progress.

There are two major components of what we need to measure: the impact of our technology's creation and use (Dell's footprint) and the social and environmental benefit (the good) that comes from our technology's use. Thinking of our goal as a fraction, the footprint would be on the bottom as the denominator and the benefits would be on the top as the numerator.

In FY15, we worked toward a more complete measurement of our full carbon footprint. That includes our operational footprint (our own Scope 1 and Scope 2 emissions, plus the Scope 3 transportation emissions in our supply chain, as reported here) as well as various Scope 3 emissions categories associated with the creation, sale and use of our products and services.

## Progress to goal (continued)

The graphic on page 12 demonstrates the approximate size of this footprint.

To measure the good generated by our technology and determine how best to compare these benefits against our footprint, in FY15 we looked at pilot studies with two Dell customers—Kaiser Permanente and Arizona State University (ASU). For the first pilot, BSR's Center for Technology and Sustainability (CTS) worked with Kaiser Permanente to measure the beneficial impact of their Electronic Medical Records solution. Their work will inform our own, helping establish a reliable model. Meanwhile, we worked with BSR and ASU to measure the potential impact of the university's move toward more online instruction.

As outlined in our goal to measure Dell solutions, the ASU pilot's preliminary findings have revealed some positive surprises. We saw that moving toward more online instruction delivered the expected reduction in carbon emissions from students' decreased commuting and ASU's decreased need for buildings and infrastructure. We also found that once the technology first used to support online education was adopted more universally across ASU (i.e. among "traditional" on-campus students), the university was able to service more students using fewer resources. The economic value of awarding more student degrees far outweighed that of reducing the students' carbon footprint (measured in metric tons of $CO_2$).

**Forming partnerships and identifying best practices**

Collaboration is a key part of this goal, both because this measurement represents new territory and because our IT solutions cannot be delivered without the participation of an entire value chain. For example, Dell's Electronic Medical Records solution requires hardware, software and setup services from multiple companies and is ultimately run by the end user. No one entity has all the information needed to understand the solution, its outcomes and its footprint.

In FY15, Dell joined Forum for the Future's Net Positive Group, which was convened to develop common measurement and communication guidelines for organizations committed to achieving a Net Positive goal. This will enable us to align approaches, identify new opportunities and share best practices. Other work group members include BT, Cap Gemini, IKEA, Kingfisher, Manchester Fire and Rescue, PepsiCo, The Climate Group, The Crown Estate, TUI Travel and the World Wildlife Fund. Our participation has given us great insight into programs similar to ours, as well as the opportunity to collaborate with these organizations.

We also continued working with the CTS to identify opportunities for additional pilots beyond their work with Kaiser Permanente and our mutual work with ASU.

Independently, we continued to extensively review Net Positive program best practices. The Global e-Sustainability Initiative's SMARTer 2020 report is still the most comprehensive analysis of the potential for IT solutions to help address carbon emissions. As we perform additional pilot programs, we will review this document in order to prioritize opportunities.

## Next steps:

- In FY16, we will continue inventorying our solutions with two goals in mind: to understand the overall role that Dell and its customers play in the development and deployment of solutions with positive social and environmental outcomes, and to identify opportunities for engaging with customers on measurement.
- We will continue collaborating within Forum for the Future's Net Positive Group, the CTS and other groups, sharing our progress and ideas with like-minded organizations and working together to address challenges. This will also include working with other leading organizations to gain a better understanding of what it means for a company to set Net Positive ambitions. We hope this work will not only guide our own efforts going forward, but will also encourage other companies to launch programs with similar ambitions.
- We plan to investigate an outside, third-party review of our 10x20 goals, plan and progress.

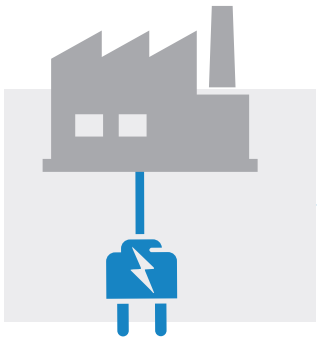
# Footprint for 10x20 goal

## Scope 1 emissions

Dell buildings and vehicles

38,467 MTCO2e

## Scope 2 emissions



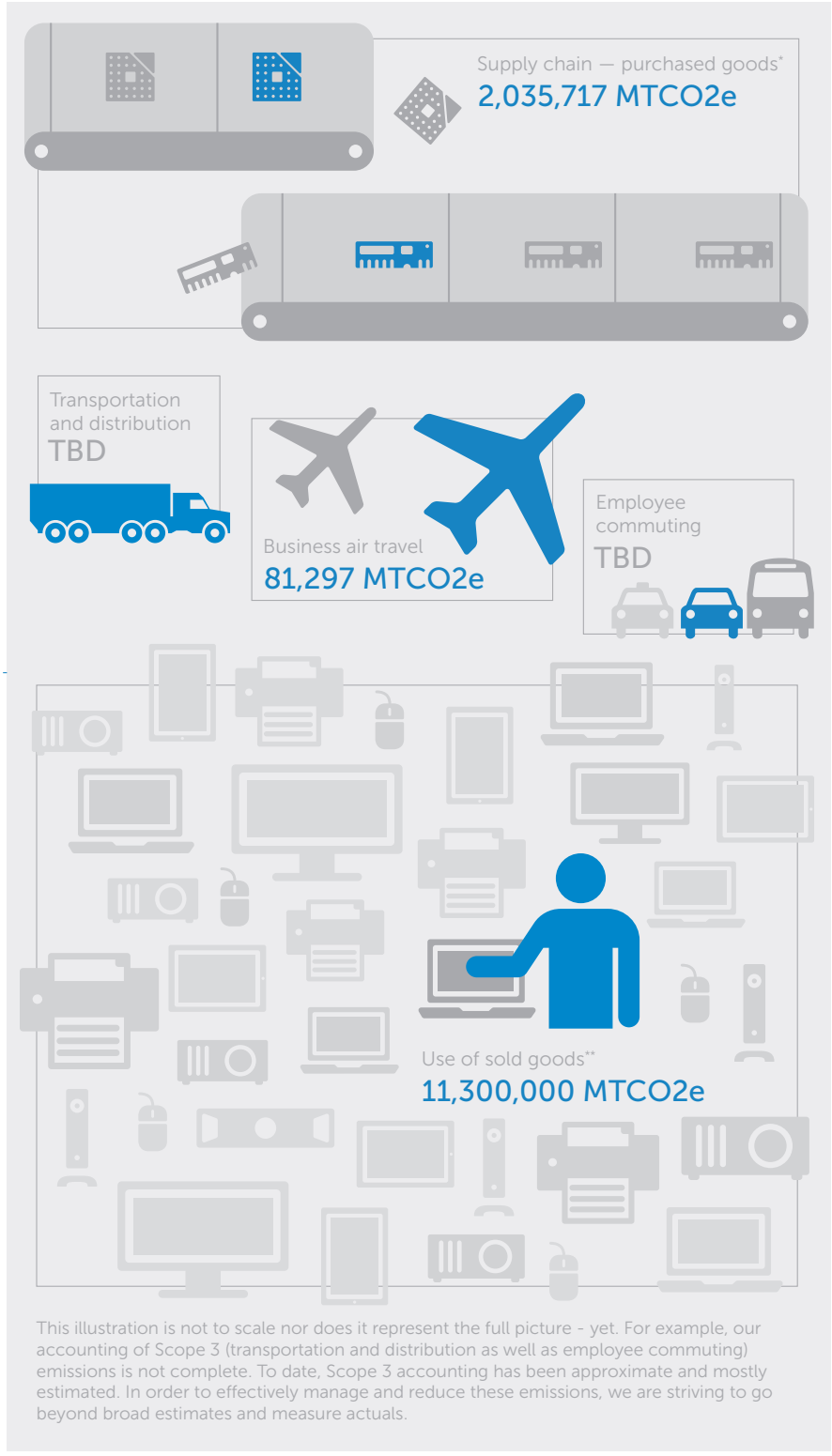
Purchased electricity

238,471 MTCO2e

## Dell's estimated carbon footprint

13,693,952 MTCO2e
(metric tons CO2 equivalent)

## Scope 3 emissions




This illustration is not to scale nor does it represent the full picture - yet. For example, our accounting of Scope 3 (transportation and distribution as well as employee commuting) emissions is not complete. To date, Scope 3 accounting has been approximate and mostly estimated. In order to effectively manage and reduce these emissions, we are striving to go beyond broad estimates and measure actuals.

*Calculated based on revenue-apportioned emissions from suppliers representing >95% of total procurement spend reported to Dell via CDP Supply Chain

**Based on U.S. average emissions factor identified by the U.S. EPA

*Pecan Street's Pike Powers Lab offers capabilities for developing, testing and validating a wide range of energy, consumer electronics, and water products and applications.*

# Pecan Street partners with Dell for breakthrough energy usage research

*"The power and simplicity of Dell technology enables our organization's three-person data team to manage 40 times more energy usage data each day than a large city utility does. This is the world's largest research source of disaggregated customer energy usage data—data that empowers university researchers around the world to change how we design products, homes and entire communities."*

*- Brewster McCracken*
*CEO*
*Pecan Street Inc.*

When one person cooks, it's an average weeknight. When 1,200 people cook, it's a recipe for changing the world's energy use.

Since 2009, Pecan Street Inc., an Austin, Texas-based research organization, has been conducting an unprecedented study of consumer energy use in 1,200 households in Texas, Colorado and California. This multi-university, crowdsourced research effort equips each volunteer home with sensors that measure every meal cooked, thermostat adjusted and electric vehicle charged. The system pings each of the home's 12 to 24 circuits once a minute and transmits readings to Pecan Street's data center, which was designed, powered and partially funded by Dell.

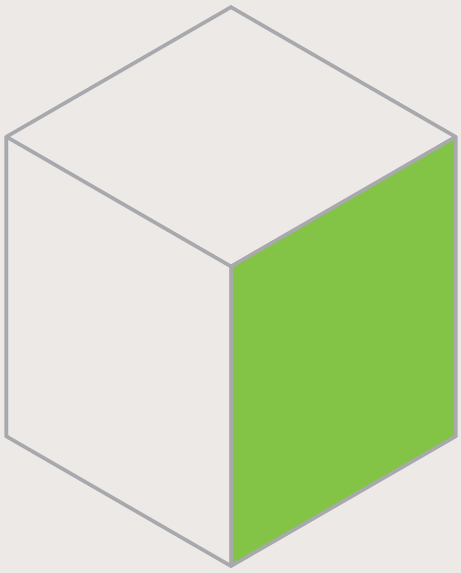
More than 50 universities in 12 countries are now using this data for energy systems modeling and innovating more efficient new technologies. Meanwhile, Pecan Street is applying its big data research model to a new challenge: water use.

# Environment

## Environmental responsibility is about more than creating an eco-friendly product or initiative. It's about incorporating sustainability into every aspect of what we do, using our technology and expertise to innovate on behalf of our customers, our communities and the planet.

This commitment starts with our own operations, as we strive to become even more efficient in how we create and deliver technology solutions worldwide. It extends through our supply chain, where we work to ensure consistent, transparent environmental and social stewardship among thousands of companies across the globe. It ultimately provides customers with solutions that give them the power to do more while consuming less.

Our aspirations and goals for 2020 reflect our approach of considering the environment at every stage of technology's lifecycle—from design through end of life—and then measuring the impact to inform future efforts. Together they form the interconnected, inseparable components of our work to make a positive impact on the world we share.



Aspirations

- Reduce the environmental impact of our operations
- Drive social and environmental responsibility in the industry and our supply chain
- Enable customers to reduce the environmental impact of their IT infrastructure
- Promote technology's role in addressing environmental challenges

Aspiration

# Reduce the environmental impact of our operations

Goals

- Reduce greenhouse gas emissions from our facilities and logistics operations by 50%
- Reduce our water use in water-stressed regions by 20%
- Ensure 90% of waste in Dell-operated buildings is diverted from landfills
- Develop and maintain sustainability initiatives in 100% of Dell-operated buildings

## Reduce greenhouse gas emissions from our facilities and logistics operations by 50%

**Status:** In FY15, we increased greenhouse gas emissions from our combined facilities and logistics operations by 2.6 percent compared to FY14. We have reduced combined emissions by 7.1 percent since our baseline year of FY13. Overall, we are off track to meet our 2020 goal.

Specifically, our results represent a 5.5 percent decrease in our facility-based Scope 1 and Scope 2 emissions, and a 6.6 percent increase in our Scope 3 upstream transportation and distribution emissions since FY14.

### Background, challenges and opportunities

In corporate greenhouse gas accounting, there are three types of emissions: those that a company directly creates in its operations (Scope 1 direct emissions), those that it indirectly creates by purchasing energy generated outside the company (Scope 2 indirect emissions), and those that result from energy use in its supply chain activities, the use of its products, or the actions of its employees (Scope 3 indirect emissions).

Dell's emissions reduction goal reflects our desire to reduce the greenhouse gas (GHG) emissions in two areas: emissions related to operating our facilities (Scope 1 and Scope 2) and emissions associated with product transportation within our supply chain (which are classified as Scope 3, Category 4 emissions).

We do not include Dell-leased vehicles (mainly provided to sales account executives in Europe) as part of our Scope 1 calculations for this goal. Instead, all measurements and trends in this section are based on facility-related Scope 1 emissions (from building heating and cooling as well as refrigerant emissions) and Scope 2 emissions (from purchased energy).

Our efforts to reduce emissions from our logistics operations are predicated on our working relationships with Dell suppliers, our shared ability to identify the most efficient routes and timing, changes in product form factors, and overall increases in sales volume.

This past year, we continued our multiyear implementation of a new transportation management system. However, FY15 sales of Dell products were even greater than anticipated. This larger-than-expected increase in sales volume, combined with logistical challenges created by a longshoreman strike on the West Coast of the U.S., outpaced the expected emissions reductions.

For the purposes of this goal, we are measuring the emissions specifically associated with the movement of select system types from our suppliers in China to distribution points around the world. While this does not represent a full accounting of Scope 3, Category 4 emissions, it does represent our highest volume products and most material shipping routes.

## Background, challenges and opportunities (continued)

When it comes to reducing greenhouse gas emissions at our facilities, purchasing electricity from renewable sources is one of our most effective tactics. While renewably sourced electricity purchases are widely available from our utility providers in the U.S. and in much of Europe, finding appropriate solutions in other parts of the world remains a significant challenge.

In most areas, utilities and other developers typically look for long-term investment commitments to help build new infrastructure for generating renewable energy. In today's market, it is rare to find opportunities for shorter-term investments in utility-side renewables—the type of arrangement we prefer as a nimble company with a dynamic real estate portfolio. We continue to explore collaborations and partnerships that can provide shorter-term investment opportunities in the next few years.

## Progress to goal

In FY15, we continued to pursue opportunities to reduce Dell's overall energy use, change our mix of purchased power and drive efficiencies in the transport of materials within our supply chain.

According to international greenhouse gas (GHG) reporting guidelines, we must adjust our emissions figures to reflect significant changes in business operations or measurement methods. We have adjusted FY13 and FY14 figures to address recent acquisitions and divestitures, as well as the reclassification of several data centers we run for customers. Our FY15 data also reflect a recent change in Scope 2 methodologies.

Our total facility-based emissions in FY15 decreased by 17.7 percent from the adjusted FY13 base year (see Dell by the numbers). We can attribute this decrease to a number of factors, including: energy efficiency improvements, business efficiency improvements such as our flexible work solutions and Connected Workplace program, an increase in the percentage of renewable energy purchased during this two-year period, and recent changes in the Greenhouse Gas Protocol method for calculating Scope 2 emissions.

**Facility-related emissions (Scope 1 and 2)**

The largest contributors to Dell's facility-related GHG emissions are the emissions associated with purchased electricity and municipal heat. These are classified as Scope 2 (indirect) emissions. In FY15, these indirect emissions accounted for about 89 percent of our total facility-based emissions, when factoring in renewable energy purchases.

Our direct (Scope 1) facility emissions are much smaller and include those from the use of natural gas and other fuels for heating and cooking, diesel used to run backup generators, and small discharges of hydrofluorocarbon (HFC) refrigerants from air conditioning equipment. Other Scope 1 emissions, which are not part of this goal, come from the use of Dell-owned or leased personal and service vehicles. These are typically used for sales activities outside of our facilities.

Because most of our facility-based emissions come from energy use, our GHG reduction strategy has two key components: using energy more efficiently and increasing our purchase and use of renewably sourced energy.

## Progress to goal (continued)

*Optimizing our energy use*

Energy efficiency improvements remain the most cost-effective means of reducing our GHG emissions. In FY15, we continued to make energy efficiency upgrades to our buildings and operations with projects such as these:

- In Dell's Asia Pacific-Japan region, we installed LED lighting in four buildings, upgraded a building to a more efficient cooling system, and installed an air-cooled heat pump in a facility's dishwashing room.
- In our Europe, Middle East and Africa region, we conducted an energy audit of the cafeteria in one of our large buildings and then helped the on-site food service provider change procedures, processes and equipment to reduce energy consumption.
- In the Americas, we added plug fan controls to cooling units at one of our large data center facilities, installed LED lighting in several office buildings, and added automation controls to a chiller system.

Additionally, we began construction of a new office building in Bengaluru, India, (formerly known as Bangalore) that is designed to LEED Platinum standards.

*Increasing renewable energy usage*

In FY15, we sourced 38.4 percent of our purchased electricity needs from renewably generated sources—an increase of 0.4 percent from the adjusted rate in FY14 (after accounting for acquisitions, divestitures and reclassifications). This keeps us on track to meet our target of sourcing at least 50 percent of our energy from renewables by 2020.

In late FY15, Dell's Lodz, Poland, location became our first manufacturing facility to fully utilize renewable electricity. One hundred percent of the Lodz facility's electricity purchases now comes from renewable sources.

Our total quantity of purchased renewable electricity decreased slightly. The change in quantity reflects a combination of factors, including reduced electrical consumption, closures of facilities that purchased renewable energy, and changes necessary to conform to the new Scope 2 GHG accounting methodology. As of the end of FY15, 21 Dell facilities purchased 100 percent of their electricity needs from renewable sources such as wind, water and solar. Two other facilities purchased at least some portion of their electricity or heat from renewably generated sources.

We continued to explore opportunities for on-site sources of alternative energy. We began construction on a solar photovoltaic system at Dell's Panama location and also added solar lighting in the facility's parking lot. We also continued to operate solar photovoltaic systems in Round Rock and Bengaluru, which had a combined output of 191,000 kWh in FY15. Additionally, we operated solar water heating systems at six of our locations throughout Brazil, Ireland and India.

We have found that our energy efficiency efforts can sometimes have an interesting but unintended impact on our renewable energy usage metrics. When a large Dell facility that purchases 100 percent renewable electricity consumes less energy in a given year, the amount of green power the location purchases also decreases. Similarly, an increase in total consumption will also increase the total kilowatt-hours of renewably sourced electricity used. In fact, some of our 100 percent-renewable electricity facilities had a significant drop in electricity consumption during FY15, but we expect the effect on our overall renewable energy trend will be temporary.

**Emissions associated with upstream transportation and logistics (Scope 3, Category 4)**

From FY14 to FY15, we had a 6.6 percent increase in Scope 3 emissions from the transport and distribution of select products from our manufacturing facilities to distribution points around the globe. This spike in emissions resulted from Dell products sales greatly exceeding our forecasted targets. The longshoreman strike on the West Coast of the U.S. also forced us to change some of our planned shipping routes and timing. These two factors drove temporary deviations from our planned efforts to move more products via ocean transport. The net result leaves us slightly off track, with a 1.5 percent net reduction in the Scope 3 emissions associated with the transportation of laptop and desktop products since the FY13 baseline year.

## Progress to goal (continued)

Despite the increase in emissions, we made progress on transitioning to more efficient transportation options. We improved our ability to efficiently package and palletize our products, allowing us to fit more products into the same space and consolidate shipments. Combined with Dell's business model's ongoing shift toward more pre-configured shipments with longer lead times, this enabled us to increase the percent of Dell shipments by ocean transport by 2 percent since FY14.

FY15's challenges showed us just how crucial the implementation of and customers' adoption of this model is to reducing our carbon emissions. The bottlenecks created on the West Coast challenged our team to find creative ways to get products where they needed to go, and reverting to "just-in-time" approaches, even in just a few areas, drove a significant increase in emissions.

*Optimizing the efficiency of our transportation network*

With the exception of FY15's increased demand for our products, we continue to increase our use of ocean transport rather than air transport to move products from centralized manufacturing facilities to ports near our regional fulfillment centers. We complement these efforts by using rail transport to move shipments from ocean ports when feasible, and then use trucks for the last part of the journey from rail yards to our fulfillment facilities.

Within this model, there are multiple ways to optimize modes and routing. To enable Dell and our partners to choose the most resource-efficient transportation modes for each shipment, we continued our multiyear, worldwide implementation of a new integrated transportation management system. Transitioning from our regional systems to one global tool will help us improve our mode selection and timing, consolidate orders to increase shipment density, and select the best carriers for delivery.

The new system also enables us to optimize pallet utilization and container utilization as orders are consolidated at our manufacturing and fulfillment centers. We are introducing the system in phases globally with our Dell and partner manufacturing facilities, third-party logistics providers (who operate our fulfillment centers), and logistics service providers (who operate and coordinate the transportation of our products to our customers).

In the U.S., Dell was once again certified as a SmartWay Shipper by the Environmental Protection Agency, and we continued to work with our carrier partners to sustain their status as SmartWay Carriers. By leveraging our SmartWay partnerships, Dell can select carriers who are committed to tracking and reducing their fuel consumption and carbon footprint. Using these partners enables Dell to optimize overall logistics while reducing environmental impact.

*Introducing packaging initiatives to increase shipment density*

In FY15, we started to see the benefits of our global packaging initiatives, which are designed to reduce the amount of energy and other resources needed to transport each product. Our global palletization specification, which we introduced in FY14, enabled us to fit up to 20 percent more product on each pallet in FY15. We optimized pallet utilization by reducing the size of our product packaging and refining our pallet-building strategies. We also used software to calculate the optimal number of boxes that can be placed on a pallet. This pallet utilization in turn drove better container utilization and shipment density—we can now ship more products inside of each aircraft, ocean container and trailer.

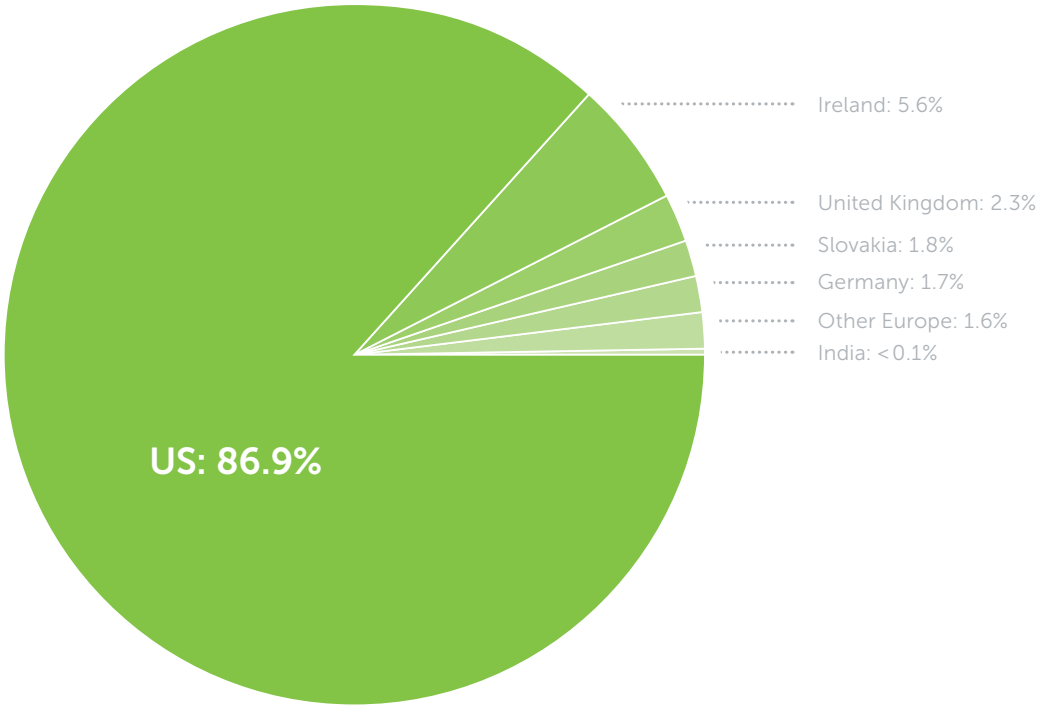
We are also seeking more ways to reuse, rather than recycle, the palletization materials we use to move Dell products from our manufacturing centers to our fulfillment centers. Only damaged pallets are removed from use. This further conserves the resources associated with our transportation and distribution.

## Next steps

- We will increase electricity purchases from renewable sources in FY16 and over the coming years as contracts and situations allow. We will also continue our ongoing efforts to improve energy efficiency at Dell facilities.
- We will continue our phased implementation of integrated transportation management system introducing it to Dell third-party logistics providers and carriers worldwide.

# Dell renewable electricity FY15

Total purchased and generated: 259.3 million kWh



## Reduce our water use in water-stressed regions by 20% at Dell owned and operated facilities.

**Status:** In FY15, fresh water consumption decreased by 1 percent at Dell-operated facilities located in water-stressed regions compared to last year. Overall, we've achieved a 6.5 percent reduction since our baseline year of FY13. We remain on track for this goal.

### Background, challenges and opportunities

According to the World Economic Forum's Global Risks 2015 report, experts rate water crises as the greatest risk facing the world. The World Resource's Institute's (WRI) data confirms their perceptions—more than 1 billion people currently live in water-scarce regions, and as many as 3.5 billion could experience water scarcity by 2025. This scarcity has many causes, including population growth, increased pollution, and climate change-driven shifts in precipitation patterns, which alter water supplies and intensify floods and drought. The overall result is an uneven distribution of water throughout the globe.

We see the effects of water stress firsthand on the communities in which we operate. In FY15, the Central Texas region surrounding Dell's headquarters entered its seventh year of what are now considered record drought conditions. California's statewide drought also intensified. Our Hortolândia, Brazil, manufacturing facility is near São Paulo, where record drought has reduced that city's reservoirs to just 6 percent of capacity, resulting in curtailed water service and power interruptions. And in India, where Dell has substantial operations, much of the country has had limited access to clean water for many years.

In our owned and operated buildings—which include our manufacturing locations—water is used only for domestic purposes like cooking, drinking, cleaning and sanitation, landscape maintenance, and for cooling our buildings. All of the water we use is returned to the environment through evaporation, soil absorption or through municipal sewer systems. As in previous years, we neither create nor discharge any industrial wastewater from our manufacturing facilities.

We have approached this goal from two directions: improving water efficiency and using alternatives to fresh water when it is feasible to do so.

In many cases, the end use, type of equipment or local plumbing codes will dictate what type of water we can use. For example, potable water is required for cooking and hand washing, and cooling equipment cannot operate well using poor-quality water. In these situations, we focus on conservation solutions such as water sensors and low-flow fixtures to reduce the total amount of water needed to perform the intended job.

In other cases, alternatives to fresh water may be quite suitable. Several of our facilities in India, including our newest building in Coimbatore, are able to use treated effluent from their on-site domestic wastewater treatment facilities for toilet flushing and landscaping. Many of our other locations do not have ready access to treated effluent, but captured rainwater and other fresh water substitutes may be available.

Our efforts are focused on but not restricted to water-stressed regions. For example, despite their current crises, the areas around São Paolo and Austin are not yet considered high-risk according to the WRI Water Risk Atlas, which we use as our guide for defining regions as water stressed.

The global nature of our operations poses a key challenge to our efforts to address water stress. There is no single method for reducing fresh water consumption that can be applied worldwide; we must customize our plans to local conditions, equipment and building layouts, local codes, and the availability of alternative sources. And regardless of where we obtain our water, we need to make our team members aware of their role in reducing our water consumption.

## Progress to goal

In FY15, we used just under 1.5 million cubic meters of water worldwide, about the same amount of water that flows over Niagara Falls in 9 minutes. Only one-third of this use occurred in Dell-owned-or-operated buildings located in regions designated as water stressed. Water intensity in these buildings (measured as cubic meters of water use per square meter of building space) was flat compared to FY14, but down 12.3 percent from FY13.

**Expanding our influence**

This goal measures fresh water consumption at Dell facilities located in water-stressed regions, as these locations are where we have the most control over our consumption. While Dell itself is not a globally significant consumer of water, we recognize the influence we can have throughout our value chain. In FY15, we engaged a third party to conduct an analysis of our supply chain's water use so we can better understand what our water footprint looks like and how our suppliers are contributing to the overall water consumption in our value chain.

The results indicated that in 2013, Dell suppliers and their suppliers (Tier 1 and beyond) consumed approximately 430 million cubic meters of water in performing Dell-related activities such as precision manufacturing of microprocessors and memory chips or industrial processes like mining. This is almost 300 times as much water as Dell itself used in that same period.

As a step toward helping mitigate this water use, we also collected and reported our suppliers' water use to CDP as charter members of their water disclosure program, which aggregates major companies' water usage data to inform global conservation efforts. In 2014, 60 percent of our Tier 1 suppliers reported their water use to us. We found that:

- These Dell suppliers collectively consumed 16.4 billion cubic meters of water
- 60 percent have water-related goals and procedures for assessing operational water risks (compared to 44 percent of all global CDP respondents)
- 32 percent report that water poses a substantive risk to their business

**Developing a framework for improvement**

To help individual Dell facilities share best practices and develop common global approaches, in FY15 we created several cross-functional teams within Dell's global facilities and environmental, health and safety organizations. The teams will address challenges related not only to water but also to waste and other sustainability initiatives, leveraging the synergies of these efforts for a more holistic approach to facility-related resource conservation.

The teams are divided by type of operation (manufacturing or office) and by focus area (building system design and maintenance or interior services such as housekeeping and kitchens). This year, each team began working to find best practices, identify new opportunities, and verify and track completed projects. In addition, the team leaders started meeting quarterly to discuss common issues, budgets, key projects and new technologies.

**Implementing local projects**

As each Dell facility faces its own unique circumstances, most of our water conservation projects have been localized. These include irrigation and landscape changes, smart metering, and working with on-site food service providers to be more efficient with water use.

We continued to investigate opportunities for condensate capture and other reuse mechanisms, but are finding that for our circumstances, strategies that reduce overall fresh water use can often be more effective.

## Progress to goal (continued)

One of our most pressing local challenges in FY15 was the drought conditions in Brazil. While the total water consumption at our Hortolândia manufacturing facility is limited, as it is in most Dell facilities, we made several changes to help address local water supply restrictions. We added aerators to restroom faucets to reduce flow, installed waterless urinals, and completed construction of a large rainwater collection system to help keep the on-site trees and vegetation healthy.

In India, our newest building in Coimbatore, which was designed to LEED Gold standards, also includes a number of features designed to use water most efficiently. These include low-flow water taps and fixtures, heat wheel cooling technology, rainwater harvesting, and the use of treated effluent to flush toilets and irrigate the landscaping.

## Next steps

- In FY16, our cross-functional teams will continue working together across regions and facilities, sharing best practices and results to determine which tactics will make the biggest difference in our work toward this goal.

- We will continue to work with vendors and team members to implement additional water conservation and reuse efforts in targeted facilities. We will also increase team member awareness of processes for reducing water consumption.

## Ensure 90% of waste generated in Dell-operated buildings is diverted from landfills

**Status:** In FY15, our global waste diversion rate was approximately 85 percent. Our manufacturing facilities landfilled only 5 percent of their total waste, and we estimate our global diversion rate at other Dell-owned-or-operated buildings to be 55-60 percent. We remain on track for achieving this goal through 2020.

### Background, challenges and opportunities

Dell owns or operates approximately 30 buildings and campuses around the world, which include a variety of functions such as manufacturing, call centers, development labs, data centers and administration (we also lease or occupy many more buildings where we do not directly influence waste operations). We are committed to responsibly diverting our owned-or-operated facilities' waste from landfills through reuse and recycling.

We've maintained a 95 percent average diversion rate at Dell's six global manufacturing facilities for many years, in part because these operations produce relatively large quantities of waste streams that can be readily recycled, such as cardboard, paper, metals and plastics. However, the remainder of our real estate portfolio represents a diversity of building sizes, activities and locations. This creates an equally diverse array of waste streams, which presents several management challenges.

Waste produced in our non-manufacturing facilities typically comes from a variety of sources and in relatively low volumes. Depending on the facility, the waste streams may include everything from everyday wastes like printer paper and aluminum cans to less frequently discarded wastes such as worn furnishings and construction debris. While it is usually not difficult to collect and recycle the more common and regularly discarded wastes, in many locations there is a limited availability of local recyclers for some of the more variable wastes.

Waste materials must also meet certain quality standards before they can be recycled. At some locations, we can find recycling partners who will collect our combined waste stream and then sort it into separate types. However, most recyclers require us to separate our wastes on-site before they collect them.

This is a challenge because office recycling programs heavily depend on people to follow specific actions, and sometimes a single improperly discarded item can "contaminate" a recycling container and make its entire contents unrecyclable. As we benchmark successful recycling programs at Dell and other organizations, we hope to find ways to overcome this challenge.

Obtaining consistent, accurate measurements of our waste streams is also a challenge. Our waste diversion goal's progress is calculated using the weight of the waste, but many of our office facilities are only able to report on data by volume. The equivalent weight of a container will depend very much on the contents (for example, a bin full of scrap metal or glass will weigh much more than the same size bin holding mixed office trash). In addition, our waste management and recycling partners often collect from multiple customers in one load, and therefore have limited abilities to accurately report Dell's share. We are working on methods to overcome both of these obstacles.

## Progress to goal

In FY15, Dell's manufacturing facilities, which are located in Brazil, China, India, Malaysia and Poland, continued to achieve a high waste diversion rate. Overall, for our Dell-owned-or-operated locations, we estimate our total diversion rate for FY15 was about 85 percent, in the same range as in FY14.

**Developing a framework for improvement**

Because our options and partners for waste prevention, reduction, recycling, composting and reuse vary geographically, we need to take a local approach to waste diversion at each Dell-operated facility.

To help individual facilities share best practices and develop new approaches, in FY15 we created several cross-functional teams within Dell's global facilities and environmental health and safety organizations. The teams will address challenges related not only to waste but also to water and sustainability initiatives, to leverage the synergies of these efforts for a more holistic approach to facility-related resource conservation. The teams are divided by type of operation (manufacturing or office) and by focus area (building system design and maintenance or interior services such as housekeeping and kitchens). Beginning in FY15, teams started to identify best practices and new opportunities, and to verify and track completed projects. In addition, the team leaders met quarterly to discuss common issues such as budgets, key projects and new technologies.

We also rely on our waste management partners to provide reliable data. We will continue working with our local vendors to increase the quality and consistency of the data they provide us. We are also developing internal estimation methods for our facility managers to use.

**Innovating at the local level**

In addition to working with our waste management partners to expand recycling collections and tracking, our facilities implemented on-site infrastructure changes and waste reduction initiatives.

Our Planet employee resource group, which is devoted to building Dell's culture of sustainability, helped drive team member awareness and adoption of many of the initiatives.

Some examples of our FY15 waste reduction and diversion efforts include:

- One of our large facilities in Bengaluru, India, (formerly known as Bangalore) installed an automatic food composter. Team members add food-related wastes to the machine, and the wastes are then processed into organic compost for the building's landscaping. We are evaluating the system for potential implementation at other facilities.
- Our Dell India team launched an initiative to eliminate paper drinking cups at all of the region's facilities. Team members were encouraged to bring reusable cups from home to use during the day. Not only does this project reduce the amount of waste generated, but perhaps more importantly, it visibly promotes the importance of recycling.
- Our manufacturing facility in Poland worked with a local recycler to implement a new process to segregate and recycle molded pulp packaging in the factory.
- Our Montpellier, France, facility has gone well beyond traditional recycling categories, adding a new recycling area with containers for collecting paper, bottles, cans, e-waste, plugs, batteries, bulbs, coffee/tee capsules and mobile phones.
- For select on-site projects, we added language to our contracts that clearly states the contractor's responsibility in helping Dell achieve its landfill diversion goal.

## Next steps

- In FY16, our cross-functional teams will continue working together across regions and facilities, sharing best practices and results to determine which tactics will make the biggest difference in our work toward this goal.
- We will continue working with vendors and team members to implement additional waste diversion activities in targeted facilities. We also plan to identify ways to increase team member awareness of existing diversion options.

## Develop and maintain sustainability initiatives in 100% of Dell-operated buildings

**Status:** At the end of FY15, 85 percent of our Dell-operated facilities had at least one active sustainability initiative, in one or more of our eligible categories: equipment or building upgrades, renewable energy use, on-site services and employee engagement. This puts us on track for 2020.

### Background, challenges and opportunities

Dell team members are passionate about sustainability and creative in their efforts to protect the environment. Before we set our 2020 goal to have a sustainability initiative at each Dell-operated building, and even before we launched our Planet employee resource group (ERG) in 2012, team members took it upon themselves to become active in environmental issues. Their activities around the world have included organizing beach cleanups, launching on-site recycling programs and learning about composting.

Tracking the diverse array of sustainability initiatives at our sites presents a number of challenges. Some activities are recorded by site leads, some by Planet chapters, and others by multiple entities or even outside vendors. Some initiatives involve physical improvements at a Dell facility while others represent awareness events.

In addition, activities can involve multiple Dell locations. And some organizations are much more diligent than others in reporting their actions. We are working to overcome these obstacles.

We use the number of sustainability initiatives as a way to determine how visible our on-site programs are to our team members. Many of our facilities-based goals drive changes to our workplaces that can be difficult to notice—cooling unit improvements or new irrigation methods, for example. This goal challenges us to promote projects and programs that team members can easily adopt, embrace and interact with, so they ultimately have a better understanding of how we can work together to make a difference.

### Progress to goal

In FY15, we analyzed facilities' activities over the past few years, and used our findings to develop a system for categorizing local sustainability initiatives into four types (see chart on page 27). We also created rules designed to encourage new activities at each location by limiting how long an initiative may be counted.

Using this categorization system, we determined that 85 percent of Dell-owned-or-operated locations implemented or maintained at least one sustainability initiative during FY15. Of the locations with initiatives, about 70 percent had two or more types of initiatives.

**Refining measurement tactics**

At Dell-owned-or-operated sites, which represent about 60 percent of our total space footprint, we track each type of sustainability initiative described below. While our goal is limited to these buildings, we plan to monitor and report on employee activities in our leased spaces as well.

For FY15, we counted a Dell-owned-or-operated location as having a sustainability initiative in place if it met one or more of the following criteria:

- The site completed one or more new sustainability-related projects or upgrades during the past three years. We will count each project for up to three years after its completion, as long as the expected benefit (energy conservation, water efficiency, etc.) continues during the entire period.
- The site purchased or used renewable energy during FY15. We will give credit if a site purchases renewably sourced energy for the entire year, or if it initiates the purchase during the year and continues it after the end of the year. We will also credit a site each year they operate or start up an on-site system for generating renewable energy, such as a solar photovoltaic or solar water heating system.

## Progress to goal (continued)

- The site provided sustainable services, such as a new or expanded recycling program, during FY15. As with the projects and upgrades criteria, we will count new services for up to three years, provided the expected benefits continue.

- At least one sustainability-themed employee engagement activity, held on-site or in the community, took place during FY15.

Tracking sustainability initiatives requires coordination among many different teams. Building-based sustainability initiatives (equipment and building upgrades, renewable energy, and on-site recycling services) are identified locally and tracked centrally by the global facilities management team. To track employee engagement activities, we work with the local Planet chapters as well as regional ambassadors of Dell's global giving team.

As we improve site participation and tracking methods, we intend to introduce stricter criteria for qualifying initiatives, especially at our more populated facilities. We are currently evaluating ways to do this, and are considering changes such as requiring more types of initiatives, reducing the three-year credit periods, and/or requiring a minimum number of events or participants.

**Sharing best practices worldwide**

As we categorized and tracked our sustainability initiatives, we also continued to share best practices among Dell locations worldwide.

For example, in FY15 we worked with our landlord in Santa Clara, Calif., to add electric vehicle (EV) chargers for Dell team members' use. This is the fourth U.S. location to have EV chargers available. We will consider other locations for future installation, depending on employee demand and infrastructure requirements.

During FY15, more than 30 Dell facilities purchased some or all of their electricity, or generated a portion of their electricity or water heating energy, from renewable sources. This figure includes many Dell-operated facilities, as well as a number of leased locations where Dell or the landlord directly contracts with local utilities for electricity.

The Panama office facility expanded its recycling program in FY15, encouraging team members to drop off their household recyclables at work. The Panama chapter of Planet and other local teams used the recycling program's proceeds to fund community service activities.

# Categorizing our sustainability initiatives


### Equipment and building upgrades with a sustainability component

**Examples:** replacing lighting with more efficient units, adding flow restrictors to reduce water consumption, installing electric vehicle chargers


### Using renewable energy

**Examples:** purchasing renewably generated electricity from utilities, installing on-site solar photovoltaics for electricity, using solar for hot water heating


### Implementing or improving services provided on-site—either by our vendors or Dell—to generate a sustainability benefit

**Examples:** implementing a food composting program, expanding on-site recycling programs


### Employee engagement activities that promote environmental awareness and/or contribute to sustainability in the local community

**Examples:** tree planting events, energy conservation campaigns

## Progress to goal (continued)

Our Planet ERG continued to drive the bulk of our employee engagement activities around the world in FY15, through chapters at 40 Dell locations with more than 4,700 total members. Our manufacturing site in Poland launched a new chapter, and the group's activities included hosting an event to promote local foods and encouraging team members to commute to work by bike. The Australia-New Zealand Planet team created a fun educational video to change coworkers' behaviors as part of their National Recycling Week events.

Dell's companywide Earth Day celebration on April 22 represented a key opportunity for Planet and on-site green teams (where no official Planet team has been chartered) to educate team members about the importance of sustainability. In our Europe, Middle East and Africa region, Earth Day activities included e-waste recycling events in Bratislava, wildflower garden planting in Ireland, a clothing swap in Italy, and water conservation education efforts in the U.K. Our Asia-Pacific facilities celebrated World Environment Day in June with awareness events and other activities for Dell team members.

## Next steps

- In FY16, we will further hone our processes for measuring progress and sharing best practices among Dell locations.
- For programs that have widespread engagement—such as activities around Earth Day or World Environment Day, and events championed by various Planet ERG teams—we will also report overall participation levels (i.e., we will include our leased operations).

## 20% of Dell team members globally participated in an environmental volunteer event in FY15


*Planet members prepare to clean up 2,500 pounds of trash from Bique Beach, located 30 minutes from Dell's Panama City office.*

# Planet Panama takes on sustainability, indoors and out

Panama's beautiful scenery has long inspired Dell team members to roll up their sleeves and protect their local environment. For seven years, even before the formation of Dell's Planet employee resource group (ERG) in 2012, Dell Panama's passionate volunteers have been organizing beach cleanups and have picked up 17,500 pounds of trash to date. The Panama chapter of Planet is now one of the ERG's largest, with 300 members spearheading beach and forest cleanups as well as education initiatives through organizations such as the Smithsonian Tropical Research Institute.

In 2014, Planet extended its work indoors, launching an on-site recycling program that enables team members to bring their household recyclables to Dell facilities for pickup.

*"It means so much to local NGOs that they can count on Dell's support–that we'll provide hundreds of enthusiastic volunteers plus expertise and supplies. And we gain valuable knowledge about science and sustainability, which we can take back to our team."*

*- Jose Canate*
*Logistics Team Leader*
*Dell Panama*

Aspiration

# Drive social and environmental responsibility in the industry and our supply chain

Goals

Demonstrate 100% transparency of key issues within our supply chain, working with suppliers to mitigate risks in those areas

Ensure 100% of product packaging is sourced from sustainable materials

## Demonstrate 100% transparency on key issues within our supply chain, working with suppliers to mitigate risks in those areas

**Status:** In FY15, we continued to enhance the social and environmental responsibility (SER) governance of our supply chain. We extended Electronic Industry Citizenship Coalition (EICC) third party-validated audits beyond our Tier 1 suppliers to also include sub-tiers. Dell audits all suppliers that represent 95 percent of our production spend on a two-year cycle. In FY15, 144 of our supplier facilities underwent audits.

### Background, challenges and opportunities

According to Verisk Maplecroft's Human Rights Risk Atlas, the information and communications technology industry manufactures in some of the highest-risk countries in the world. Challenges like excessive working hours, insufficient transparency and violations of freely chosen employment standards are systemic and not specific to any one company. Dell continually works to eradicate these and other issues. We look to external experts like the Electronic Industry Citizenship Coalition (EICC), Verite and ELEVATE to help us frame these challenges and partner with like-minded companies to drive meaningful change.

Dell's global supply chain is a highly complex, diverse network of interconnected companies that serve as an extension of our operations and our values. We expect our suppliers to uphold the same social and environmental (SER) standards that we set for ourselves, which include criteria for carbon, water and waste; worker health and safety; and fundamental human rights and dignity. And we work closely with our suppliers to drive continuous improvement, mitigate risk, and increase their self-accountability when managing key issues.

To better understand the complexities within our supply chain, we increased the number of audits we mandate for our sub-tier suppliers (those with whom we do not have direct relationships) by approximately 160 percent from FY14 to FY15. As a result, we have more detailed information about challenges, trends, and necessary actions for making improvements. However, increasing the number of suppliers audited dramatically impacted our year-over-year audit results, as seen in our summary table.

## Background, challenges and opportunities (continued)

When it comes to sharing our supply chain's SER performance, as well as our collective work to improve this performance, Dell holds itself to a high standard of transparency. Additionally, as a top-tier supplier to many public companies and organizations around the globe, we recognize the need to responsively meet their stringent reporting requirements. Unambiguously providing our stakeholders with a picture of the social, ethical and environmental conditions within our supply chain is not just an expectation—it is the right thing for us to do.

Dell's core transparency efforts include sharing key issue areas found in audits of our suppliers. In FY15, our audits revealed that excessive working hours continued to be a problem. Nongovernmental organizations also highlighted serious working hours violations by Dell suppliers—suppliers that we share with our industry peers.

This is why industry collaboration is key to overcoming our shared supply chain challenges and driving suppliers' self-accountability. Our suppliers work within many different cultural and regulatory environments, but industry can help set international standards. By working together with companies like HP and Apple to address issues, we show suppliers that SER is important not just to one customer but to many. For example, in FY15 Dell participated in the EICC's new Vulnerable Worker working group to address our industry's challenges related to dispatch workers, students, young workers and foreign migrant workers. In FY16, we will co-lead this effort with EICC staff.

Additionally, we joined the IDH Tin Working Group, a multi-stakeholder effort between the Dutch government, civil society groups and members of the electronics industry, which is exploring more sustainable tin mining practices in Indonesia. We will continue to deepen these partnerships and look for other opportunities in the coming years.

## Progress to goal

In FY15, we continued to focus on the three targets we consider critical to demonstrating transparency of key issues within Dell's supply chain:

- Publish 100 percent of audit results, aggregated and by country
- Ensure that 100 percent of Dell's Tier 1 (top 90 percent spend) production and select services suppliers publish a GRI-based sustainability report
- Require a 5-year responsible water risk mitigation plan from all production and select services suppliers

To raise awareness of these requirements and Dell's SER standards, we introduced a handbook for all new suppliers, which includes an introduction to the EICC Code of Conduct, risk self-assessment, audit protocol, process, corrective action plan, remediation and business impact. Additionally, we worked with suppliers to address key issues revealed by their audits, with the goal of rectifying any behaviors not compliant with our standards. We helped them build their internal SER governance and reporting structures to foster self-accountability. To further mitigate risk, we also tracked the use of minerals throughout our supply chain.

**Publishing audit results**

In FY15, we audited 144 supplier facilities, of which roughly half were Tier 1 suppliers and half were Tier 2 suppliers. Our two-year audit cycle covers all Tier 1 production suppliers and additional sub-tier and small-spend suppliers we perceive to be at high risk around key issues. Collectively, this accounts for 95 percent of spend. Some of the audits were conducted by Dell and others by EICC-validated third parties.

We published an aggregated list of our FY15 audit findings (see page 36). The FY15 aggregate findings show that our suppliers' most frequent non-conformances continue to be excessive working hours (over the 60 hours per week maximum stipulated by EICC Code), insufficient rest days (one day off per week is required), and failure to pay into social insurance programs (which cover benefits like pensions, medical, unemployment, maternity leave, injury compensation and housing stipends).

Independently, China Labor Watch wrote an investigative report on supply chain issues, which included a Dell supplier. The supplier is an EICC member like Dell, and together we used the organization's tools to investigate the allegations and develop a corrective action plan. We also met with Dell customers to discuss our progress.

## Progress to goal (continued)

The issues covered in the investigative report were not Dell-specific, but rather are systemic in the information and communications technology industry and all other industries manufacturing in China. Because of this, we continued to work through industrywide organizations, such as the EICC's Working Hours work group, to drive change.

As an additional risk mitigation measure, we now require every new Dell supplier (at all tiers) to complete a Social and Environmental Responsibility Risk Assessment before being qualified as a Dell supplier. The assessment evaluates factors like Dell spend, manufacturing process, and demographic characteristics. The suppliers identified as medium-risk and high-risk must also complete EICC third-party validated audits before being qualified.

**Driving continuous improvement**

In FY15, we rolled out a comprehensive capability-building program for suppliers to help solve problems identified in audits. Through this program, both third-party experts and Dell experts work together holistically with suppliers to address the root causes of noncompliance and achieve sustaining results.

We partnered with ELEVATE, a supply chain SER consulting firm, to launch a metric management project for 20 suppliers whose audits identified priority issues. This project enabled Dell and suppliers to gain deeper insights into underlying social performance issues by analyzing the correlation between metrics such as overtime, turnover, rework rate, wages and productivity. The project also provided suppliers with compliance-related training and educational tools and helped them develop pragmatic, sustainable corrective action plans.

By the end of FY15, the 20 participating suppliers closed 53 percent (128 out of 271) of non-compliant issues related to labor, health and safety, environment, ethics and management systems. Tracking suppliers' working hour data also enabled them to identify trends in this area. On average, 84 percent of suppliers' employees worked less than the 60 hours per week maximum stipulated in the EICC Code of Conduct.

We also convened an internal SER Priority Issues task force, comprised of Dell's procurement, supplier quality and SER teams. The task force addresses all suppliers with past due priority issues, working to set goals and review progress on a weekly basis.

Additionally, as a proactive effort, the task force collects common indicators of overtime hours—such as planning and customer forecast accuracy, material shortages, worker turnover, recruitment efficiency, and machine breakage—and automatically calculates which factors are causing issues for each supplier. The task force's work complemented our quarterly, topical workshops and webinars for suppliers.

This initiative helped suppliers establish a data management system to measure their operational efficiency and productivity, which drove them to close or downgrade 32 percent of working hours-related priority issues by the end of FY15. It also drove 10 suppliers with social insurance-related priority issues to take actions to close or downgrade their issues within EICC's required timeframe. We terminated our relationships with three suppliers who did not commit to making improvements.

**Publishing GRI reports**

Dell's standard for sustainability reporting is the GRI G4, an internationally recognized framework for identifying what is included in a robust sustainability report. In FY15, we continued to encourage our Tier 1 production suppliers (who account for 90 percent of our spend) to publish a GRI-based report. We performed a regression analysis of select Dell suppliers and found that those with a publicly available corporate responsibility report had audit scores significantly higher than those suppliers without a public report.

We share links to each supplier's report and sustainability website (if available) on Dell's website. This helps our customers and stakeholders achieve more insight into our supply chain's impacts, strengths and improvement areas. It also provides our suppliers an opportunity to communicate their full SER efforts to a broader audience.

**Mitigating water risk**

Risks such as drought, flooding, disasters and lack of clean water can disrupt suppliers' abilities to deliver goods and services and to care for their employees. In FY15, we continued working with Dell suppliers to mitigate these risks, with the ultimate goal of requiring all production and select service suppliers to have a mitigation plan in place by 2020.

## Progress to goal (continued)

Before they can plan for the future, companies must understand their current water consumption trends, the level of water stress in regions in which they operate, and issues that could compromise their access to clean, potable water. In FY15, we invited 86 suppliers to report their water usage to the CDP's water disclosure program as a first step toward characterizing our supply chain water footprint. In FY16, we will roll out the first round of water mitigation plans for our top 50 suppliers based on this CDP disclosure data. These suppliers will come from parts of the industry with high water consumption, such as printed circuit board makers and display manufacturers.

Even beyond water mitigation, we are increasingly looking at climate-related emissions among our suppliers and encourage their participation in CDP's Action Exchange–a platform for helping suppliers uncover energy efficiency opportunities within their operations. Of Dell's 27 participating suppliers, 12 separate facilities have used the tools to identify 753 energy efficiency opportunities and $39.7 million in potential savings.

**Fostering self-accountability**

Building Dell suppliers' abilities to manage their own workplace issues and comply with our SER standards is key to building a more responsible supply chain. We hold quarterly business reviews to encourage suppliers to learn from industry peers how to manage workplace issues and build harmonious labor relations. Additionally, we work through industry partners and groups to encourage widespread accountability and change.

According to International Labour Organization statistics, approximately 21 million people worldwide are forced to work. Unfortunately, the electronics industry is not immune to the issue of forced labor. While Dell has policies to protect vulnerable workers—such as students, dispatch (temporary) workers, young workers and foreign migrant workers—in FY15 we redoubled our efforts to ensure that our suppliers are protecting them, too.

We drafted Dell's new policy on vulnerable workers, expanding protections around freely chosen employment and explicitly banning both trafficked and forced labor. We also began using EICC's student worker toolkit to educate our suppliers on hiring student workers. This toolkit helps ensure all EICC members' suppliers receive the same directions as the industry continues to eradicate these troubling issues.

We also joined EICC's Vulnerable Worker working group, a new initiative through which we're collaborating with our industry peers to address our shared challenges. As part of our participation, Dell developed an internal tracking tool to monitor suppliers who hire vulnerable workers such as students, young workers, dispatch workers and foreign migrants. This new data set allows us to better and more regularly analyze the suppliers' compliance with issues related to these types of employees.

In FY15, Dell and Apple continued to partner with Stanford University's Rural Education Action Program (REAP), which assesses the quality of vocational schools in China—the country's main source of student workers. For Phase I of the project, REAP developed a Vocational School Assessment App that enables suppliers to evaluate and select qualified schools for their internship programs. Dell and Apple invited our suppliers to use the app, and we also made it available to EICC members. The EICC agreed to fund Phase 2 of REAP for creating a school credentialing system.

We also continued our involvement in the Sustainable Trade Initiative (IDH), a program designed to improve working conditions at the supplier level by finding innovative ways to address concerns that affect both management and workers. The program affects more than 500,000 workers worldwide. Eleven Dell suppliers participate in IDH, and we continued to drive them to establish worker committees that can build effective dialogue mechanisms in the workplace. Suppliers set up continuous improvement teams, consisting of worker representatives and management, which help solve issues related to working conditions, productivity and labor. They also conducted employee opinion surveys, and the resulting data improved interviews and meetings and ultimately sensitized suppliers to the merits of listening to employees.

**Cultivating a conflict-free supply chain**

To ensure the materials used in our products come from responsible sources, we track the use of minerals known as 3TG (tin, tungsten, tantalum and gold), also referred to as conflict minerals. Dell is a supplier to many companies that in 2014 had to start reporting their minerals traceability, down to the smelter level, to the U.S. Securities and Exchange Commission to comply with the Dodd-Frank Act.

## Progress to goal (continued)

We continued working with our suppliers toward full and complete disclosure of their smelter lists. We publish these lists on our website so customers can compare them to the list of smelters verified by the EICC's Conflict-Free Smelter Program. In FY15, approximately 99 percent of Dell production suppliers submitted supply chain usage reports, which were about 75 percent complete. The main obstacles to achieving a greater level of completion are getting suppliers to provide disclosures at the product level (versus simple facility-level assurances) and smelter verification.

Difficulties with smelter verification is a cross-industry issue affecting anyone trying to report minerals traceability, as even the U.S. Department of Commerce has had difficulty in conclusively providing a list of which refiners and smelters are contributing to the funding of militia groups in the Democratic Republic of the Congo or surrounding countries.

Meanwhile, getting suppliers to provide product-level disclosures is also an industrywide challenge, as Dell and other original equipment manufacturers have little leverage on smelters down in our supply chains. To overcome this challenge and start planning for product-level disclosure in FY16, we brought in a third-party reporting tool, which leverages both the EICC Conflict-Free Smelter Program and other international initiatives to identify certified smelters.

Dell also joined the Tin Working Group (TWG), which was convened by the Sustainable Trade Initiative (IDH) and brings together members of the EICC, Friends of the Earth and the International Tin Industry Association to address ongoing mining issues in Indonesia. TWG works with local stakeholders in the country's biggest mining area, the Bangka-Belitung Islands, to better understand their goals and challenges and improve their business sustainability. In FY15 TWG established a relationship with the Indonesian government to receive support on this initiative.

We continued to actively monitor the evolving regulatory landscape around the world on topics related to conflict minerals. We engaged with the European Union (EU) on draft regulation that proposed a voluntary certification system covering the import of conflict minerals into the EU.

## Next steps

- In FY16, we will extend our metric management project to cover more sub-tiers such as mechanical and component suppliers. We will enhance the project's toolkit and learning modules and share them with a broader audience. Our topical workshops and SER task force will continue to play a pivotal role in driving suppliers to improve their SER performance.
- We will begin implementation of our new Vulnerable Worker Policy, going beyond the EICC code to advance awareness of human trafficking conditions while also ensuring compliance to the new policy and managing violations and egregious offenders.
- We will help the 50 Dell suppliers with the highest water consumption rates to develop water risk mitigation plans.
- We will also update Dell's master purchase agreement (main contract with Tier 1 suppliers) and Supplier Principles to include our requirements related to the U.S.'s Federal Acquisition Regulation, audit disclosure and GRI reports.
- We will leverage the database developed by the Institute of Public and Environmental Affairs (IPE) to monitor our suppliers' environmental regulatory compliance in China and drive suppliers to take actions to close issues identified by local authority. We will also work with IPE to improve Dell's ranking in IPE Green Choice Alliance through their Corporate Information Transparency Index.
- To proactively manage environmental risks, we will enhance audit protocols around environmental issues in FY16 and assess 21 suppliers with high environmental impact processes using this new criteria.

# Aggregate findings from supplier audits

| Audit section | Top findings | Frequency of top findings FY14 | FY15 | Change | Notes |
|---|---|---|---|---|---|
| Labor | Excessive working hours | 66.7% | 42.7% | -36.0% | We believe we made progress through our action plans, trainings, reviews and enhanced governance structure. However, EICC lowered the severity rating on Working Hours violations in 2014, which may have contributed artificially to the decline in findings. |
| | Young workers improperly managed | 9.7% | 4.0% | -59.1% | Increased awareness via our pilot programs and the work of our Priority Issues Task Force all helped reduce incidence by more than half. |
| | Disciplinary wage deductions | 13.9% | 4.5% | -67.6% | Quarterly supplier workshops helped educate factory managers on employee coaching, disciplinary practices and employee relations. Attendance at these workshops doubled from last year to 220 suppliers represented. |
| Health & Safety | Workers exposed to hazards | 29.2% | 23.9% | -18.2% | Added an environmental health and safety (EHS) manager in China and launched the SER Buddy Program to train team members to check for significant health and safety issues. |
| | Insufficient emergency preparedness | 34.7% | 25.1% | -27.7% | Required suppliers to attend our EHS training program and develop action plans within one week to address preparedness. |
| | Insufficient investigation of occupational injury & illness | 6.9% | 1.9% | -72.5% | While incidence was already relatively low, we believe adding the new EHS manager helped investigate incidents and develop corrective action plans. |
| Environment | Improper handling of hazardous materials | 11.1% | 45.1% | 306.3% | Significant increase considered a consequence of increasing the number of sub-tier supplier audits. Suppliers implemented immediate actions and increased third-party certification services. |
| | Incomplete environmental permits | 20.8% | 15.0% | -27.9% | Added environmental permits to our new supplier selection criteria, extended it to sub-tier suppliers. |
| Management Systems | Legal requirements not tracked | 8.3% | 8.0% | -3.6% | Suppliers updated procedures and management systems to meet local legal requirements. |
| | SER responsibilities not defined | 4.2% | 3.9% | -7.1% | Worked with original design manufacturer (ODM) suppliers to define responsibilities and establish SER organizations to manage sub-tier suppliers. |
| Ethics | No effective method to confidentially report misconduct | 2.8% | 16.0% | 471.4% | Nearly tripling our sub-tier audits and putting a new management system in place contributed to a six-fold increase in incidence. Reducing the incidence of this issue will be addressed in FY16. |

# Dell's diverse suppliers share their journeys of growth

*In its warehouse, Techway Services separates dismantled electronic devices to be processed for reuse.*

Over the years, Dell has continuously and steadfastly supported the growth and development of small, minority-owned and women-owned businesses through internal and external programs that empower, educate and connect those business owners. In FY15, we spent more than $4 billion with our small and diverse suppliers. This qualifies us for the Billion Dollar Roundtable, which recognizes our annual spend of more than $1 billion with minority-owned and woman-owned suppliers. These initiatives have a direct impact on diverse business owners, including Techway Services and Premier Logitech.

*"When we first pitched our on-site data wiping services to Dell, they loved the concept but since we were a five-person operation they obviously had concerns about our scalability. So they offered us a pilot program in Miami along with shorter payment terms, which is huge for small businesses. Dell allowed us to grow incrementally, and today we're a Tier 1 Dell supplier with 115 employees. From helping us navigate federal programs and gain industry certifications to encouraging our internal expansion, Dell has enabled our business to grow in ways I would've never dreamed possible when I started with $1,000 in my garage."*

*- Cathi Coan*
*CEO*
Techway Services
*Woman-owned business*
*Dell supplier since 2005*

*"The symbiotic relationships we've developed with Dell have been invaluable. The Supplier Diversity Group has helped us navigate internal processes, sponsored our professional development and even referred us to other Fortune 500 customers to whom we now provide logistics. And having (Dell's chief procurement officer) Kevin Brown as a mentor and collaborator is huge. Everything we learn helps us better serve customers throughout the lifecycle, from warehousing to installation to asset recovery. We've nearly tripled in size and can now be the prime on contracts with Dell and bring them new opportunities."*

*- Darryl Smith*
*CEO and co-owner*
Premier Logitech
*Veteran- and minority-owned business*
*Dell supplier since 2008*

## Ensure 100% of product packaging is sourced from sustainable materials

**Status:** We define sustainable materials specifically as those that come from recycled or renewable (preferably rapidly renewable) sources. As of the end of FY15, approximately 66 percent of our packaging by sales volume fits this definition—an increase from 58 percent in FY14. This means that in two out of every three Dell shipments, 100 percent of the packaging is sustainably sourced. This keeps us on track for meeting our 2020 waste-free packaging goal.

*Jump to the packaging recyclability and compostability goal.*

### Background, challenges and opportunities

Packaging plays a critical but short-lived role in protecting Dell products as they travel to their destination. It is simply a means to an end, so we want to use packaging that does its job but does not unnecessarily increase a product's footprint.

Finding sustainable materials that are consistently available in the quantities and locations we need them continues to be a challenge. We source and build our packaging for each product in locations that are geographically near where the product itself is built. While this reduces transportation-related costs and impacts, it makes it difficult to provide a uniform customer experience, as the available packaging may not be the same across regions. For example, we only conducted our mushroom-based packaging pilot project in the U.S.

Market conditions can also change a material's availability and affordability, so we must cultivate a diverse mix of packaging solutions while continually monitoring the landscape.

For example, in FY15 we transitioned much of our laptop product packaging from bamboo cushions to cushions made from sustainably sourced paper and wheat straw, primarily because increased global demand for bamboo drove up costs. From a sustainable sourcing standpoint, the wheat straw became a less expensive solution with comparable sustainability benefits.

While we continually explore and test new packaging materials, looking to nature as our guide, any material we choose must consistently protect millions of shipments. Some highly creative materials never see the light of day because they are not viable at scale, and others, like mushroom-based packaging, need more testing before we can scale beyond pilot programs. As we continue driving the type of packaging innovation that has made us an industry pioneer, we will also expand the use of proven materials into new products and regions.

### Progress to goal

In FY15, we increased the percentage of sustainable materials used in every type of product packaging. By the end of the year, 100 percent of the packaging for Dell tablet shipments and 92 percent of the packaging for laptop shipments was sourced from sustainable materials (up from 86 percent and 85 percent, respectively, in FY14).

We used several tactics to increase our sustainable materials usage. As we introduced new products, we standardized our packaging configurations across multiple models and replaced petroleum-based foams with paper pulp and wheat straw cushioning, which are actually less expensive in addition to being more sustainable. We also re-engineered some of our packaging to reduce the need for separate cushioning—our tablet packaging is now composed completely of cardboard.

## Progress to goal (continued)

### Collaborating with industry

We continued our collaborative approach to packaging development, following a structured innovation model to explore new solutions with suppliers, partners, nongovernmental organizations and stakeholders. We held our seventh annual Packaging Innovation Summit with suppliers to identify potential new sustainable material solutions from providers of all sizes, from Fortune 500 corporations to startups. In the past, this event has led to many breakthroughs—our supplier YFYJupiter first introduced us to their wheat straw packaging product at our FY13 summit.

BRANDPACKAGING magazine recognized this collaborative approach by awarding Dell its 2014 Brand Innovator award.

### Expanding the use of wheat straw boxes and cushions

In FY15, we used 800 percent more wheat straw than we did in FY14. This growth came primarily from increased use in cushioning materials. We also continued to use the material for manufacturing boxes and cushions for laptops produced in China (for global distribution).

The overall composition of our wheat straw-based laptop packaging remained the same. The box's liners (exterior surfaces) were made from 80 percent recycled paper content and its medium (wavy, fluted paper between the liners) was made from approximately 30 percent wheat-based fiber and 70 percent recycled-content corrugated cardboard. The molded pulp cushions inside the box were made from approximately 70 percent wheat straw and 30 percent recycled-content paper.

In FY15, many companies in other industries followed our lead and began using wheat straw in their packaging. The industry also took notice when YFYJupiter's Npulp® (wheat straw product) won the Silver Medal for Sustainable Systems at the 2014 Edison Awards. We continued working with the company to identify opportunities for expanding our use of this material.

### Preparing to launch new AirCarbon plastics

In FY15, we completed our testing of AirCarbon™ protective bags. We will initially use the bags to protect Dell Latitude™ shipments in the U.S. and Canada in FY16, making us the first in the IT industry to use this carbon-negative material.

AirCarbon, a new material from our supplier Newlight Technologies, is a plastic made not from oil but from industrial sources of carbon emissions, like dairy digesters and methane capture. Newlight uses a biocatalyst to process the gases in a reactor, where the carbon is then pulled out and rearranged into plastic polymers that can be used to make bags or other materials. The catalysts used with AirCarbon are nine times more efficient than other solutions, making it an economic choice that is also carbon-negative (meaning it stores more carbon in the plastic than it generates during production). Performance remains largely the same as traditional plastics.

### Evaluating our packaging materials mix

The price of bamboo continued to fluctuate in FY15, causing us to balance the material content of some of our molded pulp cushions. Our diverse portfolio of innovative sustainable materials enabled us to supplement bamboo with sustainably sourced paper and wheat straw, which offer the same environmental and performance benefits at a more competitive price.

Following our commitment to explore promising new packaging technologies, we continued to design and test the use of mushrooms as a cushioning material for new products. We piloted mushroom cushioning in server shipments in FY13, but need additional testing before introducing it as a widespread alternative to existing expanded polyethylene (EPE) cushioning. The mushrooms are grown in engineered molds to create the cushions, so the process is by nature less automated than that of creating plastic cushioning. This presented some hurdles in terms of continuity in supply and material cost, but developments in manufacturing combined with recent testing have put us on track for a FY16 re-introduction of mushroom-based server cushioning.

### Reducing packaging form factors

We also intensified our focus on executing against our 3Cs packaging strategy (cube, content and curbside recyclability), saving a cumulative $53.3 million in costs and avoiding 31.3 million pounds of packaging.

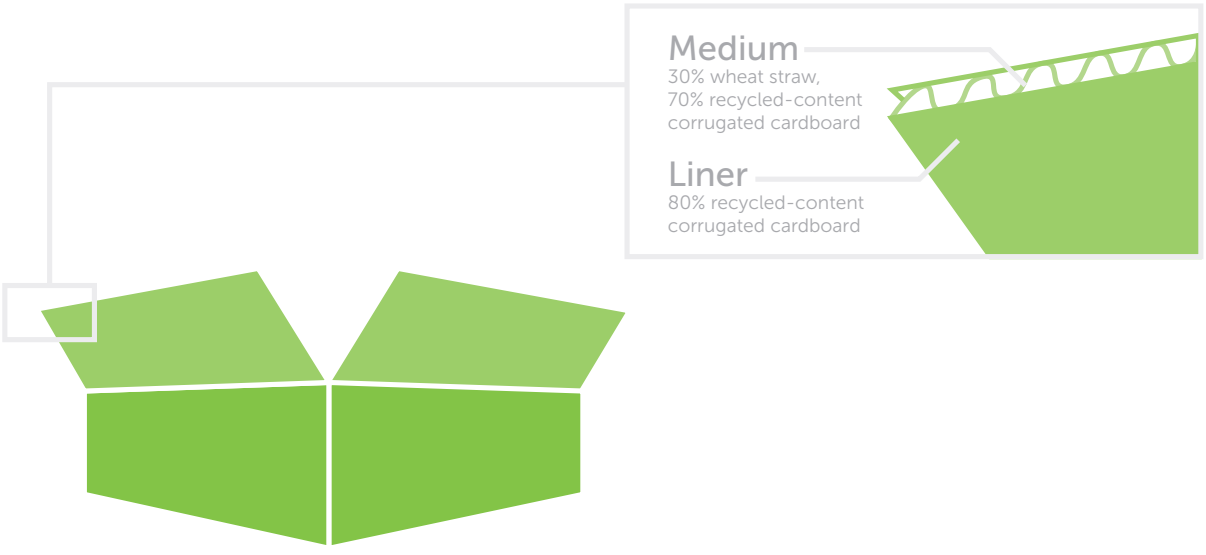
## Progress to goal (continued)

In FY15, we began using the Finite Element Analysis and Shock Response Spectrum to identify new opportunities for optimizing our packaging configurations and using fewer materials. These tools, which we also use to design our products, enable us to more precisely determine where and how products need to be protected by packaging. Our packaging engineers were able to develop new configurations of products within their boxes, reducing the amount of material we needed for packaging while also decreasing the box size itself so we can fit more boxes on a pallet for shipments. These new configurations are also helping us streamline the number of box and cushion form factors we use, which will help us better standardize around a core set of source materials at a much greater scale.

## Next steps

- In FY16, packaging innovation will remain paramount to Dell. We will hold our eighth annual Packaging Innovation Summit and continue searching for and partnering with companies at the forefront of packaging technology.
- We will continue to look for opportunities to expand our use of wheat straw, sustainably sourced paper and corrugated cardboard. This may involve finding additional suppliers, building capacity in new regions and/or incorporating these materials into our packaging in new ways. At the same time, we will also work with our partners to identify and test other sustainable alternatives to petroleum-based materials.
- In the first quarter of FY16, we plan to begin using AirCarbon protective bags in Dell Latitude laptop shipments in the U.S. and Canada. We will continue developing additional applications of AirCarbon throughout the year.
- We will continue educating Dell customers and stakeholders about the sustainable materials used in our packaging.

# Dell's 100% sustainable wheat straw boxes

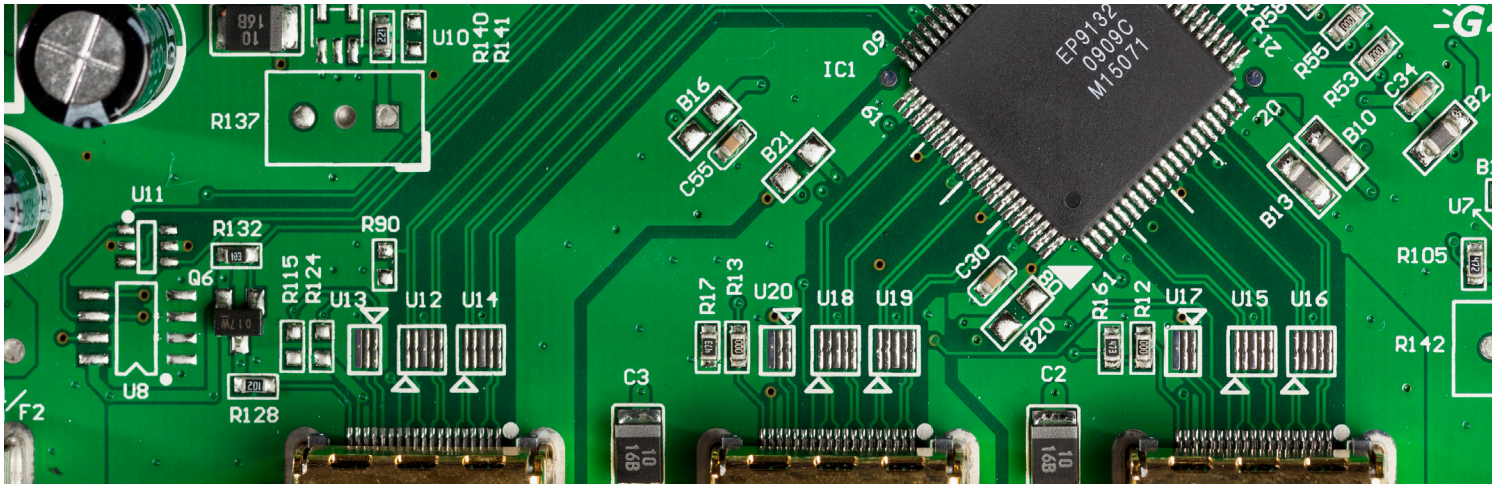


Aspiration

# Enable customers to reduce the environmental impact of their IT infrastructure

Goals

- Reduce the energy intensity of our product portfolio by 80%
- Use 50 million pounds of recycled-content plastic and other sustainable materials in our products
- Ensure 100% of Dell packaging is either recyclable or compostable
- Phase out environmentally sensitive materials as viable alternatives exist
- Recover 2 billion pounds of used electronics




## Reduce the energy intensity of our product portfolio by 80%

**Status:** From FY14 to FY15, we reduced the average energy intensity of our product portfolio by 6.6 percent based on delivered capabilities. This means since our FY12 baseline, we've reduced the average energy intensity of our product portfolio by 30.1 percent. This measurement is based on the expected lifetime energy consumption of the Dell products we sold during this reporting period and the expected capability we are delivering in those products.

### Background, challenges and opportunities

Customer surveys and analysis of the requests for proposal (RFPs) Dell responds to shows that energy consumption continues to be an important consideration for customers. The factors driving their attention include government regulation, environmental concerns, and the cost and space required to power their ever-increasing computing needs.

To give the clearest picture of our progress on reducing the energy consumption of Dell products, we chose energy intensity as our metric as it normalizes measurement across different product types. Dell has identified a performance metric for each of the major product types in our portfolio (e.g., TB of storage per watt for storage products), except for monitors, which we hope to add next year. These metrics are then aggregated using available benchmarks to reach an energy intensity measurement for Dell's product portfolio.

One of the challenges of delivering improvements to the whole Dell portfolio is that few products are on an annual redesign cycle. Even when there are significant improvements in the energy efficiency of a product, the sales cycle may not line up to our measurement. For example, we launched our 12th generation Dell PowerEdge™ servers in early FY13 and introduced the more efficient 13th generation models in FY15. The gains in energy efficiency resulting from this new generation will thus appear moderate in this report; however, as sales of the 13th generation models increase, we will see greater attainment of our energy intensity reduction goal.

## Background, challenges and opportunities (continued)

Another challenge is that some of our success is dependent on the performance delivered by key technology providers. If a provider's component is more energy-intensive than expected or the delivery of less energy-intensive capabilities is delayed, it affects the final numbers for this goal.

Changes in the type of products our customers want also affect the final numbers for this goal, and recent buying trends have disclosed some surprising results. We've seen customers transitioning to smaller products that have a somewhat lower energy intensity than larger products. However, larger products make larger improvements in energy intensity year-over-year on a percentage basis. So while smaller products tend to reduce energy intensity in the short term, the relative improvements eventually slow over time.

We are also seeing changes in the way customers use technology. Whereas data centers were once the domain of only the largest enterprises, an increasing number of small- and medium-sized businesses now need the solutions provided by a thoroughly networked infrastructure. If they wanted their own private/hybrid clouds to satisfy business needs, in theory they might require a data center. Converged platform solutions like Dell's PowerEdge FX can provide the servers, storage, networking and controls in a single system that does not require a separate server room.

Finally, as Dell's product portfolio changes, we must continue to revise our models and methodologies to ensure we're delivering an accurate measurement of our portfolio's energy intensity.

## Progress to goal

FY15 saw significant redesigns of Dell's server and client products. So while the overall reduction in energy intensity from FY14 to FY15 is not as large as that reported last year, the energy intensity calculations for the second half of the year are strong predictors of significant gains in FY16.

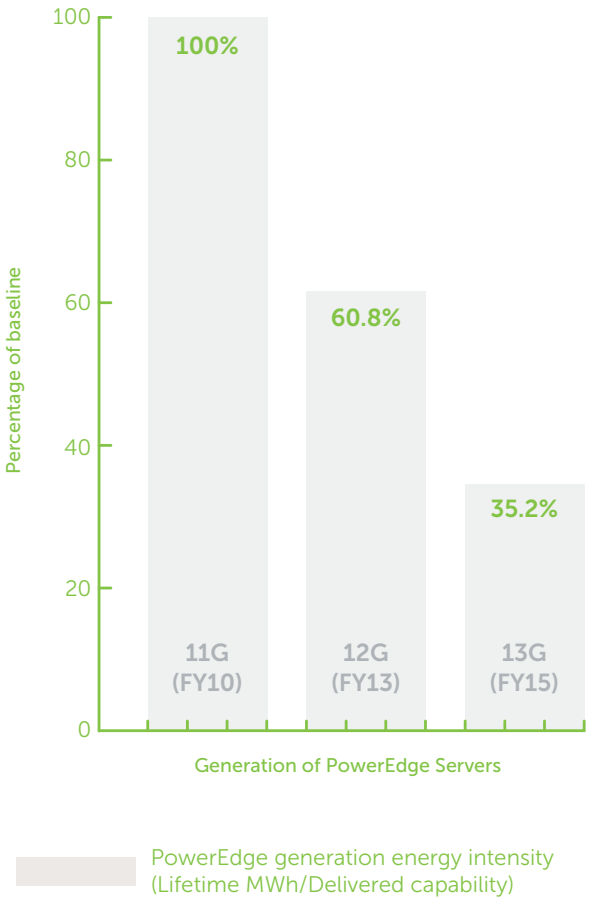
We continued to refine our methods of calculating energy intensity across our portfolio. In particular, we discovered our monitor products had a large enough energy footprint to necessitate their inclusion in our annual portfolio calculations. We developed an initial measurement model for monitors using a performance metric based upon the number of pixels. Many other factors, all driven by customer need, also have significant impact on monitors' annual energy consumption. So we also began evaluating panel size, brightness and color reproducibility for potential inclusion in an updated version of the metric. The addition of monitors helps us round out the true measure of Dell's portfolio. We also began creating a separate category for measuring the energy intensity of tablets. The measure takes their particular usage model into account and will be included in future reports.

## Progress to goal (continued)

### Achieving energy efficiency gains in data center products

We began rolling out the 13th generation of Dell PowerEdge™ servers in September 2014, with a first wave of rack servers followed by new towers and blades. As significant sales of these servers appeared in the last quarter of the year, we began to see the impact their increased efficiency will have on our measurement. The new models offer increased computing power within the same energy footprint as our 12th generation models. This is the continuation of a long-term trend among our four most recent generations of server products. For example, our PowerEdge M1000e server chassis was designed in 2007 and still continues to score among the highest in power efficiency.

## Energy intensity by generation of PowerEdge servers




In FY15, we qualified 43 Dell servers to the ENERGY STAR® 2.0 Computer Servers specification. In the U.S., ENERGY STAR is the widely recognized indicator of energy-efficient performance for a variety of product categories. Additionally, this was the first fiscal year Dell shipped products qualified to the new ENERGY STAR 1.0 Data Center Storage specification, qualifying 24 storage systems in all.

We also made efficiency gains in networking switches, the critical hardware that links a network together and ensures data gets to where it needs to go. Our emphasis has been on driving greater density (more ports able to deliver more information) with lower power consumption. As an example, the Dell Z9500 can deliver up to 528 ports of 10GbE using only 4.7W per port.

We continued to expand our Dell Fresh Air engineering capabilities to increase the operating conditions of 13th generation servers. With Dell Fresh Air 2.0, select off-the-shelf enterprise servers are capable of performing continuously for 99 percent of the year at 40°C (104°F) in up to 85 percent relative humidity at a 29°C dew point in a clean air environment. For the remaining 1 percent of the year, they can also tolerate additional excursions up to 45°C (113°F). At these temperatures, customers can reduce or even eliminate the power needs of chillers for cooling the IT environment, instead relying on outside air.

### Continued development of converged platforms

Dell's converged platform solutions—which combine products from different categories such as servers, storage and networking into one system—enable enterprises to consolidate their IT footprints. These platforms are a good solution for nontraditional or small businesses that do not need a full-fledged data center with multiple racks of equipment. While these platforms' modularity and wide variety of uses makes it difficult to accurately calculate their energy intensity, we do know they drive efficiencies in the data center.

## Progress to goal (continued)

The Dell PowerEdge VRTX, launched in FY14, was recognized by InfoWorld as a 2014 Technology of the Year. In FY15, we followed up on that model's success by introducing the Dell PowerEdge FX converged platform, which combines the simplicity and cost of rack servers with the modularity and density of blades. The foundation of the FX architecture is FX2, a super-dense enclosure that fits the power of 12 servers in a 2U space. Its modular design lets it hold different-sized building blocks of computing resources—servers, storage and 10Gb networking—while it enhances efficiency with shared power and cooling. Because FX enables administrators to tailor their infrastructure so precisely, it also helps them optimize power usage across their operations.

**Energy efficiency among end-user devices**

The ENERGY STAR 6.0 and 6.1 Computers specifications became effective during FY15 and Dell qualified 150 products for these standards. While we continued to qualify many products for the latest specifications, our end-user device category's overall performance against our goal was somewhat stalled. Part of this lag is due to the same circumstance that tempered improvements among data center products: with major product changes launching in the second half of the year, the full impact of improvements will not be felt until next year.

Beyond this, we also found some of the processing performance advancements we anticipated did not materialize this year. Components from chip manufacturers account for a large portion of how we will perform on this goal, and Intel's delay of its 14nm Broadwell™ processors and chipsets prevented us from including this generation of silicon's expected improvements in our FY15 end-user portfolio calculations as we originally planned. We will track and report improvements in FY16.

In FY15, we launched the ultra-compact OptiPlex™ 3020 Micro Desktop. This system brings laptop-level energy efficiency and size to the desktop by using laptop components inside a new 1.2-liter micro chassis.

**Other developments in energy efficiency**

In FY15, we continued to see interest in energy consumption issues accelerate around the globe. Our server and client portfolio in scope of the new EU Commission Regulation (EU) No. 617/2013 were qualified well ahead of the effective date. This regulation describes the energy efficiency requirements for shipping computers and servers into the European Union and is a legal requirement. We continued to track the EU's growing interest in data center energy efficiency and actively participated in the EU Commission preparatory study on Enterprise servers and storage equipment (DG ENTR Lot 9) to consider which eco-design requirements should be set for these products. We also attended the EU Commission's meeting on green data centers.

Additionally, China is in the early stages of development for server energy efficiency standards. Dell has been an active participant in The Green Grid and the Information Technology Industry Council, providing analysis and recommendations to the China National Institute of Standardization.

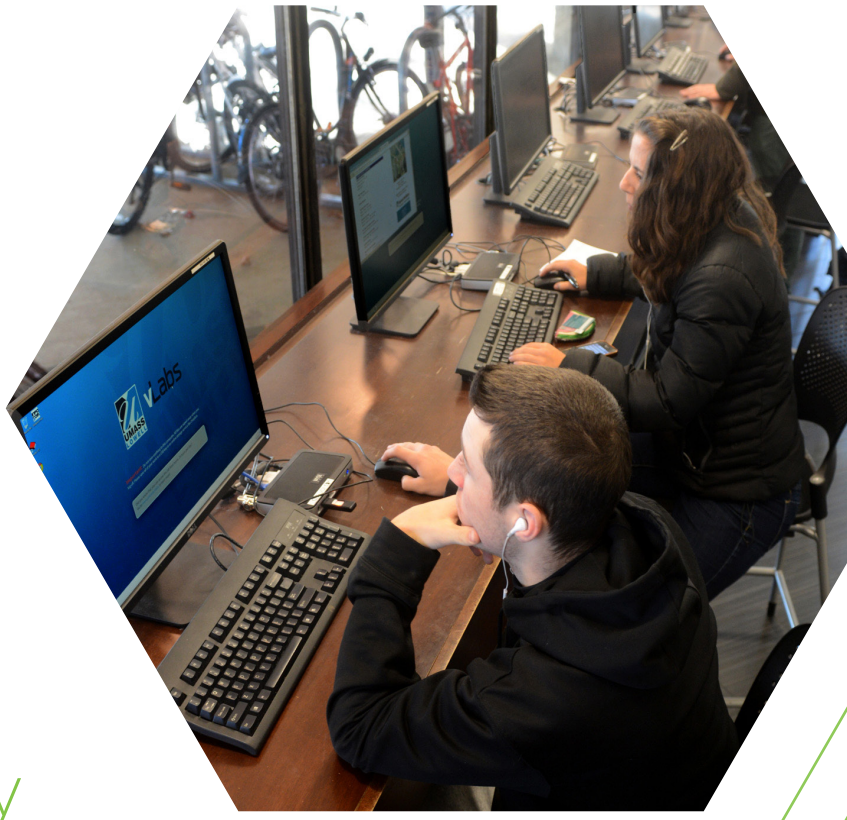
We have also long been involved with the EPEAT® green procurement tool and in FY15, we registered products in Finland, India and Brazil for the first time. Dell product registrations vary in each country due to customer needs, but as of FY15, we offer more than 200 registered products in 16 countries. In addition to working with stakeholders to develop the new IEEE 1680.4 server standard for EPEAT, we are also helping to revise the existing IEEE 1680.1 standard for computers and displays.

**Measurement**

Dell's energy intensity calculations consist of both an energy use component and a performance measure. Dell spent FY15 evaluating potential active workload benchmarks that would run across our tablet portfolio. We believe we now have one that will provide the performance metric required for energy intensity analysis. We will begin collecting appropriate power and performance data for our tablet products and will include these in future reports.

## Next steps

- In FY16, we will develop metrics to help us better understand the energy intensity of monitors, tablets and other under-studied parts of our portfolio. This data will help us have more informed discussions with our suppliers and other partners.
- We will continue working with policymakers and regulators to help them understand the industry's perspective on global efficiency standards.




*Dell technology lets UMass Lowell students access the software they need from any computer, on or off campus.*

# Desktop virtualization increases energy efficiency and student access at UMass Lowell

*"Switching from traditional, PC-focused computer labs to a campuswide desktop virtualization solution has slashed our energy bills by nearly 50 percent. Not only do Dell Wyse zero clients use less power when they're on, but they also boot up almost instantaneously, so we can turn the machines off between students' work sessions to save even more.*

*But that's just one part of the carbon footprint story. Before virtualization, students needing a specialized application—say for a nursing class—would have to drive from home to the nursing lab just to use that software. Or they might have to take a shuttle from the other side of campus. Now they can access that same application from any campus computer lab, or from their own device at home or on campus. That decreased travel cuts carbon emissions and gives students back their time, for a much better educational experience."*

*- Steve Athanas*
*Director of Platforms and Systems Engineering*
University of Massachusetts Lowell

## Use 50 million pounds of recycled-content plastic and other sustainable materials in our products

**Status:** In FY15, we used more than 11.7 million pounds of post-consumer recycled plastics in our products for a cumulative total of 21.9 million pounds used since the start of FY14. We have achieved 44 percent progress toward our 2020 goal, putting us on track.

### Background, challenges and opportunities

Since 2008, Dell has continued to increase the amount of recycled-content materials in its products. The electronics industry has historically focused on using recycled-content plastics from clean sources like water bottles and used CD cases. These are considered open-loop sources. We set this goal to help us expand the use of recycled-content materials in plastics and to look for new sustainable choices.

All of the recycled-content material we used in FY14 was from open-loop sources—plastics recycled from other products and turned into parts for electronics. In FY15, we re-engineered our supply chain to introduce closed-loop recycled plastic. Our closed-loop supply chain incorporates plastics from electronics recovered through our takeback services into the plastics used to make new Dell products. This year, the Dell OptiPlex™ 3030 All-in-One became the industry's first desktop made with recycled plastics that are third-party certified (by UL Environment) as closed-loop. This is one of the ways we're moving toward a more circular economy, wherein materials are used and reused efficiently and effectively.

Not all plastics are created the same, and working with recycled-content plastics presents some challenges around the mechanical and aesthetic qualities of the finished parts. The effort required a major redesign of processes across Dell's engineering, industrial design, procurement, logistics and marketing teams, as well as intensive coordination with our supply chain and recycling partners. As we introduce more closed-loop plastics into new products, Dell engineers will continue to adjust our plastic blends to assure they still deliver on our expectations for performance and aesthetics.

While perfecting the process was paramount to delivering finished parts, other challenges to implementing a closed-loop supply chain persist. Chief among those is collecting enough material. Estimates suggest the industry only collects 13 percent of electronics for recycling. In Europe, plastics often get diverted for other uses. In Asia, frequent reuse means fewer materials wind up in the recycling stream. And while Dell may have the largest takeback program by geography in the industry, we can do more. If we can get the industry to collect more plastics from retired electronics, we will use more material in our closed-loop process.

But even as takeback volumes increase, we also face geographic challenges. Our current program moves collected materials from parts of the U.S. to China with the help of our environmental partners like Wistron GreenTech. While this process creates a smaller carbon footprint than using virgin materials, we can reduce our impact even further as we improve and expand the effort by drawing from multiple locations, especially those that are near where we manufacture our products. To these ends, we are working with existing partners to identify additional ways to incorporate them into the process and are also engaging with stakeholders in other countries to determine how to increase overall collection.

As we continue to grow the infrastructure and resource stream for our closed-loop plastics efforts, we also must look at ways we can supplement the volume. This includes continuing the work we've done with sources like recycled water bottles and CD cases. These have long been our go-to sources of recycled-content plastic, as they tend to be free of contaminants, easily sortable and readily available from municipal recycling streams. As we expand our efforts, we also must look at other sources and other industries for how we can grow our supplies.

## Progress to goal

FY15 was another banner year in our efforts to incorporate sustainable materials into our products, using 11.7 million pounds of recycled-content plastics in Dell OptiPlex desktops as well as an assortment of display products. Desktops and displays are top-selling products that use more plastic than some other product categories, so they present an opportunity for us to have the greatest impact.

This year we increased our overall use of post-consumer recycled plastic by 15 percent compared to FY14. While our traditional open-loop sources accounted for the majority of our use, closed-loop recycled plastics were a significant new development–they comprised 19 percent of our total FY15 post-consumer recycled plastic use, by volume. At the end of FY15, 16 Dell displays and three desktops were shipping globally with closed-loop recycled plastics.

While carbon impact is only one measure of this program's importance, we saw good results this year. By using a combination of traditional post-consumer recycled plastics and closed-loop post-consumer recycled plastics in Dell products instead of virgin plastic resin, in FY15 we reduced greenhouse gas emissions by 8,100 metric tons of CO2e—the equivalent of removing more than 1,700 cars off the road for a year.

### Developing a closed-loop recycling program

With the launch of the OptiPlex 3030 All-in-One, Dell became the first in the industry to offer a desktop made with third party-certified closed-loop recycled plastics. The closed-loop process begins when U.S. customers recycle their old systems through our Dell Reconnect consumer recycling partners (Goodwill® locations). The plastics are separated and sorted into different types, then inspected, baled and shipped to China, where our partner Wistron Advanced Material (WAM) blends the plastics with virgin plastics to achieve structural integrity (the current mix has 35 percent recycled-content) and then molds the plastic into new parts. For the OptiPlex 3030, these include the stand and back plate of the computer/monitor. These parts are then assembled into the final computer.

This closed-loop lifecycle generated 11 percent fewer carbon emissions than the equivalent use of virgin plastics.

The OptiPlex 3030 was the first Dell product certified by UL Environment to their closed-loop standard, with the result that at least 10 percent of the final product is made of closed-loop plastics. We continued to expand our efforts throughout FY15, and by the end of the year 16 Dell displays and three desktops were shipping globally with closed-loop recycled plastics. We are working to expand the use of closed-loop plastics in other mainstream Dell products.

### Expanding the use of recycled-content plastics

In FY15, Dell product designers continued to actively assess the feasibility of using more post-consumer recycled content plastics in other mainstream Dell products such as laptops, servers and thin clients. These products contain smaller parts and use plastics with different mechanical qualities. For example, tablet bezels must be flexible and scratch-resistant whereas monitors must be strong and flame-retardant. Our engineering teams are working on resin qualification to ensure the post-consumer recycled plastic material we use will meet our performance standards.

### Gaining industry recognition

Dell was honored with the 2015 Accenture Award for Circular Economy Pioneer, which recognizes established organizations demonstrating business innovation that supports a circular economy. The award committee specifically cited Dell's closed-loop recycling program as a prime example of our industry leadership. Michael Dell accepted the award at the World Economic Forum in Davos, Switzerland.

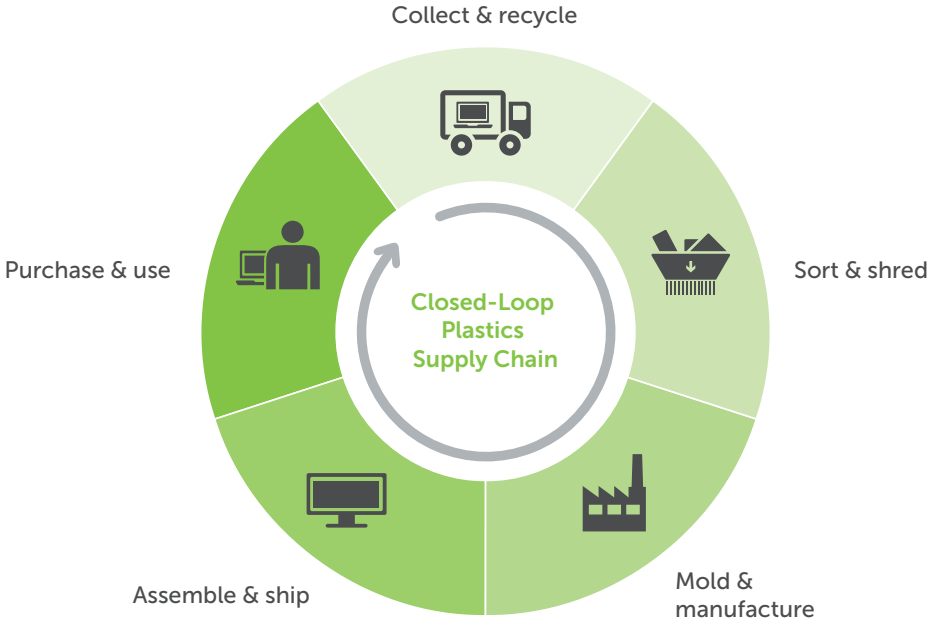
## Progress to goal (continued)

Additionally, Dell received the 2014 Award of Green System Partners and Market Expansion Partners from Taiwan's Ministry of Economic Affairs. This award recognizes Dell's green design efforts (including use of closed-loop and other recycled-content plastics, ease of repair, and ease of recycling) and our contributions to Taiwan's IT industry.

## Next steps

- In FY16, we will continue to increase the amount of closed-loop recycled content plastics we use in our products. We plan to pursue opportunities to: source from additional Dell Reconnect partners in the U.S., explore commercial or business-to-business recycling channels, and expand the closed-loop model into other areas, such as Canada, our Europe Middle East and Africa region and our Asia Pacific-Japan region, where recycling plastics has been a challenge.
- We will pursue the sourcing and use of new types of recycled-content materials, such as recycled carbon fiber from the aerospace industry.
- We will also continue to increase the amount of post-consumer recycled-content plastic from traditional sources (such as water bottles) we use in desktop and monitors.
- We will expand the types of products we build using recycled-content plastics (whether from closed- or open-loop sources). In addition to our OptiPlex desktops and monitors, we will explore the possibility of use with servers, thin clients and other products.

# How Dell does closed-loop recycling




We are using plastics from the computers and parts we recycle through Dell's existing takeback and recycling programs to build brand new systems, driving a circular economy for the IT industry.

## Ensure 100% of Dell packaging is either recyclable or compostable

**Status:** At the end of FY15, 66 percent of all Dell packaging by sales volume could be considered recyclable or compostable, up from 58 percent in FY14. This means that, in two out of every three Dell shipments, 100 percent of the packaging is recyclable or compostable.

We continue to categorize a material as being recyclable if it is accepted by at least 60 percent of municipalities, and as being compostable if it can be certified to meet ASTM D6400 standard. This keeps us on track for meeting our 2020 waste-free packaging goal.

*Jump back to the sustainably sourced packaging goal.*

### Background, challenges and opportunities

When it comes to our packaging, Dell applies the principles of a circular economic model, looking for ways to design out waste and obtain the most value from the resources we use. We start by sourcing as much recycled content as possible and selecting materials that customers can easily recycle. For example, the corrugated cardboard we use is made from a minimum of 25 percent recycled content, is accepted as recyclable by nearly every municipality, and can be turned into everything from food packaging to tissue paper or even into another Dell box. Similarly, the wheat straw packaging materials we introduced in FY14 are a blend of recycled materials that can also be easily recycled, just like cardboard.

Our FY15 progress came primarily from increased use of wheat straw and paper pulp materials, as well as our improvements in reducing packaging form factors. Each new Dell product we introduce represents an opportunity to explore new advancements in recyclability, as we design packaging well before launch.

While we continued to explore other recyclable and compostable materials to diversify our packaging portfolio, securing cost-effective and consistent sources for these materials continued to be another obstacle. Packaging is a $900 billion industry, and materials like plastics and Styrofoam have become commoditized and inexpensive, so it can be difficult to find recyclable materials that are equally affordable. And sometimes we find materials, like our new AirCarbon™ bags, which are affordable and sustainable but not widely accepted for recycling (the bags are coded as #7 plastic). These are issues we will need to overcome as we tackle our biggest challenge in meeting our 2020 goal: finding recyclable and compostable materials that are as effective as petroleum-based foams at protecting heavy objects such as servers or monitors.

### Progress to goal

Dell has pioneered many new forms of packaging over the last few years. We were the first in the industry to use bamboo packaging, mushroom-based packaging and wheat straw. As we designed packaging for FY15, we focused on exploring new materials and methods while also expanding usage of tried and true materials, since customers count on us for consistent recyclability.

As a result of our efforts, at the end of FY15, 100 percent of the packaging for Dell tablet shipments and 92 percent of the packaging for laptop shipments was recyclable or compostable—up from 86 percent and 85 percent, respectively, in FY14.

## Progress to goal (continued)

### Collaborating with industry

Strategic supplier involvement remains critical to our packaging innovation. In October 2014, we hosted our seventh annual Packaging Innovation Summit, where packaging suppliers and teams from throughout Dell presented ideas for tackling challenges and worked with Dell engineers to brainstorm ideas for delivering the next level of recyclable and compostable materials. During this weeklong event we also honed our packaging roadmap for the next 12 months.

### Evolving our portfolio of packaging materials

Our efforts in new material applications remain unabated. In FY15, we increased our usage of wheat straw-based packaging by 800 percent over FY14. We did this by expanding the range of Dell laptop products using wheat straw cushioning. We also introduced wheat straw in two components of the shipping boxes for many laptop products: the liner (box's outer surface) and medium (wavy/fluted corrugate inside the liner). This wheat straw packaging, which we introduced in FY14, is a sustainable, agricultural byproduct from farms in China, so the new wheat fiber-based boxes are 100 percent recyclable just like the traditional corrugated cardboard they replace.

Using wheat fibers in our molded paper pulp cushions allows us to transition more cushions away from non-recyclable materials. It also enables us to keep cushioning cost-effective. Bamboo has become more expensive over the last two years, so we've shifted many configurations from molded bamboo pulp to wheat straw cushioning as a more affordable yet recyclable alternative.

We continued to work toward the re-introduction of mushroom-based packaging as a cushioning material to replace expanded polyethylene (EPE) for heavier shipments. We piloted mushroom cushioning for servers in FY13 and spent FY15 designing and testing the material for new product offerings. The mushrooms are grown in engineered molds to create the cushions, so the process is by nature less automated than that of creating plastic cushioning. This presented some hurdles in terms of continuity of supply and material cost, but manufacturing developments and recent testing have put us on track for a FY16 rollout of server cushioning.

For Dell all-in-one desktop packaging, we began transitioning from petroleum-based foam cushions to molded paper pulp cushioning. We continued to increase the use of paper pulp cushioning across our range of laptop and desktop products.

### Optimizing packaging design to use fewer materials

To help Dell customers reduce the amount of packaging they need to dispose of, in FY15 we began to use Finite Element Analysis and Shock Response Spectrum to identify new opportunities for optimizing our packaging configurations. These tools, which we also use to design our products, enabled our packaging engineers to audit each configuration, identifying key areas where cushioning material is required to protect the system, and areas where less material is required.

We used testing results to reduce the size of Dell laptop ship boxes and cushioning components. This increased the number of boxes we can fit on each pallet, and in each shipping container, while maintaining our quality levels. For example, in FY15 we achieved a 27 percent increase in units per pallet for our Latitude™ E5550 and can now ship 84 units per pallet. We achieved a 15 percent increase in units per ocean-going shipping container for the Inspiron™ 3441, adding 500 more units per container.

These tools provide both environmental and business benefits. They help us to not only be more efficient in our materials usage but to also improve the speed at which we develop our packaging.

### Educating customers about recycling and composting options

We conducted targeted outreach campaigns to educate Dell customers and stakeholders about the recyclability and compostability of our packaging. Our efforts resulted in stories from media including BBC News, The Guardian and CBS This Morning, as well as meetings with governmental policy makers in China, Canada, Australia and California.

## Progress to goal (continued)

The Dell packaging webpage continued to serve as customers' direct source of information about our packaging materials as well as their recyclability and compostability. We also expanded our internal packaging database access to 1,000 registered Dell team members who use this tool when working with customers, informing them about the packaging materials, configurations, quantities and disposal options for their shipments. On the packaging itself we followed the globally accepted protocols for identifying materials as recyclable.

## Next steps

- In FY16, we will continue to transition away from non-recyclable packaging as older products cycle out and new materials become available. We will collaborate with partners and suppliers to innovate and test new materials, configurations and methods.
- To encourage more Dell team members to educate customers about packaging recyclability, we will roll out a major upgrade to the packaging database including new reporting functionality and analytics.
- We will continue employing audits and engineering tools to reduce the amount of materials used in the packages we ship.

# The recyclability of Dell packaging

| Packaging material | Recyclable | Compostable | Limited recyclability |
|---|---|---|---|
| Corrugated containers and boxes | ● | | |
| Wheat straw boxes and molded cushions | ● | | |
| Bamboo cushions | ● | ● | |
| Mushroom cushions | | ● | |
| Molded paper-pulp cushions | ● | | |
| HDPE cushions | | | ● |
| EPE cushions | | | ● |
| Plastic bags (includes AirCarbon) | | | ● |

## Phase out environmentally sensitive materials as viable alternatives exist.

**Status:** As part of our ongoing commitment to phase out substances of concern wherever possible, we added eight new substances to our Materials Restricted for Use list. We also expanded our watch list for future elimination, adding more phthalates.

### Background, challenges and opportunities

Electronics products and their components are comprised of thousands of materials. Some of the materials that perform helpful functions, such as stabilizing plastics or preventing fires, may also have harmful effects on humans and the planet, especially if not managed appropriately at the end of a product's life.

Dell is committed to proactively identifying and eliminating substances of concern from our products. As outlined in our Chemical Use Policy, we employ the precautionary principle, voluntarily avoiding substances if reasonable scientific grounds indicate they could be harmful to humans or the environment.

This is a complex endeavor for many reasons. First, we must find alternative materials and production methods that deliver the same level of product performance without posing harm. This is a long-term, collaborative engineering process, which is often affected by changing regulatory environments. We follow the latest chemical regulations worldwide to ensure that our watch list mirrors the latest policies, and that we stay in full compliance. And we also audit our suppliers to ensure their compliance to local laws and our Chemical Use Policy.

The global nature of our technology adds another dimension, especially in light of proposed regulations that would expand the on-product disclosures that are needed. As the list of materials disclosures and assurances increases and product form factors shrink, the physical space available for printing messages in multiple languages is increasingly difficult to find. These developments remind us that our work toward this goal requires ongoing flexibility, persistence and dedication.

### Progress to goal

In FY15, we continued to voluntarily phase out the materials on our watch list. We updated our Materials Restricted for Use list in November 2014, adding eight new substances of concern:

- Benzenamine, N-phenyl-, Reaction Products with Styrene and 2,4,4-Trimethylpentene (BNST)
- Arsenic compounds (Diarsenic pentoxide, Diarsenic trioxide)
- Dibutyltin compounds (DBT)
- Dioctyltin compounds (DOT)
- Phthalates (DNOP—Di-n-octyl phthalate and DEP—Diethyl phthalate)
- TCEP (Tris(2-chloroethyl) phosphate)

We added BNST, DBT and DOT in response to legislative requirements. In following Dell's precautionary principle, which means we voluntarily avoid substances if reasonable scientific grounds indicate they could be harmful to humans or the environment, we also added arsenic compounds, two phthalates and TCEP.

To ensure our suppliers apply our principles, we regularly train them on our Chemical Use Policy, Materials Restricted for Use list, and our processes to report on substances of concern.

**Tracking regulations**

We worked with industry associations, suppliers and competitors to identify potential changes to materials regulations worldwide. While Europe and Asia have traditionally been the epicenters of regulation, regional efforts are increasing. Accordingly, we added additional internal resources to monitor regional regulations more extensively and help coordinate with central resources.

## Progress to goal (continued)

For Dell and the industry, RoHS (the European Union's Restriction on Hazardous Substances in electrical equipment) and REACH (the European Union's framework for the Registration, Evaluation, Authorization and Restriction of Chemicals) continued to be the strictest and most wide-reaching regulations. However, in FY15 we found that many countries and states outside of Europe are also ramping up on materials regulation. Taiwan and Singapore are copying RoHS to a certain extent, and Canada and the State of California (U.S.) are taking their own unique legislative approaches.

Whenever new regulations are proposed, we assess the potential impact on our products and operations, applying the precautionary principle to any identified substances of concern. Next we determine if and how we use the substances, formulating substance phase-outs, if applicable. We also assess our customers' materials requirements and factor them into our plans—we continue to see more customers requiring the phase-out of substances on the REACH Candidate List (the REACH equivalent of our watch list).

Additionally, we continued to monitor proposed regulations that would expand the requirements for on-product disclosures—disclosures both for substances used in products and substances that have been eliminated, such as mercury.

### Phasing out substances

Dell continued to place special emphasis on reducing and eliminating identified phthalates as a response to both prevailing science and these substances' increased inclusion in potential restrictions/policies.

One of our biggest achievements over the last few years has been phasing out the phthalates DEHP, DBP, BBP and DIBP five to nine years ahead of RoHS's 2019 deadline. FY15 marked our first full year of restricting DIBP from all sustaining products, extending our late FY13 phase-out of DIBP from newly launched Dell parts and products. This adds to our existing restriction on DEHP, DBP and BBP.

Additionally, in FY15 we added the following phthalates to our watch list and require Dell suppliers to declare their inclusion at the homogeneous material level: DINP, DIDP, DHNUP, DIPP, nPiPP, DPP and DnHP.

We also assessed the use of Beryllium alloys and Beryllium compounds in our products to understand where they are being used and if viable alternatives exist.

### Progress on BFR/PVC-free products

Dell is committed to eliminating Brominated flame retardants (BFR) and Polyvinyl Chloride (PVC) from PC products as acceptable alternatives are identified, and we made good progress toward this goal.

As of the end of FY15, all Dell Venue™ tablet products were BFR/PVC-free. The Venue joins these other Dell product families, which are BFR/PVC-free (excluding peripheral accessories):

- XPS™ laptops and tablets
- Dell Precision™ mobile workstations
- Latitude™ laptops (except Latitude 3-series)
- OptiPlex™ 9020 USFF desktops and micro-desktops
- P-Series flat-panel displays

We continue to advocate for increased restriction of BFR/PVC content across the industry, as well as for incentives for companies to procure BFR/PVC-free products. Together with our competitors, we requested the EU Commission add to its Green Public Procurement criteria a provision that awards additional points to suppliers offering BFR/PVC-free products. The request was denied, but we will continue our advocacy efforts.

### Identifying alternative solutions

We assessed alternative materials to replace materials of concern, working within the framework we established in FY14 in collaboration with nongovernmental organizations, suppliers, competitors and the organizations that govern eco-labels. This collaborative, disciplined approach minimizes the risk of substituting a hazardous substance with another that eventually proves hazardous as well.

## Next steps

- In FY16, we will assess a restriction of further phthalates.
- We will continue to advocate for changes to procurement standards—with a renewed focus on EPEAT®—to award additional points for products with BFR/PVC-free components. We will also advocate for increased restriction of BFR/PVC across the industry.
- To stay ahead of any restrictions, we will continue to monitor legislation around the world along with new industry developments around substances of concern. We will also engage with stakeholders to ensure our priorities remain aligned.

# Materials on our watch list

| Materials we are phasing out |
|---|
| Mercury |
| Brominated Flame Retardants (BFRs) |
| Polyvinyl Chloride (PVC) |
| Di(2-ethylhexyl) phthalate (DEHP) |
| Butyl benzyl phthalate (BBP) |
| Dibutyl phthalate (DBP) |
| Diisobutyl phthalate (DIBP) |
| Antimony |
| Hexabromocyclododecane (HBCDD) |
| Polycyclic Aromatic Hydrocarbons (PAHs)<br>• Benzo[a]pyrene<br>• Benzo[e]pyrene<br>• Benzo[a]anthracene<br>• Chrysene<br>• Benzo[b]fluoranthene<br>• Benzo[j]fluoranthene<br>• Benzo[k]fluoranthene<br>• Dibenzo[a,h]anthracene |

| Materials we are assessing for future phase out |
|---|
| Beryllium |
| Bis(2-methoxyethyl) phthalate (DMEP) |
| 1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters C7-rich (DIHP) |
| Diisononyl phthalate (DINP) |
| Diisodecyl phthalate (DIDP) |
| 1,2-Benzenedicarboxylic acid, di-$C_{7,11}$-branched and linear alkyl esters (DHNUP) |
| Diisobutyl phthalate (DIPP) |
| n-pentyl-isopentyl phthalate (nPiPP) |
| Dipentyl phthalate (DPP) |
| Di-n-hexyl phthalate (DnHP) |
| Other Polycyclic Aromatic Hydrocarbons (PAHs) |

| Added to watch list in FY15 |
|---|
| Benzenamine, N-phenyl-, Reaction Products with Styrene and 2,4,4-Trimethylpentene (BNST) |
| Dibutyltin compounds (DBT) |
| Dioctyltin compounds (DOT) |
| Di-n-octyl phthalate (DNOP) |
| Diethyl phthalate (DEP) |
| Tris(2-chloroethyl) phosphate (TCEP) |
| Arsenic compounds (Diarsenic pentoxide, Diarsenic trioxide) |

## Recover 2 billion pounds of used electronics

**Status:** Dell recovered 172.6 million pounds (78.3 million kilograms) of used electronics in FY15. Since our baseline year of FY08, we have recovered a cumulative total of 1.42 billion pounds (642.5 million kilograms) of electronics. We have achieved 71.4 percent of our 2020 goal, and our future estimates show we are on track to meet our target (units collected continues to increase, shrinking form factor places downward pressure on total volumes).

### Background, challenges and opportunities

E-waste is one of the fastest-growing waste streams globally. According to the StEP Initiative/United Nations University, the world's population will discard 75 million tons of electrical and electronic equipment (EEE) in 2015, up from 65.1 million tons in 2012.

As a global electronics producer, Dell is committed to the recovery and proper recycling of used electronics. We consider this our responsibility as a citizen of the communities we serve and a steward of the planet we share. Dell offers safe, convenient takeback programs for consumers in 78 countries, accepting EEE of all brands. Both the scope and innovation of our programs have established us as an industry leader in electronics recycling. We are also a leader in designing our products for upgradability and longevity, along with ease of recycling at end of life.

In FY15, we took our leadership a step further by launching closed-loop recycling, which incorporates the plastics from electronics recovered through our takeback services into the plastics used to make new Dell products. With the launch of the OptiPlex™ 3030 All-in-One, Dell became the first in the industry to offer a desktop made with recycled plastics that are third-party certified (by UL Environment) as closed-loop.

Developing innovative programs requires extensive collaboration with our environmental partners, local governments, industry, nonprofits and nongovernmental organizations. Any time we launch a new program or expand into a new geographic area, we must work within existing regulatory guidelines.

These often stipulate that Dell and other manufacturers proactively engage in the development of regulation, the implementation of effective collection and recycling systems, and the education of consumers on proper disposal. In the case of developing countries, lack of regulation is an ongoing issue. Without any guidelines, many local recyclers will only take back materials they can readily sell and then either incinerate or dump any electronics products' remaining components.

In FY15, we continued to proactively engage with the governments of countries that are developing or revising takeback regulation, lending our operational expertise to help ensure any legislation works well within its local economic environment and infrastructure. According to the United Nations, developing countries will account for the majority of the world's discarded electronics by 2016, so expansion of takeback and education programs into these nations will be key to ensuring the proper environmental management of our products. We will continue to be diligent in every area of our takeback strategy—from expanding collection networks to increasing our services—in every country we serve.

## Progress to goal

In working toward our goal in FY15, we concentrated our efforts on:

- expanding our collection networks and services in the countries we currently serve
- advocating for effective recycling legislation in the most receptive markets throughout the globe
- continuing to advocate for and support regulation and effective takeback in developing countries
- launching a closed-loop recycling initiative

Dell Asset Resale and Recycling Services continued to provide business customers in 48 countries with convenient, guaranteed secure asset disposal. We handle the full spectrum of requirements including asset removal/logistics, data security, on-site shredding, recycling and reporting. We also continued to serve 78 countries through our Consumer Recycling Services, which enable consumers to easily return their equipment to Dell, free of charge, for secure recycling at end of life. For example, through our Dell Reconnect partnership with Goodwill® in the U.S., consumers can drop off their used electronics at more than 2,000 participating Goodwill locations for free.

### Introducing closed-loop recycling

FY15 marked our entry into the world of closed-loop recycling, as we became the first company to offer a desktop (the OptiPlex™ 3030 All-in-One) made via the UL Environment-certified closed-loop process. The plastics we collect through our U.S. Asset Resale and Recycling Services, as well as through our Dell Reconnect partnership with Goodwill in multiple states, become part of our closed-loop supply chain. These plastics are shipped to our partners at Wistron, who shred the return-stream plastic and convert it into raw material pellets. These pellets are then mixed with virgin plastics, and the resulting material (composed of 35 percent closed-loop plastics) is used to make new components for the OptiPlex 3030 All-in-One.

Closed-loop recycling has multiple benefits, including its potential to reduce the amount of virgin plastics needed for electronics production. This will be especially crucial as the world's middle class, and its demand for electronics, continues to grow. And by increasing the demand for recycled plastics, closed-loop recycling opens up greater opportunities to increase collection volumes.

Additionally, this achievement required our supply chain partner to be elevated to the status of a Dell Environmental Partner and was made possible through the close relationships we develop with our suppliers and their willingness to innovate with Dell.

### Increasing recovery from existing programs

We continually look for opportunities to expand Dell's consumer and business takeback programs, and in FY15 we saw some of our biggest gains in Asia. We expanded our consumer recycling collection program to 42 Dell Carry-In Service Centers in China and 18 in India (up from 10 and 16, respectively, in FY14—our first year of operation). This enables customers to drop off their used electronics at participating locations of these Dell-designated repair centers for free recycling. The arrangement leverages existing Dell infrastructure and customers' awareness of the service center locations.

We also launched a PC Exchange Program in 49 Dell stores across 12 cities in India. This trade-in program enables customers to bring any brand of laptop, desktop or monitor in working or non-working condition to a participating Dell store to receive credit for a new model. We plan to expand the program during the countries' festive seasons such as Diwali and Dussehra, which will bring increased consumer traffic and drive awareness of our convenient, environmentally sound approach to asset disposition.

Additionally, we introduced Asset Resale and Recycling Services for businesses in Brazil and in the U.S., we expanded our Dell Reconnect program to additional Goodwill partner locations. We will continue to seek additional locations and ways to support our customers' needs in the areas of compliance, data security and asset management services.

### Creating new models in developing countries

In FY15, Dell signed a 5-year agreement with the United Nations Industrial Development Organization (UNIDO) to cooperate on identifying and implementing a sustainable e-waste management model for developing countries in Africa, Asia and Latin America. We are both committed to finding solutions that create job opportunities, improve health conditions for workers, and develop environmentally sound practices for recovering valuable resources.

## Progress to goal (continued)

Our FY14 work in Kenya, helping the country set up an e-waste recycling hub and collection network, showed us how we can help developing nations move from an informal recycling culture to a safe, formal industry takeback program supported by legislation. This model holds much promise for other developing nations, and in FY15 we continued working with Uganda on developing takeback legislation. We also presented an informal sector recycling model to India's Ministry of Environment and Forest. We will next promote the model for adoption by the Infocomm and Consumer Electronic Technology Group, a group of industry leaders working with governments to address environmental legislation. The participation of other corporations will be essential to drive cost efficiency and scalability.

To maximize the lifetime use of Dell products, in FY15 we worked with our nonprofit partners and nongovernmental organizations (NGOs) to expand donation programs in Europe that offer Dell Asset Resale and Recycling Services customers the option to donate their used electronics to developing countries. For example, in the Netherlands, our customer Rabobank donates the Dell systems it no longer needs to small businesses, schools and hospitals in Burundi, Kenya, Rwanda, Tanzania and Uganda. NGO Close the Gap selects the donation recipients and works with local partners to install and maintain the systems and train users. The systems are then recycled by Dell's local recycling partner at end of life.

### Continuing our industry leadership and legislation advocacy

In FY15, Dell continued to monitor takeback regulations worldwide. We worked with governments and through industry groups to support the development of regulations that will enable recyclers to create effective e-waste collection networks and treatment infrastructures. We also continued to advocate for the development of a global standard.

We deepened our role as a global e-waste advocate and industry leader by regularly participating in related panels and industry discussions around the world. Three notable examples include:

- Dell was actively involved in the development of the proposed Basel Convention Technical Guidelines on e-Waste, which are designed to help countries effectively implement the convention, resulting in effective prevention of the illegal shipments of electronic waste to non-OECD countries. Through dialogue and workshops, such as the one we held in Malaysia, we helped many countries to understand the guidelines, which will be negotiated at the Twelfth Meeting of the Conference of the Parties to the Basel Convention in May 2015. Additionally, we also attended the OECD's Global Forum on Extended Producer Responsibility.

- We were one of a select few original equipment manufacturers (OEMs) invited to participate in the U.S. Environmental Protection Agency's (EPA) Sustainable Materials Management Electronics Reuse & Recycling Forum. This event brought together the electronics community to discuss shared priorities that will advance end-of-life electronics recycling in the U.S.

- Dell participated in the Asian Network Meeting, an annual summit of Asian governments to review each country's efforts in e-waste legislation, enforcement and trans-boundary movements. We specifically provided an overview of the movement of repair parts.

### Receiving industry recognition

We received several prominent awards and recognitions for our recycling programs and leadership in FY15.

- For the third consecutive year, Gartner Inc. named Dell a Leader in 2014 for IT asset disposition* based on its completeness of vision and ability to execute.

- Dell was honored with the 2015 Accenture Award for Circular Economy Pioneer at the Circular Economy Awards in Davos, Switzerland. The award recognized our innovation of a closed-loop recycling model along with our lifecycle approach to design, extensive global takeback network, and overall leadership of technology vendors toward a circular economy.

** Magic Quadrant for IT Asset Disposition, Worldwide, Rob Schafer, 18 December 2014*

*Gartner does not endorse any vendor, product or service depicted in its research publications, and does not advise technology users to select only those vendors with the highest ratings or other designation. Gartner research publications consist of the opinions of Gartner's research organization and should not be construed as statements of fact. Gartner disclaims all warranties, expressed or implied, with respect to this research, including any warranties of merchantability or fitness for a particular purpose.*

## Progress to goal (continued)

- The U.S. EPA designated Dell as a Gold-Tier organization in its 2014 Sustainable Materials Management Challenge. Gold is the highest level, reserved for collection programs that exceed third-party standards and send at least 96 percent (Dell is at 100 percent) of their collected used electronics from all streams to third-party certified recycling vendors.

- The Consumer Electronics Association (CEA) named Dell an Initiative Leader for exceeding our recycling performance goals in 2014. CEA recognized this accomplishment publicly in the 4th annual report of its eCycling Leadership program, a long-term U.S. voluntary electronics recycling initiative.

- The Institute of Scrap Recycling Industries gave Dell its 2014 Design for Recycling® Award, recognizing the Latitude™ 10, Latitude™ E7240 and XPS™ 10 tablets as products that emphasize recycling during every phase of the lifecycle.

## Next steps

- In FY16, we will continue to explore opportunities to expand our closed-loop plastics collection into additional geographic areas, for ultimate use in the manufacture of new Dell products.

- We will follow and advocate for effective takeback legislation around the globe and will continue to proactively expand our programs where enabled to do so.

- We will continue working to promote integration of the informal sector into the recycling model in India.

- We will continue to leverage our community programs while looking for new ways to maximize the lifecycle of our products.

# Dell's FY15 global takeback collection by region

Global takeback volume:
**172.6M lbs. (78.3M kg)**

Americas takeback volume:
**104.8M lbs. (47.6M kg)**

Europe, Middle East and Africa (EMEA) takeback volume:
**53.0M lbs. (24.0M kg)**

Asia Pacific-Japan (APJ) takeback volume:
**14.7M lbs. (6.7M kg)**

## Our global takeback options

### Free Consumer Recycling (78 countries)

Dell has partnered with shipping companies across the globe to provide free mail-back recycling of Dell-branded IT equipment. In many countries, we will pick up the used equipment from a customer's home.

### Asset Resale and Recycling (48 countries)

For our business customers, we provide a full spectrum of logistic and disposal capabilities to recover and dispose of owned and/or leased IT equipment in a secure, environmentally safe way. This service also provides customers the option to donate their used technology to be refurbished and reused to improve education and livelihood skills in disadvantaged communities around the world.

### Printer Supplies Recycling (51 countries)

We make it easy for consumers and businesses to recycle toner and ink cartridges by offering them free options for single, bulk box or pallet returns.

### Dell Reconnect (United States)

This Dell and Goodwill® partnership enables consumers to drop off any brand of IT equipment in any condition at more than 2,000 participating Goodwill locations for free recycling.

### Dell Carry-In Service Centers (China & India)

Customers can drop off their used IT equipment at more than 1,000 participating locations of these Dell-designated repair centers for free recycling.

### PC Exchange Program (India)

This program, which we launched in FY15 at 49 Dell stores in 12 Indian cities, enables customers to bring in any brand of computer in any condition to trade it in and receive credit for a new system.

*Secondary school students in Uganda complete a class project using re-used, donated equipment from Dell customer Rabobank.*

# Bridging the digital divide by giving used computers a second life

Dell Asset Resale and Recycling Services (AR&R) takes back used electronics from thousands of business customers worldwide. In the Netherlands, we're pushing the process one step further, giving discarded corporate technologies a new life in African schools, hospitals and small businesses. It's all part of an initiative with our customer Rabobank and nonprofit organization Close the Gap.

When Rabobank upgrades its Dell systems, it determines which of its older PCs and other electronics are ready for donation. Dell A&R takes back these items and prepares them for donation, safely and securely wiping the systems' data so a new lifecycle can begin. Once they're ready, systems are then shipped to Burundi, Kenya, Rwanda, Tanzania and Uganda, where Close the Gap selects local donation recipients. They work with local partners to install, maintain and train users on these "renewed" systems. When each system reaches its end of life, Dell's local recycling partner, WorldLoop, collects this extinguished asset and ensures the equipment is recycled responsibly. Additionally, for every PC that Rabobank donates to be installed in Africa, Dell pays for another to be recycled.

*"We call it the double lifecycle,"* said Marianne de Roos, a customer executive for Dell Services. *"We combined Dell's Managed Services with the AR&R and Donation Services of partners Arrow and Close the Gap to package this as one solution. It's a turnkey way for Rabobank to minimize its environmental impact."*

Through this solution, Rabobank has donated 13,142 used desktops, laptops and monitors since our partnership began in 2012, and this year, the company extended its contract with Dell for another three years. These donated electronics can equip more than 400 new computer labs with capacity for over 100,000 students.

*"This is a great example of Dell's corporate social responsibility aligning to business outcomes. We're working with our customers to enable them to serve communities across the globe, effectively narrowing the digital divide,"* said Deborah Sanders, director of Dell Global Takeback.

Aspiration

# Promote technology's role in addressing environmental challenges

Goals

Identify and quantify the environmental benefits of Dell-developed solutions

## Identify and quantify the environmental benefits of Dell-developed solutions

**Status:** FY15 was a year of measured progress, with work on measurement models steadily moving forward and three pilot projects initiated. While our momentum is tempered by the challenges of data collection, the process has yielded unexpected findings that are expanding our definitions of what constitutes an "environmental benefit."

### Background, challenges and opportunities

Measuring the environmental outcomes of entire technology solutions–not just individual products–is new territory for Dell and our industry. Dell is pioneering this type of analysis in response to the increasing interest that customers, governments and other entities have in technology's ability to reduce an organization's environmental impact. For our measurement to be a meaningful tool, we must work collaboratively with customers and industry stakeholders, as IT solutions' outcomes are seldom the domain of one company. So we've engaged with groups like BSR's Center for Technology and Sustainability, which provides a forum where we can work on these issues with companies that share our interest in understanding the opportunities for technology to address social and environmental issues. This work will likely establish best practices for these types of studies, enabling us to harmonize on measurement methods.

We began work on measurement pilot programs in FY15 and also began inventorying all Dell solutions to understand how they are implemented across our customer base. We are finding the inventorying process to be more challenging than we originally envisioned because our customers vary so much in organizational size and geographic location, and the solutions they use evolve so quickly. For example, it is difficult to compare a large hospital that is using our latest healthcare technology solutions to a small clinic on the other side of the world that is using an older solution with a different product mix.

## Background, challenges and opportunities (continued)

A second challenge is that, in every pilot, obtaining information on the environmental footprint of the solution has proven difficult. Dell technology solutions are intricate and custom. Their boundaries aren't always clear, and they certainly aren't uniform. In performing their highly complex work, our customers may repurpose our technology in new ways or combine it with other technologies. For example, if a customer's servers provide email to both on-site and off-site/remote employees, how do we correctly allocate the portions of that solution? This makes it difficult to create simple, repeatable models.

Lastly, our preliminary pilot results have shown us that Dell solutions' positive environmental effects go well beyond reducing carbon emissions and include benefits like eliminating the need for new buildings, roads and other infrastructure—all of which have complex relationships that can further reduce water, energy and carbon impacts. Refining our models to measure additional outcomes will be our biggest challenge of all.

## Progress to goal

In FY15, we continued the work of inventorying our solutions, a process we started in FY14. Since this is a time-consuming process, we proceeded with other work phases in parallel. We identified new measurement approaches and worked with industry partners through BSR's Center for Technology and Sustainability (CTS) to begin harmonizing them with other industry approaches.

We also began three pilot projects to better understand how to measure our solutions, test our approaches and formalize our most successful methods into models.

**Establishing partnerships and pilot programs**

In FY15, Dell and the CTS implemented a pilot measurement program with Arizona State University (ASU), which has one of the largest university campuses and largest student populations in the U.S. The university is also a Dell customer. Part of ASU's strategic plan is to significantly increase the number of students they serve, with a focus on growing online and virtual education. To help ASU measure the environmental impact of moving toward more online education programs, we created a scalable scorecard that can be used to conduct cost-benefit analyses comparing the cost of a virtual learning IT infrastructure with the potential energy savings.

Our preliminary results show significant energy savings. In the process of measurement we also uncovered other social and environmental benefits. By increasing their online education offerings, rather than increasing their on-campus course offerings, ASU would have fewer buildings, parking structures and roads to build; fewer facilities to power and maintain; and fewer students commuting to campus. Beyond the smaller carbon footprint associated with using technology for education, pursuing growth via online instruction enables ASU to educate more students with fewer resources, which has far-reaching, enormously positive consequences in the community.

We are also able to draw on the work CTS did with Kaiser Permanente to measure their Electronic Medical Records system. Kaiser Permanente, the largest nonprofit health plan in the U.S., already measured the environmental impact of its solution in 2011 and this pilot will serve as both a follow-up comparison and a more in-depth measurement of the organization's footprint.

## Progress to goal (continued)

Independent of our work with CTS, we began work on a third pilot study to measure the impact of Dell's Connected Workplace program, which enables our team members to work remotely, at variable hours, or in other flexible arrangements. One of our Legacy of Good goals is for half of all eligible Dell team members to enroll in Connected Workplace by 2020. Our study will look at the program's direct and indirect effects on not just Dell's power and resource use (which we already measure), but also on our team members' own environmental impacts including changing traffic patterns and home energy use. To understand how working from home affects employees' energy use, we have engaged with Pecan Street Inc., which manages the largest residential energy research network in the U.S. By studying how products and services that support remote work help Dell and our team members conserve resources, we can also help our customers quantify their Dell-developed flexible work solutions.

Additionally, we continued evaluating other potential solutions for pilot measurement. Rather than setting study parameters and then looking for participants, we've found more success in looking for Dell customers who are already demonstrating successful outcomes and then working together to measure the results.

**Developing methodologies**

Our work with CTS and the pilot programs has helped us refine our measurement models. In FY15, we also joined the Forum for the Future's Net Positive Group. While many of the group's objectives are tied to our 10x20 goal, the process of identifying, analyzing and aggregating technology's Net Positive effects is at the very core of this solutions measurement goal. Working with this group has provided new perspective on measurement approaches and together we've begun determining how to harmonize methodologies across the industry.

## Next steps

- In FY16, we will complete our measurement pilots with ASU, Kaiser Permanente and Dell Connected Workplace, while continuing to identify additional pilots to measure other solution types.
- As we finish pilots, we will publish white papers outlining their findings. We will also identify opportunities to duplicate the pilots and test the methodologies with additional end users and organizations (duplicating the ASU study at another university, for example) to identify differences and trends. We will ultimately scale these results to apply to entire solutions.
- We will continue working with our partners to align our nascent methodology with emerging global methodologies.

*Dell's Smart Cities technology will help cities like Dublin run more efficiently and sustainably.*

# In Ireland, Dell is discovering what makes cities "Smart"

Cities are now competing not just with neighboring urban areas but also with other cities across the globe for business, talent and other resources. Sustainability is one of the key factors driving urban competitiveness—people want to live and work in places with low pollution, efficient transportation and clean water.

"Smart Cities," wherein all of a city's systems talk to and work efficiently with one another, hold the promise of a better, more sustainable future. It will take technology to make them work. Dell is determining how to best structure a Smart City, and our work starts in Ireland. The Science Foundation Ireland is funding a multiyear, US$10 million grant for Dell and Lero (a leading multi-university research group) to break new ground in smart cities research and self-adaptive software. The team will identify the reference architectures and business models that can help increase the urban competitiveness and sustainability of cities in Ireland.

*"Building out a smart tech framework for cities—a template for how all of its complex systems and their stakeholders will interact and share data seamlessly and efficiently—is the place where Dell's end-to-end solutions can really make a difference."*

*- Glenn Wintrich*
*Services Innovation Leader*
*Dell Inc.*

# Communities



## As a global technology provider and corporate citizen, we see firsthand how a lack of access to quality education and technology can prevent people from reaching their full potential.

To help our communities overcome these challenges and thrive, we believe we need to do much more than just write checks. To drive real change, we go beyond funding to apply technology, expertise and volunteerism toward solving pressing social issues.

Our aspirations and goals for 2020 focus on two interrelated aspects of our giving approach. One is to inspire more of our team members to use their passions and unique professional skills to serve their communities. The other is to connect the youth of today with a more promising tomorrow through the power of technology. Together these aspirations deliver on our commitment to put our technology and expertise to work where they can do the most good for people and the planet.

Aspirations

Engage team members around the globe to use their passions in support of their communities

Use technology to improve the lives of young people

Aspiration

# Engage team members around the globe to use their passions in support of their communities

Goal

Engage 75% of team members in community service by 2020 and provide 5 million cumulative hours of service to the communities in which we live and work


## Engage 75% of team members in community service by 2020 and provide 5 million cumulative hours of service to the communities in which we live and work

**Status:** In FY15, 66 percent of our team members registered at least one volunteer activity through our online tracking system, compared to 57 percent in FY14.

Team members have provided 1,452,000 cumulative service hours since we began tracking in FY14, which keeps us on pace toward our 2020 goal. Annual service hours did decrease slightly, from 739,000 hours in FY14 to 713,000 hours in FY15.

### Background, challenges and opportunities

Dell's privatization in FY15 brought about some workforce restructuring and reductions. Managing change and mastering new roles left many team members with less time for volunteering. However, community service is deeply ingrained in our culture and team members remained passionate about giving back. So we diversified our volunteer opportunities to accommodate their schedules and created more flexible activities like our Ignite Youth Learning Month, which offers a variety of ways to participate.

We also continued to focus on connecting team members with skills-based/pro-bono volunteer opportunities, which are easier for team members to integrate into their workday. For example, a Dell graphic designer might spend the last hour of his day creating an advertisement for a local charity's fundraiser. Such volunteerism provides charities with capabilities they often lack in-house.

While we still organize formal volunteer events, providing virtual and non-traditional opportunities helps us engage a dispersed global workforce in community service. More than 25 percent of Dell team members are enrolled in flexible work programs, and that number is expected to increase to 50 percent by 2020. Aligning our community service efforts to our new flexible work model helps more people participate, even if they're working remotely. This in turn helps them feel more connected to Dell, their team members and the community.

## Progress to goal

In FY15, Dell team members' volunteering positively impacted 17,000 charities worldwide. Team members may volunteer for any charity of their choice, during or after work hours, and record their community service hours through our Powering the Possible online community. This website enables team members to find volunteer opportunities and share inspiring stories of service. At the end of FY15, 71 percent of team members belonged to the Powering the Possible community, up from 65 percent in FY14. Our global service campaigns drove this increase in membership, with our Children's Cancer Walk adding 3,500 new members alone.

We continued to reward team members for their community service, giving anyone who logs 10 or more hours of volunteer time a US$150 voucher to donate to the charity of their choice via Powering the Possible. In FY15, we distributed 17,500 rewards totaling more than $2.6 million.

Dell also has a robust global matching gifts program. We will match badged team members' charitable donations up to $10,000 per team member per calendar year. In FY15, Dell matched $7 million in team member donations.

### Driving engagement with strategic partners

In addition to encouraging team members to support their chosen personal causes, we created specific opportunities for them to support Dell's strategic nonprofit partners. Children's cancer care and youth learning are our two key focus areas for our volunteering and charitable giving efforts.

In FY15, 45 percent of Dell team members volunteered with our strategic partners, up from 38 percent in FY14. Mirroring our slight decrease in volunteer hours, team members' time serving our strategic partners dipped slightly from 115,000 hours in FY14 to 109,000 hours in FY15.

We hosted our second annual Children's Cancer Care Walk to engage team members in our children's cancer care programs, which serve pediatric cancer patients and their families in nine countries. More than 17,000 Dell team members from 48 countries logged 40,600 hours of activities—up from 46 countries and 39,000 hours for the FY14 event. To rally team members, we held several participation challenges and donated $19,000 to our children's cancer care partners on behalf of the winners. For example, the Ukraine averaged the most walking hours per team member of any country and donated its $5,000 reward to Neuroblastoma Children's Cancer Alliance UK.

May 2014 was Ignite Youth Learning Month at Dell, our first month-long campaign to drive awareness of and participation in our Youth Learning initiatives. Team members in 24 countries volunteered 7,500 hours for Dell's nonprofit partners. Their service activities included mentoring students, training teachers, and inviting students to Dell to learn about IT careers.

We also piloted a virtual mentoring program with Sci-Bono Discovery Centre, one of Dell's strategic charity partners in South Africa. Sci-Bono's programs improve children's access to math, science and technology education. Dell volunteers from around the world mentored Sci-Bono's teachers to help them enhance their technology skills. Virtual mentoring complements local Dell team members' ongoing, in-person service to Sci-Bono. For example, in FY15, Dell representatives taught 1,500 female high school students about IT careers for Girl Learning Day. In recognition of our work with Sci-Bono, Dell South Africa won the Science and Technology Award at 2013's Top Women Awards and was nominated again in 2014.

### Promoting skills-based volunteering

Many nonprofits have limited staff and are in desperate need of volunteers with the professional skills our team members possess—skills like translation, writing, IT support and project management. Through our Powering the Possible online community, we connected team members with organizations in need of their unique skills. In FY15, 54 percent of Dell team members engaged in skills-based/pro-bono volunteering, providing 390,000 hours of service—up from 13 percent of team members and 215,000 hours in FY14.

We also expanded our Dell Volunteers Project Management Program. This initiative provides local charities with project management training led by Dell team members who are certified project managers. Using industry-standard project management methodologies helps these organizations drive greater effectiveness and outcomes. The Dell Limerick team created the program in 2012, and in FY15 we launched it at Dell's Round Rock, Texas, headquarters with an eye on an eventual global rollout. We have trained representatives of 74 charities to date. This program is also an example of Dell Ireland's continued creativity and strategic engagement of employees in volunteerism.

## Progress to goal (continued)

### Expanding opportunities for volunteerism

To foster an ongoing spirit of giving and unity among team members, whether they work in Dell offices or remotely, we organized a 31 Days of Giving campaign in December 2014. This campaign asked all team members worldwide to give items like food, coats and toys to their local charities. Team members in 27 countries spent more than 6,800 hours donating items.

### Strengthening local leadership

Dell has a formal leadership structure to support community service at all levels of our organization. Our Executive Leadership Team sets the tone for a culture of volunteerism, our Global Giving Council and four Regional Giving Councils develop annual plans, and our regional ambassadors execute the plans at their local level. This framework enables us to quickly deploy worldwide initiatives while also meeting the specific needs of each community we serve. It also allows leaders to easily share best practices.

To strengthen Dell's local leadership around volunteerism, we continued to build our internal team of regional ambassadors and community service leaders. In FY15, we set up formal ambassador programs in the U.S. and Asia Pacific-Japan (APJ). APJ achieved the highest participation rate of all Dell regions, with 68 percent of team members volunteering. Latin America followed closely behind with 67 percent participation.

We also grew our network of community service leaders from 1,200 to more than 4,000 worldwide. This program is open to any team member who wants to spearhead volunteer activities in their area, and we provide training in event planning, social media and other relevant skills.

### Providing disaster relief

In FY15, Dell responded to three disasters—earthquakes in China's Yunnan province, floods in the Malaysian state of Kelantan, and floods in Jammu and Kashmir, India—that significantly affected areas where our team members, customers and suppliers live and work. We donated $318,000 in a combination of Dell's cash and product donations, team members' donations and Dell's matching contributions.

Additionally, we launched the initial pilot of our digital volunteering program with the American Red Cross, called DigiVol, which provides the organization with a team of volunteers who can respond to the public via social media when disaster strikes.

## Next steps

- In FY16, we will launch a virtual mentoring program for our strategic nonprofit partners covering a wide range of business and technology skills. Dell employees will virtually connect with our partners and the students in their programs, helping them solve problems and learn new skills. This will enable team members to help people all over the world, from their desks, whether they're working remotely or on-site at Dell.

- To help team members connect with nonprofits that could benefit from their unique skills, we will invest in creating a comprehensive global, skills-based/pro-bono volunteering program, complete with toolkits to guide volunteers' activities.

## In FY15, 66% of Dell team members volunteered 713,000 hours.


## So far we have achieved 29% of our goal of 5 million volunteer hours by 2020.


*Cumulative hours since FY14*

Aspiration

# Use technology to improve the lives of young people

Goal

Apply our expertise and technology in underserved communities to help 3 million youth directly and support 10 million people indirectly to grow and thrive

## Apply our expertise and technology in underserved communities to help 3 million youth directly and support 10 million people indirectly to grow and thrive

**Status:** In FY15, our strategic giving initiatives directly helped 657,000 youth who enrolled and participated in Dell-funded programs. Additionally, 3.5 million people indirectly benefited from our initiatives, meaning they were not enrolled in our programs but used the technology we donated to those programs.

Since we began working toward this goal in FY14, we have helped 1,461,000 youth directly and 6.8 million people indirectly. We are more than 40 percent of the way to our direct impact goal and 68 percent of the way to our indirect impact goal.

### Background, challenges and opportunities

At Dell, all of our giving initiatives are designed to directly benefit children who are considered underserved for reasons such as poverty, insufficient infrastructure, geographic isolation, disability or illness. We focus on education and healthcare because these are two major areas where children's needs and our capabilities intersect.

Millions of youth around the world lack access to technology, and our youth learning programs help level the playing field, enabling young people of all backgrounds to acquire the information and skills needed to compete in today's global workforce. Technology and connectivity also introduce youth to new people and ideas while encouraging them to add their own perspective. Similarly, our commitment to children's cancer care is aimed at using our most advanced technology to shorten the time to diagnosis and develop treatment plans.

More than 200,000 children develop cancer worldwide each year. Our technology helps advance the science of analyzing genetic data and will eventually lower the cost of treatments.

We collaborate with local charity partners around the globe to develop and deliver our programs, and this work continually inspires us to find new solutions to unique problems. For example, in FY15, we installed two new solar-powered classrooms in South Africa, each composed of Dell Wyse™ workstations inside a shipping container. Learning from our FY14 installation of two other classrooms, we improved our methods for ventilating and cooling equipment in a hot climate.

## Background, challenges and opportunities (continued)

And our partnership with children's cancer care researchers has helped us learn more about doctors' methodologies for developing treatment plans, so in FY15 we were able to update our cloud-based provider portal to automate much of their work.

As we work with our partners, we continue to explore new ways of measuring the true impact of our diverse scope of programs. This is an ongoing challenge because our initiatives vary so much in format, frequency and depth of interaction.

While we track the number of people we reach, some individuals may attend an after-school program once a week while others may use our technology every day of the school year. We will continue to focus on finding a methodology that accounts for all variables.

## Progress to goal

In FY15, youth learning and children's cancer care continued to be our focus areas as we put our technology and expertise to work where it can do the most good. Our ongoing strategic partnerships with nonprofits and nongovernmental organizations in these focus areas drove our expanded reach this year, as they leveraged proven program models to work with additional children, schools, clubs and communities. This report highlights just a few of the hundreds of partner stories we could share for FY15.

### Youth Learning

Dell's Youth Learning initiatives help underserved young people access technology and education. From FY14 to FY15, we increased the number of children directly impacted by these programs by more than 100,000. We continued to deepen our relationships with 65 Youth Learning partners in 14 countries: Brazil, Canada, China, France, India, Mexico, Morocco, Nigeria, Panama, Philippines, Singapore, South Africa, the U.K. and the U.S.

Dell provides these partners with grant funding, our latest technology and our team members' expertise. A local Dell ambassador (team member) manages our engagement, including deployment of technology and Dell team member volunteers. Sometimes we also address basic needs, such as food or security, which might hamper a child's ability to learn. This shared responsibility between Dell and the community fosters meaningful learning opportunities and change.

*Expanding Dell Learning Labs in South Africa*

In FY15, we installed two new Dell solar-powered classrooms in South Africa and worked toward building six more in FY16. These Dell Learning Labs will join the two we built in FY14—one in South Africa and one in Nigeria—bringing our total reach to 10 labs. This pioneering program enables communities without reliable electricity to access technology-based learning.

The new Dell Learning Labs continue our successful formula of building a classroom using a shipping container outfitted with solar panels that power 100 percent of the energy-efficient Dell technology inside. Dell pays for Internet access and works with local charity partners to create an information and communications technology curriculum specifically for students using the labs.

We made a few changes to the new labs based on our learnings from the FY14 installations. For example, we improved all of the classrooms' ventilation and upgraded the technology of some to support more advanced curricula. Five of our new Dell Learning Labs, all in Johannesburg, will now include an air-cooled server along with Dell Wyse™ thin clients and vWorkspace™ to support graphics and coding work. This technology uses about 5 watts of energy, compared to the average 150-watt consumption of a typical PC.

We also brought on SunPower as our official solar partner for Dell Learning Labs in South Africa, and the company is providing top-of-the-line solar panels to our eight new labs.

## Progress to goal (continued)

*Bridging the digital divide in India through Learning Links*

We continued to deepen our partnership with India's Learning Links Foundation, bringing its SCIMA Digital Literacy Enhancement and Explore@myworld programs to nine schools in five cities. The programs, which help youth develop 21st-century skills through enriching, technology-based learning, have reached 54,000 students over the past five years.

A Dell Wyse cloud computing solution enables SCIMA's students to communicate, collaborate and exchange knowledge at any time, from anywhere. The server is kept at a central location at Delhi and Dell provides the schools with laptops, netbooks and tablets to access the platform.

In FY15, students used Dell technology to develop and maintain a new website for their schools. Their teachers created hundreds of customized videos to improve instruction. And more than 3,400 Dell team members volunteered at the schools, creating a more interactive learning environment through activities such as classroom makeovers. Additionally, team members used their volunteer rewards (charitable contributions they receive from Dell for volunteering) to fund the addition of solar panels at two schools.

*Advancing inquiry-based learning at the Science Leadership Academy*

We provided Dell Chromebook™ 11s to more than 500 high school students and teachers at the Science Leadership Academy (SLA), making it one of the first U.S. schools to deploy this latest edition to Dell's portfolio of next-generation learning solutions. Following the SLA's mission of inquiry-driven, project-based work, the students used their Chromebooks to create 3D models of batteries in engineering classes, develop documentaries in English and history, and to manage microscopy projects in biochemistry. SLA's IT administrators are able to customize the devices to meet their curriculum goals.

The SLA, which is a partnership between the School District of Philadelphia and The Franklin Institute, follows a rigorous, college-preparatory curriculum with a focus on science, technology, mathematics and entrepreneurship. The SLA also partnered with The Franklin Institute and Dell to launch the Center of Excellence in Learning, a resource for schools seeking best practices in innovative, hands-on technology education. In FY15, the Center for Excellence welcomed more than 200 teachers and administrators from other schools to SLA to learn from the innovative approaches employed at the school.

*Working with MINDS to educate students with special needs*

In FY15, we worked with Movement for the Intellectually Disabled of Singapore (MINDS) to provide technology-based education opportunities to children with intellectual disabilities. MINDS runs schools and training centers that help people with disabilities develop new skills. We designed and deployed a Dell solution to create a more dynamic training environment for students and a secure, easily manageable IT environment for administrators.

MINDS staff use Dell tablets to provide more engaging instruction as they help clients develop self-help skills such as personal hygiene, grooming and good eating habits. Dell XPS™ 13 Ultrabooks and mobile projectors create a portable solution for presentations. And Dell Wyse™ thin clients, OptiPlex™ desktops, PowerEdge™ servers, PowerVault storage and SonicWALL™ firewalls work together to power MINDS' operations and its more advanced trainings for students.

**Children's Cancer Care**

In FY15, we continued our multiyear, multimillion-dollar commitment to fight children's cancer by donating technology and expertise to help pediatric cancer researchers accelerate treatments.

We also worked with 11 nongovernmental organization partners in nine countries—Brazil, China, France, India, Malaysia, Mexico, Panama, the U.K. and the U.S.—to support the needs of affected families and children. We provided remote learning for children facing treatment, connected families who are living away from home while their children receive treatment, funded technology solutions for pediatric care facilities, and supported volunteer work.

Our programs helped more than 27,000 youth directly and supported 1,800 people indirectly in FY15. While 68 pediatric cancer patients currently participate in the clinical trials we support, we believe the resulting breakthroughs in personalized medicine will potentially save countless lives in the future.

## Progress to goal (continued)

*Powering genomic research and personalized medicine*

As Dell entered the fourth year of our partnership with the Translational Genomics Research Institute (TGen), we focused on advancing our technology solutions to help childhood cancer researchers analyze patients' molecular data more quickly and collaborate with colleagues more effectively.

In FY15, Dell supported TGen and the Neuroblastoma and Medulloblastoma Translational Research Consortium (NMTRC) in their launch of a third FDA-approved clinical trial, which is using predictive modeling of tumor samples via genomic sequencing to make real-time treatment decisions for children with relapsed/refractory cancers. Additionally, the organizations worked collaboratively toward the FY16 launch of a first-of-its-kind pilot study that will apply personalized medicine treatments to children with high-risk neuroblastoma upfront, in conjunction with standard chemotherapy. Usually these treatments are applied later, only after patients' tumors have proven resistant to chemotherapy and other more traditional therapies.

Turning a patient's vast DNA and RNA sequencing data into the insights doctors need to recommend personalized treatment requires incredible processing power, and this year, TGen's Dell-designed high-performance computing solution's capacity expanded by 28 percent. The system logged 1 million CPU hours in July 2014—the highest monthly total on record. Over the lifespan of the partnership, Dell's solution has reduced the total time needed for whole genome sequencing from approximately 8 weeks to 2 days.

Patients participating in the clinical trials are treated at one of the NMTRC's 20 member hospitals in the U.S. To enable secure and interactive collaboration among NMTRC doctors and researchers nationwide, Dell and TGen continued to expand the KIDS Cloud knowledge platform. This distributed, cloud-based solution includes an interactive provider portal that enables medical professionals to collaboratively review information and create treatment plans. In FY15, we added a patient portal that allows patients to view select information as well. The KIDS Cloud and high-performance computing hardware and software solution combine to create the comprehensive Dell Genomic Data Analysis Platform.

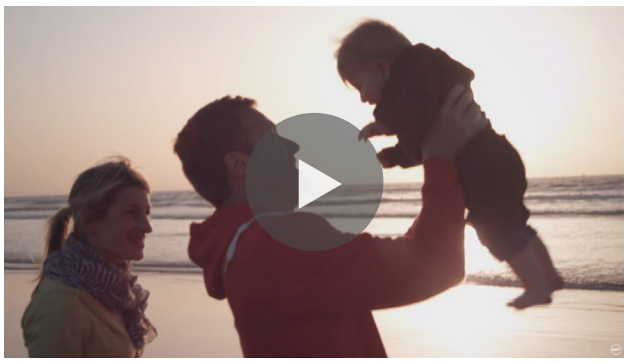
To expand the impact of these innovations, TGen and Dell began collaborating with the National Cancer Institute (NCI) at the National Institutes of Health (NIH) to support pioneering pediatric cancer research and further accelerate progress. Now that the Dell Genomic Data Analysis Platform is installed and operational at NCI, TGen is providing the organization with high-performance computing and bioinformatics support, as well as specialized software and tools developed with Dell over the last three years. NCI is providing TGen with access to more than 800 sequenced child-cancer genomes, which will be used in TGen's ongoing pediatric cancer research.

*Donating technology and time to regional programs*

In addition to our work with TGen, Dell continued to support regional children's cancer care programs worldwide. We provided grant money, technology and volunteer time to help nonprofits better serve patients and their families.

For example, in the U.S., we continued to support Ronald McDonald House Charities (RMHC), which supports and cares for thousands of families who have hospitalized children battling pediatric cancer and other illnesses or injuries. In FY15, we provided grant money and technology to 15 RMHC locations nationwide to enhance their services and enable families to stay connected. Dell team members supported their local RMHC locations by serving on their boards, cooking meals for families, planning events and more. In Nebraska, Dell employees even collected and recycled their soda can tabs to pay the RMHC's utility bills.

## How is Dell helping TGen research cures for cancer?



## Next steps

- In FY16, we will continue to work with our Youth Learning partners to provide technology and education to underserved youth worldwide, both in and out of school. We will focus on programs that find creative new ways to reach young people and spark their imaginations, whether through nontraditional classrooms like Dell Learning Labs or through innovative methods like inquiry-based learning.

- Following the overwhelming success of our collaboration with TGen over the last three years, we have committed to an additional multimillion-dollar contribution to help TGen and NMTRC continue their valuable work. Specifically, in FY16 this will help them:

  » Expand the Dell Genomic Data Analysis Platform for TGen clinical and research activities, which will efficiently store and move genomic data while optimizing medical professionals' treatment of clinical trial patients.

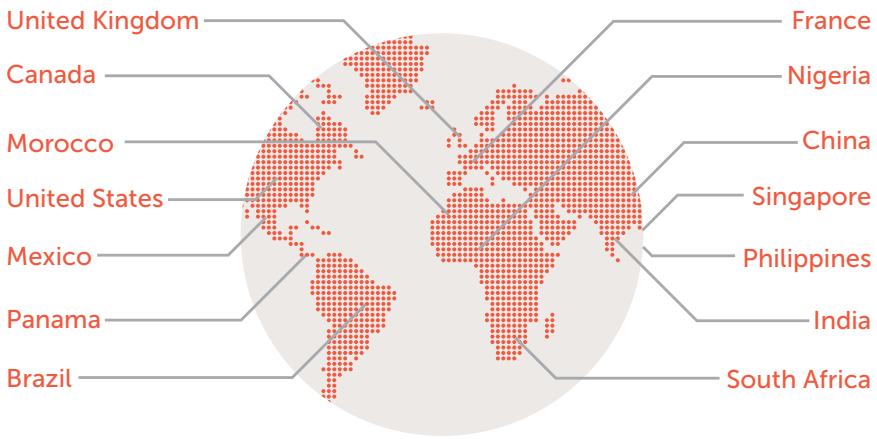
  » Launch a first-of-its-kind pilot study utilizing tumor genomics in treatment of high-risk neuroblastoma, employing upfront molecular sequencing to incorporate a targeted agent into upfront standard chemotherapy.

- To expand the impact of our innovations in children's cancer care, we will deliver a high-performance computing solution to power research at the Institut Gustave-Roussy in France. In partnership with the National Center for Scientific Research and several universities, Gustave-Roussy will lead three targeted clinical trials over four years targeting several types of brain cancers. The Dell Genomic Data Analysis Platform will deliver high-throughput RNA and DNA processing capacity to increase treatment accuracy.

  Additional international expansions will include a partnership with Sri Shankara Cancer Hospital and Research Centre to increase its neuroblastoma research capacity.

# Dell's Youth Learning initiatives help underserved young people access technology and education.

## **65** Youth Learning partners in **14 countries**:




From FY14 to FY15, Dell increased the number of children directly impacted by these programs by more than **100,000**.

*Dr. Giselle Sholler with her patient Laura VanDerBos at the Helen DeVos Children's Hospital in Grand Rapids, Mich.*

# Powering hope in childhood cancer trials

The Helen DeVos Children's Hospital in Grand Rapids, Mich., is headquarters for the Neuroblastoma and Medulloblastoma Translational Research Consortium (NMTRC), which manages personalized medicine trials for childhood cancer in partnership with Translational Genomics Research Institute (TGen). These trials, powered by Dell technology, serve patients from 22 U.S. hospitals—children with rare cancers that have not responded to traditional treatments.

DeVos is a very busy place, teeming with medical activity and family emotions. Directing the trial action is Dr. Giselle Sholler, NMTRC chair, who says that Dell technology fuels her team's collaboration and efficiency—and her patients' hope.

*"Our treatments are only as good as our predictions, and predictions are based on data,"* said Dr. Sholler. *"With personalized medicine, there's so much data—the genomic data and unique treatment history for each patient, the possibilities of more than 200 medicines. The cloud-based portal allows me and my teammates from multiple hospitals to view and discuss the same data, to see what's working and what's not. And now we're at a point where the system auto-populates our treatment plans, which increases accuracy and prevents error. These advancements save us so much time, which is a very valuable commodity with our patients."*

Those treatments are indeed helping many patients gain more time with their families. Said Dr. Sholler, *"These are patients whose families had viewed hospice as the only option. And now we have a 3-year-old whose tumor has shrunk by 75 percent, a treatment-responsive college student who hadn't expected to graduate from high school, and others with increased quality of life. While we have much to learn and far to go, being able to deliver hope to patients, families and our team has been the most gratifying experience of my career."*

Learn more at dell.com/childrenscancercare or follow @DellHealth on Twitter.

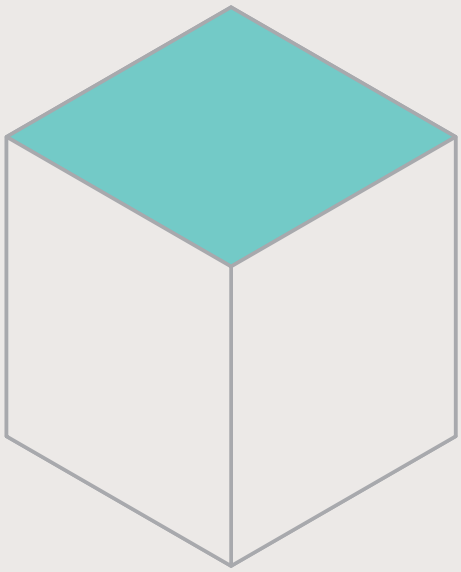
# People

## Dell's People Strategy is designed to help us attract the world's greatest talent and to deliver breakthrough performance for our customers, our business and our team members.

Dell's People Strategy is designed to help us attract the world's greatest talent and to deliver breakthrough performance for our customers, our business and our team members.

Our People Strategy is an enabler of Dell's business and focuses on three key pillars: inspiring leaders, winning together and entrepreneurial spirit. We have established that valuing diversity is a part of every team member's personal effectiveness. The four aspirations and six goals we've outlined over the following pages work together to advance this strategy.

We developed our People Strategy to build diverse, inclusive global teams and keep our team members feeling valued, engaged and inspired to do their best work in service of our customers and communities. We also strive to be considered an employer of choice and a leader in the marketplace through many initiatives, including our support of the Employment Non-Discrimination Act and immigration reform. Our goal is to ensure Dell is a compelling destination for team members in the decade to come.



### Aspirations

Develop leaders who are committed to helping our team members be their best and do their best work in service of our customers

Promote a culture where our team members are encouraged to take risks and feel supported, valued and proud to be a part of Dell

Be a compelling destination for our team members to thrive, achieve their career aspirations and have fun

Give team members a voice that influences leadership and shapes the direction of our company

Aspiration

# Develop leaders who are committed to helping our team members be their best and do their best work in service of our customers

Goal

Increase engagement and drive inspirational leadership on Dell's strategies, priorities and goals through Dell's end-to-end Leadership Development Programs

## Increase engagement and drive inspirational leadership on Dell's strategies, priorities and goals through Dell's end-to-end Leadership Development Programs

**Status:** In FY15, 86 percent of newly promoted people leaders enrolled in our Foundations of Leadership training program (our target for 2020 is 100 percent) and 38 percent of all Dell leaders completed at least one leadership training. Additionally, results from our annual Tell Dell team member survey showed alumni of our Foundations of Leadership program scored five to eight percentage points higher than non-participants in the category of Inspiring Leadership.

### Background, challenges and opportunities

Being an inspiring leader requires a broad range of skills including strategic thinking, listening, problem solving, decision-making, and motivating others to do their best work. Leading within Dell's fast-paced, global work environment requires additional skills such as leading geographically dispersed teams, managing remote workers, and understanding diverse cultural backgrounds.

To cultivate these leadership skills at all levels of our organization, from first-time people managers to executives, Dell has developed end-to-end leadership programs. In FY15, we continued to grow these programs and adapt them to our leaders' changing needs. For example, we added a new Leading Change course devoted to change management.

We also continued to adapt our training models to meet the needs of Dell's increasingly mobile workforce. For each new training we introduced in FY15, we offered a virtual version of the content to reach leaders who work remotely. Making these trainings as engaging as in-person sessions is always our goal, so we conducted focus groups with leaders to gather input that will inform future content.

## Progress to goal

In FY15, 38 percent of all Dell leaders participated in one of our leadership programs. We believe that ongoing leadership development supports leaders as they create an environment where people can perform at their best in support of Dell customers. All of the programs within our end-to-end leadership development curriculum support the "inspiring leaders" focus area of our People Strategy, which is our guide for helping team members do their best work at Dell.

Additionally, we offer trainings related to other important subjects for Dell leaders, such as diversity and inclusion.

**Expanding our leadership and development programs**

Our Leadership Development programs expanded in FY15 to include new offerings at all job levels, including "potential people leaders"—those who currently lead project teams or would like to move into management.

We launched Executive Rapid Start, a 90-day acclimation program that gives new Dell executives the resources they need to be successful in their role. Participants complete the Hogan Leadership Assessment and receive a customized report that identifies effective onboarding strategies based on their results and job requirements. They also receive a toolkit with executive-level information about Dell strategy, leadership expectations, critical success factors, and a guide to planning their first 90 days.

We expanded our director-level programs by introducing the Director Leadership Program, which is designed to enhance directors' leadership acumen and provide them with opportunities to learn from senior Dell leaders. The program may be tailored to address the specific development needs of a role, region or business unit. It also complements the Director Series and Director Innovation Forum we launched in FY14.

We continued to make diversity and inclusion a focus area of leadership development. FY15 was Dell's first year of involvement in Men Advocating Real Change (MARC), an initiative for men committed to achieving gender equality in the workplace. Forty-seven Dell leaders from North America, Latin America and our Europe, Middle East and Africa region completed the 6-month program, which was developed by Catalyst, a leading nonprofit Dell has worked with for many years in its mission to expand opportunities for women in business. MARC participants attended in-depth workshops and used their acquired knowledge to increase their teams' awareness of issues like unconscious bias. We will expand the program to more leaders in FY16.

To further support the development of Dell leaders, we conducted a needs assessment to identify and prioritize the skills our leaders need to develop. We will use the feedback to create new trainings and curriculum.

**Measuring program effectiveness and impact on leadership**

We continued to hone our methods for evaluating the effectiveness of Dell's leadership training, focusing our measurement on our Foundations of Leadership program. In FY15, 86 percent of our newly promoted people leaders enrolled in this program, which provides first-time managers with the skills and tools they need to be an inspiring leader at Dell.

## Progress to goal (continued)

We surveyed Foundations of Leadership participants and their managers, with these key results:

- 96 percent of participants were satisfied with the program as a whole and would recommend the training to their peers. Participants valued the inclusion of job-relevant content and the use of real-life examples/case studies. These results were the same in FY14.
- 89 percent of participants' managers and 85 percent of participants thought the Foundations of Leadership program was a good investment for Dell.
- Managers thought participants' leadership behaviors and performance increased by 32 percent upon completion of the program.

Additionally, we measured the business impact of Foundations of Leadership for the first time and found that managers who completed the program had a 50 percent lower attrition rate than managers who did not enroll in the program. Foundations of Leadership graduates also scored significantly higher than non-participants on the "inspiring leadership" area of our Tell Dell team member survey.

## Next steps

- In FY16, we will launch a Leading Virtual Teams training to equip Dell leaders with the skills needed to engage geographically dispersed teams and team members working remotely. The training will help leaders develop skills in virtual communication and collaboration, and practice these skills in a simulated virtual team setting.
- We will continue to expand our use of videos, books, webinars and other on-demand learning solutions that deliver just-in-time development opportunities to leaders and team members. This will help us address the challenge of training leaders in a constantly changing environment where so much learning happens via daily interactions with peers, teammates and managers.
- As we develop training curriculum, we will put more focus on leadership attributes that are unique to Dell's culture. We will also look for more opportunities for leaders to learn from and network with other Dell leaders.

The Dell EMEA executives graduate from the inaugural MARC Leaders sessions in 2014, focusing on workplace equality.

# MARC Leaders actively involves men in diversity discussions

In FY15, 47 members of the Dell leadership team participated in our first year of Men Advocating Real Change (MARC), an initiative designed to cultivate male leaders' unique potential as diversity change agents.

*"The reality is that men are in the majority. It's very important that we engage men in understanding how we drive a more diverse and inclusive environment, and that they are fully committed to changing the environment,"* said Aongus Hegarty, president of Dell Europe, Middle East and Africa (EMEA) and MARC participant.

While 80 percent of MARC participants were men, many female leaders completed the training as well. All participants learned how being part of a dominant group—for example, being a man among women or a member of a country's ethnic majority—can affect the workplace dynamic.

*"I realized that you can never assume what other people think. And sometimes people are saying things to comply with what they think you want to hear. So you have to really listen and make sure you understand what they want,"* said Stéphane Reboud, general manager and executive director of Dell Consumer Small and Medium Business—France.

That self-awareness is the first step toward change. Said John Lavorato, vice president of Dell Sales Operations, *"It all comes down to conscious, intentional behavior. For example, I learned that women are generally less likely than men to apply for a job for which they meet some, but not all, of the criteria. So now I am more proactive in encouraging female team members to pursue new opportunities, and also in sharing the same dynamic with other leaders/hiring managers."*

The MARC program participants will continue to educate team members about diversity issues. Additional leaders, including Michael Dell and his Executive Leadership Team, will complete the program in FY16.

Watch Dell leaders discuss their MARC experience.

Aspiration

# Promote a culture where our team members are encouraged to take risks and feel supported, valued and proud to be a part of Dell

Goals

- Engage 40% of our global Dell team in employee resource groups by 2020
- Encourage eligible team members to enroll in Dell flexible work programs, increasing global participation to 50%

## Engage 40% of our global Dell team members in employee resource groups by 2020

**Status:** At the end of FY15, 18 percent of Dell team members were engaged in employee resource groups—an increase from 14 percent* in FY14. Overall, membership has reached a total of 17,384 team members, putting us on track for our 2020 target.

**In FY14, we mistakenly reported a membership level of 12 percent because our methods did not correctly account for team members who belong to multiple ERGs and those who are not registered in our Powering the Possible online community. We have since improved our tracking methods to account for both of these factors.*

### Background, challenges and opportunities

Dell's employee resource groups (ERGs) are designed to build upon our culture of inclusion. While each ERG has a focus area related to gender, ethnicity, sexual orientation, lifestyle, background or interests, any team member can join any group. For example, our Wise ERG is focused on women's professional development but has many male members who've joined the diversity discussion. Many straight allies belong to our Pride ERG, which is focused on issues related to the lesbian, gay, bisexual and transgender community. And a large number of True Ability members do not have a disability or special needs themselves but have a family member or friend who does, or are simply supporters of the community.

While we significantly increased ERG membership in FY15, many Dell team members still do not realize that ERGs are for everyone. Communicating their inclusiveness will be key to our continued growth. To that end, we launched a campaign to raise awareness of our ERG mission: Creating a platform of networking, ongoing learning and exchange that positively impacts our team members, business results, our workplace and the communities in which we live and work.

The dispersed nature of our global workforce—with 25 percent of eligible team members enrolled in flexible work programs—is a continued challenge to growing ERG membership. Most Dell ERGs are based around site-specific chapters. In FY15, we launched a Conexus ERG for team members who work remotely and also conducted our first global survey of all ERG members to understand how we can better serve them within our rapidly changing work environment.

Additional research shows the more active Dell team members are in ERGs, the more engaged they are in their careers and in serving our customers. ERG members also have higher levels of innovation and understanding of Dell strategy. We will continue to look for opportunities to make ERGs a valuable resource for our workforce and our business in FY16 and beyond.

## Progress to goal

As of the end of FY15, Dell's 11 ERGs have grown to span across nearly 60 countries, with 178 chapters and 17,384 total members. Overall we grew the number of ERG chapters by 36 percent year-over-year.

**Introducing two new ERGs**

In FY15, we successfully introduced Mosaic, a new ERG that celebrates the world's many cultures. Mosaic started as a pilot in the U.K. and quickly expanded to France and the United Arab Emirates. After gaining an executive sponsor in Dubai and an executive leader for Dell's Europe, Middle East and Africa region, Mosaic became an official Dell ERG.

In North America, we launched Conexus, an ERG for team members working in a flexible capacity such as full-time remote work, occasional teleworking or working at variable hours. Conexus provides members with a forum for connecting with one another, both professionally and socially. It also enables team members who work remotely, but in the same geographic area, to volunteer together. And it gives members the opportunity to suggest technology, policy and program improvements related to flexible work.

Conexus accrued more than 800 members in just five months of FY15, and we began planning its global expansion. With our goal to have 50 percent of eligible Dell team members enrolled in flexible work programs by 2020, the need to support virtual teams will only increase.

**Connecting for stronger teamwork and innovation**

In FY15, Dell ERGs continued to unite their members to better serve our customers, enhance their own professional development, give back to the community, celebrate their cultures and interests, and educate other team members about their unique perspectives. Below are a few examples of their work.

## ERGs at Dell

### GenNext

Provides a network for new hires and young professionals which fosters Dell's growth and success through community involvement, personal empowerment and professional development.

- Grew to 4,800+ members in 28 chapters with 230+ events. Its fourth annual GameChangers Innovation Competition brought together 450+ team members from 17 chapters to identify exciting new solutions to Dell's challenges and opportunities.

### Asians in Motion

Dedicated to global growth of Asian leadership and cultural awareness at Dell, Asians in Motion seeks to build future leadership by recruiting, retaining and developing Asian talent.

- Hosted multiple leadership development workshops and engaged with The University of Texas at Austin's Cockrell School of Engineering by sponsoring senior design projects.

### Black Employee Resource Group

Creates an engaging environment for black team members that accelerates professional growth, drives business excellence and fosters community involvement, while serving as a critical engine for attracting top black talent into Dell's leadership pipeline.

- Engaged incoming team members at Dell with its New Hire Ambassador Program. The ERG also rebranded from "B.R.I.D.G.E." to "Black Employee Resource Group." to clarify its focus.

### Wise

Enables women at Dell to grow and thrive by creating connections and providing leadership and expertise to deliver on the promises of Dell's people and business strategies.

- Held an exclusive Wise networking event at the annual Dell Women's Entrepreneur Network Conference. The ERG grew to become Dell's largest, with more than 6,000 members across 60+ global chapters.

ERGs at Dell (continued)

## Adelante

Enhances the personal and professional development of team members who have interests aligned with the Hispanic community.

- Sponsored its first "Family Picnic" at Dell's Round Rock headquarters to help team members celebrate Hispanic culture through food, piñatas, dancing and fútbol.

## Mosaic

Mosaic is focused on connecting and recruiting employees from different cultures at Dell while enhancing their career and strengthening the Dell brand through engagement with local communities.

- Became an official Dell ERG after conducting a successful, two-year pilot program in the U.K., expanding to nine chapters in our Europe, Middle East and Africa region, and gaining an executive sponsor and an executive leader.

## Pride

Enriches the Dell experience for those whose interests are aligned with the lesbian, gay, bisexual and transgender (LGBT) community.

- Assisted in developing talking points to help Dell representatives communicate Dell's position on employment non-discrimination laws during the Texas legislative session and when visiting any state or federal elected officials.

## True Ability

Educates, drives awareness and serves as a resource for our team members impacted by disabilities or special needs.

- Hosted 70+ events to raise employees' awareness of team members impacted by disability and/or special needs. True Ability grew to more than 1,500 members across 20+ global chapters, with five new chapters launched in FY15.

## Veterans

A community for veteran and military supporters at Dell, striving to be leaders in providing support for all active duty military and their families.

- Held its first Veterans Benefits Day, where a variety of institutions that offer support to veterans came to the Dell Round Rock campus. The ERG also rebranded from "Virtus" to "Veterans" to clarify its focus.

## Planet

Encourages an environmentally responsible culture by increasing team member awareness, partnering with Dell business groups to implement relevant environmental solutions and leading our communities as sustainable stewards.

- Launched a new chapter in China and within three months, 1,000 team members joined to further Dell's culture of environmental responsibility.

## Conexus

Champions a flexible work community by creating a collaborative environment that enables team members to grow and thrive.

- Presented ERG capabilities at U.S. annual meeting of Dell account executives, piloted a HeatMap tool for virtual networking, and closed the year with 1000+ members.

## Progress to goal (continued)

**Increasing awareness of and support for ERGs**

To increase our globally dispersed workforce's awareness of and engagement in ERGs, we held ERG Virtual Fairs in every Dell region. Each ERG has an executive sponsor and during these online webinars, the sponsors educated participants about their group's purpose, benefits and impact. These events reached more than 8,500 team members worldwide and drove a 2.5-5.5 percent increase in membership by region.

We also updated our internal, online ERG community with a more intuitive design and a new subsection that includes various tools like tutorial videos for anyone looking to start, run, or join an ERG. We promoted the site in North America by distributing more than 30,000 badge cards that included information about individual ERGs and the program as a whole.

In FY15, ERG executive sponsors continued to promote the benefits of ERG membership as they visited Dell sites around the globe. They also met with ERG chapters worldwide to help them develop strategies for building awareness.

To determine how we can continue building awareness of ERGs and supporting their members, we conducted our first-ever global ERG member survey. More than 5,000 Dell ERG members responded and provided insights into topics such as why they joined an ERG, what they view as the top benefits of membership, and how well they understand each ERG's goals. We will continue to conduct this survey annually and use the findings to enhance the value that ERGs deliver to our workforce.

## Next steps

- In FY16, we will continue to communicate the ERG program's mission and work with individual ERGs to rebrand their groups and/or enhance their communication strategies to increase memberships. Our Tell Dell employee survey and global ERG member survey revealed the need for clarification in some areas. To reach our 2020 goal, all Dell team members will need to understand and be familiar with ERGs and the ERG mission statement.
- We will drive accountability from the top down by launching an ERG scorecard that shows the progress each Dell Executive Leadership Team member's organization has made against our 40 percent membership goal. We will use FY15 numbers as our baseline.
- To encourage ERG members to invite colleagues to events and recruit new members, we will launch a Make it Happen—ERG Advocate Program. We will also continue to promote ERGs through employee events.


*Dell Panama team members wear blue to support the "Light it Up Blue" campaign for Autism Awareness Month (April 2014).*

# True Ability connects team members impacted by disabilities

Since 2010, the True Ability employee resource group (ERG) has connected Dell team members who are impacted by disabilities and/or special needs. More than 1,500 members of 20 True Ability chapters worldwide work to drive awareness of disability issues among Dell team members on behalf of themselves as well as our customers.

The group also shares resources and ideas for addressing unique disability-related challenges.

In the U.S., True Ability member Norman Jester has worked with his fellow members and Dell executives to streamline Dell's process for sourcing and supporting adaptive technologies for team members with disabilities. Norman, who is legally blind, saw many opportunities for improvement when securing his own specially configured 18-inch laptop.

*"I like knowing that I can make a real difference and ensure employees of all disabilities get the resources they need,"* said Norman, an IT support manager. *"Some people, like myself, have disabilities that are not immediately visible to others, so I like that True Ability encourages open dialogue about the diversity of our workforce."*

Many True Ability members do not have a disability themselves but want to support family members, friends or co-workers with disabilities and/or special needs. Inspired to build a better world for his daughter who has spina bifida, Daniel Vidal founded Panama's 250-member True Ability chapter in 2012 and serves as its chapter lead. In FY15, the chapter partnered with the National Secretary of Disabilities to hold role-playing exercises that helped team members understand the challenges of having various disabilities. It also held a Disability Summit with other private companies to discuss best practices for hiring people with disabilities.

*"I feel proud to be a part of an enterprise that is truly interested in using its technology and its influence to make life better for people with disabilities,"* said Daniel, an IT senior manager.

## Encourage eligible team members to enroll in Dell flexible work programs, increasing global participation to 50%

**Status:** At the end of FY15, approximately 1 in 4 eligible Dell team members worldwide were enrolled in flexible work programs, up from 1 in 5 in FY14. This puts us 50 percent of the way toward reaching our 2020 goal.

### Background, challenges and opportunities

Dell builds technology that enables people to do their best work at any time, from anywhere in the world. So it only makes sense that we were early adopters of flexible work arrangements for our own team members. Recognizing that today's global work environment promotes creativity and collaboration outside of traditional office hours and locations, in 2009 we created our Connected Workplace program. This program enables eligible team members to work remotely, at variable hours or in other flexible capacities that fulfill the needs of both their job and their lifestyle.

Connected Workplace has become so successful that work flexibility is now a key pillar of our Dell culture. While the Connected Workplace program provides a formal structure for team members to enroll in flexible work arrangements and for Dell to support their needs, we've found that flexibility goes well beyond traditional remote and mobile status to also include all types of virtual collaborations. Whether team members are based in different buildings or different continents, they are choosing the best way to connect. That might mean taking morning meetings from home, logging on from a hotel room or going into a Dell conference room for a video chat. In addition to facilitating strong teamwork and promoting work-life balance, this flexible culture helps us attract and retain top talent.

While flexible work has proven extremely popular, the concept is still new enough that we must continually show team members that we trust them to organize their work in a way that meets both their personal and professional priorities. Support starts with Dell's Executive Leadership Team members, who work flexibly themselves. Their example has been key to Connected Workplace's widespread adoption. In FY15, we enhanced our support system by launching Conexus, an employee resource group that helps remote team members connect to share best practices, network and serve their local communities. We also continued to invest in training, technology and other resources for working flexibly. In addition, because flexibility affects so many aspects of our business, including the way we structure teams and the workspaces we build, we began improving our methods of tracking flexibility usage so we can further strengthen the way we work at Dell.

### Progress to goal

In FY15, we offered Connected Workplace at six new sites. This extended the program's global reach to 50 sites in 28 countries, up from 44 sites in 27 countries in FY14. Eligible team members can choose from a variety of flexible work solutions including work-from-home and part-time work arrangements, variable daily work times and job sharing. They can choose how much they want to leverage flexibility and how often.

## Progress to goal (continued)

### Leading the industry

Dell's ongoing commitment to work-life balance for all team members earned us a spot on Working Mother's 2014 Best Companies List. This was our seventh consecutive year to make this U.S. magazine's list. Additionally, FlexJobs named Dell as one of its 100 Top Companies with Remote Jobs for the second year in a row.

In FY15, we extended our thought leadership in the area of flexible work by partnering with Intel on our second Global Evolving Workforce Study. The study, conducted by TNS Global among more than 4,700 employees from small, medium and large businesses worldwide, identified key trends in how technology is changing work-related attitudes and behaviors. For example, 86 percent of respondents who spend time working from home believe they are just as productive or even more productive at home than they are in the office. Globally, 1 in 4 employees reported they are influenced by the technology provided to them at work and would consider taking a new position if it provided better technology that would help them to be more productive.

### Enabling team members to make connections that matter

In FY15, Dell launched Conexus, an employee resource group (ERG) for flexible team members—making us one of the first companies to have such a group. This ERG enables team members to connect more effectively to share best working practices, suggest program improvements, discuss work-life balance solutions and develop camaraderie.

More than 1,000 team members across North America joined Conexus this year, and the group quickly organized many networking and learning opportunities. Its members also introduced the concept of Conexus Community League, a program that would provide all of Dell's remote employees in a single geographic area with opportunities to cultivate personal connections, build stronger teams and volunteer together in the community.

### Shifting our workplace to the future

The space in which we work needs to reflect how we work today and how we'll work tomorrow, rather than how we worked in the past. For example, many Dell team members now spend all or part of their time working remotely, but come into the office to work in teams and groups. They may also need quiet space, but that no longer needs to be an assigned cubicle, which would sit empty much of the time.

In FY15, we piloted our Workplace of the Future program at select Dell facilities, testing various combinations of new technologies and workspaces designed for our flexible workforce.

Our new configurations offer a mix of open collaborative areas, rooms for phone/audio conferencing and areas for quiet, focused work. We have received positive feedback from team members and will continue to transform our sites to reflect the energy, climate and culture we're trying to create.

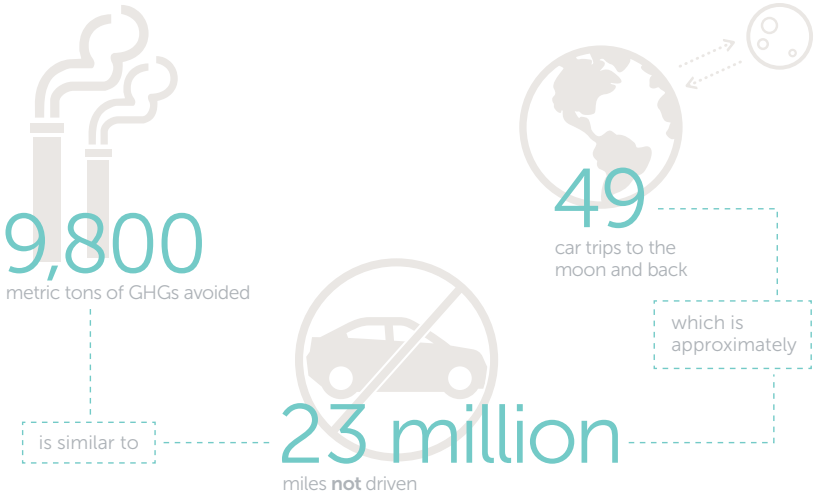
## Progress to goal (continued)

**Reducing our environmental impact**

While we designed Connected Workplace to help team members balance work and life, participation also helps Dell reduce its environmental impact. In our operations, flexible work's biggest environmental benefits are the reductions in energy use and greenhouse gas emissions that come from maintaining a smaller real estate footprint. Since 2013, Dell has seen $21 million in real estate savings as a result of implementing Connected Workplace.

We estimate that during FY14 and FY15—our first two years of measurement toward our 2020 goal—Dell avoided an estimated 21 million kWh of energy and 9,800 metric tons of greenhouse gas emissions (as CO2e).*

## Thanks to Connected Workplace, 9,800 metric tons of greenhouse gas emissions have been avoided since FY14.




Since 2013, Dell has saved
**$21 million**
in real estate expenses as a result of implementing Connected Workplace.

## Next steps

- In FY16, we will roll out a streamlined enrollment process for Connected Workplace with the goal of increasing participation. We will also introduce improved methodologies for tracking the number of global team members engaged in flexible work.
- We will expand Conexus to serve team members in regions outside of North America.
- Using the results from an upcoming employee study, we will continue quantifying the environmental benefits that many of our team members experience when they engage in flexible work.

**These figures reflect an adjustment to our FY14 estimated avoided emissions because of a change in calculation methodology.*

Peggy Richmond says "doing everything the night before" is key to a successful weekday routine with her children (from left) Reese, 10; True, 6; Kate, 10; Faith, 9; and Ryan, 6.

# Dell's 2014 Working Mother of the Year talks about flex work

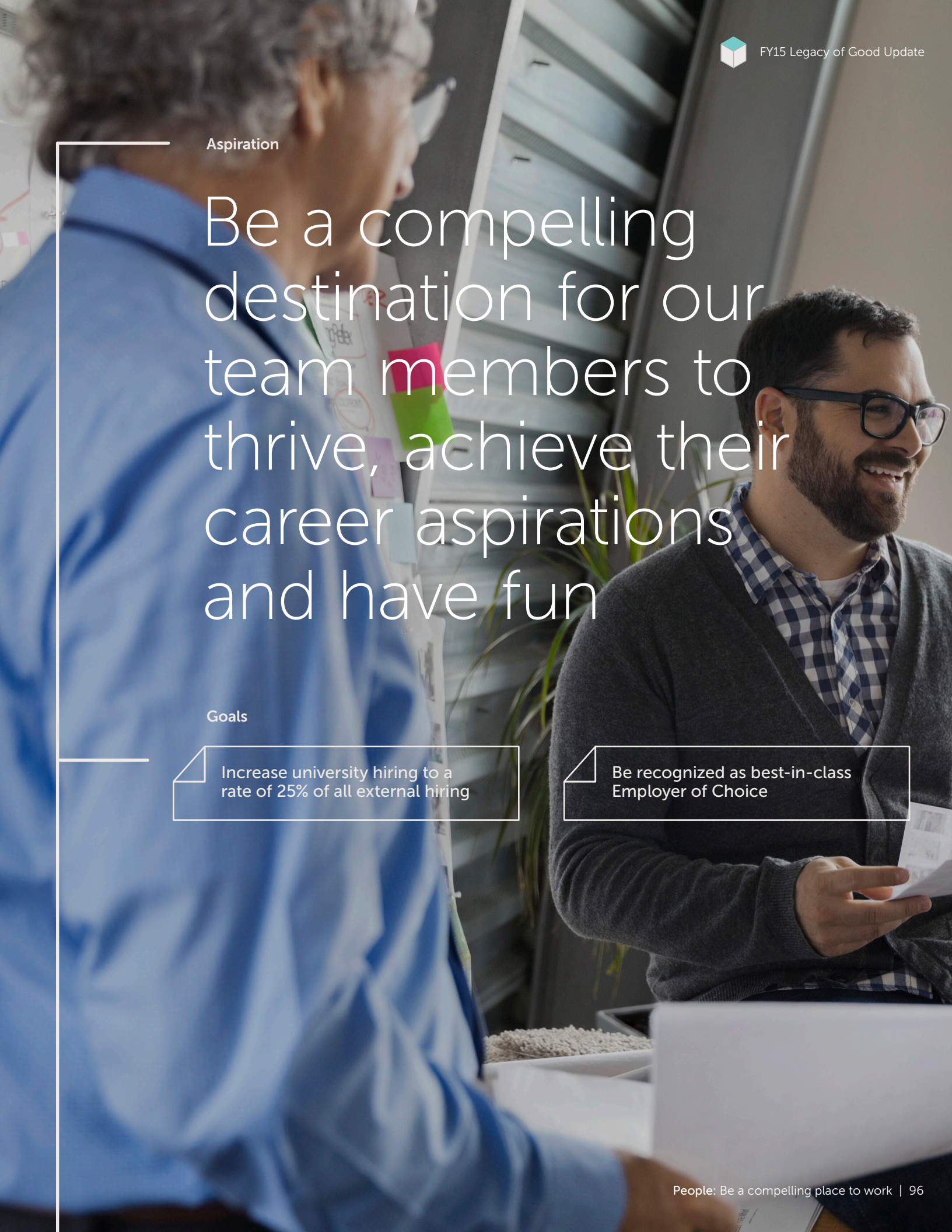
*"I prefer working in Dell's office (in Round Rock) to have face-to-face interactions with people. But I also have five kids, so having flexibility helps me blend my work and personal life. I usually work from home two to three days a week, and manage my schedule on a day-to-day basis depending on my commitments. If I have an early morning call with team members in EMEA and another after I drop the kids off at school, I'll probably just stay home to keep the momentum going.*

*There are definitely some challenges, though. I've had to set boundaries so my kids understand when I am working at home. And working with a remote team requires more effort and creativity to stay connected. Dell offers training and best practices sharing in this area, and we've come up with our own traditions like virtual Christmas parties.*

*I've seen a big shift in Dell's culture over the past few years when it comes to leveraging flexibility at work. We quickly turned a corner, going from everyone in the office to a few people dabbling in flex work to a point where collaborating virtually is just the way we do things around here."*

*Peggy Richmond*
*Compensation Senior Consultant*
*Dell's 2014 Working Mother of the Year*

Watch Peggy's daily routine in action.



Aspiration

# Be a compelling destination for our team members to thrive, achieve their career aspirations and have fun

Goals

- Increase university hiring to a rate of 25% of all external hiring
- Be recognized as best-in-class Employer of Choice

## Increase university hiring to a rate of 25% of all external hiring

**Status:** As of the end of FY15, Dell's university hiring represented 24 percent of all external hires, up from 10 percent in FY14. We remain on track for this goal.

### Background, challenges and opportunities

Building a diverse, inclusive workforce is integral to Dell's business strategy. When team members bring a wide variety of backgrounds and viewpoints to their work, it helps fuel innovation and enables us to better serve our global customer base.

Recent university graduates are a particularly valuable addition to Dell teams, as they are a source of diverse perspectives and cutting-edge technology skills. University enrollment has risen sharply in emerging countries, and women are earning more than half of all degrees in many areas, furthering our ability to hire graduates with a wide range of backgrounds from all over the world.

Technology companies are competing fiercely for top graduates, so we must build long-term relationships with current students to strengthen our employment brand. This is a challenge in such a large, global hiring market because although social media use is now pervasive, we've found that job candidates still want face-to-face contact with companies. We try to strike the right balance, providing students with multiple outlets—online and offline—through which they can get to know Dell. Whether we're communicating with students on Facebook or at a career fair, our message is the same—Dell delivers the challenge, flexibility and open, innovative culture employees want.

While Dell's global presence and social media prowess give us an advantage in today's university recruiting environment, the dynamic nature of our business can make it challenging to forecast our long-term hiring needs. However, in FY15 we greatly improved our ability to predict demand and achieve our quarterly targets. We will continue refining this process to attract even more of the world's best and brightest minds.

## Progress to goal

In FY15, we deepened our relationships with universities around the world and engaged students via social media both through groups and one-on-one communications.

Dell also received dozens of global and country-specific recognitions in Universum's 2014 employment branding study, which asks more than 200,000 university students worldwide to choose their ideal employers. We ranked #38 on the World's Most Attractive Employers—Engineering/IT list and #42 on the World's Most Attractive Employers—Business list.

### Deepening our relationships with universities and organizations

We have cultivated deep relationships with major universities and student organizations in all Dell regions. In FY15, we maintained a steady presence on campuses through traditional tactics like career fairs and on-campus interviews as well as ongoing, engaging activities. Some examples include:

- We built our brand among the U.S.'s top computer science students by partnering with The University of Texas at Austin to present HackTX, a 24-hour hackathon event where hundreds of students created technology inventions including apps and computer hardware.
- Accepting an invitation from the Malaysian Embassy, we spoke at TalentCorp Malaysia's U.S. Career Symposium and educated thousands of engineering students on employers' expectations of college graduates.
- Dell earned a special place among on-campus employers when the top-ranked Indian Institute of Management invited us to serve on the admission panel for six of its locations. This will help us form relationships with India's best business students at the start of their academic careers. We also hosted a research internship program with the Indian Institute of Technology Madras.

### Engaging students through social media

In FY15, we continued to use Facebook and LinkedIn to broaden our reach, engaging students through groups targeted to various fields of study and professional interests. We merged our university recruitment social media channels with our general talent acquisition channels to create one unified social media presence. This enables us to communicate to all candidates with a consistent viewpoint and voice, and helps students learn more about Dell career paths beyond the entry level.

We developed a comprehensive content strategy for reaching university students and reorganized our teams to dedicate more resources to student social media outreach. This has enabled us to develop richer content and be much more proactive in our communications. For example, our DellCareers YouTube channel features video testimonials from team members as well as behind-the-scenes footage from our offices. We also enlist team members to share their experiences through more informal, 15-second video clips we share via our Careers at Dell Facebook page, Life At Dell Twitter account and LinkedIn page. These channels also provide content such as interviewing tips from Dell recruiters and invitations to informational events. Additionally, the careers section of Dell.com has a wealth of information for job candidates seeking to join Dell from college.

youtube.com/DellCareers

Explore video testimonials from Dell team members and hear what their careers mean to them.

## Next steps

In FY16, we will complete an end-to-end review of Dell's university recruitment strategy, examining every step from headcount planning to onboarding new hires. We will adjust our strategy to be more effective and also find new ways to use data to forecast hiring volumes even further in advance.

## Be recognized as a best-in-class Employer of Choice

**Status:** In FY15, we garnered more than 33 awards worldwide related to being an employer of choice. Results from our annual Tell Dell team member survey showed 80 percent of team members feel engaged and very positive about working at Dell. This exceeds our ongoing goal of achieving a score of 75 percent favorable or higher.

### Background, challenges and opportunities

Competition for top talent is fierce among technology companies. To attract, hire and retain the best talent, both current and potential team members must recognize Dell as a best-in-class Employer of Choice. While Dell uses its social media expertise to listen to current and potential team members' needs and build our global employment brand, our strategy runs much deeper than 140-character updates. It starts with ensuring our team members are happy and engaged in their work. We then encourage them to share their experiences with others outside of Dell.

This strategy continued to pay off for Dell in FY15, with 36 percent of new hires coming from team member referrals. Our team members' enthusiasm for working here also drove external recognition of Dell's employment brand, with organizations around the globe including us on their "best places to work" lists. Many of these entities, such as Working Mother magazine and the Human Rights Campaign, have honored us for many consecutive years.

### Progress to goal

In FY15, we continued to focus on building team member satisfaction to retain talent. Both our internal and external messaging about Dell's work culture remained rooted in two things: our People Strategy and our Employment Value Proposition (EVP). Our People Strategy focuses on inspiring leaders, winning together and entrepreneurial spirit. Our EVP is composed of a number of reasons why people would want to work at Dell, including our ethical culture, flexible work environment and opportunities for career development.

**Building team member satisfaction**

Our annual Tell Dell survey, which measures how team members feel about various aspects of working at Dell, revealed an overall engagement level of 80 percent. This is a composite score based on a variety of survey questions, and it indicates team members feel good about their job and would recommend Dell as a great place to work. Specific areas of positive feedback include:

- Being proud to work at Dell
- The high ethical standards held by leaders at Dell
- Experiencing Dell's commitment to having a work-life balance

By listening to team members' feedback through Tell Dell and other vehicles, we've been able to develop many global initiatives that meet their needs—and differentiate Dell from other potential employers. For example, 1 in 4 Dell team members is enrolled in our Connected Workplace program, meaning they work remotely, at variable hours or in some other flexible capacity. Our global employee resource group program, which connects team members with shared backgrounds and interests for professional development and camaraderie, was recently recognized as number three in global ERGs by DiversityInc. In FY15, we strengthened our culture of flexibility and our ERG program by introducing a Conexus ERG for team members who are enrolled in Dell flexible work programs. We also strengthened our professional development opportunities by introducing new leadership trainings at all levels and using team member feedback to overhaul Dell's global performance management system.

## Progress to goal (continued)

**Encouraging team member referrals and sharing**

Thirty-six percent of Dell's FY15 new hires came from team member referrals, which is well above the industry average. Having high team member satisfaction was one key to maximizing our referral pipeline. Another was providing team members with tools for sharing job openings and their own positive Dell experiences with others. Empowering local action was also crucial: Dell locations that organized targeted internal communications campaigns had referral rates above 40 percent.

FY15 was the first full year of operation for one global job referral tool—the Dell Talent Community. This online community enables team members to share jobs with their social networks and allows candidates to join the community and sign up for job notifications. Our team members shared more than 45,000 jobs through the Dell Talent Community in FY15. To increase team members' awareness of our referral program, we improved our communication about the process and its benefits, which include financial bonuses for referrals that lead to hires.

In addition to explicitly encouraging referrals, we continued to empower team members to share their experiences of working at Dell. Dell has more than 12,000 Social Media and Community (SMaC)-certified team members who are encouraged to socially amplify and share Dell news, events, testimonials and video. We provide tools (including an online stream of Dell content) that make it easy and quick for SMaC-certified team members to share and promote content within their networks.

Seeking a deeper level of engagement, more than 1,200 of our certified team members have become Dell Champions. Champions help build our social media and brand programs through activities like leading Champion groups locally, hosting or volunteering events, and by encouraging other team members to become Champions. Both Champions and SMaC-certified team members play an important role in building awareness of what it's like to work at Dell.

Our Talent team also deployed a comprehensive, global social media campaign, sharing employee testimonials, stories and YouTube videos that further build our employment brand through the authentic voice of our team members. This type of content has helped our Careers at Dell Facebook page become one of Facebook's largest, with more than 500,000 followers. Our LinkedIn page amassed nearly 1 million followers by the end of FY15 and LinkedIn recognized it as one of its Top 10 company pages.

## Next steps

- In FY16, we will continue to listen to our team members' needs and invest in programs that keep them engaged in their work at Dell. Leadership trainings, employee resource groups, flexible work opportunities, and culture-building activities all help build our status as an Employer of Choice.
- To increase team member referrals of new hires, we will expand our promotion of the Dell Talent Community and feature testimonials from team members who referred great talent. We will also refine our measurement of referred candidates' performance and attrition rates to determine how we can improve our referral incentive strategies.
- In addition to tracking our awards from industry groups, we will increase our focus on awards that reflect employment candidate feedback, through avenues like the Talent Board, Glassdoor and LinkedIn. All of the awards we receive in FY16 will provide us with opportunities to compare our performance against that of similar companies, learn about important workplace trends, and gain ideas for improvements and new initiatives.

# Achieving external recognition

We continued to be recognized both globally and locally in the countries where we compete for talent, earning more than 33 major awards, including:

- DiversityInc—#32 on 2014 DiversityInc Top 50 List (Fourth consecutive year)
- Human Rights Campaign—Received 100% on HRC's Corporate Equality Index, which rates lesbian, gay, bisexual and transgender equality in the workplace (11th consecutive year)
- Working Mother—Named to 100 Best Companies 2014 list (Seventh consecutive year)
- Springboard Consulting's Disability Matters—Received the 2014 Workplace Award; Dell Vice President Bob Feiner received the Disability Champion Award—Executive
- European Diversity Awards—Dell EMEA President Aongus Hegarty honored as Diversity Champion of the Year
- Universum—Many global and country-specific recognitions, including:
  - » #38 on World's Most Attractive Employers—Engineering
  - » #42 on World's Most Attractive Employers—Business
  - » #9 on Brazil's Most Attractive Employers—Computer Science
- Equal Opportunity—#19 on the magazine's Top 50 Employers list
- Great Place to Work® Institute—#6 on Best Multinational Workplaces in Latin America (Listed in Brazil, Mexico & Panama)
- LinkedIn—#87 on The World's 100 Most InDemand Employers: 2014; also named as one of the 10 Best Company Pages of 2014
- Data News—Dell Belgium General Manager Pascale Van Damme named ICT Woman of the Year
- Minority Engineer Magazine—#26 on Top 50 Employers—2014 Readers' Choice

## We empower team members to share their experiences of working at Dell.

*"Having a personal dinner with Michael Dell is one of the most memorable moments of my career."*

- Gayathri, Dell India

*"As a current member of the National Guard, Dell fully supports my military commitments."*

- Kim, Dell USA

*"Dell's flexibility helps create my balance between a growing career and family."*

- Kristen, Dell USA

*"Working at Dell is fast, energizing, challenging and motivating! Despite coming from different cultures, and having different opinions and views, we still can be very open and direct with each other."*

- Milo, Dell Slovakia

Aspiration

# Give team members a voice that influences leadership and shapes the direction of our company

Goal

Achieve 75% favorable responses (or higher) in team member satisfaction globally as measured through the annual employee satisfaction survey

## Achieve 75% favorable responses (or higher) in team member satisfaction globally as measured through the annual employee satisfaction survey

**Status:** In FY15, our annual employee satisfaction survey, Tell Dell, measured that 80 percent of our global team members were satisfied with their experience at Dell. This was evidenced by their responses across multiple survey categories, and marks an increase from the 78 percent satisfaction rate measured in FY14.

### Background, challenges and opportunities

For Dell team members, satisfaction is about more than enjoying work and being properly rewarded for a job well done. It goes beyond those basic requirements to also include feeling heard, understood and empowered to shape our company's direction. Just as Dell listens to customers and delivers technology solutions that enable them to achieve more, we listen to and act upon team members' ideas for improvement.

In FY15, we continued to measure team member satisfaction through our annual Tell Dell survey and saw very positive results. This was our first full year after taking the company private, and while that brought some temporary ambiguity and uncertainty, team members' overall satisfaction levels increased. Satisfaction is influenced by so many complex factors that it is challenging to identify a single reason for improvement. That is why we always strive for more on all fronts, never taking employees' happiness for granted.

This year we regularly engaged team members in two-way dialogue and used their input to change many aspects of Dell's business including our performance management system and our customer service processes. Throughout it all, the message was clear: At Dell, our entrepreneurial spirit is more alive than ever.

## Progress to goal

In FY15, we worked on more deeply integrating our People Strategy into our daily operations. The strategy, launched in FY15, has three focus areas: inspiring leaders, winning together and entrepreneurial spirit. It's designed to create an environment where team members feel empowered to do their best work, which accelerates business performance and improves team member satisfaction.

Feeling united toward common goals drives satisfaction and helps us retain top talent. So we deepened team members' overall understanding of our People Strategy through leadership trainings and by embedding the tenets of the strategy into performance conversations.

We also updated the Tell Dell survey to align with our strategy's three focus areas. These updates reflect extensive input from team members via surveys and focus groups, as well as external benchmarking of best practices in corporate surveying.

**Using team member input to enhance their Dell experience**

We continued to gather team members' input on all aspects of the workplace through multiple channels including companywide and targeted surveys, focus groups, in-person conversations with leadership, and internal social media sites and blogs. This ongoing two-way dialogue helped shape many strategic decisions, programs and initiatives in FY15, especially in the area of career development.

In FY15, we used extensive team member input to launch a new, streamlined performance management system. Through ongoing planning sessions and large-scale surveys, we learned that team members wanted more opportunities to discuss their performance and receive recognition. However, they found the existing review framework to be overly complex, with too much emphasis on ratings and documentation rather than meaningful dialogue. So the new system supplements formal annual reviews with quarterly check-ins for more frequent discussion, and eliminates performance ratings so managers can focus on qualitative feedback, which team members find more helpful. We also introduced the annual Dell Champion Award to recognize exceptional FY15 performance.

To help Dell leaders understand the changes to Dell's performance management system and learn how to implement them successfully within their teams, we launched a Breakthrough Performance Series (BPS) training. Held as a quarterly series of 1-hour trainings, BPS also reinforced how performance management aligns to our Dell cultural values of accountability and meritocracy. And our Leading Virtual Teams training helped managers navigate the challenges of leading teams whose members are dispersed globally, working remotely or in other flexible capacities.

To help team members create long-term plans for their growth at Dell, we rolled out a new career development framework. Using team member feedback, we also redesigned the Career Resource Center (CRC) website to help team members more easily find resources and trainings that will help them advance in their careers. The CRC also includes a training on the new career development framework itself.

Lastly, we introduced My Tell Dell, a tool that allows team members to access their own responses to Tell Dell—and the aggregated responses of all Dell team members—after they take the survey. This helps them remember their perspectives so they can have more meaningful feedback sessions with their managers. Follow-up surveys found that team members who used My Tell Dell viewed feedback sessions more favorably than those who did not.

## Progress to goal (continued)

**Building a culture of collaboration and customer service**

We continued to listen to and implement team members' ideas for better serving Dell customers. In FY15, our Executive Leadership Team sponsored several innovation challenges on our internal crowdsourcing website, asking for ideas to solve specific customer support and sales problems. Team members submitted 825 distinct ideas, and more than 4,000 team members, including Michael Dell, commented on and voted for the ideas. Winners received Gold, Silver and Bronze level monetary awards. We discovered many of the top-rated ideas came from team members who worked outside of the sponsoring Dell business units, and we've already started implementing many of them in our daily operations.

## Next steps

- In FY16, we will focus on aligning our competency framework to our People Strategy to ensure both use the same language and criteria to define desired outcomes. Our competency framework is a set of behaviors that are required for success at Dell, and we integrate this framework into our talent development, trainings and performance management processes. To inform our competency framework review, we will use external research as well as data gathered in a FY15 survey of 5,000 Dell team members and leaders.

- We will continue our model of quarterly performance conversations and will provide leaders with more tools and structure for giving constructive feedback and making performance-based decisions.

- We will analyze the efficacy of our changes to the Tell Dell employee survey and use the results to improve the survey's content and implementation.

# Governance

**"Winning with integrity" is a statement that reflects who we are as a company. For our team members, integrity isn't just about following the rules—it's also about understanding why the rules matter to Dell colleagues, customers, suppliers and partners. Having a shared purpose and values is what connects our high ethics and compliance standards to consistent, everyday action.**

**In FY15, we continued to embed our values of honesty, respect, good judgment, courage, responsibility and trustworthiness more deeply into daily decision-making. To connect with Dell team members on an emotional level, we introduced an innovative, game-based training and empowered local leaders to take more ownership of compliance activities. At the same time, we continued to follow strong governance practices, address key risks across the enterprise, and operate in full compliance with all laws around the world.**

### Increasing regional and local accountability

We evolved our global ethics and compliance programs to allow for more direct involvement and accountability of regional and local leaders. Dell's Global Ethics and Compliance Office develops strategy and key performance indicators, then aligns with local leadership to find ways in which cultural and risk mitigation activities have higher impact at the local level. To support those efforts, we launched Ethics Task Forces in India, China, and emerging countries throughout our Latin America and Europe, Middle East and Africa regions. These groups are comprised of executive leadership for all critical functions in the area, including sales, marketing, finance and procurement.

Leaders in Latin America exemplified this localized approach through their customized campaign, "Do the Right Thing, Win the Right Way," which deeply resonated with teams and generated a great deal of pride. We have already seen a significant increase in local levels of engagement, idea sharing and problem solving.

We also piloted a new Values-Based Decision Making training among non-executive management to deepen local leaders' abilities to make decisions based on Dell's values and ethical principles. This training gained so much positive feedback that we were able to deploy it to leadership within Dell's federal government sales team.

### Innovative educational programs

To help Dell team members internalize the importance of ethics and compliance, we launched a new, game-based anti-corruption training called the Honesty Project.

This educational experience provided an engaging, interactive and safe environment in which team members simulated real-life business scenarios to assess possible consequences. More than 20,000 team members voluntarily completed the course within a five-month period, and 94 percent said they would recommend it to a colleague and thought it would make a difference in how they do their daily work.

Based on this success, we began development on two other games—one focused on privacy/data protection and the other on Dell's Code of Conduct. Both are scheduled to launch in FY16.

### Protecting customer and Dell data

One of Dell's top priorities, as outlined in our privacy policy, is to protect Dell's confidential information and that of our customers, partners, suppliers and key stakeholders.

To ensure our team members and leaders understand their responsibility to make good decisions and the resources available to help them, we launched several global pilot programs in FY15 to educate them about our Secure Workplace Standard. This standard focuses on protecting the systems that hold or manage confidential information, as well as maintaining a secure workspace to prevent accidental disclosures. Additionally, team members have a comprehensive data-labeling software tool installed on their systems, and we continued to emphasize its proper use to ensure email and Microsoft documents are thoroughly protected.

"We are building a culture of 'believers'–team members who believe in Dell's values and who will find time even in their busiest days to think and talk about ethics and compliance and make the right choices. For themselves, our customers, and our company."

*— Mike McLaughlin*
*Chief Ethics and Compliance Officer*
*Dell Inc.*

**Turning findings into fixes**

We took a strategic look at the trends revealed by our internal audits and investigations of ethics and privacy violations, and developed new methods for enhancing controls. We decided the Global Audit and Transformation team and Global Ethics and Compliance team could jointly create and issue management action plans to hold the business accountable for corrective action outside of the normal audit schedule. Under this new remediation program, in certain investigations local leaders will work with the Global Ethics and Compliance investigations team to drive change and close the gaps.

**Recognition and awards**

The Ethisphere® Institute honored Dell as one of the World's Most Ethical Companies for the second year in a row. TRACE, an internationally respected anti-bribery standard-setting organization, awarded Dell its inaugural Innovation Award in Anti-Corruption, recognizing our innovative efforts to develop anti-bribery practices as well as our overall efforts to increase transparency in business.

Additionally, several top publications, including the Wall Street Journal, included in-depth features on Dell's culture of ethics and compliance and our innovative programs. Of course, these accolades are never achieved in a silo; we continue to partner with leading ethics and compliance associations and partner groups like the Business Ethics Leadership Alliance, Ethics Resource Center, International Association of Privacy Professionals, and the Society of Corporate Compliance and Ethics.

# Materiality and our GRI report

Materiality—the identification of and focus on material topics—is a concept that is central to corporate responsibility. It is how we understand which topics have a direct or indirect impact on our ability to create, preserve or erode economic, environmental and social value for Dell, our stakeholders and society at large. These topics then form the basis of what we focus our corporate responsibility efforts on and consequently what we report on. We trust this approach leads to greater credibility and a more informed audience.

We identify and prioritize these material topics by engaging internally across the business as well as externally with a broad set of stakeholders. Over the years, we've been grateful for our stakeholders' contributions. Their encouragement, ideas and constructive feedback definitely help us improve. For example, in preparing Dell's FY15 Corporate Social Responsibility report, we engaged with Ceres—an advocate for sustainability leadership with strong ties to investors, public interest groups and other companies. As they have in past years, the Ceres team reviewed initial drafts of this report and provided valuable feedback on the depth of our reporting on key impacts. We've summarized the inputs from this engagement on our website.

What is material to Dell may change over time. We revisit our materiality analysis regularly to ensure our efforts remain aligned with what is most important to our business and our stakeholders.

## The principles behind our goals

The following tenets helped guide the formulation of our 2020 Plan and the goals we report against:

- Focus on our customers: We will succeed if we keep the customer foremost in our mind, linking our goals back to providing them with value.
- Innovate: Business as usual across the board is not enough. We must reimagine what is possible.
- Scale globally: From managing a complex supply chain to understanding and appreciating the different cultures where we live and work, we must view our activities with a global lens.
- Be transparent and accountable: Better and more strategic reporting will make clear our impacts and progress each year.
- Lead by example: We will strengthen our work as an advocate and partner for social and environmental change, pushing sustainability more into the mainstream market.
- Welcome collaboration: To achieve our aspirations at the necessary scale, we will need engaged, courageous collaborators.

## Our annual GRI Report

In addition to our annual corporate social responsibility report, we provide a comprehensive Global Reporting Initiative (GRI) online index each year, following the GRI G4 Sustainability Reporting Guidelines. The GRI established these guidelines to identify a core set of material issues for inclusion in sustainability reports. The guidelines create a framework that reflects diverse stakeholders' perspectives and is harmonized across various internationally accepted standards. Dell has long been a supporter of such an approach and is proud to support the GRI's work. We have been a GRI Organizational Stakeholder for several years and a GRI Sector Leader in the IT sector for the past three years.

# By the numbers

Each year we report on material indicators from across our business. Some tie directly to the goals set forth in our 2020 Legacy of Good Plan while others provide additional insight into other business indicators. We also assess our performance against the Global Reporting Initiative's (GRI) G4 guidelines, and you may find other measurement reporting within our GRI online index.

| Sustainable operations | Unit of measure | FY13 | FY14 | FY15 | Comments |
|---|---|---|---|---|---|
| *Emissions* | | | | | |
| Scope 1 GHG emissions* | Metric tons CO2e | 37,014 | 39,233 | 38,467 | Direct emissions |
| Scope 2 GHG emissions* | Metric tons CO2e | 299,302 | 255,999 | 238,471 | After subtraction for green electricity purchases; FY15 figures calculated using "market-based" Scope 2 methodology |
| Scope 3 GHG emissions (air travel) | Metric tons CO2e | 77,311 | 86,942 | 81,297 | — |
| Scope 3 GHG emissions (supply chain) | Metric tons CO2e | — | — | 2,035,717 | Calculated based on revenue-apportioned emissions from suppliers representing over 95% of total procurement spend reported to Dell via CDP Supply Chain |
| Scope 3 GHG emissions (use of sold products) | Metric tons CO2e | 12,400,000 | 11,300,000 | 11,300,000 | Calculations use the U.S. average emissions factor of 0.56178 metric tons CO2e per MWh |
| *Energy* | | | | | |
| Electricity consumed (total)* | Million kilowatt-hours (kWh) | 681.3 | 691.3 | 674.8 | All electricity purchased or generated on-site; all energy figures include leased spaces |
| Green electricity consumed* | Million kWh | 165.0 | 263.1 | 259.3 | Renewable-source electricity purchased from suppliers or generated on-site |
| % of green electricity* | Percentage | 24.2 | 38.1 | 38.4 | — |
| Other energy consumed* | Million kWh | 128.2 | 129.6 | 132.4 | Purchased heat, liquid and gas fuels used in buildings and vehicles |
| Total energy consumed* | Million kWh | 809.4 | 820.9 | 807.2 | — |
| *Water* | | | | | |
| Fresh water use (Dell total)* | Cubic meters (1000s) | 1,757 | 1,595 | 1,497 | FY13 and FY14 data includes Dell-operated facilities only. |
| Fresh water use (water-stressed Dell locations)* | Cubic meters (1000s) | 527 | 498 | 493 | Dell-operated facilities in locations considered to have high or extremely high overall water risk |
| Fresh water intensity (water-stressed Dell locations) | Cubic meters of water per square meter of building space | 1.63 | 1.43 | 1.43 | Dell-operated facilities in locations considered to have high or extremely high overall water risk |
| Fresh water use (supply chain) | Cubic meters (1000s) | — | — | 23,772 | Calculated based on revenue-apportioned water withdrawals from suppliers representing over 65% of total procurement spend reported to Dell via CDP Water Supply Chain |

* FY13-FY14 figures have been adjusted to account for acquisitions, divestitures and outsourced activities.

Note: GHG = Greenhouse gas; MTCO2e = Metric tons of carbon dioxide (equivalent)

## Sustainable operations (continued)

| Unit of measure | FY13 | FY14 | FY15 | Comments |
|---|---|---|---|---|
| *Waste* | | | | |
| Nonhazardous waste generated | Metric tons | 14,293 | 13,735 | 11,951 | Manufacturing and fulfillment facilities |
| Landfill avoidance rate | Percentage | 96 | 96 | 95 | Manufacturing and fulfillment facilities |
| Worldwide cumulative e-waste volume takeback and recycling | Million kilograms | 459.5 | 564.2 | 642.5 | Since FY08 |

## Supply Chain

| | | | | | |
|---|---|---|---|---|---|
| Diverse supplier spending | Billions of U.S. dollars | 3.44 | 4.19 | 4.10 | — |
| Supplier audits | Number of total audits | 135 | 135 | 144 | — |
| *Labor* | | | | | |
| Excessive working hours | Frequency of major findings in audits (by percent) | — | 66.7 | 42.7 | See Supply Chain section of report for additional detail, on page 31 |
| Young workers improperly managed | Frequency of major findings in audits (by percent) | — | 9.7 | 4.0 | See Supply Chain section of report for additional detail, on page 31 |
| Disciplinary wage deductions | Frequency of major findings in audits (by percent) | — | 13.9 | 4.5 | See Supply Chain section of report for additional detail, on page 31 |
| *Health & Safety* | | | | | |
| Workers exposed to hazards | Frequency of major findings in audits (by percent) | — | 29.2 | 23.9 | See Supply Chain section of report for additional detail, on page 31 |
| Insufficient emergency preparedness | Frequency of major findings in audits (by percent) | — | 34.7 | 25.1 | See Supply Chain section of report for additional detail, on page 31 |
| Insufficient investigation of occupational injury and illness | Frequency of major findings in audits (by percent) | — | 6.9 | 1.9 | See Supply Chain section of report for additional detail, on page 31 |
| *Environment* | | | | | |
| Improper handling of hazardous materials | Frequency of major findings in audits (by percent) | — | 11.1 | 45.1 | See Supply Chain section of report for additional detail, on page 31 |
| Incomplete environmental permits | Frequency of major findings in audits (by percent) | — | 20.8 | 15.0 | See Supply Chain section of report for additional detail, on page 31 |
| *Management System* | | | | | |
| Legal requirements not tracked | Frequency of major findings in audits (by percent) | — | 8.3 | 8.0 | See Supply Chain section of report for additional detail, on page 31 |
| SER responsibilities not defined | Frequency of major findings in audits (by percent) | — | 4.2 | 3.9 | See Supply Chain section of report for additional detail, on page 31 |

## Supply Chain (continued)

| | Unit of measure | FY13 | FY14 | FY15 | Comments |
|---|---|---|---|---|---|
| *Ethics* | | | | | |
| No effective method to confidentially report misconduct | Frequency of major findings in audits (by percent) | — | 2.8 | 16.0 | See Supply Chain section of report for additional detail, on page 31 |

## People

| | | | | | |
|---|---|---|---|---|---|
| Women team members | Percentage | 32 | 32 | 32 | Applies to global operations |
| Women managers | Percentage | 24 | 24 | 24 | Applies to global operations |
| People of color — team members (US) | Percentage | 29 | 30 | 31 | Applies to U.S. operations only |
| People of color — managers | Percentage | 21 | 22 | 22 | Applies to U.S. operations only |
| Employee Resource Group participation | Percent of Dell employees | 11 | 14 | 18 | Global. FY13 and FY14 figures updated and corrected from FY14 reporting. |
| Employee Resource Group locations | Number of Locations | 95 | 131 | 185 | Global chapters |
| Human Rights Campaign Corporate Equality Index score | Scoring between 1-100 | 100 | 100 | 100 | 11th consecutive year to score 100 |

## Communities

| | | | | | |
|---|---|---|---|---|---|
| Percentage of team member volunteering | Percentage | 56 | 57 | 66 | — |
| Total volunteer hours | Hours in thousands | 707 | 739 | 713 | — |
| Children directly impacted through giving programs | Number of children in thousands | 300 | 504 | 657 | — |
| People indirectly impacted through strategic giving programs | Number of people in millions | — | 3.3 | 3.5 | — |
| Total contributions | Millions of dollars | 43.7 | 32.8 | 32.2 | — |

We are proud of the work we've done since announcing our 2020 Plan and the meaningful progress we've made against our long-term goals. We recognize we cannot do it alone, however: collaboration with customers, partners and stakeholders worldwide remains critical to achieving our goals. We welcome an open dialogue and encourage you to share your feedback and ideas.

## Join the conversation

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