

FY14

Corporate Responsibility Report

A progress report on our 2020 Legacy of Good Plan





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Letter from Michael Dell



The year 2013 was epic for Dell. We took the company private, getting back to our entrepreneurial roots and the customer focus that made us one of the most successful companies in history. It was an unconventional move, but it's helping us to be bold, evolve fast, and plan long term for a future in which we can lead and better serve our customers.

We're applying that same bold approach to our corporate responsibility strategy. In October, we launched our 2020 Legacy of Good Plan—a plan that includes ambitious, long-term goals for our own solutions, processes and people, and also strives to measure the ripple effect of how our technology is helping others to benefit the world.

This approach has been driving innovation, like solar-powered classrooms that use Dell Wyse™ thin clients to bring education to children in remote regions of Africa. We were the first company to use wheat straw packaging. Production of this new form of cardboard uses 40 percent less energy and nearly 90 percent less water than traditional pulping. And we reached a significant milestone: collecting more than a billion pounds of used electronics through our industry-leading global takeback and recycling programs.

Our global team of 100,000 gave back to their communities by volunteering a record 739,000 hours to charities and causes important to them. We continued to expand our Connected Workplace program. Nearly 20,000 people at Dell work in some sort of official flexible capacity today, providing team members with the balance they need to do their best work, while also helping reduce our carbon footprint.

We're not stopping. In fact, we've raised the bar with our 2020 Legacy of Good Plan. We set 21 social and sustainability goals we are committed to reaching by 2020, including making our entire product portfolio 80 percent more energy efficient, making our packaging 100 percent waste-free, and volunteering 5 million cumulative hours in the communities we call home. In the following pages, we'll report for the first time on our progress to date.

Our commitment is to run our business responsibly, ethically and in the best interests of the global community. This is more than just reducing the energy you need to run the technology; it's about the broader benefits technology enables for our customers—building a lasting legacy of good.

Michael Dell
Chairman and CEO
Dell Inc.



Materiality

Identifying areas of greatest impact

Materiality—the identification of and focus on material topics—is a concept that is central to corporate responsibility reporting. It is how we understand what 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.

The resulting materiality analysis (which was last refreshed prior to the development of the 2020 Legacy of Good Plan) ensures we focus on the most material topics for our evolving business.

The analysis was instrumental in the development of the plan and links directly to our choice of goals and strategies.

We revisit our materiality analysis regularly to ensure our efforts remain aligned with what is most important to our business and our stakeholders.

In addition to our annual corporate responsibility report, we provide a comprehensive Global Reporting Initiative (GRI) report each year, following the GRI Sustainability Reporting Guidelines. The GRI established these guidelines to identify a core set of material issues for inclusion in sustainability reports, and to 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 sponsor 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 two years.

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.



Letter from Trisa Thompson



We are excited to share with you, our partners on this journey, the first update on our progress against the Dell 2020 Legacy of Good Plan. We launched this plan in the fall of 2013, a historic point in Dell's story as we returned to a privately held company. The genesis of these goals was in place long before a leveraged buyout was ever publicly discussed, but the move to a private company does allow us even more flexibility to look into the future and set long-term goals. As we arrive at our first progress update, we do so with a continued commitment to the mission and an appreciation for those on this journey with us.

We are beginning to see a trend. Many companies, like Dell, are at the early phases of looking at a net-positive strategy. As these strategies begin to take shape, you can see that corporations are building transparency and accountability into their future business plans. One company can make a small impact, but truly sustainable change requires a collective effort.

We applaud those willing to step out and publicly set long-term goals, and we want to be part of that effort. We hope others will see the potential and join us, as we join others, in this important work. Corporate responsibility, along with our 2020 Legacy of Good Plan, is bigger than an organizational structure and bigger than a single industry. It is about passion, possibility and responsibility.

In the pages that follow, we share some early successes, our plans for measuring goals, and the challenges we already face—for example, gaining alignment on baseline metrics and establishing documented, repeatable measurement systems.

We knew there would be obstacles; still, we are committed to working with other like-minded stakeholders to put technology to work where it can do the most good for people and the planet. Will you join us?

Trisa Thompson
VP, Corporate Responsibility
Dell Inc.



Our commitment

Dell Powering the Possible is our commitment to put technology and expertise to work where it can do the most good for people and the planet.

Looking ahead

We are proud of the work we've done so far and recognize we have much more to do to meet our Powering the Possible commitment. While we may not fully know every step of the path to achieving all parts of our 2020 Legacy of Good Plan, we are off to a great start.

This FY14 Corporate Responsibility Report (covering Feb. 2, 2013–Jan. 31, 2014) represents our first year of organizing our annual report around tracking performance against our 2020 Plan. We will work with our customers and stakeholders, building annually on our successes and addressing our challenges as we make our way toward 2020.



2013



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 Powering the Possible 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 part of Dell

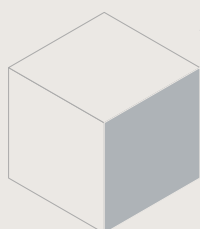
Be a compelling destination for our team members to thrive, achieve career aspirations and have fun

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.



Action area



Aspiration



Goal



Goals index

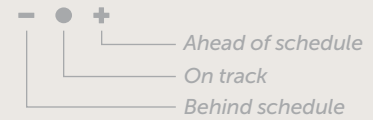
Goals

All goals begin with FY13 (Feb. 4, 2012–Feb. 1, 2013) unless otherwise noted and have 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.

Goal Status



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

— ● +

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

— ● +

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

— ● +

Phase out environmentally sensitive materials as viable alternatives exist

— ● +

Recover 2 billion pounds of used electronics¹

— ● +

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

— ● +

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

— ● +

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

— ● +

¹ Cumulative total since FY08.



10x20 Goal—A Legacy of Good

The good that will come from our technology will be 10x what it takes to create and use it.

Status: On track

In FY14, we began establishing a framework for working with customers, suppliers, consultants and industry partners to develop models for measuring this unprecedented goal. This puts us on track, as progress right now is about moving forward in our measurement definition process until we reach the data collection stage.

When we released our 2020 Legacy of Good Plan in October 2013, we introduced our overarching goal to have the “good” that comes from our technology be 10 times greater than what it takes to create and use it. This goal is more than a number; it’s the legacy of what can be accomplished, collaboratively and collectively, through the use of technology. Regardless of how our customers use Dell technology, we want to show how we’re helping them do so in a cleaner, greener, more socially responsible way.

From the beginning, we recognized there was some ambiguity in how we would measure the good that comes from our technology. But Dell history shows setting long-term goals like this drives innovation—our sustainable packaging and Fresh Air data center equipment are a few such outcomes. We’ve embraced the challenge of innovating new measurement techniques and have so far focused our efforts on trying to understand 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. FY14 was the start of this process, and we’ve learned much already.



10x20 Goal—A Legacy of Good

Understanding what to measure and how

The basic math of our 10x20 goal looks like a fraction: On the bottom, or denominator, is our footprint—the “create and use” part of the equation. The science of measuring this type of full impact is evolving. If we look at our footprint exclusively in terms of greenhouse gas (GHG) emissions, we have a pretty good handle today on how to measure this.

Dell already measures and reports on Scope 1, Scope 2 and select material Scope 3 emissions. A portion of this part of the equation is measured in our goal to reduce emissions from our operational footprint (page 14). The other parts of this equation involve looking at additional Scope 3 emissions (an exercise we have already begun), including the carbon associated with the use of our products. Of course, greenhouse gas emissions may not be the only item we measure. We are still investigating what other environmental and social factors we may or should consider.

On the top of our goal’s fraction (the numerator) is the “good”—the social and environmental benefits our technologies can enable. One of the biggest challenges is understanding what units of measurement to use. Here, the science of measuring footprints offers some guidance.

In some cases, we will be able to measure how our technologies are helping reduce the non-IT footprint of end users and other stakeholders. For example, our Dell KACE™ appliances help system administrators manage power settings across their networks, and the ability to automatically shut down workstations each night helps reduce their IT environmental footprint (the denominator in our fraction). In many cases, the impact goes further—one school district reduced its overnight air conditioning costs by 98 percent because the workstations stopped artificially heating up school computer labs. And other customers have avoided carbon emissions because their systems administrators no longer need to drive to different campuses for routine updates and patches. These are examples from the numerator—the “10x more good” we are trying to measure.

Through FY14, our measurement-related efforts centered around identifying possibilities, understanding better what should comprise the “good” side of the equation, and investigating the way others have tried to measure as part of similar net positive goals.

Identifying best practices

As a key part of building out our methodology and creating the structure that will allow us to measure our 10x20 goal, we have extensively reviewed other net positive programs.

Of particular note, the Global e-Sustainability Initiative (GeSI) published its SMARTer 2020 report at the end of 2012. In it, GeSI thoroughly documents approaches to measuring IT-based solutions for mitigating carbon emissions by industry sector (e.g., transportation), type of solution/approach (e.g., video conferencing/unified communications), and geography. This report can be a critically important jumping off point for us, helping us to identify areas of greatest potential impact and ensure we have a thorough understanding of how and where Dell’s technology can offer social and environmental benefits.

Also of note is BT’s “Net Good” program. Their vision—“to help society live within the constraints of our planet’s resources through our products and people”—is similar to our aim of creating a legacy of good. For BT, the pathway includes helping customers reduce carbon emissions by at least three times the end-to-end carbon impact of BT’s overall business. This goal and the work BT has done to date can help inform how we will measure our own efforts.

In FY15, we will continue to examine other net positive programs to understand how organizations are approaching their measurement. And we will look to these organizations as potential partners for collaborating to understand the net benefits of technology.

“Good thoughts are no better than good dreams, unless they be executed.”

—Ralph Waldo Emerson



10x20 Goal—A Legacy of Good

Recruiting others

We began looking for partners from the moment we envisioned this goal, as we cannot accomplish it alone. One of the first things we did in FY14 was to help BSR (a global nonprofit dedicated to working with business to create a just and sustainable world) establish the Center for Technology and Sustainability (CTS). This new center will help us engage with our peers on issues related to technology's role in driving sustainability. In particular, we will work with the center to study various technology solutions across their value chains, model the solutions' footprint and benefits, and then develop case studies.

This work will directly feed into our goal of demonstrating the environmental benefits of Dell solutions (see page 52).

There is a key difference, however, between our goal of measuring the environmental benefits of Dell solutions and our efforts to demonstrate that our technology enables 10 times more good than it takes to create and use it. The former focuses on specific solutions we have sold and their environmental benefits. The latter includes both the environmental and social benefits of not only those solutions but also solutions developed in tandem with our partners and customers, and novel uses of our technology entirely created by our customers themselves.

Moving forward in FY15

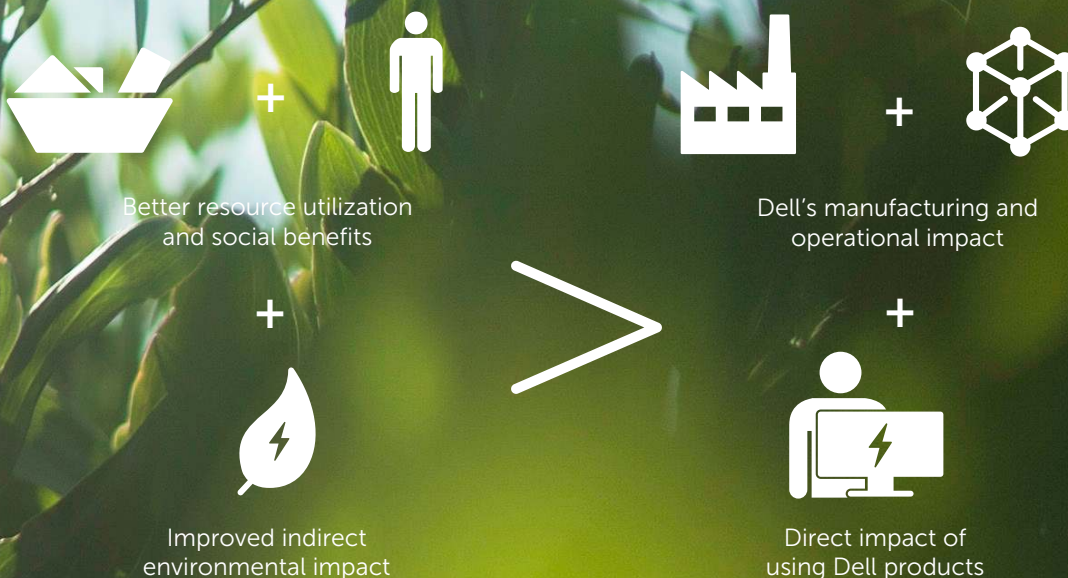
Our efforts should hit their stride during FY15. We have momentum and must build on that to continue helping BSR develop the CTS. We also must recruit additional peers interested in participating—whether as part of the CTS or directly with us.

In FY15, some of our methodologies for measuring the technological benefits of Dell solutions should start to take shape. By working with the CTS and other partners, we expect to be able to identify a core list of solutions with which we can pilot and test these methodologies. The pilot subjects should be part of a larger set of solutions (Dell-developed, co-developed with customers/partners, and customer-driven solutions) that we can identify as the core categories for measurement of our numerator. With this in place, we will be in a stronger position to start looking at how to measure solutions' social benefits.

In parallel, we will continue our work to identify and catalog our own footprint (the denominator). While we may not be in a position to identify a number at the end of FY15, we should be well on our way to entering the measurement phase of this goal.

If you are interested in working with the Center for Technology and Sustainability or are a Dell partner or customer and want to participate in measuring the good that will come from technology, please contact John Pflueger, Principal Environmental Strategist, at John_Pflueger@dell.com.

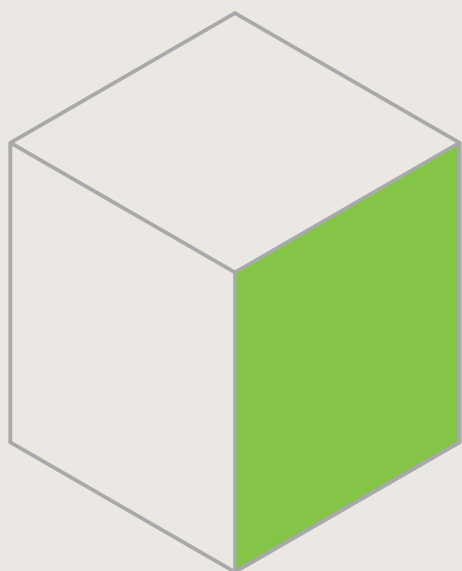
Our overarching goal is to have the “good” that comes from our technology be 10x greater than what it takes to create and use it.



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, becoming 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 these aspirations and goals 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: On track

In FY14, we reduced greenhouse gas emissions from our facilities and logistics operations by a combined 8 percent. This represents a 10 percent decrease in our operational emissions (Scope 1 and Scope 2) and a 7 percent reduction in our Scope 3 upstream transportation and distribution emissions, putting us on track to meet our 2020 goal.

Background, challenges and opportunities

Dell's operational carbon footprint is comprised of Scope 1 emissions from the fuels we burn and refrigerants we use, Scope 2 emissions from the electricity we purchase, and Scope 3 emissions from the transport and distribution of materials and products within our supply chain and up to the point of sale. Outside the definitions of this goal, we also report on other Scope 3 emissions, such as those from business air travel ([see By the numbers, page 89](#)).

Measuring our impact is always a challenge, because a complex global operation such as ours is continually evolving. We must recalibrate our measurement profile to account for each new acquisition, facility and market expansion.

Another challenge we face is coordinating the many inter-related parts of Dell's overall facilities. For example, changes in business direction can affect where we locate our operations and what types of activities will take place in them: Office-based activities require much less energy than data centers or research development.

And any changes we make to reduce our Scope 3 upstream transport emissions could affect standing business relationships, contracts and other companies' business practices.

Additionally, there are regional challenges associated with sourcing renewably generated electricity. Purchasing green power in Asia, for example, is difficult at this time because of market conditions and limited renewable generation capacity. We hope to identify cost-effective solutions in the coming years. Meanwhile, we will continue to consider further opportunities in Europe and North America as generation capacity grows in these regions.

Progress to goal

In FY14, we pursued 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. While we looked at (and may eventually report on) many other sources of emissions, our specific goal-related efforts measured:

- Scope 1 emissions: Includes fuels burned for heating and cooking in our buildings, in backup generators and in owned or leased fleet vehicles, as well as use of certain refrigerants
- Scope 2 emissions: Includes emissions associated with purchased electricity and heat, taking into account the portion that is generated from renewable sources (sometimes called "net" emissions)
- Scope 3, Category 4 emissions: Includes emissions from the transport and distribution of materials and products within our supply chain and up to the point of sale

Scope 1 and 2 emissions: energy and refrigerant usage

Optimizing energy use

The largest contributor to our total direct and indirect greenhouse gas emissions is purchased electricity, which falls under Scope 2. We also purchase a small amount of municipal heat. Our Scope 1 emissions are much smaller and include those from on-site fuel combustion for heating and in backup generators, hydrofluorocarbon (HFC) refrigerant leaks, and the use of company-owned and leased vehicles.

FY14 was the first full year that [Quest Software](#), [SonicWALL](#), [Wyse Technologies](#) and several other software, product and service companies were part of Dell. The acquisition of Quest and other companies in FY13 increased our global facility space footprint by nearly 8 percent from the prior year. We have added them into our baseline measure for FY13 to reflect the impact of these acquisitions for the whole year.

Within our own operations, more than 96 percent of Dell's FY14 Scope 1 GHG (direct) emissions and net Scope 2 GHG (indirect) emissions were associated with our office, manufacturing and data center buildings (owned and leased); the rest were from company vehicles. Improvements to energy efficiency remain the most cost-effective means to reduce our GHG emissions. In FY14, we continued to make upgrades to our buildings, with projects that included lighting upgrades, pump and motor replacements, boiler and hot water system improvements,

and installing smart meters. We also completed construction of a new office building in Coimbatore, India, that was designed to LEED Gold standards.

In FY14, our net Scope 2 emissions decreased by more than 12 percent from our FY13 emissions level. The much-smaller Scope 1 emissions associated with on-site fuel consumption for heating and backup generators and HFC refrigerant emissions increased by about 5 percent, while the emissions associated with vehicles increased about 10 percent, largely due to an increase in the number of sales-based executives who are provided leased vehicles for business and personal use.

Our total net Scope 1 and net Scope 2 emissions decreased by 10.2 percent from the adjusted FY13 emissions. We can attribute this decrease to a combination of energy-efficiency improvements and an increase in renewable energy purchases.

Increasing renewable energy usage

Nearly 89 percent of the energy used in Dell's facilities comes from utilities that provide us electricity and municipal heat/steam. In FY14, we sourced more than 35 percent of our purchased energy needs from renewably generated sources—an increase from almost 23 percent in FY13. This keeps us on track to meet our target of sourcing at least 50 percent of our electricity from renewables by 2020.

We also increased the number of locations that purchase 100 percent renewable electricity. As of the end of FY14, 21 Dell facilities purchased 100 percent of their electricity needs from renewable sources such as wind, water and solar—up from 16 facilities in FY13. Four other facilities purchased at least some portion of their electricity or heat from renewably generated sources.

One significant addition to Dell's alternative energy use profile was the installation of [a new solar photovoltaic system](#) at our campus in Bangalore, India. The 186 solar panels installed across 3,340 square feet are tied directly into the campus grid rather than through a battery system, which helps us reduce energy loss and avoid extra heat generation. With a peak design capacity of approximately 43 kilowatts, the system is expected to help Dell reduce its carbon footprint by an estimated 55 metric tons of CO₂-equivalent per year. This solar PV system brings Dell's combined generation capacity to 143 kilowatts.

Progress to goal (continued)

Additionally, Dell was one of only eight organizations nationwide to receive a [2013 Green Power Leadership Award](#) from the U.S. Environmental Protection Agency (EPA) for purchasing electricity that is generated from environmentally preferable renewable resources, such as wind, solar, geothermal, biogas, eligible biomass and low-impact hydropower.

Scope 3 emissions: upstream transportation and logistics

Choosing the most efficient transportation modes

Our key measure of Scope 3 emissions related to this goal is the transport and distribution of materials and products within our supply chain prior to sale. From FY13 to FY14, we achieved a 7 percent reduction in GHG emissions.

Much of this reduction can be attributed to our transition to [transporting select products by ocean rather than by air](#) prior to sale. Ocean shipments cause one-thirtieth the carbon emissions (per ton-mile) of air shipments.

This overall optimization process has enabled us to transition many more shipments to regional distribution centers via ocean transport, as opposed to using air, to reach more dispersed locations. By grouping and inventorying products in this manner, we take advantage of greater bulk shipping and can provide carriers with additional time to choose the most efficient transport modes.

We complemented this effort by successfully piloting shipments of finished products from Asia-based manufacturing to European distribution centers via rail transport rather than sending smaller batches of products directly to their final destinations. This was part of a larger overall shift in Dell's business model—streamlining our configurable selections for certain products, producing ahead of demand, and then moving those products in bulk to distribution centers. One downside is that we cannot use rail in this way year-round due to winter icing of the tracks and impassable stretches in the mountains.

We are also in the midst of a multiyear implementation of a new software system that will help us deliver products even more efficiently to customers by modeling the best modes of transportation to reduce our impact.

Reducing shipment size and weight

Poorly packed boxes or pallets limit how many goods can fit in the spaces available for freight transport. This means fewer products are moved using the same amount of fuel, regardless of the mode of transportation. That's why we remain committed to better utilizing space and increasing shipment densities while still keeping products protected.

In FY14, we introduced a global palletization specification to optimize space inside aircraft, ocean and truck containers. Previously, different materials and sizes were being used across the globe. Our logistics teams have developed a packaging standard operation procedure—refining the way materials are put together for shipping—to complement the global palletization initiative.

We also worked with suppliers to reduce the size and amount of packaging associated with their shipment of various materials, as well as to refine their pallet-building strategies.

Leveraging SmartWay partnerships

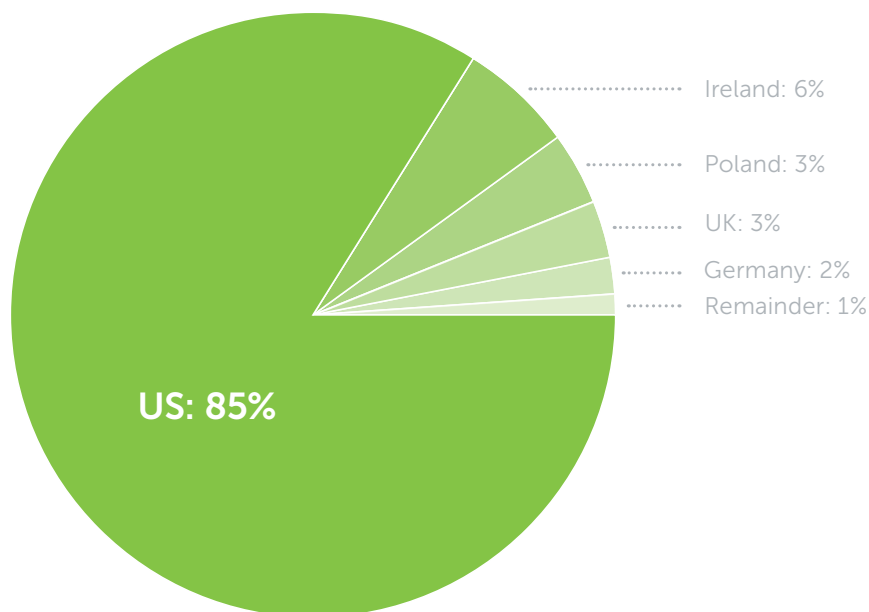
Dell was once again certified as a [U.S. EPA SmartWay Shipper](#), and we continued to work with our carrier partners to sustain their status as SmartWay Carriers. By leveraging our SmartWay partnerships, Dell can select carriers who are committed to tracking and reducing their fuel consumption and carbon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

Next steps

- We plan to increase green power purchasing in FY15 as contracts and situations allow.
- Although electricity is by far the largest source of on-site energy use, we will also evaluate using renewable fuels in our operations.
- We will continue the multiyear implementation of a new software system, which will enable us to optimize delivery of our products to customers, selecting the right modes of transportation to reduce our impact.

Dell renewable electricity used in FY14

Total purchased and generated kWh: 263,000,000 or 35.4 percent of global consumption



Reduce our water use in water-stressed regions by 20%

Status: On track

During FY14, the total fresh water consumption at Dell-operated facilities decreased by 9 percent. Fresh water consumption decreased by more than 5 percent at facilities located in water-stressed regions. We continued to identify water-saving measures, such as our new building in Coimbatore, India, with its water recycling/reuse infrastructure. We also identified the World Resource Institute's Aqueduct Water Risk Atlas as our standard against which we will measure this goal moving forward.

Background, challenges and opportunities

Threats from water scarcity as well as flooding are a reality and have the potential to create disruptions for Dell—as well as many others in the global economy. The CDP's [annual Global Water Report](#) shows nearly two-thirds of organizations reporting have identified risks to their direct operations and supply chain over the next five years.

Dell's direct water use is relatively limited: Most water used in our operations comes from municipal water supplies and is used for building heating, cooling and domestic purposes like food preparation, landscape irrigation and restrooms. We neither create nor discharge any industrial wastewater in our product assembly processes. But as the demand for fresh water continues to grow faster than supplies in many communities and weather events become increasingly unpredictable, we know we must expand our conservation efforts and find new ways to reuse water.

Water conservation at Dell is not new—as a company founded in Central Texas, we understand the challenges of water scarcity, and our operations here have significantly reduced the amount of landscaping that is irrigated. Our Western Technology Center in Quincy, Wash., is a data center that employs a highly water-efficient cooling system. Several of our facilities in India already recycle or reuse much of their effluent. And our new facility in Panama

features extensive use of native plants. Further, we recently articulated a new [water policy](#). But as part of our efforts, we must continue to study how we use water and where we can make improvements.

We also need to be consistent in how we define a water-stressed region. The United Nations and the World Resources Institute (WRI) published definitions that vary slightly, which can affect which Dell facilities are situated in water-stressed regions. Moving forward with this goal, we will use the [WRI Water Risk Atlas](#) to determine which locations are water stressed.

We will measure our progress at Dell-operated facilities identified as being located in areas identified as “high-stress” or “extremely high-stress;” however, we are not limiting our conservation and reuse actions to these locations. Many Dell-operated facilities are located in geographies that are currently experiencing or may in the future experience dry or even drought conditions. As a large employer in these communities, we need to responsibly manage our water consumption. If we add or close facilities, or the WRI water risk indicators change over the 2020 goal period, we will adjust the baseline accordingly. We will also continue to report on total fresh water consumption each year ([see By the numbers, page 89](#)).

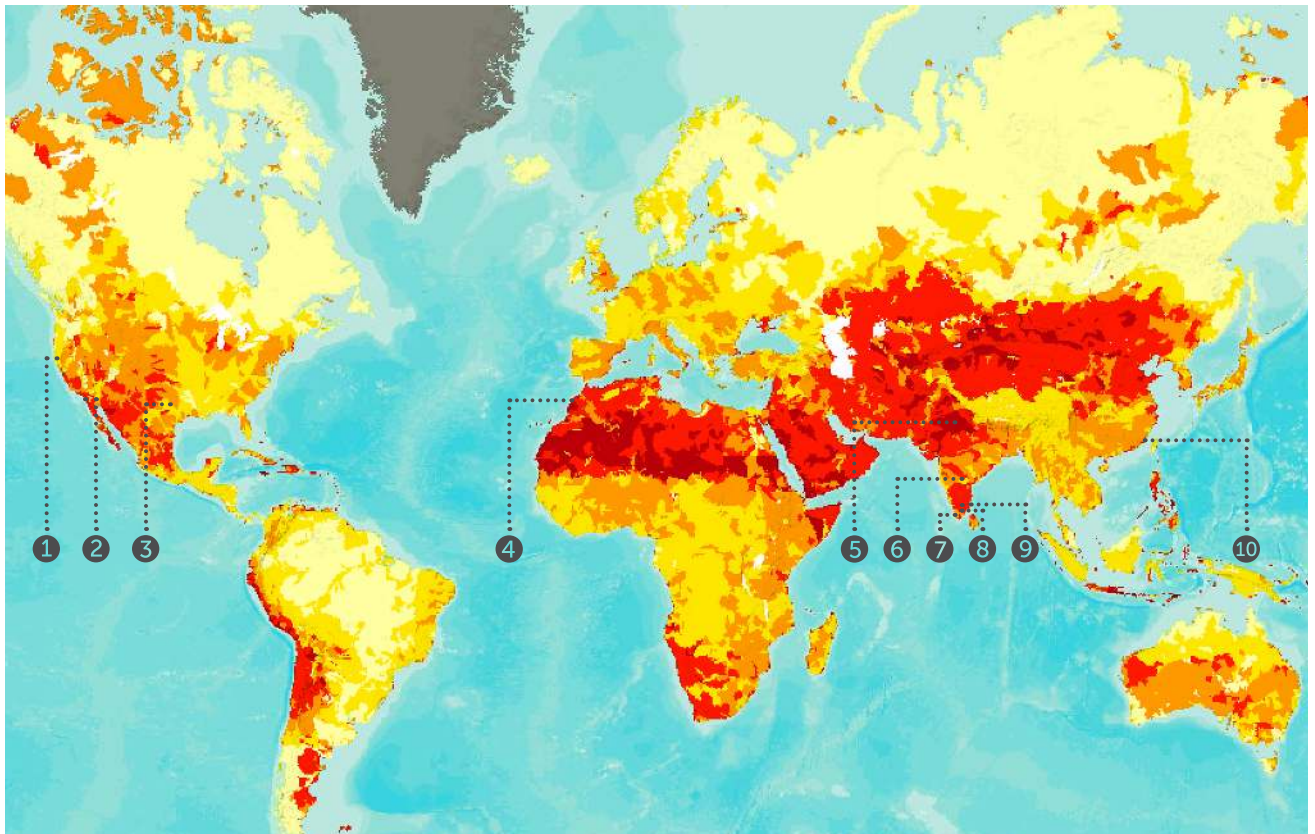
Progress to goal

With the adoption of the WRI Water Risk Atlas, we are now in a position to further prioritize our water conservation and reuse efforts first in areas of extremely high stress, second in areas of high stress, and then in other areas where there is the potential for water stress or abnormally dry conditions.

Next steps

- In FY15, we plan to establish a formal benchmarking program to identify and share best practices across the company.
- We will also continue to incorporate water-smart landscaping improvements and new water-efficient technologies.

Dell locations in water-stressed regions

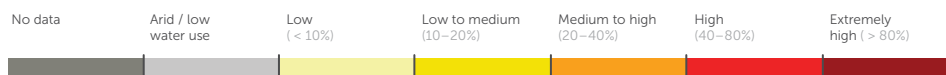


Dell locations:

- | | | |
|---------------------------|------------------------|---------------------|
| 1. San Jose (CA), US | 5. Delhi area, India | 9. Bangalore, India |
| 2. Aliso Viejo (CA), US | 6. Hyderabad, India | 10. Xiamen, China |
| 3. Oklahoma City (OK), US | 7. Coimbatore, India | |
| 4. Casablanca, Morocco | 8. Chennai area, India | |

Baseline Water Stress

Withdrawals/available flow



* Map source: aqueduct.wri.org/atlas (April, 2014)

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

Status: On track

In FY14, our manufacturing facilities continued to landfill less than 5 percent of their total waste. We estimate our total diversion rate globally at Dell-operated office buildings to be 50–60 percent.

Background, challenges and opportunities

Diverting waste from landfills is not only the right thing to do for the environment, but it also makes good business sense. Dell has committed to such efforts for many years at our manufacturing locations and has maintained an approximate 95 percent diversion rate. This benefits the environment while helping us keep costs down, as we recover value by reusing or recycling the materials that do not get used in the manufacturing process.

Although we've been diligent in our [waste collection and management efforts](#) at Dell's non-manufacturing locations, we have not specifically measured our efforts there previously. Nevertheless, when we launched our 2020 goal, at most locations we already had well-developed e-waste reuse and recycling efforts for team members along with recycling programs for materials such as cans, bottles and office paper.

Some sites also had more advanced recycling and reuse efforts in place. We compost our food preparation/food service waste in several locations (including campuses in Ireland and France), and the cooking oil from Central Texas facilities (including Dell headquarters) is sent off to be recycled into biofuel. And some of our office facilities in India are already approaching 100 percent waste diversion rates. This gives us a good base to build upon, creating new opportunities to recover more materials and divert them from landfills.

Thinking, acting locally

Because of the way most wastes are managed, we need to take a local approach to waste diversion at each Dell-operated facility. Options and vendors for waste prevention, reduction, recycling, composting and other reuse vary geographically—as do the nature and variety of waste generated by each type of facility.

Ultimately, we also must rely on our waste management partners to help measure and provide reliable data. To be successful, we must work with them to improve and harmonize the data collection process, moving toward common measurement methodologies and consistent reporting.

Increasing options, awareness

To truly increase our diversion rates, we also need to identify new recycling and reuse opportunities at many Dell facilities. The efforts, however, must go beyond the on-site infrastructural changes like adding composting equipment. We will need to add new [internal partners](#) and identify external waste management vendors, then work with them to create or adapt tracking systems.

We also must drive greater team member awareness of available waste reduction and diversion options and work to encourage behavior change. This is especially true at any facility where we introduce new options. We must tailor our awareness-building efforts somewhat by site, as differing local circumstances make a one-size-fits-all approach impossible.



Progress to goal

The first order of business in FY14 was to work with Dell facility leads to understand what programs and waste diversion strategies they already had in place. This included identifying where we have reliable data sets and which waste streams this data measures, as well as understanding any gaps that exist. As we continue to evaluate the status of our facilities, we have also been compiling best practices, aiming for a more complete analysis in FY15.

Based on initial analysis, we estimate our diversion rate at global office buildings to be between 50 percent and 60 percent, based on data from about 80 percent of our facilities. Our manufacturing facilities continued to divert more than 95 percent of their wastes from landfills through recycling, reuse and beneficial incineration for fuel recovery. Collectively, the total diversion rate for all Dell-operated buildings is estimated to be 80-85 percent.

Collecting reliable data on general waste management activities from our office facilities has proved to be a significant challenge. Some locations have encountered difficulties in quantifying the amount of waste collected, and for others the challenge lies in obtaining detailed accounting of waste management methods from our office and general waste recyclers. Additionally, some waste streams are being recycled but not well tracked. However, we have identified facilities from each region that can serve as models, and we will work with them to better understand what internal and external practices we may be able to put in place at other facilities.

Next steps

- In FY15, we will continue to address the issue of data availability and quality, creating common metrics and methodologies across facilities. This will also help us identify gaps as well as best practices.
- We will work with vendors and team members to implement additional waste diversion activities in targeted facilities.
- We will also increase team member awareness of existing diversion options.

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

Status: On track

In FY14, we surveyed our facilities and put the infrastructure in place to define what constitutes a sustainability initiative, identify ongoing initiatives and begin growing the number of initiatives.

Background, challenges and opportunities

When we launched our goal to have a sustainability initiative at each of Dell's 350+ global locations, we planned to tap into [team members' enthusiasm](#) for driving sustainability at Dell. Our team's eagerness for involvement was confirmed by the overwhelming outpouring of support and interest we received when the [2020 Legacy of Good Plan](#) launched in October 2013.

To effectively leverage our team members' passion, we must provide them with some direction to guide their work toward our goal. However, even as we launched this goal, it became apparent that there are many ways to define a "sustainability initiative."

Sustainability initiatives encompass a wide range of programs, including those run by our facilities management group, those led by our Planet employee resource group (ERG) and those conducted via our giving and community involvement activities.

These initiatives vary in nature, so in FY14 we had to determine whether a one-time improvement or effort (such as a facility upgrade) would count toward our goal or if only sustained, widespread efforts qualified.

In the end, we recognized that between now and 2020 the facility upgrade can have as much payback as an employee-driven recycling program or team member-education initiative.

We hope to see significant impact by mobilizing across Dell, but a challenge lies in identifying who is spearheading which initiatives at each location. This will be compounded by any changes in management of ongoing projects—it is unlikely that the exact same people will be involved in 2020 who were involved in 2013. By starting a tracking system now with a site lead at each location (rather than a project owner), we will be able to better manage, improve and measure ongoing initiatives.

We also need to continue refining how we measure sustainability initiatives. For example, will we count very basic elements, like recycling bins in offices? Or will there be a minimum threshold, and how will that be defined? How will we count global or regional efforts that either affect many facilities or do not have a direct effect on any (like a coordinated coastal clean-up effort, for example)? Answering these and other questions will be a key element of our FY15 work.

Progress to goal

We still have work to do in identifying site leads at each Dell location and cataloging all of our existing projects, and we must continue to refine our sustainability initiative definitions. Meanwhile, in FY14 we noted several examples of the kinds of programs and initiatives we believe will qualify under future definitions.

For example, the Central Texas chapter of our Planet ERG (which serves both the Round Rock and Austin campuses) organized an informational event around Earth Day to raise awareness of the [Plant a Tree Program](#). The information-sharing and awareness-raising sessions included speakers

from our conservation partners, [The Conservation Fund](#) and [Carbonfund.org](#), as well as special discussions for sales team members. Plant a Tree Program contributions from U.S. customers significantly rose in the second half of FY14, in part due to this event.

We also implemented a pilot program for electric vehicle charging stations at three of our U.S. locations. Based on the response, we are considering expansion to other locations in the near future.



Progress to goal (continued)

Ongoing programs included workplace gardens at various facilities, the purchase of sustainably grown food by our food service vendors at multiple locations, special volunteer events as part of our Planet ERG and environmental awareness fairs hosted by manufacturing teams.

Next steps

- We will create a cross-functional team to identify current projects, programs and policies that are working well—as well as new ones that we can pilot—to support facility-based sustainability efforts, especially those that are highly visible to our employees or neighbors.



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: On track

In FY14, we worked steadily toward increasing visibility of and transparency about key issues within our supply chain. As part of this, 46 percent of our suppliers provided public sustainability reports last year, and we began working with suppliers to develop and share water risk mitigation plans in the future. In this report, we also provide an aggregated view of our audit findings and discuss other key issues.

Background, challenges and opportunities

Dell's supply chain encompasses a diversity of business sizes and relationships. We have a core group of suppliers with whom we contract frequently for the bulk of our needs, along with a very long list of other suppliers who provide infrequent or one-time services. We need to demonstrate transparency among all suppliers regardless of how closely or often we work together.

Additionally, the complexities of the supply chain mean we must manage our social and environmental responsibility (SER) efforts at multiple levels. We must not only ensure [Tier 1 suppliers](#) meet our standards, but we also need them to drive these standards to their own suppliers (Tier 2, Tier 3 and beyond). Managing multiple levels down a large, diverse global supply chain—providing the level of detail needed for transparency and working with sub-tier suppliers to mitigate issues—is one of our greatest challenges as an organization.

Influencing SER at all levels of our supply chain is a challenge we readily accept. Our goal of demonstrating 100 percent transparency does not change with Dell's privatization and if anything only increases in its urgency. Not only is transparency important to us, but it is also important to our customers, who are demanding increasingly greater detail about a variety of issues, including conflict minerals and labor issues. Though Dell may not have reporting requirements now as a private company, many of our customers do, so we must operate in an open and transparent manner.

Our challenges are industrywide, as we share many suppliers with our peers. Both Dell's direct FY14 audits and the third-party audits we share with peers showed that working hours continue to be a problem among our suppliers. Industry watchdog reports also highlighted some serious working hours violations by

Background, challenges and opportunities (continued)

sub-tier suppliers, which required us to partner with our Tier 1 suppliers to address issues with sub-tier suppliers (since that is where the contractual relationship exists).

China has begun to focus on existing local laws to help industry better manage the common SER standards violations among sub-tier suppliers. China has a new provision on the China Labor Contract Law, adding a 10 percent cap on the use of dispatch workers to hopefully protect this class of temporary employees who are rarely afforded the same benefits or rights as other workers. Enforcement of the prohibition of labor fees—such as those often charged to interns in exchange for employment—will also help.

Tracing conflict minerals is another challenge inherent to managing our diverse global supply chain. Dell is a supplier to many companies that, under the Dodd-Frank Act, must start reporting on their minerals usage down to the smelter level beginning in 2014. This means all companies who use tin, tantalum, tungsten and gold must disclose their source for these minerals to their customers or the U.S. government. Full traceability will help the industry identify and avoid sourcing from problematic mines at the local level, rather than avoiding—and thereby penalizing—conflict-prone regions as a whole. However, as an industry we lack some of the tools and resources needed to meet these growing expectations for tracing and reporting.

This challenge and the others noted here represent opportunities for us to work closer with industry peers to share data, streamline processes and support stronger regulations. Supply chains are interconnected by nature,

so no one company can reform issues alone. In FY14, we continued to collaborate with other companies through programs like the [Sustainable Trade Initiative \(IDH\)](#) and our new [Rural Education Action Program \(REAP\)](#) student worker initiative (in conjunction with Apple and Stanford University), and we will continue to deepen such partnerships over the coming years.

Looking even further into the future, we must also help our suppliers ensure business continuity as we all face possible disruptions from the effects of climate change. By asking Dell suppliers to report their current environmental impact through corporate responsibility reports and other avenues, we can work together to better measure and manage future activity. This reporting comes with multiple challenges, as some of our suppliers have never produced reports and will need assistance. Further, we expect them to use the Global Reporting Initiative (GRI) index as a standard for their information disclosure; but GRI is a dynamic model, and suppliers will need to keep up with its changes.

Lastly, we are particularly concerned about water-related challenges such as flooding, shortages and quality issues. We will need to keep abreast of potential issues globally and locally, working with our suppliers to mitigate their risk in FY15 and beyond. To this end, we will supply a template for suppliers to consider when creating their first mitigation plan.

Progress to goal

In FY14, we worked toward three targets to help achieve 100 percent transparency of key issues in Dell's supply chain by 2020:

- 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

Additionally, we worked with suppliers on key issues revealed by their audits with the goal of rectifying any behaviors not compliant with our standards. We focused on mitigating risks by building capability, fostering self-accountability and tracking minerals usage through the supply chain.

Progress to goal (continued)

Publishing audit results

In FY14, we audited 55 (45 percent) of [Dell's Tier 1 suppliers](#) (top 90 percent spend) and also audited 37 sub-tier and small-spend suppliers we perceived to be at high risk around key issues. Because we prioritized higher-risk suppliers for audits and included more Tier 2 audits, we saw an increase in findings over previous years.

We accessed additional shared audit data through our relationship with the [Electronic Industry Citizenship Coalition \(EICC\)](#), which is helping facilitate industrywide data sharing by compiling supplier audit data from all EICC members and then making it available to all parties. That means that if one of our competitors recently audited a supplier, we can access the results, although EICC keeps the process anonymous, so we cannot see which company conducted the audit. The process helps all parties save resources and spend more time on capability building.

We published an aggregated list of our FY14 audit findings ([see page 29](#)). We share specific findings with customers upon request, under nondisclosure agreement, and notify suppliers whenever this information is shared. The aggregate findings show that working hours, days off, discrimination and wages continue to be challenging issues. These issues also challenge our industry peers and other groups manufacturing in China. Independently, the group [DanWatch](#) published an investigative report on labor issues among Dell suppliers. We investigated the allegations, worked with our suppliers to put together a corrective action plan and met with customers to discuss our progress.

In FY14, Dell hired a new SER director, located in Asia, to lead global efforts that address persistent supply chain issues such as overtime. Through our Quarterly Business Reviews, we continued to determine how we can better support our suppliers' operations.

Publishing GRI reports

Our standard for sustainability reporting is the [GRI](#), an internationally recognized framework for identifying what is and is not included in a sustainability report. In FY14, we specified that our Tier 1 suppliers must publish GRI-based sustainability reports to help our customers and stakeholders achieve more insight into our supply chain's impacts, strengths and improvement areas. We had, in the past, required our suppliers to publish sustainability reports, but the GRI requirement is new. We notified all suppliers of this enhanced requirement. We share links to each supplier's report, as well as their sustainability website, [on Dell's website](#).

We continued to require suppliers to disclose their carbon emissions to [CDP](#) and achieved 99 percent compliance. We also began requiring some suppliers to disclose water usage to CDP (53 percent reported), and we plan to expand this requirement in FY15.

Water risk mitigation

Risks such as drought, disasters and lack of clean water can disrupt suppliers' abilities to deliver goods and services and to care for their employees. In FY14, we began work toward helping suppliers mitigate these water-related risks.

Our ultimate goal for 2020 is to require a five-year responsible water risk mitigation plan from all production and select service suppliers. The first step was encouraging reporting to the [CDP's water disclosure program](#), which more than half of our suppliers did this first year. This helps the participating suppliers to understand their total water use. We have begun collecting best practices from other risk mitigation plans, including our own, in order to work with these suppliers in FY15 and beyond to develop their own plans.

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. As part of this, we have worked through various partners and groups to encourage accountability and change.

In FY14, we partnered with Stanford University and Apple to support [REAP](#), which assesses the quality of vocational schools in China—the country's main source of student workers. This assessment will help our suppliers evaluate the schools they partner with and find additional qualified schools, in turn driving accountability for vocational schools and oversight for the students. Together with our partners, we began evaluating schools' education and internship performance. We also initiated development of tools to help suppliers' human resources managers assess schools and make hiring decisions.



Progress to goal (continued)

We 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. Over FY13 and FY14, we engaged 11 Dell suppliers—representing 35,000 workers—to participate in the program. Participants are making tangible progress in enhancing worker morale, improving communication between leaders and team members, and streamlining operational processes.

For example, we worked with 12 key suppliers specifically to address labor hours. We tracked weekly work hours and turnover rates and worked with executives to identify specific actions they could take to improve. At the beginning of the project, the suppliers collectively had 47 percent of workers exceeding work hour rates. Six months later, that rate dropped to 11 percent.

Conflict-free supply chain

To ensure that 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](#).

We participate in the [Conflict-Free Smelter Program](#) organized by the [EICC](#) and the [Global e-Sustainability Initiative \(GeSI\)](#), which provides an independent, third-party evaluation of a smelter's procurement activities and concludes if the smelter demonstrated that the material they processed originated from conflict-free sources.

In FY14, we established a comprehensive [list of our suppliers' reported smelters](#), which we published to our website so our customers and stakeholders can compare to the EICC-certified smelter list. We compiled this list by asking suppliers to sign letters acknowledging our sourcing requirements and then providing them with a template for reporting their supply chains' usage. We continue to work toward full and complete disclosures—we have responses from approximately 95 percent of our suppliers, and these are about 75 percent complete. Achieving a greater level of completion in disclosures is an ongoing challenge for us as well as for our industry peers.

Next steps

- We recognize the need to increase supplier trainings and get ahead of certain social issues. In FY15, we plan to roll out a third-party-supported, capability-building program for suppliers to help address challenges identified in audits. Through this program, Dell will work holistically with suppliers to address the root causes of noncompliance and to achieve sustaining results.
- In FY15, Dell will continue to update our [supply chain's minerals smelter list](#) and encourage suppliers to participate in the EICC and GeSI's Conflict-Free Sourcing Initiative to get on the conflict-free smelter list. We will continue to actively monitor the evolving regulatory landscape around the world on this topic.

This metric management project's components will include on-site and off-site consultations as well as virtual trainings to help suppliers improve their SER performance, improve their business processes and address systemic issues in the factory context. To help suppliers take leadership of their SER and move beyond Dell's requirements, we will develop an internal SER expert task force, which will work hands-on with suppliers to continually improve health and safety, human resources management and business processes. It will also help suppliers improve their compliance with our required reporting and help them develop new tools like water risk mitigation plans.

Aggregate audit findings

Audit section	Top findings	Frequency (FY14 major findings)	Actions and additional notes
Labor	Excessive working hours	66.7%	Suppliers developed overtime policies, analyzed root cause, set reduction goals, and are tracking progress, but change has been gradual. Suppliers are required to follow EICC working hour criteria. Audit frequency is increased for this priority issue, and we are enrolling suppliers in the Metrics Management Project.
	Disciplinary wage deductions	13.9%	We are promoting the IDH training program and the Metrics Management Project that teaches suppliers how to develop and implement an employee performance appraisal system. We are also enrolling suppliers in the Metrics Management Project.
	Young workers improperly managed	9.7%	Suppliers arranged regular health exams for workers and established policies for proper job placement. Audit frequency is increased for this priority issue, and we are enrolling suppliers in the Metrics Management Project.
Health & Safety	Insufficient emergency preparedness	34.7%	Suppliers installed emergency equipment and made the emergency exits accessible. We enhanced safety and emergency preparedness requirements in our new supplier qualification process.
	Workers exposed to hazards	29.2%	Suppliers implemented engineering and administrative measures. Additionally, they trained and provided personal protection equipment to workers.
	Insufficient investigation of occupational injury and illness	6.9%	Suppliers conducted risk assessments and trainings on industrial hygiene. We shared occupational health and safety management best practices in a supplier workshop.
Environment	Incomplete environmental permits	20.8%	Suppliers are required to obtain related permits within a specified time frame and establish process for prevention. We added environment permits to our new supplier selection criteria and extended the requirement to Tier 2 suppliers.
	Improper handling of hazardous materials	11.1%	Suppliers implemented immediate action and contracted a third-party-certified service.
Management Systems	Legal requirements not tracked	8.3%	Suppliers established procedures and management systems to maintain the most recent legal requirements.
	Social and environmental responsibility (SER) responsibilities not defined	4.2%	Suppliers established an SER organization with executive management. We worked with original design manufacturer (ODM) suppliers to define responsibility and establish an SER organization to manage sub-tier suppliers.
Ethics	No effective method to confidentially report misconduct	2.8%	We are working with suppliers to develop mechanisms for confidentially reporting misconduct to protect workers. We have shared best practices from our own procedures.



Ensure 100% of product packaging is sourced from sustainable materials

Status: On track

We define sustainable materials specifically as those that come from recycled or renewable (preferably rapidly renewable) sources. As of the end of FY14, approximately 58 percent of our packaging fits this definition—an increase from 57 percent in FY13.

[Read about how packaging entrepreneurs drive industrywide innovation.](#)

[Jump to the packaging recyclability and compostability goal.](#)

Background, challenges and opportunities

Each year, Dell ships millions of products to destinations across the globe. This volume makes it imperative that our packaging materials are continually available in the quantities we need them, without rapid fluctuations in price. While we strive to source 100 percent of product packaging from sustainable materials, consistent sourcing can be a challenge. For example, the demand for bamboo has dramatically increased as others have recognized its value as a rapidly renewable material.

Climate change presents an additional challenge to consistent sourcing. Some of our most sustainably sourced packaging configurations rely on agricultural waste for raw materials, so the security of our supply is affected by not only immediate weather chaos, but also by longer-term shifting weather patterns. We are well positioned to mitigate this risk and build a diversified materials pipeline, as our newest packaging material—wheat straw—is farmed in many places worldwide, and the process we use to incorporate wheat into boxes and cushions works well with rice and other common grains.

As we explore the best mix of materials, we need to look at the whole lifecycle of Dell's packaging, carefully balancing the transport of the materials, the estimated amount of time the materials will need to protect the products, and ultimately the recyclability and/or compostability of the packaging. We continue to use recycled petroleum-based packaging as an ideal gateway material while we explore more sustainable options, as it reuses resources and allows us to be highly flexible in the types of cushions we can create.

Our final challenge is communicating to customers about the sustainability of our packaging. Customers may not know that newer materials like our bamboo cushions can be recycled or composted. And wheat straw-based boxes look identical to traditional corrugated cardboard, so customers may not understand the packaging's added environmental benefits. Because we ship to so many locations and serve customers who speak a variety of languages, it can be difficult to broadly deliver a clear message.

Progress to goal

In FY14, our team continually worked with suppliers, nongovernmental organizations and stakeholders to proactively find and test new packaging materials. Packaging Digest recognized this collaborative approach to innovation by awarding Dell its first [Visionary Award for the Global Packaging Industry.](#)

Pioneering the use of wheat straw boxes and cushions

In FY14, we introduced [wheat straw](#) as a raw material in manufacturing boxes and cushions for notebooks produced in China (for global distribution).

Wheat straw is an agricultural waste product that was traditionally burned by farmers—contributing to air pollution and increased carbon emissions.

In September 2013, Dell helped our supplier [YFYJupiter](#) launch the world's first manufacturing plant for converting these agricultural wastes into paper pulp in Yangzhou, China. The manufacturing process utilizes specialty enzymes, based on those found in the stomach of a cow, to convert wheat straw into usable fibers for the production of both corrugated cardboard and molded paper pulp items.

Progress to goal (continued)

At the end of FY14, the notebook packaging boxes were made from approximately 30 percent wheat-based fiber and 70 percent recycled-content, corrugated cardboard — up from the ratio of 15 percent wheat and 85 percent cardboard used when the boxes launched in mid-FY14. Wheat straw now makes up approximately 70 percent of the new molded paper cushions for notebooks, with the remaining 30 percent coming mostly from recycled-content paper.

The process of creating the wheat-based pulp uses up to 40 percent less energy and 90 percent less water than traditional methods to convert wood into fiber. It also helps avoid approximately 180 tons of CO₂ emissions per year and provides local farmers with an additional source of income. Plus, the wheat-based packaging is cost competitive, with prices apt to come down as it is further adopted by other industries.

The same pulp creation process can be used on other grain straws, such as rice. Since wheat and other grains are ubiquitously farmed around the globe, there is great potential for expanding to other regions.

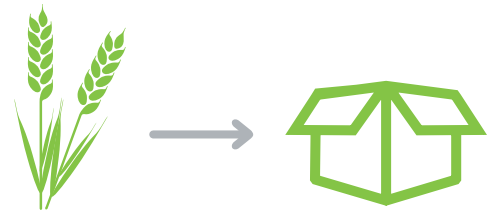
Evaluating our packaging materials mix

Fluctuating commodity prices in FY14 caused us to balance the material content of some of our molded paper pulp cushions. Our portfolio of innovative sustainable materials enabled us to introduce wheat straw and other sustainably derived materials to supplement [bamboo](#), which had seen an increase in demand for its use. All of the materials used were of similarly sustainable sources.

In FY14, Dell worked to expand on our pilot efforts [using mushrooms](#) as a cushioning material. Grown in a form using injected mushroom spores and agricultural waste as a food source, the mushroom cushions are formed in a few

short days, then kiln dried to stop the growth process. We worked with our supplier [Ecovative](#) to scale supplies, streamline the process and identify new manufacturing locations. We also began identifying new ways to use mushroom packaging with various consumer-facing, all-in-one desktop products. This would replace existing expanded polyethylene (EPE) solutions.

Growing Dell's wheat straw packaging



Normally, this wheat straw is burned by farmers, contributing to downwind air pollution in cities like Shanghai.

Wheat is broken down by enzymes and mixed with recycled content to create recyclable packaging and wheat pulp-based foams.

90% less water



40% less energy



We also avoided 180 tons of CO₂ in FY14



X17

This process requires 90% less water and 40% less energy than traditional cardboard manufacturing processes. In FY14, the process avoided 180 tons of CO₂, which is equivalent to the emissions of 17 car trips around the world.

Next steps

- In FY15, we will continue to diversify the sources of our materials to help ease or counteract fluctuations in price and availability. At the same time, we will look to scale identified solutions to replace less-sustainable ones.
- We will look for ways to reduce the number of box and cushion form factors we use; this will help us better standardize around a core set of source materials at a much greater scale.
- We will continue to educate Dell customers about the materials that make up our packaging.

Dell collaborates with packaging entrepreneurs to drive industrywide innovation

While customers are most interested in the products inside a Dell package, a lot of innovation goes into the packaging itself to make sure those products arrive safely. From servers and tablets to boxes and cushioning material, we only bring great ideas to market after extensive research and testing. As with a Dell server or tablet, each box, envelope and packaging cushion represents an idea brought to life after an extensive research-and-development cycle.

Hundreds of factors—including material strength and production scalability—influence a packaging product's viability, and Dell's quest for more sustainable packaging adds even more variables such as recyclability and compostability. While we proactively seek pioneering new materials and methods from our design partners, these disruptive technologies are often untested.

That's why Dell takes a collaborative approach to sustainable packaging innovation. It is very difficult for any one company to possess all the resources and knowledge needed to test and launch a game-changing idea into full-scale production. But by working with our partners to leverage their biotechnology expertise and Dell's own engineering industry experience, together we have dramatically accelerated time to market for new products like [wheat straw](#) and [mushroom packaging](#).

The process starts with recognizing great entrepreneurial opportunities, whether they come from industry leaders or small startups. At Dell's 2011 Packaging Innovation Summit (one of our regular open brainstorming sessions with design partners), our longtime Hong Kong-based supplier [YFYJupiter](#) revealed that they had nearly perfected the [process of using wheat straw](#)—an agricultural waste that farmers in China usually burn—as a base for packaging. After a decade of development, the product was still in early incubation, but its potential was huge: The wheat straw discarded in China alone could replace all the paper pulp used worldwide. And wheat is grown globally.

"I think Dell took 30 seconds to agree to work with us. They recognize the environmental benefits and are not afraid to take chances," said YFYJupiter Chairman Felix Ho. "While we're a global packaging leader and part of a 90-year-old conglomerate (YFY Group) with agricultural roots, this was a totally new model for the industry."

Dell became YFYJupiter's lead development partner, and our collaborative, entrepreneurial journey culminated in the September 2013 launch of the world's first manufacturing plant for converting agricultural wastes into paper pulp. The Yangzhou, China, facility creates wheat straw-based boxes and cushions for protecting Dell notebook shipments originating in

China—and at a lower cost and smaller environmental footprint than traditional manufacturing techniques.

In the year before launch, Dell provided the specifications and certification processes YFYJupiter would need to meet in order to launch a globally viable product. A YFYJupiter team worked on site at Dell, collaborating with our packaging engineering team to review daily testing results and to troubleshoot.

“Dell’s expertise was invaluable—we simply couldn’t have done this on our own. We knew that once we met Dell’s standards, we could meet any internationally recognized standards,” said YFYJupiter CEO Mitch Crews.

Our packaging innovation forum is not just reserved for established vendors like YFYJupiter, which has been creating Dell boxes for more than a decade. In fact, in 2011 we worked with [Ecovative](#)—a startup that began as the founders’ college project at Rensselaer Polytechnic University—to pilot a mushroom-based packaging product for protecting U.S.-based Dell server shipments. Ecovative harnesses mushrooms’ natural processes to [grow mushrooms into strong, compostable forms](#) that can replace petroleum-based packaging. While the company was quite small when we discovered its technology, we aggressively pursued a development partnership.

“Dell was incredibly progressive to take the risk to even prototype with us,” said Ecovative CEO and co-Founder Eben Bayer. “We could only support a limited set of customers at that time, and to have Dell be one of them was a big win. Not just because of brand recognition,

but because of our philosophical alignment and their commitment to collaboration, which is rare—it’s great working alongside their packaging engineers.”

Our initial pilots with both Ecovative and YFYJupiter have helped us hone our processes and work together toward future expansion. Ecovative used the Dell server shipment results to change its growing processes and has formed a [partnership with Sealed Air](#) to manufacture its products for Dell and other customers on a much larger scale. These moves have allowed us to work together toward a full launch of mushroom-based packaging for our all-in-one Dell products.

Similarly, we are supporting YFYJupiter’s moves to expand into new markets and explore uses for other waste products. Both companies’ innovations have attracted international attention among other major brands, and Dell’s use of them has helped us continue our leadership role and work toward our 2020 goals of sourcing 100 percent of packaging from sustainable materials and making 100 percent of packaging recyclable or compostable.

“These are once-in-a-lifetime innovations that we must support, not just because it is the right thing for Dell’s business but also because it’s the right thing for our planet,” said Oliver Campbell, Dell’s director of procurement for packaging and packaging engineering. “Helping companies grow the market for sustainable packaging products helps us all—building a steady, global pipeline of innovative agricultural materials will hopefully make today’s alternative materials tomorrow’s norm.”





Aspiration

Enable customers to reduce the environmental impact of their IT infrastructure

Goals

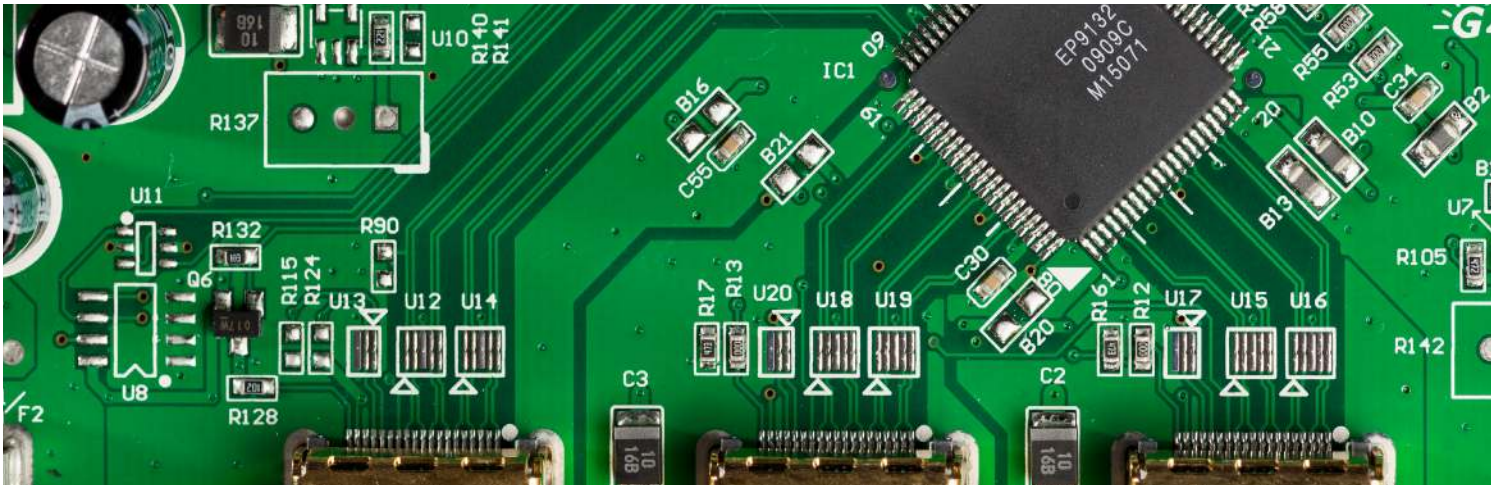
Reduce the energy intensity of our product portfolio by 80%

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: On track

From FY12 to FY13, we reduced the average energy intensity of our product portfolio by 11.3 percent based on delivered capabilities. In FY14, we reduced the average energy intensity of our product portfolio by 23.2 percent from the FY12 baseline.*

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.

**Currently, monitors are excluded from the overall metric. While monitors are a material portion of our portfolio energy footprint, we do not yet have an appropriate way of including them in the energy intensity calculations. We are looking to address this in future reports.*

Background, challenges and opportunities

Energy efficiency continues to be important to customers, whether their reasons stem from financial motives, environmental cares, government regulations or simply the limits on their available power. In fact, many customers treat energy efficiency as an expectation, not an option. And they should—the ever-growing need for more computing power, for everything from personal devices to data centers, is constantly in competition with the overall energy used by IT.

This situation is exacerbated by the limits of infrastructure. Dell is seeing more and more data centers worldwide reaching their limits of available power and physical space. Whether helping customers with new data centers or upgrading within their existing space, we seek to provide them with more energy-efficient products that provide a greater amount of compute, storage and networking

capability within the same footprint. This saves not only the energy used in computing but also the energy that would be associated with building, operating and cooling a larger data center.

We also see governments and other public organizations looking to meet performance needs while simultaneously reducing their energy use. Not only are these entities working to address their own operational issues, but they are also looking to establish guidelines for commercial organizations operating within their boundaries. And while tablets, notebooks and desktops proportionally consume less energy per unit than a data center, their sheer numbers mean we must focus on reductions among these products, too.

Background, challenges and opportunities (continued)

We are committed to helping all Dell customers reduce their energy usage, and in FY14 made great strides toward increasing the efficiency of our products in all categories. However, customers generally use products together as part of a system—combining monitors and desktops or switches and servers, for example. So to truly know how we are progressing year over year, we must effectively measure energy intensity of individual products and our entire portfolio. The accuracy of this measurement is complicated by changes to the portfolio each year.

Also, the work of a server, for example, is very different than the work of a laptop, tablet or network switch, so finding a common measure to determine a product's average workload is another challenge we began addressing in FY14.

Progress to goal

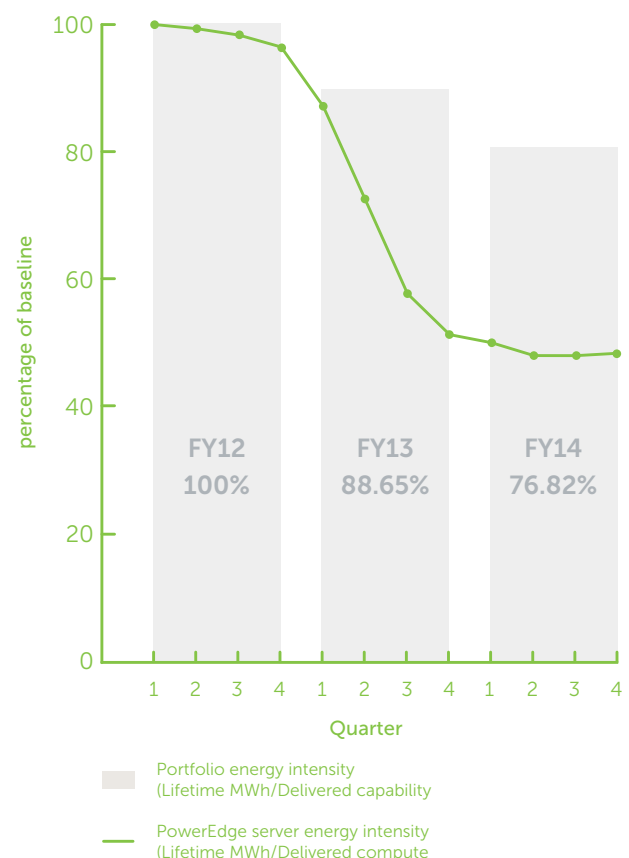
In FY14, we continued to refine and build out the Dell power-performance models that underlie the initial projections we used to justify our 2020 goal. We combined those completed models with product sales data to determine our impact. For reference, the models are based on each product's expected lifetime energy consumption and its expected net capability (the amount of work the product can complete). And since those capabilities differ by product type, we are looking to the relationships between different performance metrics to generate our composite measure.

Compiling and running the power-performance models showed we have achieved significant energy efficiency gains across our portfolio since FY12. These gains were driven in part by Moore's law and in part by our ability to design and build systems such that we best use all the capabilities that these emerging technologies can provide. We do this by working with our suppliers, identifying energy-saving features and requiring improvements in energy efficiency for many components.

Introducing new Ultrabooks

Over the past year and a half, Dell has worked closely with Intel to introduce five [Ultrabook™](#) products. These sleek, lightweight notebooks offer a new level of energy efficiency and battery life. Dell has also introduced a series of tablets supporting both Android and Windows operating systems. Ultrabooks and tablets provide a computational alternative to more energy-intensive desktops for some customers.

Dell portfolio and Dell server energy intensity



Bars represent overall portfolio energy intensity by fiscal year, inclusive of server, storage, networking and end-user computing products (including Dell monitors). The line represents specific reductions in PowerEdge server energy intensity (measured as lifetime MWh/delivered compute), an example category within the portfolio that achieved reductions beyond the portfolio's average. In particular, energy intensity decreased dramatically as customers transitioned from 11g servers to 12g servers.

Progress to goal (continued)

Launching Dell's first shared infrastructure system

In FY14, we released our industry-acclaimed shared infrastructure system: the [Dell PowerEdge™ VRTX](#), which includes servers, storage and networking, all managed from the [OpenManage™ Chassis Management Controller \(CMC\)](#). Up to nine VRTX systems can be managed through a single console. The console gives administrators a secure browser-based interface for configuring and monitoring the systems. Additionally, CMC integrates with each of the VRTX server nodes' embedded [Integrated Dell Remote Access Controller \(iDRAC\) with Lifecycle Controller](#) modules, which allows administrators to deploy, update, monitor and maintain systems remotely. The embedded management tools also provide advanced thermal monitoring and controls, including ambient temperatures, which can help administrators optimize power usage across the whole data center.

Achieving energy efficiency gains in the data center

While measures like The Green Grid's [Power Usage Effectiveness \(PUE\)](#) are great metrics for understanding the efficiency of a data center, much of the measure is dependent on the type of infrastructure a customer has. While Dell helps customers [redesign or build new data centers for greater PUE](#), the PUE metric is not considered in this goal. Instead, we turn to various measures of the performance efficiency of products.

[Dell PowerEdge 12th generation servers](#) achieved five of the top 10 [SPECpower benchmarks](#) (a set of performance measurement standards developed by the nonprofit Standard Performance Evaluation Corporation) in FY14, including the most efficient 2-socket Ivy Bridge-based blade, tower and rack servers. In a [recent white paper](#), we showed how Dell PowerEdge blade solutions have the highest overall performance-per-watt ratio (up to 26 percent higher than the published competition), and when external network components are included in the measure, that benefit is even greater (up to 45 percent better than the competition).

The [Dell M1000e](#) chassis design, originally released in 2008, enjoys ongoing engineering improvements based on upgrades to the Intel chipsets. The M1000e design, which maximizes airflow throughout the chassis, is still winning technology-of-the-year awards such as the [IT Pro Editors' Choice Award 2013](#).

Dell's main networking switches made efficiency gains by swapping out to more efficient power supplies, allowing them to decrease the power required to do the same amount of work. [The Dell Networking N2000 and N3000 switches](#) moved to 80 PLUS® power supplies, improving on the power supply energy efficiency of predecessor 5500, 6200 and 7000 series, plus the S25 and S50 models. This change means more processing and throughput with more power efficiency in the same 1U density.

Additionally, [Dell OpenManage Power Center](#) helps customers measure and manage power consumption across a data center. This free software solution gives administrators the ability to control power usage at the row, rack or group level of servers, tracking usage across time to identify trends and anomalies and to implement policies that reduce consumption during low-load hours. This level of control allows administrators to realize energy savings by implementing policies that automatically throttle back Dell PowerEdge servers' power use when processing demands are lower (overnight or weekends) without compromising server performance.

Pioneering new storage solutions

We continued to drive significant efficiencies in Dell storage solutions in FY14, which when combined have created dramatic reductions in the power, cooling and floor space required to meet increasing data storage needs, especially when used in conjunction with other [Dell Fresh Air](#)-enabled data center products.

In FY14, Dell introduced the [SC Series SC280 Dense Array](#), which has the densest disk enclosure of any major vendor and enables a single rack of storage to hold over 2 petabytes of data. We also introduced all-flash storage arrays, featuring automated tiering architectures between different types of solid-state drives. These innovations in flash and dense arrays, along with deduplication and compression, allow customers to achieve a 92 percent savings in rack space and reduce the amount of heat-generating equipment, dramatically reducing the amount of floor space, power and cooling needs in the data center.

Progress to goal (continued)

Making virtualization more efficient

Dell, in development with VMWare, in FY14 announced the release of a Dell-patented innovation: [Fault Resilient Memory](#). This enables VMware vSphere® 5.5 to maximize servers' memory and places the hypervisor in a protected memory zone to protect the hypervisor and virtual machines from a memory fault. Providing customers with more stable and reliable virtual environments allows them to confidently increase their reliance on virtualization for mission-critical applications across their data centers, using fewer physical machines and consuming less power as a result.

Achieving industry-leading standards

Dell continued to qualify multiple products across our portfolio for [ENERGY STAR®](#). In fact, more than 90 percent of the end-user computing products have configurations qualified to the ENERGY STAR 5.2 specification. Dell also added ENERGY STAR-qualified products to the newly added Data Center Storage category and the updated Enterprise Servers category.

We were active in the development of the ENERGY STAR specification for small networking products and continue to work with the U.S. Environmental Protection Agency on the upcoming specification for large networking products.

In addition to the U.S. ENERGY STAR program, Dell participates in and qualifies products in many other energy-efficiency programs including:

- [ENERGY STAR in Canada](#)
- [EU ENERGY STAR](#)
- [INMETRO \(Brazil—em Português\)](#)
- [India BEE Star](#)
- [China CEC](#)

Next steps

- In FY15, we will roll out a more refined measurement tool for this goal.
- We will continue to seek out ways to enhance customer efficiencies in the N-Series product line of networking switches.

We have also long been involved with the [EPEAT®](#) green procurement tool and in FY14 registered products in Australia, New Zealand, China and Poland for the first time. Dell product registrations vary in each country due to customer needs, but as of FY14, we offer [more than 200 registered products](#) in 13 countries (see [EPEAT.net](#) for specific registration details). We are also working with stakeholders to develop the new IEEE 1680.4 standard to support the expansion of EPEAT categories to include servers.

Dell took a lead role within the industry trade association Digital Europe to support the EU Commission's development of a new EcoDesign Regulation for computers and servers, i.e., Commission Regulation (EU) No 617/2013. We continue to work toward a global approach to developing better regulations and avoiding the restriction of new technologies.

Measuring new product categories

No standard measurements of energy intensity exist for tablets. This is an opportunity for Dell to demonstrate industry leadership, and in FY14 we began evaluation to determine a common performance capability measure across the different devices and operating systems.

- We will also continue to participate with the U.S. EPA and other industry groups to create energy-intensity standards. We actively participated in the development of ENERGY STAR 6.0, and we are also working to get slates, tablets, two-in-one notebooks and portable all-in-one desktops into ENERGY STAR 6.1. We will also transition our portfolio to these more stringent standards in mid-2014 to support our customers.

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

Status: On track

In FY14, our first year of measurement toward this goal, we used more than 10 million pounds of post-consumer recycled plastics in our products. This puts us on track to meet our goal.

Background, challenges and opportunities

Design is the first step in a Dell product's lifecycle and where our consideration of sustainability begins. When we select the materials for a product, we must evaluate the environmental impact of that choice throughout the product's use as well as its disposal at end of life.

Using recycled-content plastics and other sustainable materials is one key opportunity to curb our resource use. While closed-loop recycling—using plastic from used electronics to make new electronics products—is the ideal solution, the complexities of recycling plastics at end of life and getting them back into the supply chain have posed a challenge for our industry. Typically, Dell and other manufacturers have turned instead to using reclaimed plastics from recycled water bottles, which tend to be free of contaminants, easily sortable and readily available from municipal recycling streams.

However, demand for this post-consumer, recycled-content plastic has greatly increased in recent years, especially in Asia and Europe. This could affect its consistent availability, so we must diversify our sources of sustainable materials.

Regardless of where we source our materials, maintaining the structural integrity and high performance standards of our products continues to be an overarching challenge we face when using recycled-content plastics.

Progress to goal

In FY14, we continued to [evaluate product design](#), looking for ways to increase the total amount of recycled-content plastics we use as well as the percentage we can use within individual products. We also explored alternative sources for recycled plastics resin. We weigh the environmental benefit in considering each alternative as well as scalability and ability to meet Dell's engineering specifications.

Expanding the use of recycled-content plastics

We continued to expand the use of recycled-content plastics from water bottles and CDs in the creation of Dell monitors and [OptiPlex™ desktops](#). In FY14, we more than doubled the number of monitor models containing post-consumer recycled plastic content (to 79 models, up from 30 in FY13), and our displays also used 35 percent more post-consumer recycled-content plastics by weight in FY14 compared to FY13. We saw an 8 percent increase in use of recycled-content plastics over last year for OptiPlex™ desktops.

The environmental benefits of recycled-content plastics are significant. Not only does the process of acquiring post-consumer, recycled-content plastic use [88 percent less energy](#) than creating virgin plastics, but also each ton of recycled plastics avoids approximately 1.5 tons of CO2 emissions. This means that in FY14, Dell's use of recycled-content plastics equated to reducing emissions by 6.9 million kg CO2.

Desktops and displays are the two product categories where we've had the greatest success in incorporating recycled content, although there's a limit to how much we can use in a single product. Post-consumer recycled (PCR) plastics have different characteristics than virgin plastic resins. Most of the physical properties of mechanically separated PCR materials are lower than those of the materials' virgin forms because polymer chains can break for various reasons. This may affect mechanical and electrical performance. PCR materials can also present some challenges related to aesthetics and color purity.

Progress to goal (continued)

Developing a closed-loop recycling program

Throughout FY14, Dell worked toward creating an innovative [closed-loop supply chain](#) to introduce plastics from used electronics back into our new products. To lay the foundation for a full program launch, we onboarded a new partner who complies with Dell's rigorous standards for e-waste collection and has state-of-the-art proprietary technology to sort plastics from the rest of the waste stream. We then began evaluating various resins to

determine how best to use them in our products while meeting performance criteria and achieving sufficient scale to meet demand.

As we look to expand our closed-loop process, we recognize we have the ability to increase the commodities stream by growing our [recycling efforts](#). The more used electronics we can collect, the more usable materials we can recover.

Next steps

- The Institute for Scrap Recycling Industries honored Dell with its [2014 Design for Recycling Award](#) for designing highly recyclable ultrabook and tablet products.
- Building on our work in FY14, in May 2014 Dell announced that it would become the first in the industry to introduce a major product using certified closed-loop plastics. In June, we launched the Optiplex™ 3030 All-in-One, certified by UL Environment as containing a minimum of 10 percent closed-loop, recycled-content plastics.

The plastic is collected from end-of-life electronics and processed in a closed-loop system by Dell's environmental partner. The program will expand to select other newly launched Dell commercial products throughout FY15.

- We will continue to look for ways to overcome manufacturing challenges associated with recycled-content plastics of all types to increase percentages and/or total volume.

Dell's closed-loop recycling process



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: On track

At the end of FY14, 58 percent of all Dell packaging by volume could be considered recyclable or compostable, up from 57 percent in FY13. We continue to categorize a material as being recyclable if 60 percent or more municipalities will accept it, and as being compostable if it can be certified to meet ASTM D6400 standard.

[Jump back to the sustainably sourced packaging goal.](#)

Background, challenges and opportunities

Through feedback via social media and sales transactions, Dell customers tell us they want to receive less packaging with their products, and they want to be able to easily recycle the boxes and enclosures that do arrive. Many of our largest customers' requests for proposals and quotes have sections asking all bidding companies for measures of packaging sustainability. Initiatives such as the voluntary [Australian Packaging Covenant](#) (of which Dell was an original signatory) are establishing standards for material usage and disclosure, while California and other government entities continue to increase their requirements for recyclability and use of recycled-content materials in packaging.

Our challenge is to first minimize packaging and to then create the packaging we do need from materials that will not create waste for our customers—in other words, make them recyclable and compostable. However, finding cost-friendly and consistent sources for these materials can be an obstacle.

We also have the challenge of working with a very diverse, worldwide customer base. Customers in one location will have access to more robust recycling options than customers in another. Composting is not always an option for every customer. This means we must find packaging options that meet the lowest common designation of recyclable or compostable. This is why we work with municipalities to understand what materials they will take and to benchmark that continually across our operations.

Another challenge is making sure our customers understand what is and is not recyclable or compostable, especially in the case of new and potentially unfamiliar materials like mushroom-based packaging. Since we ship globally to customers who speak many languages, we cannot rely on the messages written on our boxes to communicate to everyone. Plus there is no universal symbol for compostability, and confusion still exists over the standard use of the Universal Recycling Symbol.

Progress to goal

As with product design, we took the long view when designing new packaging in FY14, thinking about how a customer would ultimately recycle or compost each element. We focused on testing and introducing new materials while reducing the amount of packaging our customers receive in the first place.

Collaborating with industry

We continued our collaborative approach to packaging development, following our structured innovation model. We can't do this alone, and working with partners and

suppliers has allowed us to pioneer new materials with great speed—we were the first in the industry to [use bamboo packaging](#) (beginning in 2009) followed by piloting [mushroom-based packaging](#) in 2011 and now introducing [wheat straw for boxes](#).

In FY14, we hosted a combination of open innovation sessions and outcome-based brainstorming sessions with packaging providers, logistics providers and other industries. We reviewed ideas and technologies from organizations ranging from Fortune 500 corporations to start-up companies, looking for new cost-effective

Progress to goal (continued)

and sustainably sourced materials that are also recyclable or compostable, as well as new manufacturing methods that can also increase the recyclability or compostability of our packaging.

Pioneering new packaging materials

We introduced wheat straw packaging midway through FY14 to contain and cushion notebook product shipments originating in China. In addition to being a sustainable agricultural byproduct, 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.

We explored additional uses for mushroom cushions, which are created by growing mushrooms into the shape needed to protect a designated product. In particular, we began investigating the feasibility of using mushrooms for [all-in-one desktops](#), providing a compostable alternative to petroleum-based foam cushions that can be difficult for customers to recycle.

In FY14, we extended the use of molded paper pulp cushions for various products, including desktops. These cushions also replace petroleum-based foams.

Next steps

- In FY15, we will continue to work with the packaging industry, recyclers and others as we identify new packaging materials and ensure they meet our recyclability and/or compostability standards.
- We will look for ways to transition away from non-recyclable materials through better sourcing.

Reducing materials usage through innovative shipment configurations

To help Dell customers reduce the amount of packaging they need to dispose of, we continued to assess the size of our boxes, the size of our cushions, and the materials we choose. In FY13, we switched from rigid cardboard boxes to soft-sided recyclable envelopes for more than 500 of our lighter-weight service parts shipments, and in FY14 we found additional opportunities for switching.

We also worked with product designers to identify ways to make Dell products more efficient to package and ship. For example, we redesigned the monitor stands on our all-in-one desktops, making them foldable and detachable so they can fit into a smaller box.

Educating customers about recycling and composting options

We launched a new [web page](#) in FY14 to help customers learn about the materials their product packaging is composed of and how to dispose of them at the end of life. On the packaging itself, we followed the globally accepted protocols for identifying materials as recyclable. To help Dell sales teams answer customers' technical inquiries about packaging, we provided them with an internal packaging database, which contains the material type/weight used to ship each platform.

- To ensure our sales teams can advise their customers on the recyclability and compostability of Dell product packaging, we will expand our internal education efforts.
- Through messaging on packaging, our website and other channels, we will continue to educate consumers about our packaging materials and how to dispose of them.

Phase out environmentally sensitive materials as viable alternatives exist

Status: On track

Since publishing our materials watch list in the 2020 Legacy of Good Plan, we have continued to phase out substances of concern on our watch list wherever possible, with FY14 bringing new internal restrictions on certain phthalates, Polycyclic Aromatic Hydrocarbons (PAHs) and antimony. We have not added any new restricted materials to our list.

Background, challenges and opportunities

Many chemicals commonly used in the technology industry have the potential to cause harm to people and the planet if they are incinerated, improperly recycled or discarded in landfills with compromised safety standards. In addition to providing robust recycling programs to help our customers dispose of products properly, Dell is committed to proactively identifying and eliminating substances of concern from our products. This is not a matter of “quick fixes,” though. Phasing out materials from products while maintaining their structural integrity is a steady, methodical and collaborative process.

First, we must follow the latest chemical use regulations around the globe to ensure we stay in full compliance. On top of this, we employ the precautionary principle (as outlined in our [Chemical Use Policy](#)), voluntarily avoiding substances if reasonable scientific grounds indicate they could be harmful to humans or the environment.

We also work with our suppliers to ensure their compliance, which can be difficult since the local laws governing them vary widely. We contractually obligate suppliers to comply with our Chemical Use Policy, but that may not always be enough, so we periodically conduct audits to ensure that suppliers consistently meet our standards.

Lastly, we cannot eliminate substances until we feel confident that their alternatives pose no greater harm and can meet our performance standards. In light of these challenges, we made significant progress in phasing out environmentally sensitive materials throughout FY14.

Progress to goal

In FY14, we continued voluntarily phasing out the materials on our watch list. We did not add any new substances to this list, and no new concerns with previously defined substances emerged. We updated Dell’s Chemical Use Policy in May 2013 and updated our [Materials Restricted for Use list](#) in August 2013. 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 continued to work with industry associations, suppliers and competitors to identify potential changes to materials regulations worldwide. 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.

Following our precautionary principle of evaluating substances of concern, we assessed the impact of each regulation and the newly identified substances of concern it proposed. Next we determined if and how we use the substances, and formulated substance phase-outs, if applicable. We also assessed our customers’ materials requirements and factored them into our plans. For instance, we see more customers requiring

Progress to goal (continued)

the phase-out of substances on the [REACH Candidate List](#). New substances of very high concern have been added to the REACH Candidate List, including several phthalates.

The EU Commission also began discussing restriction of additional substances under RoHS: HBCDD, DEHP, DBP, BBP and DIBP. We added all of these substances to Dell's watch list and have already proactively phased them out.

We continued to monitor emerging legislation and policies around the world. For example, the joint [Russia-Belarus-Kazakhstan Customs Union](#) drafted its own derivation of RoHS, while procurement policy standards like China's CEC are adding substance restrictions to their criteria, e.g., on phthalates.

Phasing out substances

In FY14, Dell placed special emphasis on reducing and eliminating identified phthalates as a response to both prevailing science and these substances' increased inclusion in potential restrictions/policies. In addition to our existing restriction on DEHP, DBP and BBP, we instituted a restriction on DIBP effective Jan. 1, 2014, for newly launched Dell parts and products, and we will expand that restriction July 1, 2015, to cover all sustaining products.

Additionally, we added the following phthalates to our watch list and now require our suppliers to declare their inclusion at the homogeneous material level: Diisooheptyl phthalate (DIHP), Dimethyl phthalate (DMEP), Diisopentylphthalate (DIPP), N-pentyl-isopentyl phthalate and Dipentyl phthalate (DPP).

We extended our restriction of Antimony and its compounds to <1000ppm. This restriction applies to any mechanical plastic parts above 25 grams.

In our work to phase out Polycyclic Aromatic Hydrocarbons (PAHs), we restricted 8 PAHs to 1ppm each and maintained a threshold of 10ppm for the sum of all 18 PAHs. This restriction applies to external plastics and soft surfaces that users are likely to come into direct contact with.

We also restricted chlorine bleaching agents in Dell packaging and printed documentation.

We have made significant progress with mercury, eliminating its use across our portfolio (laptops, displays, multifunction equipment like scanners) with the exception of projector lamps and a single display (that will reach end-of-production shortly).

Progress on BFR/PVC-free products

Dell continues to make progress toward our commitment to eliminate Brominated Flame Retardants (BFR) and Polyvinyl Chloride (PVC) from PC products as acceptable alternatives are identified. Our efforts are aimed at lowering possible health and environmental impacts without compromising product performance. In 2013, we transitioned entire product families (excluding peripheral accessories) to being BFR/PVC-free, including:

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

By comparison, Dell only had two BFR/PVC-free computing products in 2011.

Dell maintains its restriction of BFR/PVC in external case plastics for Dell-branded products as well as in removable media storage devices, memory, notebook LCDs and hard disk drives.

Identifying alternative solutions

We worked with organizations that govern eco-labels—as well as nongovernmental organizations, suppliers and competitors—to set up a framework for assessing alternative materials before we select them to replace materials of concern.

This collaborative approach with all stakeholders helps drive the phase-out of substances while minimizing the risk that regrettable substitutions, i.e., substituting a hazardous substance with another hazardous one, will be made.

Next steps

- In FY15, we will assess a restriction of further phthalates and also look into tightening our restrictions on beryllium in certain applications.
- We will continue to advocate for increased restriction of BFR/PVC content across the industry and will advocate for changes to EPEAT® and other procurement standards to award additional points for products with BFR/PVC-free components.
- We expect the number of countries adopting RoHS or REACH to climb, especially in Asia, South America and the Middle East. However, to stay ahead of any restrictions, we will continue to monitor the legislation along with new developments around substances of concern.

Materials on our watch list

Materials we are currently phasing out voluntarily:

Mercury	Dibutyl phthalate (DBP)
Brominated Flame Retardants (BFRs)	Di-n-octyl phthalate (DNOP)
Polyvinyl Chloride (PVC)	Benzo[a]pyrene (restricted to <1ppm)
Di(2-ethylhexyl) phthalate (DEHP)	Benzo[e]pyrene (restricted to <1ppm)
Butyl benzyl phthalate (BBP)	Benzo[a]anthracene (restricted to <1ppm)
Dibutyl phthalate (DBP)	Chrysene (restricted to <1ppm)
Beryllium	Benzo[b]fluoranthene (restricted to <1ppm)
Antimony (restricted to <1,000 ppm)	Benzo[j]fluoranthene (restricted to <1ppm)
Hexabromocyclododecane (HBCDD)	Benzo[k]fluoranthene (restricted to <1ppm)
Diisobutyl phthalate (DIBP)	Dibenzo[a,h]anthracene (restricted to <1ppm)
1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters C7-rich (DIHP)	Other Polycyclic Aromatic Hydrocarbons (PAHs)
Bis(2-methoxyethyl) phthalate (DMEP)	

Recover 2 billion pounds of used electronics

Status: On track

Dell recovered 230.9 million pounds of used electronics in FY14. Since our baseline year of FY08, we have recovered a cumulative total of 1.24 billion pounds (564,253,876 kg) of electronics. We have achieved 62 percent of our 2020 goal, and our future estimates of an average 3 percent annual growth put us on track to meet our target.

[Read about how e-waste becomes an opportunity for women in Kenya.](#)

Background, challenges and opportunities

Over the past decade, Dell has become a leader in electronics recycling and now offers [safe, convenient takeback programs for homes and businesses in 78 countries](#). We haven't achieved this status alone: Every move into a new country involves collaboration with partners, and to expand beyond our free consumer recycling program, we need to collaborate with government, industry, nonprofits and nongovernmental organizations. We have established our consumer program in many countries that have yet to introduce takeback regulation. We proactively engage with the governments of countries that are developing regulation, lending our operational expertise to help ensure any legislation suits the economic environment in which it will operate.

In FY14, we continued to stay abreast of the greatest opportunities to collaborate on regulation, and we leveraged an incredible opportunity to help Kenya move from an informal recycling culture to a formal Industry takeback program supported by legislation.

Kenya's program has created a model for other developing nations in East Africa and beyond. As takeback levels flatten somewhat in the developing world, expansion into developing countries will be key to growing our collection volumes while also ensuring the proper environmental management of our products.

Shrinking form factors of electronics equipment is also a challenge to meeting our 2020 goal. Since we began tracking toward this goal in FY08, sales of laptops, tablets and phones have greatly outpaced desktops, and new models of all equipment continue to get lighter and thinner. We have set our goal accordingly and believe our aggressiveness in every area of our takeback strategy—from expanding into new countries to increasing our services—will more than compensate for this trend.

Progress to goal

In working toward our goal in FY14, we concentrated our efforts on introducing takeback and donation programs in developing countries, maximizing our efforts in the countries we currently serve and advocating for stronger recycling legislation in the most receptive markets throughout the globe.

Turning e-waste into a resource in Kenya

We focused on building recycling capacity in Kenya, which in FY14 became the first African country to [establish an electronics takeback program](#) that will be fully supported by recycling regulation. The legislation is expected to take effect in FY15.

Dell, along with other members of the E-Waste Solutions Alliance for Africa and nongovernmental organizations, worked with [Kenya's National Environment Management Authority](#) to develop legislation that will hold electronics companies accountable for collecting and treating e-waste. In FY14, [East African Compliant Recycling](#) in Nairobi opened as the region's first large-scale e-waste recycling facility, which is supported initially by four collection points—two funded by Dell.

Progress to goal (continued)

One of the Dell-funded collection points—the [Mukuru Slum Development Project](#), located within Nairobi’s Mukuru informal settlement—operates on a microfinance model.

A loan from Dell funds the collection point’s operations, and a woman entrepreneur and her all-female staff collect e-waste from local businesses and homes. As with the other collection points in Kenya, all workers receive proper job training and safety equipment. They also receive a steadier income than the informal recycling sector provides and are paid via secure mobile payments.

Creating donation programs and other models in developing countries

To maximize the lifetime use of our products, in FY14 we worked with our nonprofit partner [Camara Ireland](#) to establish a [donation program](#) that offers our customers in Europe the option to donate their used electronics through our [Asset Resale and Recycling](#) service for reuse by youth education programs in Haiti, Jamaica, Ethiopia, Kenya, Lesotho, Rwanda, South Africa, Tanzania, Uganda and Zambia. Camara manages the transport and setup of all donated equipment working through their own in-country hubs and then provides training for teachers and IT support throughout the life of the systems. After a defined period of time, the systems come back to Camara and are recycled.

Increasing recovery from existing programs

To increase customers’ awareness of which technology equipment they can recycle with Dell, and how and where they can recycle it, we developed [more user-friendly web pages](#) for our global recycling programs. This also provided a more consistent branding experience across all regions for our Free Consumer Recycling Services, Asset Resale and Recycling Services and Printer Supplies Recycling Services.

In FY14, we introduced a consumer recycling collection program at Dell Carry-In Service Centers across India and China. This program, which allows customers to bring their used electronics to 16 service centers in India and 10 service centers in China, leverages existing Dell infrastructure and awareness of these locations while providing wide geographic coverage. This program has showcased Dell’s leadership in providing proactive recycling solutions to our customers.

Driving development of effective takeback legislation, standards and practices

In FY14, we continued to work actively with governments in all regions, either directly or as part of industry groups and alliances, to support the development of regulations that will enable recyclers to create effective e-waste collection networks and treatment infrastructures. One of our biggest concerns in countries with no regulation is that the rudimentary processes used by the informal recyclers are damaging both to health and the environment. When we engage on regulation, we advocate for standards to be part of that regulation. The standards create a level playing field for the recyclers entering the market and ensure an environmentally sound treatment standard will be adopted.

We hope that our work establishing legislation in Kenya will become a model that can be replicated in other developing countries, and we have already started collaborating with the government and stakeholders in neighboring Uganda.

Additionally, we continued to conduct a comprehensive analysis of all the existing regulatory standards for properly disposing of e-waste and advocated for the development of a global standard.

Continuing our industry leadership and recognition

We received several prominent awards and recognitions for our recycling programs and leadership in FY14. This was the second consecutive year that Gartner Inc. recognized the strength of our Asset Resale and Recycling Services by putting Dell in the “Leaders” quadrant of its [Magic Quadrant for IT Asset Disposition, Worldwide](#).

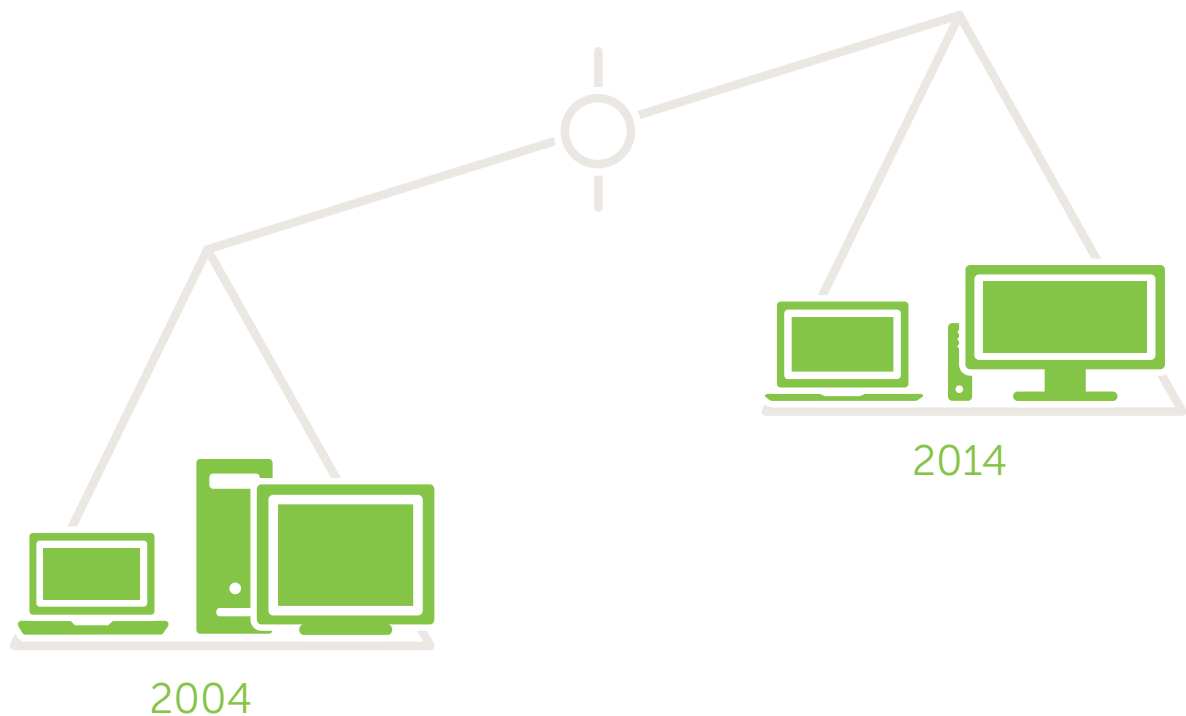
The Consumer Electronics Association (CEA) presented Dell, along with three other manufacturers, with its inaugural [eCycling Leadership Award](#). CEA specifically honored Dell Reconnect, our U.S. residential recycling program. Since its inception in 2004, [Dell Reconnect](#) has responsibly recycled more than 374 million pounds of electronic equipment at more than 2,000 Goodwill® donation sites across the U.S.

We were also named Manufacturer of the Year for the second year in a row at the 2013 [Green IT Awards](#) in the U.K.

Next steps

- In FY15, we will follow and advocate for effective takeback legislation around the globe and will continue to expand our programs where enabled to do so.
- We plan to expand the availability of our trade-in programs globally across all business segments.
- We will work with other emerging countries who are interested in replicating the Kenya model.
- We will continue to leverage our community programs, looking for new ways to maximize the lifecycle of our products.

Reducing form factors



Shrinking form factors is an industry trend that requires us to constantly work toward innovative and creative ways to recover and recycle a greater number of pieces to reach our goal of recovering 2 billion pounds of used electronics.



In Kenya, Dell helps turn e-waste into a resource and an opportunity for women entrepreneurs

In many developing countries, discarded electronics are not seen as waste but rather as a valuable resource and an opportunity to earn income. As a result, informal recycling networks have proliferated, with collectors combing their cities and villages for used hardware and then extracting and selling the most valuable materials.

These informal networks pose two key problems. The methods typically used to extract saleable materials from hardware, such as burning, are harmful to people and the environment. And after removing gold, copper and other components, collectors dump the rest of the equipment because there is no local market for it. However, with the right processing and treatment infrastructure, this e-waste too has value.

Dell has an enormous opportunity to help developing nations realize the full value of e-waste, while working toward our goal of collecting 2 billion pounds of used electronics by 2020. This year we focused on [building recycling capacity in Kenya](#), which became the first African country to establish a Dell electronics takeback program fully supported by recycling regulation.

As with the [Dell takeback programs](#) we've established worldwide, moving from an informal recycling culture to a formal model in Kenya required a combination of strong legislation, infrastructure development for collection and treatment, safety training for workers, and public education.

Dell, along with other members of the E-Waste Solutions Alliance for Africa and nongovernmental organizations, worked with Kenya's [National Environment Management Authority \(NEMA\)](#) to develop legislation that will hold electronics companies accountable for collecting and treating e-waste. In December 2013, [East African Compliant Recycling](#) in Nairobi opened as the region's first large-scale e-waste recycling facility, which is supported initially by four collection points—two funded by Dell.

"Kenya's constitution says that every Kenyan has the right to a clean and healthy environment, so we were very happy to have government work with electronics producers to create this recycling model," said Vicky Onderi, business manager for East African Compliant Recycling. "We didn't have an e-waste treatment facility

before, and it's come at the right time. It helps protect our people and the environment, create green jobs, and facilitate the transfer of knowledge from Europe to Africa."

One example of this model at work is the [Mukuru Slum Development Project](#) collection point in Nairobi's Mukuru informal settlement. Dell funds the collection point's operations through a microfinance loan, which entrepreneur Winnie Juma uses to employ 27 women who are fully trained to safely collect e-waste from local businesses and homes. The collection points are able to resell all waste—not just select components—to the East African Compliant Recycling hub. The women are paid daily via mobile payments for all collected materials, and this steadier income opens up new opportunities.

"Now I can buy things, I can help my family. I am proud to be able to help them now, I am confident and feel important," said Winnie Juma, collection coordinator at the Mukuru Slum Development Project. "I would like to do a higher diploma in social work, I would like to train so that I can help my community, and I am getting good practice here."

With the implementation of the regulation, the Kenyan model is expected to have 40 collection points and employ more than 2,000 people by 2016.

"We have a facility that can help us as an authority to deal with this e-waste in our country...to be able to inform the public with confidence that in a few months they can bring the e-waste to a collection centre...we in NEMA are confident that the environment is being taken care of because at the end of the day that is our priority in NEMA for a better quality of environment for the Kenyan people."

—Betty Nzioka, Deputy Director of Education, Information and Public Participation, National Environment Management Authority





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: On track

In FY14, our performance toward this goal has been more about processes than numbers. Our initial task is to build the measurement capabilities that will enable us to generate data about Dell-developed solutions' environmental impact, and we are on track.

Background, challenges and opportunities

Many of Dell's new technology solutions have a hidden power to create positive sustainability outcomes, but in our experience most customers do not recognize the effect these solutions can have on their overall environmental footprint. In some cases, this is because the solutions' net impact has not been fully studied or explained. In other cases, customers may not be looking for this information, as they may have little insight into their own sustainability initiatives. We want to change this and help our customers understand how the benefits of solutions incorporating Dell technology can go well beyond their footprint.

As we outlined in the [2020 Legacy of Good Plan](#), we plan to develop models that will holistically measure these sustainability benefits for various solutions. This modeling will also form the basis for much of the "good" measurement in our 10x20 goal: to have the good that comes from our technology be 10 times what it takes to create and use it.

From the outset, however, we knew there would be challenges involved in conducting and sharing this measurement. Tangible results will start to emerge in the

second half of our work toward this goal. We must first identify all the intricacies of the solutions themselves and then test and complete accurate measurement models before we have data to present.

Our solutions are complex and can involve dozens of different types of products. This creates challenges in measuring the systems as a whole, including what specifically to measure and how to reconcile sometimes vastly disparate units of measure, such as carbon emissions and water usage.

We also cannot create the models, let alone conduct the measurement, without significant collaboration among customers, suppliers and partners. Even within Dell, many solutions require a fairly complex value chain for design, development, implementation and operation, and are rarely brought to market by a single internal group. For the planned analysis, we must both identify customers ready to work with us to model the solutions as well as engage broadly across multiple Dell groups.



Background, challenges and opportunities (continued)

Our first challenge in working toward this goal was to take inventory of the available solutions that Dell provides. Especially as solutions change or develop out of ad hoc projects, we need to catalog the various opportunities for measurement.

Simultaneously, we need to begin sifting through those solutions to not only identify those with obvious environmental benefits but also to begin mapping the hidden opportunities embedded in other solutions.

As we tackle these challenges through FY15 and beyond, we will continue to report openly about our methodology, progress and setbacks. Also, our work on this goal will feed into our overarching 10x20 goal.

Progress to goal

As outlined in our [2020 Legacy of Good Plan](#), the key phases of working toward this goal will be: completing our full inventory of existing Dell solutions that provide positive impact, developing solution-specific models that can calculate those benefits, and communicating the estimated positive impact of those introduced solutions through 2020. Much of our FY14 efforts were aimed at getting agreement on the overall plan and putting the first pieces into motion. To date, we have done only the most basic look into inventorying our solutions and establishing partnerships.

Inventorying Dell solutions and industry best practices

While our work will need to look at all technology solutions, including those developed and implemented by others, we had a few Dell-developed solutions in mind from the beginning. Electronic health records, for example, do more than their primary purpose of driving better patient care. They also help reduce the use of paper and chemicals for processing films. They allow healthcare providers to free up space originally allocated to records rooms, creating real estate and infrastructural benefits. What's more, sharing records electronically will greatly reduce the emissions associated with courier transport of hard copies of X-rays and other forms.

Other solutions, like our KACE™ appliances ([mentioned in the 10x20 goal](#)) desktop virtualization offerings and smart grid technologies, are equally promising candidates. We have not yet conducted an exhaustive search and analysis of all Dell solutions.

However, we did begin studying industry best practices in FY14. Good examples come from other "net positive" programs such as [BT's Net Good](#). We also started a thorough examination of the various ways others measure environmental footprints, including the seminal work done in the [Global e-Sustainability Initiative's SMARTer 2020 report](#), which provides a framework and data for all IT-related net positive programs.

Planning for methodology development

Using carbon emissions as an example, when we look at footprint, we look to measure the carbon emissions resulting from our operations and products. When we look at benefits, however, we want to measure the reduction in our end-users' non-IT carbon footprint.

The methodology will be the same as that used for the environmental parts of the 10x20 goal. Where this goal will demonstrate the individual models, the 10x20 goal will aggregate these findings plus the social benefits and compare them against Dell's own footprint.

Establishing good methodologies for the end measurement is a start. It also helps us begin to identify how we will collect data and validate our models, giving us ideas about what the net result of this measurement should look like. This helps us better understand how to build out the models and how their outputs should be framed. It also helps to ensure that our data is mostly relatable to other studies and programs, allowing stakeholders to better compare end results.



Progress to goal (continued)

Establishing collaborative partnerships

While collecting methodological examples is helpful, we also need to understand how to build the models and how we will actually collect the data we need. In FY14, we began establishing the framework within which we will tackle this work.

To help bring attention to solutions measurement issues and gather like-minded individuals and organizations, we helped [BSR](#) establish their new Center for Technology and Sustainability (CTS) in FY14. The CTS will focus on demonstrating how the deployment of IT solutions can help address humanity's most pressing environmental challenges. Within the CTS, we have chartered a workgroup comprising Dell, industry peers and other stakeholders to help study solutions case by case.

With guidance and facilitation from the CTS, we plan to study identified solutions across their value chains, model the footprint and benefits of the solutions, and then develop analyses and case studies. While we will begin with Dell-branded solutions initially, this work will quickly expand to look at modeling for solutions from all participants. The deliverables will form the basic output for this goal, enabling us to communicate and, if appropriate, promote the environmental benefits of identified solutions.

Throughout the second half of FY14, we worked to recruit like-minded companies to join us within the group, and this work will continue.

Next steps

- In FY15, we will continue to catalog Dell's various solutions, earmarking those that show the best potential for providing additional environmental benefits.
- We will continue to build the work group that is part of BSR's Center for Technology and Sustainability. This includes helping recruit new members and beginning to refine methodologies as a first step toward more actively measuring some of the existing solutions.
- We will also begin identifying customer partners to work with. By working with them, examining the effect an implemented solution has on their environmental footprint, we will begin to build out effective models that can then be applied to anyone who uses those solutions.



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 Powering the Possible 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: On track

In 2013, our first year of measurement toward this goal, 57 percent of team members registered at least one volunteer activity through our online tracking system, and they provided 739,000 hours of service.

We are on track to meet our cumulative hours goal and are working to increase our team member engagement percentage to keep pace toward 2020.

Background, challenges and opportunities

At Dell, we have an incredible force for positive change: just over 100,000 team members, located in 70 countries, who are passionate about giving back to their communities. About 1 in 5 of them work in some type of flexible arrangement, whether from home or during variable hours. So we must align our community service models to the needs of this global, mobile workforce—providing volunteer opportunities that fit how, when and where they can participate.

In FY14, we focused on connecting Dell team members to flexible service opportunities and on engaging them in our strategic programs such as youth learning and children's cancer care. Our first-ever worldwide Children's Cancer Care Walk was an activity perfectly suited to our global workforce, as it allowed team members to walk at any time of day, for their chosen amount of time, to raise awareness of our children's cancer care initiatives.

We also provided more virtual mentoring opportunities through the Dell Social Innovation Challenge, which grew to three events last year. More than 1,500 team members served as judges and mentors to student social entrepreneurs in FY14, up from 750 in FY13.

Volunteerism strengthens not just external communities but also internal employee culture. A 2013 study by United Health showed that 4 out of 5 employed people who have volunteered through their workplace in the past 12 months say they feel better about their employer because of its involvement in volunteer activities. Mirroring this trend, our FY14 Tell Dell employee engagement survey showed that 81 percent of Dell team members respond favorably to the statement, "Dell does a great job contributing to the community where I live and work"—up from 75 percent in FY11.



Progress to goal

While we'll continue to hone our programs and approach as the nature of our work evolves, the volunteer spirit will always be a constant at Dell as the core of who we are as a company.

Dell's Children's Cancer Care Walk demonstrated our ability to quickly engage a large, globally dispersed volunteer base in activities that work with their flexible schedules. For every team member who logged walking time into our Powering the Possible online community, Dell donated \$1 USD to the [Translational Genomics Research Institute \(TGen\)](#), our cancer research partner. More than 25,000 employees from 46 countries logged over 39,000 hours of walking activities. The event increased team member awareness of Dell's children's cancer care programs and led 1,756 employees to join Powering the Possible for the first time, increasing overall community membership by 3 percent.

Other virtual service activities we created for team members to support Dell's strategic nonprofit partners included graphic design, language translation, project management and mentoring.

Strengthening local leadership

Commitment to community service has always started at the top at Dell. Our Executive Leadership Team sets the tone for a culture of volunteerism, and our Global Giving Council and four Regional Giving Councils create annual plans and serve as ongoing champions of this work. We've created a framework for teams across the globe to participate in community service, with clear roles and tools to support their efforts. This united front allows us to successfully and quickly deploy worldwide initiatives, from volunteering opportunities with local organizations to global disaster relief efforts.

To strengthen local leadership around volunteerism, we focused on building our team of community service ambassadors. Each Dell region has an engagement plan, and ambassadors execute the plan at a local level, with a focus on participation levels and hours. Our Europe, Middle East and Africa region now has ambassadors in over 40 countries, and this helped it achieve a 51 percent regional team member volunteerism rate in FY14, up from 41 percent in FY13. Asia Pacific-Japan remains our region with the highest participation rate—in FY14 it hit a record high with 72 percent of its team members volunteering more than 216,000 hours.

We also grew our network of community service leaders from 800 to more than 1,200 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.

The ambassadors and community service leaders continued to be supported by the Dell Global Giving Council and Regional Giving Councils, which share best practices worldwide.

Leveraging the Powering the Possible online community

In FY14, we continued to find great benefit from Dell's online Powering the Possible community. Sixty-five percent of Dell team members now belong to the community, up from 54 percent in FY13. This tool allows us to communicate volunteering and giving initiatives to all members worldwide and to share inspiring stories of team members' service and the charities it impacts. Powering the Possible also manages the tactical part of volunteering, providing one place for people to sign up for events, access documents and create groups to rally around causes.

This year we enhanced Powering the Possible by giving team members the ability to give their volunteer rewards to support disaster relief. Team members earn these rewards through community service—anyone who logs 10 or more hours of volunteer time receives a voucher of \$150 USD to donate to a charity of their choice via the Powering the Possible tool.

Providing disaster relief

In FY14, Dell responded to nine disasters that significantly affected areas where our team members, customers and suppliers live and work. Within days of each event, we used Powering the Possible to post information about how team members could assist through volunteering or matched donations. Dell team members sorted clothing and relief items, manned phone banks, set and supported Internet Connection Centers to help residents connect with family and friends, and wrote letters of support to impacted families. We responded to disasters in China, Mexico, Canada, India, the Philippines and the United States (in Austin, Texas, and Oklahoma City, Okla.).



Next steps

- In early FY15, Dell will pilot a virtual mentoring program in South Africa with two of our strategic partners. This program, which is being built and managed by a team of volunteers, will give students and staff one-on-one time with Dell employees to talk about careers in technology and get help with their studies. The program will also be offered to teachers via technology sharing. We plan to eventually expand the program globally.
- We will introduce an online certification training for Community Service Leaders, which will ensure they have a shared level of knowledge and skills related to the environment and community service.
- Skills-based volunteering will be an increased focus area for FY15. We will begin offering toolkits designed to help team members serve charities using their unique skills. Initial toolkits will be for team members with marketing, project management, finance, social media and language translation skills.

In one year, 60,000 team members volunteered 739,000 hours.



So far we have achieved 14% of our goal of 5 million volunteer hours by 2020.



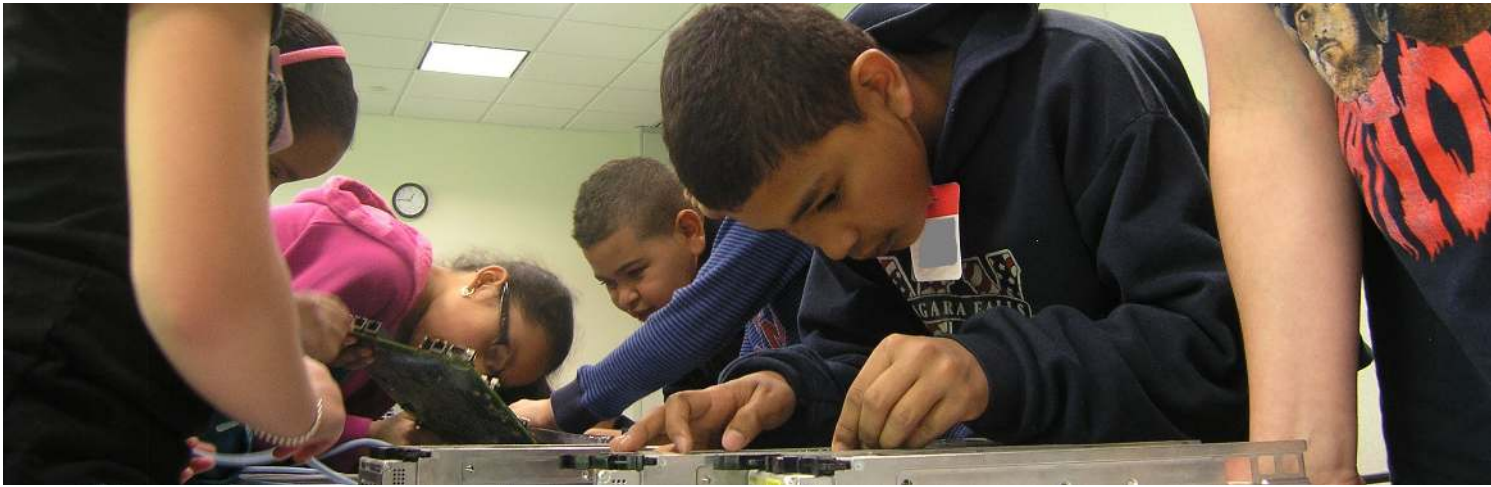


Aspiration

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: On track

In 2013, our first year of measurement toward this goal, our strategic giving initiatives helped 590,000 youth directly and supported 3.3 million people indirectly to grow and thrive.

We are 19 percent of the way to our direct impact goal and almost 33 percent of the way to our indirect impact goal. This puts us on track to reach our 2020 goal.

[Read about how solar-powered classrooms combine technology and teamwork.](#)

Background, challenges and opportunities

At Dell, we focus on bringing technology to underserved young people because it broadens their world, opening them to new ideas, new skills and new job opportunities they never would've dreamed possible. We find that, in applying our technology and expertise to provide learning opportunities, our world is broadened, too. Our collaborations with local charity partners and our work with young people have inspired our team members and helped us better understand the many ways our products and solutions are used around the world.

For example, in FY14 we installed our first two solar-powered classrooms outfitted with energy-efficient Dell Wyse™ workstations. The Dell Learning Labs bring technology education to electricity-challenged locations in Africa. And we continued to learn from our high-performance computing solution for children's cancer research, bringing the newest insights to our healthcare customers worldwide.

As we develop new programs and expand into new regions, one of our greatest challenges will be measuring our full impact. While our 2020 goal is defined by numerical reach, there is a story behind every young person we work with. The types of programs we support vary widely in their structure and in the content they provide, so finding a methodology for consistent, cumulative measurement of the outcomes they drive can be difficult. It is a worthy challenge and one that we will continue to focus on through ongoing collaboration.



Progress to goal

In FY14, youth learning, children's cancer care and social entrepreneurship continued to be our key focus areas. In putting our technology and expertise to work where it can do the most good, we engaged with 87 strategic partners in 16 countries to extend our reach. These nonprofit and nongovernmental organizations complemented our contributions with their deep knowledge of education, healthcare and local community needs.

Youth Learning

To bring education and technology to underserved communities, in FY14 we worked with 70 [Youth Learning partners](#) in 16 countries: Brazil, Canada, China, France, India, Ireland, Kenya, Mexico, Morocco, Nigeria, Panama, Philippines, Singapore, South Africa, the United Kingdom and the United States.

Dell provides partners with grant funding, as well as our latest technology. A local Dell Ambassador manages Dell's engagement, including the deployment of Dell systems and solutions and encouraging local team members to volunteer their time to support the organization's needs. In some cases, Dell addresses additional basic needs, such as food or security, that might hamper a child's ability to learn. This shared responsibility between Dell and the community—supported by Dell volunteers—brings about real learning opportunities and change.

Bringing our first solar-powered classroom to Nigeria

To help communities without reliable electricity access benefit from technology-based learning, we launched the first [Dell solar-powered classroom](#) at State Senior High School in Lagos, Nigeria, and quickly followed with another classroom at the Students Health and Welfare Centre in Kensington, South Africa. Together these Dell Learning Labs directly serve 434 students and more than 50 teachers, and thousands of students and residents also have access to the technology.

The solar-powered classrooms are made up of shipping containers outfitted with solar panels, which power 100 percent of the technology inside. Our energy-efficient technology makes it possible, as each of the 10 [Dell Wyse™](#) zero client workstations in the classroom only takes 3 watts to power, compared to 150 watts for a typical PC. The zero clients network with an OptiPlex™

workstation for the teacher, with all systems connected to local Internet service paid for by Dell. Additionally, we worked with local charity partners to create an information and communications technology (ICT) curriculum specifically for students using the Dell Learning Labs.

Partnering with Child Hope Asia Philippines to broaden learning access

In FY14, we worked with [Childhope Asia Philippines \(CHAP\)](#) to provide computer literacy skills and alternative education sessions to 455 disadvantaged children with limited or no access to information technology. For their stationary classroom in Manila, we donated and installed space-saving, energy-efficient [Dell Wyse™](#) zero clients connected to [Dell OptiPlex™](#) desktops—a solution that allowed CHAP to increase the number of students served through each lesson. We also provided [Dell Latitude™](#) laptops in their mobile classroom, which is housed in a van. This classroom allows CHAP to reach street children, most of whom are unable to attend school, in more areas of Metro Manila.

Our partnership allowed CHAP to:

- Provide education materials to children who otherwise do not have access to schooling
- Improve focus on curriculum due to a 75 percent decrease in administrative overhead
- Accommodate more students while gaining long-term energy and cost efficiencies
- Improve delivery of lessons to students on a one-to-one basis

Like many of our other Youth Learning Partners, CHAP has also been able to extend this solution's reach by providing the broader community with after-hours classroom access for homework, adult training and other uses.



Progress to goal (continued)

Supporting tech education through the Girl Scouts of the USA

In FY14, Dell gave the [Girl Scouts of the USA](#) a two-year grant for its Journey and Connect Through Technology program. An essential part of that program is [Be the Video Game Developer](#), an interactive experience that allows girls to learn critical-thinking skills by shaping the storylines, design and technical features of video games.

The program, designed to encourage girls to consider careers in science, technology, engineering and math, piloted in five Girl Scout councils where Dell has major operations: [Girl Scouts of Central Texas](#), [Girl Scouts of Middle Tennessee](#), [Girl Scouts of the Nation's Capital](#), [Girl Scouts of Northern California](#), and [Girl Scouts of Western Oklahoma](#). Dell has been involved with Girl Scouts for more than 10 years, both nationally and locally, and has provided extensive mentorship to these five councils. Be the Video Game Developer is now available to all 112 councils at the [national website](#).

Children's Cancer Care

In FY14, we continued our work to fight children's cancer, working with 13 nongovernmental organization partners in nine countries: Brazil, China, France, India, Malaysia, Mexico, Panama, the United Kingdom and the United States.

In addition to donating our technology and expertise to help pediatric cancer researchers accelerate treatments, we work with nonprofit partners to support the needs of affected families and children. Our activities include providing remote learning for children facing treatment, connecting families who are living away from home while their children are getting the care they need, funding technology solutions for pediatric care facilities, and supporting volunteer work.

Providing unprecedented processing power to TGen's genomic research

Dell's team of experts worked closely with [Translational Genomics Research Institute \(TGen\)](#) to expand the high-performance computing system we built and delivered in FY13 and to continue accelerating the time it takes to analyze and process a patient's molecular data.

In FY14, Dell supported a second clinical trial aimed at evaluating efficacy of molecularly guided therapy in

patients with relapsed or refractory childhood cancers (neuroblastoma, brain tumors and rare tumors) alongside correlative genomic research.

The big data involved in such trials leads to long analysis times and requires exchanges among multiple types of experts to make sense of the information. Together with TGen, the Helen DeVos Children's Hospital of Spectrum Health and the [Neuroblastoma and Medulloblastoma Translational Research Consortium](#), our goal is to address these challenges by applying computational solutions to improve the speed of cancer genome expression data analysis, and cloud solutions to empower teams of scientists and doctors across multiple organizations to share and apply that molecular information to individualize a child's cancer treatment.

This year, we expanded the high-performance computing system—which was built in our [first year of collaboration](#)—with hardware-software optimization, effectively streamlining and accelerating the processing and analysis of a patient's molecular data. By adding additional computational nodes and storage, the team increased the number of genomes that can be processed on the system, increasing the number of available computational hours by 376 percent. Additionally, the Dell-TGen team increased storage from approximately 200 TB usable to over a petabyte, allowing many more genomes to be stored during processing and more data to be processed at the same time.

Dell also supported TGen's development of the KIDS Cloud Initiative's knowledge repository. This repository will empower researchers to learn from accessing the collective clinical experience and outcomes of applying personalized medicine.

Increasing efficiency through electronic medical records

In FY14, Dell helped two other children's cancer treatment facilities—[Mount Miriam Cancer Hospital](#) in Malaysia and the Children's Hospital of Shanghai (through a donation to the China Soong Ching Ling Foundation)—to deliver more efficient, expedited service to patients by utilizing electronic medical records.



Progress to goal (continued)

At Mount Miriam, Dell donated a solution comprising servers, storage and 85 desktops optimized with data management software. The solution reduced the time required for data documentation, processing and retrieval, which in turn reduced patients' waiting times for treatment. At the Children's Hospital of Shanghai, an information system including servers, storage, switch, laptops and laptops, and services helped hospital staff to improve underserved leukemia patients' cure rates through systematic appointment reminders and enhanced treatment tracking and data analysis.

Dell Social Innovation Challenge

We continued to support the Dell Social Innovation Challenge (DSIC), which identified and supported promising young social innovators who dedicate themselves to solving some of the world's most pressing problems with their transformative ideas. Introduced in 2007 by the [RGK Center for Philanthropy and Community Service](#) in the LBJ School of Public Affairs at The University of Texas at Austin, DSIC provided students with world-class teaching and training, as well as start-up capital and access to a network of mentors from Dell and other partners.

Students submitted more than 4,066 innovations to DSIC in FY14, more than double the 1,910 entries we received in FY13. In addition to this huge increase in impact, more than 1,500 Dell team members served as judges and mentors to help students refine their projects, up from 750 in FY13. Other highlights for FY14 included the addition of a new spotlight challenge focused on women's issues—the Dell Empowering Women Challenge. We also held the Dell Education Challenge, a spotlight added in FY13 to address K-12 education innovation, as well as the primary DSIC competition. The FY14 DSIC winner, Solar Conduction Dryer of India, provides cost-effective, solar-powered food dehydrators that will help farmers keep more of their crops and mitigate spoilage.

The DSIC has matured and evolved into a new social enterprise, Verb, which will operate global entrepreneurship competitions as an independent, for-profit business in partnership with conscious companies. With this change, there will not be a DSIC in 2014 as Verb concentrates on enabling new competitions that will have a positive social impact. We fully support this move as an example of the entrepreneurial spirit that we celebrate at Dell.

Next steps

- Based on the early success of the solar-powered classrooms in Nigeria and South Africa, Dell will launch two more classrooms in South Africa in early 2014. We are also considering how and where we might scale the Dell Learning Labs further in FY15.
- We will continue to work with our new and returning Youth Learning partners to find highly impactful programs, such as [our partnership](#) (announced in late FY14) with Philadelphia's Science Leadership Academy and The Franklin Institute to form a new "Center of Excellence in Learning" employing Chromebooks in one-on-one learning.
- FY15 will mark the third year of Dell's collaboration with TGen, and our third clinical trial will continue to use predictive modeling of tumor samples via genomic sequencing to make real-time treatment decisions for 48 children with relapsed/refractory cancers. As part of this trial, TGen's CLIA-certified laboratory will provide the DNA and RNA sequencing results. These reports will be evaluated in this study for use by the molecular tumor board in treatment decision-making.
- To expand the impact of our innovations, TGen and Dell have begun collaborating with the [National Cancer Institute at the National Institutes of Health](#) to support pioneering pediatric cancer research that utilizes molecular profiling studies and clinical trials to demonstrate the power of applying next-generation sequencing for both translational research and individual treatments. Our collaborations with NCI in FY15 will expand our network, accelerate clinical genomics for more patients and empower improved outcomes for children with cancer.



Solar-powered classrooms harness the power of technology and teamwork to educate youth

Technology education creates new possibilities for students. It helps them gain the skills they'll need to find a job in today's workforce, where even the most basic jobs use technology. That's why at Dell we believe that access to technology education is not a luxury but a necessity.

In many areas around the world, lack of reliable, affordable electricity has been one of the biggest barriers to providing technology access to students. Some schools cannot keep the lights on and power a classroom simultaneously.

So we've started taking electricity out of the equation, instead combining a more constant energy source—the sun—with energy-efficient [Dell Wyse™](#) technology to develop solar-powered classrooms. We delivered the first two Dell Learning Labs in FY14 at State Senior High School in Lagos, Nigeria, and at Students Health and Welfare Centre in Kensington, South Africa. Together these classrooms directly serve 434 students and more than 50 teachers.

Both Learning Labs use a ["classroom in a box" model](#), first introduced to us by our partner Computer Aid International, in which a standard shipping container is outfitted with solar panels that power 100 percent of the technology inside. We built the South Africa classroom by employing local contractors. Each classroom's technology solution is composed of a donated Dell Wyse™ shared computing system. One PC, used by the teacher,

networks to the 10 zero client workstations lining the sides of the container. All users access local Internet service, which is paid for by Dell. The setup is highly efficient: Each workstation requires just 3 watts to power, as opposed to 150 watts for a typical PC.

This setup also creates a highly collaborative digital learning environment, a new experience for students who had little-to-no prior exposure to technology. The Dell Wyse™ zero clients [work with Microsoft Windows® MultiPoint™ Server software](#), which allows a teachers to share what is on their PCs and monitor students' activity. The students work both together and individually to create stories, PowerPoint presentations, videos and spreadsheets as part of their coursework.

"I am able to stay up to date with the latest news, information and necessary topics; also technology enables me to complete school tasks easier and faster," said Anusquah Pelston, a Grade 10 student at Windermere High School in Kensington.

"It has taken pressure off their parents in terms of costs to pay the library for usage of computers, and library times do not always coincide with the times the kids needs access to information," added Karen Damon, manager of the SHAWCO Centre. "Thank you, Dell, for this amazing resource for our learners and our community members at large."



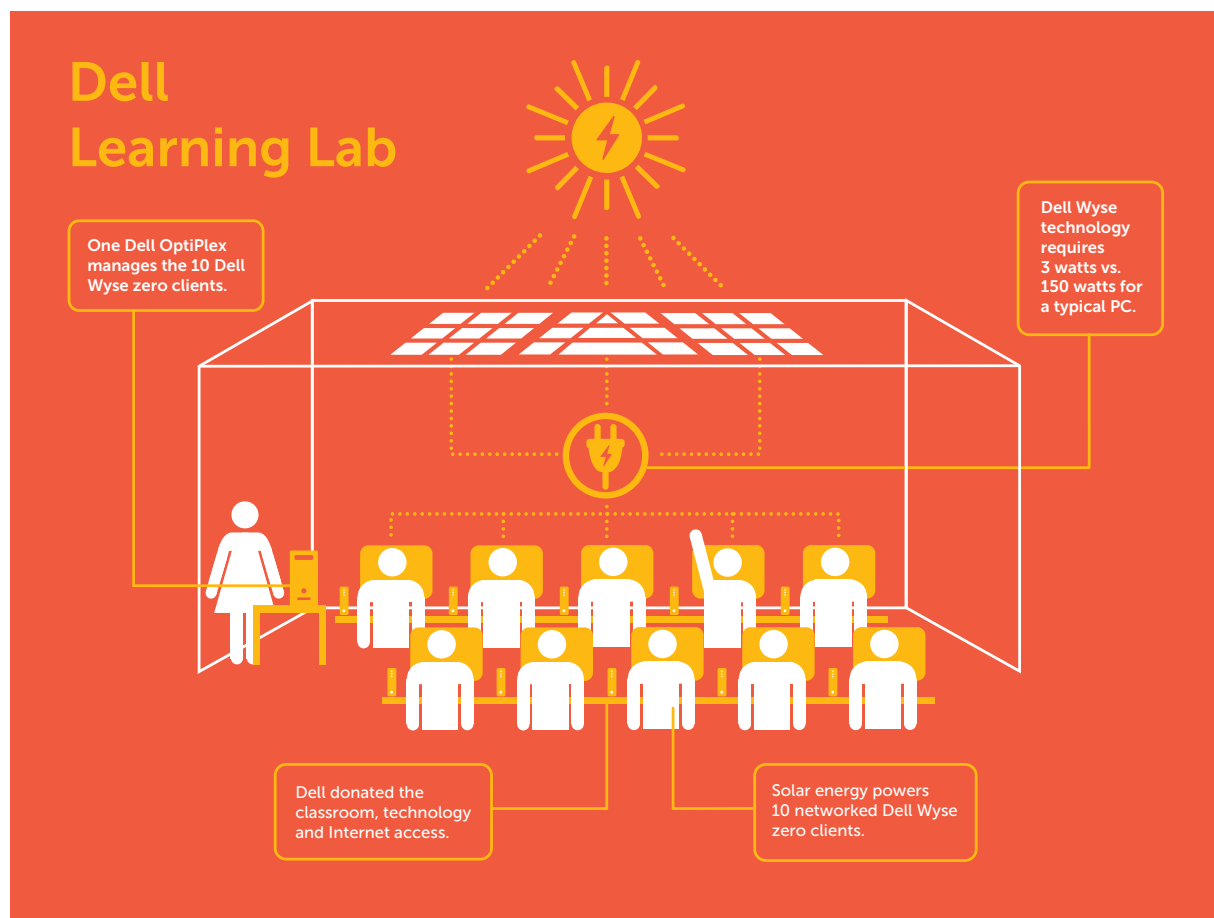
Michael Collins, Dell's vice president and general manager of emerging markets, initially brought the solar-powered classroom idea to the Dell Giving team, which leveraged its strong partnerships with nonprofits and nongovernmental organizations to make the classrooms a reality. In Nigeria, Dell worked with [Computer Aid International](#) to deploy the solar-powered classroom and with Camara to deliver training to the teachers at State Senior High School. In South Africa, our partner [SHAWCO](#) provided the training and curriculum.

"This is a prime example of Dell's youth learning model at work—a combination of our technology and expertise plus local charity partners' educational knowledge," said Trisa Thompson, Dell's vice president of corporate responsibility. "It's all powered by our team members' passion. In this case, our employees worked for nearly two years, often in their free time, to make the Nigeria classroom a reality."

Longevity is at the forefront of the strategy for the classrooms: the Dell Wyse™ zero client life expectancy is nine years, compared to a PC that can turn over in 3-5 years. This will help sustain the program without

the continual flow of corporate dollars. After a classroom's installation, our local partners can run its daily operations using grant funds from Dell.

The solar-powered Dell Learning Labs are also designed to be easily replicable. We are working with SHAWCO to install two more classrooms in South Africa in April 2014, and we hope to deliver more classrooms by the end of FY15 in our efforts to help 3 million youth directly and support 10 million people indirectly to grow and thrive by 2020.



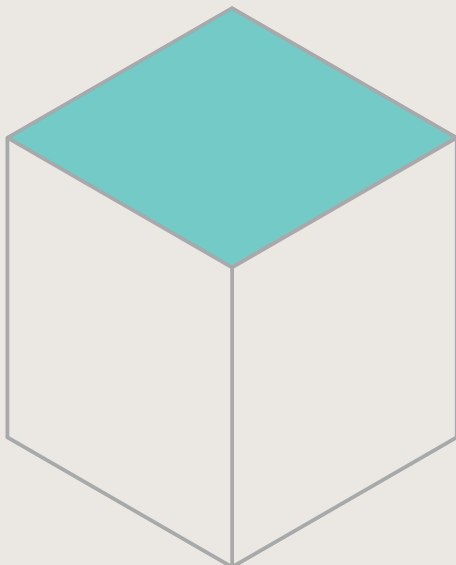


Dell's People Strategy is designed to help us attract the world's greatest talent and to deliver breakthrough performance for our customers, our business and our team members.

Our People Strategy has evolved with Dell's business and now 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 that 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: On track

In FY14, 79 percent of newly promoted people leaders completed Foundations of Leadership training (our target for 2020 is 100 percent) and 26 percent of all Dell leaders completed some sort of leadership program (putting us ahead of our 20 percent target for 2020). Additionally, results from our annual Tell Dell team member survey showed alumni of our Foundations of Leadership program scored at least five percentage points higher than non-participants in various areas pertaining to Championing Team Members, Listening and Sharing, and Business Strategy—three of the five Tell Dell measurement categories.

Background, challenges and opportunities

Great leaders don't just assign and manage tasks—they inspire their teams to do their best work, find innovative new solutions and achieve breakthrough results. Inspirational leadership is especially important in a global, dispersed workforce like Dell's, where a leader's team members may live in several other countries and work in various remote and flexible capacities. We trust team members to organize their work in the manner that best meets their objectives, but it is a leader's job to help team members understand why those objectives are so important to Dell's success.

Dell supports its leaders by providing robust training at all levels, from first-time people managers to directors and executives, for a truly end-to-end experience spanning

each person's career. This helps align approaches, builds on strong foundations and encourages growth of new leaders at all levels.

One challenge has been adapting traditional training models to meet the needs of an increasingly mobile workforce. Another is that the global nature of our company limits opportunities to bring leaders together for in-person training. We began addressing these challenges in FY14 by introducing more virtual training opportunities.



Progress to goal

In FY14, 26 percent of Dell leaders participated in our leadership programs. All of the programs within our end-to-end leadership development curriculum support our People Strategy. While this strategy has evolved slightly in the wake of Dell's privatization, inspiring leaders is still one of our three primary focus areas, along with winning together and entrepreneurial spirit.

Measuring program effectiveness and impact on leadership

In FY14, we developed an evaluation approach to determine the effectiveness of our leadership training. Analysis of participant evaluations from our Foundations of Leadership program, which provides first-time managers with the skills and tools they need to be an inspiring leader at Dell, showed that:

- 96 percent 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.
- 95 percent were satisfied with the capstone final workshop (wherein they applied their new skills to solve real Dell issues).
- On average, respondents indicated a 23 percent increase in their own confidence applying the Foundations of Leadership skills to their work at Dell.

Expanding our leadership and development programs

Our Leadership Development curriculum expanded in FY14 to include a Director Innovation Forum and a Director Series to address training needs for experienced managers. The Director Innovation Forum program challenges leaders to work on real business problems in class to help drive innovation and learn new ways of thinking about issues. The Director Series is aimed at expanding overall leadership skills. Both offerings have been modularized to minimize the time that leaders have to be away from their jobs.

We continued to make [diversity and inclusion](#) key focus areas in leadership development and offered two programs specific to these topics: Maximizing Team Performance and Inclusive Leader. Maximizing Team Performance was offered around the world in FY14 and shows leaders how to develop cultural dexterity and build high-performing teams. Inclusive Leader focuses on the leaders' actions to increase team engagement and productivity. Additionally, our Women in Leadership program and Embracing the Stage training provide women with opportunities to develop their brand and network within Dell.

We also continued to create learning experiences that serve leaders with global and remote teams, allowing them to participate in classes without needing to travel to a central location. We have instructors located worldwide, all of whom understand the local culture and business and can incorporate regionally applicable content into curriculum. Additionally, we adapted our training content to offer virtual versions of most classroom offerings.

Next steps

- In FY15, we will continue to monitor how we deliver trainings based on our business strategy and population base, tailoring our options to the needs of our workforce as it changes.
- We will compare the scores of each leader who participates in training against the scores of leaders who have not yet participated in training.



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 in employee resource groups by 2020

Status: On track

At the end of FY14, 12 percent of Dell team members were engaged in employee resource groups—an increase from 11 percent at the start of the year. Overall, our ERGs added 1,351 new members, which puts us on track but progressing slowly toward our 2020 target.

Background, challenges and opportunities

Dell's employee resource groups (ERGs) connect team members who share common ethnicity, gender, nationality, sexual orientation, lifestyle, backgrounds and interests. The groups provide members a broad community where they can support one other's personal and professional development through mentoring, networking, volunteerism and community involvement. ERGs are also a key source of innovation at Dell and have helped design products and programs tailored to our global customers' diverse needs. Additionally, they offer team members opportunities to engage with others who are not like them to better understand different perspectives. For example, our Pride ERG, which is focused on the interests of the lesbian, gay, bisexual and transgender community, counts many allies among its membership.

Strong ERG membership not only keeps our current team members engaged but is also a vital asset for hiring the world's best talent. Our FY14 internal research continued

to show team members who are actively involved in ERGs are more likely to recommend Dell's products and services to others and recommend Dell as a great place to work.

However, one key challenge to growing our ERG membership is the globally dispersed nature of our workforce. Approximately 20 percent of our team members work in some sort of flexible capacity, such as working remotely or at variable hours, while most Dell ERGs are based around site-specific chapters. Team members who do not work in the office full-time have to overcome some barriers to participate and may not find virtual membership quite as satisfying. In FY14, we introduced an online community to facilitate ERG awareness and connection among members, and we will continue to look for opportunities to make ERGs a valuable resource for our ever-changing workforce.



Progress to goal

At the end of FY14, Dell had 131 chapters of nine [ERGs](#), with 14,901 total members across 63 sites worldwide. Overall we grew the number of ERG chapters by 39 percent over the year. FY14 also marked the first full year of operation for our Virtus ERG for military veterans and our Planet ERG for team members interested in sustainability issues.

By uniting team members to share ideas and work toward common goals, and by providing innovation and leadership opportunities, ERGs support all three focus areas of Dell's People Strategy: winning together, inspiring leaders and entrepreneurial spirit.

Connecting for stronger teamwork and innovation

In FY14, Dell's 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.

- True Ability partnered with our product development team to deliver assistive technologies for our customers with special needs, helping create and test sensor technology that uses eye movement to control on-screen gestures.
- Adelante worked with the Executive Briefing Center—a place at Dell's Round Rock, Texas, headquarters where we meet with customers—to develop "EBC en Español," which allows customers from Latin America to have a richer experience.
- To enhance professional development, Pride offered Top Floor Coaching, a professional branding and mentoring program.

- Members of Wise developed an "IT Is Not Just for Geeks" program to help raise awareness of technology careers among high school and university students. Wise members created the program's curriculum and serve as volunteer instructors.
- To help Dell team members honor veterans, Virtus held Veteran, Memorial and POW/MIA Recognition Days throughout the year.
- Asians in Motion celebrated culture through its annual Dragon Boat Festival and A Taste of Asia culinary events at multiple locations.

Increasing awareness of and support for ERGs

Awareness of ERGs among team members is lower than we would like in many areas, and we predict this challenge will increase as our workforce becomes more dispersed. So in FY14, we launched an online community for ERGs to give team members a single platform for joining a group as well as for learning about the ERG's events and activities, sharing ideas and resources with members, organizing activities and measuring results.

The ERG online community lives within Dell's larger Powering the Possible internal online community, which team members worldwide use to discover service opportunities and log their volunteer hours. Housing the ERG and Dell's volunteer communities alongside each other online helps us raise awareness of the various ERGs among team members who are service-minded but not yet members. It also encourages a spirit of volunteerism among current ERG members.

Each ERG has an executive sponsor, and in FY14, these 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.

Next steps

In early FY15, we launched Conexus, a global ERG for team members who work in a flexible capacity through Connected Workplace. We also plan to pilot two chapters of Mosaic—a new group designed to meet the needs of Asian and black team members throughout Dell's Europe, Middle East and Africa region.

ERGs at Dell



Adelante

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



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.



B.R.I.D.G.E. (Building Relationships in Diverse Group Environments)

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.



GenNext

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



Conexus

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



Pride

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



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.



True Ability

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



Virtus

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



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.



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

Status: On track

Approximately 1 in 5 eligible Dell team members worldwide are enrolled in flexible work programs. This puts us 45 percent of the way to reaching our goal. As an example of the many ways team members can work at Dell, 11 percent of new hires in FY14 joined as remote team members, meaning they do not physically work at a Dell office.

[Read about how flexible work arrangements benefit team members.](#)

Background, challenges and opportunities

We are committed to providing Dell team members with opportunities to grow and thrive, and promoting flexible work arrangements is one of the best ways we can foster happiness in both work and life. The global nature of our business means that team members are often working with customers and colleagues across several time zones, making flexibility imperative. Team members may also have important personal and family commitments that are much easier to meet with an alternative working arrangement.

We established our Connected Workplace program in FY10 to not only accommodate but also to officially encourage this new way of working. Eligible Dell team members work with their manager to choose the working arrangement that best allows them to serve our customers and meet business objectives while accommodating their own work-life balance needs. Popular work arrangements include job sharing, variable work hours and working from home full-time, part-time or just occasionally as the need arises.

Flexible work has proven so popular at Dell that it has quickly become less about a formal program and more about the way we work day to day. In addition to the 20,000 team members enrolled in Connected Workplace, thousands of others work occasionally from home, coffee shops or hotels. This flexibility is a key selling point in attracting and retaining top talent. So we must ensure we have the tools and technology we need to support team members and reimagine Dell facilities to include a greater mix of collaboration rooms, shared desks and “hoteling” areas for mobile workers.

We must also address the biggest challenges posed by flexible work—cultivating personal connections, building strong teams and managing a dispersed, global workforce. To do so, we provide ongoing training, virtual events, internal social media groups and employee resource groups where team members connect and interact. We will continue to strengthen our resources as our flexible workforce evolves and expands over the next decade.

Progress to goal

In FY14, we offered [Connected Workplace](#) at 44 sites in 27 countries, up from 37 locations across 26 countries in FY13. Team members can choose from seven flexible work solutions including work-from-home and part-time work arrangements, variable daily work times and job sharing. Connected Workplace makes it easier for team members to do their best work, which supports the “winning together” focus area of Dell’s People Strategy.

In addition to advancing our own goals, Connected Workplace establishes Dell as an industry leader in creating a thriving, flexible workforce. Dell earned the number 3 spot on FlexJobs’ list of The Top 100 Companies Offering Flexible Jobs In 2014, as [cited by Forbes](#).

Progress to goal (continued)

Our customers have recognized our pioneering work, and a growing number have asked us to consult with them as they seek to maximize their own flexible work environments. We also continued to expand our portfolio of related products and services, such as [Dell's Unified Communications and Collaboration](#) solutions.

Attracting talent, supporting a flexible workforce

Approximately 11 percent of the positions we filled in FY14 were hired to a remote location, meaning the team member works away from a Dell facility all or most of the time. This allows us to hire the best person for each job, despite their physical location or ability to come into the office.

We continued to provide the technology that team members need to connect with their colleagues in today's global and mobile work environment. We also provided training and resources that address the unique challenges of a flexible workforce. In FY14, Connected Workplace participants were offered a three-part

training on organizing time, building relationships and maintaining communication, and Dell leaders had access to training on managing, leading and inspiring virtual teams.

Reducing our environmental impact

While Connected Workplace was designed to help our team members balance work and life, participation also helps Dell reduce the environmental impact associated with our facilities by consolidating the amount of office space needed in some buildings or avoiding the need for additional spaces in other locations.

In FY14, our Connected Workplace program helped Dell avoid an estimated 12 million kWh of energy and 6,700 metric tons of greenhouse gas emissions (as CO₂e). Through the program's FY14 growth, Dell also avoided an additional \$12 million in workplace-related expenses.

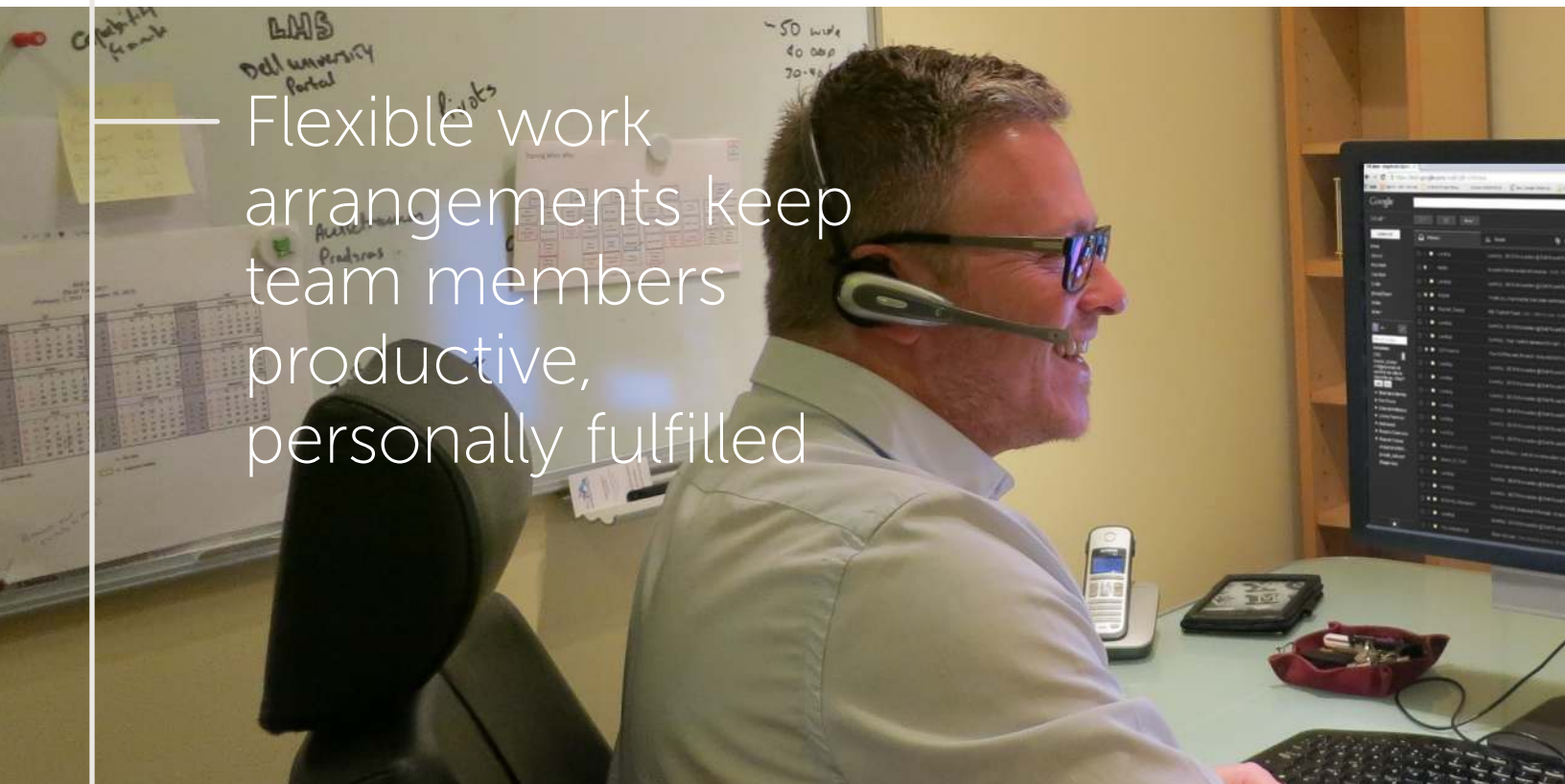
Next steps

- In FY15, we will launch Conexus, an [employee resource group \(ERG\)](#) for flexible workers—making us one of the first companies to have such a group. This ERG will enable team members to more effectively connect to share best working and environmental practices, suggest program improvements, discuss work-life balance solutions and develop camaraderie.
- We will also debut the "Workplace of the Future" in select Dell facilities to test various combinations of new technologies and workspaces designed to foster our flexible workforce's productivity and creativity. Team members' feedback will help us determine how Dell facilities should look and function in the future.

Thanks to Connected Workplace, 6,700 metric tons of greenhouse gases were avoided in FY14.



*Source: U.S. Environmental Protection Agency



Flexible work arrangements keep team members productive, personally fulfilled

Dell's Connected Workplace program allows team members to choose the working arrangement most conducive to serving their customers and maintaining work-life balance. For some, this may mean working from home occasionally to minimize distraction. For others, it means job sharing to better accommodate the care of children or aging parents. And many team members work remotely 100 percent of the time, whether they live near a Dell office or not. Ultimately, Dell holds people accountable for their work performance and believes that where people do their best work is often best determined by Dell people working with their managers.

Jan Lindborg is one of nearly 20,000 Dell team members working in some sort of flexible capacity. Jan is a sales transformation program lead based in Bilbao, Spain. His early mornings include a balance of work and family time. From 6 to 6:30 a.m., he addresses top priority emails. He then breaks for 30 minutes to walk his youngest daughter to school, comes back home for another half-hour email session and then makes the 30-minute school run with his son. After breakfast, he spends the day in his home office, working across time zones. He collaborates with Asian colleagues via phone and instant messaging before lunch, and connects with European team members until his children arrive home from school shortly before dinnertime.

The only thing not on Jan's agenda is going to Dell's office in Madrid, which is 300 miles away. He has worked 100 percent remotely during his entire 10-year tenure with Dell, which allows him and his wife to live near her extended family. "This arrangement really helps me focus and plan my work more effectively," said Jan. "Working remotely is still pretty radical in Spain, and I don't know of any other company that would let me do this."

Dell facilitates this and all types of flexible work arrangements by providing the technology that team members need to connect with their colleagues in today's global and mobile work environment. Key tools include Microsoft® Lync™, SharePoint®, videoconferencing, VPN and smartphone apps.

Gina Cano, senior manager of the global training and communications team, uses this technology to manage a globally dispersed team, working both from Dell's Round Rock headquarters and her home in nearby Austin, Texas. Her team members work variable hours—starting early on some days and later on others—to maximize both work-life balance and customer service. Gina starts her week on Sunday and takes Fridays off to spend time with her husband.

Though it's taken some trial and error to develop best practices, Gina said, "I trust my team to meet their goals. If I didn't, why would I want to work with them?" Of her own work arrangement, she adds, "My business is taken care of and my family is taken care of. It's a win-win."

When Gina does go to her Dell office, she usually works from a shared desk. As flexible work evolves from a formal program to simply the way team members work at Dell, we are reimagining our facilities and moving toward a more diverse mix of spaces, with collaboration rooms, shared desks and dedicated desks, open-office spaces and private work areas. This evolution in the way we use our office space allows remote or mobile workers to have use of on-site meeting space—or space to spend the day connecting with colleagues.

Cultivating personal connections and building strong teams are two of the biggest challenges of managing a dispersed, global workforce. We address these through ongoing training, virtual events, online Chatter groups and support systems like the new [Conexus employee resource group](#) that we will launch in FY15.

Dell team members have also found their own creative solutions for fostering connections. "My teammates and I actually schedule virtual coffee breaks, where we take 15 minutes to just chat about our weekends, work or whatever's on our mind," said Sophie Marlange, employment and ethics legal director for EMEA. She works mainly from her home in Paris but often makes

the 45-minute train ride to Dell's office just to see people and keep up with her network. "When you're in the same office with people, you can gauge their moods," said Sophie. "That's definitely more challenging on the phone, so you have to make the effort to ask how people are doing."

Some team members who don't have a Dell office nearby have formed co-working groups, using our internal social media platforms to find employees in their area and meet up to work together at the same coffee shop or library. Even if they don't work on the same team, this in-person interaction helps people feel connected to our company and to each other.

Jitu Agrawal of Singapore has the challenge of maintaining both in-person and virtual connections with the nearly 150 team members he manages in five countries. In his role as director of Dell Services in South Asia, India and Asian Emerging Countries, Jitu spends half of his time traveling and half working from home. He schedules one-on-one meetings with his direct reports when he's in their city, rotating so that he meets with everyone at least once every 30 days. Jitu's extensive travel takes him far and wide, but he says, "I've never had a challenge staying connected, even in remote places." Jitu's also been able to maintain his most important connection of all: "I have a 7-year-old daughter and have never missed an assembly or important school event. I wouldn't get that if I had to be in the office every day."





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 a best-in-class Employer of Choice



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

Status: On track

As of September 2013 when we first began measuring this goal, Dell's university hiring represented 7.5 percent of all external hires. By Jan. 31, 2014, that increased to approximately 10 percent, though this does not represent a full university hiring cycle. Next year, we will have an official number (Sept. 1, 2013–Aug. 31, 2014) and an interim number to report.

Background, challenges and opportunities

Dell's hiring strategy reflects the new reality of how people look for jobs and how we find the best talent. We focus on social media engagement more than on traditional career fairs, and the in-person events we do hold are centered on interactive learning and deeper discussion. In addition to filling positions as they become available, we steadily build our employment brand and our long-term relationships with potential candidates for future jobs.

This strategy is especially important to hiring university students, a generation that has grown up entirely in the Internet age. University hires are a focus for us because of their deeply ingrained technology knowledge. They are also a diverse demographic. 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.

Dell's global presence and social media prowess give us an advantage in today's hiring environment. We have the tools and the reach to go where students are, rather than expecting them to come to us. However, our biggest challenge lies in aligning our university hiring goals with the rapidly evolving needs of our business.

Acquisitions and moves into new areas can make long-term forecasting difficult—both for overall numbers and for predicting how many positions will be available at the recent graduate level. However, because Dell operates in more than 36 countries and offers flexible work arrangements from various locations, we can react very quickly to changing hiring needs and choose the best candidate for every position.



Progress to goal

In FY14, we hired recent university graduates by deepening our relationships with universities around the world and engaging students via social media both through groups and one-on-one communications.

Also, Dell received dozens of [global and country-specific recognitions](#) in Universum's annual employment branding study, which asks more than 200,000 university students worldwide to choose their ideal employers. Top accolades for 2013 included #33 on the World's Most Attractive Employers—Engineering/IT list and #51 on the World's Most Attractive Employers—Business (Global) list.

Deepening our relationships with universities and organizations

Dell has cultivated deep relationships with major universities and student organizations in all of our regions. In FY14, our continued engagement with U.S. groups such as the [National Society of Hispanic MBAs](#) and the [National Black MBA Association](#) helped us achieve a 60 percent year-over-year increase in diverse hires from three key conferences.

We also maintained a steady presence on campuses, both through traditional tactics like career fairs and on-campus interviews and through ongoing, engaging activities such as:

- "IT Is Not Just For Geeks" curriculum, which members of [Wise](#) (Dell's employee resource group for women) developed to help students understand how to apply IT in their lives and careers. Dell employees also volunteered as instructors.

- Networking events with students and Dell executives (both general events and those for specific fields of study such as marketing, finance or IT)
- Guest lecturing and case study presentations
- "Primp Your Profile" sessions to help students build their personal social media brand
- Interactive class projects, such as our Center for Customer Insight and Marketing Solutions Lab, where students work on a Dell project and then become summer interns

Engaging students through social media

In FY14, 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 improved our analytics to be able to better judge the reach and success of each effort—which items were read and liked and inspired engagement. Using this data, we can tweak future activities and generate better results.

Next steps

- In FY15, we will keep a close watch on overall headcount planning. As business units present and amend their hiring models, we will adapt and look for the candidates with skills most aligned with our business needs. This may translate into more emphasis on certain fields of study and their related colleges, organizations and social media groups.



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

Status: On track

In FY14, we garnered more than 50 awards worldwide related to being an employer of choice. Results from our annual internal Tell Dell survey across various categories also showed that more than 75 percent of team members feel engaged and strongly positive about working at Dell.

Background, challenges and opportunities

Being a best-in-class Employer of Choice means our team members think Dell is a great place to work, and they recommend our company to potential hires. We find new team members who come from referrals tend to be more likely to fit our culture—having a prior personal connection helps both us and the candidate ensure the job will be a good match.

Our team members' enthusiasm for working here also drives external recognition of Dell's employment brand, with organizations around the globe including us on their "best places to work" lists. Attracting and retaining top talent is a challenge across the technology industry, and this public spotlight on our unique culture, programs and benefits definitely bolsters our global recruiting efforts.

Progress to goal

Dell's People Strategy focuses on three areas—inspiring leaders, winning together and entrepreneurial spirit. Being an Employer of Choice is a result of the work we do in these areas.

In FY14, we continued to focus on our People Strategy while earning external awards and recognition that build our Employer of Choice status.

Our team members' high satisfaction levels aided greatly in talent recruitment, as approximately 37 percent of our FY14 hires came from team member referrals. We also introduced a new social sharing tool, [Dell Talent Community](#), to make it even easier for team members to share Dell jobs with their connections on Facebook, LinkedIn and other social networks. We expect this tool to result in increasing our referral hires to as high as 40 percent over time.

Building team member satisfaction and referrals

Our annual internal Tell Dell survey, which measures how team members feel about various aspects of working at Dell, revealed an overall engagement level of more than 75 percent. This is a composite score based on a variety of survey questions, and it indicates that three-quarters of team members feel good about their job and would recommend Dell as a great place to work. Specific areas of positive feedback include:

- Feeling valued
- Understanding Dell's strategy
- Experiencing Dell's commitment to having a work-life balance



Progress to goal (continued)



Achieving external recognition

We continued to be recognized both globally and locally in the countries where we compete for talent, earning more than 50 major awards, including:

- Forbes—Listed as one of the [World's 100 Most Reputable Companies](#)
- CEO Asia Forum—#3 Finalist for [King's School CSR Company of the Year](#) in the Philippines
- Disability Matters—[2013 Europe Workplace Award, 2013 United States Workplace Award](#); Given to corporations that are leading the way in supporting people who either have a disability or who have a child or other dependent with special needs
- DiversityInc—#37 on 2013 [DiversityInc Top 50 List](#)
- Fortune—#7 on [China's Top 100 Most Responsible Companies](#)
- Great Place to Work Institute and Computerworld magazine—Ranked Dell as 8th among the 100 Best IT & Telecom Companies to Work For in Brazil
- Human Rights Campaign—Received 100% on [HRC's Corporate Equality Index](#) for the 10th consecutive year; rates lesbian, gay, bisexual and transgender equality in the workplace
- Times & Opportunity Now—Made the U.K. publication's list of [Top 50 Employers for Women](#)
- Universum—More than a dozen [global and country-specific recognitions](#), including: #33 on World's Most Attractive Employers 2013—Engineering/IT, #51 on World's Most Attractive Employers 2013—Business (Global), #14 on Top 100 Employer of Choice—Undergraduate Engineering/IT (India), #18 on Top 100 Employer of Choice—IT (Germany)
- U.S. Veterans Magazine—[Top Veteran-Friendly Companies](#)
- Working Mother—Ranked #24 on the U.S. magazine's [100 Best Companies 2013](#), making this list of family-friendly workplaces for the sixth consecutive year

Next steps

- In FY15, we will continue to invest in leadership trainings and other culture-building activities that help drive positive Employer of Choice perceptions among team members.
- We will continue to encourage team member referrals of new hires.
- The awards we receive in FY15 will serve as opportunities for us to benchmark our performance against the industry and other companies of our size, learn about important workplace trends, and gain ideas for improvements and new initiatives.



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: On track

In FY14, our annual employee satisfaction survey—Tell Dell—measured that 78 percent of our global team members were satisfied with their experience at Dell. This was evidenced by their responses across multiple survey categories.

Background, challenges and opportunities

Dell's annual employee satisfaction survey is not just a simple measure of how much our team members enjoy the mechanics of their job. It goes deeper to gauge whether they feel listened to, understood, respected and empowered to help shape our company's direction. Similarly, cultivating this satisfaction is not a project at Dell but rather an ingrained part of our daily activities.

In FY14, the increasingly diverse and dispersed nature of our workforce made connecting and listening more important than ever. Additionally, the privatization of the company increased the importance of internal communication. By engaging Dell team members in a two-way dialogue, we improved their reported satisfaction—and their ability to serve our customers—by using their feedback to streamline sales processes, overhaul our performance review process and make the types of small, daily incremental changes that keep our culture of innovation thriving.

Progress to goal

In FY14, our People Strategy evolved, placing emphasis on three focus areas: inspiring leaders, winning together and entrepreneurial spirit. This creates an environment where team members feel empowered to do their best work, which accelerates business performance and improves team member satisfaction. Both of these outcomes help us continue to hire and retain the world's best talent.

The measure of our success against this goal goes beyond the specific percentages achieved on our Tell Dell internal survey and reflects our ongoing commitment to open dialogue, collaboration, entrepreneurial spirit and career development.



Progress to goal (continued)

Engaging team members in two-way conversation

In FY14, we gathered team members' input on workplace issues through multiple channels. Our top-level leadership held regular sessions—both virtually and in person—to engage team members around Dell's strategy, discuss where we are headed in the next 2-5 years, and gain feedback that will help us meet our goals. To gather feedback on a larger scale, we conducted a significant number of focus groups and continued polling on a variety of topics.

Additionally, we encouraged open, two-way conversations between team members and leadership teams through various communication portals such as internal social media sites and blogs. We used this continual dialogue and input to shape strategic decisions, programs and initiatives. For example, their feedback indicated that Dell's performance management process was overly complex and hindered ongoing evaluation. So in early FY14, we conducted a research study of 10,000 team members and leaders to determine why it was not meeting their needs.

Dell senior leadership also directly engaged team members through our internal social media platform to learn about their experiences. We used these inputs to inform the decision to change our performance management process worldwide—an undertaking that began in late FY14 and will continue through FY15.

Building a culture of collaboration and customer service

We also continued to listen to and implement team members' ideas for better serving customers. Through our surveys, team members suggested improvements to the sales and ordering process that would help them spend less time on administration and more time serving customers—thereby increasing their satisfaction with daily work life. We shared these ideas with the sales operations teams, and in FY14, we worked toward increasing efficiencies in these areas.

In FY14, Dell's Process Center of Excellence—an internal team dedicated to cross-functional collaboration—continued reducing project redundancies and aligning programs to Dell's strategic goals via end-to-end process integration, business process architecture and change management. This type of company-wide collaboration ensures our teams are working on the most impactful projects, which in turn increases their job satisfaction.

Fostering entrepreneurial spirit among team members

In FY14, Dell implemented a new Director's Innovation Forum training for director-level management. The curriculum, which comprises a two-day class followed by an eight-week project development period, focuses on helping directors build their capacity to drive innovation within their teams. The training is designed to tap into team members' creativity and entrepreneurial spirit, which we believe also promotes a higher level of engagement. Our research shows that more engaged team members rate themselves as more satisfied at work.

Inspiring our people to achieve their full potential

We continued to support team members to do their best work by helping them each to create and execute long-term career development plans. We also provided ongoing feedback and coaching; timely, regular performance reviews and virtual, on-demand trainings in line with their career aspirations and business goals.

[Dell's employee resource groups](#), which connect members with commonalities such as gender, ethnicity, background and interests, also offered opportunities for team members to receive targeted professional development and to share ideas, best practices and information.

Next steps

- In FY15, we will continue to examine how we can better align our practices to the imperatives of the newly updated People Strategy and evolving culture of Dell.
- Based on team member input, which culminated in a revamp of our performance review process at the end of FY14, we will continue to evolve Dell's performance management practices in FY15.
- We also will continue to solicit team member feedback and look at how it can best be used at Dell. For example, in FY14 we conducted an extensive review of Tell Dell's content, methodologies and usefulness to Dell leaders. We gathered input from Dell team members, leaders and the human resources leadership team as well as from external vendors and academicians. In FY15, we will roll out changes based on this input.



Governance

Even now as a private company, Dell maintains a strong commitment to governance and ethics. Recently recognized as one of the [World's Most Ethical Companies](#) by the Ethisphere® Institute, Dell maintains a culture where ethics and compliance are integrated into daily decision-making. We believe that acting ethically in all we do is good business and important to our customers, suppliers and strategic partners. As a result, we have developed critical programs to address key risks across the enterprise, enabling Dell to operate in full compliance with all laws around the world, follow established governance practices and maintain a deep team member culture of ethical action.

To guarantee strong governance, our ethics and compliance programs are overseen by the Dell Global Risk and Compliance Council, which includes members of the Dell Executive Leadership Team and leaders from areas such as ethics, audit and accounting. This council ensures support and appropriate resources for Dell's compliance programs and that strategic decisions are informed by our core value of winning with integrity.

Enhancing Dell's ability to protect our stakeholders

Protecting the intellectual property, personal information and other confidential data of Dell and our customers continues to be essential, as embodied in our [privacy policy and information lifecycle management policy](#). Dell's Chief Privacy Officer, Dale Skivingington, works with Mike McLaughlin, Chief Ethics and Compliance Officer, his team and the Information Security team to ensure Dell's team members have the training and tools needed to provide stakeholder personal data with appropriate privacy and security.

In FY14, we operationalized our Data Classification Standard by installing [TITUS](#)—a comprehensive data-labeling tool—on every team member's system. Robust training and communications provided team members not only with instruction for properly using the tool but also a reminder of the key tenets of data protection. We also issued an enhanced Secure Workplace Standard for the same reason. To enhance the protection and use of marketing data, Dell introduced a new Global Marketing Privacy Standard to help team members with marketing-related roles understand the general principles and best practices for collecting, using, disclosing, storing, securing, accessing, transferring or otherwise processing personal information for marketing purposes.

In the spring of 2014, we held a Privacy and Data Protection Workshop for key internal stakeholders, including Dell senior leaders, to further drive compliance and accountability around privacy and data protection.

Increased awareness and local accountability programs

Consistent, broad-based internal communication about our steadfast commitment to integrity was a key focus this past year. We enhanced local accountability by conducting an Anti-Corruption Executive Workshop with 150 executives during Dell's 2013 Worldwide Leadership Meeting. Executives engaged in hands-on planning of local and regional accountability models for their geography, including plans for embedding compliance into all activities. Throughout the year, executives further developed these models based on their local anti-corruption regulatory environment and culture, and they will implement the models in FY15.

In FY15, we also plan to launch additional programs to help mid-level managers make decisions based on our shared corporate values and ethical principles, which we've held since our founding three decades ago.



Increased awareness and local accountability programs (continued)

Externally, we invested more in assessing and managing our third-party partners by introducing [TRACE Inc.](#) to more effectively vet third-party vendors and partners. This partnership augmented the onboarding process we developed in FY13 for the more than 130,000 third parties we engage with across our business.

We also continued to be an active participant in the global governance community, growing our relationships and sharing best practices with groups, including the Ethics Resource Center Fellows, Corporate Executive Board's Compliance and Ethics Leadership Council, International Association of Privacy Professionals, Future of Privacy Forum, Society of Corporate Compliance and Ethics, Association of Corporate Counsel's SEC Roundtable, National Association of Corporate Directors, Ceres, Center for Political Accountability, Sustainable Trade Initiative (IDH), Electronic Industry Citizenship Coalition, Global Social Compliance Program and The Sustainability Consortium.

Award-winning programs that drive our business and culture

In addition to the World's Most Ethical Companies recognition referenced above, in FY14 Dell received two key awards among corporate ethics practitioners. The [Open Compliance and Ethics Group](#) recognized Dell's long-term efforts in making ethics and compliance central to our operations by honoring us with its 2013 Achievement Award in the areas of Governance, Risk and Compliance and its 2013 Principled Performance Prize.

While we are pleased with this external recognition, our team members' feedback is equally important. To ensure that our programs and efforts are positively impacting team member behavior, we again used the Corporate Executive Board's Ethical Culture Survey, which benchmarks employees of 130 multinational companies, to ask our global team members for anonymous feedback on our corporate culture and key risks, as well as their willingness to speak up. More than 35,000 team members responded to the survey, and we were pleased to learn that Dell scored above the benchmark on the survey's "integrity index." We are using insights from the survey to further evolve our programs.

Our external recognition and internal team member feedback show that Dell's commitment to integrity is unwavering, as is our passion for continual improvement.

"Dell has developed a sophisticated entity-wide structural approach to governance, risk assessment and compliance that includes a four-pronged compliance and ethics team; a unified, seven-part risk program; and deep involvement of the business units, operating under the oversight of the Dell Global Risk and Compliance Council, which includes members of the Dell Leadership Team and functional heads such as audit and accounting."

—Open Compliance and Ethics Group,
in recognizing Dell with its top 2013 awards



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 topics such as governance or workplace health and safety.

Environment

Unit of measure FY12 FY13 FY14 Comments (FY14)

Sustainable operations

Volatile organic compound (VOC) emissions*	Metric tons	13	12	7	
Scope 1 GHG emissions*	MTCO2e	38,569	37,354	39,745	Direct emissions
Scope 2 GHG emissions*	MTCO2e	395,360	421,714	432,727	Before subtraction for green electricity purchases
Scope 2 net GHG emissions*	MTCO2e	326,778	328,406	288,638	After subtraction for green electricity purchases
Scope 1 + 2 net emissions*	MTCO2e	365,347	365,760	328,383	
Scope 3 GHG emissions*	MTCO2e	98,407	77,311	86,942	Global business air travel only
Electricity consumed (total)*	Million kilowatt-hours (kWh)	672.8	728.8	743.3	All electricity purchased or generated on-site
Green electricity consumed*	Million kWh	129.6	165.3	263.0	Renewable-source electricity purchased from suppliers or generated on-site
Other energy consumed*	Million kWh	135.3	129.8	131.8	Purchased heat, liquid and gas fuels used in buildings and vehicles
Total energy consumed*	Million kWh	808.1	858.6	875.1	
% of green electricity*	Percentage	19.3	22.7	35.4	Percent of renewable-source electricity purchased or generated
Nonhazardous waste generated	Metric tons	17,302	14,293	13,735	Manufacturing and fulfillment facilities
Landfill avoidance rate	Percentage	98	96	96	Manufacturing and fulfillment facilities
Fresh water consumption (total)*	Cubic meters (1000s)	2,262	1,780	1,594	FY13 and FY14 data includes Dell-operated facilities only; FY12 data includes additional locations where measured data was available
Fresh water consumption (water-stressed locations)	Cubic meters (1000s)	n/a	528	498	Dell-operated facilities in locations considered to have high or extremely high overall water risk
Fresh water intensity (water-stressed locations)	Cubic meters of water per square meter of building space	n/a	1.63	1.43	Dell-operated facilities in locations considered to have high or extremely high overall water risk

Global recycling

Free Dell-branded electronics takeback program	Number of countries	79	78	78	
Audits of Tier 1 environmental partners	Number of audits	91	76	69	
Worldwide cumulative takeback volume totals	Million kilograms	375.5	459.5	564.2	

* FY13 figures adjusted to reflect more complete data
Note: GHG = Greenhouse gas; MTCO2e = Metric tons CO2 equivalent



Communities

	Unit of measure	FY12	FY13	FY14	Comments (FY14)
% of team members volunteering	Percentage	41	56	57	
Total hours team members volunteered	Hours in thousands	419	707	739	
Children directly impacted through giving programs	Number of children in thousands	n/a	300	504	Updated to align with 2020 Plan; cumulative number of children beginning in FY13
People indirectly impacted through strategic giving programs	Number of people in millions beginning in FY14	n/a	n/a	3.3	New metric added to align with 2020 Plan
Total contributions	Millions of dollars	44.1	43.7	32.8	Reduction in giving tied to business results

People

Women team members	Percentage	33	32	32	Globally
Women managers	Percentage	25	24	24	Globally
People of color—team members (US)	Percentage	29	29	30	Percentage is only expressed as a percentage of US team members
People of color—managers (US)	Percentage	20	21	22	Percentage is only expressed as a percentage of US managers
Employee Resource Group (ERG) participation	Percentage	0	10	10	More than 10,000 team members are engaged in one or more ERGs globally
Employee Resource Group locations	Number of locations	65	95	131	Global chapters
Human Rights Campaign Corporate Equality Index score	Scoring between 1-100	100	100	100	10th consecutive year to score 100%

Occupational health and safety metrics

Recordable injury/illness rate	Cases per 100 FTEs	0.16	0.14	0.14	Data is for calendar years 2011, 2012 and 2013
Days Away, Restricted, and Transferred (DART) rate	Cases per 100 FTEs	0.08	0.07	0.07	Data is for calendar years 2011, 2012 and 2013
Work-related fatalities	Number	0	0	0	Data is for calendar years 2011, 2012 and 2013



Supply Chain

	Unit of measure	FY12	FY13	FY14	Comments (FY14)
Tier 1 suppliers participating in CDP	Number of Tier 1 suppliers participating	62	64	68	28 Tier 2 suppliers participated in the survey
Tier 1 suppliers attending workshop	Number of suppliers	95	75	0	
Sub-tier suppliers attending workshop	Number of suppliers	15	25	0	
Supplier capability building workshops	Number of meetings	2	1	0	
Supplier stakeholder engagements	Number of suppliers engaged	80	114	12	Sustainable Trade Initiative (IDH) project
Supplier audits	Number of total audits	125	135	135	
Diverse supplier spending	Billions of U.S. dollars	2.93	3.44	4.19	

Other

Ongoing stakeholder engagements	Number of engagements	5	8	6	Select examples: stakeholder review via Ceres of Corporate Responsibility Report and 2020 Legacy of Good Plan; SRI in the Rockies; meetings during Dell World
Code of Conduct training	Percentage of required team members who took the training	100	100	100	
Ethics Hotline	Number of calls and online inquiries	746	1,070	1,474	New hotline and web form inquiries/cases logged (prior to any referrals to other departments)

We've made positive progress in our first year since announcing our 2020 Plan, and we realize we must continue collaboration with customers, partners and stakeholders worldwide to meet all our goals by 2020. We welcome an open dialogue and encourage you to share your feedback and ideas.

Join the conversation



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Email us with your comments or to be included in future discussions about our progress and how you can participate.



Visit dell.com/2020 to download the plan and explore additional content.

