

Supply Chain Sustainability Progress

2018 Annual Report



LETTER TO OUR STAKEHOLDERS

For Dell, sustainability is not only about doing the right thing - it's a better way of doing business. It provides a key avenue for enhancing innovation, increasing assurance, deepening collaboration, and empowering partners throughout our supply chain.

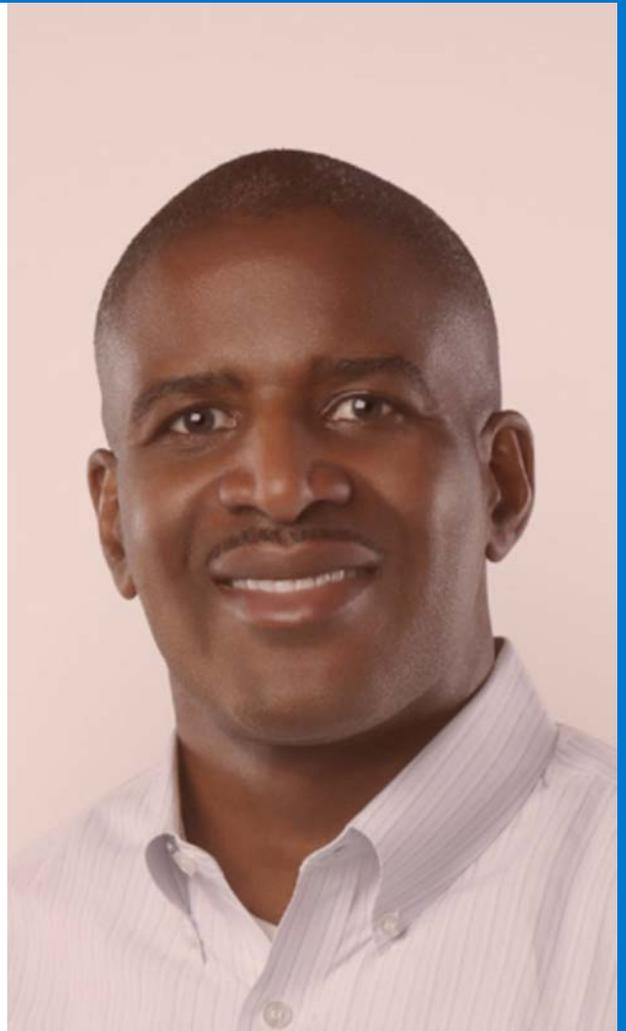
Last year, we entered a new phase with our supply chain improvement efforts, developing targeted approaches to meet individual suppliers' needs. Through strong partnerships, we saw meaningful progress in addressing some of the most challenging sustainability issues we face. We supported our suppliers in training more than 50,000 workers on health and safety issues. We monitored more of our suppliers' factories for environmental risks. And the number of our suppliers that reported spend with diverse suppliers of their own increased by 32 percent.

Efforts such as these contributed to Dell receiving the Responsible Business Alliance's Compass Award for Innovation, a #2 ranking for transparency from the Institute of Public & Environmental Affairs, and our long-standing membership in the Billion Dollar Roundtable.

However, there is always more we can do in our ambition to create long-lasting solutions. In 2019, we're expanding our partnerships to address risks around forced labor and process chemicals, reduce waste in our suppliers' and our own operations, and spread our work to embed supplier diversity more deeply and broadly into our supply base. We'll continue our efforts, prioritizing innovation and collaboration as we drive a responsible and diverse supply chain.

Kevin Brown

Executive Vice President, Global Operations and
Chief Supply Chain Officer
Dell Technologies



"For Dell, sustainability is not only about doing the right thing - it's a better way of doing business."

TABLE OF CONTENTS

2 Our Approach to Sustainability

Overview

Cycle of continuous improvement

Capability building

8 2018 Highlights

Bettering the lives of people in our supply chain

Reducing our supply chain's impact on the planet

Promoting a supply chain that reflects our diverse customer base

30 Our Progress

Key performance indicators

Audit results

Closing priority findings

40 Summary

Key policies

Contact us

How we approach sustainability in our supply chain

Our products are made from thousands of components sourced from a global supply chain. This global reach comes with a responsibility to advance sustainability by having a positive impact on both the communities and people that contribute to our products.

Dell is committed to responsible business practices for ourselves and our suppliers. We have established our expectations through our [Supplier Principles](#), which must be followed as a condition of doing business with Dell. As a founding and active member of the Responsible Business Alliance (RBA), we also hold our supply chain accountable to the [RBA Code of Conduct](#), as well as international standards and local laws and regulations.

We holistically monitor our suppliers' performance to gain insights into the conditions and impacts of our supply chain. Our approach to monitoring our supply chain is built on transparency, collaborative leadership, innovation, and empowerment.



Transparency

Trust in a company starts with transparency. Our customers expect it. We live it. We work with our suppliers to deliver it.



Collaborative Leadership

We share our knowledge and experience with partners and peers to advance sector-wide working practices and anticipate future needs.



Innovation

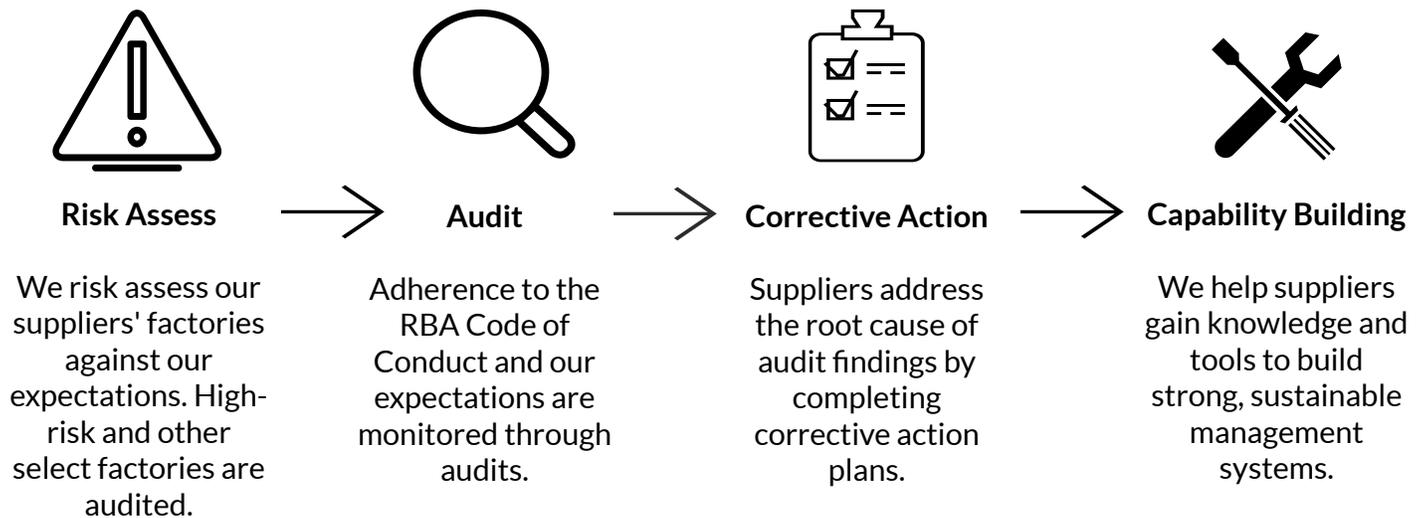
We collaborate with suppliers, industry, peers and other Dell stakeholders to drive innovative solutions that address industry challenges.



Empowerment

We build capability by providing training, tools and forums for our team members, workers, suppliers and partners to drive sustainable change.

Building sustainable change through continuous improvement



1,865

factories were assessed for risks; any classified as high-risk for social or environmental issues were added to our 2018 audit plan



97%

of high-risk factories were audited in fiscal years 2018-19



334

factories were audited to monitor adherence to the RBA Code of Conduct; additional suppliers were included in survey activities to monitor targeted risks



62%

of factories audited in 2018 had improved scores from their prior audit cycle



252

unique supplier factories were represented in our capability building programs



200

factories implemented corrective actions to address risks identified in audits



811

unique leaders completed our capability building programs

Sharing our knowledge to help suppliers achieve long-term success

In 2018 we provided training to 811 leaders from 252 of our suppliers' factories. Some of these participants went on to conduct team study sessions in their factories, expanding our reach even further.

E-Learning

More than 350 of our suppliers' factories are registered in Dell-developed online training platforms. These supplement the RBA e-Learning Academy and provide information to help suppliers drive continuous improvement.

Select 2018 Topics:

- Fire Safety
- Managing Worker Feedback
- Working with Labor Brokers

Webinars

Dell presents webinars for suppliers to deliver targeted training in support of continuous improvement.

Select 2018 Topics:

- Setting Science-Based Targets
- Emergency Preparedness and Response
- Water Risk Mitigation



SER Orientation

Instructors lead training sessions to help our suppliers understand Dell's SER requirements and the RBA Code of Conduct. This is available to both new suppliers and any new SER practitioners our suppliers hire.



In Person Sessions

On-site training, roundtables, and networking sessions allow suppliers to connect with sustainability practitioners and provide deep dives into best practices.

Select 2018 Topics:

- Wage and Benefit Requirements
- Worker Engagement and Grievance Mechanisms
- Energy Management



Improving management systems to prevent recurring issues

Last year, we developed an improvement program targeting six areas of the RBA Code of Conduct, for which we are prioritizing improved compliance. We started by developing engagements to address the individual needs of 144 factories with priority and repeat audit findings in these areas. This individualized approach is designed to set suppliers up to implement long-lasting, sustainable improvements that advance responsible practices.

Our specialists shared their expertise through onsite consultations, helping suppliers improve their internal audit capabilities so they can better monitor risks. Specialists follow up with suppliers to support progress throughout their improvement efforts. These individual consultations are supplemented with webinars documenting best practices and can be referenced by suppliers' current and future sustainability practitioners.

Designing these individualized engagements takes time, but is effective. We are continuing to support these factories' efforts to close audit findings and build robust sustainability management systems.

Change in Audit Compliance Among Participating Suppliers' Factories*



The positive trends in audit compliance rates reflect improvements in the performance of factories targeted in our program, which addresses persistent and priority findings.

Some of the actions we have been taking with our suppliers are not yet visible. This includes efforts to help ensure appropriate and consistent employment practices, such as the elimination of withholding fees from employees. We also continue to work with suppliers to align working hours to industry standards.

*Percentages are based on absolute numbers. These are calculated based on the audit compliance rates of 111 (out of 144) supplier factories participating in our program that were audited last year. We continue to track changes in compliance rates as additional factories undergo audits.

Our 2018 Supply Chain Sustainability Highlights



Bettering the lives of people in our supply chain



We strive to ensure all people working on Dell's behalf are treated with respect and dignity and have safe working conditions.

**Upholding
workers' rights**

**Safeguarding
workers' health
and safety**

**Supporting
worker well-
being**

Partnering to address root causes impacting weekly working hours

The most common audit finding in our supply chain relates to workers at some factories exceeding 60 working hours per week. While this is voluntary overtime, recognizing how it affects work/life balance and, in some cases, increases the risk of safety issues, the industry standardized on a maximum of 60 hours per week or local law. Consistently meeting this standard remains a challenge across manufacturing, and is impacted by a variety of factors including customer demand, workers' earning potential, and unexpected changes to demand from customers, including Dell.

Dell is committed to working with our suppliers to improve overall performance to the industry standard. Our strategy with suppliers revolves around three tools:

- ▶ **Weekly monitoring** to provide an early warning system of potential excursions from the standard
- ▶ **Collaboration** to address identified risks of nonconformance, balance orders, and confirm supplier capacity
- ▶ **Capability building** to provide suppliers with knowledge and tools to improve working hour performance through management systems

Dell includes performance around the weekly working hours standard, along with other social and environmental issues, as part of supplier performance metrics in regular business reviews. Additionally, Dell is increasing the use of best practices to support suppliers on this issue, for example we:

- Consider how our buying practices impact supplier's working hour performance,
- Assess supplier capacity and agility prior to awarding business,
- Include sustainability expectations in messaging alongside cost, engineering, quality, and service, and
- Recognize good supplier performance in sustainability management.

In 2018 we worked closely with one of our supplier's factories with repeat audit findings related to weekly working hours. The factory has 125 employees on the production line providing audio components to Dell, nearly 70 percent of whom exceeded 60 working hours per week. Together, we have decreased this number to 8 percent - and we continue to partner to close the remaining gap.

Last year's progress started with a root-cause analysis jointly conducted by Dell and our supplier. Together we identified the following factors as contributing to excessive overtime

- departments did not have mechanisms to communicate with each other,
- a lack of operational plans led to unexpected spikes, and
- internal abnormalities such as material shortages and malfunctioning machines delayed work.

To better control weekly working hours, the factory addressed these root causes. A cross-department communication plan was established and the factory has an operational plan. In addition, the factory has put in place systems to proactively identify and address internal abnormalities that could require rushes to complete orders.

Dell also encourages our suppliers to use best practices such as assessing capacity to respond to order spikes, communicating reasonable lead times to manage customer expectations, and using human resources planning and talent development as well as lean manufacturing to manage overtime.

Note: This factory also has supporting teams, such as engineering, that contribute to this work but are not included in this case study.

89%

OF WORKERS WE
MONITORED WORKED 60
HOURS OR LESS PER WEEK

WEEKLY MONITORING

In 2018 we monitored the weekly working hours of more than 240,000 workers at 145 factories that produce Dell products. Of these workers, 89 percent worked less than 60 hours per week and 87 percent received at least one day of rest per week. Monitoring allows us to identify the factories needing additional help to address this issue. We will continue this monitoring in 2019.

91%

OF FACTORIES WE CONDUCT
JOINT REVIEWS WITH WERE
IN COMPLIANCE

COLLABORATION

For 25 of our final assembly and first-tier factories we conduct cross-functional reviews of weekly working hours performance with Dell managers, procurement stakeholders, and suppliers. These reviews bring awareness to any risk of exceeding weekly working hour standards so they can actively manage the issue. As part of this, factories and Dell specialists jointly monitor plans and confirm the availability of resources needed for continuous improvement. An end of year snapshot showed that 21 out of 23* factories were compliant with requirements for workers to not exceed 60 working hours per week. We continue to work with factories to monitor working hour compliance on a weekly basis.

57%

OF FACTORIES WE PARTNERED
WITH DOWNGRADED WEEKLY
WORKING HOUR FINDINGS

CAPABILITY BUILDING

In 2018 we also partnered with supplier factories that had long-term, priority weekly working hour findings. Together we conducted onsite root-cause analyses to identify factors leading to excessive overtime. We worked with the suppliers to address the root causes identified, including strengthening awareness of industry standards, establishing governance processes to manage working hours issues, improving production efficiency, and optimizing production processes. At the end of 2018, 13 of the 23 factories we've partnered with had downgraded the severity of their findings. We continue to work with the remaining factories in 2019 to improve their weekly working hour performance.

**Two supplier factories with which we conducted joint reviews were not counted in our end of year snapshot due to our evolving business relationships.*

Advancing rights beyond the manufacturing lines

Over the past three years Dell has established and scaled procedures and systems to monitor the non-production workers in our factories and facilities. These workers are typically employed by suppliers known as Onsite Service Providers (OSPs), who provide services ranging from janitorial to security to food management.

Many of Dell's OSPs are small or medium companies, so it is critical that we provide tailored support matching the scope of resources the supplier provides. As part of these efforts, last year, we improved the self-assessment questionnaires completed by our OSPs to better identify areas in which we could partner and help close their gaps. We provided face-to-face training to educate OSPs on our requirements and other areas targeted to their identified needs. This tailored support helps to protect all workers in Dell's buildings, not just our primary production workers.

Our Approach to Monitoring OSPs



Self-Assessment

OSPs complete a Dell-designed self-assessment appraising their conformance with local laws and the RBA Code of Conduct.



Dell Review

Dell specialists review the OSPs policies and procedures for conformance with our expectations



Onsite Audit

Dell staff conduct an onsite audit of any OSP showing a high-risk of non-conformance.



Corrective Action

A cross-functional team within Dell drives OSPs to address any audit findings.

Audit reports and our conversations with suppliers revealed they were having difficulties managing their OSPs, including labor agents providing factory staff. The RBA recently strengthened audit protocols affecting OSPs to address emerging risks. To help suppliers better manage these risks, we held workshops on the RBA audit protocols and shared our own experiences monitoring OSPs. We provided suppliers with a self-assessment tool designed to monitor OSPs, audit tools, and included what we learned about closing corrective actions related to OSPs. In 2018, we shared our tools with 45 of our suppliers to support their efforts monitoring OSPs in their supply chain.



The suppliers we monitored risk assessed 93 percent of their OSPs, including labor agents.



The suppliers we monitored audited 91 percent of the 146 high-risk labor agents and 50 high-risk OSPs identified in risk assessments.

“
I left the training with a deeper understanding of the new requirements and new ideas on management tools”

-Participant attending Dell training on best practices for managing OSPs

In 2018 we held three workshops, attended by 45 of our suppliers' factories, which focused on new RBA Code of Conduct requirements for OSPs, local laws and regulations, and how to use Dell-provided tools to manage related risks.

These workshops provided suppliers with a network of peers who have implemented best practices to address issues associated with OSPs and forced labor.

During one workshop we invited a supplier skilled in managing risks associated with labor agents to present on their practices. Our supplier shared how direct hiring can reduce risk of excessive fees charged to migrant workers.

Collaborating around industry standards to drive ethical recruitment

Migrant workers across the globe face increased risks of being charged fees to work. These fees, commonly known as recruitment fees, can result from the costs of visas, required health examinations, labor agents that recruit workers, or because they are not illegal in some countries.

Last year we worked with our industry peers and the Responsible Labor Initiative to help prevent recruitment fees in the electronics supply chain. As customers, we often have the same suppliers so speaking against this issue with one voice is important to driving progress.

In 2018, we discovered one of our suppliers was charging recruitment fees and not providing contracts to workers in their local language. This specific factory was a sub-tier supplier to Dell, and we joined forces with others in the industry to collectively address the findings.

To build the factory's capabilities in addressing these findings, we collaborated with the Fair Hiring Initiative and some of our peers to provide an in-person training to factory management and their labor agents on the risks and indicators of forced labor and unethical recruitment practices.

The factory has successfully completed a corrective action plan and a closure audit verified the issue has been remediated.

Dell does not tolerate risks of forced labor in our supply chain - including charging workers fees to cover expenses related to their employment. If our due diligence activities identify this, we work with our suppliers to make sure the employee is repaid, and the practice stops.

Last year, there was an increase in supplier factories with audit findings related to the withholding of health check fees. These fees are associated with health examinations legally required for migrant or other workers. These types of fees accounted for 43 percent of all findings related to withholding fees in 2018, compared with 26 percent in 2017.

Over time, the industry has learned more about the application of these types of fees in our supply chains. As a result, auditors and Dell are getting better information to detect these fees and establish sensible requirements around them.

We have put communications and training in place with our suppliers to prevent these fees, alongside any other fees that could place a worker at risk of forced labor.

**IN 2018, WE WORKED WITH
SUPPLIERS TO RETURN NEARLY**

**\$1.1 MILLION
USD**

IN FEES TO EMPLOYEES

Strengthening practices to reduce risks from process chemical use

Some chemicals used in manufacturing processes may be harmful for people or the environment if not properly managed and contained. We have [banned hazardous substances](#) and are working to eliminate exposure to additional potentially harmful chemicals through collaboration, monitoring, and mitigation efforts.

**1**

Collaborate

We are engaging with industry peers, suppliers, and non-governmental organizations such as the Clean Electronics Production Network (CEPN) to advance capabilities for substituting and eliminating targeted process chemicals across the industry. We have started by focusing on cleaning and degreasing chemicals because they are used across our supply chain.

Monitor

**2**

We collect data on what chemicals our suppliers are using so we can monitor their adherence to our Guidelines for Management of Manufacturing Chemicals. Including our own sites, we have collaborated with 41 final assembly and key supplier factories to monitor their use of process chemicals governed by our guidelines. Last year, 95 percent of these supplier factories reported practices that met our guidelines and we have been working with the remainder to improve compliance. In 2019 we are supporting the industry-wide roll-out of CEPN's enhanced monitoring tools.

**3**

Mitigate

Last year we piloted options for mitigating exposure to chemicals with restricted uses in our Guidelines for Management of Manufacturing Chemicals. This pilot was based on the Centers for Disease Control and Prevention's Hierarchy of Controls, and identified and assessed options for substituting chemicals we recommend phasing out of manufacturing operations. This year we are taking lessons learned from this and developing a plan to scale our risk mitigation efforts to both other suppliers and other chemicals.

Innovating solutions to improve health and safety

We continue to work with suppliers to deliver health and safety training directly to the people manufacturing our products. We have designed trainings for workers to gain the knowledge they need to be safe in their jobs. This is delivered through mobile phones, which we've found to be a more engaging training platform and allows us to incorporate workers as a direct partner in our efforts to generate long-term improvement. Last year we added mobile courses on labor rights, financial literacy, career development, and English for workers looking to expand their personal and professional skills.



54 factories

have partnered with us to provide mobile training in 2018

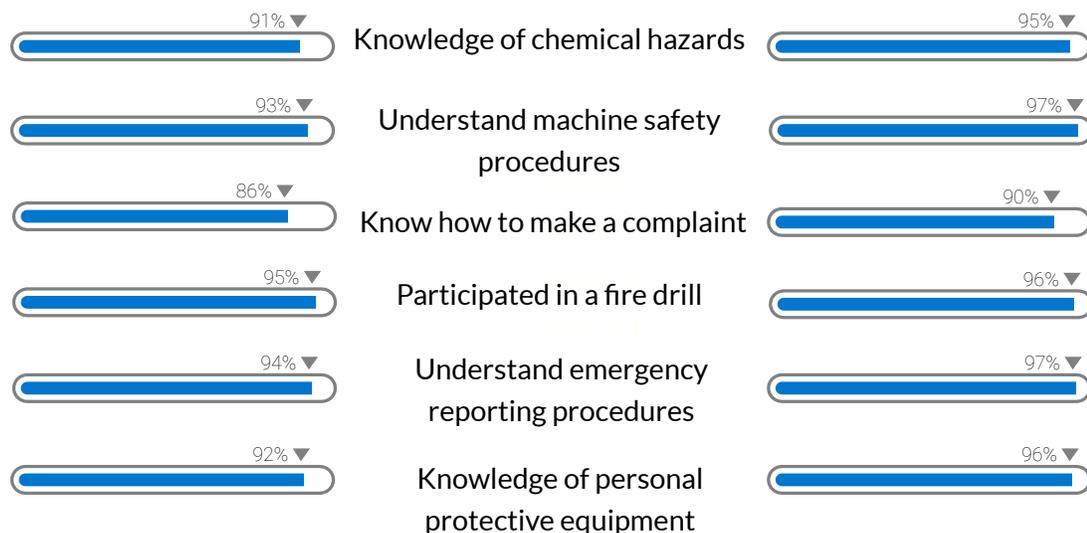
More than 50,000 people

completed our mobile training in 2018

Health and Safety Knowledge Has Improved Across All Areas

2018 Baseline

2018 Endline



'After completing training, I understand the harm of not following company policies. During work we need to follow safety, environmental, and management rules to reduce risk levels.'

- Mobile Training Participant

Addressing the work environment at the local level

One of our suppliers identified challenges faced by skilled workers who were unable to effectively share their skills and communicate with other workers. This contributed to stress and tension, especially during times of peak production.

We joined our supplier to offer an eight-week mindfulness meditation training program to 33 workers in skilled positions such as production supervisors and line leaders.

Participants learned skills to relieve stress and manage anxiety. After each training, participants began practicing mindful meditation during work and life. Both the supplier and training participants have noticed improvements in empathy and perspective, which improved problem solving and avoided conflicts. The 33 participants that completed this training are now serving as peer trainers to benefit other line leaders at the factory.



“

I am calmer at work when I need to communicate the same thing with several people.

-Training Participant

“

I have learned to be more positive with people and improved my relationship with colleagues.

-Training Participant

Assisting on the ground mining communities

In 2018, Dell teamed with the non-profit IMPACT to provide skills training to over 300 women in the Democratic Republic of the Congo's Ituri Province who were starting or growing businesses in artisanal mining communities. The skills provided helped these entrepreneurs gain access to capital and expand their businesses.

While these women are not direct suppliers to Dell, the Democratic Republic of the Congo is a common source of gold and cobalt. These minerals are sourced in the sub-tiers of our supply chain for components such as batteries and motherboards.

Through our partnership with IMPACT we hope to provide economic empowerment to women while reducing the reliance on gold as an informal form of currency. This supports a formal supply chain with traceable, legal, and conflict-free gold entering international markets.

We continue to partner with the Public-Private Alliance for Responsible Trade (PPA) which supports solutions to develop conflict-free supply chains and responsible sourcing from the Democratic Republic of the Congo (DRC) and Great Lakes Region. This partnership is part of our holistic approach to responsible sourcing, which aims to promote the use of ethical minerals.

Recently, PPA provided funding to identify the role of financial institutions in responsible sourcing. Past projects have included IMPACT's Just Gold initiative which implemented the first traceable, responsible gold supply chain in Eastern DRC.

As a member of the Project and Resources workgroup, we provide input into the criteria and outcomes of in-region projects funded by PPA.

"I was happy because before I never managed to save and was spending my money without a plan. [IMPACT] taught us that saving even the smallest amount on a regular basis could grow to a significant amount."

IMPACT
training
participant

Improving monitoring in our minerals supply chain

Most of the new products we produce include minerals such as gold in circuit boards or cobalt used in lithium ion batteries. We do not purchase these minerals in their raw form or from mining companies or smelters. We engage our supply chain to prevent our business from inadvertently contributing to human rights abuses and other negative impacts that have been associated with minerals mining.

Our Responsible Sourcing Policy for tin, tungsten, tantalum, and gold (3TG) is aligned to the Organization for Economic Cooperation and

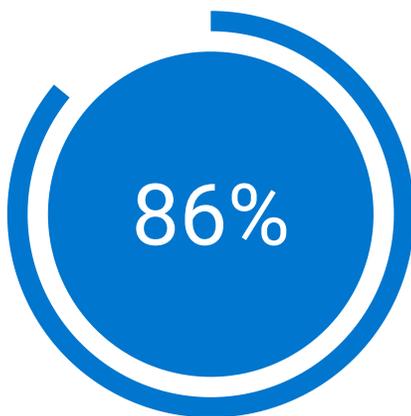
Development's (OECD) Five Step Framework. We are also risk assessing other minerals in our supply chain, such as mica, for potential expansion of this framework.

The RBA Code of Conduct and our Supplier Principles require our suppliers to have a conflict minerals policy and conduct due diligence on sourcing and the chain of custody of minerals in their products. Based on this due diligence, we expect our suppliers to remediate any potential risks and provide us with components containing responsibly-sourced minerals.

OECD FIVE STEP FRAMEWORK FOR RESPONSIBLE MINERALS MANAGEMENT	 3TG	 Cobalt
Develop a raw materials sourcing program	✓	✓
Explore risks in the supply chain	✓	✓
Develop a risk management plan	✓	✓
Audit smelters or refiners	✓	✓
Report findings	✓	✓



In 2018 all of Dell's in-scope suppliers provided the Conflict Minerals Reporting Template, which gave us visibility into their supply chains.



Our goal is all smelters in our supply chain are validated through third-party audits. Last year 86 percent of the smelters in our supply chain were validated as part of their participation in the Responsible Minerals Assurance Program.

Note: The above percentages are based on the previous CMRT reporting year, which ran from August 2018-March 2019.

We use the industry developed Conflict Minerals Reporting Template (CMRT) to collect information on tin, tantalum, tungsten, and gold (known as 3TG) smelters and refiners. All in-scope suppliers submitted this template, providing transparency into our minerals supply chain.

Our goal is to ensure our supply chain sources from smelters validated through third-party audits meeting the Responsible Minerals Initiative (RMI) protocol. To track this, we analyze our suppliers' CMRT responses using an internal risk framework designed to identify smelters of concern or suppliers without a policy to monitor their supply chain for high-risk smelters. We flag suppliers who report using smelters not in conformance with RMI's Responsible Minerals Assurance Process (RMAP), which verifies that smelters sourcing practices are aligned to the OECD framework. We ask these suppliers to complete a Dell-designed Risk Mitigation Survey and partner together to drive any high-risk smelter out of our supply chain. More details about these efforts are available in our SEC filing.

Dell's new products use about 7,000 pounds of gold annually - small amounts are found in a variety of components such as circuit boards. Certain gold mining operations have been a long-standing area of concern for corruption and human rights violations.

Last year we engaged with a respected gold mining company to deepen our understanding of the industry and risks. Our dialogue led to a mutual understanding that transparency throughout the supply chain is key to addressing challenges with gold. We have begun to map our gold supply chain to trace and identify upstream actors and the origin of gold that is sourced deep in our supply chain. In 2019, we will engage suppliers identified at multiple levels of our supply chain to drive our responsible sourcing expectations.

Our Approach to Monitoring Cobalt Risks

Survey Suppliers

Suppliers are required to report refiners in their network using the Responsible Minerals Initiative's Cobalt Report Template (CRT).

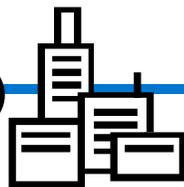


Some Dell products require lithium-ion batteries that contain cobalt. Risks associated with cobalt increase as demand for batteries increases. We believe that upstream and downstream companies working together is the most effective way to drive responsible sourcing throughout the cobalt supply chain. We are active in cross-industry efforts to address these risks.

Our Responsible Sourcing Policy sets expectations for our suppliers sourcing cobalt to follow the OECD Due Diligence Guidelines. An internal cross-functional governance committee provide strategic guidance for Dell's efforts to monitor cobalt use. We continue to build our program based on our learnings from driving the responsible sourcing of 3TG.

Engage Industry

We drive industry engagement to the refiner level as members of RMI's cobalt sub-team and smelter engagement team.



Audit Smelters

We worked with RMI and others to develop an industry-wide audit program to advance responsible cobalt sourcing. We have reached out to all refiners in our supply chain to encourage participation.



Set Expectations

We have added requirements to our supplier expectations for battery suppliers to apply the OECD due diligence framework to cobalt sourcing.

Capability Building

In 2018 we presented our strategy and expectations to over 70 representatives from our suppliers.



Reducing our supply chain's impact on the planet



How our products are made matters. We work with suppliers to use resources efficiently, reduce emissions and waste, and address environmental risks.

**Monitoring our
environmental
impact**

**Mitigating our
environmental
impact**

Preserving clean water through conservation and stewardship

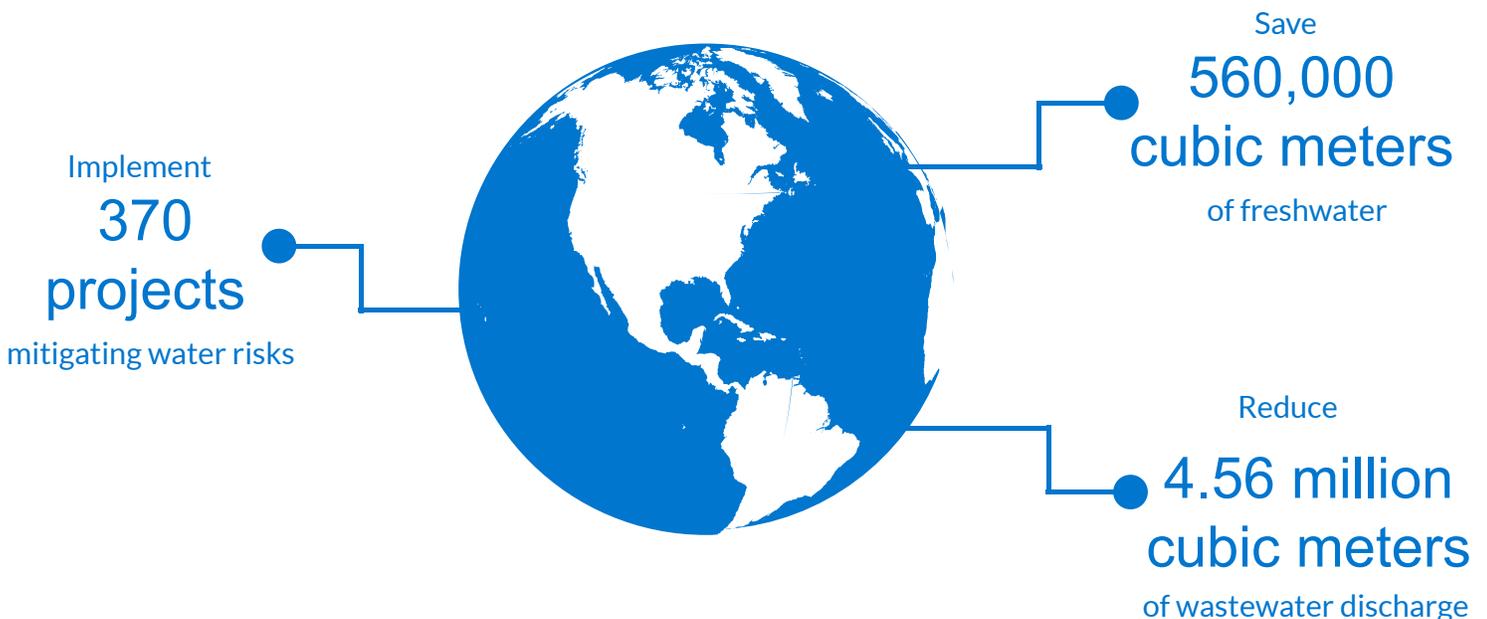


As a finite resource, we think about responsible water use throughout our manufacturing. Worldwide, 80 percent of wastewater flows back into the environment without treatment or reuse (UNESCO). Dell is working to address management of the most water-intensive processes and water-stressed regions in our supply chain.

This starts with efficiency programs in our own facilities and factories. An on-site wastewater treatment plant at our factory in India reuses water for landscapes and toilets. Other Dell buildings conserve water through measures such as low-water landscaping and installing water-efficient sinks and other fixtures.

We collaborate with suppliers' factories to develop five-year mitigation plans aimed at reducing freshwater use and wastewater discharge. We provide tools for factories to identify where water use is at its highest and design projects to reduce their overall water footprint. We also track factories' implementation of these projects, such as collecting rainwater and identifying water pipeline leaks. In 2019 we will be collecting these plans from 50 additional factories and continue to monitor the progress of the 201 factories we have previously engaged.

In 2018 we collaborated with 201 supplier factories to:



Last year, one of the supplier factories participating in our Water Risk Mitigation Program made changes that reduced their daily water use and discharge by 30 percent.

This savings was the result of three projects by the factory:

- Underground pipelines had prevented the detection and correction of leaks. These were replaced with above-ground pipes that are easily monitored and fixed if leaks occur.
- The factory put in place a system to recycle and reuse water.
- Process changes resulted in improvements that reduced water use in the factory's operations.

Combined, these efforts saved 2,400 cubic meters of water per month, enough to fill 28.7 million glasses of water, and helped relieve water shortages faced by the local community.



of our spend is with suppliers who have water reduction goals. We are working with suppliers to build out programs to further address local water challenges.



Water stewardship

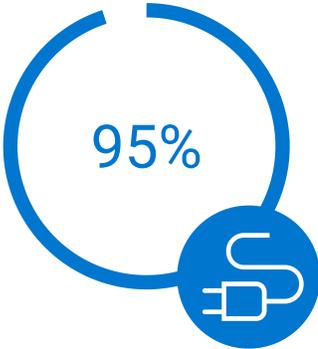
In 2018, we helped two suppliers build up their capabilities to support their pursuit of certification from the Alliance for Water Stewardship (AWS). This standard focuses on addressing challenges across a catchment, which aligns with Dell's water stewardship approach. In 2019 we will support five additional suppliers pursuing AWS certification and hold our third round-table in China's Lake Taihu region which facilitates stewardship across industries.



Furthering transparency around supply chain emissions

Dell continuously works to reduce our carbon footprint across the value chain. Because much of this footprint comes from use of our products, we are working to reduce our product portfolio's energy intensity by 80 percent (from 2012). We also work to reduce energy use and the carbon footprint of our own operations. Approximately 30 percent of our energy comes from renewably sourced electricity and on-site generation, and we are working to increase this.

Our efforts to reduce the carbon footprint of our value chain extend to our suppliers. To help our suppliers take ownership of reducing their own carbon footprints, we ask them to report on their Greenhouse Gas (GHG) emission levels, set reduction targets, and publish sustainability reports.



95%

Report GHG Emissions

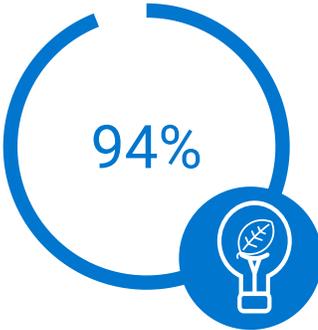
In fiscal year 2019, 95 percent of our direct material suppliers (by spend) publicly reported their GHG emissions. This year we are providing targeted capability building to train additional suppliers on best practices in reporting GHG emissions.



92%

Reduce GHG Emissions

We ask suppliers to set targets for and reduce GHG emissions. In fiscal year 2019, 92 percent of our suppliers and 61 percent of our key logistics suppliers (both by spend) set these targets. This year we are promoting adoption of science-based targets among suppliers with the most significant impact on our supply chain's GHG emissions.



94%

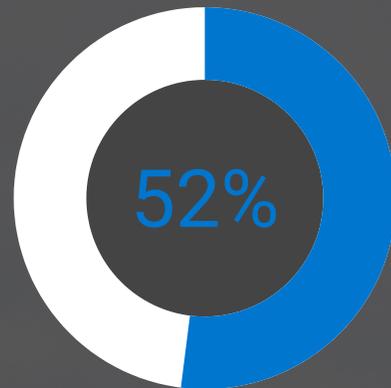
Sustainability Reports

As part of our suppliers' own transparency efforts into their environmental impacts, we ask them to produce sustainability reports in accordance with the Global Reporting Initiative (GRI).

Addressing risks related to waste and pollution

We believe that waste is a lost opportunity to reuse resources; therefore, we work to eliminate waste in manufacturing. In our own factories we are committed to zero waste and currently recycle or reuse about 99 percent of hazardous waste.

In 2018, we began tracking waste reduction goals in our supply chain. In 2019, we are focusing on driving waste reduction programs with our suppliers. We are also working to develop an industry-wide approach to e-waste as members of the RBA E-Waste Taskforce.



of our suppliers (by spend) have waste reduction goals

In 2018 we monitored

98%

more factories for releases of potentially hazardous chemicals than in 2017

Some electronics manufacturing processes require using chemicals. For more than a decade we have [reduced or eliminated](#) many environmentally sensitive chemicals from our supply chain.

Additionally, we assess our suppliers' performance in preventing the release of potentially harmful chemical substances or pollutants. Last year, over 100 of our suppliers' factories reported information about these releases to a monitoring database maintained by the Institute of Public & Environmental Affairs (IPE) in China. We also worked with our Original Design Manufacturers to better manage their own supply chain's using the IPE database.

Responsibly reusing ocean-bound plastics

Over 8 million tons of plastics enter the ocean as pollutants every year. We work to prevent this by reducing the plastic used in our own operations. Also, as one part of our effort to accelerate circular economy, we partner with Next Wave Plastics, non-governmental organizations, suppliers, and our peers around the world to use ocean-bound plastics.



We use ocean-bound plastics in some shipping trays, keeping over 18,000 pounds out of the ocean. We're working to scale this and research other ways to use ocean-bound plastics in both packaging and our products.



We are working with partners to establish worker's rights standards for the ocean-bound plastics supply chain we are developing. This helps protect the people collecting the plastics recycled into our packaging.



In 2018, we pledged to eliminate single use, non-compostable plastic straws at Dell's global cafeterias and canteens. By the end of 2018, 83 percent of our cafeterias and canteens were using paper or compostable straws or no straws at all.



We require ocean-bound plastics and other recycled content in contracts for our office supplies and building materials. Recently, we replaced selected carpet in several facilities with carpet consisting of at least 25 percent ocean bound plastics.

Mitigating environmental risks to positively affect communities

Managing environmental risks in our supply chain is complex due to the variety of locations, manufacturing processes, and resources available from our suppliers. Since 2016 we have shared a Dell-developed tool to identify emerging environmental risks with suppliers that use processes posing a potentially significant impact on the environment. In 2018 we launched new tools to help manage this complexity and environmental practices, and in 2019 we are using this suite of tools to support our suppliers in proactively mitigating risks and identify training needs.



Assess

We've partnered with over 50 supplier factories to use Dell's Environmental Risk Mitigation Tool since 2016. This examines future land planning, community needs, local laws and regulations, phase-out processes, and technology subject to emerging regulation.

Last year we also launched an environment, health, and safety (EHS) self-assessment that 320 of our suppliers' factories completed. This allowed us to measure their performance and readiness to address health and safety, environmental, and transparency issues.



Mitigate

When these assessment activities uncover risk we support our supplier's mitigation efforts. Since 2016, we have worked with suppliers to mitigate 98 percent of the risks they identified through our Environmental Risk Mitigation Tool.

Dell specialists also provide onsite support to suppliers with the highest risks identified via EHS self-assessments, and support gap analyses to guide the suppliers mitigation efforts.



Monitor

In 2018 we launched a new tool to provide end-to-end visibility into suppliers' environmental risks. Based on the environmental risk levels of over 1,800 factories, we added about 300 high risk factories to our tool for 24/7 monitoring. This allows us to proactively identify potential environmental emergencies and quickly work with suppliers to mitigate issues and provide onsite coaching for identified risks such as gaps in hazardous waste management.



RBA Compass Award for Innovation

Last year, we received the Responsible Business Alliance's inaugural Compass Award for Innovation.

This recognized Dell's efforts around circular economy. For many years, we have been working to create value from waste or industrial by-products, including incorporating post-consumer plastics, ocean-bound plastics, e-gold, and ink created from soot in our products and packaging.



#2 ranking on the Corporate Information Transparency Index

In 2018 we were ranked second across all industries in the Institute of Public & Environmental Affairs (IPE) and the Natural Resources Defense Council's (NRDC) [Corporate Information Transparency Index](#). The Index covers 15 industries and assesses how companies manage the environmental performance of their suppliers in China.

Promoting a supply chain that reflects our diverse customer base



We believe suppliers from various backgrounds help us to best serve our global customer base and we partner with companies that share our vision.

Creating opportunities for diverse suppliers

Strengthening skills of diverse suppliers

Educating suppliers to drive awareness

Partnering with small and diverse business

We promote a supply chain that reflects our diverse customer base by:

- establishing relationships with diverse suppliers
- strengthening the skills of our diverse suppliers
- educating suppliers to drive diversity in their own supply chains

MEMBER OF THE BILLION DOLLAR ROUNDTABLE SINCE 2009

which recognizes and celebrates corporations that spend at least \$1 billion with minority and women-owned businesses annually



BILLION DOLLAR
ROUNDTABLE

MORE THAN \$3 BILLION

spent by Dell with diverse suppliers annually for each of the past seven years

Establishing relationships with diverse suppliers

We continuously look for opportunities to give equal access to and promote small and diverse businesses in our supply chain. Through conferences and additional outreach events with both national and regional partners, we were able to reach an estimated 480 small and diverse businesses last year.

At these events we host or participate in matchmaking events between Dell buyers, our direct suppliers, and potential small and diverse businesses to help strengthen and broaden our diverse supplier relationships.

Strengthening the skills of diverse suppliers

7 SUPPLIERS COMPLETED OUR INAUGURAL DIVERSITY DEVELOPMENT PROGRAM

In 2018 we provided 40 hours of training, networking, and mentorship to seven of Dell's diverse suppliers. We were successful in helping them build the necessary skills and confidence to engage with more stakeholders at Dell and other large companies.

In 2019 we are continuing this work with a new cohort of suppliers and a revamped curriculum based on suppliers' feedback. We will conduct more case studies and training, allowing suppliers to apply the new skills they are learning.

OVER 30 SUPPLIERS MENTORED THROUGH OUR PARTNERSHIP WITH WOMEN IN TECH

In 2018 we joined forces with the Women's Business Enterprise National Council (WBENC) to host 34 women-owned businesses in the tech sector at a three-day summit aimed at advancing their business acumen. The summit helped these business leaders build connections and learn strategies to grow their business. Dell executives provided training on how to grow their business, form strategic alliances, and the future of the technology industry. In response to supplier feedback, a follow up session with the inaugural class occurred at the 2019 WBENC Summit and Salute.

"Can we keep the fire burning? We need this to survive and thrive."

Participant in Dell's
Women in Tech
Mentoring Program

Educating suppliers to drive awareness

OVER THE PAST YEAR, OUR SUPPLIERS SPENT MORE THAN \$368 MILLION WITH DIVERSE SUPPLIERS OF THEIR OWN

We prioritize sourcing from suppliers that have strong supplier diversity programs themselves. Last year, there was a 32% increase in the number of our suppliers that reported diverse spend of their own.

We support our suppliers in their efforts to build their own diverse supply chains. For instance, last year, over 20 Dell procurement representatives joined one of our first-tier suppliers in matchmaking sessions. During these sessions we helped our supplier identify potential diverse suppliers with whom they could partner.

Our Supply Chain Sustainability Progress



Key Performance Indicators

Unless otherwise noted, all results reflect calendar year. Select results are noted as reflecting Dell's fiscal year, which runs from February-January.

Initial Audits

238

We audit high-risk factories, Dell factories, and select medium- and low-risk factories every two-years.

Closure Audits

195

When audit findings happen, we work with factories to correct them and confirm their resolution through closure audits.

High-risk factories audited

97%

Our goal is to audit any factory identified as high-risk during our risk assessment on a two-year cycle. This reflects our progress during fiscal year 2019.

Priority findings closed or downgraded

94%

We work hard to close the most severe audit findings, which are labeled priority. This is a cumulative snapshot as of December 31, 2018.

Audit findings closed or downgraded

80%

We track all audit findings until they are confirmed to be closed. This is a cumulative snapshot as of December 31, 2018.

Newly on-boarded factories screened for social and environmental issues

100%

This is a new metric for 2018. Our goal is to screen all new factories providing parts to Dell for social and environmental risks.

Unique participants attending capability building

811

This represents unique participants attending our programs; the reach of our programs is increased when participants cascade learnings to their factories.

Unique factories participating in capability building

252

We track the number of factories that participate in capability building as a measure of the reach our programs have.

Workers who do not exceed 60 working hours per week

89%

213,000 of the 240,000 workers we monitored at 145 factories did not exceed 60 working hours per week last year.

Workers with one day of rest per week

87%

208,000 of the 240,000 workers we monitored at 145 factories received at least one day of rest per week in 2018.

Factories with water risk mitigation plans

201

We aim to have water risk mitigation plans from our top 250 supplier factories in water-stressed regions or with water intensive processes by 2020. This reflects our progress during fiscal year 2019.

Suppliers reporting GHG emissions

95%

We ask suppliers to set GHG emissions reduction targets. This represents our direct materials suppliers, by spend, that publicly report GHG emissions. This reflects our progress during fiscal year 2019.

Suppliers with sustainability reports

94%

We ask our suppliers to publish sustainability reports that meet GRI requirements. This represents our suppliers (by spend) with public reports. This reflects our progress during fiscal year 2019.

2018 RBA Audit Results

Audits are part of our overall strategy to responsibly manage our supply chain, identify risks, and interact with workers. They are supplemented by our capability building work and the programs and internal systems we use to monitor suppliers' and their factories progress toward our sustainability goals.

Supplier factories are audited based on their risk level, which is determined through an analysis of the commodity they produce for Dell, independent research that identifies labor and environmental risks associated with geographic locations, spend, past performance, and other targeted risk factors.

We require all factories determined to be high-risk to be audited at least every two years, with the goal of improving their sustainability performance and reducing their risk level. Last year, 7 percent of factories audited were new to our audit program. This year, we have revised our management protocols with the goal of driving the average audit score of our supply chain to at least 20 percent above the industry average.

Audits monitor factories adherence to over 40 areas covered by the RBA Code of Conduct and are completed by RBA-certified third-party entities. Suppliers are required to address any areas of noncompliance by developing corrective action plans and making changes to remediate the issue.

In 2018, 35 more initial audits were conducted compared to 2017, which equates to a 17 percent increase in the number of initial audits. Findings from these audits show up as open until we are able to verify they have been resolved through closure audits. Closure audits are scheduled within RBA-defined timelines but may not occur in the same year as the initial audit. In 2018, 13 fewer closure audits were conducted compared to 2017, which equates to a 6 percent decrease in closure audits.

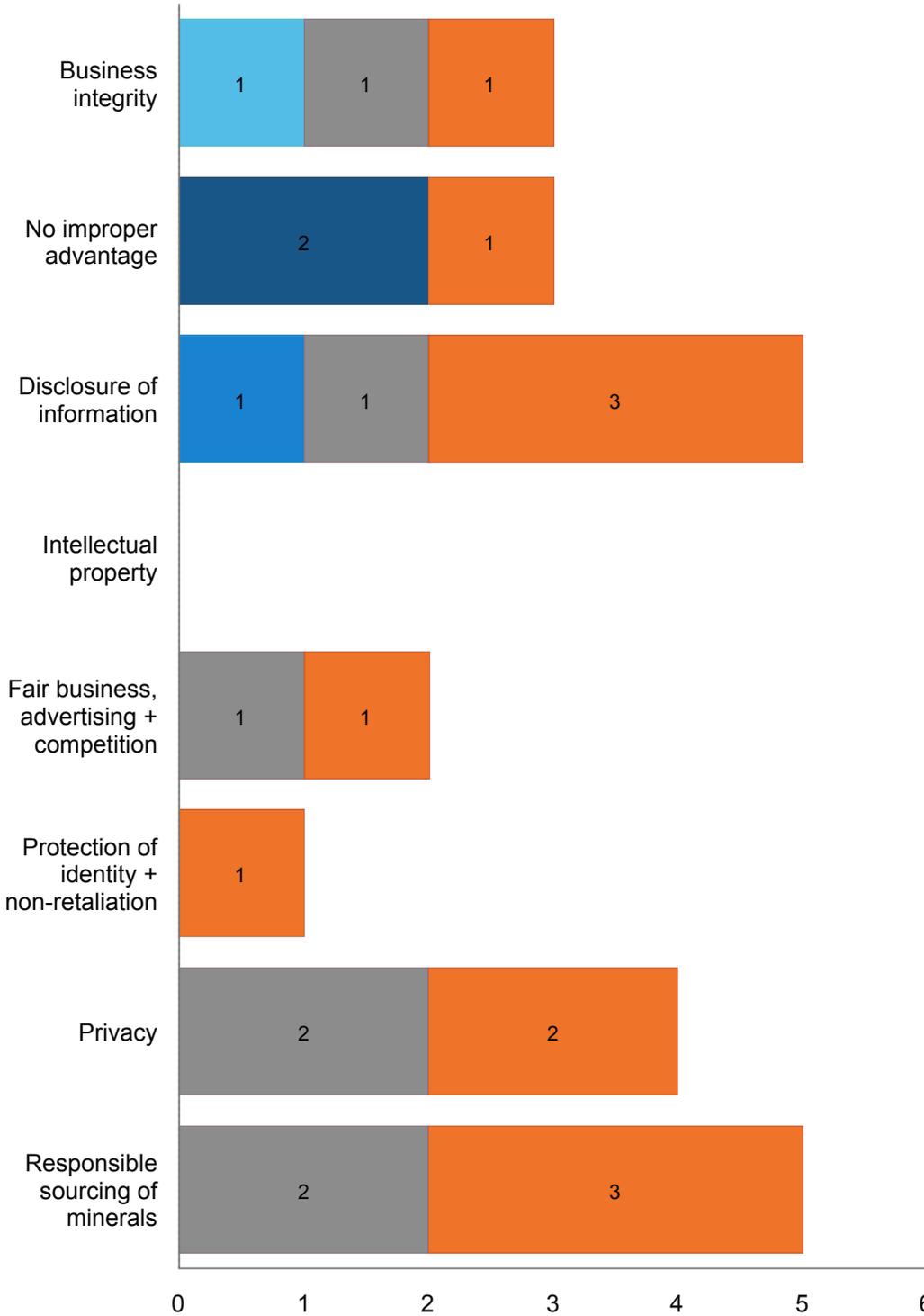
In addition to holding closure audits to confirm risks are addressed, we invest in efforts to drive supplier sustainability in challenging areas as identified through audit results. Examples of these areas during 2018 are:

Issue	What We're Doing
Supplier responsibility, such as suppliers monitoring their own supply chains	Webinars and workshops to share Dell's best practices managing suppliers and help suppliers develop their own internal audit systems
Occupational safety, such as suppliers obtaining required permits	Invest in worker health and safety training and provide assistance to help suppliers identify safety risks
Working hours, such as overtime exceeding 60 hours/week	Provide individual consultations focused on helping suppliers close priority findings, weekly monitoring of more than 240,000 workers
Proper wages and benefits, such as social insurance payments or health check fees	Partner to train employees on the benefits of social insurance, educate suppliers on requirements around health check fees

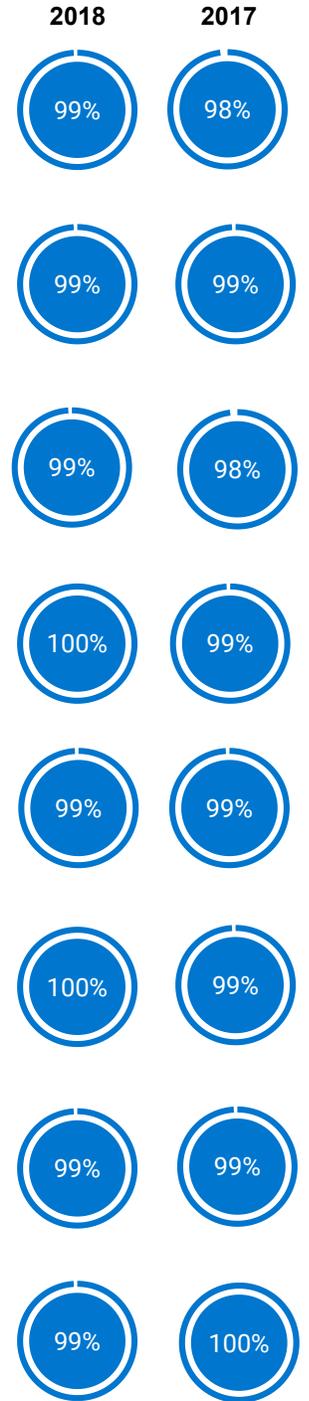
Note: All audit results included in this report are based on major and priority findings at Dell factories, Original Design Manufacturers, Final Assembly and Direct Material supplier factories with whom we have a direct contractual relationship. We also include results from certain sub-tier supplier factories which are known to be in Dell's supply chain but with which Dell does not have a direct contractual relationship. The results presented are based on audits conducted during calendar 2018, and we have restated calendar year 2017 results from previous reports to reflect audits conducted during the calendar year rather than fiscal year.

Ethics

Factories with a Finding by Commodity



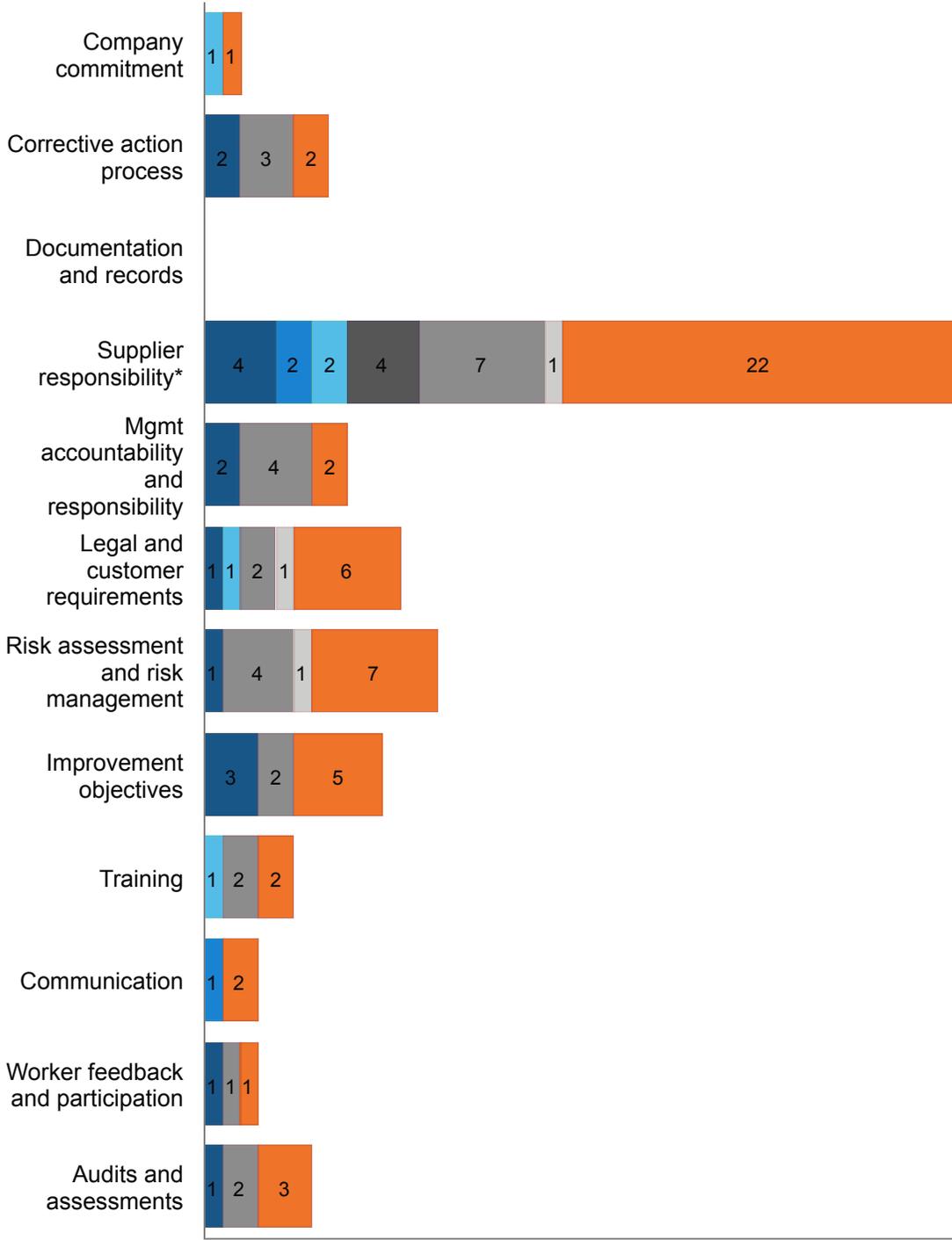
Factories in Compliance



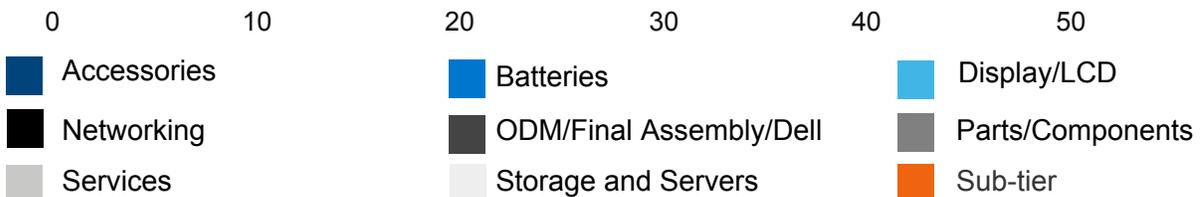
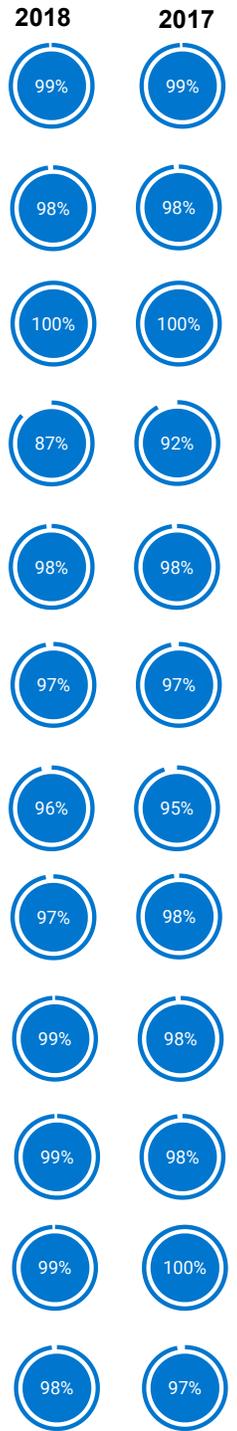
- Accessories
- Batteries
- Display/LCD
- Networking
- ODM/Final Assembly/Dell
- Parts/Components
- Services
- Storage and Servers
- Sub-tier

Management Systems

Factories with a Finding by Commodity



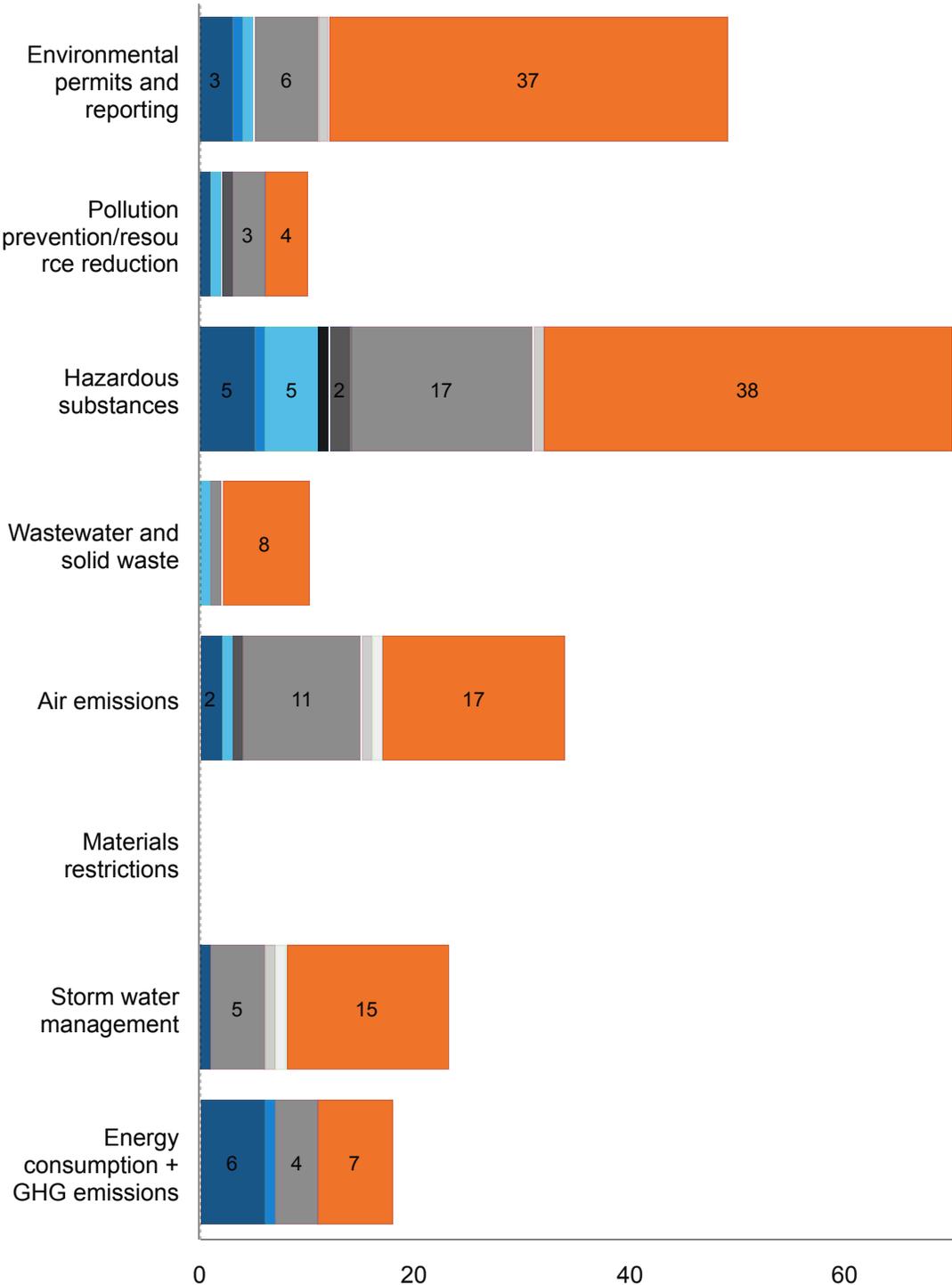
Factories in Compliance



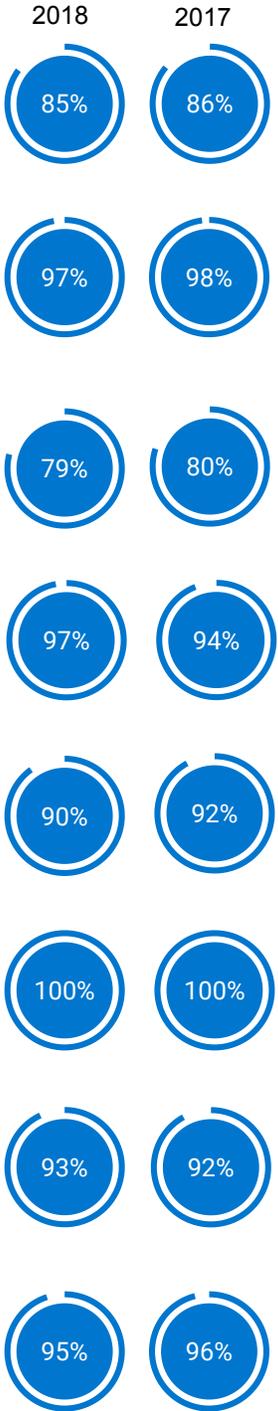
*For more information about supplier responsibility, see table on page 33

Environment

Factories with a Finding by Commodity



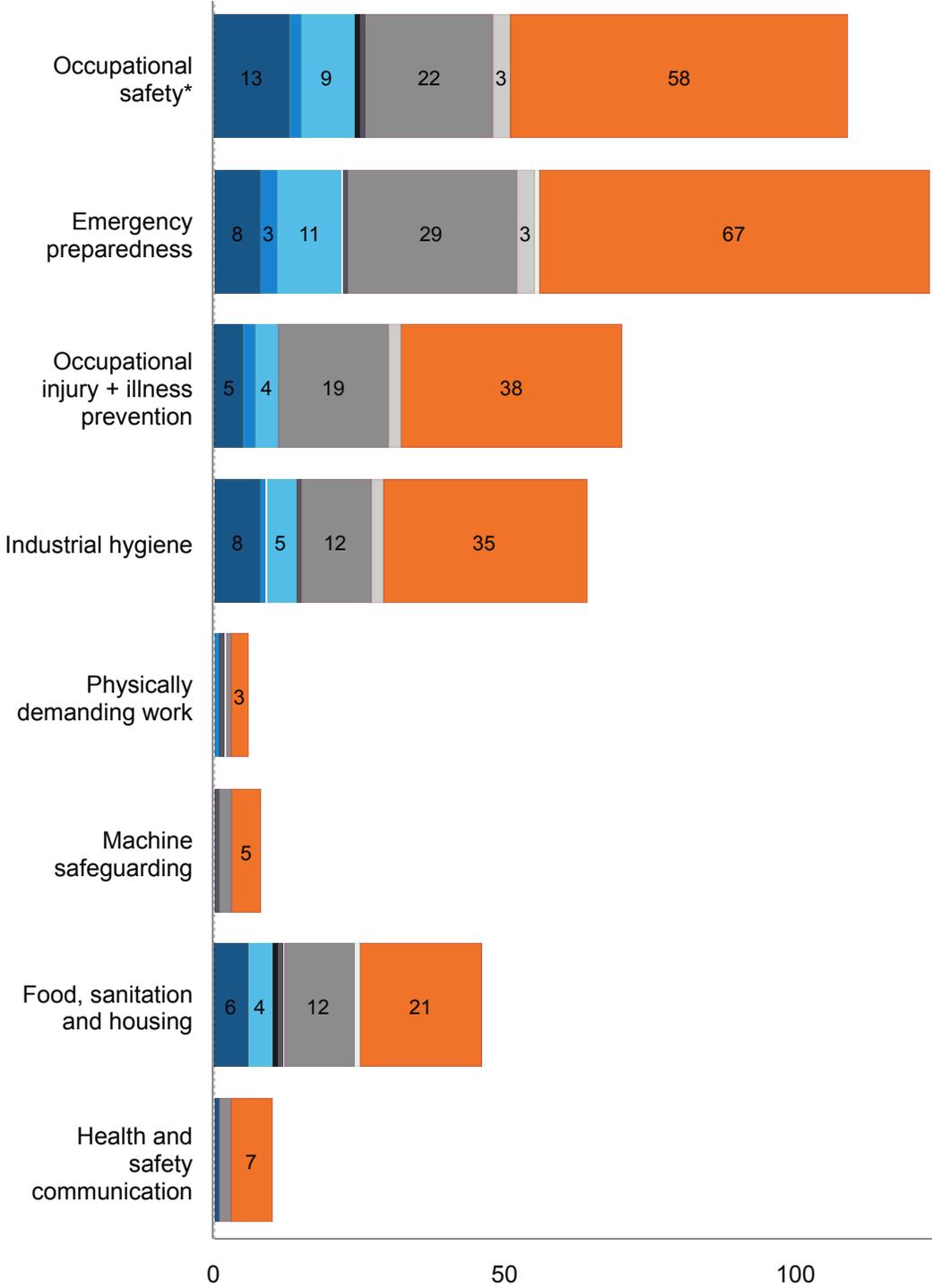
Factories in Compliance



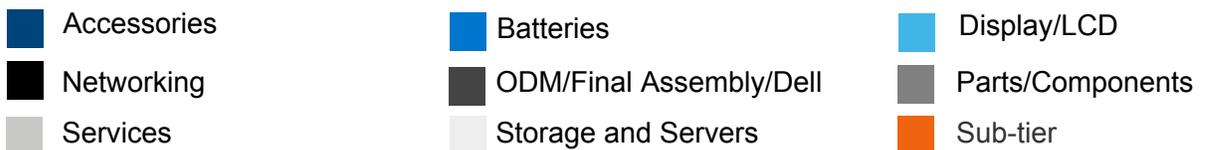
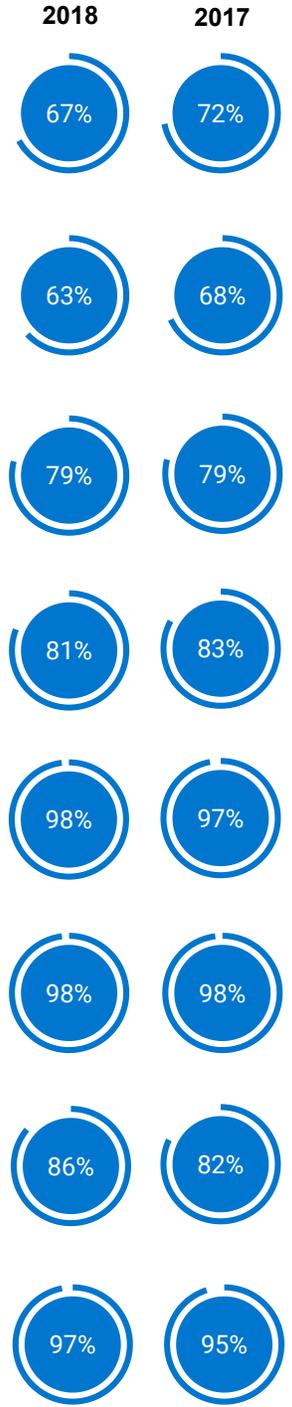
- Accessories
- Batteries
- Display/LCD
- Networking
- ODM/Final Assembly/Dell
- Parts/Components
- Services
- Storage and Servers
- Sub-tier

Health and Safety

Factories with a Finding by Commodity



Factories in Compliance

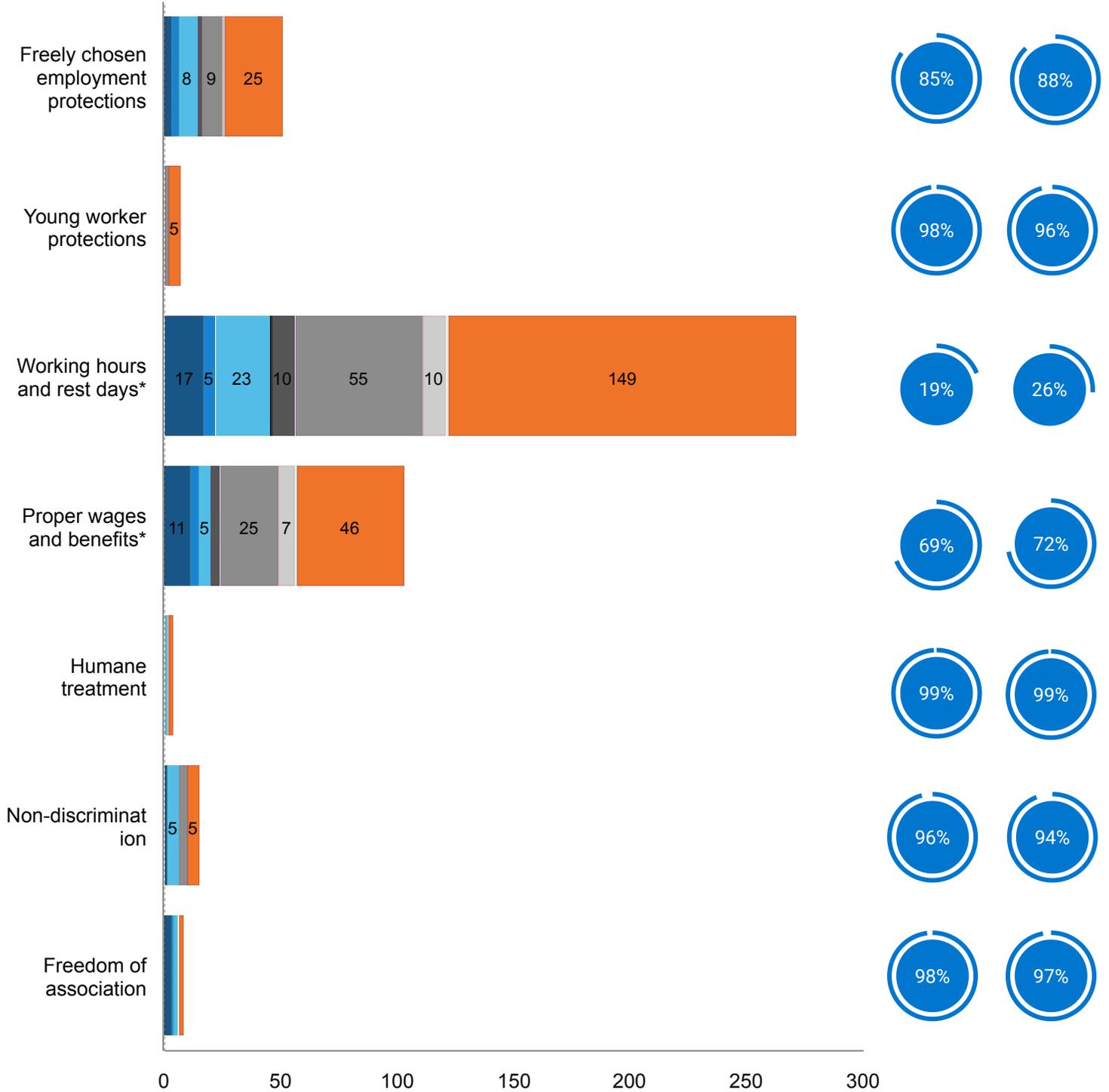


*For more information about Occupational Safety, see table on page 33

Labor and Human Rights

Factories with a Finding by Commodity

Factories in Compliance



- Accessories
- Batteries
- Display/LCD
- Networking
- ODM/Final Assembly/Dell
- Parts/Components
- Services
- Storage and Servers
- Sub-tier

*For more information about working hours and rest days, see table on page 33 and pages 8-9. In addition to audit compliance, Dell tracks the weekly working hours of more than 240,000 workers in our supply chain, 89 percent of whom worked less than 60 hours per week in 2018. See table on pg. 33 for more information about proper wages and benefits.

Priority findings identified in 2018

Our suppliers' factories did not have priority findings in 34 of 43 (79 percent) RBA audit provisions during 2018. Priority findings are the most severe findings that can be issued and are particularly concerning to Dell due to the high risk they pose to workers. When findings happen, we work with factories to address them within RBA-defined timelines through the corrective action process. This includes identifying the root cause of a finding and establishing a roadmap for fixing the issue.

In some cases, suppliers may also be immediately required to take steps to protect workers, such as removing workers from exposure to an issue or designating areas as off-limits until corrective actions are implemented.

We monitor open findings to closure and verify they have been addressed through closure audits. If issues are not resolved within agreed time frames, they may be escalated for additional support or impact future business with a supplier.

RBA Code of Conduct Provision	Factories without a Priority Finding	Factories that Closed or Downgraded a Priority Finding	Factories in Process of Improvement
Storm Water Management	99.7%	0.0%	0.3%
Disclosure of Information	99.1%	0.3%	0.6%
Emergency Preparedness	94.6%	3.0%	2.4%
Food, Sanitation and Housing	99.7%	0.3%	0.0%
Freely Chosen Employment	94.3%	1.8%	3.9%
Child Labor Avoidance Policy	97.0%	2.4%	0.6%
Working Hours	89.2%	6.6%	4.2%
Non-Discrimination	99.7%	0.3%	0.0%
Supplier Responsibility	99.4%	0.3%	0.3%

Note: Percentages including rounding. Numbers in each column represent unique factories audited during 2018.

OTHER RELATED REPORTS AND DELL'S SUPPLY CHAIN POLICIES

[FY19 Corporate Social Responsibility Report: A progress report on our 2020 Plan](#)

[Dell Supply Chain Assurance](#)

[Dell Supplier Principles](#)

[Dell Vulnerable Worker Policy](#)

[Human Rights and Labor Policy](#)

[Statement Against Slavery and Human Trafficking](#)

[Dell Responsible Sourcing Policy](#)

[Guidelines for Management of Manufacturing Chemicals](#)

[Dell's Form SD \(Conflict Minerals Filing with the SEC\)](#)

[Dell Supplier Diversity Overview](#)

[Dell's Public Supplier List](#)

[360 Tour of Our Supply Chain](#)

[Dell's Social Impact website](#)

ABOUT THIS REPORT

Unless otherwise noted, this report reflects progress during calendar year 2018. When applicable, previously reported results based on fiscal years have been restated to reflect calendar years. Dell's fiscal year runs from February through January.

The report reflects progress in the Dell Technologies supply chain, and excludes the supply chains of strategically aligned businesses including RSA, SecureWorks, Virtustream, Pivotal and Boomi. Information relating to supplier diversity spend reflects Dell Technologies and its strategically aligned businesses except for VMware and SecureWorks.

FEEDBACK

Transparency and collaborative leadership are key pillars of our sustainability strategy. We value feedback or questions you may have regarding this report or Dell's approach to supply chain sustainability. If you would like to contact us regarding information in this report, please email us at SCSustainability@Dell.com.